

**FORM 43-101F1
TECHNICAL REPORT
for the
PASTO BUENO TUNGSTEN PROPERTY
in the
Pallasca Province
Ancash Department, Peru**

Prepared for:

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1.0 SUMMARY

This report has been prepared for Malaga, Inc., (“MI” or “The Company”). The Company intends to use the report to support Canadian stock exchange listings and financing activities of the Company.

Vector Engineering (Vector) has been retained by MI to produce a report conforming to National Instrument 43-101 ("NI 43-101") for the Pasto Bueno tungsten property.

This report will include a review of the geology, an appraisal of current exploration and development activities, an evaluation of future exploration and development plans, and a calculation of a resource and reserve base utilizing the terminology and guidelines of the CIM.

The data upon which this report is based were derived from company reports and maps produced by the current operators, historical reports, government reports, and discussions with MI personnel, primarily Alonso Sánchez Torres, C.P.G. Señor Sánchez is the Chief Geologist of MI. Dr. John Tinucci and Richard Kehmeier, of Vector, visited the property with Señor Sánchez from November 3rd to November 5th, 2008 and held additional discussions with MI personnel in their Lima, Peru office on November 6th, 2008 and December 5th and 10th, 2008

The assessment of the potential of this project relies on the information generated by past and current production reports, past and current exploration results and independently-published reports and various government reports. The assessment of the resource and reserve base and the exploration potential relies on:

1. The similarity between the current data and operations and past production reports and results.
2. Published information on ore deposit models that share similar geological characteristics with Pasto Bueno.
3. The experience of Mr. Kehmeier in evaluating resources and exploration potential in similar properties for over 35 years.

The Pasto Bueno mine is in the Pasto Bueno district in the Pallasca province in the Ancash department of Peru. . The Pasto Bueno district is in the northernmost extension of the Cordillera Blanca in the north-central Andes just west of the continental divide, approximately 90 km east of the Pacific Coast.

The property comprises 33 concessions with a total area of 688.22 hectares. Twenty-four of these concessions were purchased from Minera Malaga and nine were already owned or were purchased from other owners by MI. The Company owns 100% of the property, including all surface rights, and is not subject to any underlying royalties or obligations except those required by the government in the form of annual payments and taxes. The taxes and royalties imposed by the Peruvian government include an income tax and sales tax on production. The government annual income tax is 30% of the net profit. The tax is collected monthly at a rate of 2.5% of the monthly sales revenue. The general sales tax is equivalent to 19% of the cost of all necessary goods and services used in the production of the product. The amount to be paid by way of the Impuesto General de Ventas (IGV), or general sales tax, is recovered when the product is produced for export.

From the site visit and discussions with The Company officials, there does not appear to be any outstanding environmental liabilities at this time. However, The Company states, “The Mine Closure Plan which includes environmental liabilities is in the process of evaluation by the competent authority, therefore, still the issue of guarantees for the remediation of liabilities is subject to approval according to the study of law.”

The topography is mountainous and rugged, typical of the Peruvian Cordillera. The mine is located at the very north end of the Cordillera Blanca mountain range, which contains the highest mountains in Peru. The climate of the region is typical of the high Andes of Peru. There is a dry season with little precipitation from May through September and the wet season with the wettest months from January through March. The access to the mine is a 204-km-long road that leaves the Pan-

American Highway 20 km north of the city of Chimbote. Of the 204 kilometers, approximately 100 km of the road is paved; the remainder is gravel and dirt. The access road travels along the Rio Santa, then along the Rio Tabachuca and finally along the Rio Pelagatos. Driving from Trujillo to the mine, a 360-km journey, takes 7 to 8 hours.

Many of the workers from the 1990s, when the mine was in operation, still reside in Consuzo and the surrounding area providing a source of skilled and unskilled labor. The local resources are very good for mining.

Prior to December 2008, power to the processing plant and the mine facilities was, in part, supplied by Hidrandina, a regional electricity provider. A new hydroelectric plant, owned by Hidro Electrica Pelagatos, was commissioned in December 2008. The hydroelectric plant has a current capacity of 600 kW. The remaining power continues to be provided by the Hidrandina grid.

The long history of Pasto Bueno can be divided into three different periods of mining operations. The first, 1910 to the early 1990s, was operated by Minera Malaga. The second operator in the late 1990s was Avocet Resources from about 1995 to 1998. The property was generally idle from 1998 until 2005 when it was purchase by the current operator, Malaga, Inc. The Pasto Bueno deposit was discovered in the early 1900s and brought into production in 1910. It has been active, more or less continuously, for the past nearly 100 years producing a reported six million tonnes of ore and 42,000 tonnes of concentrate containing 75% WO₃. Beginning in about 1995, Avocet Mining invested considerable time and money to try and restart the operation. They completed the development of the No. 12 level along the Consuelo vein and built the new Huaura mill near the No. 12 level adit. In 2005, Malaga, Inc. purchased the majority of the property (24 concessions) from Minera Malaga. Malaga refurbished the Huaura mill, built by Avocet, and began producing mill feed from several of the veins. The initial pre-production operations goal was 250 Tpd which was achieved at the beginning of 2007 and continues to the present.

The Pasto Bueno deposit is in the northernmost extension of the Cordillera Blanca batholith. The oldest rocks in the area are parts of the Jurassic and Cretaceous sequences of the Chicama Formation shale and the Goyllarisquizga Group of shale, quartzite, and limestone of northern and central Peru. The Chicama Formation is described as forming in the Western Peru Trough, a depositional basin trending northwest-southeast and existing from about the Middle Triassic to the Late Cretaceous. This trough was likely the inner-arc basin of a Jurassic island arc system. Igneous rocks observed in the area consist of lower Tertiary volcanic dikes and sills, the Consuzo quartz monzonite stock, and upper Tertiary hypabyssal rocks that are probably co-magmatic with the stock. The sediments were intruded by several different intrusive events but the Consuzo stock is the primary event that is associated with the mineralization. The Consuzo stock is a biotite-bearing porphyritic quartz monzonite cropping out over an area of nearly 40 km² and a maximum vertical exposure in the Rio Pelagatos Canyon of 1,100 meters.

The structure in the Pasto Bueno area is dominated by faulting. A series of thrust faults or decollements separate the Chicama Formation from the overlying members of the Goyllarisquizga Group. A major east-west fault is shown along the Pelagatos River and a second parallel fault occurs about 750 meters to the south. Another shorter east-west fault occurs about halfway in between and forms a contact between the sediments and intrusive. Secondary faults between the major east-west faults strike northwest while faults north of the Pelagatos River strike northeast. South of the southernmost east-west fault the secondary faults strike more northerly. The map patterns suggest a component of strike-slip movement in the east-west faults.

Studies of sequential, zonal, and crosscutting relations show alteration of the Consuzo stock can be documented as a single dynamic episode producing an alteration collectively referred to as greisenization. A greisen is a pneumatolytically-altered granite rock comprised largely of quartz, mica, and topaz.

The ore mineralization occurs within steeply dipping vein systems. The principal minerals of economic interest in the veins are wolframite, tetrahedrite/tennantite, sphalerite, and galena. The gangue minerals are quartz, fluorite, sericite, pyrite, and carbonate. Molybdenite, chalcopyrite, bornite, arsenopyrite, enargite (luzonite), stolzite, scheelite, zinnwaldite, topaz, tungstite, and native arsenic are present in minor amounts.

Mapping, sampling, and exploration have defined multiple vein types based on geometry and alteration. These types include:

- ◆ High-angle quartz veins that cut both the intrusive rocks and the quartzites showing classic greisen alteration. These have been the source of the past production and provide the bulk of the potential of the area.
- ◆ Manto-type mineralization confined to slates. The mantos form likely as quartz-filled expansions along bedding planes in the slates. These deposits are also typified by greisen alteration.
- ◆ Skarn mineralization in limestone along the southern edge of the Consuzo Stock characterized by calc-silicate alteration. These are currently exploration concepts supported by observations and surface sampling.
- ◆ Gold values up to 2 gm Au/t in quartzites of the Maciste Manto located south of the Rio Pelagatos. Gold is produced from these same quartzites at the Santa Rosa mine and the San Simon mine of Compania Minera San Simon approximately 10 km west-northwest and 15 km northwest of the Pasto Bueno mine, respectively.

The Company began an exploration effort in late 2006 that included mapping and sampling of veins on the surface, drifting along and raising on known veins, and driving cross cuts to explore for the presence of new veins at depth. The surface mapping and sampling was successful in identifying over 70 quartz veins and identifying new types of mineralization. The potential for the additional veins and the new styles of mineralization form the basis of the ongoing exploration program.

The property, for the purposes of exploration and exploitation, is broken into three areas: the Huayllapón area, the Huaura area, and the Consuzo area. Veins currently being explored or exploited in each area include:

- ♦ Huayllapón Area: Chabuca Vein, St. Agustin Vein, Paraiso Vein, Limbo Vein
- ♦ Huaura Area: Consuelo Vein, Alonso-Fenix Vein, Santa Marta Vein, Sauco Vein, Violeta Vein, Candela Vein
- ♦ Consuzo Area: Loreto Vein, María Ofelia Vein

Malaga carried out a diamond drill hole (DDH) core drilling program from May 17, 2007 to June 11, 2008. They drilled a total of 16 core holes totaling 7,752.05 meters.

The drilling program was designed to test deeper areas of veins currently being mined, test new veins at depth that had been identified in the surface mapping, and test for veins that were not exposed at the surface.

When logging the core the geologists noted rock type, alteration, quartz veins, and mineralization within the veins.

Three types of quartz veins were noted. They were:

- ♦ Barren white opaque quartz veins
- ♦ Barren white translucent quartz veins
- ♦ Mineralized quartz veins with light gray translucent quartz accompanied by pyrite, hübnerite, and tetrahedrite. Coarse-grained pyrite extended for up to several meters on either side of the mineralized veins.

Only those quartz veins with visible tungsten mineralization were sampled and assayed. The drilling program was very successful in that it had 24 mineralized vein intersections in the 16 holes. Twelve, or half, of the intersections assayed greater than 0.25% WO₃. In addition, several veins not known to have significant grade, contained ore-grade tungsten.

The primary exploration method on this property is direct underground sampling of the vein. A drift is driven along a vein and samples are collected every two meters across the vein exposed in the back of the drift to evaluate the tungsten content. Raises are also driven into the vein and the vein is sampled along the sides of the raise to evaluate the tungsten content of the veins. The results of this sampling provide the data for the calculation of resources and reserves. This sampling has evolved and been improved since 2005 when MI acquired the property. This evolution has resulted in three sets of data that have been accumulated from this sampling work. They are:

1. Sampling completed by MI prior to April 2006 and assayed by SGS laboratories in Peru. The sampling layout and security of this sampling is in part unknown. The assay technique was fusion with sodium peroxide and analysis by ICPMS. Results of this sampling were reported in the report "Report on the Reserves of the Pasto Bueno Mine Project," dated April 24th 2006, by Marc Leduc and Gary Parkinson, both QP's, of Vector. This report was not filed on SEDAR or utilized by MI for any activities on the Exchanges. All the vein areas sampled by this program were mined prior to the writing of this report.
2. Sampling completed by MI after August 2006 and assayed by the laboratory at the mine in support of development and production. The assay technique was sodium peroxide fusion with colorimetric analysis for the tungsten content. This work is ongoing as production continues. There is a QA/QC protocol in place for these samples that is compliant with NI 43-101 requirements. This protocol was established by Alain Beauregard, a QP. The sampling was supervised by the Chief Geologist, Alonso Sanchez, C.P.G., for MI.
3. Sampling completed by MI after August 2006 and assayed by ALS Chemex using either a metaborate fusion or a pressed pellet preparation with XRF analyses. The metaborate fusion is used on those samples with WO₃ contents greater than one percent. There was a QA/QC protocol in place for these samples that is compliant with NI 43-101 requirements. This protocol was established by Alain Beauregard, a QP. The sampling was supervised by the Chief Geologist, Alonso Sanchez, C.P.G., for MI.

The sampling technique and the QA/QC procedures should, in the authors' experience, yield representative samples of the in-place mineralization. The sampling procedures as described by The Company personnel do not appear to introduce any biases in the results. The sampling method is compatible with the mining method being used. Producing accurate assays for tungsten can be difficult using traditional methods of various gravimetric techniques or colorimetric techniques because of the difficulty of taking the tungsten oxides into solution. The assay techniques of fusion or pressed pellet with XRF or ICPMS analysis used today are the preferred methods of assay as they are much more effective in dealing with the resistate nature of tungsten oxides.

The quality of the sample preparation, security and integrity, and analysis of the samples by ALS Chemex and the Pasto Bueno labs meets or exceeds those of the industry and of NI 43-101.

Tungsten assay results can vary considerably between labs. At Pasto Bueno there appears to be excellent agreement between the assays of the Pasto Bueno lab and the ALS Chemex labs even given the two different assay methods.

Vector has completed two separate verification sampling studies, in 2005 and again in 2009.

Marc Leduc, P. Eng., of Vector, visited the site on August 2nd and 3rd, 2005 and completed a program of check sampling for different mining blocks that had been identified by the Pasto Bueno geology group. In January 2009, additional verification sampling for this report was completed by Vector personnel from the Vector office in Lima, Peru under the supervision of Richard Kehmeier, C.P.G., and the Chief Geologist for Malaga, Alonso Sánchez C.P.G. A total of ten channel samples were taken from various veins within the mine. The verification sampling does confirm the presence of ore grade tungsten. But there is insufficient data to fully understand the distribution of tungsten in the veins. It is recommended that

detailed sampling within the veins be done prior to any feasibility study to better understand the distribution of the mineralization on a local scale.

There are currently no active adjacent mineral properties.

There is an operating mineral processing plant on the property that is currently processing 250 tonnes of ore per day. The mill produces a concentrate averaging 75% WO₃. The mill is currently reporting recoveries between 80% and 84% WO₃, but does not recover additional base or precious metals. There is an operating mineral processing plant on the property that is currently processing 250 tonnes of ore per day. The mill produces a concentrate averaging 75% WO₃. The mill is currently reporting recoveries between 80% and 84% WO₃, but does not recover additional base or precious metals.

The Pasto Bueno Mine has had historical production spanning the past nearly 100 years. Much of this production, which totals 6,000,000 tonnes producing 42,000 tonnes of concentrate containing 75% WO₃,

A mineral resource has been estimated for the Pasto Bueno property using the mineral resource categories of inferred resources, indicated resources, and measured resources as defined by NI 43-101 and the CIM. This mineral resource estimate is current as of December 1, 2008. The sampling that supports this resource estimate was assayed by the Mine lab. Table 1.0.1 is a summary of the results of the resource estimation. The inferred resource does not include the indicated and measured resources.

TABLE 1.0.1
PASTO BUENO RESOURCES

RESOURCE CATEGORY	METRIC TONNES	GRADE (% WO ₃)
Inferred	1,204,000	0.82
Indicated	106,844	0.98
Measured	35,646	1.28

Indicated + Measured	142,490	1.05
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The method of estimation is a modified polygonal method. The blocks (polygons) were drawn by the Mine geology staff based on the following criteria:

- ◆ A block is a maximum of 20 m high or 20% of the drift length if less than 100 m, provided only one face has been sampled.
- ◆ If a second face has been sampled in the block then the block height is increased by a maximum of 10 m or 50% of the height of the second face beyond the limits of the sampling.

The resource categories for the various mineralized blocks defined by the mine were classified by the authors according to the following criteria:

- ◆ Blocks defined on at least three sides with workings were classified as measured resources.
- ◆ Blocks defined on at least one side but with internal workings were classified as measured resources.
- ◆ Blocks defined on one side by a drift or raise were classified as indicated resources.
- ◆ Blocks that contained ore-grade mineralization in drill holes were classified as inferred resources.
- ◆ Blocks that were along projections of structures or trends known to contain ore grade mineralization from mining, underground sampling, or surface sampling was classified as inferred.
- ◆ Those blocks with a grade of at least 0.25% WO₃ were included in the indicated and measured categories.
- ◆ The grade of the inferred blocks was estimated from limited sampling within the block or from the grade of adjacent blocks for which the grade was known. If the grade of adjacent blocks was used, it was multiplied by a probability factor assigned to that inferred ore block by the geology staff at the mine. If no other data were available for inferred blocks, the average mine grade was assigned to an inferred block.

Reserves for the Pasto Bueno Mine are based on the economic criteria defined by the revised prefeasibility study. The effective date of these resources is December 1, 2008. The summary results are shown in Table 1.0.2.

TABLE 1.0.2
PASTO BUENO RESERVES

RESERVE CATEGORY	METRIC TONNES	GRAD E % WO₃
Proven	28,234	1.21
Probable	70,214	0.85
Proven + Probable	98,448	0.95

The following are a list of the assumptions used to delineate block volume:

- ◆ Minimum mining width is 1.5 meters. (Although the Mine uses a minimum mining width of 1.2 m on the Chabuca vein, this prefeasibility study used 1.5 m universally as over-break has been observed in development on the Chabuca vein. Additional study is needed to better define minimum mining widths and dilution.)
- ◆ The cut-off grade of 0.69% WO₃ has been set as the minimum mineable ore.

The reserve categories for the various mineralized blocks defined by the mine were classified by the authors according to the following criteria:

- ◆ All measured resources are classified as proven reserves.
- ◆ Blocks defined on one side by a drift or raise were classified as indicated resources. If they were adjacent to a block classified as a proven reserve, they were classified as a probable reserve.
- ◆ Only those resources classified as measured and indicated resources are included in the reserve base provided the diluted grade is greater than the mining cut-off.
- ◆ Only reserves that are accessible to mining are included in the mineral reserve.

- ◆ The cut-off head grade of 0.69% WO₃ has been set as the minimum mineable ore grade for reserves. The entire block diluted to a minimum mining thickness must be equal to or greater than the cut-off grade.

There are no known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant factors that the authors are aware of that could materially affect the resource and reserve estimates at Pasto Bueno. The Company stated that there are no legal problems, title issues or tax issues that could materially affect resources. Tungsten is not traded on an exchange, such as the London Metal Exchange (LME), and the only price information that is available globally is published by the London Metal Bulletin and is based on information elicited from producers, consumers and traders

MI currently has a contract to sell concentrate to an end user in the United States. The contract runs through July 31, 2009. The contract calls for selling a minimum of 6,000 MTU per month between December, 2008 and July, 2009. The price The Company receives is tied to the London Metal Bulletin free market price. The authors are not aware of any marketing arrangements by MI after July, 2009.

Mining in Peru is currently an active and growing industry encouraged by government policies.

This report will be used, in part, to raise money to expand the operations by funding exploration to expand the resource and reserve base, purchase additional mining equipment, and expand and upgrade the milling operations.

Ongoing and future exploration plans include:

1. Continued drifting on known veins as a first step in production.
2. Cross cuts to test new veins and to provide drill station for underground drilling.
3. Purchase and staff two underground core drills to test new areas from underground.

The Pasto Bueno Mine is currently producing 250 tonnes of ore per day from several veins. The production is guided by sampling of the drift backs. Mining is done by shrink stope or overhand cut and fill using a minimum mining thickness of 1.5 meters on the sub-vertical and high angle veins or backfill room and pillar methods when the vein flattens. The mill consists of a grinding circuit followed by a gravity recovery circuit that includes jigs, spirals, and tables. Overall recovery, according to The Company, is 80 to 84%. Expansion plans for the operations include increasing mine production to 500 Tpd in 2010. This will require the purchasing of additional mining equipment and expanding the crushing circuit in the mill including building a new tailings pond.

Exploration recommendations are:

1. Prioritize identified areas of inferred reserves based on the overall operations plan and the potential for developing indicated and measured resources.
2. Develop an exploration plan for each area taking into consideration the relative costs of each proven technique and what data are needed to advance the resources in the area into a more reliable category.
3. Maintain NI 43-101 compliant sampling practices for all sampling from both the exploration/development drifts and the core drilling.
 - a. Continue to use the QA/QC protocols in place for sampling both underground and core samples.
 - b. Observe and document a strict chain-of-possession on all samples.
 - c. Routinely submit duplicate samples to both the Mine lab and an outside primary lab. Maintain records of the results of all these assays and check them on a regular basis for any irregularities.
 - d. Include blanks and standards in all sample submittals to all labs. Maintain records of the results of all these assays and check them on a regular basis for any irregularities.
 - e. Maintain copies of all assay reports from all labs so data used in the estimation of resources and reserves can be checked against the original documents.
4. Create long sections of all the veins and plot all sample results, assays and vein widths (or assay times vein widths) on the long sections and

contour these results to try and establish trends of ore shoots to improve the understanding of the ore controls and to guide exploration.

5. Analyze both “barren” and mineralized vein intersections in core using aggressive digestion with an ICP method of analysis such as ALS Chemex ME-MS61. If geochemical differences can be seen between veins, and this difference can be related to the presence of tungsten in a vein, it may help focus exploration. These data may also help in defining geochemical zonation that will assist in exploration, especially in deeper areas.

Development recommendations focus on the methods of resource and reserve calculations. They are:

1. Establish cut-off criteria for material to be included in the resource base. Mineral resources by definition do not require economic viability, just the potential that they may become economic at some point. They should reflect geological boundaries more than mining criteria. Use of a grade thickness contour method of estimation for resources may be more effective in defining the geometry of the mineralization than the modified polygonal method currently used. This may help in outlining areas of mineralization and assist exploration in projecting mineralization into new areas.
2. Define cut-off grades for reserve material based on prefeasibility study results (Vector, 2009). If costs change, recalculate a new cut-off grade and document it so any audit of reserves can document the change.
3. Establish criteria for defining the classes of resource. A suggested scheme is the one used by the authors for the resource estimate in this report (Section 17.0).
4. Develop a protocol for compositing sample results along development drifts and raises to establish the grade of resource blocks. For example, establish how many samples below the established cut-off can be included in a sequence of samples above the established cut-off so long as the overall grade of the block remains above the cut-off grade. Define the minimum length along a drift necessary to define a block
5. Maintain the CIM defined classes of resources and reserves as these are the ones that are recognized by the Canadian Stock Exchanges and must be reported in annual reports. If other classifications are needed for mine planning, those should be kept separate and NOT reported in external reports.

6. Establish the specific gravity of the mineralized material by an outside testing facility to determine if the current figure of 2.8 gm/cm³ is the correct density.

. The development recommendations include:

1. Review the entire lab protocol and develop a program of both internal checks and extensive checks with outside labs. Routinely compare assay results from the Mine lab and outside labs for duplicate samples taken by Geology.
2. Maintain monthly statistics that compare Mine lab results with those of outside labs for all samples assayed by the Mine lab and the Outside lab.
3. Prepare monthly or at least quarterly metal balances that compare the reserve grade and tonnage in the veins against the grade and tonnage delivered to the mill against the amount of metal recovered and the amount of metal in the tailings. It is important that duplicate samples from the mine, the mill heads and the mill tailings be submitted to outside labs as a check against the Mine lab results. This will provide:
 - a. A measure of the accuracy of the reserve calculation.
 - b. A measure of the efficiency of the mining method.
 - c. A measure of efficiency of the milling procedure.

Malaga has developed a detailed budget to move forward with exploration drilling and drifting along with a capital budget to support the expansion of production. The budget is included within a mine plan for the period 2009 through 2011. Table 1.0.3 is a summary of the exploration and capital budgets for the time frame 2009 to 2011.

TABLE 1.0.3
PROJECTED EXPLORATION AND CAPITAL BUDGETS FOR PASTO BUENO 2009 TO 2011

YEAR	EXPLORATION DRILLING	EXPLORATION DRIFTING	MINE CAPITAL	MILL CAPITAL	TOTALS
2009	\$450,000	\$1,810,700	\$1,281,300	\$115,000	\$3,657,000
2010	\$214,500	\$2,215,000	\$647,600	\$705,000	\$3,782,000
2011		\$1,921,700	\$752,500	\$1,460,000	\$4,134,000
Totals	\$664,500	\$5,948,000	\$2,681,400	\$2,280,000	\$11,573,000

Three basic mining methods are used for production at Pasto Bueno, overhand cut and fill, shrink stope, and a variation of room and pillar using backfill. The overhand cut and fill and shrink stope are used on steeply dipping veins while the room and pillar is used on veins dipping 45° or less. For all methods a mining block is developed by driving drifts on levels at 50 meter intervals and raises on approximately 50 meter centers. There is an operating mineral processing plant on the property that is currently processing 250 tonnes of ore per day. The mill produces a concentrate averaging 75% WO₃. The mill reports recoveries of between 80 and 84% of the tungsten. The current production plans show production rates during 2009 to average about 250 Tpd (7,500 tonnes per month).

Tungsten is not traded on an exchange, such as the London Metal Exchange (LME), and the only price information that is available globally is published by the London Metal Bulletin and is based on information elicited from producers, consumers and traders. MI currently has a contract to sell concentrate to an end user in the United States. The contract runs through July 31, 2009. The contract calls for selling a minimum of 6,000 MTU per month. The price The Company receives is tied to the London Metal Bulletin free market price. The authors are not aware of Malaga's marketing plans beyond July of 2009.

The Company assures the authors, and the authors believe that all environmental issues are defined and are manageable. The management of MI assured the authors that all permits required for the mining operations are current

The government annual income tax is 30% of the net profit. The tax is collected monthly at a rate of 2.5% of the monthly sales revenue. The general sales tax is equivalent to 19% of the cost of all necessary goods and services used in the production of the product. The amount to be paid by way of the Impuesto General de Ventas (IGV), or general sales tax, is recovered when the product is produced for export.

Operating costs were based on the data provided by The Company from January through October 2008. The costs were broken out into four separate categories: operations, administrative, sales, and finance.

Table 1.0.4 below lists the unit operating costs used in the evaluation by category.

TABLE 1.0.4
OPERATING COSTS

OPERATING COST CATEGORY	UNIT COST (PER TONNE MINED)
Operations	\$89.51
Administrative	\$10.21
Sales	\$3.17
Finance	\$4.62
Total	\$107.51

The capital costs discussed in this section include both sustaining and expansion capital for the entire operation. Their current capital planning includes expanding the mine production rate and process plant throughput to 500 tonnes per day by early to mid 2010. Planned mine capital expenditures during the period of the financial evaluation, December 2008 through January 2010, total \$US 1.3 million.

These include mine equipment, transformers, ventilation fans, and living quarters for mine workers in addition to low cost items.

Planned process plant and tailings capital expenditures during the period of the financial evaluation, December 2008 through January 2010, total \$US 0.8 million. These costs are mainly related to the construction of a new tailings storage facility to hold the tails for the foreseeable future.

A financial evaluation was completed based on production levels of 250 Tpd for 13.2 months. This time frame and production level is based on a proven and probable reserve of approximately 98,500 tonnes at an average grade of 0.95%WO₃.

This evaluation includes operating costs of \$107.51 per tonne and capital costs of \$2.1 million for the 13.2 month production period. Planned mine capital expenditures during the period of the financial evaluation, December 2008 through January 2010, total \$US 1.3 million. Planned process plant and tailings capital expenditures during the period of the financial evaluation, December 2008 through January 2010, total \$US 0.8 million.

Using these costs a net present value (NPV) of the cash flows was determined by using a 15% discount rate. This results in an NPV of \$426,000 and an internal rate of return (IRR) of 89%.

The cumulative cash flow for December 2008 and January 2009 is positive. From February 2009 to September 2009 capital expenditures of approximately \$2.28 million take the cumulative cash flow for those months negative with the maximum negative value of over \$270,000 in August 2009. The cumulative cash flow becomes positive again in October 2009 and reaches a maximum December, 2009, of slightly nearly \$553,000.

The current reserves at the mine are sufficient to carry production at 250 Tpd for 13.2 months. It is the intention of Malaga to conduct exploration through this time

frame to expand the resource base to the point it can support an increase in production. Below is a summary of the plans for mine expansion through 2011:

- ◆ Phase I – The first phase goes from when the mine started in production as of April 2007 and goes through late 2009 or early 2010. The mine production has targeted a production rate 250 Tpd.
- ◆ Phase II – The second phase commences with increasing the capacity of the existing Huaura mill to 600 Tpd with minimal mill changes involving increased crushing capacities. During this phase, the mill will be operated at 500 Tpd and may push higher if underground production can keep up. It is anticipated this phase will go from early 2010 to mid 2011.

2.0 INTRODUCTION

2.1 General

This report has been prepared for Malaga, Inc., (“MI” or “The Company”). The Company intends to use the report to support Canadian stock exchange listings and financing activities of the Company.

The assessment of the potential of this project relies on the information generated by past and current production reports, past and current exploration results and independently-published reports and various government reports. The assessment of the resource and reserve base and the exploration potential relies on:

1. The similarity between the current data and operations and past production reports and results.
2. Published information on ore deposit models that share similar geological characteristics with Pasto Bueno.
3. The experience of Mr. Kehmeier in evaluating resources and exploration potential in similar properties for over 35 years.

The authors are relying on information and current maps and sections generated by the geological staff at the Pasto Bueno mine. The authors’ reliance on these data assumes the disclosures are complete and nothing material has been withheld by The Company. The geological staff is under the direction of Alonso Sánchez Torres, C.P.G., a Peruvian graduate geologist with extensive experience in both production and exploration. The current geological staff, in addition to Alonso Sánchez Torres, includes one senior geologist and four mine geologists who support exploration, development and operations.

The QA/QC sampling protocol for the Mine was developed by Alain J. Beauregard, a QP, and Señor Sánchez. Mr. Beauregard, Geol, FGAC, OGQ, AEMQ, is President of Geologica, a consulting firm from Val-D’Or, Québec, Canada. They have established a sampling protocol for the mine workings and for the core drilling projects that

conforms to the standards of NI 43-101. The Mine sample and the core drilling results will form the basis for the resource and reserve calculations in this report.

In April, 2006, Marc F. Leduc, P.E., and Craig L. Parkinson, P.G., of Vector, wrote a report (Leduc and Parkinson, 2006) for then Dynacor, the predecessor of MI, on the Pasto Bueno Mine. This report detailed the geology and the status of the facilities and the resource/reserve base at that time. It was accompanied by an earlier report prepared by Dynacor and supervised by André Godbout, P.E., (Godbout, 2006). Neither report was released on SEDAR. SEDAR, *System for Electronic Document Analysis and Retrieval*, is a filing system for public securities documents and information filed by public companies and investment funds with the Canadian Securities Administrators (CSA). The authors have utilized information from these two reports in preparing the current report for MI. The cost information and operations information found in Godbout's report are outdated and are revised in the 2009 prefeasibility report (Vector, 2009) with the costs reported by Malaga for the current pre-production operations and costs from similar operations in the area of Peru.

Although the authors are responsible for the content and conclusions of this report, the accuracy, completeness of the content, observations and conclusions of the authors are limited by the accuracy and completeness of the disclosures of MI and its employees and consultants. Where the authors have questions or doubts about the accuracy or completeness of the data, they will be so noted.

2.2 Terms of Reference

Vector Engineering (Vector) has been retained by MI to produce a report conforming to National Instrument 43-101 ("NI 43-101") for the Pasto Bueno tungsten property. This report will include a review of the geology, an appraisal of current exploration and development activities, an evaluation of future exploration and development

plans, and a calculation of a resource and reserve base utilizing the terminology and guidelines of the CIM. Calculation of a mineral reserve was completed in the prefeasibility study “PRE-FEASIBILITY STUDY **UPDATED** 2009 for the PASTO BUENO TUNGSTEN PROPERTY” dated February 16th, 2009, for the Pasto Bueno tungsten property.

The terms of reference for this assignment are:

- ◆ Review the published technical literature, existing company reports including mining and milling records, exploration and development plans and results, and expansion plans pertaining to the property and the region.
- ◆ Visit the property to observe the exposed geology, alteration, mining and milling operations, and infrastructure.
- ◆ Update the prefeasibility study published by The Company in January 2006. (*“Pre-Feasibility Study Updated 2009 for the Pasto Bueno Tungsten Property.”*)
- ◆ Evaluate the sampling and assay procedures used to define ore grade mineralization in exploration and development headings.
- ◆ Evaluate the assay procedures at the Mine lab.
- ◆ Evaluate both short-term and long-term mine plans.
- ◆ Estimate NI 43-101 compliant resources and reserves utilizing the results of the updated prefeasibility study.
- ◆ Evaluate the long-term exploration and production potential of the property.
- ◆ Prepare, in conjunction with MI personnel and their representatives, an exploration program and budget for the near-term.
- ◆ Make recommendations for future exploration.
- ◆ Make recommendations for QA/QC procedures for sampling and assay procedures.
- ◆ Present the results of the prefeasibility study, the resource and reserve calculations and the exploration program and budget in a report which

conforms to National Instrument 43-101 ("NI 43-101") and is suitable for filing with the appropriate regulatory authorities.

2.3 Sources of Data

The data upon which this report is based were derived from company reports and maps produced by the current operators, historical reports, government reports, and discussions with MI personnel, primarily Alonso Sánchez Torres, C.P.G. Señor Sánchez is the Chief Geologist of MI.

Dr. John Tinucci and Richard Kehmeier, of Vector, visited the property with Señor Sánchez from November 3rd to November 5th, 2008 and held additional discussions with MI personnel in their Lima, Peru office on November 6th, 2008 and December 5th and 10th, 2008. During the visits, the authors reviewed the current operations with the mine personnel and observed the sampling protocol used to define the grade of the tungsten mineralization in the exploration and development workings. The authors reviewed the core drilling, the core, and the core sampling procedures. They reviewed the mining and mill plans and operations. The sampling of existing workings, along with limited diamond drill information, will form the basis for the resource and reserve calculations.

Dr. John Tinucci, Ph.D., P.E., is the General Manager for the Colorado office of Vector, in Golden, Colorado. Dr. Tinucci is a Qualified Person ("QP") as defined by NI 43-101. Dr. Tinucci is responsible for the mine planning and operations portions of this report.

Richard J. Kehmeier, M.Sc., C.P.G., Senior Geologist for Vector Engineering, Inc. in Golden, Colorado, is a Qualified Person ("QP") as defined by NI 43-101. Mr. Kehmeier is responsible for the geological evaluation, resource and reserve estimates, and exploration recommendation portions of this report.

Vector, Dr. Tinucci, and Mr. Kehmeier are not associated in any manner with Minera Malaga Santolalla S.A., Dynacor Exploraciones del Perú S.A. or any of the other subsidiaries. Dr. Tinucci and Mr. Kehmeier meet the criteria of "independent

person,” as defined in Section 1.4 of the *National Instrument 43-101 Standards of Disclosure for Mineral Projects*. The fees charged by Vector for this technical report do not depend, in whole or in part, on past or future contract work or from an agreement that may have consequences on its conclusions. Vector’s fees comply with the standards in the industry for this type of work.

2.4 Units and Currency

Units of measurement in this report are quoted in the metric system. Assay and analytical results are quoted in parts per billion (ppb), parts per million (ppm) or percent (%), where appropriate. Tungsten values are quoted in ppm or percent WO₃ unless otherwise noted. Tungsten content may also be quoted in metric tonne units (MTU) which is one percent (1%) contained WO₃ or 10 kilograms of WO₃ per metric tonne. Where historical values are reported, the units are those of the referenced report. Monetary values are given in US dollars (\$).

3.0 RELIANCE ON OTHER EXPERTS

The geological descriptions of the area were taken from a paper in Economic Geology by Landis and Rye (1974) titled “Geologic, Fluid Inclusion, and Stable Isotope Studies of the Pasto Bueno Tungsten-Base Metal Ore Deposit, Northern Peru.” Additional descriptions of the mineralogy of the deposit were taken from the Mines and Minerals of Peru book published by the Mineral Record in 1997 and authored by J. Crowley, R. Currier and T. Szenics (Crowley et. al 1997).

4.0 PROPERTY LOCATION AND DESCRIPTION

The Pasto Bueno mine is in the Pasto Bueno district in the Pallasca province in the Ancash department of Peru. A location map is shown in Figure 4.0.1 below. The Pasto Bueno district is in the northernmost extension of the Cordillera Blanca in

the north-central Andes just west of the continental divide, approximately 90 km east of the Pacific Coast. Elevations vary from approximately 3,300 to about 4,450 meters above sea level. The mine portals and the Huaura plant site are located at 8° 08' 34" south latitude and 77° 51' 17" west longitude. The Consuzo plant site and the main project installations are located in the town of Consuzo at 8° 10' 22" south latitude and 77° 51' 6" west longitude. The Huaura plant is currently operational while the old plant in Consuzo is not.

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[illegible]

Twenty-four of these concessions were purchased from Minera Malaga and nine were already owned or were purchased from other owners by MI. A list of the concessions and their size are found below in Table 4.0.1.

TABLE 4.0.1
LIST OF CONCESSIONS

PURCHASED FROM MINERA MÁLAGA SANTOLALLA S.A.C.			
Nº	CONCESSION	CONCESSION NUMBER	HECTARES
1	San Agustín	046087	6.00
2	Mariscal Petain	164109	26.01
3	María Ofelia	006141	20.01
4	Los Molinos	011127	4.00
5	General Miguel Iglesias Nº 1	198143	20.03
6	El Sauco Nº 4	012080	1.00
7	El Sauco Nº 3	012080	4.01
8	El Sauco Nº 5	224019	2.00
9	Fray Martín de Porras	011221	10.00
10	Maciste Tres	166409	30.01
11	Maciste Cuatro	166419	30.01
12	Bebe	035457	20.01
13	Anorma	009463	4.00
14	Gary (6048)	16297	2.55
15	Elbia	192477	30.01
16	Chabuca	044215	12.00
17	Maciste Dos	133093	40.02
18	El Gigante	011195	18.01
19	Maciste	041251	24.01
20	Santa Isabel	044221	20.00
21	Joyita	133053	8.00
22	La Monada	009475	18.01
23	Número Seis	175353	45.02

24	Para mí	011115	6.00
	Subtotal		400.72
CONCESSIONS OWNED BY DYNACOR OR PURCHASED FROM OTHERS			
Nº	CONCESSION	Nº	HECTARES
25	Carlos Dynacor	01-02571-05	8.68
26	Clori Dynacor	01-02572-05	2.00
27	Gatita tres Dynacor	01-02574-05	24.01
28	Mariano Dynacor	01-02575-05	102.18
29	San Simon Dynacor	01-02577-05	7.89
30	Oscarito Dynacor	01-03364-06	6.00
31	Mi Perita EAHP	01-03078-04	80.06
32	Numero Siete	03-00163-03	31.68
33	Huaura	P0201283	25.00
	Subtotal		287.50
	Total		688.22

The Company owns 100% of the property, including all surface rights, and is not subject to any underlying royalties or obligations except those required by the government in the form of annual payments and taxes. The Company pays annual fees which are due July 1st of each year to maintain the rights to the concessions. It is the responsibility of MI to pay these fees annually to the Ministry of Energy and Mines. The fee is equivalent to \$1/hectare, so the total is \$688.22. If the fee is not paid for two years, they risk losing the concession right. According to the company, all annual payments are current.

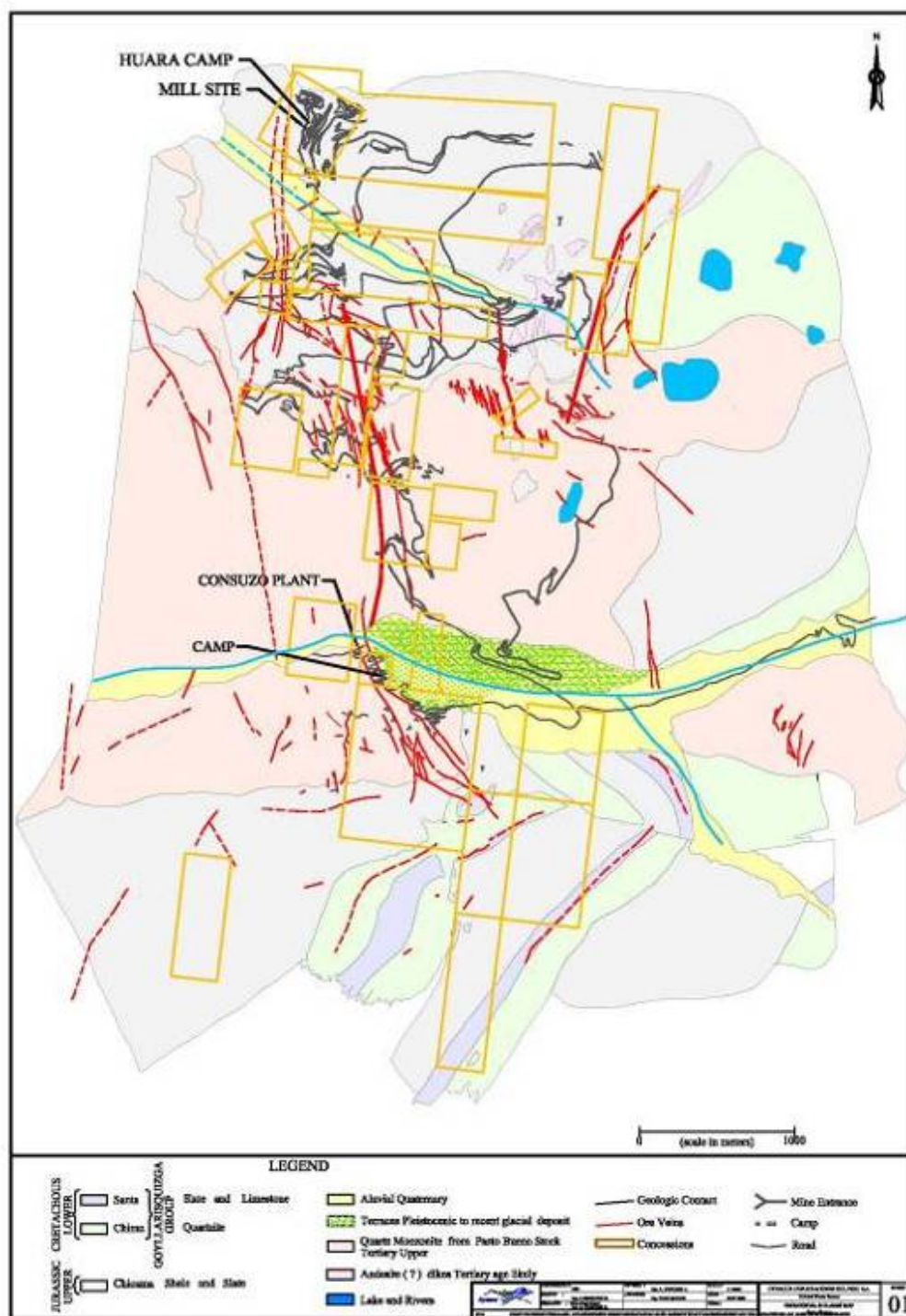
Water rights are conveyed with the surface rights. Water rights fees are reportedly ±\$2580 annually. MI provides an estimate of the amount of water that will be used by the operation in the Environmental Impact Study which has been submitted and approved by the government. Upon approval of the EIS, the government issued the permit for water usage. If the amount of water required significantly changes, they issue an update via their annual report to the government.

The concession boundaries have been located by survey using a total station with a three-point satellite location system. The corners are marked using either a one-meter-high steel rod imbedded in the soils or, where the corner is on bedrock, by a concrete mound with the corner location painted on the concrete. Each corner is further marked with a pile of rocks (cairn) so the location is visible from a distance.

The concessions controlled by The Company cover only a portion of the known 70+ veins in the area. However, any resources or reserves reported in this report, and all exploration activities carried out by The Company are within the concession boundaries of Malaga's property as can be best determined by Malaga maps and sections. Without detailed surveys this cannot be firmly established. However, Vector considers the possibility of mining or exploration occurring off the concessions to be very limited.

The status of the land ownership on those veins beyond the boundaries of The Company's concessions is unknown. Both processing plants and related facilities are within MI's property. Access roads, as seen on Figure 4.0.3, traverse both land owned by MI and land outside of their property boundaries but are at least, in part, public thoroughfares. MI has locked gates with guards to control access to those portions of the roads not considered public or where public access would constitute a potential safety hazard.

Figure 4.0.3: Pasto Bueno Mine Site Map



According to the information provided to the authors by The Company, the property is not subject to any royalties, back-in-rights, payments or other agreements or encumbrances other than taxes and royalties imposed by the Peruvian government.

The taxes and royalties imposed by the Peruvian government include an income tax and sales tax on production. The government annual income tax is 30% of the net profit. The tax is collected monthly at a rate of 2.5% of the monthly sales revenue. The general sales tax is equivalent to 19% of the cost of all necessary goods and services used in the production of the product. The amount to be paid by way of the Impuesto General de Ventas (IGV), or general sales tax, is recovered when the product is produced for export.

All of the documents used to review environmental responsibilities are translations of the original Peruvian documents. The Company assures the authors, and the authors believe that all environmental issues are defined and are manageable.

According to the environmental laws of Peru, MI is required to submit and has submitted a mining plan to the Department of Ancash detailing liabilities and impact of the mining operations on the environment. This document also includes a closure plan that defines how the remediation and reclamation of the overall mine site will be carried out. This plan is currently being reviewed by the Ancash Regional Energy and Mines office. A photograph of a recent landslide that has been naturally revegetated has been included as Photo 3 in Appendix E. The photo illustrates the revegetation as a natural analog for environmental rehabilitation.

From the site visit and discussions with The Company officials, there does not appear to be any outstanding environmental liabilities at this time. However, The Company states, "The Mine Closure Plan which includes environmental liabilities is in the process of evaluation by the competent authority, therefore, still the issue of guarantees for the remediation of liabilities is subject to approval according to the study of law."

The management of MI assured the authors that all permits required for exploration and the pre-production operations are current. The following list of required permits and approvals were supplied by The Company. The authors have accepted The Company's assurance this list is complete and current and have done no additional review of the permit process. The list of permits includes:

1. Certificate of Mining Operation 2008
2. Resolution for approval of Semi-Detailed EIA study (RD No. 033-2007 REGIONAL ANCASH / Drema)
3. Resolution of the Concession Agreement and Authorization of Operating Profit Plant (RD No. 951-2008-MEM/DGM)
4. Approval of Sanitary Landfill (RDE No. 003-DESA / V)
5. Permit for Use of Surface Water for miners
6. Authorization for Sanitary Treatment and Disposal of Industrial Waste Water (DS No. 002-DESA / V)

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Physiography, Climate and Vegetation

The topography is mountainous and rugged, typical of the Peruvian Cordillera. The mine is located at the very north end of the Cordillera Blanca mountain range, which contains the highest mountains in Peru. The old Consuzo plant site and village of Consuzo are located in the steep valley of the Rio Pelagatos at an elevation of approximately 3,600 meters. The Huaura plant site is over a high ridge north of the old plant site at an elevation of 3,710 meters. The road between the two sites crosses the top of the high mountain ridge at an elevation of 4,350 meters.

The climate of the region is typical of the high Andes of Peru. There is a dry season with little precipitation from May through September and the wet season with the wettest months from January through March. The temperatures are mild with

average daytime high temperature nearly always above freezing while the night time temperatures will occasionally go below freezing. In the wet season, fog is common and can make driving difficult and potentially hazardous. Light snow can occasionally cover the high peaks, but is rare at the elevation of the mine. There are no climatic conditions that should cause the mine significant operational difficulty. The largest concern will be managing storm water, but this is a concern at all mine sites and can be managed with proper controls such as diversion channels.

Vegetation in the mine area is limited to trees and bushes along the Rio Pelagatos. Away from the river, vegetation is primarily grasses and a few small bushes and other herbaceous plants. Timber for the mining operations has to be imported from nearby agricultural areas such as Pallasca and Pampas where eucalyptus trees grow in abundance.

5.2 Accessibility

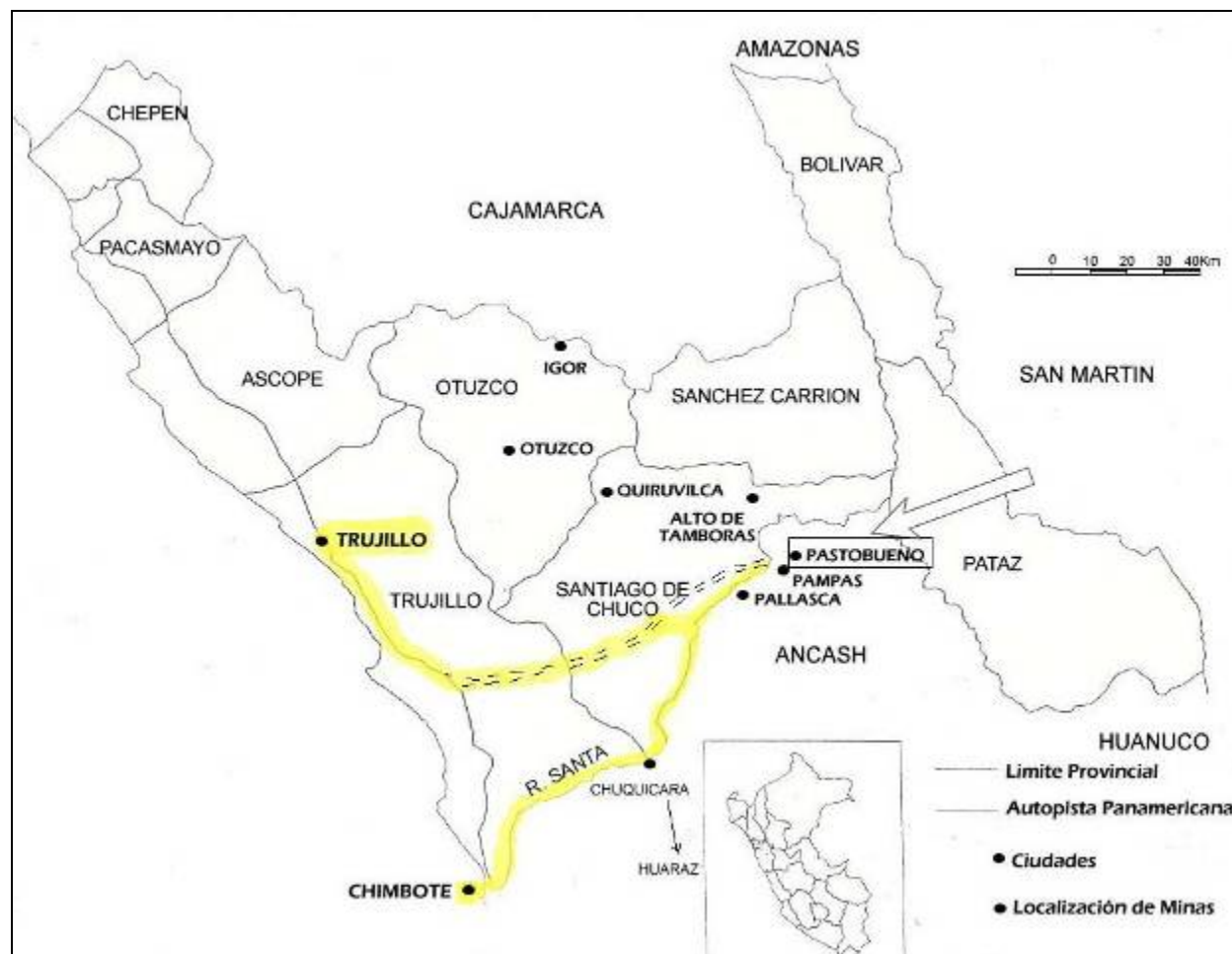
The town of Consuzo is an historic mining town linked to the Peruvian highway system by a single lane gravel and dirt access road. The access to the mine is a 204-km-long road that leaves the Pan-American Highway 20 km north of the city of Chimbote. Of the 204 kilometers, approximately 100 km of the road is paved; the remainder is gravel and dirt. The access road travels along the Rio Santa, then along the Rio Tabachuca and finally along the Rio Pelagatos. Driving from Trujillo to the mine, a 360-km journey, takes 7 to 8 hours. Trujillo is the nearest population center to the mine with regularly-scheduled air service. The access road travels through the towns of Pallasca and Pampas on the way to the mine. The road is typical of many rural Peruvian roads in the Andes—it is very sinuous, rough, poorly maintained in several areas, and generally one lane wide. The road, often high above the water courses, is cut into steep hillsides. The road has significant elevation changes as it leaves one river valley and crosses into another drainage basin.

Figure 5.2.1 provides a view of the sites from satellite imagery. Figure 5.2.2 shows a map of the surface routes to the mine.

Figure 5.2.1: Site View from Satellite Imagery (Google Earth, 2006)



Figure 5.2.2: Map of Surface Routes to Mine



5.3 Local Resources and Infrastructure

The local resources are very good for mining. Consuzo, a very small provincial town with only mining and small-scale farming as economic activities, has historically been the locale for the mine offices and processing facilities. The farming is mostly limited to growing market vegetables (potatoes and corn) and herding sheep and goats. Many of the workers from the 1990s, when the mine was in operation, still reside in Consuzo and the surrounding area providing a source of skilled and unskilled labor.

The infrastructure is generally in poor condition as some of the facilities were damaged and vandalized while the mine was on stand-by in the late 1990s. Some of the mechanical parts were stolen or vandalized, while others have been stored underground in the mine. Repairs to the infrastructure have been basically limited to the processing plant where the dams, ditches, and piping are in relatively good condition. The mill processing facility and tailings storage facility had been rebuilt in 2006 prior to MI reopening the Mine.

Prior to December 2008, power to the processing plant and the mine facilities was, in part, supplied by Hidrandina, a regional electricity provider, and The Company generated its own power between 6 and 10 PM each evening using generators. Supplemental power can be provided by one, 500-kW and two, 100-kW Malaga-owned diesel generators that typically provide 100 kW of supplemental power during the evening hours. This power is still available to the Mine.

A new hydroelectric plant, owned by Hidro Electrica Pelagatos, was commissioned in December 2008. The hydroelectric plant is currently providing 80% of the Mine's power requirements. Hidro Electrica Pelagatos was formed in January 2006 as a joint venture between MI (44% ownership), Emerging Power Developers Ltd., (EPD), a Swiss company (51% ownership), and ElectroKraft SA, a Peruvian hydropower construction company (5% ownership). The hydroelectric plant has a current capacity of 600 kW. The remaining power continues to be provided by the Hidrandina grid. Photos 4 and 5 in Appendix E show some of the equipment that is currently used at the hydroelectric plant.

Water for the process facility is supplied from one of the alpine lakes approximately 2.5 km east of the processing plant as well as from surface water and the underground workings. The water is transported via pipelines and pumps (see Photo 6, Appendix E).

The site roads are very narrow and have numerous, sharp switchbacks. The road from the Consuzo plant to the operating Huaura plant is approximately 16 km in

length and takes an hour to traverse in a pick-up truck (see Photo 7, Appendix E). The actual distance between the Consuzo plant and the Huaura plant is 2.7 kilometers. Those roads are in a relatively good condition.

There are many buildings in the village of Consuzo close to the Consuzo plant site. The Consuzo plant is currently non-operational for mill processing. These buildings are old but are in relatively serviceable condition. At Consuzo, there are locations that could house a laboratory, staff housing, administration offices, repair shops, and the shell of the old processing plant. The old processing plant is currently being used to house the magnetic separator that is used to do the final cleanup on the concentrates prior to shipping. In addition, The Company maintains various facilities in Consuzo such as core storage and a guest house. Previous operators in the late 1990s built the new Huaura processing plant near the Level 12 portal of the Consuelo vein. At this site, in addition to the processing plant, The Company maintains staff housing, mine offices, mess halls, dries for the miners to change, and a laboratory.

6.0 HISTORY

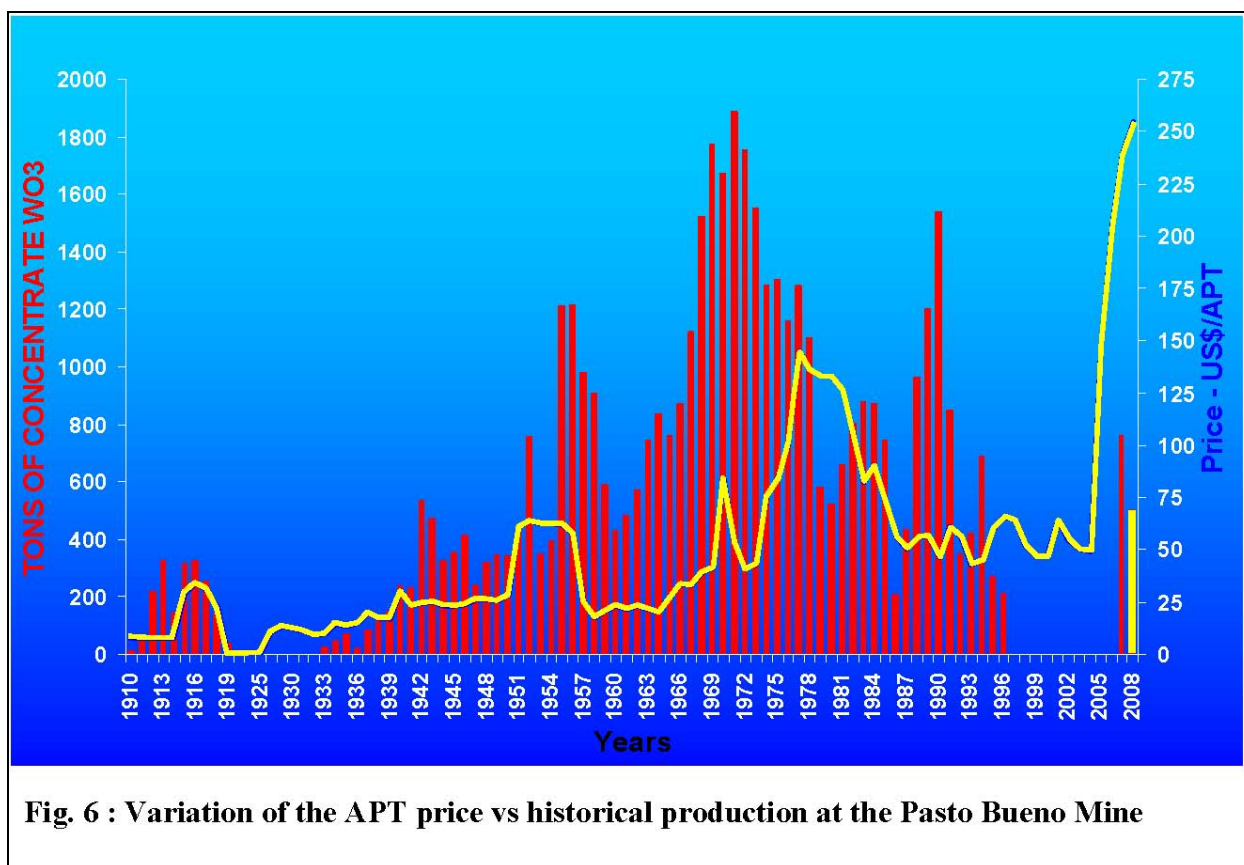
The long history of Pasto Bueno can be divided into three different periods of mining operations. The first, 1910 to the early 1990s, was operated by Minera Malaga. The second operator in the late 1990s was Avocet Resources from about 1995 to 1998. The property was generally idle from 1998 until 2005 when it was purchase by the current operator, Malaga, Inc.

6.1 1910 to Early 1990's

The Pasto Bueno deposit was discovered in the early 1900s and brought into production in 1910. It has been active, more or less continuously, for the past nearly 100 years producing a reported six million tonnes of ore and 42,000 tonnes of concentrate containing 75% WO₃. This translates to an overall recovered grade of

slightly over 0.50% WO₃. As we have no idea what the historical mill recoveries were, it is not possible to speculate on the historic head grades. Over the years, a substantial infrastructure was developed at the mine site. Pasto Bueno was operated by Minera Malaga as a successful and profitable mine for a considerable period. Production of concentrates peaked in 1972 with the production of 2,000 tonnes of tungsten concentrate (75% WO₃) and 645 tonnes of copper concentrate, as shown on Figure 5.1.1. Beginning in 1985 the operation fell on difficult times for various reasons. The Chinese government dumped tungsten on the market over the years creating severely deflated tungsten prices. Severe problems with terrorists during the early part of the 1990s also affected operations of the mine. The influence of terrorists severely hampered management's ability to operate the mine and control the workforce. Political and economic conditions in Peru also inhibited investment. The net result of these problems in the early 1990s was that the operation was effectively reduced to a care-and-maintenance condition. A very small, high-grading operation at 10 Tpd was run to help pay site costs and keep the workforce occupied. Both the plant condition and the staff morale suffered as a result of this enforced neglect. The considerable effort that was exerted by site staff to maintain the operation during these most difficult times must be acknowledged.

Figure 6.0.1: Historic Production vs. Price (Torres & Mercado, 2008)



6.2 1995 to 2005

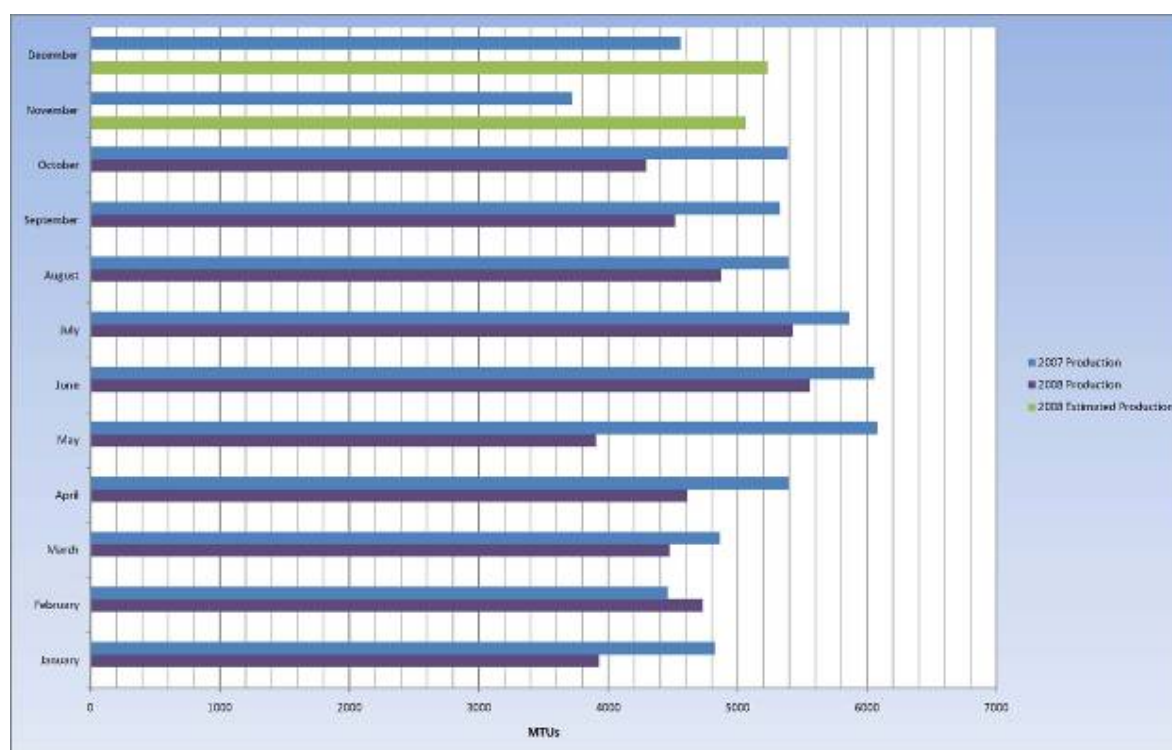
Beginning in about 1995, Avocet Mining invested considerable time and money to try and restart the operation. They completed the development of the No. 12 level along the Consuelo vein and built the new Huaura mill near the No. 12 level adit. However, by 1998, Avocet, not satisfied with the results and with the low tungsten prices, decided to return the ownership of the mine to Minera Malaga. The property then lay idle until 2005. Avocet did not report any production.

6.3 2005 to the Present

In 2005, Malaga, Inc. purchased the majority of the property (24 concessions) from Minera Malaga. Dynacor, the parent company to Malaga, Inc., either already owned or has purchased an additional nine concessions bringing the total to 33

concessions covering about 688 hectares. When Malaga acquired the property they produced a prefeasibility study and a report on the reserves of the Pasto Bueno Mine. Neither document was filed with SEDAR. Malaga refurbished the Huaura mill, built by Avocet, and began producing mill feed from several of the veins. The initial pre-production operations goal was 250 Tpd which was achieved at the beginning of 2007 and continues to the present. Below is Figure 5.3.1 that shows the production for Malaga since they began pre-production operations in January of 2007. In support of this production, Malaga has a sales contract with a producer of tungsten wire and powders. Sales receipts have been reviewed and verify that Malaga has been producing 4,000 to 6,000 MTUs per month for 2007 and 2008.

Figure 6.3.1: Actual and Estimated Production Totals for 2007 – 2008



7.0 GEOLOGICAL SETTING

7.1 Regional Geology

The geology of this deposit is described in detail in the article by Landis and Rye (1974) titled “Geologic, Fluid Inclusion, and Stable Isotope Studies of the Pasto Bueno Tungsten-Base Metal Ore Deposit, Northern Peru.” Most of the geological descriptions found in this report are condensed from their work.

The Pasto Bueno deposit is in the northernmost extension of the Cordillera Blanca batholith. The location of the mine with respect to the major Peruvian mountain ranges is shown in Figure 7.1.1. The geological map of the Pasto Bueno Region is shown in Figure 7.1.2.

Figure 7.1.1: General Peruvian Geological Map (Landis and Rye, 1974)

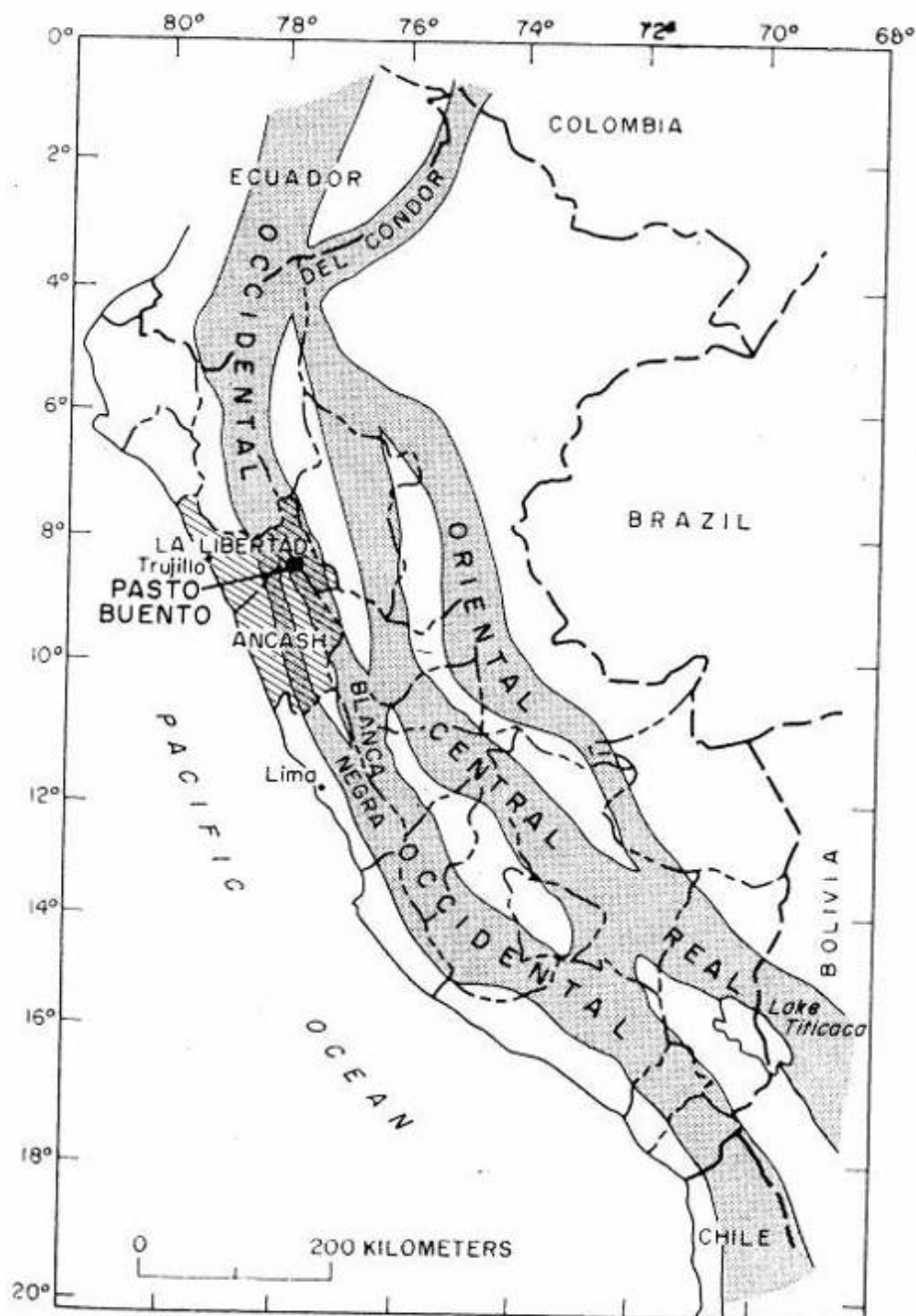
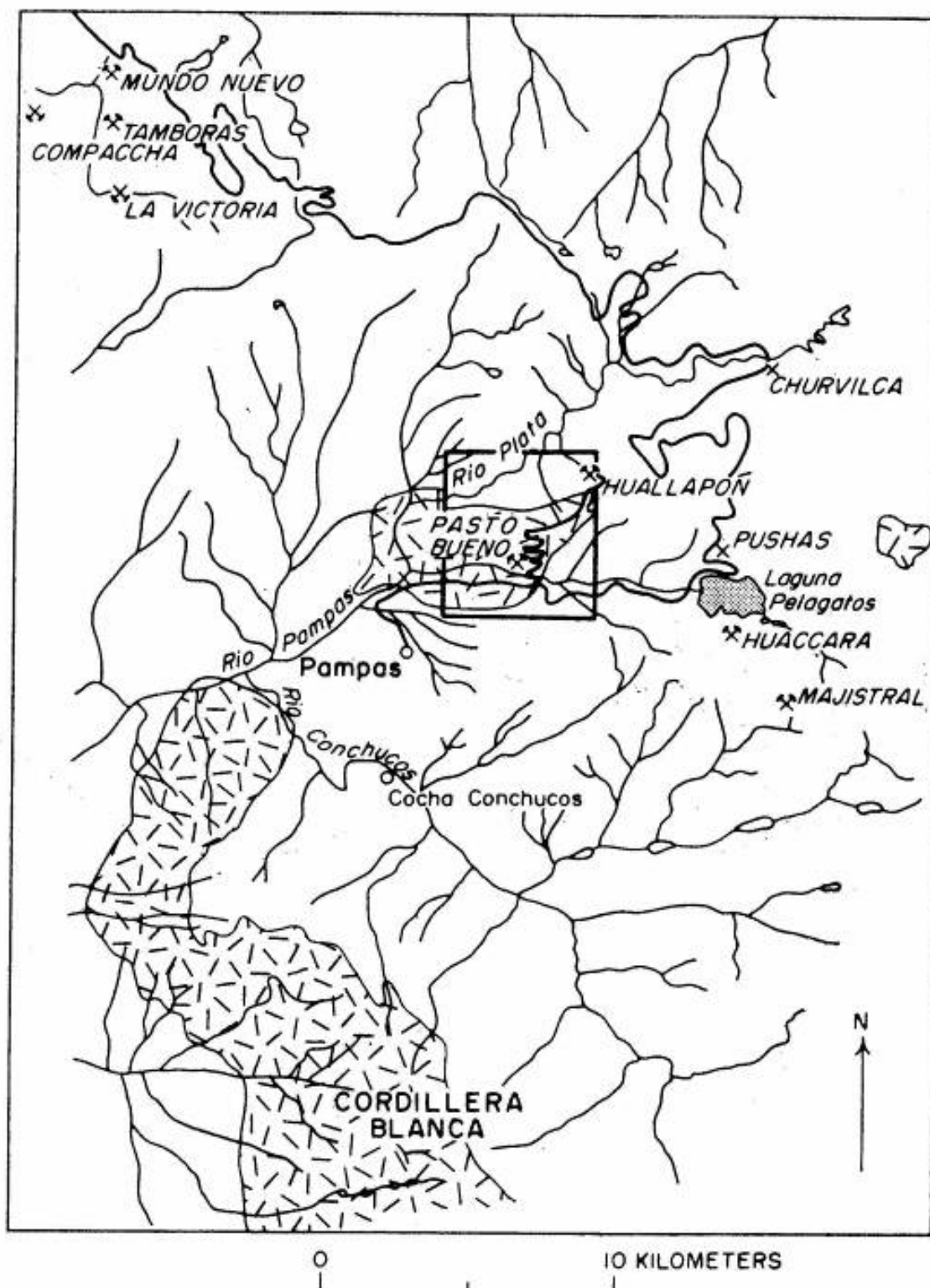


Figure 7.1.2: Geological Map of Pasto Bueno (Landis and Rye, 1974)



The oldest rocks in the area are parts of the Jurassic and Cretaceous sequences of the Chicama Formation shale and the Goyllarisquizga Group of shale, quartzite, and limestone of northern and central Peru. The Chicama Formation is described as forming in the Western Peru Trough, a depositional basin trending northwest-southeast and existing from about the Middle Triassic to the Late Cretaceous. This trough was likely the inner-arc basin of a Jurassic island arc system. The masking influence of contact metamorphic effects near the Consuzo stock prohibits positive detection of a definite volcano-pyroclastic component to the sediment. The Chimu, Santa, and Farrat Formations collectively make up the Goyllarisquizga Group and represent shallow marine and transgressive beach depositional environments.

Igneous rocks observed in the area consist of lower Tertiary volcanic dikes and sills, the Consuzo quartz monzonite stock, and upper Tertiary hypabyssal rocks that are probably co-magmatic with the stock (Landis and Rye, 1974).

7.2 Local Geology

The local geology is shown in Figure 7.2.1 and a cross-section of the geology is shown in Figure 7.2.2. Both of these are taken from the Landis and Rye (1974) report. The local geology as mapped by the site personnel is seen in Figure 7.2.3. A cross-section of the Consuelo Vein produced by the site geologists is shown in Figure 7.2.4.

Figure 7.2.1: Local Geology Map (Landis and Rye, 1974)

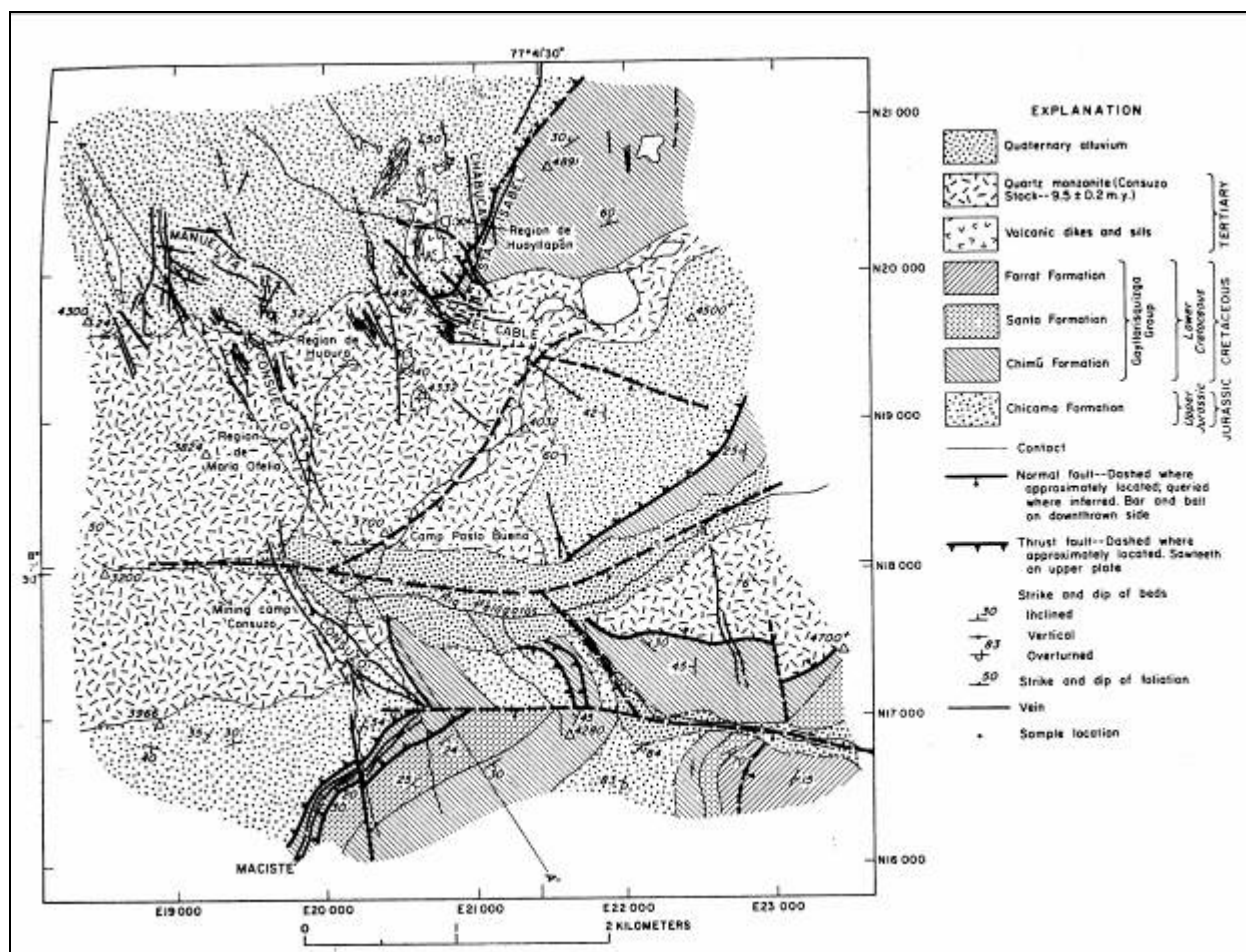


Figure 7.2.2: Cross-Section of Local Geology (Landis and Rye, 1974)

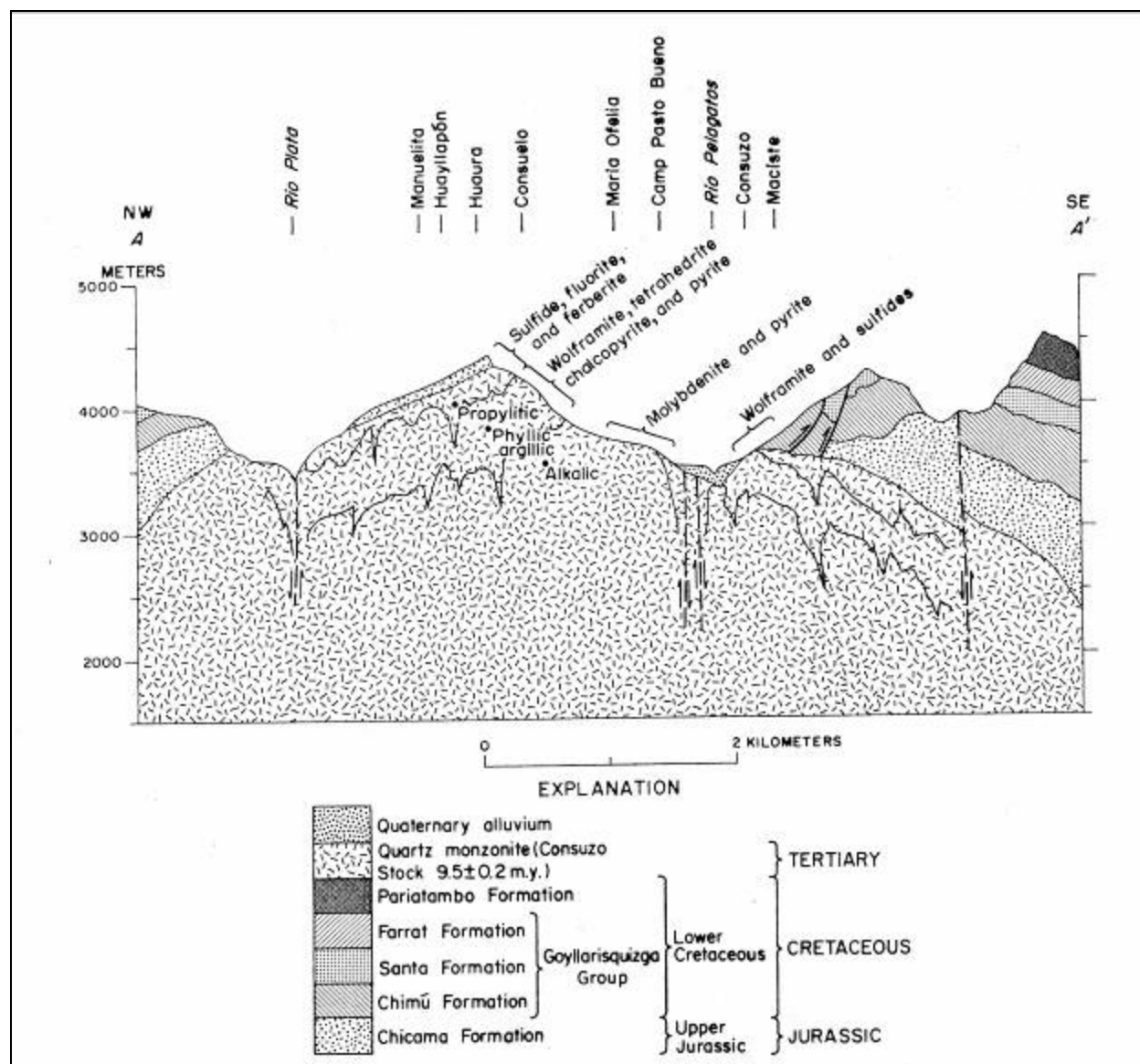


Figure 7.2.3: Geologic Map of Pasto Bueno as Mapped by Mine Personnel

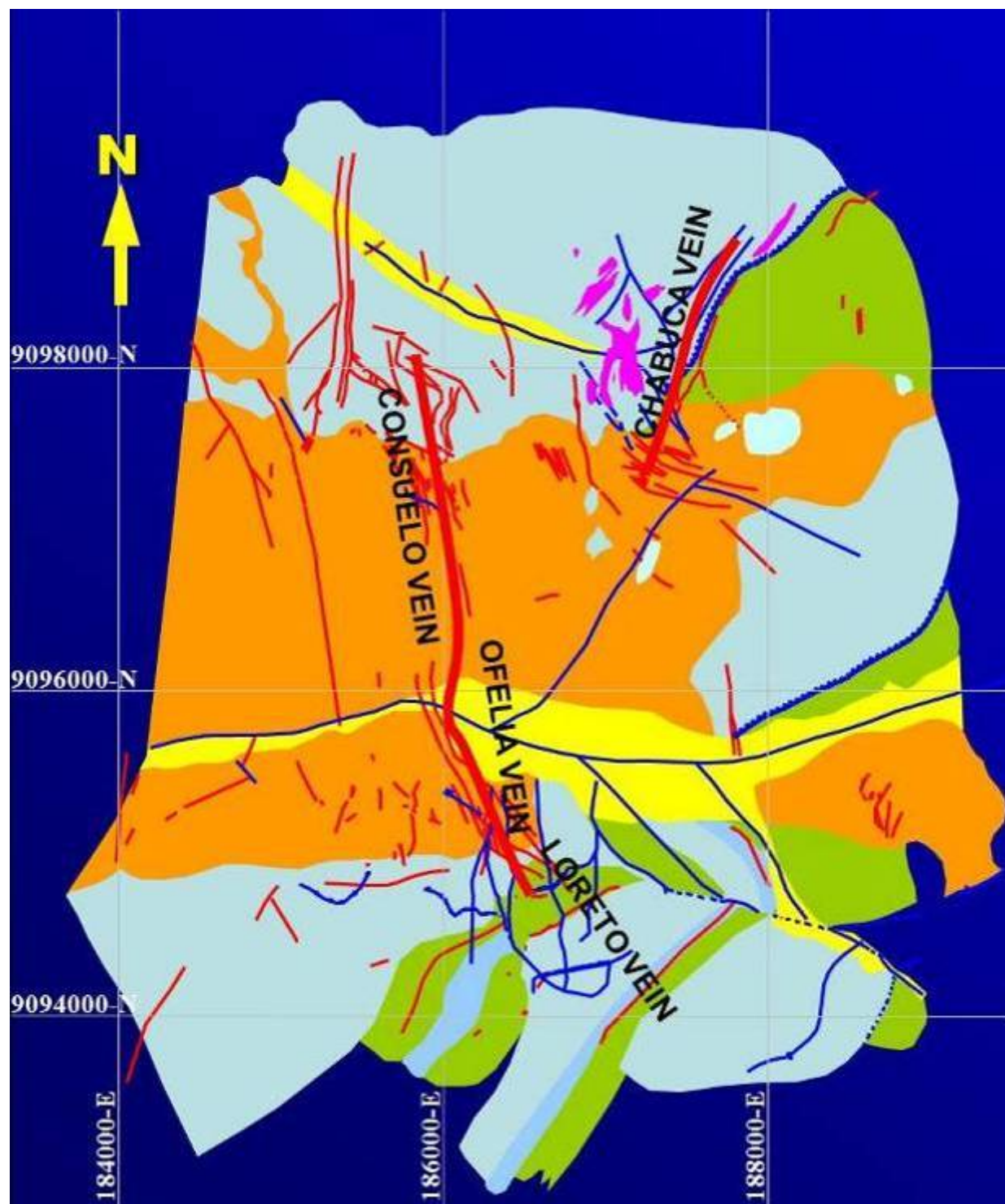


Figure 7.2.4: Consuelo Vein Section



7.2.1 Exposed Sedimentary Rocks

The Upper Jurassic Chicama Formation is black carbonaceous pyrite-bearing shale which contains coarse and silty lenses. The base of this oldest unit is not observed in the area and its thickness could not be determined because of extensive decollement and other structural deformation above an unknown basement (Landis and Rye, 1974).

A sequence of interbedded quartzites and arenaceous siltites 150 to 200 meters thick comprise the Chimu Formation lying unconformably above the Chicama Formation. Brown-gray massive quartzites interbedded with shale grade upward into very thick massive white quartzites consisting of fine-grained, equi-granular, well-sorted quartz, strongly recrystallized into a tightly interlocking texture. Graded bedding, crossbedding, and cut-and-fill features are common in the upper members, whereas carbon and anthracite coal seams are typical of the lower member and basal portion of the upper Chimu Formation. The Santa and Farrat Formations are, respectively, brown-gray limestones, thin gray-to-red shales, and fine-grained white quartzite interbedded with red lutite (Landis and Rye, 1974).

7.2.2 Exposed Igneous Rocks

The sediments were intruded by several different intrusive events but the Consuzo stock is the primary event that is associated with the mineralization. The Consuzo stock is a biotite-bearing porphyritic quartz monzonite cropping out over an area of nearly 40 km² and a maximum vertical exposure in the Rio Pelagatos Canyon of 1,100 meters.

Although the Consuzo quartz monzonite stock can be considered a single intrusion, its mineralogy, composition, and texture are variable. Intense, pervasive deuteric-greisen alteration of the stock makes it difficult to distinguish primary variations from later alteration-greisen overprints. The mineralogy of the Consuzo stock consists of quartz, sodic feldspar, plagioclase, orthoclase, microcline, and biotite, with accessory apatite, sphene, magnetite, and zircon. It is porphyritic, with potassium-feldspar megacrysts 1 to 10 cm long in a medium-grained ground mass.

The Consuzo stock is thought to be closely related to the more extensive Cordillera Blanca batholith. Studies of the main body of the Cordillera Blanca batholith show that the quartz monzonite phase was emplaced after the volumetrically more significant tonolite and granodiorite phases. The Consuzo stock has been dated at 9.5 ± 0.2 million years old (Landis and Rye).

7.2.3 Structure

This structural summary is taken from a review of the geology map (Figure 7.2.1) published by Landis and Rye (1974) and is augmented by observations made by Mine staff. The structure in the Pasto Bueno area is dominated by faulting. A series of thrust faults or decollements separate the Chicama Formation from the overlying members of the Goyllarisquizga Group. The sedimentary units generally show moderate to steep dips that are variable, depending on the unit and the location, with respect to the intrusive. Goyllarisquizga Group rocks north of the intrusive dip moderately to the north. South of the intrusive, those same rocks

strike generally to the northeast. Although no fold axes are shown on the map, apparent fold axes trending northeast-southwest create moderate dips to the southeast and the northwest in these rocks. Dips in the Chicama Formation are generally westerly, north of the intrusive, while south of the intrusive this same formation generally strikes northeast. However, dips are shown to be highly variable and overturned in some places.

Two dominate directions of normal faulting are shown on the map of Landis and Rye (1974). A major east-west fault is shown along the Pelagatos River and a second parallel fault occurs about 750 meters to the south. Another shorter east-west fault occurs about halfway in between and forms a contact between the sediments and intrusive. Secondary faults between the major east-west faults strike northwest while faults north of the Pelagatos River strike northeast. South of the southernmost east-west fault the secondary faults strike more northerly. The map patterns shown by Landis and Rye (1974) suggest a component of strike-slip movement in the east-west faults. Mapping by the geology staff of The Company has identified over 70 quartz veins. South of the Pelagatos River these veins generally strike north to northwest while north of the river the veins strike northeast to northwest. These directions likely represent a tertiary component of the strike slip fault movement.

7.2.4 Alteration

The rocks in this area contain alkalic, phyllic, argillitic and propylitic forms of alteration. These major alteration types form a general zonation as seen in the Figure 7.2.2 cross-section by Landis and Rye (1974). However, the alteration pattern imposed by fracture control is more conspicuous than the crude concentric zonation. As determined by studies of sequential, zonal, and crosscutting relations, the alteration of the Consuzo stock can be documented as a single dynamic episode producing an alteration collectively referred to as greisenization. A greisen is a pneumatolytically-altered granite rock comprised largely of quartz, mica, and topaz.

The concept of greisenization in this area can be described as a high-temperature, post-magmatic alteration of the rocks affected by residual volatile-rich acid solutions associated with the cooling of the alkalic-rich granitic intrusives. As such, alkalic, phyllic and argillic alteration styles are recognized by an anomalous enrichment in Li, B, Be, P, rare earths, and rare metals, and is typified at Pasto Bueno by the presence of zinnwaldite, fluorite, topaz, tourmaline, beryl, apatite, axinite, wolframite, chalcopryite, and molybdenite largely within a quartz-sericite $\pm$ pyrite rock (Landis and Rye, 1974).

8.0 DEPOSIT TYPES

Landis and Rye (1974) describe the ore mineralization as occurring within steeply dipping vein systems that span several hundred meters on both sides of the upper intrusive contact between the Chicama Formation and the quartz monzonite. A low-grade (currently sub-economic) stockwork with disseminated molybdenite, chalcopryite, and wolframite occurs within the deepest exposed core of the stock. The principal minerals of economic interest in the veins are wolframite, tetrahedrite/tennantite, sphalerite, and galena. The gangue minerals are quartz, fluorite, sericite, pyrite, and carbonate. Molybdenite, chalcopryite, bornite, arsenopryite, enargite (luzonite), stolzite, scheelite, zinnwaldite, topaz, tungstite, and native arsenic are present in minor amounts.

More recent work by the mine staff along with additional mining has shown mineralization is much more extensive in the intrusive than thought by Landis and Rye (1974). In addition, mapping, sampling, and exploration have defined multiple types based on geometry and alteration. These types include:

- ◆ High-angle quartz veins that cut both the intrusive rocks and the quartzites showing classic greisen alteration. These have been the source of the past production and provide the bulk of the potential of the area.

- ◆ Manto-type mineralization confined to slates. The mantos form likely as quartz-filled expansions along bedding planes in the slates. These deposits are also typified by greisen alteration.
- ◆ Skarn mineralization in limestone along the southern edge of the Consuzo Stock characterized by calc-silicate alteration. These are currently exploration concepts supported by observations and surface sampling.
- ◆ Gold values up to 2 gm Au/t in quartzites of the Maciste Manto located south of the Rio Pelagatos. Gold is produced from these same quartzites at the Santa Rosa mine and the San Simon mine of Compania Minera San Simon approximately 10 km west-northwest and 15 km northwest of the Pasto Bueno mine, respectively (see Photo 2, Appendix E).

Recent drilling and underground exploratory drifting has shown the tungsten mineralization is deeper into the intrusive than previously thought by Landis and Rye (1974). In addition, some quartz veins that are narrow on the surface or show little or no mineralization increase in size and/or contain mineralization at depth.

9.0 MINERALIZATION

The description of the mineralization is taken largely from the Mines and Minerals of Peru book published by the Mineral Record in 1997 and authored by J. Crowley, R. Currier and T. Szenics (Crowley et. al, 1997). They describe the mineralization as follows:

Although not clearly defined, a zonal arrangement of mineralization from the quartz-monzonite stock in the center to the edge of the mineralized areas is as follows: molybdenite-pyrite; wolframite-tetrahedrite-chalcopyrite-pyrite; galena-sphalerite-tennantite; and last fluorite and carbonates. No single vein has all these assemblages, so the sequence has been determined through observations of a number of veins in the various workings.

Mineralization is classified as greisen, vein and vug. The vug period is a late phase of vein deposition. Open vugs are common, but only minerals characteristic of final vug crystallization typify the vug period. "Phantom" quartz crystals are common in the veins; these are indicative of breaks in quartz deposition.

The greisen assemblage is typified by course-grained, fractured fluorite in varying shades of blue through green, purple and brown. Associated minor minerals occurring as coatings in fractures include tourmaline, topaz, apatite, titanite, rutile, stolzite, arsenopyrite, bornite, chalcopyrite and molybdenite (in no particular order).

The first major mineralizing episode resulted in molybdenite-pyrite deposition. The second major mineralizing episode resulted in tungsten mineralization, with two depositional periods, which were followed by the sulphide assemblages. The first tungsten period produced thick, stubby brown blades of hübnerite (Mn-rich Wolframite) in quartz. The second tungsten period resulted in deposition of black, prismatic, euhedral hübnerite crystals in vugs. Some are a deep blood-red color in transmitted light.

Minor quantities of enargite occur in early-formed sulphide veins, associated with tetrahedrite, pyrite and galena: these minerals apparently crystallized after the tungsten period. Early-formed tetrahedrite is Sb-rich and generally grades to As-rich tennantite, which is typical of late-stage mineralization. Botryoidal native arsenic is found rarely as an accessory mineral to the late sulphide vein assemblage.

The third major mineralizing episode was the crystallization of galena and sphalerite. Galena proceeds sphalerite and continued to be deposited during the sphalerite crystallization. Early-formed sphalerite is dark brown; later-formed sphalerite is pale, transparent green; and the last-formed is very dark opaque brown. These color differences apparently reflect changes in iron

content of the hydrothermal fluids. Sericitic mica, in the third depositional sequence, was deposited as a late-stage hydrothermal mineral in veins, filling cracks and cleavage planes in hübnerite, early late-stage galena, and in fluorite. Sericitic mica was also deposited at the base of open-vugs, as coarse plates to 6 mm in diameter, before the period of major fluorite deposition.

The fourth major mineralizing episode is characterized by fluorite crystallization in large amounts, as a late-stage vein filling. The fluorite is color-zoned, the earliest-formed phase alternating between green and colorless, then a colorless phase, then a brief period of purple, and finally a major period of green. Scheelite is a rare accessory mineral occurring as non-fluorescent yellow to purple crystals in vugs. Rhodochrosite and other carbonates also occur as late crystallizations in the vugs, and are usually found occurring on quartz.

The veins vary in width from a few centimeters up to about 15 m (Consuelo vein). The vein lengths vary from a few tens of meters to the Consuelo-Loreto vein which may be as long 4 km, depending on how the known vein segments correlate across faults. Tungsten mineralization along the productive veins seems to be consistent in its presence but variable in its tenor. The tungsten mineralization can be observed to occur in narrow very high-grade streaks within a wider vein. These streaks vary from a few centimeters in width and meters in length to over a meter in width and tens of meters in length. Often a high-grade streak less than 30 cm wide can carry sufficient grade to justify mining a width of a one and half meters. The location of these high-grade streaks can vary from within the vein itself to along either contact. Historically and presently, the primary metal of interest is the tungsten. However, MI has plans to recover copper, silver, and zinc in the future as a part of a proposed mill expansion.

10.0 EXPLORATION

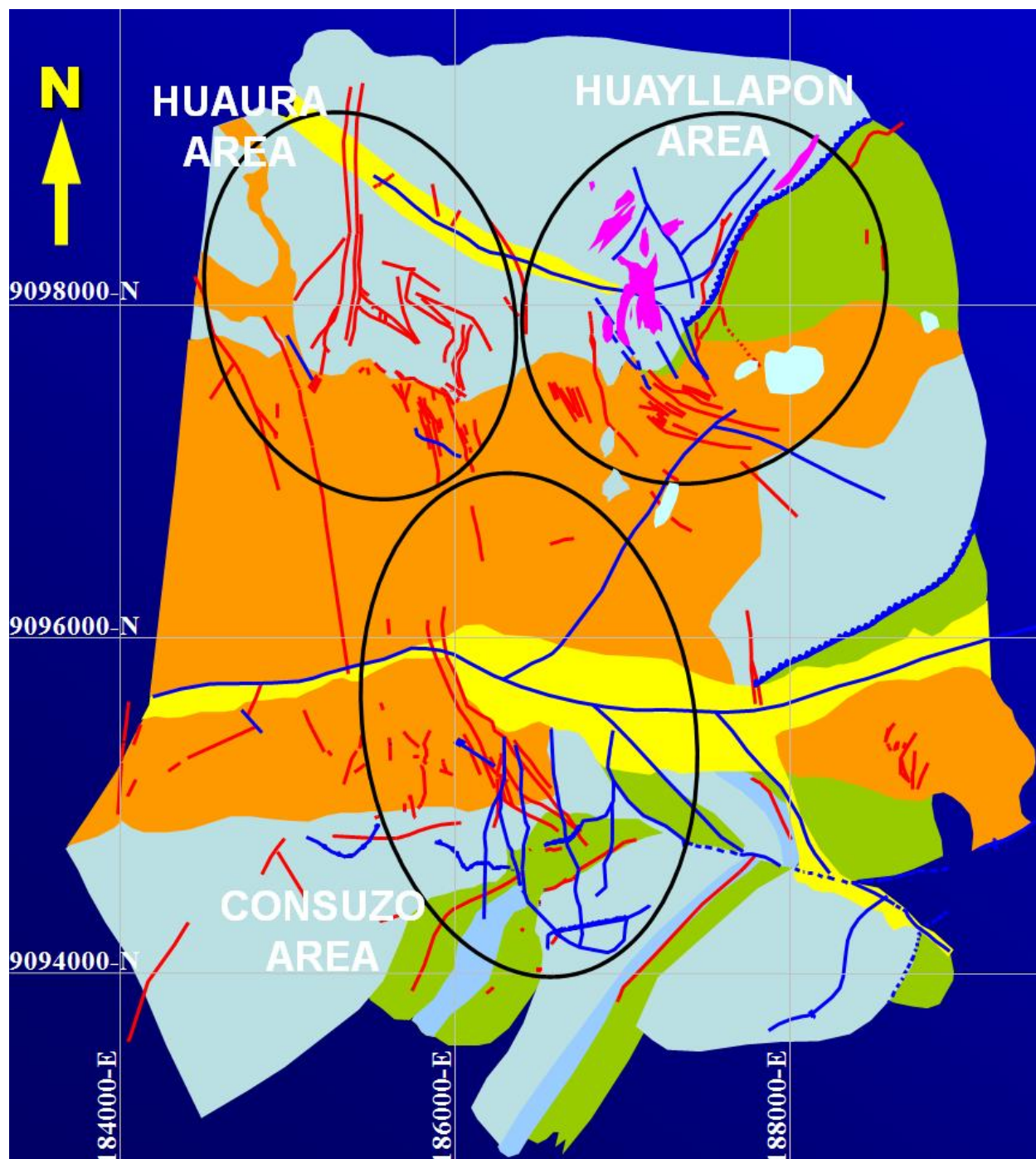
Although the property has reportedly produced six million tonnes of ore, historical exploration on the property was limited to drifting along known veins. The Company began an exploration effort in late 2006 that included mapping and sampling of veins on the surface, drifting along and raising on known veins, and driving cross cuts to explore for the presence of new veins at depth. Prior to this effort, only about 30 veins had been identified and even fewer tested and mined. The surface mapping and sampling was successful in identifying over 70 quartz veins and identifying new types of mineralization. The potential for the additional veins and the new styles of mineralization form the basis of the ongoing exploration program. In 2007, The Company began a surface core drilling program. A total of 16 core holes were drilled totaling 7,752.05 meters.

The property, for the purposes of exploration and exploitation, is broken into three areas: the Huayllapón area, the Huaura area, and the Consuzo area (Figure 10.0.1).

Veins currently being explored or exploited in each area include:

- ◆ Huayllapón Area: Chabuca Vein, St. Agustin Vein, Paraiso Vein, Limbo Vein
- ◆ Huaura Area: Consuelo Vein, Alonso-Fenix Vein, Santa Marta Vein, Sauco Vein, Violeta Vein, Candela Vein
- ◆ Consuzo Area: Loreto Vein, María Ofelia Vein

Figure 10.0.1: Exploration Areas



The main structure in the Huayllapón Area is the Chabuca vein which is approximately striking north-south and is dipping vertically or steeply to the west and east. Its average thickness is 1.5 meters. The vein is in quartzite of the Chimu

formation and in black slates of the Chicama formation. The main part of the mineralization is in the quartzite (Godbout, 2006). Some historical mining took place in the intrusive near the top of the ridge indicating potential for additional mineralization may exist deeper in the Chabuca vein where it is hosted in intrusive rocks.

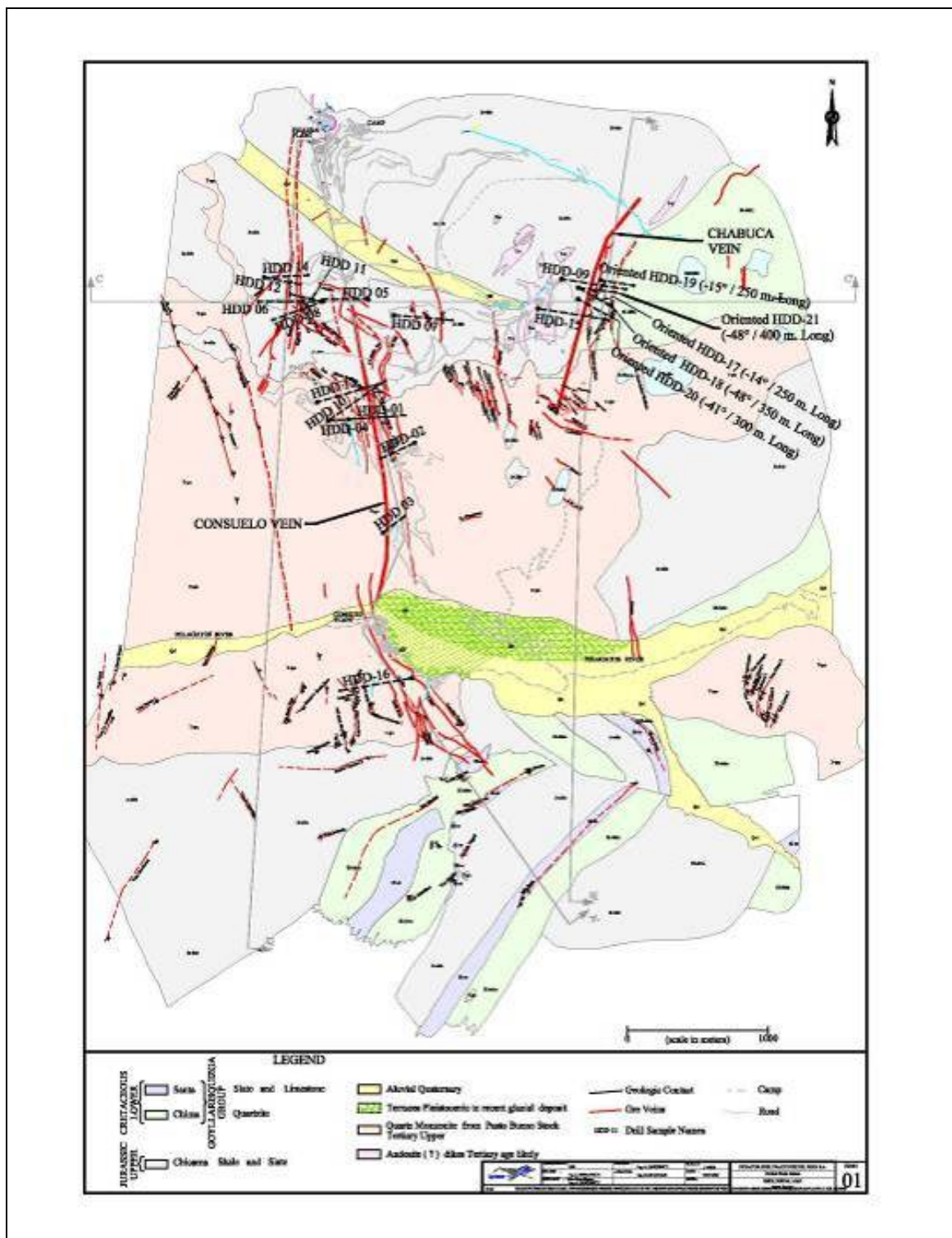
The primary vein in the Huaura Area, the Consuelo vein, is located almost entirely within the intrusive with an average thickness of 2 meters. This vein is correlated to the north with the Maria Ofelia vein. Those veins strike north and northwest and dip steeply to vertically to the west and east. Recent mapping and some drilling results extend the Consuelo vein into the Consuzo Area where it is known as the Loreto vein. The Consuelo vein on the surface near the crest of the ridge between the Huaura and Consuzo areas is as much as 15 m thick but is barren (Godbout, 2006).

The main structure in the Consuzo area is the Loreto vein which is generally thicker than the other Pasto Bueno veins. The Loreto vein is likely a continuation of the Consuelo structure and is located entirely within the intrusive. These vein widths were up to 14 m in the intermediate levels with approximately northwest strikes and dips between 45° and 65° to the south. Their collective thickness decreases towards the north-northwest (Godbout, 2006).

11.0 DRILLING

Malaga carried out a diamond drill hole (DDH) core drilling program from May 17, 2007 to June 11, 2008. They drilled a total of 16 core holes totaling 7,752.05 meters. The initial three holes HDD-1 to HDD-3 were drilled by Ingeomin S.A.C. They averaged 12.5 meters per day. Drilling of the remainder of the holes HDD-4 to HDD-16 was done by the core drilling contractor, Geotecnia Peruana S.R.L. They averaged 20.1 meters per drill day.

The drilling program was designed to test deeper areas of veins currently being mined, test new veins at depth that had been identified in the surface mapping, and test for veins that were not exposed at the surface. All holes were collared with HQ-size core but some holes were reduced to NQ or BQ because of drilling problems. Figure 11.0.1 is a map that shows drill hole locations. The holes were all surveyed with a Reflex Tiopari down-hole survey instrument. Collar locations were located using a Total Station.



The authors were not present for any of the drilling or sampling but have examined the core from these holes. The following description of the procedures used in securing and sampling the core were described to the author by the Chief Geologist and were consistent with the core observations.

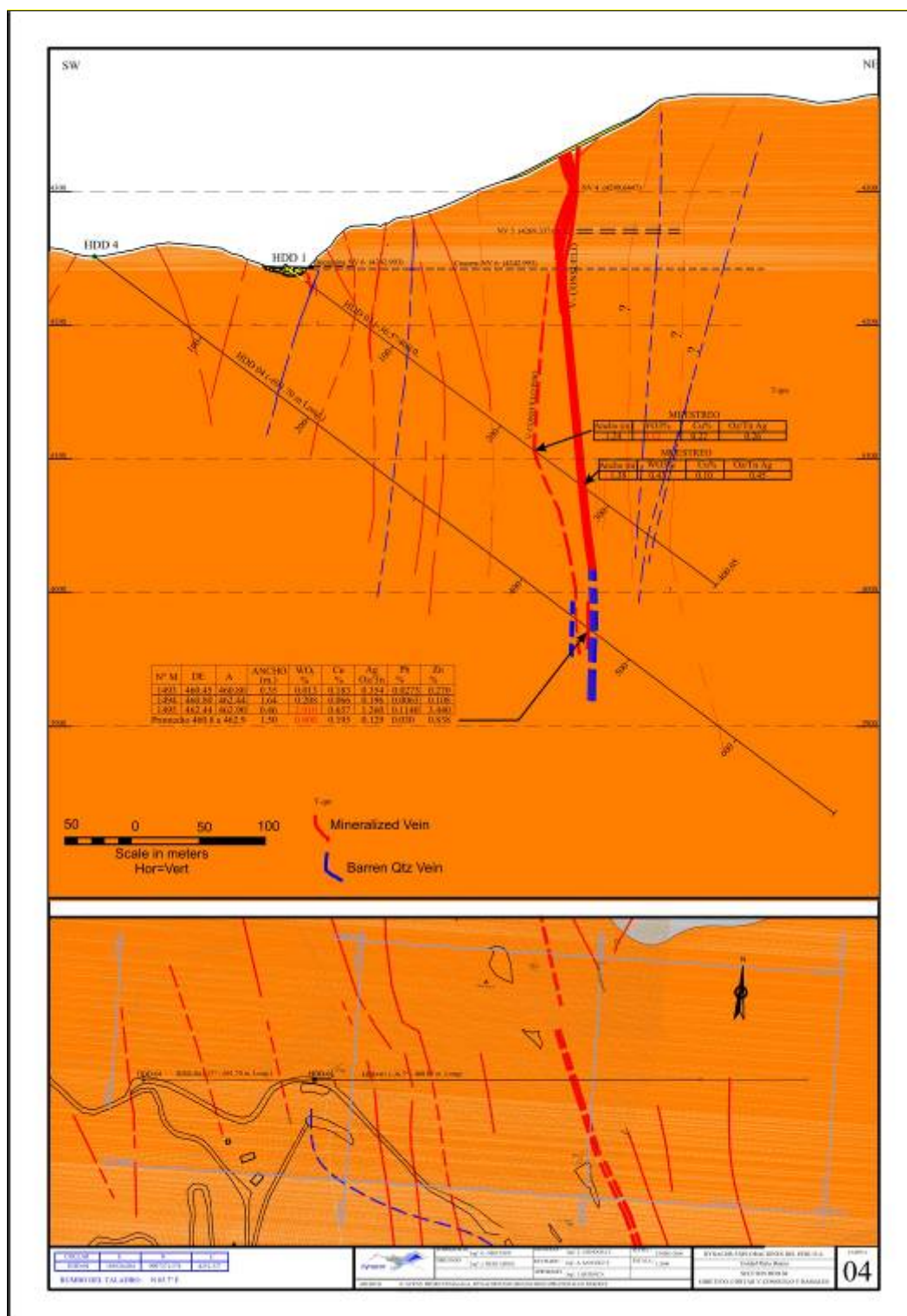
A geologist was present at the rig during the drilling and supervised the placement of the core into the core box once it had been removed from the core barrel. The end of each core run was marked with a wooden block with the depth written on it. At the end of each drill shift the geologist collected the core from the drill rig and placed it in a locked core storage area. When the hole was completed, the geology was logged by the onsite geologists. In addition to geology they recorded some rock quality designation (RQD) information. When logging the core the geologists noted rock type, alteration, quartz veins, and mineralization within the veins.

Three types of quartz veins were noted. They were:

- ◆ Barren white opaque quartz veins
- ◆ Barren white translucent quartz veins
- ◆ Mineralized quartz veins with light gray translucent quartz accompanied by pyrite, hübnerite, and tetrahedrite. Coarse-grained pyrite extended for up to several meters on either side of the mineralized veins.

The geology staff drew cross-sections through each hole to show the geology and the various vein intersections with the associated alteration and vein descriptions. Figure 11.0.2 is a simplified composite cross-section showing drill holes HDD-1 and HDD-4 along with the assays of the veins that contained visible hübnerite. For more detailed information see Appendix A containing summaries of the core drilling information.

Figure 11.0.2 Cross-Section Showing Drill Holes HDD-1 and HDD-4



Only those quartz veins with visible tungsten mineralization were sampled and assayed. The areas to be sampled were marked by the geologist who did the logging once the hole was completely logged. The sample lengths were marked on the box and on the core. The line to be sawed was also marked to guide the core splitter. Sample lengths were based on geological breaks but did not exceed one meter. The core was split and half the split core was placed in a plastic bag with a unique sample number tag and the sample number was written on the bag. The number did not reflect the hole number or the depth. The bag was sealed and placed in a larger bag with multiple samples. Once the larger bag was full it was sealed and stored in a locked room until it was transported to the primary assay lab, ALS Chemex, by either a driver who delivers samples regularly, or by the Chief Geologist. Duplicate samples were collected from some of the intervals by quartering the core and blanks and standards were included in the assay program.

Although the authors were not present for any of the logging and sampling, if the logging and sampling were carried out as described by The Company geologists, it was done according to the QA/QC protocol developed by the QP, Alain Beauregard. If indeed it was completed as described, it is compliant with the QA/QC requirements of NI 43-101 and the authors feel it is representative of the mineral content of the rock drilled and of the geology of the area. The authors feel these drill results are of sufficient quality to be used in calculation of a resource and as a guide to future exploration. A review of cross-sections of the holes and the assay sheets from ALS Chemex shows the information presented to the authors is internally consistent (Appendix A). The geology on the cross-sections is consistent with the known geology. This review also included a review of the results for the duplicates, standards and blanks submitted with the drill core samples. No deficiencies were noted and all results meet industry standards and are within requirements of NI 43-101.

Table 11.0.1 is a summary of the drill hole locations and orientations. Table 11.0.2 is a summary of the results of the core drilling program.

TABLE 11.0.1
SUMMARY OF DRILL HOLE LOCATIONS

HOLE NO.	COLLAR COORDINATES			EXPLORATION AREA	ORIENTATION AND LENGTH		
	UTM	UTM	ELEV.		AZIMUTH	INCLINATION	LENGTH
	NORTHING	EASTING	(m)		(°)	(° FROM HORIZONTAL)	(m)
HDD-1	9097282	185768	4243	Consuzo-Maria Ofelia	86°	-36.5°	400.05
HDD-2	9097115	186238	4130	Consuzo-Maria Ofelia	245°	-43°	364.15
HDD-3	9096478	186014	3860	Consuzo-Maria Ofelia	53°	-40°	277.70
HDD-4	9097272	185626	4251	Consuzo-Maria Ofelia	86°	-37°	691.70
HDD-5	9098130	185910	4250	Huaura	270°	-25°	361.50
HDD-6	9098115	185590	4241	Huaura	270°	-40°	601.00
HDD-7	9098019	186090	4343	Huayllapón	95°	-35°	509.00
HDD-8	9098115	185590	4241	Huaura	250°	-50°	437.70
HDD-9	9098275	187280	4393	Huayllapón	99°	-39.5°	601.00
HDD-10	9097272	185626	4251	Consuzo-Maria Ofelia	55°	-34°	600.40
HDD-11	9098115	185590	4241	Huaura	283°	-53°	405.90
HDD-12	9098286	185173	4171	Huaura	101°	-48.5°	400.40
HDD-13	9097402	185549	4271	Consuzo-Maria Ofelia	73.5°	-25°	500.35
HDD-14	9098286	185173	4171	Huaura	87.3°	-38.5°	400.00
HDD-15	9098066	187113	4345	Huayllapón	99°	-34°	601.40
HDD-16	9095449	186218	3710	Consuzo	260°	-30°	599.80

TABLE 11.0.2
SUMMARY OF DRILLING RESULTS

HOLE NO.	VEIN NAME	INTERSECTION	TRUE THICKNESS		MINERALIZATION			
		DEPTH	STRUCTURE	MINERALIZATION	WO ₃	Cu	Ag	Zn
		(m)	(m)	(m)	(%)	(%)	(oz/t)	(%)
HDD-1	Consuelo Split	230.1-232.4	1.63	1.24	3.12	0.22	0.26	0.07
	Consuelo	271.75-279.15	5.23	1.38	0.43	0.10	0.45	0.24
HDD-2	Consuelo Split	203.38-204.55	1.17	1.17	0.11	Trace	0.13	0.01
	Consuelo	342.85-344.50	1.60	1.60	0.14	0.03	0.05	0.11
HDD-3	Consuelo Split	169.95-171.2	1.25	1.25	0.01	Trace	0.02	Trace
	Consuelo	196.42-198.00	1.58	1.58	0.03	0.05	0.15	0.01
HDD-4	Consuelo	460.45-462.9	1.73	1.50	0.80	0.20	0.13	0.84
HDD-5		No Intersection						
HDD-6	Sauco	240.75-243.42	1.89	0.8	0.29	0.02	0.34	0.01
	Santa Marta	285.3-286.1	0.8	0.7	1.66	0.64	1.76	0.98
HDD-7	Paraiso	467.45-467.72	0.27	0.27	4.83	0.26	0.90	0.15
	Paraiso Split	489.17-489.25	0.08	0.08	1.98	Trace	0.04	0.48
HDD-8	Santa Marta	302.42-303.9	1.48	1.48	0.97	0.02	0.04	0.03
HDD-9	Chabuca	434.24-435.52	0.91	0.91	0.06	0.01	0.17	0.23
	Santa Isabel	597.6-599	1.13	1.13	Trace	0.02	0.13	0.12
HDD-10	Consuelo	495.35-498.4	3.05	1.15	0.57	0.15	0.48	0.60
HDD-11	Santa Marta	360.93-363.63	1.91	0.39	0.69	0.55	1.71	5.29

HDD-12	Violeta	197.15-197.6	0.32	0.32	1.99	0.19	0.46	0.55
	Santa Marta	298.5-302.25	2.65	2.65	Trace	Trace	0.02	0.00
HDD-13	Consuelo Split	393.8-396.8	2.60	2.60	0.02	0.05	0.25	0.11
	Consuelo	401.65-405.5	3.33	1.20	0.11	0.14	0.81	0.85
	Consuelo Split	429.12-429.375	0.63	0.63	0.97	0.17	0.44	0.42
HDD-14	Santa Marta	240.8-242.3	1.30	0.60	0.24	Trace	0.02	Trace
HDD-15	Chabuca	524.3-525.55	0.88	0.88	0.02	0.05	0.26	0.93
HDD-16	Vein 2006	480.6-481.1	0.50	0.50	0.08	0.11	31.80	1.00

Drilling conditions were generally good and recoveries through the vein intersections were generally 90% or better. Table 11.0.3 is a summary of the core recoveries.

TABLE 11.0.3
CORE RECOVERIES THROUGH THE VEIN INTERSECTIONS

DRILL HOLE	INTERVAL		% RECOVERY	CORE SIZE	LITHOLOGY
	FROM (M)	TO (M)			
HDD-01	229.30	232.40	100%	NQ	Vein
	270.25	278.95	98%	NQ	Vein
HDD-2	202.90	204.55	100%	NQ	Vein
	342.65	344.50	97%	BQ	Vein
HDD-3	169.85	171.20	96%	HQ	Vein
	195.55	198.00	92%	NQ	Vein
HDD-4	460.25	462.90	89%	NQ	Vein
HDD-6	240.10	243.42	99%	HQ	Vein
	283.50	286.10	100%	HQ	Vein
HDD-7	466.50	467.72	98%	NQ	Vein
	488.00	489.25	100%	NQ	Vein
HDD-8	299.55	303.90	98%	HQ	Vein

HDD-9	432.75	435.52	98%	NQ	Vein
	595.45	598.45	100%	NQ	Vein
HDD-10	493.15	498.40	100%	NQ	Vein
HDD-11	359.60	363.63	99%	NQ	Vein
HDD-12	195.95	197.60	100%	HQ	Vein
	297.50	301.65	99%	NQ	Vein
HDD-13	391.90	396.80	99%	NQ	Vein
	400.70	405.50	97%	NQ	Vein
	427.90	429.38	100%	NQ	Vein
HDD-14	239.30	242.30	91%	HQ	Vein
HDD-15	522.35	525.55	100%	NQ	Vein
HDD-16	479.60	481.10	100%	NQ	Vein

The drilling program was very successful in that it had 24 mineralized vein intersections in the 16 holes. Twelve, or half, of the intersections assayed greater than 0.25% WO₃. In addition, several veins not known to have significant grade, contained ore-grade tungsten. These included the Santa Marta Vein, the Violeta Vein, the Paraiso Vein, and the Sauco Vein. Core drilling from the surface is an effective and efficient way to test for the presence of veins in new areas and can be a way of establishing the presence of grade but not the lateral and vertical extent of mineralization without very detailed drilling. Figures 11.0.3 and 11.0.4 are maps of Levels 10 and 12, respectively, in the mine showing the main named veins, the workings, and the drill hole intersections in the area of the level. Level 10 is 100 m above level 12. A cross-section of drill holes HDD-1 and HDD-4 with the intersections of the Consuelo vein and Consuelo Split is shown on Figure 11.0.2.

Figure 11.0.3: Map of Level 10

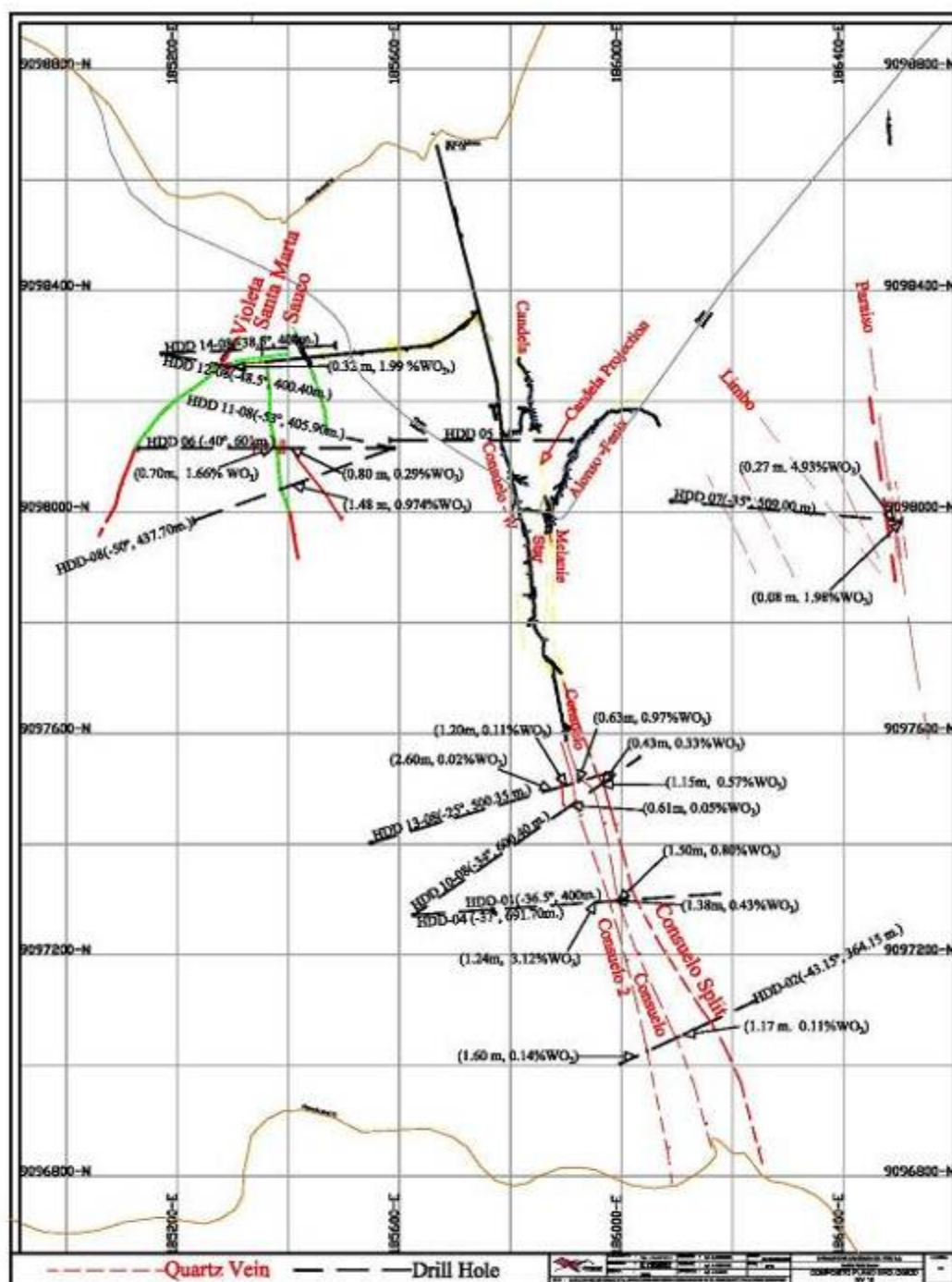
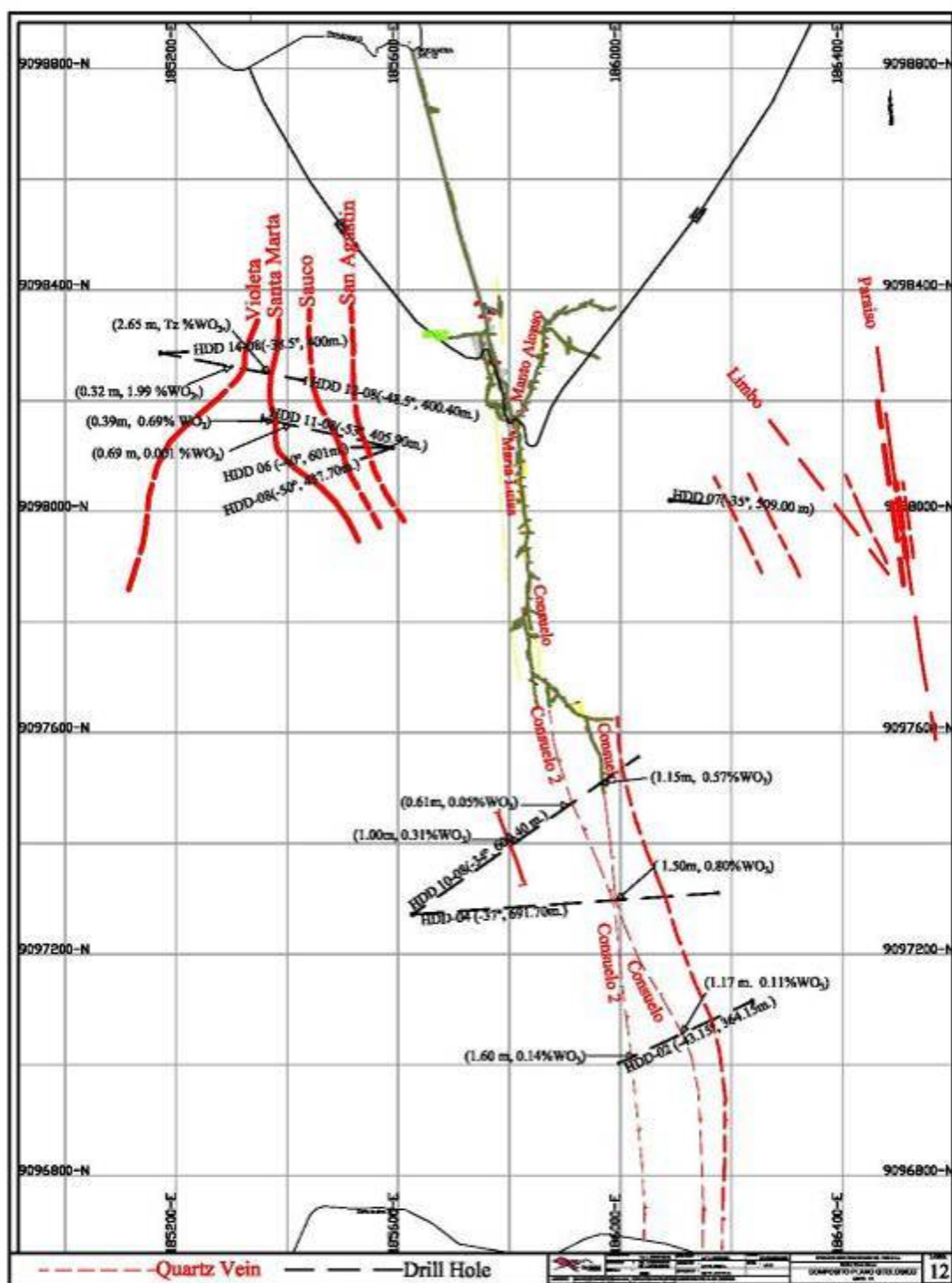


Figure 11.0.4: Map of Level 12



The cost of the core drilling program, according to budgets supplied by the Company, was \$976,666.25, or about \$126 per meter.

12.0 SAMPLING METHOD AND APPROACH

The primary exploration method on this property is direct underground sampling of the vein. A drift is driven along a vein and samples are collected every two meters across the vein exposed in the back of the drift to evaluate the tungsten content. Raises are also driven into the vein and the vein is sampled along the sides of the raise to evaluate the tungsten content of the veins. As the vein is developed, drifts are driven on levels 50 m apart. When the grade between levels is consistent, raises are driven on 50-meter centers between levels to define a block that has been sampled on all four sides.

The results of this sampling provide the data for the calculation of resources and reserves. This sampling has evolved and been improved since 2005 when MI acquired the property. This evolution has resulted in three sets of data that have been accumulated from this sampling work. They are:

4. Sampling completed by MI prior to April 2006 and assayed by SGS laboratories in Peru. The sampling layout and security of this sampling is in part unknown. The assay technique was fusion with sodium peroxide and analysis by ICPMS. Results of this sampling were reported in the report "Report on the Reserves of the Pasto Bueno Mine Project," dated April 24th 2006, by Marc Leduc and Gary Parkinson, both QP's, of Vector. This report was not filed on SEDAR or utilized by MI for any activities on the Exchanges. All the vein areas sampled by this program were mined prior to the writing of this report.
5. Sampling completed by MI after August 2006 and assayed by the laboratory at the mine in support of development and production. The assay technique was sodium peroxide fusion with colorimetric analysis for the tungsten content. This work is ongoing as production continues. There is a QA/QC protocol in place for these samples that is compliant with NI 43-101 requirements. This protocol was established

by Alain Beauregard, a QP. The sampling was supervised by the Chief Geologist, Alonso Sanchez, C.P.G., for MI.

6. Sampling completed by MI after August 2006 and assayed by ALS Chemex using either a metaborate fusion or a pressed pellet preparation with XRF analyses. The metaborate fusion is used on those samples with WO_3 contents greater than one percent. There was a QA/QC protocol in place for these samples that is compliant with NI 43-101 requirements. This protocol was established by Alain Beauregard, a QP. The sampling was supervised by the Chief Geologist, Alonso Sanchez, C.P.G., for MI.

12.1 Sampling Assayed by SGS

In late 2005, MI completed an extensive program of drift, raise, and stope sampling and sent the samples to the SGS laboratory in Lima, Peru for assay. The discussion here is presented for historical perspective. All areas sampled by this program have been mined. Leduc and Parkinson (2006) report the channel sampling was done in the tunnels/drifts, the raises and the stopes every 2 meters. Reportedly, each sample was from a channel 30 cm deep and 50 cm wide cut perpendicular across the width of the vein. Current mine personnel, who did not observe the sampling, doubt the reported size of the channels. Taking samples this size would be time consuming and produce a sample of at least 40 kg. There is no report as to sampling technique or QA/QC procedures in place for the sampling and assaying. SGS is a reputable lab and the assay results reported by them for these samples are likely to be representative of the tungsten content of the samples. Because of the lack of sampling and QA/QC protocols, these samples are not in compliance with NI 43-101 requirements. SGS utilized an assay technique of sodium peroxide fusion of the pulped sample with analysis by ICPMS.

12.2 Sampling after August 2006 Assayed by the Mine

In August 2006, Alain Beauregard and the Chief Geologist for Dynacor, Alonso Sánchez, developed sampling and QA/QC protocols to meet industry standards and fulfill the requirements of NI 43-101. These included definition of the sample

technique, security of the samples, and a system of assay checks using blanks and standards. A description of the procedure is as follows:

1. Once a drift or raise is started on a vein, sampling is continuous with advance. Mine surveyors establish a control point at the workings entrance. Sample locations are measured in meters from that point and given designations that include the name of the vein plus the distance from the survey point (i.e. Chabuca 1N+8). To sample a raise (chimney), the sampler climbs the ladder in the chimney and samples one meter above the drift crown to one side of the ladder. The sample is taken horizontally across the entire vein width in the same manner as drift sampling is performed. The next sample is taken one meter above that point from the opposite side of the chimney. The sampler progresses up the chimney alternating sides every meter until the entire chimney has been sampled.
2. The geologists map the drift or raise at a scale of 1:500. As part of the mapping, the geologist estimates the relative amount of visible tungsten as a series of plus signs (+).
3. The sample locations are outlined by the geologist on the drift back or raise walls using carbon black from a carbide lamp. The width of the sample is generally 5 cm and the length is based on the actual vein width but never exceeds 1.2 meters. Sample weight is generally between 3 and 4 kilograms.
4. Once the sample is marked, the area inside the carbon black outline is painted red with a paint brush and latex paint.
5. The sampler then takes the sample using a pointed chisel and hammer. He must remove all the red paint inside the carbon black outline in order to take a good sample. Typically the sample is 1 to 3 cm deep. The sample is caught on a tarp. The sampler is supervised by a mine geologist.
6. Once the sample is taken, it is immediately placed into a plastic bag along with a sample tag with a unique sample number from a sample pad and sealed with staples. The sample number is written in marker on the bag. The sample is then placed in the sampler's backpack and he proceeds to the next sample location. The geologist repaints the sample outline with red paint and marks the sample number on the rib. In the case of multiple samples from a single location, they are designated left and right and, if necessary, middle but all have a unique sample number which does not reflect the location of the sample. The geologist notes the location on the sample stub and makes any notes he considers important.

7. At the end of the sampling day, the sampler takes the samples from the mine and hands them to a driver who delivers them to the mine lab for preparation and assay. If the sample is going to be taken to an outside lab for assay, the driver places it in a larger bag with other samples (approximately 10 samples per bag). The bag is sealed with a zip tie and placed in the driver's office under lock. Only the driver and the chief geologist have access to these samples prior to delivery to the outside lab.

The mine assays these samples using a sodium peroxide fusion with a colorimetric analysis. A description of the assay procedure used by the Mine lab is in Section 13.0 of this report.

12.3 Sampling after August 2006 Assayed by ALS Chemex

In order to produce sampling results that were NI 43-101 compliant, MI began sending samples from the underground sampling to ALS Chemex for assay. They also took duplicate samples that have been submitted to both the Mine lab and ALS Chemex and samples submitted only to ALS Chemex.

The sample procedure is the same as described in Section 12.2 for steps 1 through 5. In step 6, the samples are delivered to the driver who places them in larger bags, approximately 10 samples to the larger bag and that bag is sealed with a plastic zip tie. The larger bags are stored in the driver's office under lock until they are transported to the ALS Chemex lab in Lima, Peru either by the driver or the chief geologist. Only the driver and the chief geologist have access to the samples while stored at the mine prior to transport.

12.4 Discussion of Sampling

Tungsten is a resistate mineral that is difficult to take into solution. Methods of taking the tungsten into a form for assay include acid digestion, fusion with sodium peroxide or lithium metaborate or pressed pellet. Only the fusion and pressed pellet methods assure all the tungsten is taken into a form that can be assayed. Methods of assay include colorimetric, ICPMS, and XRF. The XRF method of analysis is considered by most in the industry to be the most accurate and

reproducible method when used with a pressed pellet or aggressive method of fusion for preparation. However, the author's experience is that the ICPMS method works well and, at times, may yield better, reproducible results than XRF method. The potential for error in the colorimetric and ICPMS methods is manifest in the procedure of taking the tungsten into solution from the flux so it can be analyzed. This is a step where a consistent sample bias may be introduced. Sample preparation can introduce a random bias into the sample assay procedure if care is not taken to fully clean the crushing and pulverizing equipment.

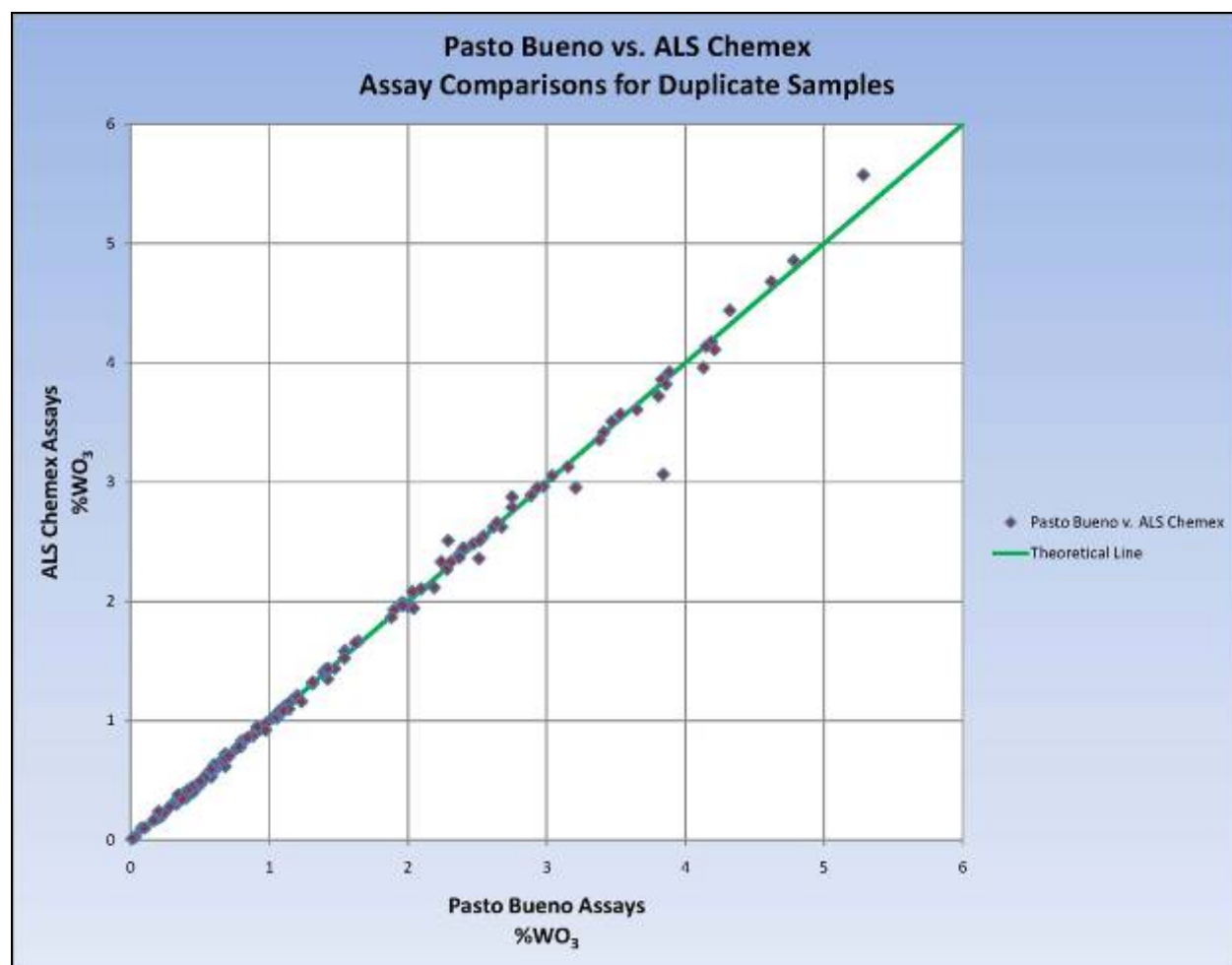
Table 12.4.1 is a summary of the duplicates assayed by both the Pasto Bueno lab and ALS Chemex. There were 146 samples that were duplicate samples sent to both labs.

TABLE 12.4.1
COMPARISON OF DUPLICATE ASSAY RESULTS

	PASTO BUENO LAB	ALS CHEMEX RESULTS				
	WO₃ %	WO₃ %	Cu %	Pb %	Zn %	Ag (oz)
Average Grade	1.52	1.52	1.01	1.16	0.33	3.13
Standard Deviation	1.24	1.23	---	---	---	---

Figure 12.4.1 is a plot of the duplicate sample data with ALS Chemex on the Y-axis and the Pasto Bueno data on the X-axis. The cluster of points falls close to the 45° line with only a few points visibly separated from the line. This is a good validation of the Pasto Bueno lab.

Figure 12.4.1 Comparison of Assay Duplicates from Pasto Bueno and ALS Chemex Labs



The Pasto Bueno lab did not assay for silver or the base metals. The ALS Chemex assays demonstrate the base metals and silver contents. These metals are currently not being recovered. The complete results are shown in Appendix B.

12.5 Discussion on the representative nature of the samples

As stated earlier sampling of drift backs and raise walls is the primary exploration tool, the primary development tool, and a guide to production. It is a very critical part of the overall operation. The sampling technique and the QA/QC procedures should, in the authors' experience, yield representative samples of the in-place mineralization. The sampling procedures as described by The Company personnel

do not appear to introduce any biases in the results. The sampling method is compatible with the mining method being used.

13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

Sample collection protocol and security have been discussed in Section 12.0. This section will review the various lab preparation protocols and the representative nature of the results.

In the author's experience, producing accurate assays for tungsten can be difficult using traditional methods of various gravimetric techniques or colorimetric techniques because of the difficulty of taking the tungsten oxides into solution. The assay techniques of fusion or pressed pellet with XRF or ICPMS analysis used today are the preferred methods of assay as they are much more effective in dealing with the resistate nature of tungsten oxides, thus producing the most consistent results. Sample preparation and analysis can both introduce biases between the results from different labs. Below are the preparation and analysis protocols used by the Pasto Bueno lab and the ALS Chemex lab.

13.1 Pasto Bueno Lab Protocols

The following procedures are used by The Pasto Bueno lab in assaying the samples for tungsten:

1. The sample is received, verified against the submittal memorandum and dried.
2. The sample is crushed in a jaw crusher to -1/4 inch.
3. The crushed sample is split using a riffle splitter to obtain a representative 120- to 130-gram sample.
4. The 120- to 130-gram split is pulverized to -100 mesh using a ring and puck pulverizer.
5. The sample is rolled on a canvas to thoroughly mix it.

6. A scoop of 0.5 to 1.0 g is taken and mixed with a sodium peroxide flux and fluxed at 800°C. At this point, control samples and blanks are added to the sample stream.
7. After cooling, the samples are removed from the flux crucible and placed in glass precipitation beakers and covered with boiling water.
8. A portion of the liquid is drawn off and mixed with HCL and SnCl_2 , NH_4SCN , and TiCl_3 .
9. Analysis is by a Photocolorimeter Spectronic 20D-Milton Roy calibrated to a set of standards produced by Alfred-Knight laboratory in Lima, Peru. A computer is used to calculate the WO_3 content by comparing the absorption of the sample against the absorption of the standards.

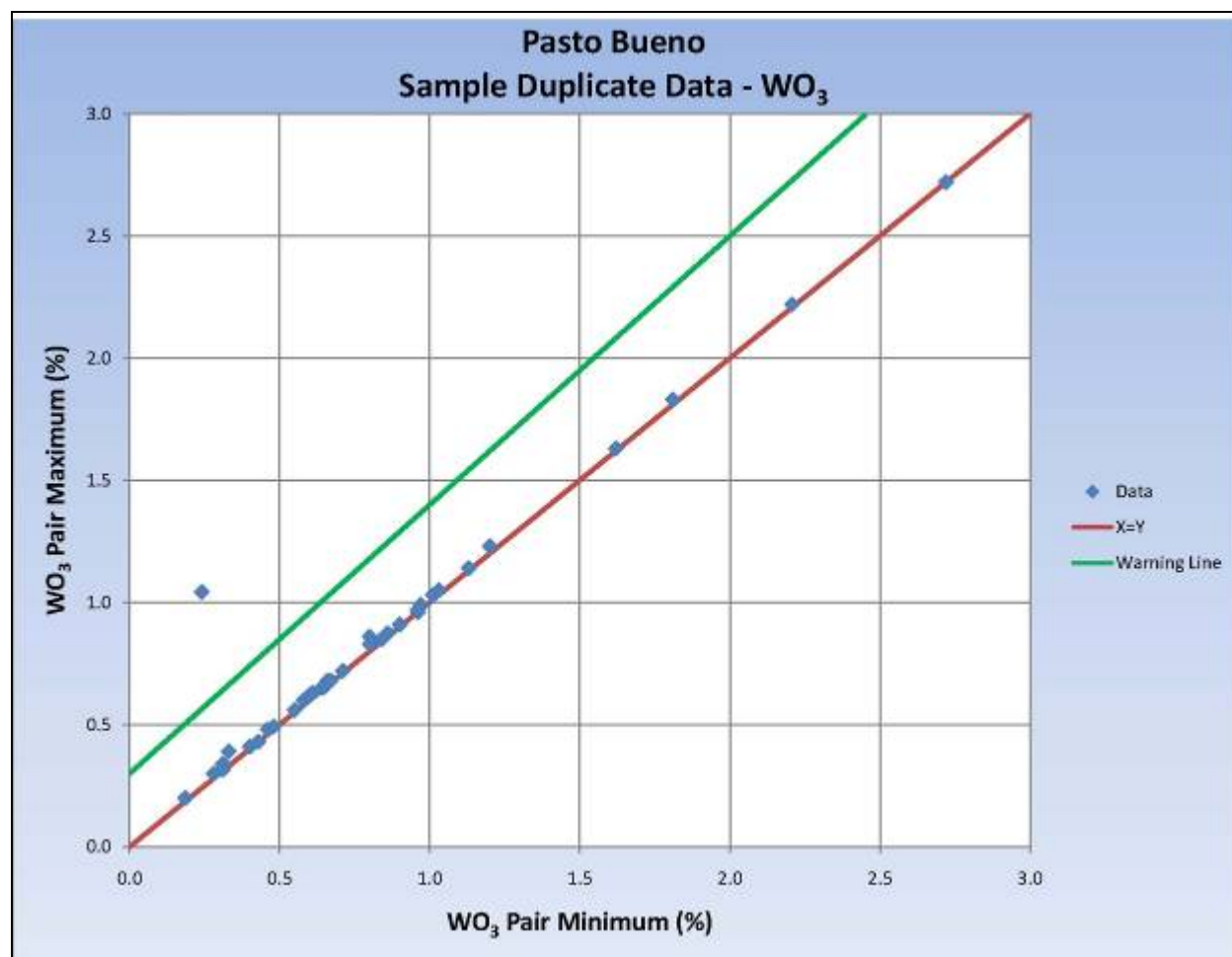
The results from 148 blanks, duplicates, and standards assayed by the Pasto Bueno lab were given to the authors (Appendix B). Of these 148 tests, there were 35 blanks, 35 duplicates (70 assays), and 43 standards. In addition there are Pasto Bueno assays of standards obtained from Alfred Knight Labs.

A review of the blanks and standard run by the Pasto Bueno lab shows good correlation with the expected results. Figure 13.1.1 shows a plot of the duplicate sample results. The red line is the expected results and the green line is a warning line. The formula of the green line is:

$$y=1.1x+0.30,$$

where 1.1 is a slope that approximates $\pm 10\%$ relative error and the constant, 0.30, is approximately 30 times the normal detection limit for WO_3 above which precision is normally somewhat constant. As can be seen from the graph, the Pasto Bueno lab has excellent reproducible results.

Figure 13.1.1 Pasto Bueno lab Sample Duplicate Data for WO_3



The Pasto Bueno lab uses tungsten standards purchased from Alfred Knight Laboratory in Lima, Peru to standardize their colorimetric assay procedure. Figure 13.1.2 is a graph of the Pasto Bueno assay results of these standards plotted against the reported value from the Alfred Knight Lab. Those samples containing 1% WO_3 and below are averages of six individual assays for each sample while those above 1% are single assays of the standard sample. The results confirm the quality of the assays from the Pasto Bueno lab. There is an indication of potential problems at tungsten grades above 10%. This may be a function of the colorimetric equipment. Figure 13.1.3, a log normal probability plot of the sample data from the veins shows that the tungsten value of 3.8% is approximately two standard deviations

above the median; thus the values above 10% represent a very small portion of the sample population. This issue should be investigated further as a part of any feasibility studies.

Figure 13.1.2 Comparison of Assay Standards from Pasto Bueno and Alfred Knight Laboratories

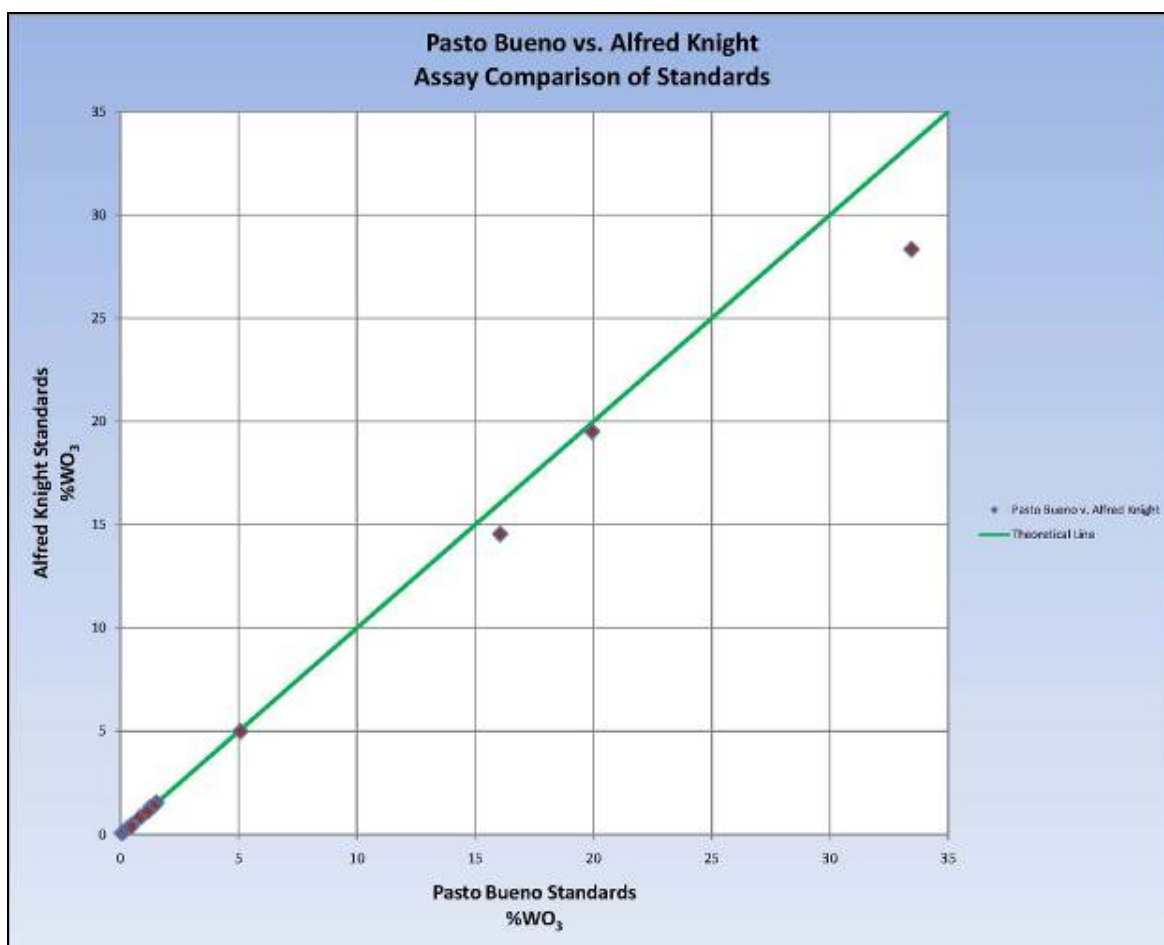
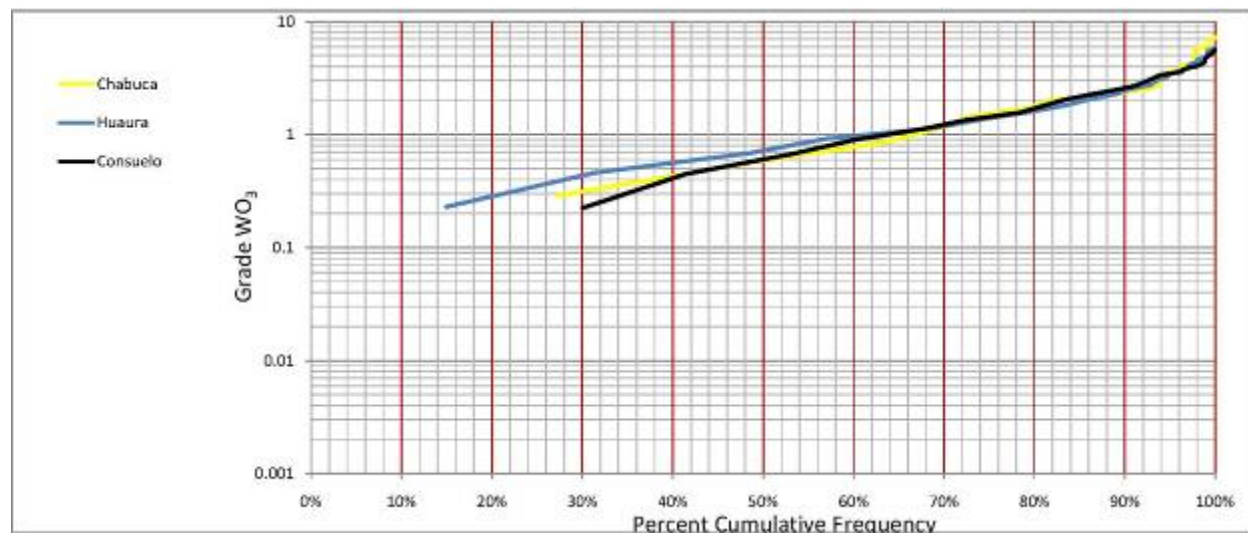


Figure 13.1.3 Log Normal Cumulative Frequency Plot of Assay Results from Selected Veins



13.2 ALS Chemex Lab Protocols

The following procedures are used by ALS Chemex in assaying the samples for tungsten:

1. Sample is received from MI, logged in and weighed (LOG-22).
2. Sample is fine crushed to 70% -2.0 mm or better (CRU-31).
3. A 250 gram split is removed using a riffle splitter (SPL-21).
4. The 250 gram split is pulped using a ring and puck pulverizer to 85% passing 75 microns (PUL-31).
5. Initial assay using XRF with a pressed pellet (ME XRF-05) 10 to 10,000 ppm WO₃.
6. High grade assay using XRF with a lithium metaborate fusion (ME XRF-10) 0.01 to 50%.
7. XRF with pressed pellet or aggressive fusion is considered to be the most accurate method of determining the grade of tungsten in a sample.

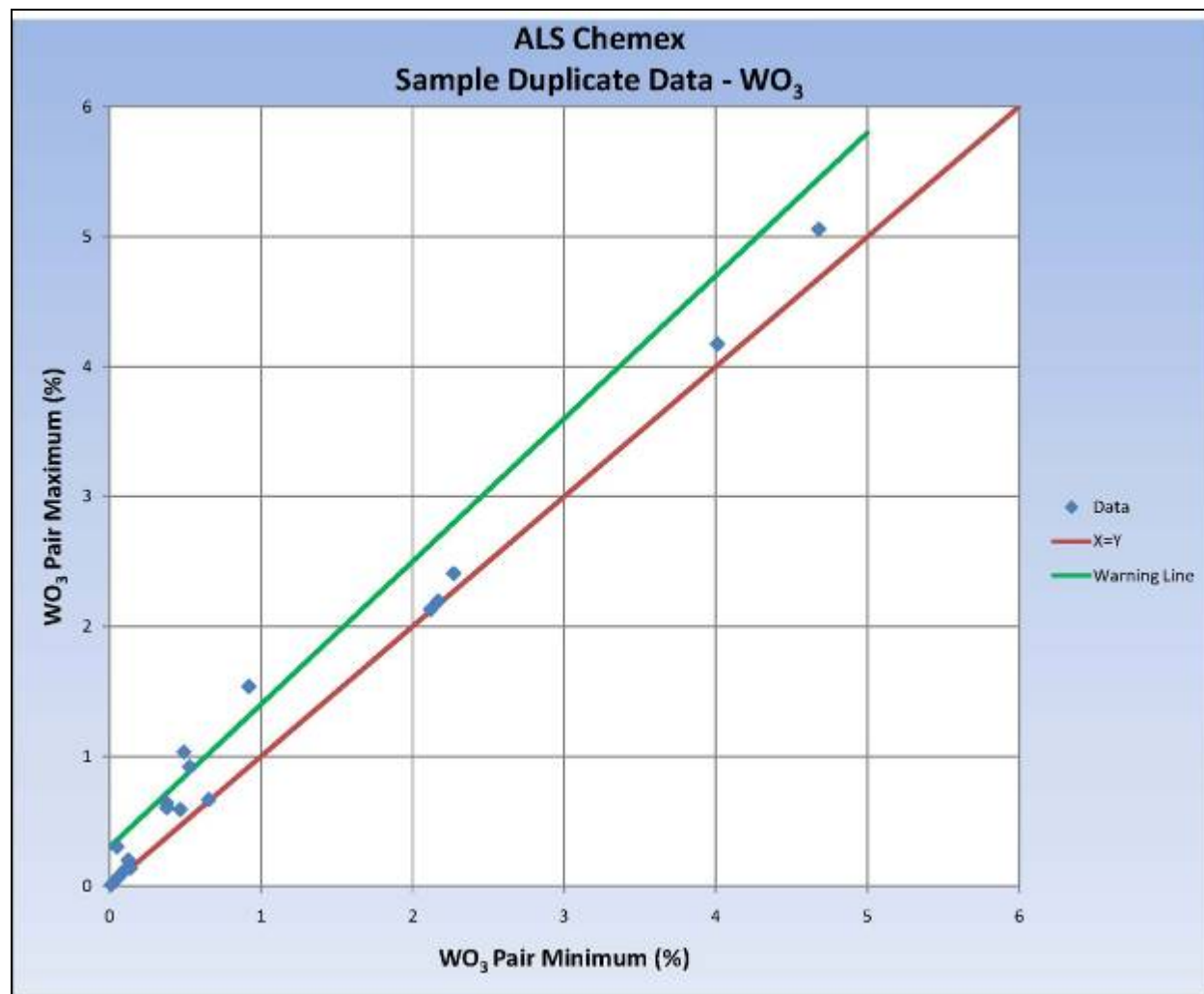
QA/QC samples submitted to ALS Chemex included 18 blanks, 17 duplicates (34 samples) and 18 standards (Appendix B). The results of the blanks and standards are consistent and within the standards of the industry.

Figure 13.2.1 is a graph of the duplicates of the samples assayed by Chemex. The red line is the expected results and the green line is a warning line. The formula of the green line is:

$$y=1.1x+0.30,$$

where 1.1 is a slope that approximates $\pm 10\%$ relative error and the constant, 0.30, is approximately 30 times the normal detection limit for W_0_3 above which precision is normally somewhat constant. Chemex appears to have some problems with duplicate samples. Chemex uses XRF with a pressed pellet for samples with less than 1% W and WRF with metaborate fusion for samples assaying greater than 1% W. It appears problems with both assay techniques exist around the 1% limit.

Figure 13.2.1 ALS Chemex Lab Sample Duplicate Data for WO_3



13.3 Discussion of QA/QC Data

The quality of the sample preparation, security and integrity, and analysis of the samples by ALS Chemex and the Pasto Bueno labs meets or exceeds those of the industry and of NI 43-101.

It is the authors' experience that tungsten assay results can vary considerably between labs. At Pasto Bueno there appears to be excellent agreement between the assays of the Pasto Bueno lab and the ALS Chemex labs even given the two different assay methods.

In order to maintain consistency, assay results from only one lab were used to estimate resources and reserves. The prefeasibility study used only assays from the Mine Lab as they provided analyses for all steps of the project from mine samples to mill head samples to tailings samples. This results in consistency throughout the operation.

14.0 DATA VERIFICATION

Vector has completed two separate verification sampling studies, in 2005 and again in 2009.

Marc Leduc, P. Eng., of Vector, visited the site on August 2nd and 3rd, 2005 and completed a program of check sampling for different mining blocks that had been identified by the Pasto Bueno geology group. Leduc (2006) states “the samples are not meant to represent in any way the average block grades as the samples were taken only in locations where miners could safely chip a sample from the working face. There were many areas of the mine that were not accessible for sampling because the vein was blocked off by timber supports. The sample, Vector 1, represents a duplicate sample of VB-401B and sample Vector 2 represents a sample of sterile Chicama shale taken 150 m east of the Level 10 portal.” Most or all of these areas were mined prior to writing this report.

TABLE 14.0.1
RESULTS OF CHECK SAMPLES TAKEN BY VECTOR DURING PREVIOUS
SITE VISIT IN AUGUST 2005

SAMPLE DESRIPTION N	SAMPLE WIDTH (m)	Au (ppm)	Cu (%)	Ag (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Sb (ppm)	W (%)
VB-406	1.8	0.007	1.39	77	1080	6690	4060	>1000	5.45
VA-405	3.0	<0.005	0.53	36	424	2250	1240	>1000	12.05

VB-404	2.1	0.024	1.72	59	1110	15600	3440	>1000	12.75
VB-403	1.8	0.018	1.18	98	2320	2800	1790	>1000	21.6
VB-401A	2.2	0.074	2.43	24	8160	10700	3370	>1000	5.67
VB-401B	2.9	0.008	0.13	15	361	17400	209	354	1.22
VB-400	2.9	<0.005	0.1	12	347	1115	430	396	2.67
VECTOR 1	3.0	0.009	0.2	21	451	23100	360	614	0.64
VB-070	2.2	0.011	0.68	67	3070	2790	957	>1000	18.5
VA-190	1.9	0.037	2.44	166	12200	22300	2120	>1000	7.8
VB-407A	2.3	0.01	0.34	56	821	7200	686	654	11.85
VB-407B	2.9	0.019	0.61	39	229	15000	2430	>1000	4.09
VB-246S	1.6	0.007	4.78	42	4170	12600	>10000	>1000	11.55
VB-140	2.0	0.029	8.61	64	28000	73700	>10000	>1000	5.91
VB-407C	1.8	0.008	0.83	77	5130	13300	2520	>1000	0.46
VB-407D	1.2	<0.005	0.56	37	1880	3460	2030	>1000	2.78
VECTOR 2	Waste Grab	<0.005	0.01	1	36	114	49	10	<0.01

The results seen above in Table 14.0.1 show that all the vein material sampled had significant grades of tungsten, copper and zinc.

At the time, the samples were taken under the direct supervision of Vector and were sealed and placed in a secure bucket. Samples were in the control of Vector the entire time and strict chain of custody procedures was maintained. The samples were analyzed at the ALS-Chemex lab in Lima Peru (Leduc and Parkinson, 2006) (Assay certificates are in Appendix C).

In January 2006, additional verification sampling for this report was completed by Vector personnel from the Vector office in Lima, Peru under the supervision of Richard Kehmeier, C.P.G., and the Chief Geologist for Malaga, Alonso Sánchez C.P.G. A total of ten channel samples were taken from various veins within the mine. The sampling procedure of the mine was followed as described in Section 12.2 above. The samples remained in Vector's possession until delivered to the ALS Chemex lab in Lima, Peru. The locations were chosen to duplicate channel samples taken by the mine staff and assayed by the mine lab. Table 14.0.2 is a summary of the assay results for the verification samples taken by Vector in January 2009. The samples were assayed by ALS Chemex using XRF with pressed pellet or metaborate fusion for those samples containing greater than 1.0% W (1.26% WO₃).

TABLE 14.0.2
VECTOR 2009 VERIFICATION SAMPLING

Nº	SAMPLE TYPE	SAMPL E NO.	SAMPLE LENGTH (m)	% WO ₃ PASTO BUENO	VECTO R ASSAY	VEIN	LEVE L	BLOC K	LABOR
1	Blank	8200	---	No Assay	<0.01	---	---	---	---
2	Channel	8201	1.2	1.28	1.54	Consuelo	8	55	s/n 610
3	Channel	8202	1.2	0.7	1.13	Consuelo	12	55	s/n 610
4	Standard 1.54 %WO ₃	9083	---	No Assay	1.40	---	---	---	---
5	Channel	9084	1	0.01	0.11	Candela	10	1	s/n 200-2 cam 2
6	Channel	9085	0.9	10.3	0.57	Candela	10	1	s/n 200-2 cam 2
7	Channel	11693	0.5	1.04	0.21	Candela	10	1	s/n 200-2-N
8	Channel	12078	1	3.99	2.06	Consuelo	12	15	s/n 035
9	Channel	12083	1.1	0.78	0.96	Consuelo	12	15	s/n 035
10	Channel	12250	0.5	3.91	0.84	Alonso-Fenix	12	6 , 8	s/n 300 A-N

11	Standard 0.06 %WO ₃	12251	---	No Assay	0.05	---	---	---	---
12	Channel	12253	1	0.95	0.66	Chabuca	8	4	Gal 645-S
13	Channel	12269	1.2	0.5	2.38	Candela	10	1	s/n 200-2 S
14	Channel	12270	1	2.75	1.34	Alonso- Fenix	12	18	s/n 300 A-N
15	Channel	12271	0.6	16.14	16.96	Alonso- Fenix	12	18	s/n 300 A-N
16	Channel	12272	1.1	0.87	0.11	Chabuca	8	4	Gal 645-S
17	Blank	12273	---	No Assay	<0.01	---	---	---	---
Average				3.32	2.22	Red sample numbers not included in averages			
Standard Dev.				4.72	4.48				

As can be seen in the preceding table there is some significant variation between the tungsten values reported by the mine lab and those reported by ALS Chemex for Vector. Previous work has shown a good correlation between duplicates assayed by both the mine lab and ALS Chemex. The high variability between the samples assayed by the mine and ALS Chemex is likely the result of the variability in the distribution of mineralization in the veins. The high standard deviation results, at least in part, from choosing sample location whose tungsten content ranged from quite low to very high. Although the number of samples is too low to arrive at any solid conclusions, this sampling data suggests there may indeed be a nugget effect that has not been apparent in the previously reported duplicate samples. A detailed sampling program designed to look at the distribution of mineralization in the veins would be necessary to define a possible nugget effect. It is recommended that as a part of the overall sampling program a number of samples based on the vein geology and not overall vein width be taken to better understand the distribution of tungsten in the veins.

The verification sampling does confirm the presence of ore grade tungsten. But there is insufficient data to fully understand the distribution of tungsten in the veins. While it is possible there is a nugget effect in the distribution of the methods of compositing the data to estimate global resources and reserves for the individual blocks, minimizes the nugget effect and the reported grades should be globally representative of the tungsten content of the various blocks.

In the prefeasibility study (Vector, 2009) capping of high grade values was reviewed and the following conclusions were reached:

Capping of high grade values was reviewed by looking at the variation in global grade between no capping and capping values over 3.8% WO₃, the 96th percentile on Figure 13.1.3 at 3.8 % WO₃. The data used was the undiluted individual assays reported by the mine lab for the vein sampling using a weighted average based on length. The average grade for uncapped values was 1.10% WO₃. The average grade using capped values was 1.06% WO₃. This is a difference of slightly less than 4%. As this is well within the variability of a prefeasibility study, the assays were not capped in any of the resource and reserve estimates. It is recommended that detailed sampling within the veins be done prior to any feasibility study to better understand the distribution of the mineralization on a local scale.

15.0 ADJACENT PROPERTIES

There are currently no active adjacent mineral properties. The property position of MI does not cover all the known veins and mineralization but the status, including ownership, of any adjacent property is unknown to the authors.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

There is an operating mineral processing plant on the property that is currently processing 250 tonnes of ore per day. The mill produces a concentrate averaging 75% WO₃. A list of current flow sheet equipment is shown in Table 16.0.1. The flow sheet for Phase III (see also Section 23.10, Mine Life) of the plan for the mill is shown below in Figure 16.0.1. The mill is currently reporting recoveries between 80% and 84% WO₃, but does not recover additional base or precious metals. The mill utilizes gravity separation with jigs, tables and spirals to produce a wolframite concentrate.

The ore from the mine is fed into a cone crusher. The crushed ore passes over a 1.5-inch screen. The undersize goes to a series of jigs that recover about 60% of the wolframite as a coarse product. The oversize and the jig tails go into a rod mill. The product from the rod mill passes over a series of tables producing a tungsten/sulphide concentrate. This concentrate is fed into a series of small flotation cells and the sulphide is removed by flotation and sent to tails. The product is then dried and run through a magnetic separator for the final processing. Plans are to expand the mill to 500 Tpd using a similar flowsheet. MI personnel indicated to the authors that they had done no metallurgical testing to determine if the current flowsheet for the planned expansion is indeed the optimum flowsheet for this mineralization. Figure 16.0.1 shows a simplified flow diagram of the proposed mill expansion to 500 tonnes per day.

Currently, there is no recovery of any sulphide minerals. Assay results from ALS Chemex show there is significant silver and copper in the ore probably as tetrahedrite/ tennantite. The assay results from ALS Chemex indicate that material mined at and above the average grade of production contains, on average, over three ounces of silver per tonne and 1.4% copper (Appendix B).

Figure 16.0.1: Proposed Mill Expansion Flow Diagram

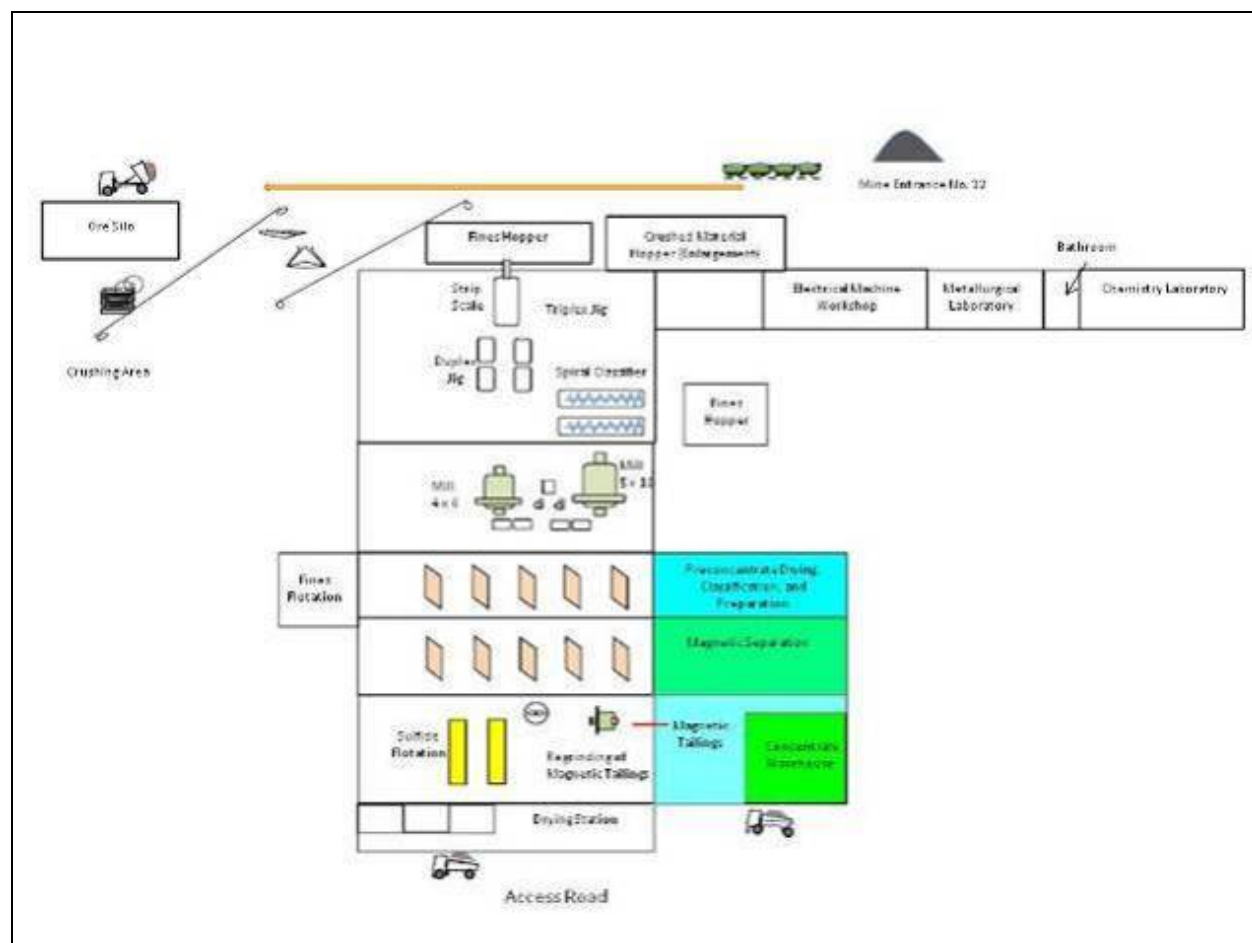


Table 16.0.1 lists the processing equipment that the plant is currently using. The table also lists photographs that illustrate aspects of the processing procedure and offers correlation to specific equipment. The photographs can be found in Appendix E.

TABLE 16.0.1
CURRENT MILL PROCESSING EQUIPMENT

Nº	EQUIPMENT	PHOTOGRAPH Nº
1	Coarse Hopper	---
2	Vibratory Feeder 30in x 72in	8
3	Jaw Crusher 10in x 24in	---
4	Symons Secondary Crusher, 2' Short Head	10
5	Conveyor Belt Nº1 (20m x 20in x ½in)	10
6	Conveyor Belt Nº2 (17m x 20in x ½in)	10
7	Zaranda Vibrator Nº1 Double Deck (¾in , ⅝in)	---
8	Denver Jigs Nº3 (18in x 24in)	---
9	Denver Jigs Nº4 (18in x 24in)	---
10	Helical Classifier (36in)	---
11	Denver Jigs Nº1 (12in x 18in)	9
12	Denver Jigs Nº2 (12in x 18in)	9
13	Conveyor Belt Nº3 (10m x 18in x ½in)	---
14	Fines Hopper	11
15	Conveyor Belt Nº4 (7m x 18in x ½in) Discharge Chute for Fines	---
16	Conveyor Belt Nº5 (10m x 18in x ½in) Feed to Zaranda Nº2	---
17	Denver Jigs Nº5 (12in x 18in)	---
18	Zaranda Vibrator Nº2 (¾in) Feed to Mill	---
19	Bar Mill (5ft x 10ft)	12
20	Denver Jigs Nº6 (18in x 24in)	---
21	Denver Jigs Nº7 (12in x 18in)	12
22	Denver Jigs Nº8 (12in x 18in)	---
23	Denver Jigs Nº9 (18in x 24in)	---
24	Pulp Pump Nº1 (3in x 4in)	---
25	Pulp Pump Nº2 (3in x 4in)	---
26	Auger	---
27	10-inch Hydrocyclonic Classifier (2mm) Nº1	---
28	10-inch Hydrocyclonic Classifier (3mm) Nº2	12
29	Table Vibrators Bank A (Nº1, 2, 3, 4, 5)	12

30	Table Vibrators Bank B (№6, 7, 8, 9, 10)	---
31	Flotation Bank №1	14
32	Tailings Recovery Vault №1	---
33	Flotation Bank	---
34	Tailings Recovery Vault №2	---
35	Concentrate Drier	15

17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

17.1 Historic Production

The Pasto Bueno Mine has had historical production spanning the past nearly 100 years. Much of this production, which totals 6,000,000 tonnes producing 42,000 tonnes of concentrate containing 75% WO₃, comes from the upper levels of veins currently being explored and exploited by The Company. Significant old workings are shown on the long sections of the various veins above or adjacent to the current areas of work (Appendix D).

It is important to note that the mine was worked until the early 1990s when the mine closed. The operations ceased because of low tungsten prices and civil unrest. It did not close because of ore depletion. Historically, very little exploration of any significance was conducted. It is only now that exploration has been initiated in earnest.

17.2 Historic Resources

When MI obtained the property, it began a program to explore the veins while producing ore and tungsten concentrate at a reduced rate until the mill processing plant could be restored to operational condition. The restored mill would support an increase in the production rate allowing exploration at a level that would not only replace the mined reserves but increase total reserves. MI is now at that level of exploration activity.

In the August 2006 report Leduc and Parkinson reports the following:

In the October 2005 resource estimation report the mineralization was reported as an Inferred Resource because there has been no systematic re-sampling of the vein or a system of assay verification put in place. The estimation was simply based on past data reported by the mine during previous operations and with site knowledge on historic production grades that can be expected given visual estimation. This situation has been rectified by Dynacor undertaking a program of sampling the existing mine workings where they took 432 underground chip samples.

The existence of ore grade mineralization was substantiated by the independent sampling performed by Vector during the August 2005 visit. The extent and width of each block was also verified by Vector during the August 2005 site visit. We therefore feel confident that the tonnages and existence of vein material are warranted. Further, now that there are samples of the underground workings that have been analyzed in a certified third party lab, we are confident that the grade estimate is up to current industry standards.

17.3 Historic Reserves

There are no references to any reserve estimates prior to February, 2001 that can be considered historic reserves.

17.4 Resource Estimate

A mineral resource has been estimated for the Pasto Bueno property using the mineral resource categories of inferred resources, indicated resources, and measured resources as defined by NI 43-101 and the CIM. The results are given in Table 17.0.1. This mineral resource estimate is current as of December 1, 2008. The sampling that supports this resource estimate was assayed by the Mine lab. Sections 12.0 and 13.0 of this report are an extensive discussion of the sampling methods and assay results. The conclusion of that discussion is that the sampling

and QA/QC procedures at the mine are well documented, consistent with industry standards and NI 43-101 requirements and are considered by the authors to be representative of the tungsten content of the veins.

The authors consider the mineral resources, shown in Tables 17.4.1 and 17.4.2 to be NI 43-101 compliant. Table 17.4.1 shows the resources by category and includes the average undiluted grade. The inferred resource does not include the indicated and measured resource. Table 17.4.2 shows the measured resource data broken down by vein and block. Table 17.4.3 shows the indicated resource by vein and block.

TABLE 17.4.1
PASTO BUENO RESOURCES

RESOURCE CATEGORY	METRIC TONNES	GRADE (% WO ₃)
Inferred	1,204,000	0.82
Indicated	106,844	0.98
Measured	35,646	1.28
Indicated + Measured	142,490	1.05

The resources were estimated by Richard J. Kehmeier, M.Sc., CPG, and coauthor of this report. Mr. Kehmeier is an independent as defined by NI 43-101 from MI, Dynacor, or any of their subsidiaries.

TABLE 17.4.2
PASTO BUENO MEASURED RESOURCES BY VEIN AND BLOCK

VEIN NAME	BLOCK #	NO DILUTION				
		THICKNES S	ARE A	T.F.	TONNES	GRAD E
Candela Techo	2	1.09	679	2.8	2071	0.87
Candela Techo	1	1.07	763	2.8	2275	0.97
Candela	6	1.18	310	2.8	1024	1.07
Candela	5	0.99	136	2.8	377	0.85
Candela	3	0.83	83	2.8	193	1.27
Alonso-Fenix	22	1.10	440	2.8	1355	0.85

Alonso-Fenix	19	1.00	389	2.8	1089	1.73
Alonso-Fenix	16	1.19	334	2.8	1113	1.15
Alonso-Fenix	6	0.94	722	2.8	1900	0.99
Alonso-Fenix	5	1.46	660	2.8	2698	0.87
Alonso-Fenix	4	2.07	180	2.8	1043	1.72
Alonso-Fenix	3	1.56	270	2.8	1179	0.84
Alonso-Fenix	2	1.77	438	2.8	2171	1.62
Consuelo	1	1.02	725	2.8	2071	1.51
Consuelo	55	1.20	372	2.8	1250	1.39
Consuelo	55A	1.20	159	2.8	534	1.66
Consuelo	8	1.90	159	2.8	846	2.38
Consuelo	35	0.95	365	2.8	971	0.98
Consuelo	15	1.41	900	2.8	3553	1.74
Consuelo	16	1.44	578	2.8	2330	2.1
Consuelo	10	1.72	605	2.8	2914	1.22
Consuelo	11	1.6	600	2.8	2688	0.73

TABLE 17.4.3
PASTO BUENO INDICATED RESOURCES BY VEIN AND BLOCK

VEIN NAME	BLOCK #	NO DILUTION				
		THICKNESS	AREA	T.F.	TONNES	GRADE
Sauco	1	0.81	170	2.8	384	1.02
Sauco	300	0.81	170	2.8	384	1.02
Candela Techo	150	1.07	1166	2.8	3477	0.97
Candela	153	1.18	58	2.8	192	1.07
Candela	152	0.83	84	2.8	195	1.27
Alonso-Fenix	162	1.10	205	2.8	631	0.85
Alonso-Fenix	23	1.10	401	2.8	1235	0.85
Alonso-Fenix	163	1.10	204	2.8	628	0.85
Alonso-Fenix	21	1.03	257	2.8	741	0.69
Alonso-Fenix	164	1.03	131	2.8	378	0.69

Alonso-Fenix	18	1.26	580	2.8	2046	1.21
Consuelo	163	1.02	207	2.8	591	1.51
Consuelo	190	1.20	84	2.8	282	1.39
Consuelo	9	1.49	140	2.8	584	1.29
Consuelo	23	1.36	360	2.8	1371	1.18
Consuelo	46	1.68	206	2.8	969	1.18
Consuelo	171	1.68	129	2.8	607	1.18
Consuelo	159	0.95	147	2.8	391	0.98
Consuelo	6	1.61	585	2.8	2637	0.85
Consuelo	173	1.61	289	2.8	1303	0.85
Consuelo	12	1.55	194	2.8	842	1.77
Consuelo	30	1.61	820	2.8	3697	0.34
Consuelo	29	1.86	571	2.8	2974	0.36
Consuelo	26	1.4	2000	2.8	7840	0.93
Consuelo	152	1.4	1000	2.8	3920	0.93
Consuelo	25	1.88	149	2.8	784	0.25
Chabuca	1	0.85	133	2.8	317	0.97
Chabuca	152	0.85	133	2.8	317	0.97
Chabuca	2	0.97	194	2.8	527	0.77
Chabuca	153	0.97	194	2.8	527	0.77
Chabuca	3	1.55	180	2.8	781	1.2
Chabuca	150	1.55	180	2.8	781	1.2
Chabuca	4	1.34	1800	2.8	6754	1.06
Chabuca	151	1.34	1784	2.8	6694	1.06
Chabuca	300	1.34	1796	2.8	6739	1.06
Chabuca	301	1.34	1784	2.8	6694	1.06
Chabuca	P1	1.20	5040	2.8	16934.4	1.02
Chabuca	P2	1.20	6160	2.8	20697.6	1.02

TABLE 17.4.4
PASTO BUENO INFERRED RESOURCES BY VEIN AND BLOCK

VEIN	BLOCK	AREA m ²	THICKNES S m	DENSIT Y T/m ³	TONNES	GRADE % WO ₃
Sauco	151	80	0.81	2.8	181	1.02
Sauco	301	80	0.81	2.8	181	1.02
Sauco	P-1	13000	0.8	2.8	29120	0.71
Candela Techo	P-1	5253	1	2.8	14708	0.75
Candela Techo	Pt-1	3250	1	2.8	9100	0.80
Alonso-Fenix	P-1	5300	1	2.8	14840	1.00
Alonso-Fenix	P-2	5211	1.1	2.8	16050	0.85
Alonso-Fenix	P-3	9733	1.2	2.8	32703	1.00
Chabuca	P-3	13300	1.2	2.8	44688	0.90
Chabuca	Pt-1	10000	1.2	2.8	33600	0.85
Chabuca	P-4	7880	1.2	2.8	26477	0.90
Chabuca	Pt-2	10000	1.2	2.8	33600	0.85
Consuelo	P-1	34500	1.3	2.8	125580	1.10
Consuelo	P-2	6000	1.5	2.8	25200	0.75
Consuelo	P-3	2500	1.5	2.8	10500	0.75
Consuelo	P-4	4400	1.5	2.8	18480	0.75
Consuelo	Pt-1	12100	1.5	2.8	50820	0.75
Santa Marta	P-1	46968	0.86	2.8	113099	0.86
Loreto	P-1	18000	1.5	2.8	75600	0.75
Loreto	Pt-1	126000	1.5	2.8	529200	0.75

17.5 Basis for Resource Estimate

The method of estimation is a modified polygonal method. The blocks (polygons) were drawn by the Mine geology staff based on the following criteria taken from Manual de Inventario de Minerales (Appendix F) :

- ◆ A block is a maximum of 20 m high or 20% of the drift length if less than 100 m, provided only one face has been sampled.
- ◆ If a second face has been sampled in the block then the block height is increased by a maximum of 10 m or 50% of the height of the second face beyond the limits of the sampling.

The resource categories for the various mineralized blocks defined by the mine were classified by the authors according to the following criteria:

- ◆ Blocks defined on at least three sides with workings were classified as measured resources.
- ◆ Blocks defined on at least one side but with internal workings were classified as measured resources.
- ◆ Blocks defined on one side by a drift or raise were classified as indicated resources.
- ◆ Blocks that contained ore-grade mineralization in drill holes were classified as inferred resources.
- ◆ Blocks that were along projections of structures or trends known to contain ore grade mineralization from mining, underground sampling, or surface sampling was classified as inferred.
- ◆ Those blocks with a grade of at least 0.25% WO_3 were included in the indicated and measured categories.
- ◆ The grade of the inferred blocks was estimated from limited sampling within the block or from the grade of adjacent blocks for which the grade was known. If the grade of adjacent blocks was used, it was multiplied by a probability factor assigned to that inferred ore block by the geology staff at the mine. If no other data were available for inferred blocks, the average mine grade was assigned to an inferred block.

The indicated and measured resources were estimated for each vein that is currently being mined or is being explored by drift or by core drilling. The inferred resources include, in addition to active veins, veins that were active in the past but are currently not being explored or exploited. Details of the resources of each vein by block and sections showing the blocks on each vein are included in Appendix D. As can be seen on the sections in Appendix D, significant historical workings exist.

If resource blocks adjacent to these old workings become reserves, access for mining may become an issue. The authors and The Company's mining and geological personnel believe that the impact will be minimal.

The tonnage factor of 2.8 tonnes per cubic meter is an historical value but has not been verified by independent testing or reconciliation between estimated tonnages and mined tonnages. The authors have observed the mineral in place and the presence of ore grade assays has been verified by independent sampling by Vector personnel and assaying has been completed by outside reputable labs. The authors feel the tonnages are representative at the level of certainty for a prefeasibility study, but recommend additional testing to verify the tonnage factor is completed.

Note: Depending on the sensitivity of the density estimate, an assumed density of 2.75 could mean 17,900 less MTUs of inferred resource and 24,000 MTUs less of indicated and measured resource.

17.6 Reserve Estimate

Reserves for the Pasto Bueno Mine are based on the economic criteria defined by the revised prefeasibility study (Vector, 2009). The effective date of these resources is December 1, 2008. The summary results are shown in Table 17.6.1. Table 17.6.2 shows the proven reserves by vein and block utilizing only those blocks containing measured resources. The probable reserves shown in Table 17.6.3 by vein and block include a portion of the resource blocks classified as indicated. There are about 38,000 tonnes of measured and indicated resources that are not included in the reserve estimates. Most of these resource tonnes were not included in the reserve estimation because they fell below the reserve cut-off grade of 0.69% WO₃.

TABLE 17.6.1
PASTO BUENO RESERVES

RESERVE CATEGORY	METRIC TONNES	GRADE % WO ₃
Proven	28,234	1.21
Probable	70,214	0.85
Proven + Probable	98,448	0.95

TABLE 17.6.2
PASTO BUENO PROVEN RESERVES BY VEIN AND BLOCK

VEIN NAME	BLOCK #	DILUTION TO A MINIMUM 1.5 M MINING THICKNESS				
		THICKNESSES	AREA	T.F.	TONNES	GRADE
Candela Techo	1	1.5	763	2.8	3205	0.69
Candela	6	1.5	310	2.8	1302	0.84
Candela	3	1.5	83	2.8	349	0.70
Alonso-Fenix	19	1.5	389	2.8	1634	1.35
Alonso-Fenix	16	1.57	334	2.8	1468	0.88
Alonso-Fenix	6	1.5	722	2.8	3032	0.63
Alonso-Fenix	5	1.85	660	2.8	3419	0.68
Alonso-Fenix	4	2.32	180	2.8	1169	1.53
Alonso-Fenix	3	1.89	270	2.8	1429	0.69
Alonso-Fenix	2	2.16	438	2.8	2649	1.33
Consuelo	1	1.5	725	2.8	3045	1.03
Consuelo	55A	1.5	159	2.8	668	1.32
Consuelo	8	2.13	159	2.8	948	2.12
Consuelo	15	1.7	900	2.8	4284	1.45
Consuelo	16	1.75	578	2.8	2832	1.73
Consuelo	10	1.92	605	2.8	3252	1.1

TABLE 17.6.3
PASTO BUENO PROBABLE RESERVES BY VEIN AND BLOCK

VEIN NAME	BLOCK #	DILUTION TO A MINIMUM 1.5 M MINING THICKNESS					RESERVE CATEGORY
		THICKNESS	AREA	T.F.	TONNES	GRADE	
Candela Techo	150	1.5	1166	2.8	4897	0.69	Probable
Candela	152	1.5	84	2.8	353	0.70	Probable
Alonso-Fenix	18	1.61	580	2.8	2615	0.94	Probable
Consuelo	163	1.5	207	2.8	869	1.03	Probable
Consuelo	55	1.5	372	2.8	1562	1.12	Probable
Consuelo	190	1.5	84	2.8	353	1.12	Probable
Consuelo	9	1.77	140	2.8	694	1.08	Probable
Consuelo	23	1.8	360	2.8	1814	0.9	Probable
Consuelo	46	1.91	206	2.8	1102	1.04	Probable
Consuelo	171	1.91	129	2.8	690	1.04	Probable
Consuelo	6	1.81	585	2.8	2965	0.75	Probable
Consuelo	173	1.81	289	2.8	1465	0.75	Probable
Consuelo	12	1.77	194	2.8	961	1.54	Probable
Consuelo	26	1.62	2000	2.8	9072	0.81	Probable
Consuelo	152	1.62	1000	2.8	4536	0.81	Probable
Chabuca	3	1.75	180	2.8	882	1.06	Probable
Chabuca	150	1.75	180	2.8	882	1.06	Probable
Chabuca	4	1.72	1800	2.8	8669	0.83	Probable
Chabuca	151	1.72	1784	2.8	8592	0.83	Probable
Chabuca	300	1.72	1796	2.8	8650	0.83	Probable
Chabuca	301	1.72	1784	2.8	8592	0.83	Probable

17.7 Basis for Reserve Estimate

The following are a list of the assumptions used to delineate block volume:

- ◆ Minimum mining width is 1.5 meters. (Although the Mine uses a minimum mining width of 1.2 m on the Chabuca vein, this pre-feasibility study used 1.5 m universally as over-break has been observed in development on the Chabuca vein. Additional study is needed to better define minimum mining widths and dilution.)
- ◆ The cut-off grade of 0.69% has been set as the minimum mineable ore.

Reserves require sampling in at least one face (typically a drift, but sometimes a chimney) according to procedure. The reserves were estimated using a modified polygonal method. The polygons or blocks, as shown on the sections in Appendix D, were drawn by the geology staff at the mine based on sampling results collected every two meters along the back of the exploration drift on each level. The blocks were further defined as described above. When sampling defines ore grade material along the drift, a block is drawn whose end boundaries are perpendicular to the drift within the plane of the vein. One horizontal boundary is the drift while the other boundary is drawn according to the descriptions above. Once an ore block has been defined by drifts, raises are driven up on 50-meter intervals to the next higher level. The vein exposed in these raises is sampled every two meters along both walls.

For each sample location a vein width is recorded along with the width of mineralization and the grades for each sample. The sample assays and the vein widths are combined in a weighted average to give an average vein width and grade for each block. The area of the block is calculated from its known length along the vein and height. This area is multiplied by the average vein width to determine the volume of the block in cubic meters. The volume of the block is multiplied by the tonnage factor of 2.8 tonnes per cubic meter to obtain the tonnes of mineralized rock in the block.

The reserve categories for the various mineralized blocks defined by the mine were classified by the authors according to the following criteria:

- ◆ All measured resources are classified as proven reserves.

- ◆ Blocks defined on one side by a drift or raise were classified as indicated resources. If they were adjacent to a block classified as a proven reserve, they were classified as a probable reserve.
- ◆ Only those resources classified as measured and indicated resources are included in the reserve base provided the diluted grade is greater than the mining cut-off.
- ◆ Only reserves that are accessible to mining are included in the mineral reserve.
- ◆ The cut-off head grade of 0.69% WO₃ has been set as the minimum mineable ore grade for reserves. The entire block diluted to a minimum mining thickness must be equal to or greater than the cut-off grade.

17.8 Factors Affecting Resource and Reserve Estimates

The resource estimates are limited in that The Company has only furnished to the authors the results of the sampling of blocks that The Company felt were sufficiently high grade to be considered for mining blocks.

There are unidentified areas containing over 1.2 million tonnes of inferred resource. This should be the focus of the exploration program, but a small portion of the exploration budget should be focused on identifying new areas of mineralization. The geological staff at The Mine feels there is potential for as much as three million tonnes of mineralized vein material outside of the areas of identified inferred resource. The authors would concur with this estimate of potential.

There are no known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant factors that the authors are aware of that could materially affect the resource and reserve estimates at Pasto Bueno.

The Company has an environmental engineer on staff whose responsibility is to address environmental issues that may arise and obtain and maintain all environmental and operating permits and approvals. All of the operating permits, environmental permits, and approvals are current, according to The Company. The

authors are not aware, nor did the company disclose any known environmental or permitting issues that could materially affect the resource and reserve estimates.

At the time of this report, The Company stated that there are no legal problems, title issues or tax issues that could materially affect resources. Peru could enact changes in the tax laws but unless they are onerous and excessive, any changes would likely not materially affect the resource and reserve estimates.

Tungsten is not traded on an exchange, such as the London Metal Exchange (LME), and the only price information that is available globally is published by the London Metal Bulletin and is based on information elicited from producers, consumers and traders (DesLauriers, 2005).

Table 17.8.1 shows the average price for the years 2003 through 2007 as published by the United States Geological Survey (USGS) showing the sudden increase in price in 2005 and maintaining a level of just below \$200 per MTU since 2006 (Shedd, 2008).

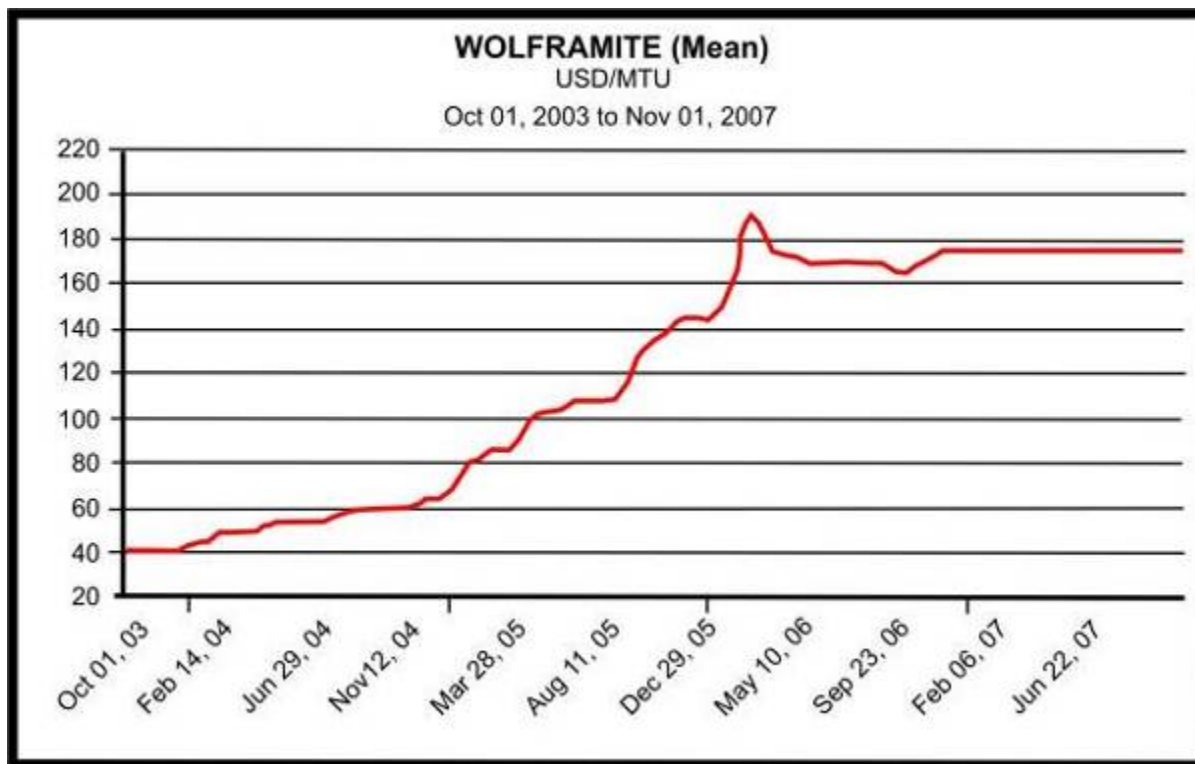
TABLE 17.8.1
AVERAGE PRICE, CONCENTRATE, DOLLARS PER MTU WO₃

SOURCE	2003	2004	2005	2006	2007
U.S. Spot Market, Platts Metals Week	50	49	146	200	190
European Market, Metal Bulletin	45	55	123	166	165

MI currently has a contract to sell concentrate to an end user in the United States. The contract runs through July 31, 2009. The contract calls for selling a minimum of 6,000 MTU per month between December, 2008 and July, 2009. The price The Company receives is tied to the London Metal Bulletin free market price. The Company has requested the details of the contract remain confidential. A redacted copy of the contract can be viewed on www.sedar.com. The sales contract is reasonable and within the standards of the industry.

As of 2005, China was the largest consumer of tungsten in the world. Subsidies for state owned tungsten mines in China have been reduced and a number of these mines have closed. Ore reserves of operating mines are being depleted. Current world mine supply of tungsten is believed to be less than usage, with the difference coming from stockpiles (DesLauriers, 2005). As can be seen from Table 17.8.1 above, the price has dropped some from the highs of 2006. Anetsberger (2008) states that tungsten prices have stabilized. The graph below (Figure 17.8.1) shows the rise of tungsten prices and the stabilization of the price since the peak of 2006.

Figure 17.8.1: Average Price WO₃, October 1, 2003 to November 1, 2007
(Anetsberger, 2008)

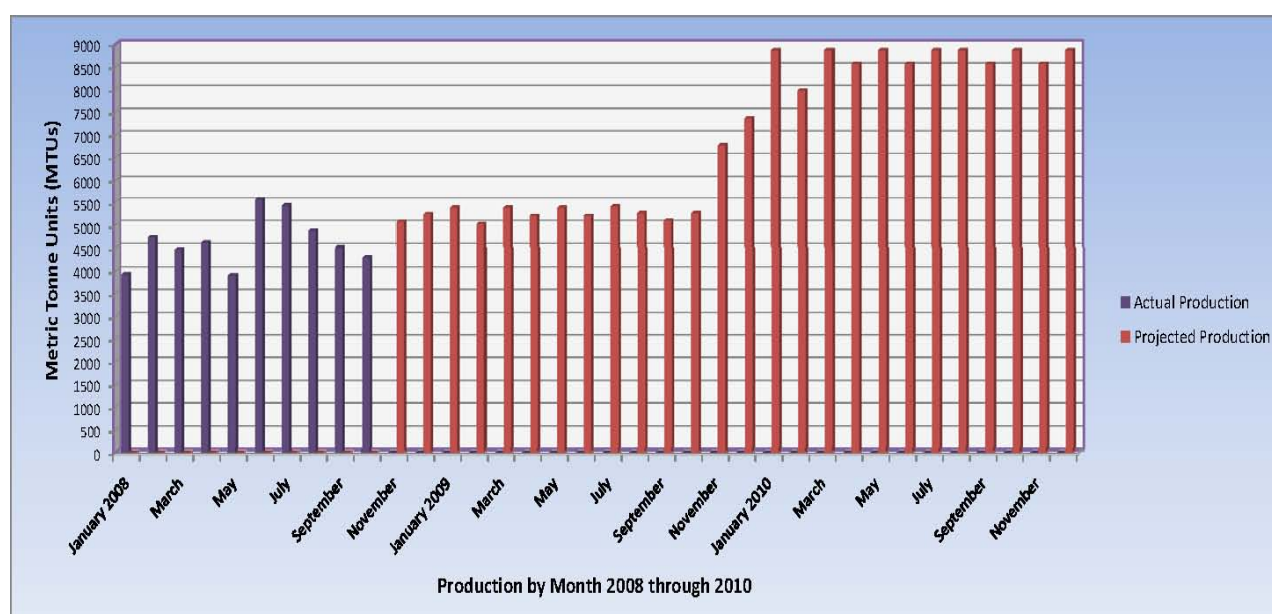


Mining in Peru is currently an active and growing industry encouraged by government policies. The general public also appears to accept mining as a means of growth and accepts it as a vital industry. Mining has been ongoing at Pasto Bueno for nearly 100 years. This mining history has established this area as a mining area and the residents depend on the mining for income. The mine has also brought into the area utilities which improve the resident's standard of living. Current national and local policies encourage mining.

This report will be used, in part, to raise money to expand the operations by funding exploration to expand the resource and reserve base, purchase additional mining equipment, and expand and upgrade the milling operations. Initial exploration successes detailed in earlier sections of this report demonstrate the ability of The Company to identify new areas of mineralization and begin to develop them. Current mining methods will need to be reviewed and modified as necessary to

become more efficient and effective to meet the increased production goals. Actual production at The Mine from January through October 2008, and expected production goals from November 2008 through December 2010 are shown on Figure 17.8.2. Although the prefeasibility study shows reserves at a 250 Tpd level into January 2010, The Company has a mine plan that anticipates exploration successes that will carry production through 2011 increased production levels starting in early to mid 2010.

Figure 17.8.2: Actual and Estimated Production through December 2010



The mill has a proposed expansion including a new tailing impoundment that will accommodate the increased production goals. Additional metallurgical studies should be undertaken to verify the proposed new flowsheet. Currently, the infrastructure is in marginal condition. Increased production may severely strain the existing infrastructure. A review of the infrastructure and alternatives is recommended.

18.0 OTHER RELEVANT DATA AND INFORMATION

Much of information concerning the legal rights of ownership of the concessions, mining rights, and use of other resources for mining has been translated from documents written in Spanish. The translation, although accurate, may have led to the use of words in English that have a different usage than the intended meaning of the original Spanish. However, differences in translation should not materially affect the conclusions of this report.

19.0 INTERPRETATION AND CONCLUSIONS

This section is divided into two areas: exploration interpretations and conclusions, and operations interpretation and conclusions. The exploration conclusions will review the current exploration program and plans for future exploration. The operations interpretations and conclusions will summarize the extent of the current operations and discuss the future plans for expansion.

19.1 Exploration Interpretations and Conclusions

The long history of production from Pasto Bueno has never included any exploration programs beyond drifting on known veins. This produced sufficient ore grade material for production even when production was 1,000 tonnes per day. When MI acquired the property, they made the decision to take a long-term approach to production from the property and implemented an exploration program to allow development of long term planning. The exploration program consists of two approaches, drilling, and underground exploration.

A surface mapping and sampling program was undertaken to locate and test all the veins that crop out. This program defined more than 70 veins on the surface from a few centimeters to 15 meters in thickness. Following the surface work, MI initiated

a surface core drilling program to test the subsurface projections of some of the outcropping veins as well as those known from past and current production.

MI drilled 16 core holes totaling over 7,750 meters. Fifteen of these holes intersected one or more veins. There were 24 mineralized vein intersections in the drill holes. Twelve of these intersections assayed 0.25% WO₃ or greater. Twenty-two of the intersections contained more than a trace of WO₃. The tungsten mineralization is easily seen in veins. Mineralized veins are distinct in appearance and easily recognized. Only those vein intersections with visible potential for mineralization were selected for assay. The core logging and sampling and the assaying by ALS Chemex were completed using a QA/QC protocol that is consistent with industry standards. Numerous quartz vein intersections were seen in the core that were not assayed as the mine geologists felt these veins had little potential.

The underground exploration includes drifting in known veins and cross cutting to new veins identified during the surface mapping or the surface drilling program. Once a vein is cross cut, it is drifted along to expose it for sampling.

Drifting on known veins is closely linked to production as the results of the sampling by the mine geology staff are used as a guide to production. The sampling of the veins in the workings produces a very representative sample that is consistent with industry standards and NI 43-101 requirements. Security and chain of possession before delivery of these samples to an assay lab is consistent with industry standards and NI 43-101 requirements.

Cross cuts driven to veins to the east of the Consuelo Vein system have intersected veins previously intersected and tested only by core drilling. The cross cut is continuing. Results to date have validated and expanded on the core drilling results.

Ongoing and future exploration plans include:

4. Continued drifting on known veins as a first step in production.

5. Cross cuts to test new veins and to provide drill station for underground drilling.
6. Purchase and staff two underground core drills to test new areas from underground.

19.2 Operations Interpretations and Conclusions

The Pasto Bueno Mine is currently producing 250 tonnes of ore per day from several veins. The production is guided by sampling of the drift backs. If the material in the vein contains sufficient grade to be mined, raises are driven up from the drift, and these too, are sampled. The sampling, done according to established QA/QC protocol, is consistent with industry standards and NI 43-101 requirements, and defines the grade and vein thickness of the vein in a block a maximum of 50 meters on a side. The samples are generally taken directly to the mine lab for assay by sodium peroxide fusion and colorimetric analysis. This is a step that may introduce a bias into the process and strict control is necessary to make sure the assays from the mine lab are representative of the tungsten content of the sample. Duplicate samples are sent on a regular basis to ALS Chemex as a check.

Mining is done by shrink stope or overhand cut and fill using a minimum mining thickness of 1.5 meters on the sub-vertical and high angle veins or backfill room and pillar methods when the vein flattens. As the vein is often less than the minimum mining thickness and the mineralized portion of the vein generally makes up only a portion of the vein width, dilution is often significant and can be further exacerbated by additional over-break. The ore is removed from the mine by rail and hauled by truck or by rail, depending on its source, to the mill.

The mill consists of a grinding circuit followed by a gravity recovery circuit that includes jigs, spirals, and tables (see Figure 16.0.1). The rough concentrates from the gravity circuit are cleaned with flotation to remove sulfides and magnetic separation to produce a final concentrate that averages about 75% WO₃. Overall recovery, according to The Company, is 80 to 84%. This recovery is based on the assayed grade of the mineralization entering the mill. This grade is established

from grab samples of the muck in the stopes and from grab samples of the ore in the rail cars leaving the mine and an automatic sampler in the mill after the primary crusher.

Expansion plans for the operations include increasing mine production to 500 Tpd in 2010. This will require the purchasing of additional mining equipment and expanding the crushing circuit in the mill including building a new tailings pond (see Photo 16, Appendix E). The mill expansion plans have been finalized and the permits are in place for the expansion including building the tailings pond. Photos of existing tailings facilities can be seen in Photos 17, 18, 19 and 20 in Appendix E.

Potential areas of risk is the potential for errors by the Mine lab and the uncertainty of the accuracy of the tonnage factor used to estimate the resource numbers. The results from the Mine lab have been shown to be representative of the tungsten content and consistent with the check assays from an outside lab and the QA/QC insertion of standards, blanks and duplicates.

The tonnage factor of 2.8 tonnes per cubic meter is a value that has been used historically since production began at Pasto Bueno. The Company could not furnish the authors any data in support of this number. There is potential the correct value may be lower than the value currently in use. If the value is lower, this has a negative impact on the tonnes of resource. For every change of 0.1 in the specific gravity there would be a change of 3.5% in the resource numbers.

20.0 RECOMMENDATIONS

Recommendations for the Pasto Bueno mine are broken down into three areas of activity: exploration, development, and operations. MI has a plan of operations that details exploration, development, and operations plans through 2011.

20.1 Exploration Recommendations

Two exploration techniques are effective in identifying areas of new mineralization: drilling and underground drifting. Surface drilling has proven effective, but expensive, at \$126/meter. Underground drifting on the veins and cross cutting to the veins is extremely effective and cost efficient. Drifting on a vein not only gives exploration an opportunity to get a very representative sample of the vein but opens the vein up for development. Sampling a vein along a drift allows calculation of, at a minimum, an indicated resource. A drill intersection of a vein will provide evidence of the presence of a vein, but the sample is representative of only a small volume of vein material allowing only calculation of inferred resources. The Company has purchased underground drills that should reduce drill costs and make drilling more cost efficient. Exploration recommendations are:

6. Prioritize identified areas of inferred reserves based on the overall operations plan and the potential for developing indicated and measured resources.
7. Develop an exploration plan for each area taking into consideration the relative costs of each proven technique and what data are needed to advance the resources in the area into a more reliable category.
8. Maintain NI 43-101 compliant sampling practices for all sampling from both the exploration/development drifts and the core drilling.
 - a. Continue to use the QA/QC protocols in place for sampling both underground and core samples.
 - b. Observe and document a strict chain-of-possession on all samples.
 - c. Routinely submit duplicate samples to both the Mine lab and an outside primary lab. Maintain records of the results of all these assays and check them on a regular basis for any irregularities.
 - d. Include blanks and standards in all sample submittals to all labs. Maintain records of the results of all these assays and check them on a regular basis for any irregularities.

- e. Maintain copies of all assay reports from all labs so data used in the estimation of resources and reserves can be checked against the original documents.
9. Create long sections of all the veins and plot all sample results, assays and vein widths (or assay times vein widths) on the long sections and contour these results to try and establish trends of ore shoots to improve the understanding of the ore controls and to guide exploration.
10. Analyze both “barren” and mineralized vein intersections in core using aggressive digestion with an ICP method of analysis such as ALS Chemex ME-MS61. If geochemical differences can be seen between veins, and this difference can be related to the presence of tungsten in a vein, it may help focus exploration. These data may also help in defining geochemical zonation that will assist in exploration, especially in deeper areas.

20.2 Development Recommendations

Development recommendations focus on the methods of resource and reserve calculations. The current protocol from the prospective of an outside observer seems cumbersome and inconsistent with the definitions used by the CIM and NI 43-101.

7. Establish cut-off criteria for material to be included in the resource base. Mineral resources by definition do not require economic viability, just the potential that they may become economic at some point. They should reflect geological boundaries more than mining criteria. Use of a grade thickness contour method of estimation for resources may be more effective in defining the geometry of the mineralization than the modified polygonal method currently used. This may help in outlining areas of mineralization and assist exploration in projecting mineralization into new areas.
8. Define cut-off grades for reserve material based on prefeasibility study results (Vector, 2009). If costs change, recalculate a new cut-off grade and document it so any audit of reserves can document the change.
9. Establish criteria for defining the classes of resource. A suggested scheme is the one used by the authors for the resource estimate in this report (Section 17.0).
10. Develop a protocol for compositing sample results along development drifts and raises to establish the grade of resource blocks. For example, establish how many samples below the established cut-off

can be included in a sequence of samples above the established cut-off so long as the overall grade of the block remains above the cut-off grade. Define the minimum length along a drift necessary to define a block

11. Maintain the CIM defined classes of resources and reserves as these are the ones that are recognized by the Canadian Stock Exchanges and must be reported in annual reports. If other classifications are needed for mine planning, those should be kept separate and NOT reported in external reports.
12. Establish the specific gravity of the mineralized material by an outside testing facility to determine if the current figure of 2.8 gm/cm³ is the correct density.

20.3 Operations Recommendations

The recommendations for Operations focus on establishing the credibility of the Mine lab and monitoring the results of the overall operations as measured against the ore reserve calculations. The authors are not metallurgists and are not able to comment on the design and effectiveness of the milling process, but do recommend that this area be critically reviewed by experts. The authors do, however, have experience in establishing protocol to measure the accuracy of the ore reserve calculation, the efficiency of the mining and milling operations, and will include recommendations for establishing a protocol for this portion of the operations. The recommendations include:

4. Review the entire lab protocol and develop a program of both internal checks and extensive checks with outside labs. Routinely compare assay results from the Mine lab and outside labs for duplicate samples taken by Geology.
5. Maintain monthly statistics that compare Mine lab results with those of outside labs for all samples assayed by the Mine lab and the Outside lab.
6. Prepare monthly or at least quarterly metal balances that compare the reserve grade and tonnage in the veins against the grade and tonnage delivered to the mill against the amount of metal recovered and the amount of metal in the tailings. It is important that duplicate samples

from the mine, the mill heads and the mill tailings be submitted to outside labs as a check against the Mine lab results. This will provide:

- a. A measure of the accuracy of the reserve calculation.
- b. A measure of the efficiency of the mining method.
- c. A measure of efficiency of the milling procedure.

This information can identify areas where the operation can be improved and made more cost effective. An efficient and cost effective operation demonstrates to shareholders and the exchanges the quality of management which will help minimize potential investment risk.

Metallurgical testing is recommended, as well, to determine the best flowsheet for the mill to maximize recoveries of tungsten and silver and the base metals. There is significant value in all metals that is currently going to the tailings pond.

20.4 Budgets

Malaga has developed a detailed budget to move forward with exploration drilling and drifting along with a capital budget to support the expansion of production. The budget is included within a mine plan for the period 2009 through 2011. Table 20.4.1 is a summary of the exploration and capital budgets for the time frame 2009 to 2011. It will be necessary for Malaga to have exploration successes and develop additional resources and reserves in order to support the plan for expanded production.

TABLE 20.4.1
PROJECTED EXPLORATION AND CAPITAL BUDGETS FOR PASTO BUENO 2009 TO 2011

YEAR	EXPLORATIO N DRILLING	EXPLORATIO N DRIFTING	MINE CAPITAL	MILL CAPITAL	TOTALS
2009	\$450,000	\$1,810,700	\$1,281,300	\$115,000	\$3,657,000
2010	\$214,500	\$2,215,000	\$647,600	\$705,000	\$3,782,000
2011		\$1,921,700	\$752,500	\$1,460,000	\$4,134,000

Totals	\$664,500	\$5,948,000	\$2,681,400	\$2,280,000	\$11,573,000
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This budget is sufficient to increase mine and mill capacity to 500 Tpd from the current 250 Tpd by early to mid 2010. The ability of Malaga to support this expansion is dependent upon exploration developing sufficient resources and reserves. Given the past production history and the large amount of inferred resources, the authors feel the resource base can be expanded to support the planned expansion.

21.0 REFERENCES

- Anetsberger, Kevin, 2008, Tungsten and Costs, published in TIPS, June 13, 2008 edition by Midwest Tungsten Service Inc.
<http://www.tungsten.com/tipscost.pdf>
- Crowley, J. A., Currier, R. H., and. Szenics, T., 1997, Mines and minerals of Peru; published by Mineralogical Record, 122 p.
- DesLauriers, David, 2005, Tungsten price goes parabolic, published *in* Resource Investor, May11, 2005 edition
<http://www.resourceinvestor.com/pebble.asp?reid=9691>
- Godbout, Andre, 2006, Prefeasibility of the Pasto Bueno Mine, Dynacor Internal Report.
- Google Earth, 2006, <http://www.earth.google.com>
- Landis, G.P. and Rye, R.O., 1974, Geologic, Fluid inclusion and stable isotope studies of the Pasto Buena tungsten-base metal ore deposit, northern Peru, Economic Geology, v. 69, pp. 1025-1059.
- Leduc, M.F. and Parkinson, C.L., 2006, Report on the reserves of the Pasto Bueno Mine project for Dynacor Mines Inc., Dynacor Internal Report.
- Torres, A.S., and B., J. Mercado, 2008, Executive Report, Pasto Bueno Mine—Peru, Malaga, Inc., pp. 11, September 2008.
- Shedd, Kim B. 2008, United States Geological Survey Mineral Commodities Summaries, January 2008.
<http://minerals.er.usgs.gov/minerals/pubs/commodity/tungsten/mcs-2008-tungs.pdf>
- Vector Engineering, 2009, Pre-feasibility study updated 2009 for the Pasto Bueno tungsten property, 130 pages and appendices.

22.0 DATE AND SIGNATURE PAGE

22.1 John P. Tinucci

CERTIFICATE OF THE AUTHOR:

- I am a senior geotechnical engineer with 26 years of professional experience and am the general manager of Vector's Colorado office at 1120 Washington Avenue, Suite 250, Golden, Colorado 80401, U.S.A.
- I have technical experience in mine design, prefeasibility studies, feasibility studies, geomechanical assessments, rock mass characterization, project management, numerical analyses, underground mine stability, tunneling, ground support, slope stabilization, excavation remediation, induced seismicity and dynamic ground motion.
- My industry commodities experience includes: salt, potash, coal, platinum/palladium, iron, molybdenum, gold, silver, zinc, diamonds, and copper.
- My mine design experience includes the following mining methods: open pit, room and pillar, (single and multi-level), conventional drill-&-blast and mechanized cutting; longwall; steep narrow vein, cut and fill; block caving; sublevel caving; and cut and fill longhole stoping and paste backfilling.
- I have been managing significant mine design and geotechnical investigation projects for the past 18 years.
- I have a doctorate degree in geotechnical engineering from the University of California, Berkeley and managed my own consulting firm for 8 years.
- I am a registered professional engineer (Reg #CA-C039170), certified project management professional (Reg #232184), and member of several professional organizations (ASCE, SME, ARMA, PMI).
- I have authored relevant technical reports in: geotechnical investigations and mine design for precious metal mining projects in Central America; authored the Geotechnical Sections of pre-feasibility level underground mine design report for the Sierra Mojada project in Mexico; authored the Geotechnical Study for site characterization and mine design for the El Boleo mine in Mexico; authored the Seismicity sections of the feasibility study for the El Boleo mine in Mexico.

- I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101 reporting.
- I traveled to Pallasca Province, Ancash Department, Peru, reviewed technical information pertaining to the Pasto Bueno Property at the Pasto Bueno Mine office and made a personal inspection of the Property from November 3rd to November 5th, 2008 and reviewed additional information in MI, corporate office in Lima Peru on November 6th 2008.
- I have prepared the following sections of this report, 23.1, and 23.2, 23.5, 23.7, and 23.8, in an objective manner using data and information made available by MI, available government information, scientific literature and other materials and information listed in Section 23.
- I am independent of MI and Dynacor in accordance with the application of Section 1.4 of the National Instrument 43-101, Standards of Disclosure for Mineral Properties.

Signed and dated in Golden, Colorado on the 17th day of February, 2009.

John P. Tinucci, Ph.D., P.E.

Vector Engineering, Inc.
1120 Washington Avenue, Suite 250
Golden, Colorado 80401
+1-303-279-7533
tinucci@vectoreng.com

22.2 Richard H. Kehmeier

CERTIFICATE OF THE AUTHOR:

- I, Richard J. Kehmeier, am a Certified Professional Geologist, with an office at 1120 Washington Avenue, Suite 250, Golden, Colorado, U.S.A.
- I am a current member in good standing of the American Institute of Professional Geologists and a Certified Professional Geologist (CPG-10879) by that organization.
- I graduated from Colorado School of Mines with a Bachelor of Science in Geological Engineering in 1970, and Master of Science in Geology in 1973.
- I have practiced my profession in mineral exploration since 1970.
- Due to my academic qualifications, experience and certification, I am a Qualified Person as defined in Companion Policy 43-101CP, National Instrument 43-101, Standards of Disclosure for Mineral Projects.
- I traveled to Pallasca Province, Ancash Department, Peru, reviewed technical information pertaining to the Pasto Bueno Property at the Pasto Bueno Mine office and made a personal inspection of the Property from November 3rd to November 5th, 2008 and reviewed additional information in MI, corporate office in Lima Peru on November 6th 2008.
- I have prepared the following sections this report, Sections 1.0 through Sections 21.0 and Sections 23.3, 23.4, 23.6, 23.9. and 23.10, in an objective manner using data and information made available by MI, available government information, scientific literature and other materials and information listed in Section 23.
- In the disclosure of information relating title, permitting and related issues, I have relied on information supplied by The Company. I have not conducted a national review of this information and have included only information supplied by The Company.
- I am not aware of any material fact or material change with respect to the subject property of this technical report not reflected in this report, the omission of which would make this report misleading.
- I am independent of MI and Dynacor in accordance with the application of Section 1.4 of the National Instrument 43-101, Standards of Disclosure for Mineral Properties.

- I have read National Instrument 43-101, Standards of Disclosure for Mineral Properties and Form 43-101F1, Technical Report and this report has been prepared in compliance with National Instrument (NI) 43-101 and Form 43-101F1.
- That, as of the date of the certificate, to the best of the qualified person's knowledge, information and belief, the technical report contains all scientific and technical information required to be disclosed to make the technical report not misleading.

Signed and dated in Golden, Colorado on the 17th day of February, 2009.

Richard J Kehmeier, M.Sc., CPG.

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23.0 ADDITIONAL REQUIREMENTS FOR TECHNICAL REPORTS ON DEVELOPMENT PROPERTIES AND PRODUCTION PROPERTIES

23.1 Mining Operations

Three basic mining methods are used for production at Pasto Bueno, overhand cut and fill, shrink stope, and a variation of room and pillar using backfill. The overhand cut and fill and shrink stope are used on steeply dipping veins while the room and pillar is used on veins dipping 45° or less. For all methods a mining block is developed by driving drifts on levels at 50 meter intervals and raises on approximately 50 meter centers. Exploration drifting along the veins is the initial phase of mining. Production levels depend on exploration success and on the ability of the mine to maintain sufficient working faces to meet the daily 250 Tpd level. There are sufficient reserves developed to sustain production for approximately 13.2 months from December 1, 2008. A study of the mining methods should be undertaken as a part of a future feasibility study to insure the methods are optimum for the vein configuration.

There is an operating mineral processing plant on the property that is currently processing 250 tonnes of ore per day. The mill produces a concentrate averaging 75% WO₃. A list of current flow sheet equipment is shown in Table 16.0.1. The ore from the mine is fed into a cone crusher. The crushed ore passes over a 1.5-inch screen. The undersize goes to a series of jigs that recover about 60% of the wolframite as a coarse product. The oversize and the jig tails go into a rod mill. The product from the rod mill passes over a series of tables producing a tungsten/sulphide concentrate. This concentrate is fed into a series of small flotation cells and the sulphide is removed by flotation and sent to tails. The product is then dried and run through a magnetic separator for the final processing. The mill is currently reporting recoveries between 80% and 84% WO₃, but does not recover additional base or precious metals. There is no data supporting this flow sheet and it is unknown if this is optimized for the ore feed.

The current production plans show production rates during 2009 to average about 250 Tpd (7,500 tonnes per month). The prefeasibility study (Vector, 2009) was completed at a steady 250 Tpd which would deplete the reserves in about 13.2 months. Malaga anticipates being able to increase the production in 2010 or to 500 Tpd. This will require increased capital spending as shown in table 20.4.1. This expansion is dependent on exploration successes in 2009 that will provide sufficient reserves and working faces to allow the mine to produce 500 Tpd.

23.2 Recoverability

There is an operating mineral processing plant on the property that is currently processing 250 tonnes of ore per day. The mill produces a concentrate averaging 75% WO₃. Malaga reports recoveries of between 80 and 84% of the tungsten. In addition to tungsten there are potentially valuable credits in silver and copper in the ore. These metals likely occur in the mineral tetrahedrite. At present Malaga is not recovering any of the silver or copper. Recovery of these metals and optimization of the tungsten flowsheet will require additional metallurgical testing and adding components to the mill to recover the sulfides.

A review of the milling process is recommended to determine the feasibility of optimizing the process for the recovery of tungsten and the base and precious metals.

23.3 Markets

Tungsten is not traded on an exchange, such as the London Metal Exchange (LME), and the only price information that is available globally is published by the London Metal Bulletin and is based on information elicited from producers, consumers and traders (DesLauriers, 2005).

Table 17.8.1 in this report shows the average price for the years 2003 through 2007 as published by the United States Geological Survey (USGS) showing the sudden

increase in price in 2005 and maintaining a level of just below \$200 per MTU since 2006 (Shedd, 2008).

As of 2005, China was the largest consumer of tungsten in the world. Subsidies for state owned tungsten mines in China have been reduced and a number of these mines have closed. Ore reserves of operating mines are being depleted. Current world mine supply of tungsten is believed to be less than usage, with the difference coming from tungsten stockpiles (DesLauriers, 2005). As can be seen from Table 17.8.1 above, the price has dropped some from the highs of 2006. Anetsberger (2008) states that tungsten prices have stabilized. The graph below (Figure 17.8.1) shows the rise of tungsten prices and the stabilization of the price since the peak of 2006.

23.4 Contracts

MI currently has a contract to sell concentrate to an end user in the United States. The contract runs through July 31, 2009. The contract calls for selling a minimum of 6,000 MTU per month. The price The Company receives is tied to the London Metal Bulletin free market price. The Company has requested the details of the contract remain confidential. A redacted copy of the contract can be viewed on www.sedar.com. The sales contract appears reasonable and within the standards of the industry. The authors are not aware of Malaga's marketing plans beyond July of 2009. Malaga did not disclose any contractual arrangements concerning any mining, concentration, smelting, transportation, handling, sales, or hedging. The authors are not aware of any forward sales contracts beyond the contract ending July 31, 2009.

23.5 Environmental Considerations

All of the documents used to review environmental responsibilities are translations of the original Peruvian documents. The Company assures the authors, and the authors believe that all environmental issues are defined and are manageable.

According to the environmental laws of Peru, MI is required to submit and has submitted a mining plan to the Department of Ancash detailing liabilities and impact of the mining operations on the environment. This document also includes a closure plan that defines how the remediation and reclamation of the overall mine site will be carried out. This plan is currently being reviewed by the Ancash Regional Energy and Mines office.

From the site visit and discussions with The Company officials, there does not appear to be any outstanding environmental liabilities at this time. However, The Company states, “The Mine Closure Plan which includes environmental liabilities is in the process of evaluation by the competent authority, therefore, still the issue of guarantees for the remediation of liabilities is subject to approval according to the study of law.”

The management of MI assured the authors that all permits required for the mining operations are current. The authors have accepted The Company’s assurance that the list of permits shown in Section 4.0 is complete and current and have done no additional review of the permit process.

23.6 Taxes

The taxes and royalties imposed by the Peruvian government include an income tax and sales tax on production. The government annual income tax is 30% of the net profit. The tax is collected monthly at a rate of 2.5% of the monthly sales revenue. The general sales tax is equivalent to 19% of the cost of all necessary goods and services used in the production of the product. The amount to be paid by way of the Impuesto General de Ventas (IGV), or general sales tax, is recovered when the product is produced for export.

23.7 Capital and Operating Cost Estimates

Operating costs were based on the data provided by The Company from January through October 2008. The costs were broken out into four separate categories: operations, administrative, sales, and finance. The breakdown of each category can be found in the prefeasibility report (Vector, 2009). Table 23.7.1 below lists the unit operating costs used in the evaluation by category.

**TABLE 23.7.1
OPERATING COSTS**

OPERATING COST CATEGORY	UNIT COST (PER TONNE MINED)
Operations	\$89.51
Administrative	\$10.21
Sales	\$3.17
Finance	\$4.62
Total	\$107.51

A schedule of planned capital costs was received from The Company. A 15% contingency was added to the finance costs.

The capital costs discussed in this section include both sustaining and expansion capital for the entire operation. Their current capital planning includes expanding the mine production rate and process plant throughput to 500 tonnes per day by early to mid 2010. Planned mine capital expenditures during the period of the financial evaluation, December 2008 through January 2010, total \$US 1.3 million. These include mine equipment, transformers, ventilation fans, and living quarters for mine workers in addition to low cost items. The detailed list of mine capital expenditures is shown in Appendix G.

Planned process plant and tailings capital expenditures during the period of the financial evaluation, December 2008 through January 2010, total \$US 0.8 million. These costs are mainly related to the construction of a new tailings storage facility

to hold the tails for the foreseeable future. Permits for this facility are already in place. About \$100,000 of this capital is for planned environmental studies and equipment during the evaluation period. The detailed list of plant and tailings capital expenditures is shown in Appendix G.

23.8 Economic Analysis

A financial evaluation was completed based on production levels of 250 Tpd for 13.2 months. This time frame and production level is based on a proven and probable reserve of approximately 98,500 tonnes at an average grade of 0.95%WO₃.

This evaluation includes operating costs of \$107.51 per tonne and capital costs of \$2.1 million for the 13.2 month production period. Planned mine capital expenditures during the period of the financial evaluation, December 2008 through January 2010, total \$US 1.3 million. Planned process plant and tailings capital expenditures during the period of the financial evaluation, December 2008 through January 2010, total \$US 0.8 million.

Using these costs a net present value (NPV) of the cash flows was determined by using a 15% discount rate. This results in an NPV of \$426,000 and an internal rate of return (IRR) of 89%.

Sensitivity analyses were completed for both capital and operating costs. Increasing the capital costs by 20% produces an NPV of \$24,000 and an IRR of 28% showing that the project can tolerate a significant capital cost increase. Conversely, increasing the operating costs by 4.5% produces the similar NPV and IRR values demonstrating that a small increase in operating costs has large negative impact on the project economics. Similarly looking at head grades and metal prices, factors that affect revenue, lowering either value by 4.4% produces an NPV of about \$25,000 and an IRR of 28%, showing the operations are sensitive to small changes in factors effecting revenues which would include head grades, metal prices, and mill recoveries

Drops in revenue approaching ten percent cause the model to go strongly negative in both NPV and IRR.

23.9 Payback

Payback in the financial model is not a very meaningful concept because of the limited time frame and the reinvestment of all profits back into the operations for capital expenditures and exploration. The cumulative cash flow for the operations can be examined. The cumulative cash flow for December 2008 and January 2009 is positive. From February 2009 to September 2009 capital expenditures of approximately \$2.28 million take the cumulative cash flow for those months negative with the maximum negative value of over \$270,000 in August 2009. The cumulative cash flow becomes positive again in October 2009 and reaches a maximum December, 2009, of slightly nearly \$553,000.

23.10 Mine Life

The current resources at the mine are sufficient to carry production at 250 Tpd for 13.2 months. These 13.2 months started December 1, 2008 and end in January 2010. It is the intention of Malaga to conduct exploration through this time frame to expand the resource base to the point it can support an increase in production. The expansion will require capital expenditures in the mine for additional equipment and in the mill to increase crushing capacity. The timing of the expansion is dependent upon the success of the exploration effort during the initial 10 to 12 months of this period. The probability of success is very high given the large inferred resource base currently being reported. Below is a summary of the plans for mine expansion through 2011:

- ◆ Phase I – The first phase goes from when the mine started in production as of April 2007 and goes through late 2009 or early 2010. The mine production has targeted a production rate 250 Tpd.
- ◆ Phase II – The second phase commences with increasing the capacity of the existing Huaura mill to 600 Tpd with minimal mill changes involving increased crushing capacities. During this phase, the mill

will be operated at 500 Tpd and may push higher if underground production can keep up. It is anticipated this phase will go from early 2010 to mid 2011.

It is anticipated that, prior to any further expansion, a Bankable Feasibility Study will be required.

24.0 ILLUSTRATIONS

The illustrations (Tables and Figures) are included within the text of each section and listed in the table of contents.

25.0 APPENDICES

The appendices are listed in the Table of Contents and can be found at the end of the report.

Appendix A

Drill Hole Assays and Selected Cross-Sections

Appendix A

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CUADRO DE MUESTREO HDD-01
OBJETIVO : VETA CONSUELO
PROYECTO : PASTO BUENO
GEOLOGO : Ing. Carlos Mendoza C.

CANTIDAD DE MUESTRAS : 30
FECHA DE REPORTE : 7 de Junio de 2007

Fing. Carlos Velazquez C.																					
											ME-ICP61 ME-ICP61 ME-ICP61 ME-ICP61 ME-ICP61 ME-ICP61 ME-ICP61 ME-ICP61 ME-ICP61 ME-ICP61 ME-ICP61										
N° de Muestra	DE: (m)	A: (m)	Ancho (m)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE DESCRIPTION	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
1351	21.85	22.10	0.25	Vetilla		Vetilla de qz, py, td.		HQ	HDD-01	1351	51.1	0.17	650	10	1.1	145	0.02	36.5	2	5	2070
1352	23.20	23.47	0.27	Veta		Veta de qz, py, chipas de hubnerita.		HQ	HDD-01	1352	13.8	2.89	609	180	2.8	27	0.13	27.5	1	6	1795
1353	27.95	28.95	1.00	Veta		Veta con qz brechado (blanco,gris), sericita, óxido de Fe.		HQ	HDD-01	1353	2.5	7.62	17	340	6.4	4	0.26	0.8	2	3	142
1354	63.57	64.05	0.48	Vetilla		Vetilla de qz		HQ	HDD-01	1354	7.5	5.62	246	100	5.9	73	0.3	28.5	1	5	1195
1355	64.05	64.75	0.70	Veta		Veta de qz, sericita, pirita.		HQ	HDD-01	1355	1.4	0.94	10	10	1.1	4	0.03	1.6	<1	13	79
1356	78.15	79.65	1.50	Veta		Veta con qz, py, gr. Óxido de Fe.		HQ	HDD-01	1356	49	2.09	143	210	148.5	56	0.56	21.1	1	13	610
1357	146.90	147.60	0.70	Veta		Estructura de qz (blanco gris), con py, gr. S7, fluorita.		NQ	HDD-01	1357	26.3	6.58	10	330	258	49	1.28	12.6	2	5	204
1376	170.40	171.40	1.00	Veta		Veta qz		NQ	HDD-01	1376	2	8.82	5	630	15.7	<2	0.82	1.8	1	4	157
1377	171.40	173.10	1.70	Veta		Veta qz		NQ	HDD-01	1377	3.2	9.2	16	580	61.1	3	1.23	4.2	2	4	125
1378	175.45	176.55	1.10	Veta		Veta qz		NQ	HDD-01	1378	1.1	7.11	9	620	2.4	<2	1.61	3.8	3	4	18
1358	183.63	185.10	1.47	Veta		Veta qz		NQ	HDD-01	1358	8.6	9.03	7	560	22.9	16	1.15	2.5	3	5	396
1379	185.10	185.95	0.85	Veta		Veta qz		NQ	HDD-01	1379	57.2	9.41	14	760	109.5	123	1.62	1.6	2	2	655
1359	190.10	190.48	0.38	Veta		Veta de qz con vetilla de py.		NQ	HDD-01	1359	>100	6.43	11	460	409	218	3.61	23.9	3	3	135
1360	190.48	191.58	1.10	Veta		Veta de qz con vetilla de py.		NQ	HDD-01	1360	7.2	1.54	36	70	391	14	0.3	10.2	2	10	1020
1361	191.58	191.88	0.30	Veta		Veta de qz con vetilla de py.		NQ	HDD-01	1361	0.7	8.64	<5	870	7.8	<2	1.01	2	2	4	59
1362	229.30	230.10	0.80	Veta		Veta de qz.		NQ	HDD-01	1362	1.7	9.1	30	160	9.1	<2	0.38	3.6	2	3	1750
1363	230.10	230.65	0.55	Veta		Veta de qz, sericita, óxido de Fe, escasa fluorita.		NQ	HDD-01	1363	1.2	8.54	155	320	4.7	<2	0.15	11.6	1	2	1830
1364	230.65	231.20	0.55	Veta		Veta de qz, sericita, óxido de Fe, escasa fluorita.		NQ	HDD-01	1364	1.6	9.03	115	820	5.8	<2	0.14	12.3	2	1	2540
1365	231.20	232.40	1.20	Veta		Veta de qz oqueroso (vuggy silica), fluorita verde, violisca y marrón, sericita, hubnerita fina, y anhedral, óx fe., pirita, sericita.		NQ	HDD-01	1365	11.2	5.44	59	60	54.4	16	3.92	3.3	1	2	2070
1366	232.40	232.95	0.55	Veta		Veta de qz oqueroso (vuggy silica), fluorita verde, violisca y marrón, sericita, hubnerita fina, y anhedral, óx fe., pirita, sericita.		NQ	HDD-01	1366	2.1	7.64	<5	560	30.8	4	0.99	23.5	<1	4	784
1373	278.85	279.15	0.30	Veta		Bandas de qz en roca. DUPLICADO DE MUESTRA 1372		NQ	HDD-01	1373	0.6	7.76	<5	470	5.2	<2	0.71	1.9	5	4	677
1374	269.53	270.28	0.75	Veta		Veta de qz.		NQ	HDD-01	1374	1.5	9.85	10	920	5	<2	1.54	3.8	4	4	320
1375						Roca esófrol BLANCO				1375	1.2	7.63	24	420	6	<2	0.39	3	3	5	782
1367	271.75	274.20	2.45	Veta		Veta de qz blanco, con escasa diseminación de hubnerita, py.		NQ	HDD-01	1367	3.5	3.03	67	90	3.8	15	0.02	6	1	12	758
1390	274.20	276.15	1.95	Veta		Veta de qz blanco, con escasa diseminación de hubnerita, py.		NQ	HDD-01	1390	1.9	0.52	67	10	0.9	13	<0.01	1.2	1	20	158
1368	276.15	276.45	0.30	Veta		Veta de qz con hubnerita diseminada y en fracturas, td, py.		NQ	HDD-01	1368	4.3	0.09	35	<10	<0.5	56	0.01	4.1	1	12	350
1369	276.45	277.00	0.55	Veta		Veta de qz con hubnerita diseminada y en fracturas, td, py.		NQ	HDD-01	1369	9.4	0.08	60	<10	<0.5	50	<0.01	1.2	3	19	595
1370	277.00	278.10	1.10	Veta		Veta de qz con hubnerita diseminada y en fracturas, td, py.		NQ	HDD-01	1370	19.2	0.72	182	10	1.2	127	0.01	15.6	1	20	1430
1371	278.10	278.85	0.75	Veta		Veta de qz, td, py, óxido de Fe, escasa hubnerita.		NQ	HDD-01	1371	5.9	2.59	88	30	3.1	58	0.05	6.2	1	10	1120
1372	278.85	279.15	0.30	Veta		Bandas de qz en roca.		NQ	HDD-01	1372	1.1	5.75	29	300	5.5	9	0.24	6.4	1	4	304

2



CUADRO DE MUESTREO HDD-02-08

OBJETIVO : VETA CONSUELO
 PROYECTO : PASTO BUENO
 GEOLOGO : Ing. Carlos Mendoza C.

CANTIDAD DE MUESTRAS : 06
 FECHA DE REPORTE : 16 de Julio de 2007

N° de Muestra	DE: (m.)	A: (m.)	Ancho (m.)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE DESCRIPTION	ME-1CP61 Ag ppm	ME-1CP61 Al %	ME-1CP61 As ppm	ME-1CP61 Ba ppm	ME-1CP61 Be ppm	ME-1CP61 Bi ppm	ME-1CP61 Ca %	ME-1CP61 Cd ppm	ME-1CP61 Co ppm	ME-1CP61 Cr ppm	ME-1CP61 Cu ppm	ME-1CP61 Fe %	ME-1CP61 Ga ppm	ME-1CP61 K %
1444	139.53	139.83	0.30	Veta		Veta de qz, py, hubnerita.		NQ	HDD-02-08	1444	1.5	3.98	6	50	4.3	4	0.42	7.5	1	4	111	0.52	20	2.01
1445	139.83	140.10	0.27	Veta		Veta de qz, py, hubnerita.		NQ	HDD-02-08	1445	1	6.79	<5	140	10.6	2	1.06	12.4	2	4	145	1.12	30	3.65
1452	203.38	204.55	1.17	Veta		Veta qz blanco poroso, abundante fluorita, py, oxidos		NQ	HDD-02-08	1452	4.1	7.61	9	570	2.1	18	1.39	0.5	5	2	25	2.48	20	4.62
1456	317.75	318.18	0.43	Veta		Estructura qz, fluorita, py, ser.		BQ	HDD-02-08	1456	2.6	4.9	11	50	37.9	5	1.11	2.2	1	5	23	0.73	20	3.02
1453	342.85	344.50	1.65	Veta		Veta de qz, Blanco poroso, py, fluorita , chispas de hub.		BQ	HDD-02-08	1453	1.7	9.01	6	670	15.3	4	0.7	4.1	2	3	273	0.58	30	6.37
1454	344.50	345.10	0.60	Veta		Veta de qz blanco poroso, py, fluorita, chispas de hub?		BQ	HDD-02-08	1454	1.4	8.39	<5	620	5.5	4	0.75	5.1	2	3	121	0.75	30	5.35

4



CUADRO DE MUESTREO HDD-03-08

OBJETIVO : VETA CONSUELO

CANTIDAD DE MUESTRAS : 12

PROYECTO : PASTO BUENO

FECHA DE REPORTE : 8 de Agosto de 2007

GEOLOGO : Ing. Carlos Mendoza C.

N° de Muestra	DE: (m.)	A: (m.)	Ancho (m.)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE DESCRIPTION	ME-1CP61	ME-1CP61	ME-1CP61	ME-1CP61	ME-1CP61	ME-1CP61	ME-1CP61	ME-1CP61	ME-1CP61	ME-1CP61	ME-1CP61	ME-1CP61	ME-1CP61	ME-1CP61	ME-1CP61
											Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm
1458	118.58	119.62	1.04	Veta		Roca se observa chispas de hub.		HQ	HDD-03-08	1458	2.3	5.63	79	400	7.1	86	0.67	2.5	3	3	363	1.02	20	3.64	10
1460	127.50	127.90	0.40	Veta		Veta de Qz. blanco drúsico con Py diss		HQ	HDD-03-08	1460	0.6	0.8	<5	80	1	12	0.13	3	1	3	44	0.28	<10	0.58	<10
1462	168.60	169.30	0.70	Veta		Veta de Qz. blanco lechoso		HQ	HDD-03-08	1462	<0.5	0.21	<5	20	<0.5	<2	0.03	<0.5	<1	6	11	0.23	<10	0.14	<10
1463	169.95	171.20	1.25	Veta		Veta de Qz. blanco sin mineralización		HQ	HDD-03-08	1463	0.5	0.22	10	10	<0.5	6	0.01	<0.5	1	8	18	0.25	<10	0.15	<10
1464	181.30	181.64	0.34	Veta		Veta de Qz. drúsico		NQ	HDD-03-08	1464	<0.5	0.11	6	10	<0.5	<2	<0.01	<0.5	<1	3	10	0.17	<10	0.06	<10
1465	189.85	190.00	0.15	Verilla		Verilla de Qz. poroso, ox (?)		NQ	HDD-03-08	1465	0.6	1.04	33	110	1.6	36	0.02	<0.5	<1	4	100	0.47	<10	0.87	<10
1466	196.42	197.05	0.63	Veta		Veta de Qz. oxidado y Qz. blanco sin min.		NQ	HDD-03-08	1466	9.8	0.7	626	40	4.1	827	0.02	1.8	1	2	1280	4.32	<10	0.48	<10
1467	197.05	198.00	0.95	Veta		Veta de Qz. oxidado y Qz. blanco sin min.		NQ	HDD-03-08	1467	1.3	0.11	44	10	0.5	52	0.04	<0.5	<1	6	64	0.31	<10	0.05	<10
1468	207.00	207.40	0.40	Veta		Se observa pro de hub.		NQ	HDD-03-08	1468	<0.5	8.44	16	500	3.3	<2	1.11	6.3	3	3	133	1.02	30	5.19	20
1470	218.65	218.82	0.17	Veta		Verilla de Qz. con pto de py, presencia de sericita		NQ	HDD-03-08	1470	<0.5	0.26	8	10	<0.5	5	0.01	1.3	<1	4	78	0.22	<10	0.14	<10
1475	221.90	223.37	1.47	Veta		Veta de Qz. con pto de Py y Ox.		NQ	HDD-03-08	1475	<0.5	1.02	6	40	0.7	<2	0.03	1.2	1	4	48	0.48	<10	0.7	<10
1476	227.55	227.95	0.40	Veta		Veta de Qz. con presencia de sericita y abundante py		NQ	HDD-03-08	1476	0.9	1.25	9	60	1.8	56	0.03	48.8	3	2	119	3.48	10	0.74	<10

ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	Zn-AA62	ME-XRF05	ME-XRF05	Ancho m.	WO3 %	Cu %	Ag onz	Zn %	Pb %
Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti	Ti	U	V	W	Zn	Zn	W	W							
%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	%						
0.17	595	6	0.08	2	1050	109	0.92	155	2	73	<20	0.09	<10	<10	40	80	664		70	0.007							
0.03	98	3	0.02	1	100	23	0.14	18	<1	13	<20	0.01	<10	<10	5	<10	852		10	0.001	PROMEDIO						
0.01	62	1	0.01	2	140	10	<0.01	<5	<1	5	<20	<0.01	10	<10	3	<10	6		10	0.001	1.25	0.003	0.002	0.016	0.001	0.002	
0.01	59	12	0.02	<1	30	22	0.01	11	<1	4	<20	<0.01	<10	<10	3	30	10		20	0.002							
<0.01	24	1	<0.01	1	10	5	<0.01	15	<1	1	<20	<0.01	<10	<10	1	<10	13		10	0.001	1.25						
0.04	73	2	0.05	1	160	49	0.03	16	<1	19	<20	0.01	<10	<10	6	<10	130		10	0.001							
0.03	144	26	0.03	1	770	167	0.03	270	<1	10	<20	0.01	<10	<10	2	90	174		90	0.009	0.63	0.011	0.128	0.315	0.017	0.017	
0.01	128	3	0.01	<1	170	59	0.01	63	<1	5	<20	<0.01	<10	<10	2	300	25		290	0.029							
0.19	375	2	2.75	2	550	45	0.91	<5	2	343	20	0.12	10	20	23	60	2070		60	0.006	1.58						
0.01	64	1	0.01	1	30	9	0.06	<5	<1	2	<20	<0.01	<10	<10	3	<10	429		10	0.001							
0.03	67	4	0.16	4	60	5	0.16	<5	<1	21	<20	0.01	<10	<10	5	70	352		70	0.007							
0.09	160	32	0.02	<1	40	81	4.53	<5	1	10	<20	0.01	<10	<10	16	<10	>10000	1.23	10	0.001							

CUADRO DE MUESTREO HDD-04-08
OBJETIVO : VETA CONSUELO
PROYECTO : PASTO BUENO
GEOLOGO : Ing. Jaime R. Mercado

CANTIDAD DE MUESTRAS : 20
FECHA DE REPORTE : #####

N° de Muestra	DE: (m.)	A: (m.)	Ancho (m.)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE DESCRIPTION	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
											Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %
1477	88.12	88.80	0.68	Veta		Estructura de qz. Blanco, sericita, fluorita, chispas hub.		HQ	HDD-04-08	1477	1	11.6	9	200	10.9	8	0.15	<0.5	1	3	23	0.43	60	6.43
1478	88.80	89.70	0.90	Veta		Estructura de qz. Blanco, sericita, fluorita, chispas hub.		HQ	HDD-04-08	1478	4.8	12	20	90	10.7	27	1.39	<0.5	2	2	25	0.53	70	5.92
1479	####	119.65	0.80	Veta		Veta qz. Blanco py diss. Hub. (estructura fracturada)		HQ	HDD-04-08	1479	4.7	2.14	46	20	2.4	4	0.01	0.5	<1	3	160	0.5	10	1.04
1480	####	119.95	0.30	Vetilla		Veta qz. Blanco py diss. Hub. (estructura fracturada)		HQ	HDD-04-08	1480	5.7	0.59	24	10	0.9	12	<0.01	<0.5	<1	6	119	0.81	<10	0.27
1481	####	148.80	0.80	Veta		Veta qz. Blanco py		HQ	HDD-04-08	1481	10.1	10.2	22	360	85.2	26	2.02	1.7	3	3	34	2.43	60	7.11
1482	####	208.58	0.38	Vetilla		Veta de qz. Py/diss gn diss, sericita		HQ	HDD-04-08	1482	4.1	3.71	31	180	4.6	<2	0.53	5.3	1	5	201	0.73	20	2.81
1483	####	261.63	0.10	Vetilla		Vetilla qz. Hub. Negra py, fluorita		HQ	HDD-04-08	1483	3	7.55	18	270	140	11	1.05	9.8	2	3	1245	2.17	30	5.17
1484	####	295.13	0.43	Veta		Vetilla de qz		HQ	HDD-04-08	1484	2.8	8.42	6	630	16.8	8	2.24	20.9	1	2	195	1.04	20	7.95
1485	####	307.78	0.50	Veta		Veta de Qz blanco. py diss, Gn? Hub? S. la estructura se encuentra muy fracturada.		HQ	HDD-04-08	1485	>100	0.61	53	30	65.8	188	0.39	180	5	5	432	2.94	<10	0.42
1486	####	322.70	0.29	Veta		Tiemo de Roca muy alterada ser. cl.		HQ	HDD-04-08	1486	1	8.14	9	460	6.4	5	1.28	5.1	1	6	46	1.21	20	6.47
1487	####	369.89	0.22	Veta		Tiemo de roca alterada, Qz, ser chispas de hub.		NQ	HDD-04-08	1487	<0.5	9.37	<5	570	15.2	6	0.92	1.9	<1	5	7	0.5	30	6.48
1488	####	411.53	1.08	Veta		Tiemo de roca muy alterada sericita Py, fluorita, chispas hub?		NQ	HDD-04-08	1488	35.4	8.88	32	520	14.1	78	1.87	23.8	3	4	659	1.98	30	7.2
1489	####	412.61	1.08	Veta		Tiemo de roca muy alterada sericita Py, fluorita, chispas hub?		NQ	HDD-04-08	1489	4.2	8.44	9	700	6.5	13	1.96	2.4	2	3	259	0.52	20	6.81
1490	####	413.70	1.09	Veta		Tiemo de roca muy alterada sericita Py, fluorita, chispas hub?		NQ	HDD-04-08	1490	0.9	9.03	13	420	19.6	8	2.12	2.1	2	3	25	0.85	20	6.26
1491	####	421.75	0.75	Veta		Vetilla de qz		NQ	HDD-04-08	1491	1.8	6.69	10	480	24.1	7	1.89	4.6	1	4	276	0.91	30	6.2
1492						Roca estéril BLANCO				1492	0.9	2.8	48	50	3.8	8	0.09	1.1	1	4	341	0.77	20	1.42
1493	####	460.80	0.35	Veta		Veta de Qz blanco gris, venilleo de py y sericita verde.		NQ	HDD-04-08	1493	11	0.63	153	10	2.2	246	0.07	10.4	<1	4	1825	5.28	<10	0.38
1494	####	462.44	1.64	Veta		Veta de Qz blanco gris, venilleo de py y sericita verde.		NQ	HDD-04-08	1494	6.1	0.09	55	<10	<0.5	96	0.01	4.3	1	8	662	0.43	<10	0.04
1495	####	462.90	0.46	Veta		Estructura Qz griz, intercalado con roca alterada y py diss, hub?		NQ	HDD-04-08	1495	39.2	0.22	165	<10	<0.5	540	0.07	119.5	1	3	6570	5.92	<10	0.11
1496	####	507.40	1.04	Veta		Roca muy alterada con Qz. drusico, sericita, fenos de plagioclasa, fluorita, py diss.		NQ	HDD-04-08	1496	<0.5	8.54	<5	830	1.1	6	1.43	8.7	1	3	41	0.77	20	9.15

ME-ICP61		ME-ICP61		ME-ICP61		ME-ICP61		ME-ICP61		ME-ICP61		ME-ICP61		ME-ICP61		ME-ICP61		ME-ICP61		Ag-AA62		Pb-AA62		Zn-AA62		ME-XRF05		ME-XRF05		Ancho m.	WO3 %	Cu %	Ag onz	Zn %	Pb %	
La	Me	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Pb	Zn	Sn	W	W												
ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm	%	%	%							%
20	0.52	1235	1	0.12	3	240	144	0.02	22	4	52	<20	0.12	<10	<10	93	460	44					7	450	0.045											
20	0.53	1440	5	0.13	4	350	373	0.09	48	3	15	20	0.12	<10	<10	99	390	49					7	380	0.038											
<10	0.09	333	5	0.02	<1	80	135	0.12	104	1	3	<20	0.02	10	<10	19	90	94					<5	80	0.008											
<10	0.02	268	8	0.01	1	60	109	0.35	55	<1	2	<20	<0.01	<10	<10	7	600	88					<5	590	0.059											
20	0.66	958	<1	0.16	2	520	1960	2.64	<5	4	120	20	0.13	<10	10	108	40	265					49	40	0.004											
10	0.15	168	1	0.44	1	210	387	0.64	49	1	104	<20	0.06	<10	<10	36	250	590					7	250	0.025											
20	0.19	1430	17	0.8	<1	320	147	2.35	16	2	227	<20	0.08	<10	10	42	200	1430					9	190	0.019											
20	0.24	525	<1	0.51	3	500	1800	1.09	<5	3	313	20	0.14	<10	10	34	400	1500					8	390	0.039											
<10	0.03	493	1	0.01	1	10	>10000	4.61	71	<1	8	<20	<0.01	<10	<10	12	<10	>10000	116	3.84	1.66	7	10	0.001												
20	0.17	589	<1	1.26	4	350	200	1.08	<5	2	310	20	0.11	<10	10	32	120	1440					<5	110	0.011											
20	0.2	321	<1	3.17	4	450	39	0.37	<5	3	282	20	0.13	<10	30	52	1030	144					6	1000	0.100											
20	0.2	271	<1	1.51	5	390	3140	2.39	9	3	313	20	0.11	<10	20	42	410	2660					11	400	0.040											
20	0.1	185	<1	2.25	5	430	210	0.45	6	2	344	20	0.12	<10	20	25	230	301					<5	220	0.022											
20	0.13	248	<1	2.68	3	470	204	0.79	<5	2	314	30	0.12	<10	20	23	610	177					<5	590	0.059											
20	0.19	584	3	0.36	3	430	153	0.8	12	2	178	20	0.11	<10	10	79	440	348					12	420	0.042											
10	0.19	347	2	0.02	3	70	12	0.59	11	2	5	<20	0.05	<10	<10	36	<10	266					<5	10	0.001											
<10	0.03	137	6	0.01	2	10	273	6.06	363	1	3	<20	0.01	<10	<10	10	90	2700					<5	100	0.010											
<10	<0.01	571	1	0.01	3	10	63	0.21	242	<1	1	<20	<0.01	<10	<10	3	1680	1080					<5	1650	0.165	1.64	WO3	Cu	Ag	Zn	Pb					
<10	0.01	5790	24	<0.01	1	10	1140	8.55	303	4	3	<20	<0.01	<10	10	3	2030	>10000				3.44	<5	>10000	2.270	0.46	WO3	Cu	Ag	Zn	Pb					
20	0.16	416	4	0.88	5	480	50	0.66	<5	2	465	20	0.14	<10	10	36	510	1010					<5	500	0.050	2.10	WO3	Cu	Ag	Zn	Pb					

PROMEDIO				
WO3	Cu	Ag	Zn	Pb
%	%	onz	%	%
0.79	###	###	###	###



CUADRO DE MUESTREO HDD-05-08

OBJETIVO : VETA CONSUELO
PROYECTO : PASTO BUENO
GEOLOGO : Ing. William H. Quispe Garcia

CANTIDAD DE MUESTRAS : 02
FECHA DE REPORTE : 19 de Octubre de 2007

N° de Muestra	DE: (m)	A: (m)	Ancho (m)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE DESCRIPTION	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
											Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %
1111	153.05	153.90	0.85	Veta		Veta qz blanco muy oxidado, fracturado.		NQ	HDD-05-08	1111	<0.5	0.2	17	<10	<0.5	<2	0.01	<0.5	<1	6	17	0.44
1114	356.23	357.00	0.77	Veta		Veta de Qz, con biotita		NQ	HDD-05-08	1114	<0.5	7.08	<5	100	2.6	<2	0.67	<0.5	<1	1	6	0.44

ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	Sr-XRF05	ME-XRF05	ME-XRF05
Ga	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	Sn	W	W
ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	
<10	0.08	<10	0.01	50	1	0.01	1	20	13	<0.01	6	<1	<1	<20	0.01	<10	<10	5	20	19	<5	20	0.002
10	2.82	10	0.06	360	30	2.66	<1	190	27	0.07	<5	3	124	20	0.04	10	20	12	<10	7	<5	10	0.001



CUADRO DE MUESTREO HDD-06-08

OBJETIVO : VETA SANTA MARTA
PROYECTO : PASTO BUENO
GEOLOGO : Ing. William H. Quispe García

CANTIDAD DE MUESTRAS : 03
FECHA DE REPORTE : 17 de Noviembre de 2007

: Ing. William H. Quispe García																						
N° de Muestra	DE: (m.)	A: (m.)	Ancho (m.)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
										DESCRIPTION	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %
1117	240.75	241.90	0.80	Veta		Veta de qz oxidado, fracturado a muy fracturado.		HQ	HDD-06-08	1117	10.5	1.66	49	60	2.5	11	0.24	0.8	1	6	171	0.74
1118	241.90	243.42	1.07	Veta		Veta de qz oxidado, fracturado a muy fracturado.		HQ	HDD-06-08	1118	19.6	0.28	111	20	2.2	3	0.38	2	<1	10	534	0.33
1121	285.30	286.10	0.70	Veta		Veta de qz blanco, chispas de hub+, gn, py+ diss.		HQ	HDD-06-08	1121	54.8	0.57	1700	10	1.1	62	1.52	45.8	<1	9	6380	0.99

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CUADRO DE MUESTREO HDD-07-08

OBJETIVO : VETA PARAISO
PROYECTO : PASTO BUENO
GEOLOGO : Ing. Jaime R. Mercado

CANTIDAD DE MUESTRAS : 07
FECHA DE REPORTE : 14 de Diciembre de 2007

N° de Muestra	DE: (m.)	A: (m.)	Ancho (m.)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE DESCRIPTION	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
											Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm
1123	40.60	41.50	0.90	Veta		Qz blanco, presencia de óxido y py diss		HQ	HDD-07-08	1123	1	1.19	207	20	1.8	<2	0.01	<0.5	1	16	78	5.85	10
1124	229.80	230.20	0.40	Veta		Veta de qz blanco con py diss, ser.		HQ	HDD-07-08	1124	0.9	1.37	27	10	49	<2	0.51	<0.5	4	24	77	1.28	<10
1125	338.08	338.35	0.27	Veta		Veta de qz, qz drúsico, py y óxidos		NQ	HDD-07-08	1125	0.5	5.39	10	40	3.7	<2	0.01	<0.5	2	8	23	1.04	10
1126	402.14	402.70	0.56	Veta		Veta de qz, py, gn		NQ	HDD-07-08	1126	30.1	0.47	8	20	0.7	55	0.11	15.9	1	11	176	0.48	<10
1127	467.45	467.72	0.27	Veta		Veta de qz blanco, py, thd, gn, ser, fluorita, hub++		NQ	HDD-07-08	1127	28	2.41	754	20	2.4	7	2.23	7.9	1	2	2640	0.76	10
1128	482.87	483.20	0.33	Veta		Veta de qz blanco, drusas, py, thd, gn, ser, fluorita		NQ	HDD-07-08	1128	57.4	0.45	1440	<10	0.5	12	2.82	492	2	3	5920	1.37	30
1129	489.17	489.25	0.08	Veta		Vetilla de qz, hub+		NQ	HDD-07-08	1129	1.2	5.53	21	60	4.9	3	1.47	18.2	2	3	57	1.06	30

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CUADRO DE MUESTREO HDD-08-08

OBJETIVO : VETA SANTA MARTA
PROYECTO : PASTO BUENO
GEOLOGO : Ing. Jaime R. Mercado

CANTIDAD DE MUESTRAS : 07
FECHA DE REPORTE : 2 de Febrero de 2008

N° de Muestra	DE: (m.)	A: (m.)	Ancho (m.)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE DESCRIPTION	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
											Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %
1130	85.00	86.20	1.20	Veta	Qz - Ser	Veta de qz,ser,py y capas de oss		HQ	HDD-08-08	1130	<0.5	7.49	12	150	3.2	2	0.1	<0.5	5	11	13	0.74	10	2.01
1131	157.51	158.00	0.49	Veta	Qz	Vetilla de qz lechoso y py subhedral-euhedral en oquedades		HQ	HDD-08-08	1131	47.8	0.62	168	10	1.4	61	0.41	15.3	3	9	1565	1.36	<10	0.26
1132	229.95	230.86	0.91	Veta	Qz	Vetilla de qz lechoso fracturado,bi,arcs y capas de oss		HQ	HDD-08-08	1132	0.9	0.25	<5	10	<0.5	<2	0.01	<0.5	2	11	10	0.44	<10	0.1
1133	302.42	302.79	0.37	Veta	Qz	Vetilla de qz,cristales de wo ₃ ,fl,ser,py		HQ	HDD-08-08	1133	3.6	1.38	134	10	2.1	<2	1.69	2	1	13	516	0.34	10	0.66
1134	302.79	303.10	0.31	Veta	Qz	Vetilla de qz drusico, con wo ₃ diss,fl,py,ser		HQ	HDD-08-08	1134	1	8.68	72	400	8.6	<2	3.38	1.4	3	3	206	0.98	50	5.33
1135	303.10	303.65	0.55	Veta	Qz	Vetilla de qz, py,ser y wo ₃		HQ	HDD-08-08	1135	0.5	0.28	<5	<10	0.6	<2	0.12	<0.5	1	28	5	0.26	<10	0.13
1136	303.65	303.90	0.25	Veta	Qz	Vetilla de qz y py		HQ	HDD-08-08	1136	0.5	1.11	<5	30	1.5	<2	0.26	1.9	1	9	8	0.4	10	0.56
008	302.79	303.10	0.31	Veta	Qz	Vetilla de qz drusico, con wo ₃ diss,fl,py,ser. DUPLICADO DE MUESTRA 1134 OBTENIDO POR ING ALAIN BEAUREGARD		HQ	HDD-08-08	008														

0.37	2.27	0.05	0.12	0.05	0.02	PROMEDIO				
0.31	0.97	0.02	0.03	0.04	0.02	WO3	Cu	Ag	Zn	Pb
0.55	0.02	0.00	0.02	0.01	0.00	%	%	onz	%	%
0.25	1.17	0.00	0.02	0.05	0.00	0.97	0.02	0.04	0.03	0.01



CUADRO DE MUESTREO HDD-09-08

OBJETIVO : VETA CHABUCA
PROYECTO : PASTO BUENO
GEOLOGO : Ing. William H. Quispe Garcia

CANTIDAD DE MUESTRAS : 10
FECHA DE REPORTE : 2 de Febrero de 2008

											ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
N° de Muestra	DE:	A:	Ancho	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	K	La		
		(m.)	(m.)							DESCRIPTION	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	%	ppm		
1137	#####	116.75	0.15	Vetilla	Qz	Vetilla de qz blanco,py		HQ	HDD-09-08	1137	1.4	1.51	>10000	60	0.9	2	0.24	<0.5	55	11	140	2.97	10	0.59	<10		
1138	#####	126.58	0.28	Vetilla	Qz	Vetilla de qz lechoso,cp,po,cbs		HQ	HDD-09-08	1138	0.8	0.64	439	30	<0.5	<2	0.07	<0.5	76	7	846	17.5	10	0.19	<10		
1156	#####	345.95	0.40	Veta		Veta de qz blanco, con venillas de thd, gn, ser, arcillas		NQ	HDD-09-08	1156	>100	1.86	>10000	<10	1.8	20	0.14	114	1	6	>10000	0.86	10	0.86	<10		
1157	#####	434.90	0.66	Veta		Veta de qz lechoso con py, gn,hub?		NQ	HDD-09-08	1157	3.6	0.58	59	10	15.9	<2	1.51	12.9	1	7	173	1.66	<10	0.36	<10		
1158	#####	435.52	0.62	Veta		Veta de qz,py diss,gn,ser,ms,ef,hub?		NQ	HDD-09-08	1158	7.1	0.57	66	10	21.2	4	0.48	30	1	6	92	1.34	<10	0.37	20		
1159	#####	498.20	0.50	Veta		Veta de cuarzo py diss y masivo thd, gn		NQ	HDD-09-08	1159	66.2	0.07	781	<10	0.5	101	0.05	144.5	23	9	3490	8.49	<10	0.03	<10		
1160	#####	498.87	0.67	Veta		Veta de cuarzo py diss y masivo thd, gn		NQ	HDD-09-08	1160	5.6	0.04	792	<10	<0.5	2	0.01	25.8	13	13	2570	7.13	<10	0.02	<10		
1161	#####	596.05	0.60	Veta		Veta de qz, py diss , thd, ser		NQ	HDD-09-08	1161	1.2	1.06	63	20	7.8	<2	0.32	1	2	13	26	1	10	0.49	<10		
1162	#####	598.30	0.70	Veta		Veta de qz, ser+, thd, druzas de qz, py		NQ	HDD-09-08	1162	1.8	1.96	32	50	3.3	2	0.82	12	2	16	32	1.07	10	0.96	<10		
1163	#####	599.00	0.70	Veta		Veta de cuarzo con ser, py cristales y diss, thd		NQ	HDD-09-08	1163	6.3	1.72	180	50	8.8	<2	0.54	2.2	1	13	426	0.74	10	0.82	<10		

ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	Ag-AA62	Cu-AA62	Pb-AA62	Zn-AA62	ME-XRF05	ME-XRF05	ME-XRF05
Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Cu	Pb	Zn	Sn	W	W
%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%
0.23	173	<1	0.02	4	160	8	2	<5	2	5	<20	0.06	<10	<10	17	230	21					<5	220	0.022
0.08	208	36	0.03	14	60	3	9.11	11	1	6	<20	0.02	<10	<10	<1	10	6					<5	10	0.001
0.1	2230	1	0.01	4	10	>10000	4.22	>10000	1	2	<20	0.01	<10	<10	10	5070	>10000	825	4.28	2.25	1.5	<5	5970	0.597
0.05	4780	5	0.01	1	50	285	0.66	50	<1	6	<20	0.01	<10	<10	13	210	1190					<5	220	0.022
0.05	1510	3	0.01	<1	40	3500	1.51	21	<1	4	<20	<0.01	<10	<10	32	730	3410					<5	710	0.071
0.01	1185	21	<0.01	3	10	>10000	>10.0	30	<1	1	<20	<0.01	<10	<10	3	30	>10000			1.11	1.46	<5	10	0.001
0.01	125	119	<0.01	2	10	68	7.51	5	<1	<1	<20	<0.01	<10	<10	3	10	2490					<5	10	0.001
0.09	1050	8	0.01	2	20	244	0.68	8	1	7	<20	0.02	<10	<10	19	490	115					<5	3480	0.348
0.17	769	63	0.01	6	130	1220	1.1	9	2	10	<20	0.06	<10	<10	47	50	1960					5	40	0.004
0.12	952	37	0.01	4	170	626	0.61	53	2	12	<20	0.08	<10	<10	36	10	397					<5	10	0.001

Ancho

WO3

Cu

Ag

Zn

Pb

m.

%

%

onz

%

%

PROMEDIO

WO3

Cu

Ag

Zn

Pb

%

%

onz

%

%

0.660.030.020.120.120.03

0.620.090.010.230.340.35

0.060.010.170.230.18

1.28

PROMEDIO

WO3

Cu

Ag

Zn

Pb

%

%

onz

%

%

0.700.010.000.060.200.12

0.700.000.040.200.040.06

0.000.020.130.120.09

1.40

CUADRO DE MUESTREO HDD-10-08
OBJETIVO : VETA CHABUCA
PROYECTO : PASTO BUENO
GEOLOGO : Ing. Jaime R. Mercado

CANTIDAD DE MUESTRAS : 19
FECHA DE REPORTE : 2 de Febrero de 2008

N° de Muestra	DE: (m.)	A: (m.)	Ancho (m.)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE DESCRIPTION	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
											Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %
1139	64.85	65.85	1.00	Veta	Qz	Veta de qz lechoso,py,qz,gn		HQ	HDD-10-08	1139	19.4	0.31	77	10	0.5	47	0.03	1.6	<1	11	165	0.5
1140	281.89	282.89	1.00	Veta	Qz	se observa vetillas de qz, con py, gn. Vetillas de qz con ptos de hub		HQ	HDD-10-08	1140	21.9	9.01	5	690	22.6	43	0.97	9	<1	5	20	0.68
1141	282.89	283.92	1.03	Veta	Qz	se observa vetillas de qz, con py, gn. Vetillas de qz con ptos de hub		HQ	HDD-10-08	1141	2.2	8.77	8	420	5.6	4	1.21	7.3	<1	7	5	0.54
1142	283.92	284.52	0.60	Veta	Qz	se observa vetillas de qz, con py, gn. Vetillas de qz con ptos de hub		HQ	HDD-10-08	1142	5.4	9.13	<5	560	71	11	0.81	14.5	<1	3	303	0.62
1143	284.52	285.20	0.68	Veta	Qz	se observa vetillas de qz, con py, gn. Vetillas de qz con ptos de hub		HQ	HDD-10-08	1143	6.1	8.81	<5	340	6.4	12	0.98	6.7	1	4	11	0.72
1860	413.18	413.58	0.40	Veta	Qz	Veta de qz con bt diss,py en venillas y ptos. de fl		NQ	HDD-10-08	1860	<0.5	6.89	<5	70	5.8	<2	0.42	<0.5	<1	6	38	0.56
1861	415.39	416.00	0.61	Veta	Qz	Veta de qz triturado y py		NQ	HDD-10-08	1861	8.8	1.24	5	70	3	93	0.15	15.5	2	13	258	8.7
1153	453.38	454.65	1.27	Falla	Qz	Falla con panizo,granos de qz,arcs,oss y py		NQ	HDD-10-08	1153	2.4	7.37	38	270	8	2	0.7	22.9	3	4	235	1.2
1154	454.65	456.10	1.45	Falla	Qz	Falla con panizo,granos de qz,arcs,oss y py		NQ	HDD-10-08	1154	<0.5	7.65	5	390	6.5	<2	0.65	0.9	2	4	36	1.28
1155	456.10	458.47	2.37	Falla	Qz	Falla con panizo,granos de qz,arcs,oss y py		NQ	HDD-10-08	1155	1	7.81	27	280	11.2	7	0.85	3.9	2	3	61	1.46
1144	495.35	495.95	0.60	Veta	Qz	Veta de qz con ptos de py y thd, arcillas en fracturas, ser, ptos de hub		NQ	HDD-10-08	1144	7.1	2.82	347	30	4.4	108	0.09	8.5	<1	6	1200	0.55
1145	495.95	496.28	0.33	Veta	Qz	Veta de qz con py diss,qz y py cristalizado en oquedades, ser, thd diss, hub diss		NQ	HDD-10-08	1145	34.5	4.57	960	180	5	592	0.04	28.6	1	4	3620	1.24
1146	496.28	496.69	0.41	Veta	Qz	Veta de qz con py cristalizada en fracturas,ser, ptos. de hub		NQ	HDD-10-08	1146	3.1	1.34	54	40	1.9	52	0.03	9.5	<1	7	243	0.44
1147	496.69	497.10	0.41	Veta	Qz	Veta de qz con py,ms,ef y ptos. de hub		NQ	HDD-10-08	1147	11.2	0.51	216	10	0.9	167	0.02	21.4	<1	16	929	0.88
1148	497.10	497.40	0.30	Veta	Qz	Veta de qz con presencia de oquedades, py diss, ptos. de hub		NQ	HDD-10-08	1148	1.4	3.61	24	50	4.9	23	0.05	4.5	<1	12	98	0.51
1149	497.40	497.66	0.26	Veta	Qz	Veta de qz con py, ser, ptos de thd y hub		NQ	HDD-10-08	1149	3.4	0.56	114	10	0.9	83	0.01	10.5	<1	14	430	0.41
1150	497.66	498.00	0.34	Veta	Qz	Veta de cuarzo, presenta py, ser, ptos de thd y hub		NQ	HDD-10-08	1150	2.2	2.57	72	60	3.5	42	0.06	9.8	1	12	285	0.71
1151	498.00	498.40	0.40	Veta	Qz	Veta de qz presencia de oquedades, qz cristalizado, py,thd, ptos de hub		NQ	HDD-10-08	1151	5.4	1.85	136	50	2.3	102	0.07	19.4	<1	10	510	0.43
1152	499.35	499.78	0.43	Veta	Qz	Veta de qz, con py diss y en venillas, ptos de hub		NQ	HDD-10-08	1152	7	2.64	263	20	3.5	83	0.4	15.2	1	17	916	2.03

Ancho	WO ₃	Cu	Ag	Zn	Pb
m.	%	%	onz	%	%

1.15

CUADRO DE MUESTREO HDD-10-08

OBJETIVO : VETA CHABUCA
PROYECTO : PASTO BUENO
GEOLOGO : Ing. William H. Quispe García

CANTIDAD DE MUESTRAS : 09
FECHA DE REPORTE : 26 de Febrero de 2008

Geología: Ing. William H. Quispe García																											
N° de Muestra	DE: (m.)	A: (m.)	Ancho (m.)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
										DESCRIPTION	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm		
1164	118.33	118.64	0.31	Veta		Qz, thd, py, ms en fracturas		HQ	HDD-10-08	1164	<0.5	6.75	8	60	3.9	<2	0.33	<0.5	<1	8	30	1.44	20	1.42	10		
1165	312.67	313.36	0.69	Veta		qz, ptos de py		NQ	HDD-10-08	1165	<0.5	0.09	<5	10	<0.5	<2	0.03	<0.5	1	15	12	0.6	<10	0.05	<10		
1166	338.86	339.30	0.44	Veta		qz,ptos de py, mus, ser en fracturas		NQ	HDD-10-08	1166	<0.5	0.86	7	80	0.5	<2	0.07	<0.5	<1	10	62	0.51	<10	0.77	<10		
1167	360.93	361.32	0.39	Veta		qz, py++, thd, Wo3+		NQ	HDD-10-08	1167	53.1	0.36	2070	40	0.5	179	0.36	203	1	13	5500	1.61	10	0.23	<10		
1168	361.32	361.76	0.44	Veta		qz qrusico, ser, wo3		NQ	HDD-10-08	1168	0.6	0.09	13	<10	<0.5	<2	0.06	1.9	1	11	30	0.3	<10	0.04	<10		
1169	361.76	362.55	0.79	Veta		qz, py y thd diss, wo3+ clorita?		NQ	HDD-10-08	1169	3.3	3.37	38	60	3.4	7	0.53	6.1	1	12	112	0.93	20	1.71	10		
1170	362.55	362.70	0.15	Veta		vetilla de cuarzo con py, thd, wo3		NQ	HDD-10-08	1170	16.7	7.97	79	140	7.2	37	1.35	22.1	2	6	553	1.47	40	4.14	20		
1171	362.70	363.03	0.33	Veta		qz, py y thd diss, wo3+		NQ	HDD-10-08	1171	1	5.85	39	170	5.1	2	1.29	2.3	1	8	111	1.04	30	3.33	10		
1172	363.03	363.63	0.60	Veta		qz, ser, py diss, wo3+		NQ	HDD-10-08	1172	2.5	0.78	11	10	1.2	<2	0.24	1.4	<1	11	332	0.37	10	0.39	<10		

ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	Zn-AA62	ME-XRF05	ME-XRF05	ME-XRF05										
Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	Zn	Sn	W	W	Ancho	WO3	Cu	Ag	Zn	Pb				
%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	m.	%	%	onz	%	%				
0.07	492	<1	2.49	1	170	46	0.23	5	2	122	20	0.05	<10	20	11	<10	59		<5	10	0.001	0.39	0.69	0.55	1.71	5.29	0.75				
0.01	64	<1	0.03	1	10	4	0.3	<5	<1	3	<20	<0.01	<10	<10	<1	<10	11		<5	10	0.001										
0.01	88	<1	0.16	<1	10	8	0.24	<5	<1	30	<20	<0.01	<10	<10	1	<10	24		<5	10	0.001										
0.01	2590	<1	0.02	3	20	7510	4.34	880	1	10	<20	<0.01	<10	<10	1	3180	>10000	5.29	<5	5490	0.549										
<0.01	71	<1	<0.01	<1	10	104	0.06	8	<1	1	<20	<0.01	<10	<10	1	90	525		<5	100	0.010										
0.14	793	1	0.03	2	140	625	0.84	29	2	11	<20	0.05	<10	<10	41	1100	1675		<5	1080	0.108	0.79	0.14	0.01	0.11	0.17	0.06				
0.32	1105	<1	0.06	1	570	3420	1.57	161	3	28	20	0.1	<10	10	63	940	6030		<5	970	0.097	0.15	0.12	0.06	0.54	0.60	0.34				
0.21	807	1	0.07	1	220	142	0.85	27	2	38	<20	0.07	<10	<10	71	520	646		<5	510	0.051	0.13	0.02	0.175	0.24	0.11					
0.04	237	5	0.01	<1	20	60	0.12	43	1	2	<20	0.01	<10	<10	17	530	362		<5	540	0.054	0.94									

PROMEDIO				
WO3	Cu	Ag	Zn	Pb
%	%	onz	%	%
0.69	0.55	1.71	5.29	0.75

CUADRO DE MUESTREO HDD-12-08

OBJETIVO : VETA CHABUCA
PROYECTO : PASTO BUENO
GEOLOGO : Ing. William H. Quispe García

CANTIDAD DE MUESTRAS : 12
FECHA DE REPORTE : 1 de Marzo de 2008

N° de Muestra	DE: (m.)	A: (m.)	Ancho (m.)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE DESCRIPTION	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
											Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm
1173	186.00	187.45	1.45	Veta		Cuarzo lechoso fragmentado, py diss		HQ	HDD-12-08	1173	5.6	2.62	268	120	2.9	<2	0.61	4.4	1	11	1050	1.21	10
1174	197.15	197.60	0.45	Veta		Cuarzo lechoso compresencia de py dis, hub++		HQ	HDD-12-08	1174	14.4	2.24	430	80	6.3	28	0.46	21.5	1	14	1860	0.88	10
1175	242.80	243.30	0.50	Veta		Estructura de silice masiva color gris claro		HQ	HDD-12-08	1175	<0.5	7.72	<5	280	5	<2	1.09	<0.5	1	9	4	0.98	30
1851	283.76	284.12	0.36	Veta		Cuarzo lechozo y vetilla de silice masiva		NQ	HDD-12-08	1851	<0.5	7.48	7	370	4.8	<2	1.19	<0.5	1	6	8	1.11	20
1852	284.12	284.60	0.48	Veta		Cuarzo lechozo y vetilla de silice masiva		NQ	HDD-12-08	1852	0.6	6.82	10	40	7.5	<2	0.48	<0.5	1	7	103	0.54	30
1853	298.50	299.10	0.60	Veta		Cuarzo lechozo y vetilla de silice masiva		NQ	HDD-12-08	1853	0.5	6.85	7	50	4.6	<2	0.61	<0.5	1	6	4	0.69	20
1854	299.10	299.90	0.80	Falla		Fragmentos de qz y limos presencia de alteracion propilitica		NQ	HDD-12-08	1854	0.5	7.51	5	90	7.8	<2	0.44	<0.5	1	7	5	0.88	30
1855	299.90	300.90	1.00	Veta		Qz con presencia de pirita diseminado en tramos fracturada		NQ	HDD-12-08	1855	0.5	7.4	6	190	6.4	2	0.62	<0.5	1	7	8	0.83	30
1856	300.90	301.65	0.75	Veta		Qz con presencia de pirita diseminado en tramos fracturada		NQ	HDD-12-08	1856	0.5	6.8	9	10	6.3	<2	0.42	<0.5	<1	6	6	0.57	30
1857	301.65	302.25	0.60	Veta		Qz con presencia de pirita diseminado en tramos fracturada		NQ	HDD-12-08	1857	0.5	7.07	35	60	6.1	<2	0.6	<0.5	<1	6	23	0.69	30
1858	303.10	303.95	0.85	Veta		Qz con presencia de pirita diseminado en tramos fracturada		NQ	HDD-12-08	1858	<0.5	6.91	7	30	7.1	<2	0.47	<0.5	1	6	18	0.55	30
1859						Roca estéril BLANCO				1859	<0.5	6.63	39	10	7.6	<2	0.46	<0.5	1	6	10	0.52	30

24

CUADRO DE MUESTREO HDD-13-08

OBJETIVO : VETA CONSUELO
PROYECTO : PASTO BUENO
GEOLOGO : Ing. Jaime R. Mercado

CANTIDAD DE MUESTRAS : 34
FECHA DE REPORTE : 9 de Marzo de 2008

N° de Muestra	DE: (m.)	A: (m.)	Ancho (m.)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE DESCRIPTION	ME-1CP61 Ag ppm	ME-1CP61 Al %	ME-1CP61 As ppm	ME-1CP61 Ba ppm	ME-1CP61 Be ppm	ME-1CP61 Bi ppm	ME-1CP61 Ca %	ME-1CP61 Cd ppm	ME-1CP61 Co ppm	ME-1CP61 Cr ppm	ME-1CP61 Cu ppm	ME-1CP61 Fe %	ME-1CP61 Ga ppm	ME-1CP61 K %
1862	19.40	20.10	0.70	Veta		Veta de qz, presenta oxidos, py, oquedades , druzas, ser		HQ	HDD-13-08	1862	0.9	5.15	9	110	10.9	<2	0.01	<0.5	<1	5	29	0.66	20	3.48
1863	20.10	21.50	1.40	Veta		Veta de qz, presenta oxidos, py, oquedades , druzas, ser		HQ	HDD-13-08	1863	2.4	7.77	54	240	7.8	2	0.02	<0.5	3	6	79	1.17	30	4.94
1864	51.75	52.10	0.35	Veta		Vetilla de qz		HQ	HDD-13-08	1864	0.6	1.04	8	10	1	<2	0.02	<0.5	4	7	20	0.29	<10	0.41
1865	55.85	56.50	0.65	Veta		Veta de qz, se observa ox entre frac, arcillas, pto py		HQ	HDD-13-08	1865	<0.5	1.58	7	60	2.8	<2	0.01	<0.5	1	11	23	0.62	10	1.11
1866	56.50	57.00	0.50	Veta		Veta de qz, se observa ox entre frac, arcillas, pto py		HQ	HDD-13-08	1866	0.8	2.6	20	90	2.2	2	0.02	<0.5	2	9	45	0.63	10	1.91
1867	82.28	82.45	0.17	Veta		Veta de qz con druzas de qz, ser, pto py		HQ	HDD-13-08	1867	<0.5	1.36	12	10	1.4	<2	0.22	1.8	1	9	48	0.27	10	0.8
1868	88.00	88.42	0.42	Silicificacion		Zona Silicificada		HQ	HDD-13-08	1868	<0.5	6.45	<5	50	6.9	2	0.27	1.1	3	7	20	0.55	30	3.23
1871	90.90	91.10	0.20	Veta		Veta de Qz , ser, py, gn, cpy y pto de hub.		HQ	HDD-13-08	1871	19.2	2.51	583	40	2.6	5	1.81	7.8	1	11	1915	0.49	10	1.23
1869	104.08	104.58	0.50	Silicificacion		Zona silicificada, ser, py en fract		HQ	HDD-13-08	1869	<0.5	6.65	<5	260	9.8	<2	0.39	<0.5	<1	6	25	0.63	30	3.61
1870	113.40	114.25	0.85	Veta		Veta de qz con arcillas, panizo, ox		HQ	HDD-13-08	1870	7.9	0.91	34	10	3	5	0.02	<0.5	<1	13	98	0.64	10	0.48
1872	136.60	137.30	0.70	Alteracion	propilitica	Roca Alterada, fl diss, py diss, ser, arcillas, pto hub		HQ	HDD-13-08	1872	0.8	8.64	21	330	57.8	2	4.43	2.4	2	3	179	1.21	40	7.19
1882	189.30	190.03	0.73	Alteracion	propilitica	Roca Intrusivo Alterada, ser, fl, py , pto hub		HQ	HDD-13-08	1882	0.7	7.86	9	610	18.4	2	0.87	3.8	3	3	92	1.28	30	5.32
1873	196.80	197.20	0.40	Alteracion	propilitica	Roca Intrusivo Alterada, fract, ser, fl, py , pto hub		HQ	HDD-13-08	1873	0.7	8.23	16	280	22.5	<2	1.05	0.9	2	3	77	1.01	30	6.14
1874	197.75	197.76	0.01	Vetilla		Vetilla de qz, ser, pto de hub		HQ	HDD-13-08	1874	4.4	5.21	262	260	4.8	5	0.63	52.1	1	5	707	0.99	20	3.53
1875	268.55	269.05	0.50	Veta		Veta de qz presenta pto de py , fl , gn druzas de qz , hub, ser		HQ	HDD-13-08	1875	8.5	1.16	10	40	1	7	2.59	6.8	1	15	425	0.44	<10	0.57
1889	374.40	375.00	0.60	Veta		Veta de qz,marcasita?,gn,py,ep,ser,ptos.hub+,druzas		NQ	HDD-13-08	1889	85.9	0.58	<5	10	2.2	178	0.9	33	<1	4	149	0.8	<10	0.29
1890	388.40	388.90	0.50	Veta		Veta de qz blanco,ser,py,gn,hub,druzas		NQ	HDD-13-08	1890	37.1	0.74	<5	30	3.1	71	0.86	17.1	1	5	216	0.49	<10	0.47
1891	389.60	389.67	0.07	Vetilla		Vetilla de qz, py masivo y diss, hub		NQ	HDD-13-08	1891	1.9	3.91	80	130	4.7	6	0.32	2.2	2	2	71	10.25	20	2.09
1892	393.00	393.80	0.80	Alteracion	propilitica	Roca alterada,vetillas de qz,cl,ser,ep,py diss,thd,hub?		NQ	HDD-13-08	1892	4.7	6.24	110	80	6.2	24	0.14	9	1	4	506	1.09	30	3.02
1893	393.80	394.45	0.65	Veta		Veta de qz blanco, pto de gl, py, hub, druzas		NQ	HDD-13-08	1893	1.4	0.77	14	10	1.2	4	0.06	1.7	<1	5	98	0.28	<10	0.38
1894	394.45	395.40	0.95	Veta		Veta de qz blanco pto de py, ser, esferalita?		NQ	HDD-13-08	1894	1.9	0.89	19	10	1.4	8	0.07	6.1	<1	5	126	0.39	<10	0.43
1895	395.40	396.10	0.70	Veta		Veta de qz blanco, pto marcacita, py		NQ	HDD-13-08	1895	25.6	0.12	235	<10	<0.5	46	0.01	3.2	1	5	1630	0.29	<10	0.05
1896	396.10	396.80	0.70	Veta		Veta de qz blanco , gn , ser , druzas		NQ	HDD-13-08	1896	3.4	0.34	39	<10	0.7	8	0.01	5.5	<1	15	299	0.34	<10	0.16
1897	396.80	397.48	0.68	Alteracion	propilitica	Roca alterada,vetillas de qz,cl,ser,py diss		NQ	HDD-13-08	1897	2.2	7.52	156	150	7.6	18	0.56	38.7	3	3	675	1.35	40	3.87
1898	400.86	401.65	0.79	Alteracion	propilitica	Roca alterada,vetillas de qz,cl,ser,py diss		NQ	HDD-13-08	1898	1.6	7.08	37	470	6.2	14	0.94	6.5	2	4	121	1.2	30	6.09
1899	401.65	402.30	0.65	Veta		Veta de qz blanco pto de py, ser en fracturas , oquedades		NQ	HDD-13-08	1899	0.7	0.39	22	<10	0.9	11	<0.01	5	1	7	66	0.47	<10	0.19
1900	402.30	403.00	0.70	Veta		Veta de qz blanco pto de py, oquedades		NQ	HDD-13-08	1900	0.9	0.16	26	<10	<0.5	7	0.01	1.8	1	7	69	0.32	<10	0.07
1901	403.00	403.70	0.70	Veta		Veta de qz blanco ,marcacita? fl, hub		NQ	HDD-13-08	1901	8.6	1.36	311	20	1.6	178	2.89	136	<1	6	1155	1.24	10	0.64
1902	403.70	404.30	0.60	Veta		Veta de qz, cl, ser, fl, marcacita?		NQ	HDD-13-08	1902	0.7	5.25	16	60	5.3	60	0.27	13.7	4	5	57	1.14	30	2.47
1903	404.30	404.85	0.55	Veta		Veta de qz blanco py++,gn, marcacita?, fl++, hub.		NQ	HDD-13-08	1903	21.6	1.27	488	10	1.7	355	3.75	33	3	5	1400	1.13	10	0.6
1904	404.85	405.50	0.65	Veta		Veta de qz blanco py diss, fl, ser en fracturas , oquedades		NQ	HDD-13-08	1904	28.1	0.38	455	<10	0.9	356	2.72	27.8	2	8	1450	2.38	<10	0.18
1905	429.12	429.75	0.63	Alteracion		roca alterada, presenta vetilla de qz pto de hub, py, gn.		NQ	HDD-13-08	1905	13.6	5.25	222	320	3.6	77	0.38	14.4	4	1	1650	3.84	20	4.1
1906	430.20	430.89	0.69	Alteracion		roca alterada, presenta vetilla de qz, fl, pto de py y hub.		NQ	HDD-13-08	1906	34.8	9.3	109	540	5.6	86	2.1	32.9	3	1	331	1.6	50	7.58
1907	473.30	473.80	0.50	Veta		veta de qz, oss, py , pts de gn		NQ	HDD-13-08	1907	18.3	0.33	24	10	0.5	35	0.04	15	1	6	272	0.54	<10	0.18

ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	Pb-AA62	Zn-AA62	ME-XRF05	ME-XRF05	ME-XRF05	Ancho	WO3	Cu	Ag	Zn	Pb	
La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti	Ti	U	V	W	Zn	Pb	Zn	Sn	W	W	m.	%	%	onz	%	%	
ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%							
10	0.18	513	50	0.08	1	140	95	0.02	<5	2	26	<20	0.05	<10	<10	14	10	12			6	20	0.002							
20	0.22	1265	22	0.33	<1	350	431	0.01	25	3	61	20	0.09	<10	10	29	60	47			<5	60	0.006							
<10	0.01	69	5	0.28	2	20	10	<0.01	<5	<1	14	<20	0.01	<10	<10	3	30	8			7	40	0.004							
<10	0.01	73	14	0.46	3	40	14	0.18	5	<1	29	<20	0.01	<10	<10	3	20	9			5	30	0.003							
<10	0.02	183	6	0.64	2	60	19	0.04	<5	1	46	<20	0.01	<10	10	5	40	16			<5	50	0.005							
<10	0.04	164	3	0.02	2	20	132	0.15	9	1	3	<20	0.01	<10	<10	8	10	380			<5	20	0.002							
10	0.02	65	1	2.98	<1	20	33	0.16	<5	3	58	40	0.03	<10	30	7	<10	31			7	10	0.001							
<10	0.1	916	<1	0.03	2	80	>10000	0.84	297	1	13	<20	0.02	<10	10	14	750	1520	2.04		<5	740	0.074							
10	0.05	307	1	2.82	<1	60	54	0.25	<5	2	122	30	0.04	<10	10	8	10	68			5	10	0.001							
<10	0.07	247	13	0.02	1	80	554	0.14	33	1	6	<20	0.01	<10	<10	62	150	81			6	160	0.016							
30	0.32	892	<1	0.33	1	1640	375	1.26	13	3	164	<20	0.12	10	<10	71	1270	545			7	1260	0.126							
20	0.24	777	<1	1.42	1	460	261	1.05	19	3	261	<20	0.12	10	10	49	90	661			<5	80	0.008							
20	0.25	627	<1	1.27	2	200	242	0.88	12	3	185	<20	0.09	<10	10	51	590	252			5	570	0.057							
10	0.18	1430	<1	0.26	3	230	289	1.52	75	2	64	<20	0.07	<10	10	22	3250	>10000		1.28	<5	3230	0.323							
<10	0.04	172	1	0.27	2	50	1195	0.27	42	<1	44	<20	0.02	<10	<10	14	200	778			<5	220	0.022							
<10	0.03	149	2	0.01	1	20	7630	0.98	8	<1	4	<20	<0.01	<10	<10	19	250	3370			<5	280	0.028							
<10	0.04	93	4	0.04	<1	20	4830	0.5	15	<1	11	<20	0.01	10	<10	19	70	1710			<5	90	0.009							
<10	0.18	635	6	0.08	<1	150	122	>10.0	<5	2	18	<20	0.03	<10	<10	41	900	389			8	930	0.093							
20	0.32	821	4	0.04	1	280	171	1.16	179	3	7	<20	0.08	10	10	39	20	2410			<5	40	0.004							
<10	0.06	205	3	0.01	1	10	69	0.12	36	1	1	<20	0.01	10	<10	10	260	539			<5	260	0.026	0.65	0.03	0.01	0.05	0.05	0.01	
<10	0.06	217	11	0.01	1	<10	116	0.27	42	1	1	<20	0.01	10	<10	12	210	1660			<5	230	0.023	0.95	0.03	0.01	0.06	0.17	0.01	
<10	0.01	44	3	<0.01	2	<10	603	0.18	681	<1	<1	<20	<0.01	10	<10	2	10	485			<5	20	0.002	0.70	0.00	0.16	0.82	0.05	0.06	
<10	0.02	106	9	0.01	2	<10	78	0.18	92	<1	<1	<20	<0.01	10	<10	6	80	1410			<5	90	0.009	0.70	0.01	0.03	0.11	0.14	0.01	
20	0.42	784	4	0.07	1	370	56	1.87	72	3	22	<20	0.1	<10	<10	65	120	9220			18	110	0.011	3.00						
10	0.22	613	7	0.17	3	340	98	1.31	40	2	175	<20	0.08	<10	<10	80	1160	1770			17	1180	0.118							
<10	0.03	86	9	0.01	2	<10	18	0.4	16	<1	<1	<20	<0.01	<10	<10	7	<10	1380			<5	10	0.001							
<10	0.01	59	6	0.01	2	10	6	0.07	15	<1	<1	<20	<0.01	<10	<10	2	<10	442			<5	10	0.001							
<10	0.07	557	8	0.01	2	50	527	3.37	256	<1	10	<20	0.01	<10	<10	17	410	>10000		3.72	<5	390	0.039							
20	0.27	775	8	0.04	2	410	91	1.35	11	2	5	<20	0.07	<10	<10	48	20	4080			<5	10	0.001							
<10	0.07	813	5	0.01	3	90	1810	1.83	176	1	21	<20	0.02	<10	<10	11	1470	9540			<5	1470	0.147	0.55	0.19	0.14	0.69	0.95	0.18	
<10	0.03	219	12	0.01	2	30	1885	3.27	252	<1	14	<20	<0.01	<10	<10	5	410	7690			<5	400	0.040	0.65	0.05	0.15	0.90	0.77	0.19	
10	0.18	2440	1	0.4	<1	290	498	4.88	367	2	118	<20	0.05	10	<10	30	3030	4240			<5	7660	0.766	0.63	0.97	0.17	0.44	0.42	0.05	
20	0.3	577	3	0.76	2	540	2590	2.09	58	3	258	20	0.11	<10	10	135	2030	5410			29	2000	0.200	0.63						
<10	0.02	59	6	0.01	2	30	132	0.32	13	<1	3	<20	<0.01	<10	<10	14	280	1620			6	270	0.027							

PROMEDIO					
WO3	Cu	Ag	Zn	Pb	
%	%	onz	%	%	
0.02	0.05	0.25	0.11	0.02	

PROMEDIO					
WO3	Cu	Ag	Zn	Pb	
%	%	onz	%	%	
0.11	0.14	0.81	0.85	0.19	

CUADRO DE MUESTREO HDD-14-08
OBJETIVO : VETA SANTA MARTA
PROYECTO : PASTO BUENO
GEOLOGO : Ing. Jaime R. Mercado

CANTIDAD DE MUESTRAS : 14
FECHA DE REPORTE : 9 de Marzo de 2008

Geología - Ing. Jaime R. Merlano										ME-ICP61														
N° de Muestra	DE: (m.)	A: (m.)	Ancho (m.)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	SAMPLE	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
										DESCRIPTION	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %
1876	134.47	135.18	0.71	Alteracion		Roca alterada, vetilla de qz, py thd, gn y pto de hub		HQ	HDD-14-08	1876	2.3	6.53	39	860	14.9	2	1.57	2.1	2	6	177	2.36	20	4.29
1877	135.60	135.90	0.30	Veta		Veta de qz lechoso		HQ	HDD-14-08	1877	2.6	1.45	24	60	3.2	<2	0.58	4.5	1	6	364	0.42	<10	0.99
1878	152.35	152.75	0.40	Veta		Veta de qz triturada, arcillas, limos		HQ	HDD-14-08	1878	0.8	5.19	15	50	5.7	<2	2.08	1.6	1	5	113	0.79	30	2.37
1879	240.80	241.40	0.60	Veta		Veta qz lechoso fracturado+ puntos de py, ox en fracturas		HQ	HDD-14-08	1879	0.5	0.35	<5	10	0.5	<2	0.05	<0.5	<1	12	6	0.3	<10	0.16
1880	241.40	242.30	0.90	Veta		Veta de qz altamente fract. clastos subredond. , pis de py		HQ	HDD-14-08	1880	5.3	4.01	58	210	2.9	<2	0.16	4.3	1	7	264	0.86	10	2.17
1920	242.30	243.90	1.60	Falla		Falla c/ presencia de clastos de intrusivo en panizo, qz y ox		HQ	HDD-14-08	1920	0.7	7.17	30	450	3.7	<2	0.45	<0.5	1	2	292	0.99	20	3.01
1881	243.90	244.45	0.55	Veta		Veta de qz lechoso fract y fragm subredond, ox, pto. de py		HQ	HDD-14-08	1881	4.8	1.71	21	40	3.3	9	0.06	0.6	<1	15	80	0.62	<10	0.83
1921	244.45	245.05	0.60	Falla		Falla con panizo, presenta pto. de py		HQ	HDD-14-08	1921	6.7	7.42	28	340	8	<2	0.21	3.5	<1	2	1250	1.4	20	3.28
1883	326.40	327.30	0.90	Silicificacion	silicificacion	veta de sílice altamente fracturado, py diss		NQ	HDD-14-08	1883	0.7	6.57	<5	30	5.6	2	0.33	<0.5	<1	3	41	0.56	20	3.28
1884	327.30	328.20	0.90	Silicificacion		veta de sílice altamente fracturado, py diss		NQ	HDD-14-08	1884	<0.5	6.71	5	30	6.9	<2	0.32	<0.5	<1	3	34	0.49	20	3.68
1885	330.60	330.87	0.27	Veta		Veta de qz, ser y py en fracturas, oquedades y drusas		NQ	HDD-14-08	1885	<0.5	3.73	<5	90	4.1	2	0.5	0.5	<1	7	22	0.73	10	2.01
1886	335.30	335.70	0.40	Silicificacion		Veta de sílice c/ vetillas de qz, py diss, cl?		NQ	HDD-14-08	1886	<0.5	6.22	<5	90	7.4	<2	0.27	<0.5	1	4	34	0.69	20	3.38
1887	335.70	336.78	1.08	Veta		Veta de qz blanco, py diss, oss		NQ	HDD-14-08	1887	<0.5	0.74	<5	40	0.5	<2	0.03	<0.5	<1	7	31	0.4	<10	0.66
1888	366.80	367.30	0.50	Silicificacion		Veta de sílice c/ venillas de qz, pto. de py, biotita?		NQ	HDD-14-08	1888	0.5	6.68	<5	30	6.3	<2	0.35	<0.5	1	5	12	0.57	30	3.32

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CUADRO DE MUESTREO HDD-15-08

OBJETIVO : VETA CHABUCA
PROYECTO : PASTO BUENO
GEOLOGO : Ing. William H. Quispe Garcia

CANTIDAD DE MUESTRAS : 21
FECHA DE REPORTE : 16 de Abril de 2008

N° de Muestra	DE: (m.)	A: (m.)	Ancho (m.)	Estructura	Alteración	Composición	Foto	Linea	Procedencia	SAMPLE DESCRIPTION	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
											Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ca ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm
1913	####	274.20	0.70	Veta		Veta de Qz blanco presenta ser, pss de py, druzas, fl, gn, ef?		HQ	HDD-15-08	1913	1.1	4.74	85	40	4.2	<2	0.67	7.3	4	8	79	1	20	2.34	10	0.36	1015
1908	####	294.10	1.00	Veta		Veta de qz blanco con,py diss, poca ser,fl,thd diss, cp,ef		HQ	HDD-15-08	1908	25	0.29	2660	10	0.7	32	0.24	259	11	5	4030	17.9	<10	0.17	<10	0.03	1815
1909	####	295.10	1.00	Veta		Veta de qz blanco con py diss,ef en oquedades, thd, poca fl		HQ	HDD-15-08	1909	6.7	0.17	1175	<10	<0.5	6	0.04	31	5	10	1505	9.19	<10	0.06	<10	0.02	278
1910	####	296.10	1.00	Veta		Veta de qz blanco con py diss,ser,gn,fl		HQ	HDD-15-08	1910	11.6	0.64	557	10	1.5	17	0.68	13.6	9	10	995	8.75	<10	0.38	<10	0.06	398
1911	####	297.10	1.00	Veta		Veta de qz blanco presenta py diss y en venillas,ser, fl		HQ	HDD-15-08	1911	8.7	0.16	940	<10	0.5	<2	0.17	25.2	6	8	1580	8.56	<10	0.07	<10	0.01	133
1912	####	298.05	0.95	Veta		Veta de qz blanco fracturado con, py diss, cl?		HQ	HDD-15-08	1912	3.7	0.21	609	10	6.3	<2	0.19	9.5	3	7	614	4.35	<10	0.14	<10	0.01	79
1914	####	371.68	0.73	Veta		Veta de qz blanco py, po, thd, Mo+ druzas		NQ	HDD-15-08	1914	>100	0.26	1110	<10	2.6	96	1.14	160	1	4	4950	6.6	<10	0.15	<10	0.03	1635
1915	####	372.40	0.72	Veta		Veta de qz blanco py, po, thd, Mo+ druzas		NQ	HDD-15-08	1915	31.6	1.51	118	30	122	40	0.21	53.3	5	8	2040	3.82	10	0.73	<10	0.1	578
1916	####	444.75	0.20	Veta		Veta de qz con presencia de druzas, ser, pss de hab, thd,gn, ef		NQ	HDD-15-08	1916	2.7	2.48	26	30	2.9	4	0.27	18.6	2	9	69	0.57	10	1.21	10	0.15	832
1917	####	445.10	0.35	Veta		Veta de qz, presenta venillas thd, py, hab?, druzas		NQ	HDD-15-08	1917	>100	1.06	>10000	10	1.5	789	0.03	115	1	8	>10000	0.76	10	0.52	<10	0.06	669
1918	####	445.45	0.35	Veta		Veta de qz, presenta druzas, pss py		NQ	HDD-15-08	1918	6.3	0.18	184	<10	<0.5	2	0.01	1.2	<1	7	540	0.31	<10	0.07	<10	0.01	104
1919	####	445.65	0.20	Veta		Veta de qz presenta gn,ser,py, pss ef, pss de hab.		NQ	HDD-15-08	1919	52.1	1.58	848	10	1.9	17	0.23	41.3	1	4	2630	0.53	10	0.77	<10	0.1	992
1924	####	456.15	0.25	Veta		Veta de qz, presenta thd, gn, pss py, druzas		NQ	HDD-15-08	1924	48.8	0.91	2080	40	1.2	<2	0.11	15.6	<1	6	5090	0.46	<10	0.46	<10	0.05	239
1925	####	457.00	0.22	Veta		Veta de qz presenta py,gn, pss de ef,fl,thd		NQ	HDD-15-08	1925	17	0.59	464	10	0.5	2	1.98	5.2	<1	6	1150	0.41	<10	0.27	<10	0.03	192
1926	####	485.70	0.40	Veta		Veta de qz,se observa py diss.		NQ	HDD-15-08	1926	0.7	2.5	20	490	2.7	<2	0.29	<0.5	2	10	73	1.15	10	1.57	10	0.25	383
1927	####	524.55	0.25	Alteracion		Alteracion presenta poca biotita,py diss,vetillas de qz		NQ	HDD-15-08	1927	6.1	5.76	152	480	19	<2	0.73	1.3	13	11	469	2.67	10	3.5	10	0.45	966
1928	####	525.00	0.45	Veta		Veta de qz blanco,con ser,oquedades,gn, pss de py,pto hab.		NQ	HDD-15-08	1928	10	1.05	249	10	1.1	<2	0.8	3.5	<1	7	646	0.54	<10	0.5	<10	0.05	283
1929	####	525.30	0.30	Alteracion		Alteracion con pss de gn,py diss,pto thd		NQ	HDD-15-08	1929	4.5	5.24	67	50	5.9	<2	1.05	9.8	5	16	208	1.3	20	2.56	10	0.3	716
1930	####	525.55	0.25	Veta		Veta de qz blanco con pss de thd,gn,ser		NQ	HDD-15-08	1930	11.1	3.75	155	90	4	<2	0.68	163.5	2	6	524	1.22	20	1.9	10	0.2	1380
1922	####	419.96	0.36	vetilla		Vetilla de qz presenta pss de py y gn		NQ	HDD-15-08	1922	5.9	2.68	99	200	1.3	<2	0.47	0.7	7	9	229	1.74	10	1.33	20	0.24	264
1923	####	446.70	0.20	vetilla		Vetilla de qz presenta pss de py y gn		NQ	HDD-15-08	1923	1.4	0.79	31	20	0.9	<2	0.13	<0.5	1	7	53	0.49	<10	0.37	<10	0.05	177

ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-IC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PROMEDIO				
WO3	Cu	Ag	Zn	Pb
%	%	onz	%	%
0.02	###	###	###	###



DYNACOR EXPLORACIONES DEL PERU S.A.

MINA PASTO BUENO
Departamento de Exploraciones

CUADRO DE MUESTREO HDD-16-08

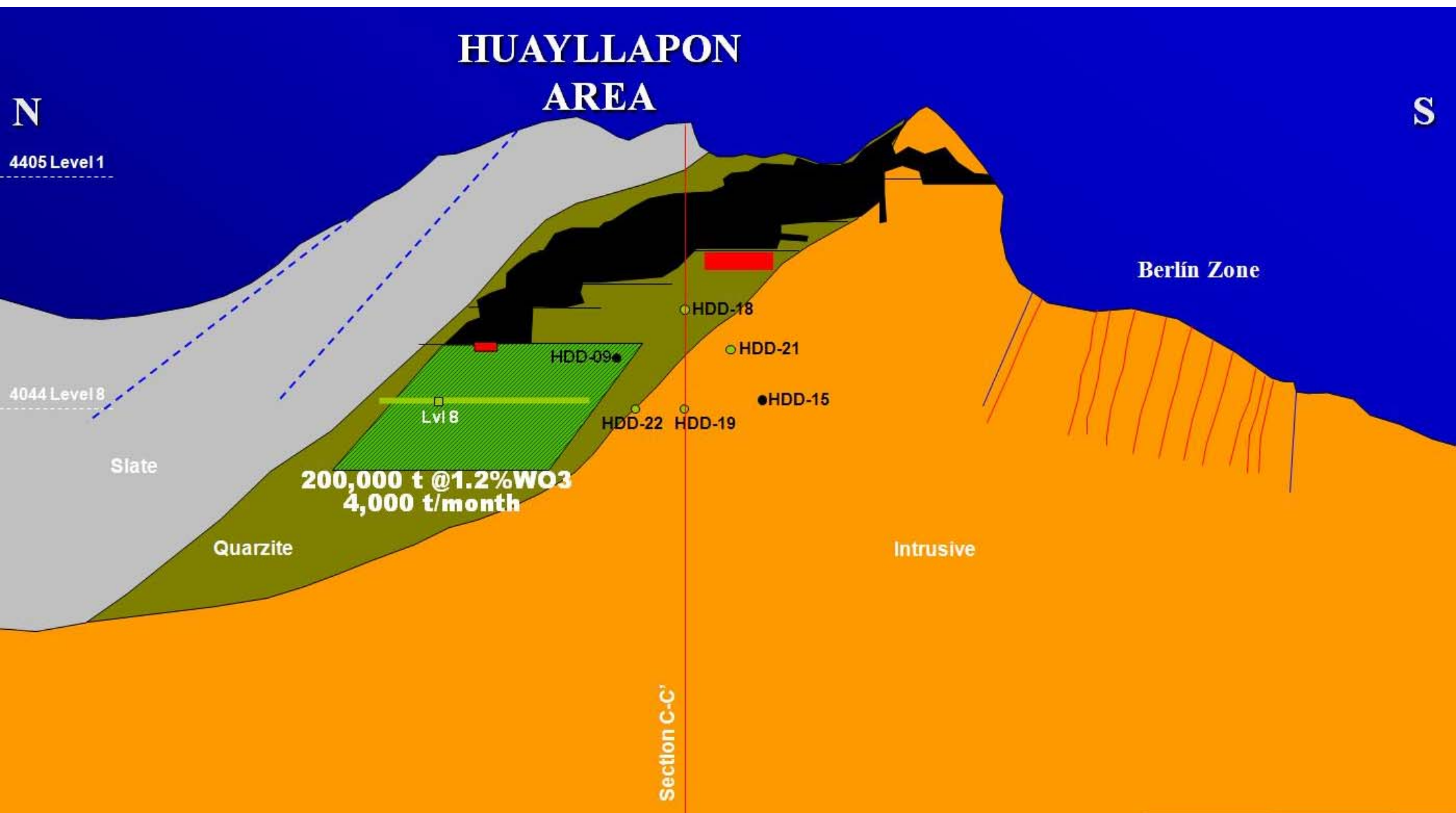
OBJETIVO : VETA 2006
PROYECTO : PASTO BUENO
GEOLOGO : Ing. William H. Quispe García

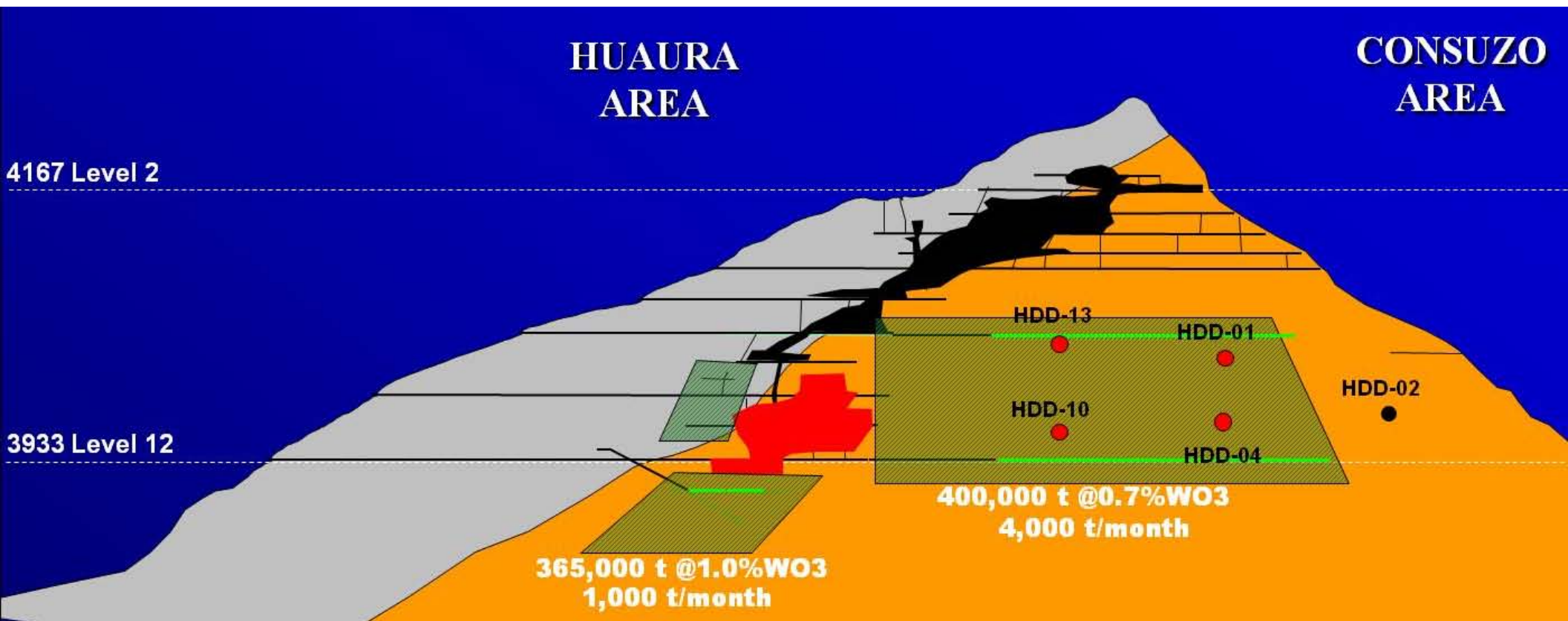
CANTIDAD DE MUESTRAS : 15
FECHA DE REPORTE : 5 de Mayo de 2008

N° de Muestra	DE: (m.)	Al: (m.)	Ancho (m.)	Estructura	Alteración	Composición	Foto	Línea	Procedencia	Sample Description	ME-ICP61 Ag ppm	ME-ICP61 Al %	ME-ICP61 As ppm	ME-ICP61 Ba ppm	ME-ICP61 Be ppm	ME-ICP61 Bi %	ME-ICP61 Ca ppm	ME-ICP61 Cd ppm	ME-ICP61 Co ppm	ME-ICP61 Cr ppm	ME-ICP61 Cu ppm	ME-ICP61 Fe %	ME-ICP61 Ga ppm	ME-ICP61 K %	ME-ICP61 La ppm	ME-ICP61 Mg %	ME-ICP61 Mn ppm
1935	####	121.90	0.55	Veta		Veta de qz con py, escasamente fl.		HQ	HDD-16-08	1935	45.5	4.4	42	170	0.8	674	1.17	36	<1	3	893	0.78	20	5.13	<10	0.03	97
1936	####	122.40	0.50	Alteracion		estructura alterada con vetillas.py.		HQ	HDD-16-08	1936	6.4	4.99	32	60	5.1	18	0.29	9.5	1	5	475	1.07	30	2.72	20	0.26	492
1937	####	123.00	0.60	Alteracion		estructura alterada con vetillas de qz,ser,py fina diss.		HQ	HDD-16-08	1937	1.7	4.53	12	40	5.2	6	0.18	7.1	1	5	191	0.81	30	2.4	10	0.25	454
1938	####	123.70	0.70	Alteracion		estructura alterada con vetillas de qz,ms,py,ptos.hub.		HQ	HDD-16-08	1938	2.3	4.26	52	40	4.9	7	0.41	4	<1	5	349	0.79	30	2.22	10	0.25	530
1939	####	124.35	0.65	Alteracion		estructura con vetillas de qz,py finadiss,oquedades pto.hub.		HQ	HDD-16-08	1939	1.9	5.82	18	80	6.5	10	0.23	9.6	2	4	197	1.12	30	3.15	20	0.35	691
1940	####	125.50	1.15	Falla		Falla con panizo, clastos de intrusivo, qz.		HQ	HDD-16-08	1940	1.8	7.29	42	220	9.2	23	0.4	6.7	4	3	210	1.3	40	4.34	20	0.4	735
1941	####	128.80	0.70	Alteracion	propilitica	Roca alterada con vetillas de qz, py, ser, pto. de hub.		HQ	HDD-16-08	1941	2.8	7.27	35	220	7.5	<2	1.11	3.4	3	2	259	1.08	40	4.4	20	0.39	844
1942	####	129.00	0.20	Veta		Veta de qz,ser,ptos de py,ptos. hub.		HQ	HDD-16-08	1942	2.3	2.67	58	110	3.1	<2	1.16	2.5	<1	7	297	0.55	20	1.3	<10	0.15	449
1943	####	129.30	0.30	Alteracion		Roca alterada con py diss,ser,vetilla de qz.		HQ	HDD-16-08	1943	7.7	6.63	24	110	7	<2	1.63	<0.5	1	5	172	0.99	40	3.3	20	0.34	778
1944	####	129.55	0.25	Alteracion		estructura de roca alterada vetillas de qz,py,gz,ser,fl,cl?,hub+.		HQ	HDD-16-08	1944	4.6	4.09	53	90	3.8	<2	0.77	2.2	<1	6	465	0.72	20	2.34	10	0.17	789
1945	####	394.00	0.40	Vetilla		Vetilla de qz gris, py, ser, feldepatos tipo brechado.		NQ	HDD-16-08	1945	<0.5	6.91	<5	40	3.4	<2	0.32	<0.5	<1	2	20	0.47	20	4.6	10	0.06	126
1946	####	481.10	0.50	Vetilla		Vetilla de qz, con fl, gn, py, esfalerita.		NQ	HDD-16-08	1946	>100	3.25	56	130	1.5	3890	7.18	140	2	5	1055	1.87	10	3.62	<10	0.02	228
1947	####	490.40	1.10	Alteracion	Greisen?	py diss,fl,ser+,oquedades.		NQ	HDD-16-08	1947	1.3	9.83	<5	770	6.2	4	0.84	<0.5	2	3	14	1.23	30	7.05	20	0.31	931
1948	####	491.50	1.10	Alteracion	Greisen?	py diss,fl,ser+,oquedades.		NQ	HDD-16-08	1948	0.5	12.05	<5	660	9.4	4	0.8	0.5	2	3	13	1.46	50	7.65	20	0.53	1620
1949	####	521.25	0.75	Veta		veta de qz poroso, py diss,escasamente ser.		NQ	HDD-16-08	1949	2.5	8.42	<5	100	2.5	18	0.22	1.6	<1	2	37	0.3	30	7.73	10	0.02	66

ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	Ag-AA62	Pb-AA62	Zn-AA62	ME-XRF05	ME-XRF05	ME-XRF05	Ancho	WO3	Cu	Ag	Zn	Pb
Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Te	Th	Ti	Ti	U	V	W	Zn	Ag	Pb	Zn	Sn	W	W		m.	%	%	onz	%	%	
ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%								
133	0.18	1	80	1630	1.17	105	<1	226	<10	<20	0.01	<10	<10	8	60	4120				<5	40	0.004								
69	0.04	4	220	1020	1.26	44	2	17	<10	<20	0.08	<10	10	50	100	1760				<5	90	0.009								
9	0.04	2	220	368	0.87	32	2	7	<10	<20	0.07	<10	<10	51	20	1150				<5	10	0.001								
6	0.03	1	190	384	0.88	13	2	8	<10	<20	0.07	<10	<10	51	340	775				<5	320	0.032								
1	0.05	2	330	555	1.33	10	3	12	<10	<20	0.1	<10	10	63	150	1810				<5	140	0.014								
110	0.08	1	390	433	1.55	34	3	40	<10	<20	0.12	<10	<10	82	50	1300				<5	40	0.004								
1	0.07	2	420	133	1.28	95	3	50	<10	<20	0.12	<10	10	78	80	588				<5	80	0.008								
2	0.02	4	70	217	0.39	94	1	12	<10	<20	0.04	<10	<10	45	390	418				<5	380	0.038								
5	0.05	4	240	128	0.86	89	2	26	10	<20	0.09	<10	<10	93	20	163				<5	20	0.002								
<1	0.38	2	160	395	0.63	220	2	25	10	<20	0.05	<10	10	43	1540	387				<5	1520	0.152								
<1	1.95	<1	40	30	0.12	<5	2	76	<10	<20	0.04	10	10	11	<10	14				<5	10	0.001								
270	0.19	2	100	>10000	3.78	102	<1	226	10	<20	<0.01	<10	10	2	590	10000	989	4.92	1	57	620	0.062	0.50	0.08	###	####	###	###	###	
123	0.94	<1	970	88	1.17	<5	3	281	<10	<20	0.13	<10	<10	43	30	49				6	30	0.003								
71	0.22	2	1300	49	1.58	5	5	167	<10	<20	0.15	<10	<10	76	20	45				6	20	0.002								
6	1.18	<1	20	178	0.09	<5	1	248	<10	30	0.02	10	30	4	20	149				<5	10	0.001								

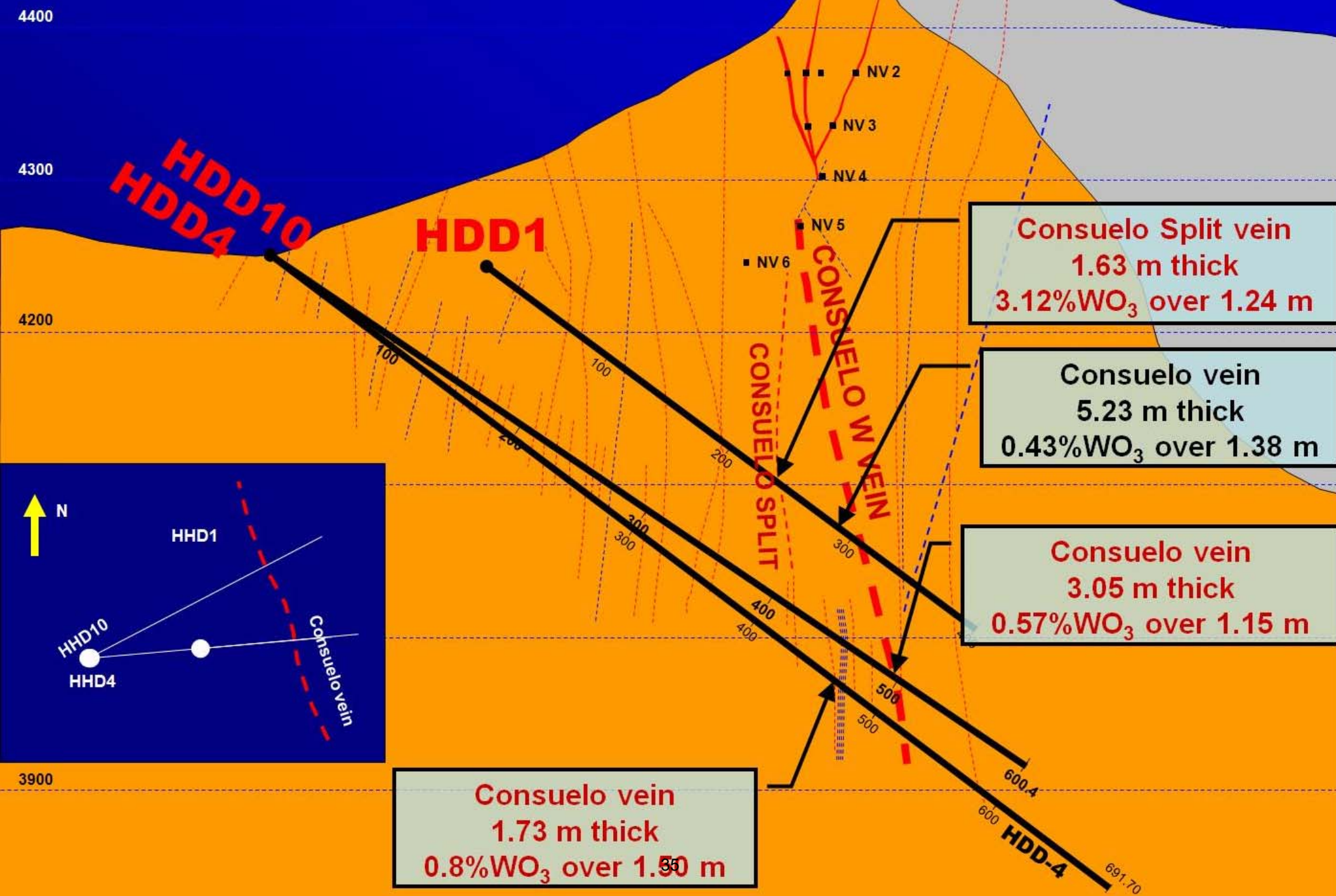
PROMEDIO				
WO3	Cu	Ag	Zn	Pb
%	%	onz	%	%
0.08	###	####	###	###

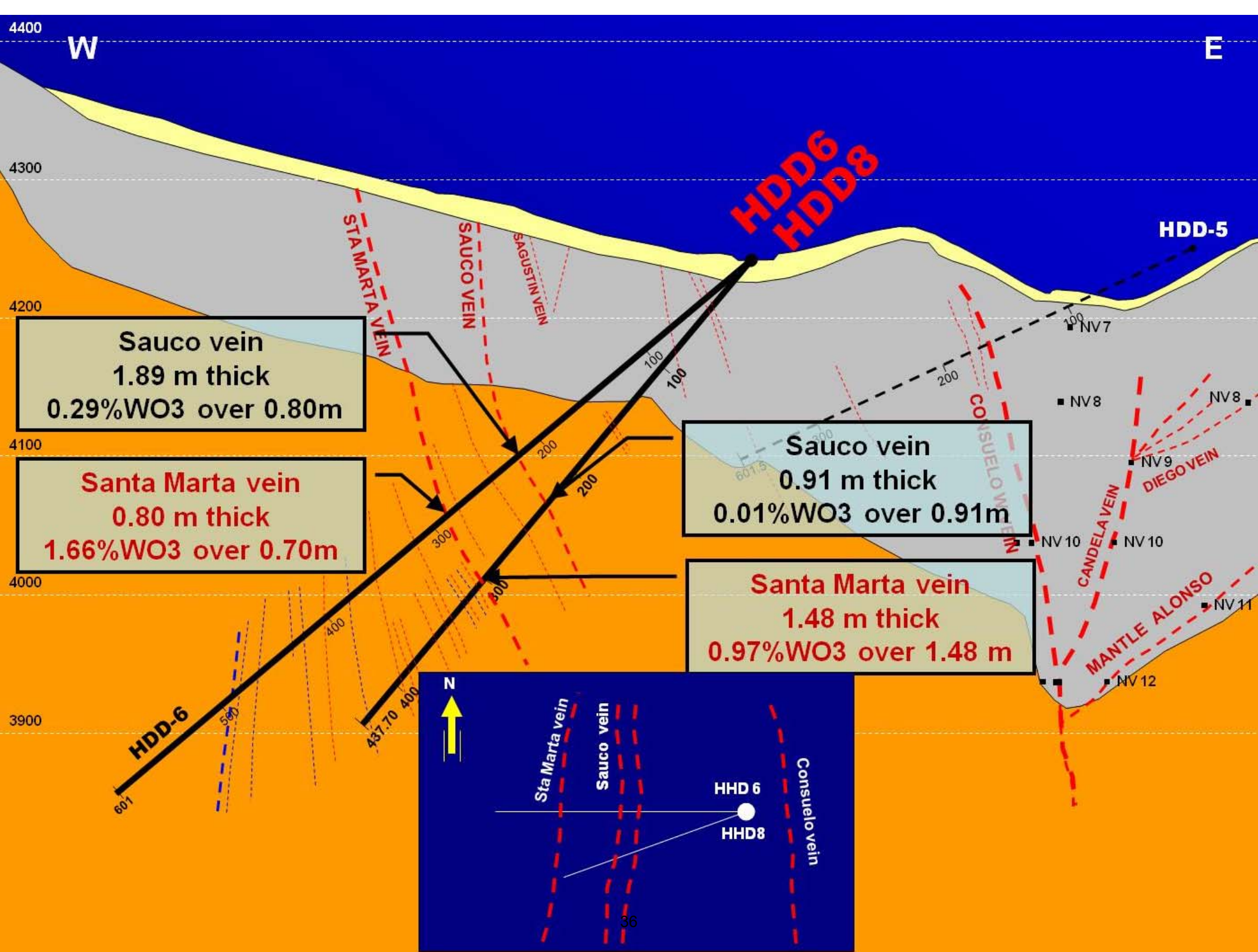




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Appendix B

ALS Chemex Assay Results

Appendix B

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ALS Chemex Assay Results

N°	MINA	VETA	NIVEL	LABOR	FECHA	CODIGO	MUESTRA	LADO	AM	AV	REF1	REF2	REF3	REF4	ANALISIS	DESCRIPCION	TIPO-M	ENVIO	CANTIDAD	LAB	SAMPLE	Ag (ppm)	Al (%)	As (ppm)	Ba (ppm)
1	HUAYLLAPON	SONIA	8	GL 645 S	10/18/2008	1	9544	piso	2.80	0.30	FL XC +	48.00 m.S	piso	Geoquimico	qz.py.td.w03	muestra	1	1	GL	1	243	0.84	3100	<10	
2	HUAYLLAPON	SONIA	8	GL 645 S	10/18/2008	2	9545	piso	2.80	0.40	FL XC +	50.00 m.S	piso	Geoquimico	qz.py.td.w03	muestra	1	1	GL	2	175	0.31	2190	<10	
3	HUAYLLAPON	SONIA	8	GL 645 S	10/18/2008	3	9546	piso	3.00	0.40	FL XC +	52.00 m.S	piso	Geoquimico	qz.py.td.w03	muestra	1	1	GL	3	223	0.41	2540	<10	
4	HUAYLLAPON	SONIA	8	GL 645 S	10/18/2008	4	9547	piso	2.90	0.50	FL XC +	54.00 m.S	piso	Geoquimico	qz.py.td.w03	muestra	1	1	GL	4	45.5	0.37	696	<10	
5	HUAYLLAPON	SONIA	8	GL 645 S	10/18/2008	5	9548	piso	2.80	0.40	FL XC +	56.00 m.S	piso	Geoquimico	qz.py.td.w03	muestra	1	1	GL	5	82	0.82	1710	<10	
6	HUAYLLAPON	SONIA	8	GL 645 S	10/18/2008	6	9549	piso	3.00	0.30	FL XC +	58.00 m.S	piso	Geoquimico	qz.py.td.w03	muestra	1	1	GL	6	487	0.17	7230	<10	
7	HUAYLLAPON	SONIA	8	GL 645 S	10/18/2008	7	9550	piso	2.40	0.40	FL XC +	60.00 m.S	piso	Geoquimico	qz.py.td.w03	muestra	1	1	GL	7	710	0.54	8470	<10	
8	HUAYLLAPON	SONIA	8	GL 645 S	10/18/2008	8	9551	piso	2.60	0.40	FL XC +	62.00 m.S	piso	Geoquimico	qz.py.td.w03	muestra	1	1	GL	8	33.5	0.41	330	<10	
9	HUAYLLAPON	SONIA	8	GL 645 S	10/21/2008	9	9677	piso	2.40	0.70	FL XC +	64.00 m.S	piso	Geoquimico	qz.py.td.w03	muestra	1	1	GL	9	107	0.63	1740	<10	
10	HUAYLLAPON	SONIA	8	GL 645 S	10/21/2008	10	9678	techo	2.40	0.80	FL XC +	64.00 m.S	techo	Geoquimico	qz.py.td.w03	muestra	1	1	GL	10	61.3	0.53	995	<10	
200	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	11	10442	-	-	-	-	-	-	-	Geoquimico	muestra en blanco	blanco	1	1	GL	11	0.5	13.5	33	440
11	HUAYLLAPON	SONIA	9	GL 645 S	10/22/2008	12	9697	corona	2.60	0.80	FL XC +	66.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	12	473	0.42	>10000	<10	
12	HUAYLLAPON	SONIA	8	GL 645 S	10/22/2008	13	9702	corona	2.60	0.70	FL XC +	68.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	13	21.6	0.26	422	<10	
13	HUAYLLAPON	SONIA	8	GL 645 S	10/22/2008	14	9703	corona	2.70	0.80	FL XC +	70.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	14	475	0.18	4350	<10	
136	HUAYLLAPON	SONIA	8	GL 645 S	10/26/2008	15	9914	corona	2.50	1.00	FL XC +	72.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	15	42.9	0.48	882	<10	
201	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	16	10454	-	-	-	-	-	-	-	Geoquimico	estandar %W03 1.04	estandar	1	1	GL	16	1.5	3.05	13	70
137	HUAYLLAPON	SONIA	8	GL 645 S	10/26/2008	17	9915	corona	2.50	0.90	FL XC +	74.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	17	613	0.22	5590	<10	
138	HUAYLLAPON	SONIA	9	GL 645 S	10/26/2008	18	9916	corona	2.50	1.00	FL XC +	76.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	18	699	1.26	>10000	10	
36	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	19	9784	-	2.50	0.60	Pto.M 3 +	3.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	19	154	0.65	2870	10	
37	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	20	9785	-	2.50	0.80	Pto.M 3 +	5.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	20	67	1.01	1160	10	
38	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	21	9786	-	2.50	0.80	Pto.M 4 +	0.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	21	125	0.33	4210	10	
39	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	22	9787	-	2.50	1.00	Pto.M 4 +	2.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	22	26.6	1.96	1015	20	
40	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	23	9788	-	2.50	0.60	Pto.M 5 +	2.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	23	338	0.68	>10000	10	
41	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	24	9789	-	2.50	0.80	Pto.M 5 +	4.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	24	89	3.04	1825	20	
42	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	25	9790	-	2.50	0.80	Pto.M 5 +	8.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	25	1.1	0.45	37	<10	
43	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	26	9791	-	2.50	0.70	Pto.M 5 +	10.00 m.S	corona	Geoquimico	qz.py.td.w03	muestra	1	1	GL	26	2	0.44	87	<10	
44	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	27	9792	-	2.50	0.70	Pto.M 6 +	1.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	dup-m	1	1	GL	27	68.6	2.72	3750	30	
202	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	28	10446	-	2.50	0.70	Pto.M 6 +	1.00 m.S	corona	Geoquimico	duplicado de la 9792	dup	1	1	GL	28	68.1	2.72	3710	30	
45	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	29	9793	-	2.50	0.80	Pto.M 6 +	3.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	29	81.5	1.98	5410	20	
46	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	30	9794	-	2.50	0.80	Pto.M 6 +	5.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	30	7.3	0.88	173	10	
47	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	31	9795	-	2.50	1.00	Pto.M 6 +	7.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	31	32.1	1.74	856	20	
48	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	32	9796	-	2.50	0.80	Pto.M 7 +	0.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	32	15.7	1	402	10	
49	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	33	9797	-	2.50	0.90	Pto.M 7 +	2.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	33	41.3	1.04	1510	10	
50	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	34	9798	-	2.50	0.80	Pto.M 7 +	4.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	34	44.8	0.31	1025	<10	
51	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	35	9799	-	2.50	0.80	Pto.M 7 +	10.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	35	179	0.3	2560	<10	
52	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	36	9800	-	2.50	0.80	Pto.M 7 +	12.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	36	78.3	0.26	1220	<10	
53	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	37	9801	-	2.40	0.80	Pto.M 7 +	14.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	37	24.8	0.1	5960	<10	
54	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	38	9802	-	2.40	0.70	Pto.M 7 +	16.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	38	166	0.28	2620	<10	
55	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	39	9803	-	2.40	0.80	Pto.M 7 +	18.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	39	42.4	0.37	516	<10	
56	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	40	9804	-	2.40	0.70	Pto.M 7 +	20.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	40	30.9	0.55	454	10	
57	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	41	9805	-	2.50	0.80	Pto.M 8 +	4.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	41	2.3	0.48	29	<10	
58	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	42	9806	-	2.50	0.90	Pto.M 8 +	6.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	42	93.2	0.1	3370	<10	
59	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	43	9807	-	2.50	0.80	Pto.M 8 +	8.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	43	13.9	0.09	324	<10	
203	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	44	10455	-	-	-	-	-	-	-	Geoquimico	estandar %W03 0.42	estandar	1	1	GL	44	2.9	3.49	407	190
60	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	45	9808	-	2.50	0.80	Pto.M 10 +	4.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	45	5	0.13	49	<10	
61	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	46	9809	-	2.50	0.80	Pto.M 10 +	7.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	46	107	0.29	2030	<10	
62	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	47	9810	-	2.50	0.90	Pto.M 11 +	0.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	47	25.5	0.09	392	<10	
63	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	48	9811	-	2.50	0.90	Pto.M 11 +	3.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	48	5.2	0.09	95	<10	
64	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	49	9812	-	2.50	0.80	Pto.M 11 +	5.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	49	9.8	0.69	172	<10	
65	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	50	9813	-	2.50	0.80	Pto.M 11 +	7.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	50	4.8	1.1	107	10	
204	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	51	10447	-	2.50	1.10	CH 035 +	4.00 m.S	corona	Geoquimico	duplicado de la 9817	dup	1	1	GL	51	5.1	0.48	358	<10	
66	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	52	9814	-	2.50	1.00	Pto.M 12 +	0.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	52	11.5	0.15	135	10	
67	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	53	9815	-	2.50	0.75	Pto.M 12 +	2.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	53	35.1	0.16	537	<10	
68	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	54	9816	-	2.50	1.00	CH 035 +	2.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	muestra	1	1	GL	54	10.8	0.13	426	<10	
205	HUAURA	CONSUELO	12	GL 170 S	10/23/2008	55	10448	-	-	-	-	-	-	-	Geoquimico	muestra en blanco	blanco	1	1	GL	55	0.5	12	27	420
69	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	56	9817	-	2.50	1.10	CH 035 +	4.00 m.S	corona	Geoquimico	qz.py.td.ox.w03	dup-m	1	1	GL	56	5.3	0.49	367	<10	
70	HUAURA	CONSUELO	12	GL 170 S	10/24/2008	57	9818	-	2.50	1.10	CH 035 +	6.00 m.S	corona	Geoquimico											

ALS Chemex Assay Results

N°	Be (ppm)	Bi (ppm)	Ca (%)	Cd (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Ga (ppm)	K (%)	La (ppm)	Mg (%)	Mn (ppm)	Mo (ppm)	Na (%)	Ni (ppm)	P (ppm)	Pb (ppm)	S (%)	Sb (ppm)	Sc (ppm)	Sr (ppm)	Te (ppm)	Th (ppm)
1	0.9	<2	<0.01	34.4	1	16	11300	1.16	<10	0.4	<10	0.05	5190	1	0.01	5	10	4330	1.9	3370	1	1	40	<20
2	0.5	<2	0.01	51	<1	13	8450	0.47	<10	0.13	<10	0.01	10700	<1	0.01	3	<10	9860	1.32	2930	1	1	40	<20
3	0.6	<2	0.01	41.7	1	13	10500	0.6	<10	0.19	<10	0.02	3900	<1	0.01	3	<10	10700	1.25	3370	1	<1	40	<20
4	0.6	3	<0.01	12.5	<1	13	2210	0.55	<10	0.15	<10	0.02	7450	<1	0.01	3	<10	2210	0.34	527	2	1	40	<20
5	0.9	5	<0.01	15	<1	13	4790	0.6	<10	0.37	<10	0.04	3930	<1	0.01	3	<10	5130	1.01	764	1	1	10	<20
6	<0.5	<2	<0.01	72.4	<1	15	22700	0.55	<10	0.06	<10	<0.01	7150	<1	<0.01	3	<10	19700	2.35	7420	2	<1	90	<20
7	0.8	6	<0.01	105	2	14	30900	1.2	<10	0.25	<10	0.03	5230	<1	<0.01	4	10	31700	4.03	>10000	2	<1	160	<20
8	0.7	<2	<0.01	6.5	<1	12	1075	0.44	<10	0.16	<10	0.02	8350	<1	0.01	3	<10	3530	0.23	147	2	1	<10	<20
9	0.8	<2	<0.01	15.7	<1	13	5260	1.1	<10	0.29	<10	0.04	1450	<1	0.01	4	<10	3810	1.24	960	1	<1	10	<20
10	0.7	3	<0.01	6	<1	16	2970	0.41	<10	0.24	<10	0.03	7110	<1	0.01	2	<10	3980	0.44	425	2	1	<10	<20
200	2.6	<2	0.14	<0.5	6	85	35	2.88	30	2.06	40	0.43	210	<1	0.49	17	400	11900	0.01	<5	23	138	<10	20
14	0.5	12	0.01	78.4	1	16	31100	0.46	<10	0.18	<10	0.02	2010	<1	<0.01	3	<10	17900	2.94	3580	1	1	20	<20
12	<0.5	2	0.01	5	<1	18	1190	0.52	<10	0.1	<10	0.01	2110	<1	0.01	3	<10	1455	0.3	99	<1	1	<10	<20
13	<0.5	9	<0.01	44.1	1	18	14900	0.44	<10	0.06	<10	<0.01	2340	<1	<0.01	3	<10	10800	1.44	4380	1	1	20	<20
136	0.6	3	0.01	4.2	<1	22	2330	0.54	<10	0.22	<10	0.03	1445	1	0.01	4	<10	2670	0.45	260	<1	1	<10	<20
201	21.3	591	11.35	<0.5	28	23	3130	17.4	20	0.77	10	1.86	5900	5	0.2	15	430	17	7.19	13	5	210	<10	<20
137	0.5	2	<0.01	69	1	13	18900	0.49	<10	0.08	<10	0.01	6240	<1	<0.01	3	<10	29000	2.09	5270	2	<1	30	<20
138	1.4	806	1.76	403	3	<1	107000	12.8	<10	0.63	<10	0.05	19300	<1	<0.01	<1	140	11800	>10.0	>10000	3	10	480	<20
36	0.9	157	0.23	28.1	1	14	14400	0.5	<10	0.31	<10	0.03	1745	7	0.01	3	<10	8090	1.31	5330	2	3	10	<20
37	1.3	78	0.11	8.5	1	14	5010	0.52	10	0.47	<10	0.05	513	8	0.01	3	60	1695	0.55	2260	1	2	10	<20
38	0.5	446	0.17	38.2	1	13	13600	1.15	<10	0.16	<10	0.01	4810	5	0.01	2	10	1030	2.01	4760	2	4	40	<20
39	2.7	108	0.31	10.6	1	12	2630	1.24	10	0.96	10	0.14	753	12	0.01	3	130	688	1.29	748	2	5	10	<20
40	1.2	2350	0.21	94.9	1	14	38900	1.08	<10	0.33	<10	0.04	1325	5	0.01	4	40	5910	3.88	>10000	2	5	130	<20
41	3.3	177	0.15	21.4	1	11	6630	0.82	20	1.46	10	0.17	811	9	0.02	3	130	5330	1.24	2180	2	6	20	<20
42	0.6	4	0.06	1.2	<1	14	81	0.38	<10	0.21	<10	0.03	1370	2	0.01	3	23	30	0.14	23	<1	3	<10	<20
43	0.6	15	0.09	0.7	<1	13	216	0.5	<10	0.21	<10	0.03	1750	3	0.01	2	10	53	0.17	27	<1	2	<10	<20
44	3.9	284	1.35	40.9	2	9	7720	1.46	20	1.21	<10	0.12	621	34	0.02	3	60	3490	2.25	2860	1	18	20	<20
202	3.9	287	1.34	40.6	2	7	7730	1.46	20	1.2	<10	0.12	616	33	0.02	3	60	3470	2.25	2860	1	18	10	<20
45	2.6	44	2.32	29	<1	9	15100	0.77	<10	0.91	<10	0.11	418	14	0.01	3	70	8650	1.7	3590	1	17	40	<20
46	1.5	44	1.21	4.2	<1	9	888	0.53	10	0.39	<10	0.06	898	4	0.01	4	30	89	0.35	119	1	9	<10	<20
47	2.6	93	0.38	12.7	<1	9	3040	0.81	10	0.79	<10	0.1	2480	23	0.01	6	70	1350	0.81	651	1	7	<10	<20
48	2.8	186	1.45	72.5	<1	9	1295	0.74	10	0.46	<10	0.06	1835	6	0.01	5	20	539	1.67	310	1	8	<10	<20
49	1.6	409	0.61	58.2	<1	11	5440	3.76	10	0.5	<10	0.06	6440	22	0.01	3	20	344	5.09	1230	1	8	10	<20
50	0.7	527	0.13	109	<1	16	4330	2.31	<10	0.14	<10	0.02	1345	14	<0.01	2	10	761	3.78	1200	1	4	10	<20
51	<0.5	278	0.19	48.6	1	13	16500	0.86	<10	0.13	<10	0.01	5260	6	<0.01	3	<10	3490	1.97	5900	2	3	30	<20
52	0.6	169	0.12	38	1	12	7640	0.81	<10	0.11	<10	0.01	7730	5	<0.01	4	<10	1695	1.21	2730	2	7	20	<20
53	<0.5	492	0.15	61.9	<1	17	25700	0.88	<10	0.04	<10	<0.01	2990	13	<0.01	3	10	5640	2.57	9040	2	4	60	<20
54	0.8	671	0.04	33.7	1	16	14900	0.59	<10	0.13	<10	0.01	2010	10	<0.01	4	<10	5970	1.49	4710	1	1	20	<20
55	0.5	149	0.05	35.2	<1	17	3780	0.57	<10	0.18	<10	0.02	5320	13	<0.01	3	<10	625	0.97	763	1	2	<10	<20
56	0.9	129	0.05	19.7	1	16	2700	0.69	<10	0.27	<10	0.03	1685	70	0.01	3	10	503	0.78	519	1	1	<10	<20
57	1.2	27	0.11	3.9	1	14	191	0.46	<10	0.23	<10	0.03	890	11	0.01	4	10	82	0.22	27	<1	1	<10	<20
58	0.9	307	0.17	43.5	1	15	13800	0.86	<10	0.04	<10	<0.01	296	5	<0.01	6	10	951	1.55	3900	<1	2	80	<20
59	1.7	19	0.03	2.8	1	9	1990	0.36	<10	0.33	<10	<0.01	9990	1	<0.01	3	<10	278	0.13	217	4	1	<10	<20
203	80.8	684	0.34	0.6	7	35	8	3.19	20	1.52	30	0.36	1790	317	0.1	16	220	196	0.71	11	8	22	<10	<20
60	0.8	20	0.56	3.9	<1	13	335	0.55	<10	0.06	<10	0.01	378	6	<0.01	3	<10	264	0.38	73	<1	7	<10	<20
61	0.7	328	0.2	65.6	1	12	11900	0.93	<10	0.13	<10	0.01	12850	15	<0.01	3	<10	404	2.1	4760	4	3	20	<20
62	<0.5	49	0.18	6.2	<1	15	2500	0.4	<10	0.03	<10	<0.01	3060	2	<0.01	2	<10	110	0.3	576	1	2	<10	<20
63	<0.5	22	0.14	1.5	<1	23	952	0.4	<10	0.03	<10	<0.01	2770	1	0.01	2	<10	122	0.11	46	1	2	<10	<20
64	0.9	12	0.21	13.15	3	<1	1315	0.48	<10	0.33	<10	0.03	4660	1	0.01	3	<10	233	0.21	63	2	3	<10	<20
65	1.4	11	1.44	2.4	1	8	1560	0.6	10	0.51	<10	0.05	4510	3	0.01	2	20	115	0.51	57	2	16	<10	<20
204	0.7	116	0.09	29.9	<1	18	1085	1.08	<10	0.23	<10	0.03	535	11	0.01	3	<10	83	1.3	154	<1	1	<10	<20
66	1.6	30	2.03	7.6	<1	8	1380	0.29	<10	0.06	<10	<0.01	12500	1	<0.01	2	10	303	0.3	165	3	25	<10	<20
67	0.6	92	0.26	12.1	<1	6	3960	0.21	<10	0.06	<10	<0.01	36000	1	<0.01	2	<10	436	0.43	1425	11	10	10	<20
68	<0.5	2500	0.18	100.5	<1	15	1900	3.37	<10	0.06	<10	0.01	614	19	<0.01	3	10	1795	4.81	149	<1	1	10	<20
205	2.2	0.3	0.13	3.7	<0.5	88	30	0.17	<0.5	0.96	40	0.45	205	5	<0.01	14	40	2	0.47	19	0.01	<5	20	<20
69	1.7	122	0.1	30.8	<1	21	1100	1.13	<10	0.23	<10	0.03	145	11	0.01	3	<10	83	1.33	146	<1	2	<10	<20
70	0.6	10	0.1	1.3	<1	15	112	0.51	<10	0.16	<10	0.02	4320	5	0.01	3	<10	12	0.19	20	1	4	<10	<20
71	0.5	155	0.14	54.9	<1	24	612	0.7	<10	0.12	<10	0.01	6520	1	<0.01	3	<10	112	1.38	23	1	5	<10	<20
72	0.7	1585																						

ALS Chemex Assay Results

N°	Ti (%)	Ti (ppm)	U (ppm)	V (ppm)	W (ppm)	Zn (ppm)	W (ppm)	W (%)	WO3 (%)	Cu (%)	Zn (%)	Pb (%)	Ag (onz)
1	<0.01	<10	<10	3	2500	5440	0	1.99	2.510	1.130	0.544	0.433	7.813
2	<0.01	<10	<10	<1	2360	9120	0	4.24	5.347	0.845	0.912	0.986	5.626
3	<0.01	<10	<10	2	3420	6720	0	1.32	1.665	1.050	0.672	1.070	7.170
4	0.01	<10	<10	1	440	2190	0	3.14	3.960	0.221	0.219	0.221	1.463
5	<0.01	<10	<10	4	450	2710	0	1.35	1.702	0.479	0.479	0.513	2.536
6	<0.01	<10	<10	<1	3520	10200	0	2.86	3.607	2.270	1.020	1.970	15.657
7	0.02	<10	<10	3	3460	15900	0	1.99	2.510	3.090	1.590	3.170	22.827
8	<0.01	<10	<10	2	240	1165	0	3.11	3.922	0.108	0.117	0.353	1.077
9	<0.01	<10	<10	3	1140	2720	0	0.43	0.542	0.526	0.272	0.381	3.440
10	<0.01	<10	<10	3	340	948	0	2.59	3.266	0.297	0.095	0.398	1.971
200	0.78	<10	<10	213	30	82	0	0.01	0.013	0.004	0.008	0.002	0.016
11	0.01	<10	<10	1	4430	14100	0	0.53	0.547	3.110	1.410	1.790	15.207
12	<0.01	<10	<10	1	300	1055	0	0.7	0.883	0.119	0.106	0.146	0.694
13	<0.01	<10	<10	<1	4670	6290	0	0.78	0.984	1.490	0.629	1.080	15.272
136	0.01	<10	<10	3	370	634	0	0.46	0.580	0.233	0.063	0.267	1.379
201	0.14	<10	<10	34	3130	212	0	0.99	1.248	0.313	0.021	0.002	0.048
137	<0.01	<10	<10	<1	3820	10500	0	2.48	5.127	1.890	1.050	2.900	19.708
138	<0.01	<10	<10	2	770	107000	0	*	#VALUE!	10.700	10.700	1.180	22.473
36	<0.01	<10	<10	10	4220	8520	0	0.61	0.769	1.440	0.552	0.809	4.951
37	0.01	<10	<10	17	950	1490	0	0.1	0.126	0.501	0.149	0.170	2.154
38	<0.01	<10	<10	2	3240	8900	0	1.86	2.346	1.360	0.890	0.103	4.019
39	0.06	<10	<10	33	1580	2900	0	0.16	0.202	0.263	0.290	0.069	0.855
40	0.01	<10	<10	7	4640	19700	0	0.53	0.569	3.890	1.970	0.591	10.867
41	0.04	<10	<10	30	2120	5330	0	0.22	0.277	0.663	0.533	0.533	2.861
42	<0.01	<10	<10	6	210	385	0	0.47	0.593	0.008	0.039	0.003	0.035
43	<0.01	<10	<10	6	220	212	0	0.57	0.719	0.022	0.021	0.005	0.064
44	0.02	<10	<10	27	830	10900	0	0.1	0.126	0.772	1.090	0.349	2.206
202	0.02	<10	<10	26	820	11000	0	0.08	0.101	0.773	1.100	0.347	2.189
45	0.03	<10	<10	21	360	5970	0	0.03	0.038	1.510	0.597	0.865	2.620
46	<0.01	<10	<10	11	280	1445	0	0.31	0.391	0.089	0.145	0.009	0.235
47	0.02	<10	<10	19	380	3500	0	0.86	1.085	0.304	0.350	0.135	1.032
48	0.01	<10	<10	13	230	21600	0	0.58	0.731	0.130	2.160	0.054	0.505
49	0.01	<10	<10	13	1110	16300	0	2.71	3.418	0.544	1.630	0.034	1.328
50	<0.01	<10	<10	5	680	31100	0	0.42	0.530	0.433	3.110	0.076	1.440
51	<0.01	<10	<10	1	3920	11100	0	1.97	2.484	1.650	1.110	0.349	5.755
52	<0.01	<10	<10	1	890	1090	0	3.02	3.908	0.764	1.080	0.170	2.517
53	<0.01	<10	<10	<1	5460	12900	0	1.26	1.589	2.570	1.290	0.564	7.909
54	<0.01	<10	<10	3	4470	7700	0	0.74	0.933	1.490	0.770	0.597	5.337
55	<0.01	<10	<10	4	330	10300	0	2.08	2.623	0.378	1.030	0.063	1.363
56	<0.01	<10	<10	8	270	5420	0	0.55	0.694	0.270	0.542	0.050	0.993
57	<0.01	<10	<10	7	330	1350	0	0.19	0.240	0.019	0.135	0.008	0.074
58	<0.01	<10	<10	1	360	10900	0	0.03	0.038	1.380	1.090	0.095	2.995
59	<0.01	<10	<10	<1	310	837	0	3.78	4.767	0.084	0.084	0.028	0.447
203	0.39	<10	<10	45	3580	109	0	0.4	0.504	0.009	0.011	0.020	0.093
60	<0.01	<10	<10	1	810	1520	0	0.08	0.101	0.034	0.152	0.026	0.161
61	<0.01	<10	<10	1	2400	17400	0	5.24	6.608	1.190	1.740	0.040	3.440
62	<0.01	<10	<10	1	330	1515	0	1.12	1.412	0.250	0.152	0.011	0.820
63	<0.01	<10	<10	1	200	453	0	0.99	1.248	0.095	0.045	0.012	0.167
64	0.01	<10	<10	4	220	202	0	2.02	2.547	0.132	0.087	0.021	0.315
65	0.01	<10	<10	6	270	872	0	1.56	1.967	0.156	0.087	0.012	0.154
204	<0.01	<10	<10	7	1170	9600	0	0.11	0.139	0.109	0.960	0.008	0.164
66	<0.01	<10	<10	<1	320	2920	0	5.32	6.709	0.138	0.292	0.030	0.370
67	<0.01	<10	<10	<1	600	3240	0	15.45	19.484	0.396	0.324	0.044	1.128
68	<0.01	<10	<10	2	600	29300	0	0.04	0.050	0.190	2.930	0.180	0.347
205	0.74	<10	<10	205	30	82	0	0.01	0.013	0.009	0.013	0.002	0.016
69	<0.01	<10	<10	8	1120	9850	0	0.11	0.139	0.110	0.985	0.008	0.170
70	<0.01	<10	<10	4	210	537	0	1.77	2.232	0.011	0.054	0.001	0.016
71	<0.01	<10	<10	2	200	16400	0	3.06	3.859	0.061	1.640	0.011	0.058
72	<0.01	<10	<10	3	650	69600	0	3.75	4.729	0.853	6.960	0.265	2.244
73	<0.01	<10	<10	7	700	105000	0	0.76	0.958	0.868	10.500	0.057	1.434
74	<0.01	<10	<10	9	1750	33100	0	1.2	1.513	2.120	3.310	0.524	7.395
75	<0.01	<10	<10	6	2300	14100	0	0.24	0.303	0.497	1.410	0.014	0.952
76	<0.01	<10	<10	3	370	23900	0	1.35	1.702	0.417	2.390	0.021	0.582
77	<0.01	<10	<10	11	470	22800	0	0.25	0.315	0.132	2.280	0.044	0.148
121	0.01	<10	<10	3	710	2500	0	1.29	1.627	0.501	0.250	0.251	1.997
122	<0.01	<10	<10	<1	3170	3980	0	0.35	0.441	1.490	0.398	0.513	2.402
123	<0.01	<10	<10	1	160	5060	0	0.01	0.013	1.480	0.506	0.417	2.582
124	<0.01	<10	<10	<1	2790	12000	0	4.07	5.133	2.920	1.200	1.130	5.884
125	<0.01	<10	<10	<1	1100	1235	0	3.82	4.817	0.456	0.124	0.114	1.103
126	<0.01	<10	<10	<1	2940	7000	0	3.24	4.086	1.990	0.700	0.306	5.273
206	<0.01	<10	<10	3	240	364	0	1.91	2.409	0.155	0.036	0.087	0.399
127	<0.01	<10	<10	<1	2300	5140	0	3.01	3.796	1.170	0.514	0.214	3.119
128	<0.01	<10	<10	<1	2250	6870	0	4.68	5.902	0.951	0.687	0.320	2.443
129	<0.01	<10	<10	<1	2390	7140	0	3.94	4.969	1.710	0.711	0.603	3.729
130	<0.01	<10	<10	<1	750	8720	0	1.12	1.412	0.654	0.872	0.173	1.543
131	<0.01	<10	<10	2	640	1740	0	0.06	0.076	0.570	0.174	0.073	1.421
207	0.4	<10	<10	46	3260	107	0	0.4	0.504	0.010	0.011	0.020	0.090
132	<0.01	<10	<10	<1	4170	3810	0	0.76	0.958	1.210	0.381	0.272	2.540
133	<0.01	<10	<10	1	290	3150	0	2.28	2.875	0.188	0.315	0.034	0.511
134	<0.01	<10	<10	<1	1030	1765	0	0.1	0.126	0.177	0.177	0.034	0.865
135	<0.01	<10	<10	<1	3630	1985	0	0.76	0.958	0.775	0.199	0.034	1.913
14	<0.01	<10	<10	<1	3320	16000	0	5.69	7.176	2.980	1.600	0.436	6.848
208	0.77	<10	<10	209	70	103	0	0.01	0.013	0.005	0.010	0.002	0.016
15	<0.01	<10	<10	3	280	369	0	1.8	2.270	0.157	0.037	0.090	0.408
16	0.01	<10	<10	16	310	448	0	1.65	2.081	0.211	0.045	0.167	0.823
17	0.01	<10	<10	20	3410	4230	0	0.41	0.517	0.755	0.423	0.099	2.746
18	<0.01	<10	<10	8	4980	20200	0	2.32	2.926	7.130	2.020	3.470	18.776
19	0.01	<10	<10	26	930	592	0	2.61	3.291	0.136	0.059	0.150	0.736
20	0.02	<10	<10	16	230	13900	0	0.85	1.072	0.039	1.390	0.031	0.141
21	0.03	<10	<10	16	360	1045	0	0.04	0.050	0.170	0.105	0.089	0.530
22	0.01	<10	<10	28	1800	54400	0	1.86	2.346	0.426	5.440	0.064	1.170
23	0.06	<10	<10	24	1910	2450	0	2.31	2.913	0.133	0.245	0.057	0.325
24	0.02	<10	<10	12	970	2550	0	0.06	0.076	0.547	0.255	0.073	1.363
25	0.01	<10	<10	6	520	2920	0	2.16	2.724	0.417	0.292	0.189	1.161

ALS Chemex Assay Results

N°	MINA	VETA	NIVEL	LABOR	CODIGO	MUESTRA	LADO	AM	AV	REF1	REF2	REF3	REF4	ANALISIS	DESCRIPCION	TIPO-M	ENVIO	CANTIDAD	LAB	SAMPLE	Ag (ppm)	Al (%)	As (ppm)	Ba (ppm)
26	HUAURA	ALONSO-FENIX	12	SN 300 N	10/23/2008	95	9766-	2.10	0.50	Pto C +	-	15.00m.N	ast-der	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	95	44.3	0.76	1750	<10
27	HUAURA	ALONSO-FENIX	12	SN 300 N	10/23/2008	96	9767-	2.10	0.40	Pto C +	-	15.00m.N	ast-izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	96	1.7	0.86	53	10
28	HUAURA	ALONSO-FENIX	12	SN 300 N	10/23/2008	97	9768-	1.80	0.20	Pto C +	-	17.00m.N	ast-der	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	97	36.4	3.65	372	20
29	HUAURA	ALONSO-FENIX	12	SN 300 N	10/23/2008	98	9769-	1.80	0.30	Pto C +	-	17.00m.N	ast-izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	98	43.6	0.9	1490	10
30	HUAURA	ALONSO-FENIX	12	SN 300 N	10/23/2008	99	9770-	2.10	0.50	Pto C +	-	19.00m.N	ast-der	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	99	0.77	130	4980	10
209	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	100	10449	2.00	0.80	Pto C +	-	39.00m.N	ast-der	Geoquimico	duplicado de la 9840	dup	1	1	SN	100	3.4	0.74	53	10
31	HUAURA	ALONSO-FENIX	12	SN 300 N	10/23/2008	101	9771-	2.10	0.30	Pto C +	-	19.00m.N	ast-izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	101	90.1	0.61	4010	<10
32	HUAURA	ALONSO-FENIX	12	SN 300 N	10/23/2008	102	9772-	2.00	0.60	Pto C +	-	22.00m.N	ast-der	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	102	20.2	0.45	620	<10
33	HUAURA	ALONSO-FENIX	12	SN 300 N	10/23/2008	103	9773-	2.00	0.30	Pto C +	-	22.00m.N	ast-izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	103	177	2.11	3750	10
34	HUAURA	ALONSO-FENIX	12	SN 300 N	10/23/2008	104	9774-	1.90	0.40	Pto C +	-	24.00m.N	ast-der	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	104	460	0.69	>10000	10
35	HUAURA	ALONSO-FENIX	12	SN 300 N	10/23/2008	105	9775-	1.90	0.60	Pto C +	-	24.00m.N	ast-izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	105	93.5	0.48	3340	10
210	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	106	10992	-	-	-	-	-	-	Geoquimico	estandar %WO3 1.04	estandar	1	1	SN	106	25	1.78	15	70
78	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	107	9836-	1.90	0.40	Pto C +	-	27.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	107	85	1.34	3690	20
79	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	108	9837-	2.10	0.30	Pto C +	-	31.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	108	1	0.17	20	<10
80	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	109	9838-	2.00	0.60	Pto C +	-	33.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	109	0.7	0.28	26	<10
81	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	110	9839-	2.00	0.60	Pto C +	-	35.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	110	47.7	1.94	942	10
211	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	111	10445	-	-	-	-	-	-	Geoquimico	muestra en blanco	blanco	1	1	SN	111	0.5	10.7	15	380
82	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	112	9840	2.00	0.80	Pto C +	-	39.00m.N	ast-der	Geoquimico	qz.py.td.ox.wo3	dup-m	1	1	SN	112	3.5	0.65	47	10
83	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	113	9841-	2.00	0.60	Pto C +	-	39.00m.N	ast-izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	113	2.8	0.3	35	<10
84	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	114	9842-	2.20	1.00	Pto C +	-	41.00m.N	ast-der	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	114	140	0.14	2490	<10
85	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	115	9843-	2.20	0.90	Pto C +	-	41.00m.N	ast-izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	115	15	0.31	189	<10
86	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	116	9844-	2.00	1.00	Pto C +	-	43.00m.N	ast-izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	116	4.6	0.35	73	<10
87	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	117	9845-	2.00	0.60	Pto C +	-	45.00m.N	ast-der	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	117	66.6	0.39	930	10
88	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	118	9846-	2.00	0.60	Pto C +	-	45.00m.N	ast-izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	118	42.5	0.25	899	<10
89	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	119	9847-	2.20	0.20	Pto C +	-	47.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	119	28.3	1.18	420	20
90	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	120	9848-	2.10	0.40	Pto 23 +	-	7.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	120	0.9	1.71	11	10
91	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	121	9849-	1.90	0.60	Pto 23 +	-	9.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	121	0.7	2.43	10	10
92	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	122	9850-	1.90	0.40	Pto 23 +	-	11.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	122	35.3	0.48	827	10
93	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	123	9851-	2.00	0.50	Pto 23 +	-	13.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	123	87	0.23	3480	<10
94	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	124	9852-	2.00	0.40	Pto 23 +	-	15.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	124	47.3	1.6	2030	30
95	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	125	9853-	2.10	0.50	Pto 23 +	-	17.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	125	458	0.6	>10000	<10
96	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	126	9854-	2.00	0.40	Pto 23 +	-	19.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	126	346	0.7	>10000	<10
97	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	127	9855-	1.90	0.30	Pto 23 +	-	21.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	127	25.6	1.9	442	10
212	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	128	10450	1.30	0.30	FL S/N +	-	33.00m.N	izq	Geoquimico	duplicado de la 9879	dup	1	1	CA	128	18.5	3.7	415	30
98	HUAURA	ALONSO-FENIX	12	SN 300 N	10/24/2008	129	9856-	2.00	0.60	Pto 23 +	-	23.00m.N	corona	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	SN	129	350	4.67	4310	30
99	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	130	9871-	1.40	0.20	FL S/N +	-	11.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	130	5.2	5.1	180	70
100	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	131	9872-	1.30	0.30	FL S/N +	-	15.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	131	181	2.15	8730	30
101	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	132	9873-	1.40	0.30	FL S/N +	-	17.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	132	43.5	0.45	2070	<10
102	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	133	9874-	1.40	0.40	FL S/N +	-	22.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	133	198	0.94	5220	10
213	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	134	10451	-	-	-	-	-	-	Geoquimico	muestra en blanco	blanco	1	1	CA	134	0.5	11.25	30	390
103	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	135	9875-	1.40	0.50	FL S/N +	-	24.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	135	3	2.6	101	10
104	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	136	9876-	1.40	0.20	FL S/N +	-	27.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	136	57	1.07	1385	10
105	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	137	9877-	1.50	0.30	FL S/N +	-	29.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	137	119	1.69	6830	40
106	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	138	9878-	1.20	0.30	FL S/N +	-	31.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	138	31.5	1.79	1245	20
107	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	139	9879-	1.30	0.30	FL S/N +	-	33.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	dup-m	1	1	CA	139	19.1	3.78	417	30
220	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	140	10457	-	-	-	-	-	-	Geoquimico	estandar %WO3 1.04	estandar	1	1	CA	140	1.5	2.79	12	70
108	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	141	9880-	1.50	0.20	FL S/N +	-	35.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	141	47.8	3.91	619	90
109	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	142	9881-	1.80	0.20	FL S/N +	-	37.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	142	57.1	2.89	1295	50
110	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	143	9882-	1.80	0.30	FL S/N +	-	39.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	143	102	2.9	>10000	<10
111	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	144	9883-	1.80	0.30	FL S/N +	-	41.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	144	104	2.11	5140	30
112	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	145	9884-	1.80	0.50	FL S/N +	-	43.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	145	10.9	1.73	424	10
113	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	146	9885-	1.20	0.40	FL S/N +	-	45.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	146	19.8	1.16	654	10
114	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	147	9886-	1.40	0.50	FL S/N +	-	47.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	147	36.8	2.18	1820	30
115	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	148	9887-	1.50	0.30	FL S/N +	-	49.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	148	70.6	1.22	2810	10
116	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	149	9888-	1.60	0.50	FL S/N +	-	51.00m.N	izq	Geoquimico	qz.py.td.ox.wo3	muestra	1	1	CA	149	465	0.2	>10000	<10
117	HUAURA	ALONSO-FENIX	12	CAM 1	10/25/2008	150	9889-	1.80	0.50	FL S/N +	-	53.00m.N	izq	Geoquimico										

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N°	Be (ppm)	Bi (ppm)	Ca (%)	Cd (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Ga (ppm)	K (%)	La (ppm)	Mg (%)	Mn (ppm)	Mo (ppm)	Na (%)	Ni (ppm)	P (ppm)	Pb (ppm)	S (%)	Sb (ppm)	Sc (ppm)	Sr (ppm)	Te (ppm)	Th (ppm)	
26	1	<2	1.31	8	1	5	5590	0.3	<10	0.37	<10	0.07	6910	1	0.01	4	<10	3170	0.49	1370	4	43	10	<20	
27	1.5	2	0.86	1.6	<1	7	190	0.37	<10	0.43	<10	0.07	924	1	0.01	3	10	113	0.11	24	1	7	<10	<20	
28	3.9	27	2.03	5.1	1	6	2940	0.49	20	1.74	<10	0.22	1195	3	0.02	4	10	3770	0.47	558	2	14	<10	<20	
29	1.6	23	0.46	24.2	<1	7	5020	0.54	<10	0.44	<10	0.05	11800	2	0.01	4	10	3180	1.02	1430	4	5	<10	<20	
30	1	15	0.28	54	<1	10	18800	1	0.39	<10	0.39	0.05	10900	2	0.01	4	<10	10100	4	1	30	4	<10	<20	
209	1.3	5	1.61	9.9	<1	7	379	0.6	<10	0.36	<10	0.05	8460	<1	0.01	7	10	170	0.59	68	3	12	<10	<20	
31	0.9	4	0.11	19.4	<1	9	12700	0.25	<10	0.3	<10	0.03	13550	<1	<0.01	3	<10	2540	0.91	3060	5	2	20	<20	
32	0.6	4	0.04	3.5	<1	6	2210	0.23	<10	0.21	<10	0.01	31400	<1	0.01	3	10	623	0.22	635	11	2	<10	<20	
33	3.1	29	6.19	35.1	2	4	43700	3.14	10	1.08	<10	0.22	10500	4	0.01	4	10	7620	4.7	5780	5	42	10	<20	
34	1	39	0.07	115	<1	<1	71100	0.51	10	0.35	<10	0.04	2410	3	<0.01	3	<10	22300	5.44	>10000	1	2	110	<20	
35	0.8	4	0.13	15.9	<1	6	11500	0.33	<10	0.23	<10	<0.01	14650	1	<0.01	1	<10	4020	0.98	3270	5	3	20	<20	
210	19.8	567	10.85	<0.5	21	20	2940	15.8	10	0.69	10	1.67	5660	14	0.22	16	7	390	6.95	7	4	194	10	<20	
78	3.4	30	0.48	116.5	<1	12	11100	0.9	10	0.71	<10	0.09	2760	10	0.01	3	40	8340	2.98	2230	1	9	20	<20	
79	<0.5	2	0.02	<0.5	<1	16	90	0.32	<10	0.07	<10	0.01	855	1	0.01	<1	<10	240	0.04	20	<1	<1	<10	<20	
80	<0.5	3	0.02	<0.5	<1	13	74	0.31	<10	0.13	<10	0.01	3430	<1	0.01	1	<10	31	0.03	19	1	1	<10	<20	
81	2.4	<2	0.07	5.8	<1	8	3760	0.24	10	0.97	<10	0.1	11000	1	0.01	<1	<10	2030	0.35	1345	5	2	<10	<20	
211	2.7	3	0.1	<0.5	5	82	26	2.56	30	1.78	30	0.39	202	1	0.38	14	370	14	0.01	<5	18	97	<10	20	
82	1.2	5	1.46	9.5	1	11	3444	0.63	<10	0.32	<10	0.03	8070	<1	0.01	2	<10	1149	0.56	2	3	12	<10	<20	
83	0.5	2	0.02	<0.5	<1	11	167	0.21	<10	0.14	<10	<0.01	10050	<1	0.01	<1	<10	238	0.04	49	4	1	<10	<20	
84	<0.5	<2	0.01	19.5	<1	9	13400	0.29	<10	0.07	<10	<0.01	7140	1	<0.01	<1	<10	7380	1.02	5460	2	<1	10	<20	
85	0.5	<2	0.02	2.5	<1	11	1105	0.21	<10	0.14	<10	<0.01	14100	<1	0.01	1	<10	363	0.11	408	5	1	<10	<20	
86	0.5	2	0.01	0.9	<1	10	350	0.19	<10	0.16	<10	<0.01	15800	1	<0.01	<1	<10	603	0.07	138	6	<1	<10	<20	
87	0.7	20	0.34	56.2	1	10	5480	1.64	<10	0.18	<10	<0.01	12450	3	0.01	4	<10	8780	2.98	1615	2	4	10	<20	
88	<0.5	3	0.01	5.4	<1	17	3870	0.32	<10	0.12	<10	0.01	4080	7	<0.01	<1	<10	863	0.28	1215	1	1	<10	<20	
89	1.4	5	0.23	10.1	2	14	2030	0.84	10	0.61	10	0.08	1290	2	0.01	3	10	309	0.92	545	1	4	<10	<20	
90	1.9	<2	0.04	<0.5	<1	9	46	0.21	<10	0.87	<10	0.05	14050	<1	0.01	1	<10	40	0.02	14	3	1	<10	<20	
91	2.9	<2	0.02	<0.5	1	3	41	0.22	10	1.18	<10	0.1	12500	<1	0.01	1	<10	53	0.02	16	4	2	<10	<20	
92	0.6	<2	0.01	19.6	<1	8	3150	0.38	<10	0.24	<10	0.03	4200	1	<0.01	1	<10	3240	0.63	744	1	1	<10	<20	
93	<0.5	<2	0.28	21.8	<1	3	11400	0.23	<10	0.11	<10	<0.01	12700	1	<0.01	1	<10	5900	0.94	2800	5	3	10	<20	
94	2.4	21	1.46	40.7	1	5	6340	0.83	<10	0.85	<10	0.11	21800	1	0.01	4	100	6160	1.99	1575	8	5	20	<20	
95	1	<2	0.08	89.3	<1	<1	56000	1	0.48	<10	0.31	<10	0.05	3580	2	<0.01	2	<10	21900	4.32	>10000	2	2	80	<20
96	1	<2	0.14	112.5	<1	<1	49000	0.78	10	0.36	<10	0.05	1950	6	<0.01	2	<10	27000	4.71	9440	1	2	70	<20	
97	2.5	<2	0.09	2.6	<1	5	1960	0.24	10	0.92	<10	0.13	7950	<1	0.01	<1	<10	526	0.17	526	3	1	<10	<20	
212	4.4	2	0.42	2.8	<1	11	1800	0.52	20	1.84	<10	0.24	797	8	0.02	2	<10	602	0.42	596	2	6	<10	<20	
98	5	86	0.13	26.5	1	<1	19200	0.63	20	2.24	<10	0.22	10950	1	0.02	3	10	10100	1.97	7510	5	6	10	<20	
99	6.7	<2	1.32	8.7	2	12	558	1.68	30	2.48	10	0.38	2290	72	0.04	6	130	236	0.64	155	5	26	<10	<20	
100	2.7	8	0.2	95.6	3	6	26300	1.37	10	1.06	10	0.12	2570	9	0.01	10	10	9540	3.18	6200	3	6	40	<20	
101	0.7	3	0.02	8.6	<1	5	6300	0.19	<10	0.22	<10	<0.01	29000	1	0.01	1	<10	2300	0.54	1435	10	2	10	<20	
102	1.2	4	0.03	26.8	1	9	18500	0.58	10	0.45	<10	0.05	891	6	0.01	3	<10	3220	1.6	6040	1	2	30	<20	
213	2.8	<2	0.11	<0.5	6	86	44	2.64	30	1.86	30	0.4	211	<1	0.4	16	370	21	0.01	11	19	105	<10	20	
103	2.7	<2	0.04	0.5	<1	11	313	0.29	20	1.28	<10	0.11	1960	1	0.01	1	<10	166	0.05	87	1	1	<10	<20	
104	1.4	<2	0.04	8.3	<1	11	5040	0.47	10	0.53	<10	0.06	2770	3	0.01	2	10	5030	0.59	1305	2	2	<10	<20	
105	1.7	89	0.07	44.3	3	14	18400	2.36	10	0.79	10	0.08	2440	6	0.02	7	40	7530	3.92	3070	3	7	50	<20	
106	1.9	62	0.08	27.2	1	15	3940	1.59	10	0.85	<10	0.09	2660	11	0.02	5	10	345	2.15	834	2	4	20	<20	
107	4.4	<2	0.42	2.8	1	11	1830	0.52	20	1.87	<10	0.24	799	7	0.02	1	<10	590	0.42	593	2	6	<10	<20	
220	21.1	575	11	<0.5	25	28	3060	15.85	20	0.72	10	1.7	5780	20	0.2	16	390	7	7.14	19	4	4	193	10	<20
108	3.6	124	0.29	39.7	5	29	2900	1.9	10	1.9	10	0.19	1150	16	0.05	13	70	2850	2.57	785	5	16	10	<20	
109	3	5	0.13	7.2	1	18	5230	0.81	10	1.41	10	0.13	7010	7	0.04	8	20	1070	1.14	1690	5	11	<10	<20	
110	10	101	0.95	27.4	<1	20	1950	0.57	<10	0.49	<10	0.04	5560	40	0.02	4	10	2200	0.98	378	3	11	10	<20	
111	2.3	9	0.11	40.4	1	12	15200	0.85	10	1.02	<10	0.12	818	10	0.02	4	10	6740	2.05	3670	2	3	10	<20	
112	1.9	16	0.11	5.6	2	14	1305	0.64	10	0.84	<10	0.09	529	17	0.01	3	20	577	0.64	285	1	3	10	<20	
113	1.4	3	0.05	4.2	1	14	2170	0.42	10	0.57	<10	0.07	798	9	0.01	3	<10	544	0.4	522	1	2	<10	<20	
114	2.5	23	0.26	31.1	<1	18	5450	0.84	10	1.08	<10	0.14	694	14	0.02	5	20	2060	1.4	1380	2	5	10	<20	
115	1.4	7	1.77	23.1	<1	10	8550	0.65	10	0.6	<10	0.07	1960	5	0.01	3	<10	3500	1.29	2070	2	28	10	<20	
116	<0.5	06	0.06	178.5	4	1	75200	0.41	0.1	<10	0.01	9420	10	2	<0.01	2	<10	31700	6.71	>10000	3	3	170	<20	
117	1.1	91	0.15	107	2	<1	73300	0.57	<10	0.38	<10	0.04	4630	7	<0.01	3	<10	9710	5.4	>10000	2	8	140	<20	
118	7.7	<2	4.12	<0.5	3	21	197	0.88	30	3.41	10	0.42	1220	6	0.07	12	180	95	0.86	59	6	33	<10	<20	
214	2.3	<2	0.12	<0.5	5	86	41	2.58	30	1.87	30	0.37	187	1	0.45	14	380	12	0.01	<5	19	116	<10	20	
119	1	<2	0.19	0.5	<1	19	309	0.54	<10	0.37	<10	0.05	219	7</											

ALS Chemex Assay Results

N°	Ti (%)	Ti (ppm)	U (ppm)	V (ppm)	W (ppm)	Zn (ppm)	W (ppm)	W (%)	WO3 (%)	Cu (%)	Zn (%)	Pb (%)	Ag (onz)
26	<0.01	<10	<10	3	420	1515	0	4.45	5.612	0.559	0.152	0.317	1.424
27	0.01	<10	<10	11	180	528	0	0.29	0.366	0.019	0.053	0.011	0.055
28	0.02	<10	<10	71	1930	1305	0	0.19	0.240	0.294	0.131	0.377	1.170
29	0.01	<10	<10	3	960	6320	0	4.4	5.549	0.502	0.632	0.318	1.402
30	0.01	<10	<10	5	2250	13300	0	3.55	4.477	1.880	1.330	0.117	4.180
209	0.01	<10	<10	4	580	2970	0	3.18	4.010	0.038	0.297	0.017	0.109
31	<0.01	<10	<10	3	1680	3830	0	4.79	6.041	1.270	0.383	0.254	2.897
32	0.01	10	10	<1	490	724	0	13	16.394	0.221	0.072	0.062	0.649
33	0.01	<10	10	20	1980	7530	0	*	#VALUE!	4.370	0.753	0.762	5.691
34	0.01	<10	<10	17	4790	21100	0	0.77	0.971	7.110	2.110	2.230	14.789
35	0.01	<10	<10	2	2260	2630	0	5.68	7.163	1.150	0.293	0.402	3.006
210	0.13	<10	<10	25	5760	620	0	0.98	1.258	0.294	0.021	0.001	0.055
78	0.02	<10	<10	90	2290	30400	0	0.92	1.160	1.110	3.040	0.834	2.733
79	<0.01	<10	<10	3	390	156	0	0.27	0.340	0.009	0.016	0.024	0.032
80	<0.01	<10	<10	5	310	83	0	1.13	1.425	0.007	0.008	0.003	0.023
81	0.01	<10	<10	15	2200	1175	0	4.33	5.460	0.376	0.118	0.203	1.534
211	0.69	<10	<10	190	10	75	0	0.01	0.013	0.003	0.008	0.001	0.016
82	0.01	<10	<10	4	890	2820	0	3.31	4.174	0.034	0.282	0.015	0.113
83	<0.01	10	<10	1	490	82	0	4.2	5.297	0.017	0.008	0.024	0.090
84	<0.01	<10	<10	<1	3970	3610	0	2.66	3.354	1.340	0.361	0.738	4.501
85	<0.01	<10	<10	<1	810	629	0	5.73	7.226	0.111	0.063	0.036	0.482
86	<0.01	<10	10	1	730	222	0	6.41	8.084	0.035	0.022	0.060	0.148
87	0.01	10	<10	3	1380	15900	0	4.66	5.877	0.548	1.590	0.878	2.141
88	<0.01	<10	<10	5	640	912	0	1.55	1.955	0.387	0.091	0.086	1.366
89	0.05	<10	<10	23	720	2910	0	0.42	0.530	0.291	0.031	0.031	0.588
90	<0.01	10	<10	11	1110	61	0	5.35	6.747	0.005	0.006	0.004	0.029
91	0.01	10	<10	17	1710	36	0	4.65	5.864	0.004	0.004	0.005	0.023
92	0.01	<10	<10	8	470	5500	0	1.48	1.866	0.315	0.550	0.324	1.135
93	<0.01	10	<10	<1	2090	4760	0	5.1	6.432	1.140	0.476	0.590	2.797
94	0.03	10	10	7	1990	11900	0	8.51	10.732	0.634	1.100	0.616	1.521
95	<0.01	<10	<10	12	5080	17100	0	1.47	1.854	5.600	1.710	2.190	14.725
96	0.01	<10	<10	16	4890	26200	0	0.73	0.921	4.900	2.620	2.700	11.124
97	0.01	<10	<10	20	1510	516	0	2.95	3.720	0.196	0.052	0.053	0.823
212	0.03	<10	<10	95	530	623	0	0.06	0.076	0.180	0.062	0.060	0.595
98	0.03	<10	<10	38	3970	4420	0	3.88	4.893	1.920	0.442	1.010	11.253
99	0.07	<10	<10	100	4460	2700	0	0.48	0.508	0.065	0.070	0.024	0.167
100	0.04	<10	<10	38	5370	6730	0	0.83	1.047	2.630	0.673	0.954	5.819
101	0.01	10	10	<1	1150	1600	0	12.15	15.322	0.630	0.160	0.230	1.399
102	0.01	<10	<10	21	1910	4700	0	0.21	0.265	1.850	0.470	0.322	6.366
213	0.71	<10	<10	192	20	84	0	0.01	0.013	0.004	0.008	0.002	0.016
103	0.01	<10	<10	62	1860	175	0	0.47	0.593	0.031	0.018	0.017	0.096
104	0.01	<10	<10	27	640	1575	0	0.91	1.148	0.504	0.158	0.503	1.833
105	0.03	<10	<10	29	3360	10800	0	0.81	1.021	1.840	1.060	0.753	3.826
106	0.02	<10	<10	44	860	7710	0	0.81	1.021	0.394	0.771	0.035	1.013
107	0.03	<10	<10	96	550	630	0	0.05	0.063	0.183	0.063	0.059	0.614
220	0.13	<10	10	29	3860	217	0	0.98	1.236	0.306	0.022	0.001	0.048
108	0.09	<10	<10	85	2740	11100	0	2.08	2.623	0.290	1.110	0.285	1.537
109	0.06	<10	<10	33	2820	1350	0	0.27	0.340	0.523	0.135	0.107	1.836
110	10	0.02	10	14	520	3320	0	2.55	3.216	0.195	0.195	0.225	0.952
111	0.04	<10	10	45	1270	9740	0	0.14	0.177	1.520	0.974	0.674	3.344
112	0.02	<10	10	44	670	1665	0	0.07	0.088	0.131	0.167	0.058	0.350
113	0.02	<10	<10	31	1850	956	0	0.19	0.240	0.217	0.096	0.054	0.637
114	0.03	<10	<10	42	1360	8710	0	0.14	0.177	0.545	0.871	0.206	1.183
115	0.02	<10	<10	20	3390	5480	0	0.53	0.658	0.855	0.548	0.350	2.270
116	<0.01	10	1	3670	142	37800	0	1.42	1.791	7.520	3.780	14.950	14.950
117	0.01	<10	<10	19	5270	17500	0	1.83	2.308	7.330	1.750	0.971	15.947
118	0.11	<10	10	120	1670	164	0	0.16	0.202	0.020	0.016	0.010	0.051
214	0.69	<10	<10	204	20	83	0	0.01	0.013	0.004	0.008	0.001	0.016
119	0.02	<10	<10	19	170	176	0	0.02	0.025	0.031	0.018	0.021	0.074
120	0.02	<10	<10	20	1680	3050	0	1.97	2.484	0.510	0.305	0.238	1.543
139	0.04	<10	<10	32	460	134	0	0.05	0.063	0.023	0.013	0.015	0.084
140	0.03	<10	<10	36	2020	1455	0	0.56	0.706	0.652	0.146	0.163	2.495
141	0.02	10	10	16	2510	34200	0	5.69	7.176	1.950	3.420	0.105	6.334
142	0.04	<10	<10	53	2090	3740	0	1.18	1.488	0.309	0.374	0.069	1.222
143	0.03	<10	<10	103	4210	3490	0	0.61	0.769	0.550	0.349	0.173	2.196
144	0.01	<10	<10	42	2910	9510	0	2.03	2.560	0.892	0.951	0.526	3.729
145	0.04	<10	<10	50	1530	665	0	0.62	0.782	0.160	0.067	0.147	0.714
215	0.01	<10	<10	9	70	1175	0	0.01	0.013	0.006	0.118	0.002	0.016
146	0.02	<10	<10	48	940	591	0	0.35	0.441	0.032	0.059	0.033	0.141
147	0.01	10	<10	14	1310	746	0	5.7	7.188	0.108	0.075	0.213	0.640
148	0.08	10	10	84	6480	455	0	7.4	9.332	0.022	0.046	0.019	0.100
149	0.01	<10	<10	12	320	1855	0	0.03	0.038	0.057	0.186	0.010	0.225
150	0.01	<10	<10	9	70	1185	0	0.01	0.013	0.006	0.119	0.002	0.019
216	0.37	<10	<10	44	3400	110	0	0.4	0.504	0.009	0.011	0.021	0.103
151	0.04	<10	<10	28	420	2230	0	0.04	0.050	0.409	0.223	0.257	0.987
165	0.04	<10	30	37	300	7420	0	0.03	0.038	0.125	0.742	0.031	0.437
166	0.02	<10	<10	18	270	1820	0	0.4	0.504	0.088	0.182	0.027	0.154
167	0.05	<10	<10	46	1670	809	0	0.17	0.214	0.031	0.081	0.060	0.125
168	0.01	<10	<10	14	1100	249	0	0.12	0.151	0.039	0.025	0.013	0.113
169	0.04	<10	<10	23	250	2500	0	0.48	0.595	0.074	0.858	0.258	0.254
170	0.05	<10	<10	31	1300	1045	0	0.16	0.202	0.064	0.105	0.038	0.180
171	0.05	<10	10	28	1170	5150	0	0.11	0.139	0.024	0.515	0.009	0.051
172	<0.01	<10	<10	3	280	10400	0	2.3	2.900	0.335	1.040	0.059	0.775
173	0.02	<10	30	8	5900	27200	0	0.96	1.211	4.970	2.720	1.470	8.938
174	0.03	<10	<10	13	240	4900	0	0.02	0.025	0.090	0.490	0.027	0.251
175	0.06	<10	<10	20	730	13700	0	0.07	0.088	3.020	1.370	0.391	7.137
176	0.01	<10	<10	6	1670	24500	0	0.17	0.214	1.850	2.450	1.390	3.762
177	<0.01	<10	<10	5	3360	52800	0	1.67	2.106	7.530	5.280	0.437	16.268
178	<0.01	<10	<10	<1	4090	56800	0	0.49	0.618	1.040	5.680	0.994	2.749
217	0.74	10	<10	202	50	97	0	0.01	0.013	0.004	0.010	0.002	0.016
152	<0.01	<10	<10	<1	500	910	0	2.34	2.951	0.390	0.091	0.061	0.804
153	<0.01	<10	<10	<1	3850	5600	0	1.99	2.510	1.960	0.560	0.106	4.437
154	<0.01	<10	<10	<1	310	6390	0	0.03	0.038	1.710	0.939	1.079	3.779
155	<0.01	<10	<10	<1	1320	15100	0	0.13	0.164	1.220	1.510	0.012	2.524

ALS Chemex Assay Results

N°	MINA	VETA	NIVEL	LABOR	FECHA	CODIGO	MUESTRA	LADO	AM	AV	REF1	REF2	REF3	REF4	ANALISIS	DESCRIPCION	TIPO-M	ENVIO	CANTIDAD	LAB	SAMPLE	Ag (ppm)	Al (%)	As (ppm)	Ba (ppm)
156	HUAURA	CONSUELO	11	GL 100 S	10/26/2008	189	9949	corona	2.40	0.50	FL CH 040 +	34.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	189	9.9	0.03	364	<10
157	HUAURA	CONSUELO	11	GL 100 S	10/26/2008	190	9950	corona	2.40	0.60	FL CH 040 +	36.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	190	18.9	0.03	889	<10
218	HUAURA	CONSUELO	11	GL 100 S	10/26/2008	191	10994-	-	-	-	-	-	-	-	Geoquimico	estandar #W03 1.04	estandar	1	1	GL	191	1.6	3.06	14	70
158	HUAURA	CONSUELO	11	GL 100 S	10/26/2008	192	9951	corona	2.30	0.60	FL CH 040 +	38.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	192	84.9	0.04	5090	<10
159	HUAURA	CONSUELO	11	GL 100 S	10/26/2008	193	9952	corona	2.30	0.80	FL CH 040 +	40.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	193	74.6	0.08	4460	<10
160	HUAURA	CONSUELO	11	GL 100 S	10/26/2008	194	9953	corona	2.50	1.00	FL CH 040 +	42.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	194	175	0.02	7480	<10
219	HUAURA	CONSUELO	11	GL 100 S	10/26/2008	195	10992	corona	2.40	1.20	FL CH 040 +	44.00	m.S	corona	Geoquimico	duplicado de la 9954	muestra	1	1	GL	195	96	0.03	5820	<10
161	HUAURA	CONSUELO	11	GL 100 S	10/26/2008	196	9954	corona	2.40	1.20	FL CH 040 +	44.00	m.S	corona	Geoquimico	qz.py.td.wc3	dup-m	1	1	GL	196	98.1	0.03	5740	<10
162	HUAURA	CONSUELO	11	GL 100 S	10/26/2008	197	9955	corona	2.50	1.20	FL CH 040 +	46.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	197	97	0.04	6270	<10
163	HUAURA	CONSUELO	11	GL 100 S	10/26/2008	198	9956	piso	2.40	1.20	FL CH 040 +	48.00	m.S	piso	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	198	35.9	0.03	1945	<10
164	HUAURA	CONSUELO	11	GL 100 S	10/26/2008	199	9957	techo	2.40	1.20	FL CH 040 +	48.00	m.S	techo	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	199	56.7	0.06	3430	<10
176	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	200	10001	piso	2.50	1.00	FL CH 040 +	50.00	m.S	piso	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	200	41.6	0.06	2300	<10
180	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	201	10002	techo	2.50	1.00	FL CH 040 +	50.00	m.S	techo	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	201	63.7	0.11	4580	10
181	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	202	10003	corona	2.20	0.90	FL CH 990 +	1.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	202	8.2	0.03	451	<10
182	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	203	10004	corona	2.30	0.90	FL CH 990 +	3.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	203	8.6	0.03	540	<10
183	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	204	10005	corona	2.20	0.60	FL CH 990 +	5.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	204	27.8	0.03	1605	<10
184	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	205	10006	corona	2.20	0.60	FL CH 990 +	7.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	205	40.1	0.03	2140	<10
185	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	206	10007	corona	2.20	0.60	FL CH 990 +	9.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	206	0.9	0.12	94	<10
186	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	207	10008	corona	2.00	0.90	Pto.8 S +	8.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	207	36.2	0.28	2000	<10
187	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	208	10009	corona	2.00	0.80	Pto.8 S +	10.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	208	142	0.11	5410	<10
188	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	209	10010	corona	2.10	1.00	Pto.8 S +	12.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	209	19.7	0.51	841	10
189	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	210	10011	corona	2.40	0.60	Pto.8 S +	14.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	210	40.8	1.04	581	10
190	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	211	10012	corona	2.40	0.70	CH 935 +	2.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	211	30.6	0.14	757	<10
191	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	212	10013	corona	2.40	0.90	CH 935 +	4.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	212	9	0.12	151	<10
192	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	213	10014	corona	2.00	0.80	CH 935 +	7.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	213	60.8	0.14	2020	<10
193	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	214	10015	corona	1.80	0.50	CH 935 +	13.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	214	189	0.26	3140	<10
194	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	215	10016	corona	2.00	0.60	CH 935 +	15.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	215	350	0.11	7590	<10
195	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	216	10017	corona	2.40	0.70	CH 935 +	17.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	216	98.6	0.11	2090	<10
196	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	217	10018	corona	2.40	0.90	CH 935 +	19.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	217	159	0.13	7050	<10
197	HUAURA	CONSUELO	11	GL 100 S	10/27/2008	218	10019	corona	2.00	0.60	Pto.12 S +	4.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	GL	218	13.8	0.13	565	<10
198	HUAYLLAPON	SOMIA	8	SN 656	10/22/2008	219	9692	corona	1.20	1.00	FL CH 656 +	4.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	SN	219	87.7	0.38	>10000	<10
199	HUAYLLAPON	SOMIA	8	SN 656	10/22/2008	220	9693	corona	1.30	0.90	FL CH 656 +	6.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	1	1	SN	220	84.4	0.38	1230	<10
306	HUAURA	CANDELA	9	TJ 215 S	11/1/2008	221	10197	piso	2.80	1.00	CH 215 +	0.00	m.S	piso	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	221	118	0.8	3020	10
307	HUAURA	CANDELA	9	TJ 215 S	11/1/2008	222	10198	techo	2.80	0.70	CH 215 +	0.00	m.S	techo	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	222	25.4	1.11	1395	10
308	HUAURA	CANDELA	9	TJ 215 S	11/1/2008	223	10199	piso	3.90	1.00	CH 215 +	2.00	m.S	piso	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	223	141	1.08	3760	20
309	HUAURA	CANDELA	9	TJ 215 S	11/1/2008	224	10200	techo	3.90	0.90	CH 215 +	2.00	m.S	techo	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	224	43.9	0.49	1250	10
310	HUAURA	CANDELA	9	TJ 215 S	11/1/2008	225	10201	piso	4.50	1.20	CH 215 +	4.00	m.S	piso	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	225	78.6	0.54	2380	<10
311	HUAURA	CANDELA	9	TJ 215 S	11/1/2008	226	10202	techo	4.50	1.10	CH 215 +	4.00	m.S	techo	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	226	113	0.7	4590	10
312	HUAURA	CANDELA	9	TJ 215 S	11/1/2008	227	10203	corona	5.00	1.20	CH 215 +	6.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	227	22.1	0.11	554	<10
313	HUAURA	CANDELA	9	TJ 215 S	11/1/2008	228	10204	piso	6.00	1.20	CH 215 +	8.00	m.S	piso	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	228	63.5	0.17	1590	<10
314	HUAURA	CANDELA	9	TJ 215 S	11/1/2008	229	10205	techo	6.00	1.00	CH 215 +	8.00	m.S	techo	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	229	32.3	0.16	1145	<10
315	HUAURA	CANDELA	9	TJ 215 S	11/1/2008	230	10206	corona	6.00	1.20	CH 215 +	10.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	230	21.4	0.16	849	<10
316	HUAURA	CANDELA	9	TJ 215 S	11/1/2008	231	10207	corona	2.90	1.10	CH 215 +	12.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	231	10.2	0.39	310	<10
317	HUAURA	CANDELA	9	TJ 215 S	11/1/2008	232	10208	piso	2.00	0.70	CH 215 +	14.00	m.S	piso	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	232	13.6	0.54	327	<10
318	HUAURA	CANDELA	9	TJ 215 S	11/1/2008	233	10209	techo	2.00	0.60	CH 215 +	14.00	m.S	techo	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	233	14.2	0.24	342	<10
319	HUAURA	CANDELA	9	TJ 215 N	11/1/2008	234	10210	corona	2.00	0.80	CH 215 +	0.00	m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	234	116	3.16	4720	30
320	HUAURA	CANDELA	9	TJ 215 N	11/1/2008	235	10211	corona	1.70	0.70	CH 215 +	3.00	m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	235	116	0.54	4520	10
321	HUAURA	CANDELA	9	TJ 215 N	11/1/2008	236	10212	corona	1.80	1.00	CH 215 +	6.00	m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	236	18.2	0.45	608	<10
322	HUAURA	CANDELA	10	SN 200 1N	11/1/2008	237	10213	corona	2.00	1.30	Pto.A +	0.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	SN	237	9.5	0.15	968	<10
327	HUAURA	CANDELA	10	SN 200 1N	11/1/2008	238	10243	corona	2.00	1.20	Pto.A +	2.00	m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	SN	238	15.9	0.21	1105	<10
328	HUAURA	CANDELA	10	SN 200 1N	11/1/2008	239	10243	corona	2.00	0.80	Pto.A +	4.00	m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	SN	239	15.8	0.83	457	10
329	HUAURA	CANDELA	10	SN 200 1N	11/1/2008	240	10244	corona	2.00	0.80	Pto.A +	6.00	m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	SN	240	4.8	1.14	228	10
395	HUAURA	CONSUELO	10	GL 650 S	10/31/2008	241	10349	corona	2.10	0.90	CH 845 +	22.00	m.S	corona	Geoquimico	duplicado de la 10197	dup	2	1	GL	241	0.9	0.04	38	<10
396	HUAURA	ALONSO-FENIX	9	SN 214 N	10/30/2008	242	10370	corona	1.60	0.40	CH 215 +	21.00	m.N	corona	Geoquimico	duplicado de la 10192	dup	2	1	SN	242	5.9</			

ALS Chemex Assay Results

N°	Be (ppm)	Bi (ppm)	Ca (%)	Cd (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Ga (ppm)	K (%)	La (ppm)	Mg (%)	Mn (ppm)	Mo (ppm)	Na (%)	Ni (ppm)	P (ppm)	Pb (ppm)	S (%)	Sb (ppm)	Sc (ppm)	Sr (ppm)	Te (ppm)	Th (ppm)	
156	<0.5	30	0.02	3.9	1	19	1200	0.61	<10	0.01	<10	<0.01	695	1	<0.01	2	<10	360	0.33	180	<1	1	<10	<20	
157	<0.5	78	0.04	10.1	<1	26	2360	0.97	<10	0.01	<10	<0.01	988	3	<0.01	2	<10	712	0.97	403	<1	1	<10	<20	
218	20.7	622	11.25	<0.5	26	26	3080	17.2	20	0.75	10	1.84	5870	5	0.2	13	420	11	7.43	12	5	211	<10	<20	
158	<0.5	244	0.01	83.9	1	16	14800	1.06	<10	0.02	<10	<0.01	2250	2	<0.01	2	10	3950	2.71	3500	1	1	60	<20	
159	<0.5	52	0.01	52	1	17	13600	0.1	<10	0.04	<10	<0.01	4120	1	<0.01	1	<10	1555	1.01	3200	1	1	30	<20	
160	<0.5	474	0.01	33.7	1	16	26100	0.4	<10	0.01	<10	<0.01	3100	<1	<0.01	1	<10	782	1.75	7690	2	1	40	<20	
219	<0.5	323	0.01	59	1	18	17500	0.71	<10	0.01	<10	<0.01	4850	1	<0.01	3	<10	2300	2.08	4350	2	1	40	<20	
161	<0.5	207	0.01	57.9	1	21	17400	0.71	<10	0.01	<10	<0.01	4760	1	<0.01	1	<10	2300	2.07	4320	2	<1	40	<20	
162	<0.5	363	0.02	42.6	1	14	19700	0.41	<10	0.02	<10	<0.01	19450	1	<0.01	<1	<10	1400	1.8	4490	1	1	60	<20	
163	<0.5	89	0.01	17.6	<1	18	6240	0.48	<10	0.01	<10	<0.01	7690	<1	<0.01	2	<10	1470	0.8	1225	2	1	10	<20	
164	<0.5	318	0.02	88.2	1	11	10800	0.78	<10	0.03	<10	<0.01	24800	1	<0.01	1	<10	648	2.72	2490	2	<1	10	<20	
179	<0.5	222	0.04	36.6	<1	13	7400	0.67	<10	0.02	<10	<0.01	7640	1	<0.01	1	<10	1080	2.3	1725	2	1	10	<20	
180	<0.5	161	0.03	45.6	1	12	14000	0.39	<10	0.05	<10	<0.01	20000	1	<0.01	1	40	2370	1.67	2580	6	1	30	<20	
181	<0.5	59	0.04	45.2	1	14	1190	0.45	<10	0.01	<10	<0.01	12050	1	<0.01	2	<10	515	1.09	244	<1	1	<10	<20	
182	<0.5	24	0.09	44.2	<1	17	1470	0.67	<10	0.01	<10	<0.01	10400	1	<0.01	1	10	190	1.3	324	<1	2	<10	<20	
183	0.6	40	0.32	27.6	<1	19	4860	0.48	<10	0.01	<10	<0.01	3150	1	<0.01	1	<10	806	0.82	893	1	4	10	<20	
184	0.6	240	3.87	103.5	1	9	6620	1.25	<10	0.01	<10	<0.01	6170	6	<0.01	1	<10	1010	3.28	1595	1	34	20	<20	
185	<0.5	25	0.29	31.4	<1	16	144	0.6	<10	0.06	<10	0.01	214	3	<0.01	1	10	53	0.81	31	<1	5	<10	<20	
186	<0.5	598	0.09	108.5	1	16	9630	1.53	<10	0.13	<10	0.01	2610	14	<0.01	2	<10	270	3.26	1870	1	2	10	<20	
187	<0.5	193	0.04	37.7	<1	20	19800	0.54	<10	0.04	<10	<0.01	1845	4	<0.01	<1	<10	6010	1.71	5950	1	1	40	<20	
188	2.5	390	0.22	78.4	<1	11	4000	1.3	<10	0.23	<10	0.02	9340	3	0.01	1	20	340	2.63	824	1	5	<10	<20	
189	1.2	397	0.64	51.4	1	13	5460	1.38	10	0.49	<10	0.05	2270	5	0.01	1	20	173	2.18	1150	1	6	<10	<20	
190	<0.5	72	0.51	13.2	<1	16	3120	0.44	<10	0.06	<10	<0.01	2900	4	<0.01	2	<10	438	0.43	584	1	15	<10	<20	
191	<0.5	15	0.03	2.3	<1	15	755	0.3	<10	0.05	<10	<0.01	2440	2	<0.01	2	<10	235	0.09	108	1	2	<10	<20	
192	0.8	166	0.03	21.1	1	16	7720	0.66	<10	0.06	<10	<0.01	3390	3	0.01	2	<10	1490	1.06	2060	1	2	10	<20	
193	0.9	472	0.15	61	<1	12	19600	0.38	<10	0.12	<10	<0.01	24500	8	<0.01	<1	<10	2000	2.04	9190	8	4	30	<20	
194	<0.5	500	0.03	94.1	2	18	39800	0.54	<10	0.05	<10	<0.01	9060	8	<0.01	1	10	14800	3.71	>10000	3	1	90	<20	
195	<0.5	144	0.05	25.6	1	23	11000	0.47	<10	0.04	<10	<0.01	2370	4	<0.01	2	10	3430	1.05	3510	1	2	10	<20	
196	<0.5	557	0.24	93.6	3	20	24200	0.96	<10	0.06	<10	<0.01	1860	8	0.01	1	<10	1395	3.09	6670	1	3	70	<20	
197	<0.5	24	0.17	5	1	21	2050	0.35	<10	0.06	<10	<0.01	1700	1	0.01	1	10	1110	0.25	341	1	2	<10	<20	
198	0.5	6	0.01	209	2	15	45400	0.54	<10	0.18	<10	0.01	6130	<1	<0.01	3	<10	80300	6.11	>10000	1	1	140	<20	
199	<0.5	3	<0.01	13.7	1	17	3720	0.43	<10	0.17	<10	0.02	3990	<1	0.01	3	<10	8070	0.53	566	1	1	<10	<20	
306	0.9	630	0.02	147.5	<1	14	14600	1.56	10	0.41	<10	0.06	2190	18	0.01	4	30	1735	4.11	3860	1	4	110	<20	
307	1.3	114	0.13	52.7	1	14	4350	0.74	10	0.56	<10	0.08	1630	6	0.02	<1	10	145	1.47	595	1	3	10	<20	
308	1.3	839	0.02	211	3	31	18400	2.54	10	0.57	<10	0.11	2970	12	0.01	10	30	1380	6.15	4070	2	2	90	<20	
309	0.8	1090	0.02	276	1	19	4080	2.98	10	0.24	<10	0.04	1230	22	<0.01	3	80	1430	7.07	695	<1	9	<10	<20	
310	1.01	809	0.01	172	1	14	8360	3.38	10	0.26	<10	0.04	4210	11	<0.01	6	50	1250	6.4	1940	1	3	50	<20	
311	0.8	1145	0.02	152	1	6	16000	3.14	10	0.33	<10	0.03	8700	16	<0.01	3	20	602	6.32	2990	1	2	40	<20	
312	<0.5	164	<0.01	13.4	<1	8	2050	0.59	<10	0.05	<10	<0.01	2430	3	<0.01	1	10	456	0.66	342	1	<1	<10	<20	
313	<0.5	556	0.01	23.7	<1	11	7000	0.88	<10	0.09	<10	<0.01	5130	3	<0.01	2	10	606	1.35	1965	2	2	20	<20	
314	<0.5	324	<0.01	43	1	15	3660	1.08	<10	0.08	<10	<0.01	3210	6	<0.01	3	20	458	1.7	532	1	2	10	<20	
315	<0.5	213	<0.01	35.4	<1	12	2650	1.06	<10	0.08	<10	<0.01	3330	5	<0.01	1	20	280	1.54	340	1	2	<10	<20	
316	0.8	109	<0.01	19.9	4	19	1020	1.33	<10	0.49	<10	0.05	2860	4	0.01	7	30	352	1.6	164	2	3	<10	<20	
317	0.6	33	<0.01	23	1	10	1315	0.66	<10	0.27	<10	0.03	4610	2	0.01	1	10	103	0.9	337	1	1	<10	<20	
318	<0.5	85	0.01	2	<1	17	1205	0.42	<10	0.1	<10	0.01	2230	1	0.02	2	30	372	0.23	207	1	2	<10	<20	
319	3.4	349	<0.01	77.7	3	33	17000	1.74	40	1.7	<10	0.25	3850	11	0.02	14	70	220	3.63	3910	3	6	130	<20	
320	0.6	225	<0.01	29.4	2	7	14400	2.62	<10	0.28	<10	0.03	6950	4	<0.01	5	20	763	3.85	2730	2	2	50	<20	
321	0.6	179	<0.01	63.3	1	10	2190	1.88	<10	0.23	<10	0.03	3240	9	0.01	4	20	381	2.86	439	1	2	<10	<20	
326	0.5	237	0.03	44.7	1	13	2470	1.82	10	0.07	<10	0.01	254	13	0.01	2	80	127	2.3	71	1	2	<10	<20	
327	<0.5	882	0.06	37.8	<1	10	3190	2.16	<10	0.1	<10	0.01	934	3	0.01	3	10	213	2.81	144	3	<1	2	<10	<20
328	1	199	0.16	15.8	1	13	2770	1.8	10	0.42	<10	0.05	1080	2	0.01	1	30	107	2.07	207	1	2	<10	<20	
329	1.5	97	0.2	6.7	1	12	798	1.08	10	0.6	10	0.08	3610	2	0.01	1	20	68	1.15	57	<1	4	<10	<20	
395	<0.5	6	0.52	<0.5	1	7	129	0.34	<10	0.02	<10	<0.01	3570	1	<0.01	1	<10	68	0.04	28	1	10	<10	<20	
396	<0.5	15	0.01	5.2	<1	11	623	0.5	<10	0.08	<10	0.01	745	2	0.01	1	10	254	0.35	105	<1	2	<10	<20	
397	0.8	171	0.03	41.4	2	9	1530	0.26	<10	0.03	<10	0.01	1130	7	0.01	8	20	140	1.07	83	<1	2	<10	<20	
398	<0.5	162	0.02	28.6	<1	12	3720	0.65	<10	0.05	<10	0.01	1420	4	<0.01	1	<10	613	1.01	882	<1	2	<10	<20	
399	2.6	3	0.25	<0.5	6	83	55	2.35	30	2.25	40	0.38	181	2	0.54	16	420	10	0.02	13	17	129	<10	20	
400	2.7	<2	0.14	<0.5	6	82	37	2.35																	

ALS Chemex Assay Results

N°	Ti (%)	Ti (ppm)	U (ppm)	V (ppm)	W (ppm)	Zn (ppm)	W (ppm)	W (%)	WO3 (%)	Cu (%)	Zn (%)	Pb (%)	Ag (onz)
156	<0.01	<10	<10	<1	400	882	0	0.22	0.277	0.120	0.088	0.036	0.318
157	<0.01	<10	<10	<1	410	2630	0	0.33	0.416	0.236	0.263	0.071	0.608
218	0.13	<10	<10	34	2050	219	0	0.97	1.223	0.308	0.022	0.001	0.051
158	<0.01	<10	<10	<1	4860	21800	0	0.76	0.958	1.480	2.180	0.395	2.730
159	<0.01	<10	<10	<1	4550	13000	0	1.37	1.728	1.360	1.300	0.156	2.398
160	<0.01	<10	<10	<1	4700	5270	0	1.13	1.425	2.610	0.527	0.078	5.626
219	<0.01	<10	<10	<1	4780	14000	0	1.68	2.119	1.750	1.400	0.230	3.086
161	<0.01	<10	<10	<1	4530	14200	0	1.69	2.131	1.740	1.420	0.230	3.154
162	<0.01	<10	<10	<1	3610	9640	0	7.8	9.836	1.970	0.964	0.140	3.119
163	<0.01	<10	<10	<1	2530	4300	0	2.92	3.682	0.624	0.430	0.147	1.154
164	<0.01	10	<10	<1	2550	24300	0	10.2	12.863	1.080	2.430	0.065	1.823
179	<0.01	<10	<10	<1	2900	9980	0	2.84	3.581	0.740	0.998	0.108	1.337
180	<0.01	10	<10	<1	2950	11500	0	7.84	9.887	1.400	1.150	0.237	2.048
181	<0.01	<10	<10	<1	310	13400	0	4.47	5.637	0.119	1.340	0.052	0.264
182	<0.01	<10	<10	<1	320	13200	0	4.01	5.057	0.147	1.320	0.019	0.276
183	<0.01	<10	<10	<1	1770	7630	0	1.12	1.412	0.486	0.763	0.081	0.894
184	<0.01	<10	<10	<1	720	25900	0	2.04	2.573	0.662	2.990	0.101	1.289
185	<0.01	<10	<10	<1	140	9600	0	0.01	0.013	0.014	0.960	0.005	0.029
186	<0.01	<10	<10	3	1980	31000	0	0.95	1.198	0.963	3.100	0.027	1.164
187	<0.01	<10	<10	<1	4280	7850	0	0.63	0.794	1.980	0.785	0.601	4.565
188	<0.01	<10	<10	8	460	22300	0	3.53	4.452	0.400	2.230	0.034	0.633
189	0.01	<10	<10	13	310	14500	0	0.72	0.908	0.546	1.450	0.017	1.312
190	<0.01	<10	<10	1	280	3370	0	1	1.261	0.312	0.337	0.044	0.984
191	<0.01	<10	<10	1	210	534	0	0.86	1.085	0.076	0.053	0.024	0.289
192	<0.01	<10	<10	<1	3760	5090	0	1.15	1.450	0.772	0.509	0.149	1.955
193	<0.01	10	10	<1	2800	15000	0	9.8	12.359	1.960	1.500	0.200	6.076
194	<0.01	<10	<10	<1	4050	18400	0	3.18	4.010	3.980	1.840	1.480	11.253
195	<0.01	<10	<10	<1	4020	5580	0	0.84	1.059	1.100	0.558	0.343	3.170
196	<0.01	<10	<10	<1	4370	23200	0	0.59	0.744	2.420	2.320	0.140	5.112
197	<0.01	<10	<10	1	310	1120	0	0.57	0.719	0.205	0.112	0.111	0.444
198	<0.01	<10	<10	<1	4080	39900	0	2.21	2.787	4.540	3.990	6.030	28.196
199	<0.01	<10	<10	1	380	2520	0	1.26	1.589	0.372	0.252	0.807	2.714
306	0.02	10	30	27	1330	40700	0	0.75	0.946	1.460	4.070	0.174	3.794
307	0.02	<10	<10	26	710	15100	0	0.58	0.731	0.435	1.510	0.015	0.817
308	0.04	<10	10	29	1380	57900	0	1.2	1.513	1.840	5.790	0.038	4.533
309	0.01	10	10	10	1730	79800	0	0.14	0.177	0.408	7.980	0.143	1.411
310	0.01	<10	10	10	750	45600	0	1.3	1.639	0.836	4.560	0.125	2.527
311	<0.01	<10	20	16	1550	39800	0	3.28	4.136	1.600	3.980	0.060	3.633
312	<0.01	<10	<10	2	350	4050	0	0.89	1.122	0.205	0.405	0.046	0.711
313	<0.01	<10	<10	2	970	6540	0	2.11	2.661	0.700	0.654	0.061	2.042
314	<0.01	<10	<10	3	380	12700	0	1.2	1.513	0.366	1.270	0.046	1.038
315	<0.01	<10	<10	2	320	10500	0	1.21	1.526	0.265	1.050	0.028	0.688
316	0.03	<10	<10	21	430	5880	0	0.87	1.223	0.102	0.588	0.035	0.528
317	<0.01	<10	<10	5	320	6510	0	1.8	2.270	0.132	0.651	0.010	0.437
318	<0.01	<10	<10	4	300	516	0	0.81	1.021	0.121	0.052	0.037	0.457
319	0.07	10	<10	99	4240	20200	0	1.43	1.803	1.700	2.020	0.022	3.729
320	0.01	<10	<10	6	1170	5570	0	2.78	3.506	1.440	0.557	0.076	3.729
321	<0.01	<10	<10	8	320	19200	0	1.21	1.526	0.219	1.920	0.038	0.585
326	<0.01	<10	<10	5	630	14300	0	0.05	0.063	0.247	0.430	0.013	0.305
327	<0.01	<10	<10	4	650	12100	0	0.31	0.391	0.319	1.210	0.021	0.511
328	0.02	<10	<10	15	690	5040	0	0.43	0.542	0.277	0.504	0.011	0.508
329	<0.01	<10	<10	13	380	2260	0	1.76	2.220	0.080	0.226	0.007	0.154
395	<0.01	<10	<10	<1	240	193	0	1.22	1.539	0.013	0.019	0.007	0.029
396	<0.01	<10	<10	2	370	1840	0	0.3	0.378	0.062	0.184	0.025	0.190
397	<0.01	<10	<10	8	230	13200	0	0.39	0.489	0.150	0.320	0.014	0.254
398	<0.01	<10	<10	2	490	8520	0	0.48	0.605	0.372	0.852	0.061	0.952
399	0.7	10	<10	178	50	105	0	0.01	0.013	0.006	0.011	0.001	0.016
400	0.72	<10	<10	195	20	75	0	0.01	0.013	0.004	0.008	0.001	0.016
401	0.7	<10	<10	176	30	78	0	0.01	0.013	0.005	0.008	0.002	0.016
402	0.71	<10	<10	185	20	75	0	0.01	0.013	0.003	0.008	0.002	0.016
244	<0.01	<10	<10	3	220	3980	0	0.02	0.025	1.380	0.399	0.206	2.897
245	0.15	<10	10	64	1180	7380	0	0.12	0.151	1.630	0.738	0.437	3.205
246	0.09	<10	<10	62	280	3000	0	0.03	0.038	0.259	0.300	0.858	1.546
247	0.01	<10	10	11	1350	3820	0	0.21	0.265	0.127	0.382	0.029	0.309
248	0.06	<10	<10	46	1920	8950	0	0.19	0.240	0.242	0.895	0.052	0.656
249	0.12	<10	<10	53	710	2100	0	0.07	0.088	0.146	0.210	0.139	0.682
250	0.02	<10	10	15	1220	35500	0	0.41	0.517	0.631	3.550	0.189	1.823
251	<0.01	<10	<10	2	460	7060	0	0.73	0.921	0.314	0.706	0.061	0.878
407	0.38	<10	<10	43	3460	118	0	0.41	0.517	0.009	0.012	0.020	0.100
252	<0.01	<10	<10	3	2250	29700	0	1.98	2.497	2.280	2.970	0.291	5.337
253	<0.01	10	<10	2	3790	49900	0	2.35	2.964	10.550	4.990	0.456	23.020
254	<0.01	<10	<10	11	2690	26200	0	0.27	0.340	0.479	2.620	0.208	0.849
255	<0.01	<10	<10	7	250	11100	0	0.51	0.643	0.143	1.110	0.012	0.251
408	0.14	<10	<10	31	4320	213	0	0.87	1.223	0.321	0.021	0.001	0.061
256	<0.01	<10	<10	3	30	8440	0	0.01	0.013	0.053	0.844	0.018	0.122
257	0.01	10	<10	9	1620	56400	0	0.25	0.315	0.276	5.640	0.636	0.884
258	0.02	<10	<10	13	60	9920	0	0.01	0.013	0.068	0.992	0.007	0.174
259	<0.01	<10	<10	2	190	5810	0	0.02	0.025	0.039	0.581	0.020	0.177
260	0.01	<10	10	10	1110	1580	0	0.51	0.643	0.464	0.158	0.169	1.669
261	<0.01	<10	<10	5	990	12300	0	1.13	1.425	0.691	1.230	0.061	1.546
221	<0.01	<10	<10	<1	2880	2180	0	0.32	0.404	0.772	0.218	0.124	2.087
222	<0.01	10	<10	<1	450	2960	0	7.45	9.395	0.114	0.296	0.015	0.399
223	<0.01	<10	<10	<1	5120	7380	0	0.74	0.933	1.340	0.738	0.186	2.257
224	<0.01	<10	<10	2	580	6820	0	1.16	1.463	0.489	0.682	0.089	1.726
225	<0.01	<10	<10	<1	2250	20000	0	0.24	0.303	0.972	2.000	0.243	1.543
226	<0.01	10	<10	<1	570	15600	0	0.04	0.050	0.064	1.560	0.101	1.063
227	<0.01	<10	<10	4	200	11900	0	0.66	0.832	0.186	1.190	0.038	0.714
228	<0.01	<10	<10	2	1020	7510	0	1.07	1.349	0.827	0.751	0.055	2.357
229	<0.01	<10	<10	<1	370	3140	0	4.51	5.687	0.074	0.314	0.063	0.328
230	<0.01	<10	<10	3	730	39200	0	2.33	2.938	0.702	3.920	0.259	2.829
231	<0.01	<10	<10	<1	530	9020	0	1.91	2.409	0.268	0.902	0.031	0.669
232	<0.01	<10	10	2	460	2440	0	0.88	1.110	0.128	0.244	0.025	0.392
233	<0.01	<10	<10	2	450	6800	0	0.45	0.567	0.252	0.680	0.045	0.829
234	<0.01	<10	10	1									

ALS Chemex Assay Results

N°	MINA	VETA	NIVEL	LABOR	FECHA	CODIGO	MUESTRA	LADO	AM	AV	REF1	REF2	REF3	REF4	ANALISIS	DESCRIPCION	TIPO-M	ENVIO	CANTIDAD	LAB	SAMPLE	Ag (ppm)	Al (%)	As (ppm)	Ba (ppm)
235	HUAURA	CONSUERO	11	GL 100 S	10/29/2008	283	10061 corona	2.00	0.70	Pto 15 S +	2.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	283	35.4	0.14	678	<10			
236	HUAURA	CONSUERO	11	GL 100 S	10/29/2008	284	10062 corona	2.30	1.00	Pto 15 S +	4.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	284	24.1	0.12	498	<10			
237	HUAURA	CONSUERO	11	GL 100 S	10/29/2008	285	10063 corona	2.30	0.90	Pto 15 S +	6.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	285	11.5	0.25	226	<10			
238	HUAURA	CONSUERO	11	GL 100 S	10/29/2008	286	10064 corona	2.30	0.90	Pto 15 S +	8.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	286	4	0.25	99	<10			
262	HUAURA	CONSUERO	11	TJ 845 N	10/30/2008	287	10125 corona	1.50	1.20	CH 845 +	2.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	287	48.7	0.12	530	<10			
263	HUAURA	CONSUERO	11	TJ 845 N	10/30/2008	288	10126 corona	2.00	1.20	CH 845 +	4.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	288	37.7	0.15	801	<10			
264	HUAURA	CONSUERO	11	TJ 845 N	10/30/2008	289	10127 corona	2.00	1.20	CH 845 +	6.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	289	23.8	0.1	601	<10			
265	HUAURA	CONSUERO	11	TJ 845 N	10/30/2008	290	10128 corona	2.20	1.20	CH 845 +	8.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	290	28.8	0.1	435	<10			
266	HUAURA	CONSUERO	11	TJ 845 N	10/30/2008	291	10129 corona	1.60	1.20	CH 845 +	10.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	291	15.2	0.06	385	<10			
267	HUAURA	CONSUERO	11	TJ 845 N	10/30/2008	292	10130 corona	1.50	1.20	CH 845 +	12.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	292	21.5	0.07	409	<10			
268	HUAURA	CONSUERO	11	TJ 845 N	10/31/2008	293	10142 corona	2.00	1.10	CH 845 +	14.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	293	13.2	0.05	223	<10			
269	HUAURA	CONSUERO	11	TJ 845 N	10/31/2008	294	10143 corona	2.20	1.00	CH 845 +	16.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	294	54.5	0.17	1365	<10			
270	HUAURA	CONSUERO	11	TJ 845 N	10/31/2008	295	10144 corona	1.40	0.60	CH 845 +	18.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	295	31	0.08	1180	<10			
239	HUAURA	CONSUERO	11	TJ 845 N	10/31/2008	296	10062 corona	1.80	0.80	CH 845 +	20.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	296	115	0.05	3470	<10			
305	HUAURA	CONSUERO	10	GL 650 S	10/31/2008	297	10195 corona	2.60	0.80	CH 845 +	2.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	297	195	0.04	6040	<10			
240	HUAURA	CONSUERO	10	GL 650 S	10/31/2008	298	10063 corona	2.20	1.00	CH 845 +	4.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	298	235	0.05	8800	<10			
241	HUAURA	CONSUERO	10	GL 650 S	10/31/2008	299	10064 corona	2.40	1.20	CH 845 +	6.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	299	42.3	0.09	1215	<10			
242	HUAURA	CONSUERO	10	GL 650 S	10/31/2008	300	10065 corona	2.40	0.70	CH 845 +	8.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	300	28	0.06	797	<10			
243	HUAURA	CONSUERO	10	GL 650 S	10/31/2008	301	10066 corona	2.40	0.90	CH 845 +	10.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	301	96.4	0.08	3200	<10			
297	HUAURA	CONSUERO	10	GL 650 S	10/31/2008	302	10183 corona	2.40	1.10	CH 845 +	12.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	302	65.2	0.2	3500	<10			
298	HUAURA	CONSUERO	10	GL 650 S	10/31/2008	303	10184 corona	2.30	0.60	CH 845 +	14.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	303	23.5	0.04	552	<10			
299	HUAURA	CONSUERO	10	GL 650 S	10/31/2008	304	10185 corona	2.40	0.60	CH 845 +	16.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	304	195	0.07	8160	<10			
322	HUAURA	CONSUERO	10	GL 650 S	11/1/2008	305	10237 corona	2.40	0.60	CH 845 +	18.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	305	196	0.08	9430	<10			
323	HUAURA	CONSUERO	10	GL 650 S	11/1/2008	306	10238 corona	2.30	0.80	CH 845 +	20.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	306	94.5	0.09	2440	<10			
324	HUAURA	CONSUERO	10	GL 650 S	11/1/2008	307	10239 corona	2.50	0.80	CH 845 +	22.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	307	50.9	0.07	2550	<10			
325	HUAURA	CONSUERO	10	GL 650 S	11/1/2008	308	10240 corona	2.60	0.80	CH 845 +	24.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	308	192	0.07	6020	<10			
300	HUAURA	CONSUERO	10	GL 650 S	10/31/2008	309	10190 corona	2.40	0.80	CH 845 +	18.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	309	10.9	0.06	148	<10			
301	HUAURA	CONSUERO	10	GL 650 S	10/31/2008	310	10191 corona	2.40	0.80	CH 845 +	20.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	310	9.3	0.04	215	<10			
302	HUAURA	CONSUERO	10	GL 650 S	10/31/2008	311	10192 corona	2.10	0.90	CH 845 +	22.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	311	1.2	0.03	36	<10			
406	HUAURA	CONSUERO	11	GL 650 S	10/31/2008	312	10997	-	-	-	-	-	Geoquimico	estandar WFO3 0.42	estandar	2	1 GL	312	2.5	3.59	406	<10			
303	HUAURA	CONSUERO	10	GL 650 S	10/31/2008	313	10193 corona	2.00	0.80	CH 845 +	24.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	313	7.5	0.21	219	<10			
304	HUAURA	CONSUERO	10	GL 650 S	10/31/2008	314	10194 corona	2.40	0.90	CH 845 +	26.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 GL	314	65	0.1	2550	<10			
271	HUAURA	CANDELA	9	SN 214 N	10/30/2008	315	10145 corona	1.70	0.60	CH 215 +	2.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 SN	315	6.1	0.07	229	<10			
272	HUAURA	CANDELA	9	SN 214 N	10/30/2008	316	10146 corona	1.60	0.20	CH 215 +	4.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 SN	316	17.3	0.19	889	<10			
273	HUAURA	CANDELA	9	SN 214 N	10/30/2008	317	10147 corona	1.60	0.50	CH 215 +	7.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 SN	317	36.6	0.1	1310	<10			
274	HUAURA	CANDELA	9	SN 214 N	10/30/2008	318	10148 corona	1.50	0.30	CH 215 +	13.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 SN	318	93.4	0.11	3360	<10			
275	HUAURA	CANDELA	9	SN 214 N	10/30/2008	319	10149 corona	1.60	0.60	CH 215 +	15.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 SN	319	19.4	1.61	897	<10			
276	HUAURA	CANDELA	9	SN 214 N	10/30/2008	320	10150 corona	1.60	0.70	CH 215 +	17.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 SN	320	63.2	0.6	1490	<10			
277	HUAURA	CANDELA	9	SN 214 N	10/30/2008	321	10151 corona	1.70	0.40	CH 215 +	19.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 SN	321	432	1.62	>10000	40			
410	HUAURA	CANDELA	9	SN 214 N	10/30/2008	322	10998	-	-	-	-	-	Geoquimico	estandar WFO3 1.04	estandar	2	1 SN	322	1.5	3.05	7	80			
278	HUAURA	CANDELA	9	SN 214 N	10/30/2008	323	10152 corona	1.60	0.40	CH 215 +	21.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 SN	323	5.9	0.16	165	<10			
279	HUAURA	CANDELA	9	SN 214 N	10/30/2008	324	10153 corona	1.60	0.70	CH 215 +	23.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 SN	324	32.1	0.31	546	<10			
280	HUAURA	CANDELA	9	SN 214 N	10/30/2008	325	10154 corona	1.60	0.60	CH 215 +	25.00 m.N	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 SN	325	42.6	2.38	1835	70			
281	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	326	10186 corona	2.30	0.80	CH 215 +	15.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	326	41.9	0.77	3070	10			
282	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	327	10184 corona	2.20	0.90	CH 215 +	17.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	327	58.6	0.77	1285	10			
283	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	328	10185 corona	2.00	0.80	CH 215 +	19.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	328	403	0.43	>10000	<10			
284	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	329	10186 corona	1.70	0.70	CH 215 +	21.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	329	259	1.2	4840	20			
285	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	330	10187 corona	2.00	0.60	CH 215 +	23.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	330	165	0.55	5180	10			
286	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	331	10188 corona	2.20	0.60	CH 215 +	25.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	331	264	0.3	5820	30			
287	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	332	10189 corona	2.00	0.80	CH 215 +	27.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	332	10.7	0.38	361	<10			
288	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	333	10170 corona	2.30	1.00	CH 215 +	29.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	333	21.3	0.52	601	<10			
289	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	334	10171 corona	1.90	1.20	CH 215 +	31.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	334	39.7	0.35	1270	<10			
290	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	335	10172 corona	2.00	1.00	CH 215 +	33.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	335	88.5	0.24	2730	<10			
291	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	336	10173 corona	1.70	0.40	CH 215 +	35.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	336	170	1.02	5520	20			
292	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	337	10174 corona	1.70	0.40	CH 215 +	37.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	337	112	0.51	4200	10			
293	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	338	10175 corona	1.80	0.80	CH 215 +	39.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	338	197	0.47	6980	10			
294	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	339	10176 corona	1.90	0.80	CH 215 +	41.00 m.S	corona	Geoquimico	qr.py.td.wc3	muestra	2	1 TJ	339	31.5	0.53	1550	<10			
295	HUAURA	CANDELA	9	TJ 215 S	10/31/2008	340	10177 corona	1.60	1.20	CH 215 +	43.00 m.S	corona	Geoquimico	qr.py.td											

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N°	Be (ppm)	Bi (ppm)	Ca (%)	Cd (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Ga (ppm)	K (%)	La (ppm)	Mg (%)	Mn (ppm)	Mo (ppm)	Na (%)	Ni (ppm)	P (ppm)	Pb (ppm)	S (%)	Sb (ppm)	Sc (ppm)	Sr (ppm)	Te (ppm)	Th (ppm)
235	<0.5	186	0.22	16.2	<1	11	3350	2.87	<10	0.06	<10	<0.01	1910	8	<0.01	2	<10	1410	3.41	1125	1	6	<10	<20
236	<0.5	52	0.3	7.3	<1	11	2220	0.36	<10	0.05	<10	<0.01	1130	3	<0.01	2	10	957	0.29	501	<1	9	<10	<20
237	<0.5	326	0.06	17.7	<1	9	950	1.06	<10	0.11	<10	0.01	884	10	<0.01	2	10	585	1.12	155	<1	2	<10	<20
238	<0.5	66	0.02	2.5	1	10	256	0.89	<10	0.12	<10	0.02	82	12	0.01	<1	20	149	0.75	81	<1	1	<10	<20
262	3.4	1615	0.27	108.5	<1	11	5510	2.45	<10	0.06	<10	0.01	1530	8	<0.01	2	10	2320	4.01	497	15	4	<10	<20
263	2.3	448	0.07	66.1	<1	11	4030	1.58	<10	0.07	<10	0.01	5130	5	<0.01	3	10	845	2.49	1030	1	4	<10	<20
264	2.8	67	0.1	10.9	1	12	2840	0.49	<10	0.04	<10	<0.01	5350	3	<0.01	1	<10	1180	0.44	705	2	2	<10	<20
265	2.2	113	0.03	16.9	1	12	2610	0.83	<10	0.05	<10	<0.01	3630	3	<0.01	2	10	502	0.92	652	1	2	<10	<20
266	1.9	83	0.02	21.3	<1	8	1655	0.52	<10	0.02	<10	<0.01	6290	1	<0.01	1	10	622	0.65	323	2	1	<10	<20
267	3.4	77	0.01	17.7	<1	6	2360	0.45	<10	0.03	<10	<0.01	11100	1	<0.01	<1	<10	910	0.64	789	1	1	<10	<20
268	3.5	53	0.01	8.3	<1	9	1275	0.54	<10	0.02	<10	<0.01	6430	<1	<0.01	1	<10	437	0.39	205	2	1	<10	<20
269	2.1	261	0.05	54.8	1	9	7010	0.95	<10	0.03	<10	<0.01	10400	1	<0.01	1	10	676	1.98	2500	1	3	<10	<20
270	1.5	107	<0.01	20.5	<1	3	4600	0.21	<10	0.04	<10	<0.01	32100	<1	<0.01	1	<10	379	0.67	1525	12	1	<10	<20
239	0.5	355	0.02	27.1	1	9	14000	0.32	<10	0.02	<10	<0.01	17100	3	<0.01	1	<10	1540	1.23	4790	1	2	<10	<20
305	1.1	614	0.04	59.6	2	2	23700	0.71	<10	0.02	<10	<0.01	30900	2	<0.01	<1	<10	3310	2.8	7760	1	3	<10	<20
240	0.8	732	0.02	100.5	<1	17	3000	1.26	<10	0.02	<10	<0.01	8360	4	<0.01	1	80	5920	4.06	8460	3	3	<10	<20
241	1.08	108	0.19	16.8	1	10	4900	0.49	<10	0.04	<10	<0.01	12800	1	0.01	1	30	1220	0.82	1735	2	8	<10	<20
242	2.9	77	0.56	10.5	2	9	3110	0.33	<10	0.02	<10	<0.01	16600	1	0.01	3	<10	1310	0.51	1045	4	29	<10	<20
243	<0.5	352	0.17	29.6	1	8	13100	0.4	<10	0.03	<10	<0.01	16200	<1	<0.01	2	<10	2320	1.34	4560	3	11	<10	<20
297	0.7	271	0.39	28.1	1	12	11650	0.88	<10	0.09	<10	0.01	3500	33	0.01	2	<10	954	1.68	2500	2	12	<10	<20
298	<0.5	64	0.04	8	<1	7	2110	0.24	<10	0.01	<10	<0.01	29900	2	<0.01	1	<10	1780	0.46	729	2	2	<10	<20
299	<0.5	983	0.01	82.4	1	13	27800	2.8	<10	0.03	<10	<0.01	6130	11	<0.01	2	70	5290	5.36	7410	2	2	<10	<20
322	1.7	868	0.38	111.5	1	14	31500	2.19	<10	0.03	<10	<0.01	4120	15	<0.01	1	90	10300	5.14	7490	2	8	<10	<20
323	0.8	323	0.07	29.7	<1	16	11700	0.67	<10	0.03	<10	<0.01	1205	5	<0.01	2	103	3450	1.35	3680	1	3	<10	<20
324	1.3	536	0.03	90.1	<1	14	8340	1.03	<10	0.03	<10	<0.01	1880	5	<0.01	2	10	1080	2.4	1830	1	2	<10	<20
325	3.6	1205	0.19	60.7	<1	13	23700	1.94	<10	0.03	<10	<0.01	6500	7	<0.01	2	10	5920	3.81	7620	2	8	<10	<20
300	<0.5	27	0.08	4.5	<1	11	751	0.34	<10	0.02	<10	<0.01	1805	1	<0.01	2	10	1280	0.15	100	1	3	<10	<20
301	<0.5	26	0.06	3.5	<1	8	1170	0.3	<10	0.01	<10	<0.01	4110	1	<0.01	1	10	111	0.13	230	1	2	<10	<20
302	<0.5	6	0.44	0.6	<1	9	144	0.31	<10	0.01	<10	<0.01	2490	<1	<0.01	2	10	118	0.03	21	1	8	<10	<20
409	78.8	689	0.34	<0.5	8	34	93	1.52	20	1.52	30	0.36	1850	318	0.11	20	240	207	0.77	<5	9	22	<10	<20
303	<0.5	18	0.03	2.8	<1	10	977	0.28	<10	0.1	<10	0.01	5410	1	<0.01	2	<10	137	0.12	114	2	1	<10	<20
304	<0.5	288	0.01	32.5	1	12	9890	0.8	<10	0.04	<10	<0.01	2950	24	<0.01	3	<10	694	1.49	2360	1	1	<10	<20
271	<0.5	46	<0.01	10.3	<1	10	798	0.47	<10	0.03	<10	<0.01	2030	<1	<0.01	2	20	85	0.35	73	<1	1	<10	<20
272	<0.5	205	<0.01	38.1	1	9	2920	0.96	<10	0.09	<10	<0.01	5400	<1	<0.01	2	30	236	1.29	281	2	4	<10	<20
273	<0.5	435	<0.01	112.5	<1	12	4710	1.62	<10	0.04	<10	<0.01	1330	6	<0.01	4	80	378	2.95	1080	1	6	<10	<20
274	<0.5	944	<0.01	94.1	<1	13	10590	2.73	<10	0.04	<10	<0.01	189	2	<0.01	2	60	1430	4.54	2450	<1	9	<10	<20
275	1.4	83	0.01	31.8	3	17	2520	3.11	10	0.73	<10	0.1	1605	2	0.02	6	30	839	2.8	839	2	8	<10	<20
276	0.6	300	0.2	44.6	1	10	9340	2.01	<10	0.27	<10	0.02	24300	1	0.01	4	10	287	3.53	3170	9	6	<10	<20
277	1.1	1765	0.06	56.5	2	14	41800	2.48	<10	0.7	<10	0.05	29700	2	0.02	9	20	2600	6.05	>10000	11	11	<10	<20
410	20.5	597	11.3	<0.5	23	28	3060	17.15	20	0.74	10	1.85	5860	4	0.2	13	430	3	7.32	15	5	208	<10	<20
278	<0.5	17	0.01	3.4	1	9	629	0.66	<10	0.06	<10	0.01	932	1	0.01	2	10	244	0.27	66	<1	1	<10	<20
279	<0.5	58	0.03	8.3	1	10	2890	1.31	<10	0.13	<10	0.02	4800	1	<0.01	2	<10	1210	1.45	936	1	1	<10	<20
280	0.2	89	0.27	16.2	3	25	5720	2.37	10	0.98	10	0.08	4150	1	0.05	11	110	425	2.83	1045	4	19	<10	<20
281	0.4	253	0.01	57.8	1	17	10000	2.61	10	0.35	<10	0.04	751	8	0.01	7	100	108	3.77	1125	1	2	<10	<20
282	0.9	24	0.21	79.1	1	11	7020	0.93	<10	0.33	<10	0.05	2790	<1	0.01	4	30	20700	2.21	1775	<1	3	<10	<20
283	0.6	356	0.01	46.5	2	9	48000	2.23	20	0.18	<10	0.02	5150	6	<0.01	3	200	30200	9.46	>10000	1	1	<10	<20
284	1.3	711	0.1	164.5	2	18	26500	2.32	10	0.55	<10	0.08	2100	24	0.01	4	40	1290	5.65	>10000	2	2	<10	<20
285	0.9	108	0.12	152.5	2	15	20100	1.83	10	0.25	<10	0.04	1195	18	0.01	5	90	1480	4.36	7890	1	5	<10	<20
286	0.5	33	0.02	237	<1	13	27300	0.64	<10	0.15	<10	0.01	11600	4	<0.01	3	30	1750	4.08	>10000	2	2	<10	<20
287	0.7	16	0.03	34.8	<1	12	1345	0.6	<10	0.17	<10	0.03	6730	2	0.01	2	80	1010	0.75	218	1	4	<10	<20
288	0.7	20	0.03	23.6	<1	9	2160	0.7	<10	0.24	<10	0.03	6450	<1	0.01	1	10	4060	0.9	510	1	1	<10	<20
289	0.6	14	0.01	41.9	<1	12	4890	0.6	<10	0.16	<10	0.02	2430	<1	0.01	2	10	2950	1.08	1270	<1	1	<10	<20
290	<0.5	942	0.01	121	1	10	11100	1.81	10	0.1	<10	0.01	3840	1	0.01	2	20	1680	3.66	3410	1	2	<10	<20
291	1	250	0.02	134	4	26	20300	1.35	10	0.45	<10	0.05	2770	12	0.01	9	70	11900	3.99	6870	2	3	<10	<20
292	0.7	249	0.12	102	3	15	1440	1.5	10	0.2	<10	0.02	1580	9	0.01	1	10	320	3.5	459	1	3	<10	<20
293	0.6	588	0.04	162.5	3	15	25500	1.84	10	0.2	<10	0.02	8450	8	0.01	6	60	12700	5.33	8090	1	2	<10	<20
294	0.7	167	0.05	39.1	<1	17	4610	1.07	10	0.24	<10	0.03	1945	3	0.01	2	30	1210	1.56	661	<1	1	<10	<20
295	0.5	328	0.14	5																				

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N°	Ti (%)	Ti (ppm)	U (ppm)	V (ppm)	W (ppm)	Zn (ppm)	W (ppm)	W (%)	WO3 (%)	Cu (%)	Zn (%)	Pb (%)	Ag (onz)
235	<0.01	<10	10	1	550	4530	0	0.72	0.908	0.335	0.453	0.141	1.138
236	<0.01	<10	<10	2	340	1730	0	0.42	0.530	0.222	0.173	0.096	0.775
237	<0.01	<10	<10	4	180	5490	0	0.3	0.378	0.095	0.549	0.059	0.370
238	<0.01	<10	<10	4	80	738	0	0.01	0.013	0.026	0.074	0.015	0.129
262	<0.01	<10	<10	2	270	3100	0	0.48	0.608	0.128	0.310	0.120	1.566
263	<0.01	<10	<10	1	410	19500	0	1.68	2.119	0.403	1.950	0.085	1.212
264	<0.01	<10	<10	1	280	2640	0	1.94	2.446	0.284	0.264	0.118	0.765
265	<0.01	<10	<10	1	300	4310	0	1.31	1.652	0.261	0.431	0.050	0.926
266	<0.01	<10	<10	1	250	6080	0	2.29	2.888	0.166	0.608	0.062	0.489
267	<0.01	<10	<10	<1	340	4610	0	4.42	5.574	0.236	0.461	0.091	0.691
268	<0.01	<10	<10	<1	230	2250	0	2.42	3.052	0.128	0.225	0.044	0.424
269	<0.01	<10	<10	<1	2010	15300	0	3.95	4.951	0.701	1.530	0.068	1.752
270	<0.01	10	10	<1	740	5290	0	13.65	17.214	0.460	0.529	0.038	0.997
239	<0.01	<10	<10	<1	2500	5510	0	6.8	8.575	1.400	0.551	0.154	3.697
305	<0.01	10	<10	<1	3510	13400	0	12.15	15.322	2.370	1.340	0.331	6.269
240	<0.01	<10	<10	<1	3320	23100	0	3.03	3.821	0.300	2.310	0.592	7.555
241	<0.01	<10	<10	<1	940	3930	0	4.53	6.217	0.490	0.393	0.122	1.360
242	<0.01	<10	<10	<1	490	2560	0	6.36	8.020	0.311	0.256	0.131	0.900
243	<0.01	<10	<10	<1	2470	6080	0	6.15	7.756	1.310	0.608	0.232	3.099
297	<0.01	<10	10	1	4360	6460	0	1.25	1.576	1.160	0.646	0.095	2.096
298	<0.01	10	10	<1	550	1830	0	12.55	15.827	0.211	0.183	0.178	0.756
299	<0.01	<10	<10	<1	1390	19700	0	2.37	2.989	2.780	1.970	0.529	6.269
322	<0.01	<10	<10	<1	3370	27100	0	1.36	1.715	3.150	2.710	1.030	6.302
323	<0.01	<10	<10	<1	3330	6380	0	0.42	0.530	1.170	0.638	0.345	3.038
324	<0.01	<10	<10	<1	3700	26400	0	0.45	0.567	0.834	2.640	0.108	1.636
325	<0.01	<10	<10	<1	2920	13400	0	2.34	2.951	2.370	1.340	0.592	6.173
300	<0.01	<10	<10	1	200	1110	0	0.62	0.782	0.075	0.111	0.128	0.350
301	<0.01	<10	<10	<1	240	788	0	1.53	1.929	0.117	0.079	0.011	0.299
302	<0.01	<10	<10	<1	160	162	0	0.82	1.034	0.014	0.016	0.012	0.039
409	0.39	<10	<10	46	3450	101	0	0.4	0.504	0.009	0.010	0.021	0.080
303	<0.01	<10	<10	2	210	600	0	2.15	2.711	0.098	0.060	0.014	0.241
304	<0.01	<10	<10	<1	3790	7730	0	1.1	1.387	0.989	0.773	0.069	2.090
271	<0.01	<10	<10	1	210	2430	0	0.73	0.921	0.080	0.243	0.009	0.196
272	<0.01	<10	<10	3	240	10600	0	2.28	2.875	0.292	1.060	0.024	0.556
273	<0.01	<10	<10	2	2450	25900	0	0.37	0.467	0.471	2.590	0.038	1.177
274	<0.01	<10	<10	2	60	60	0	0.01	0.013	1.060	0.140	0.033	3.003
275	0.02	<10	<10	25	450	3390	0	0.49	0.610	0.252	0.339	0.084	0.624
276	0.01	<10	<10	4	1020	11700	0	9.27	11.690	0.934	1.170	0.029	2.032
277	0.02	10	10	14	1870	9420	0	10.55	13.304	4.180	0.942	0.260	13.889
410	0.13	<10	<10	34	2300	207	0	0.95	1.198	0.306	0.021	0.000	0.048
278	<0.01	<10	<10	2	160	932	0	0.3	0.378	0.063	0.093	0.024	0.190
279	<0.01	<10	<10	4	240	1840	0	1.73	2.182	0.289	0.184	0.121	1.032
280	0.06	<10	<10	36	980	4740	0	1.42	1.791	0.572	0.474	0.043	1.370
281	0.02	<10	10	21	2040	16000	0	0.19	0.240	1.000	1.600	0.011	1.347
282	<0.01	<10	<10	14	440	17600	0	1.04	1.312	0.702	1.760	2.070	1.884
283	<0.01	<10	<10	8	2670	88500	0	2.04	2.573	4.800	8.850	3.020	12.957
284	0.03	<10	<10	21	5010	39500	0	0.56	0.706	2.650	3.950	0.129	8.327
285	<0.01	<10	<10	11	2720	29300	0	0.27	0.340	2.010	2.930	0.148	5.305
286	<0.01	<10	<10	1	3140	4300	0	4.41	5.461	0.431	4.230	0.175	8.488
287	<0.01	<10	<10	6	240	7880	0	2.43	3.064	0.135	0.788	0.101	0.344
288	0.01	<10	<10	5	270	6200	0	2.37	2.989	0.216	0.620	0.406	0.685
289	<0.01	<10	<10	6	460	10900	0	0.75	0.946	0.489	1.090	0.295	1.276
290	<0.01	<10	<10	6	2950	30400	0	1.14	1.438	1.110	3.040	0.168	2.845
291	0.03	<10	20	21	3710	29300	0	0.87	1.097	2.030	2.930	1.190	5.466
292	0.01	<10	<10	9	4070	2170	0	2.52	3.178	0.466	2.170	0.326	3.601
293	0.01	<10	<10	10	2230	36800	0	0.42	0.530	1.550	3.680	1.270	6.334
294	<0.01	<10	<10	11	530	9800	0	0.54	0.681	0.461	0.980	0.121	1.013
295	<0.01	10	<10	<1	2350	12600	0	7.78	9.811	0.997	1.260	0.082	1.852
296	<0.01	<10	<10	9	2620	14800	0	2.33	2.938	1.330	1.480	0.088	4.147
345	0.02	<10	<10	22	800	5690	0	0.83	1.047	0.740	0.569	0.074	1.453
346	<0.01	<10	<10	10	2470	21300	0	0.47	0.593	0.931	2.130	0.063	1.504
347	<0.01	<10	<10	2	4750	21400	0	0.69	0.870	1.610	2.140	1.060	4.887
348	0.02	<10	<10	13	430	4840	0	1	1.261	0.514	0.484	0.008	1.042
349	0.02	<10	10	20	580	8350	0	1.37	1.728	0.489	0.835	0.019	0.640
350	0.04	<10	10	26	210	13100	0	0.9	1.135	0.114	1.310	0.007	0.193
351	0.04	<10	<10	34	300	24300	0	0.01	0.013	3.020	2.430	0.084	6.687
352	0.01	<10	20	17	2480	17700	0	1.88	2.371	5.010	1.770	0.173	14.564
353	0.01	<10	<10	16	1670	33000	0	2.66	3.254	4.070	3.300	0.161	11.221
354	<0.01	10	<10	4	1320	56300	0	8.34	10.517	4.810	5.630	1.280	15.368
355	0.04	<10	<10	26	4600	29200	0	0.63	0.794	2.120	2.920	0.283	6.623
356	<0.01	<10	<10	<1	1490	60600	0	3.98	5.019	11.900	6.060	0.093	31.861
357	0.04	<10	<10	13	6260	71400	0	*	#VALUE!	12.150	7.140	1.240	33.437
335	0.01	<10	<10	22	1130	4530	0	0.15	0.189	0.250	0.453	0.023	0.489
336	0.01	<10	<10	18	540	17700	0	0.14	0.504	0.549	1.770	0.024	0.842
337	<0.01	<10	<10	110	4370	4370	0	0.01	0.013	0.339	0.437	0.029	0.839
338	0.01	<10	<10	13	170	10900	0	0.01	0.013	0.187	1.090	0.031	0.296
339	<0.01	<10	<10	4	180	7570	0	0.92	1.160	0.256	0.757	0.014	0.119
340	0.01	<10	<10	13	150	11400	0	0.52	0.656	0.164	1.140	0.016	0.141
411	0.13	<10	<10	34	2590	209	0	0.96	1.211	0.307	0.021	0.001	0.042
341	0.01	<10	<10	16	460	6410	0	0.04	0.060	0.228	0.641	0.008	0.248
342	<0.01	<10	<10	11	380	1820	0	0.21	0.265	0.137	0.182	0.008	0.167
343	0.02	<10	<10	64	640	9840	0	0.32	0.404	0.365	0.984	0.092	0.514
344	0.01	<10	<10	13	50	19700	0	0.01	0.013	0.416	1.970	0.037	0.547
373	<0.01	<10	<10	1	70	21700	0	0.01	0.013	0.668	2.170	0.026	0.958
374	<0.01	<10	<10	12	180	6110	0	0.56	0.706	0.188	0.611	0.270	0.463
375	<0.01	<10	<10	6	1800	11900	0	0.19	0.240	0.939	1.190	0.049	1.186
403	0.02	<10	<10	18	250	3520	0	0.53	0.659	0.101	0.352	0.012	0.109
405	0.74	10	<10	207	30	95	0	0.01	0.013	0.005	0.010	0.002	0.016
358	0.01	<10	<10	12	790	45200	0	0.14	0.177	1.450	4.520	0.133	3.122
359	<0.01	<10	<10	3	240	7050	0	0.84	1.059	0.285	0.705	0.008	0.354
360	0.01	<10	<10	10	650	22900	0	0.82	1.034	1.390	2.290	0.040	2.318
382	<0.01	<10	<10	6	2030	121000	0	1.7	2.144	4.530	12.100	0.135	8.809
383	<0.01	<10	<10	3	730	65700	0	2.83	3.469	1.130	6.570	0.032	2.148
384	<0.01	<10	10	6	90								

ALS Chemex Assay Results

N°	MINA	VETA	NIVEL	LABOR	FECHA	CODIGO	MUESTRA	LADO	AM	AV	REF1	REF2	REF3	REF4	ANALISIS	DESCRIPCION	TIPO-M	ENVIO	CANTIDAD	LAB	SAMPLE	Ag (ppm)	Al (%)	As (ppm)	Ba (ppm)
385	HUAURA	CANDELA TECHO	10	SN 200 2N	11/4/2008	377	10356	corona	1.80	1.00	FL DE INCL +	25.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	SN	377	354	0.14	7960	<10	
386	HUAURA	CANDELA TECHO	10	SN 200 2N	11/4/2008	378	10357	corona	2.20	0.60	FL DE CAM 1 +	0.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	SN	378	248	0.17	7540	<10	
387	HUAURA	CANDELA TECHO	10	SN 200 2N	11/4/2008	379	10358	corona	1.60	0.50	FL DE CAM 1 +	2.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	SN	379	184	0.58	3810	10	
388	HUAURA	CANDELA TECHO	10	SN 200 2N	11/4/2008	380	10359	corona	1.00	0.60	FL DE CAM 1 +	4.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	SN	380	84.4	2.02	4900	70	
389	HUAURA	CANDELA TECHO	10	SN 200 2N	11/4/2008	381	10360	corona	2.00	0.70	FL DE CAM 1 +	8.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	SN	381	58.6	0.07	2770	<10	
390	HUAURA	CANDELA TECHO	10	SN 200 2N	11/4/2008	382	10361	corona	2.50	1.20	FL DE CAM 1 +	8.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	SN	382	40.5	0.3	2170	<10	
391	HUAURA	CANDELA TECHO	10	SN 200 2N	11/4/2008	383	10362	corona	1.80	1.20	FL DE CAM 1 +	10.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	SN	383	39.4	0.17	588	<10	
392	HUAURA	CANDELA TECHO	10	SN 200 2N	11/4/2008	384	10363	corona	1.50	1.20	FL DE CAM 1 +	12.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	SN	384	50.6	0.13	1400	<10	
393	HUAURA	CANDELA TECHO	10	SN 200 2N	11/4/2008	385	10364	corona	1.60	1.10	FL DE CAM 1 +	14.00 m.N	corona	Geoquimico	qz.py.td.wc3	dup-m	2	1	SN	385	39.2	0.21	1895	<10	
412	HUAURA	CANDELA TECHO	10	SN 200 2N	11/4/2008	386	10596	-	-	-	-	-	-	-	Geoquimico	estandar %WO3 0.42	estandar	2	1	SN	386	5.4	3.47	419	180
394	HUAURA	CANDELA TECHO	10	SN 200 2N	11/4/2008	387	10365	corona	1.50	1.00	FL DE CAM 1 +	16.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	SN	387	15.9	0.34	584	<10	
404	HUAURA	CANDELA TECHO	10	SN 200 2N	11/4/2008	388	10461	corona	1.60	1.10	FL DE CAM 1 +	14.00 m.N	corona	Geoquimico	duplicado de la 10361	dup	2	1	SN	388	38.3	0.19	2010	<10	
406	HUAURA	CANDELA TECHO	10	SN 200 2N	11/5/2008	389	10441	-	-	-	-	-	-	-	Geoquimico	muestra en blanco	blanco	2	1	SN	389	0.5	11.55	30	380
361	HUAURA	CONSUELO	10	TJ 890 S	11/3/2008	390	10310	corona	1.80	0.40	FL DE CH 890 +	0.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	390	40	0.13	1525	<10	
362	HUAURA	CONSUELO	10	TJ 890 S	11/3/2008	391	10311	corona	1.60	0.30	FL DE CH 890 +	2.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	391	19.5	1.64	359	20	
363	HUAURA	CONSUELO	10	TJ 890 S	11/3/2008	392	10312	corona	1.60	0.50	FL DE CH 890 +	4.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	392	145	0.68	4800	<10	
364	HUAURA	CONSUELO	10	TJ 890 S	11/3/2008	393	10313	corona	1.50	0.50	FL DE CH 890 +	6.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	393	184	0.13	4360	<10	
365	HUAURA	CONSUELO	10	TJ 890 S	11/3/2008	394	10314	corona	2.40	1.30	FL DE CH 890 +	8.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	394	382	0.55	>10000	<10	
366	HUAURA	CONSUELO	10	TJ 890 S	11/3/2008	395	10315	corona	1.40	0.60	FL DE CH 890 +	10.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	395	35.7	0.73	1345	<10	
367	HUAURA	CONSUELO	10	CH 890	11/3/2008	396	10316	izq	1.30	0.90	FL DE TJ 890 +	1.00 m	izq	Geoquimico	qz.py.td.wc3	muestra	2	1	CH	396	42.6	0.18	1860	<10	
368	HUAURA	CONSUELO	10	CH 890	11/3/2008	397	10317	der	1.10	0.60	FL DE TJ 890 +	2.00 m	der	Geoquimico	qz.py.td.wc3	muestra	2	1	CH	397	10.2	0.73	614	20	
369	HUAURA	CONSUELO	10	CH 890	11/3/2008	398	10318	izq	1.00	0.50	FL DE TJ 890 +	3.00 m	izq	Geoquimico	qz.py.td.wc3	muestra	2	1	CH	398	26.6	2.38	1060	30	
370	HUAURA	CONSUELO	10	CH 890	11/3/2008	399	10319	der	1.10	0.50	FL DE TJ 890 +	4.00 m	der	Geoquimico	qz.py.td.wc3	muestra	2	1	CH	399	70.7	1.31	3290	20	
371	HUAURA	CONSUELO	10	CH 890	11/3/2008	400	10320	izq	1.20	0.40	FL DE TJ 890 +	5.00 m	izq	Geoquimico	qz.py.td.wc3	muestra	2	1	CH	400	5	1.95	432	30	
372	HUAURA	CONSUELO	10	CH 890	11/3/2008	401	10321	der	1.20	0.60	FL DE TJ 890 +	6.00 m	der	Geoquimico	qz.py.td.wc3	muestra	2	1	CH	401	9.5	0.56	846	10	
376	HUAYLLAPON	SONIA	8	GL 645 S	11/3/2008	402	10335	corona	2.40	0.70	FL XC +	78.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	GL	402	255	0.61	2930	<10	
377	HUAYLLAPON	SONIA	8	GL 645 S	11/3/2008	403	10337	corona	2.40	0.70	FL XC +	80.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	GL	403	665	0.61	7010	<10	
378	HUAYLLAPON	SONIA	8	GL 645 S	11/3/2008	404	10338	corona	2.60	1.10	FL XC +	82.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	GL	404	19.5	0.54	365	<10	
379	HUAYLLAPON	SONIA	8	GL 645 S	11/3/2008	405	10339	corona	2.40	1.00	FL XC +	84.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	GL	405	11.4	0.57	193	<10	
380	HUAYLLAPON	SONIA	8	GL 645 S	11/3/2008	406	10340	corona	2.50	1.30	FL XC +	86.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	GL	406	44.3	0.47	971	<10	
381	HUAYLLAPON	SONIA	8	GL 645 S	11/3/2008	407	10341	corona	2.40	1.00	FL XC +	88.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	GL	407	79.3	0.36	1945	<10	
330	HUAURA	CANDELA	9	TJ 215 N	11/2/2008	408	10270	corona	2.00	0.90	CH 215 +	8.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	408	32.4	0.33	1245	<10	
331	HUAURA	CANDELA	9	TJ 215 N	11/2/2008	409	10271	corona	1.90	0.60	CH 215 +	10.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	409	311	0.18	7220	<10	
332	HUAURA	CANDELA	9	TJ 215 N	11/2/2008	410	10272	corona	1.80	1.10	CH 215 +	12.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	410	71.6	1.02	2620	<10	
333	HUAURA	CANDELA	9	TJ 215 N	11/2/2008	411	10273	corona	1.70	0.50	CH 215 +	15.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	411	106	0.53	2010	<10	
434	HUAURA	CANDELA	9	TJ 215 N	11/2/2008	412	10274	corona	1.60	0.60	CH 215 +	17.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	2	1	TJ	412	99.1	0.36	994	<10	
413	HUAURA	CANDELA TECHO	10	TJ 200 N	11/5/2008	413	10423	corona	1.80	0.80	FL CM 1 +	0.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	413	96.5	0.28	1265	<10	
414	HUAURA	CANDELA TECHO	10	TJ 200 N	11/5/2008	414	10424	corona	2.00	0.80	FL CM 1 +	2.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	414	13	1.07	516	10	
415	HUAURA	CANDELA TECHO	10	TJ 200 N	11/5/2008	415	10425	corona	2.00	0.80	FL CM 1 +	4.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	415	7.9	0.35	252	<10	
416	HUAURA	CANDELA TECHO	10	TJ 200 N	11/5/2008	416	10426	corona	1.80	0.80	FL CM 1 +	6.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	416	607	0.54	>10000	<10	
417	HUAURA	CANDELA TECHO	10	TJ 200 N	11/5/2008	417	10427	corona	1.40	0.80	FL CM 5 +	0.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	417	455	1.15	>10000	<10	
418	HUAURA	CANDELA TECHO	10	TJ 200 N	11/5/2008	418	10428	corona	1.30	0.80	FL CM 5 +	2.00 m.N	corona	Geoquimico	qz.py.td.wc3	dup-m	3	1	TJ	418	227	0.42	5790	<10	
419	HUAURA	CANDELA TECHO	10	TJ 200 N	11/5/2008	419	10429	corona	1.10	0.80	FL CM 5 +	4.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	419	502	0.83	6810	<10	
420	HUAURA	CANDELA TECHO	10	TJ 200 N	11/5/2008	420	10430	corona	1.40	0.80	FL CM 5 +	6.00 m.N	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	420	357	1.12	8450	10	
421	HUAURA	CANDELA TECHO	10	TJ 200 N	11/5/2008	421	10431	corona	1.08	0.80	FL CM 5 +	0.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	421	64.5	0.79	757	10	
422	HUAURA	CANDELA TECHO	10	TJ 200 N	11/5/2008	422	10432	corona	0.96	0.90	FL CM 5 +	2.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	422	49.6	0.31	739	<10	
423	HUAURA	CANDELA TECHO	10	TJ 200 N	11/5/2008	423	10433	-	-	-	-	-	-	-	Geoquimico	estandar %WO3 0.42	estandar	3	1	TJ	423	3.4	3.45	425	180
424	HUAURA	CONSUELO	8	TJ 610 S	11/6/2008	424	10460	corona	2.20	0.80	CH 610 +	8.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	424	88.7	0.17	3430	<10	
425	HUAURA	CONSUELO	8	TJ 610 S	11/6/2008	425	10461	corona	2.20	1.00	CH 610 +	10.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	425	30.8	0.28	990	<10	
426	HUAURA	CONSUELO	8	TJ 610 S	11/6/2008	426	10462	corona	2.40	1.00	CH 610 +	12.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	426	19.2	0.08	400	<10	
427	HUAURA	CONSUELO	8	TJ 610 S	11/6/2008	427	10463	corona	2.50	1.00	CH 610 +	14.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	427	46.4	0.05	1545	<10	
428	HUAURA	CONSUELO	8	TJ 610 S	11/6/2008	428	10464	corona	2.60	1.10	CH 610 +	16.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	428	6.5	0.08	193	<10	
429	HUAURA	CONSUELO	8	TJ 610 S	11/6/2008	429	10465	corona	2.50	1.10	CH 610 +	18.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	429	2.1	0.06	46	<10	
430	HUAURA	CONSUELO	8	TJ 610 S	11/6/2008	430	10466	corona	2.00	1.00	CH 610 +	20.00 m.S	corona	Geoquimico	qz.py.td.wc3	muestra	3	1	TJ	430	94.7	0.02	3170	<10	
431	HUAURA	CONSUELO	8	TJ 610 S	11/6/2008	431	10467	corona	2.20	1.20	CH 610 +	22.00 m.S	corona												

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N°	Be (ppm)	Bi (ppm)	Ca (%)	Cd (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Ga (ppm)	K (%)	La (ppm)	Mg (%)	Mn (ppm)	Mo (ppm)	Na (%)	Ni (ppm)	P (ppm)	Pb (ppm)	S (%)	Sb (ppm)	Sc (ppm)	Sr (ppm)	Te (ppm)	Th (ppm)	
385	1.3	2230	0.48	379	1	7	50400	4.09	20	0.06	<10	0.05	2740	7	<0.01	3	70	1190	>10.0	>10000	1	3	480	<20	
386	<0.5	2960	0.46	223	1	13	37400	2.63	10	0.08	<10	0.01	2350	10	<0.01	4	90	10600	7.2	6680	1	3	80	<20	
387	0.7	2070	0.13	232	2	15	31700	8.09	10	0.29	<10	0.06	1170	6	0.01	9	70	1560	>10.0	2210	1	2	50	<20	
388	1.5	987	0.1	86.4	2	21	14000	3.94	10	0.92	10	0.12	487	4	0.03	10	90	170	6.02	2340	3	14	40	<20	
389	<0.5	874	0.24	95.9	1	13	9230	3.05	10	0.03	<10	0.01	3340	4	<0.01	16	<1	603	2.16	1270	1	7	20	<20	
390	0.6	442	0.08	100	2	11	7670	1.14	10	0.14	<10	0.03	1535	3	0.01	1	50	68	2.56	622	<1	2	10	<20	
391	<0.5	424	0.04	69.9	1	16	4440	0.88	<10	0.07	<10	0.01	570	4	0.01	3	10	232	1.69	290	<1	1	10	<20	
392	<0.5	627	0.03	58.1	<1	12	6820	1.03	<10	0.05	<10	0.01	909	5	0.01	<1	10	83	1.8	863	<1	1	20	<20	
393	<0.5	393	0.12	85.1	1	11	6980	1.62	<10	0.1	<10	0.02	1430	3	0.01	2	20	145	2.77	631	<1	1	20	<20	
412	84.6	716	0.36	0.5	6	35	89	3.27	20	1.57	30	0.37	1775	327	0.11	18	230	198	0.74	<5	8	22	<10	<20	
394	0.8	249	0.12	27.2	1	14	2620	0.75	<10	0.17	<10	0.05	5970	2	0.01	1	10	172	1.01	165	<1	2	<10	<20	
404	<0.5	369	<0.11	72	1	12	8520	1.35	<10	0.09	<10	0.01	2110	2	0.01	3	10	100	2.41	60	<1	1	10	<20	
406	2.7	5	0.13	<0.5	2	74	62	2.8	30	1.75	40	0.47	209	<1	0.44	12	370	18	0.02	9	22	119	<10	<20	
361	0.5	1730	0.23	172.5	<1	18	11700	3.64	<10	0.05	<10	0.01	571	13	<0.01	2	20	896	6.45	82	<1	4	<10	<20	
362	2.5	168	0.1	14.6	1	13	2210	3.15	10	0.87	<10	0.12	612	245	0.01	2	120	700	3.47	538	1	5	<10	<20	
363	1	1310	0.07	69.5	2	14	19600	6.59	<10	0.34	<10	0.04	3500	57	<0.01	2	70	3860	8.86	5630	1	2	40	<20	
364	2.2	1450	0.31	181.5	<1	10	20700	5.78	10	0.59	<10	0.11	2470	112	<0.01	2	10	13000	9.87	6270	2	3	40	<20	
365	1	477	0.05	107	1	13	44500	1.91	<10	0.28	<10	0.03	12400	61	<0.01	2	20	21200	5.73	>10000	5	1	90	<20	
366	2.4	286	2.04	50.8	1	10	4660	2.64	10	0.39	<10	0.07	3470	26	0.01	3	10	502	3.69	1020	2	33	10	<20	
367	2.1	2170	0.21	229	<1	14	13700	8.13	<10	0.08	<10	0.01	637	38	0.01	1	10	1830	>10.0	124	<1	7	<10	<20	
368	1.6	80	0.18	7	1	14	1920	0.8	<10	0.35	<10	0.04	216	8	0.05	2	30	71	0.59	76	<1	10	<10	<20	
369	5.5	482	0.77	101.5	1	11	3360	2.72	20	1.25	<10	0.19	808	191	0.04	2	20	881	4.26	566	2	15	<10	<20	
370	1.7	1295	0.18	107	<1	19	9470	5.34	10	0.65	<10	0.08	451	7	0.02	3	70	1200	7.55	527	1	5	<10	<20	
371	2.5	264	0.11	75.1	1	14	1500	3.05	10	0.98	<10	0.11	373	7	0.04	1	100	239	4.2	21	1	6	<10	<20	
372	1.2	118	0.53	34.9	<1	15	2120	0.63	<10	0.29	<10	0.04	1685	2	0.03	3	20	110	0.9	130	<1	8	<10	<20	
376	0.8	8	<0.01	24	1	11	8910	0.6	<10	0.29	<10	0.04	1985	<1	<0.01	1	<10	4170	1.14	2230	<1	<1	10	<20	
377	0.9	7	<0.01	49.4	1	13	23700	0.4	<10	0.29	<10	0.05	4130	<1	<0.01	2	10	8050	1.85	6500	<1	<1	30	<20	
378	0.7	4	0.01	3	1	18	1025	0.69	<10	0.26	<10	0.04	833	<1	0.01	3	10	906	0.58	139	<1	1	<10	<20	
379	0.6	4	<0.01	1.6	2	14	557	0.78	<10	0.28	<10	0.03	3320	<1	0.01	2	<10	463	0.61	40	<1	<1	<10	<20	
380	0.6	4	<0.01	6.1	2	17	2670	0.54	<10	0.22	<10	0.03	2080	<1	<0.01	1	<10	2080	0.49	324	<1	<1	<10	<20	
381	<0.5	4	<0.01	18.2	1	17	5160	0.44	<10	0.17	<10	0.02	1850	<1	0.01	1	<10	8430	0.8	671	<1	<1	<10	<20	
330	<0.5	299	<0.01	55	2	13	3850	1.16	<10	0.16	<10	0.01	16900	1	0.01	4	20	539	1.83	648	7	3	10	<20	
331	<0.5	165	<0.01	45.3	1	15	27900	0.91	<10	0.07	<10	<0.01	4500	2	<0.01	5	60	6400	2.56	8750	2	6	30	<20	
332	1.1	104	<0.01	17.1	2	14	7940	1.39	10	0.54	<10	0.09	2930	4	0.01	4	10	936	1.87	1420	1	<1	20	<20	
333	0.5	209	0.07	26.9	2	13	9260	0.99	<10	0.24	<10	0.03	3210	2	0.01	4	30	1370	1.57	3000	2	9	30	<20	
334	<0.5	54	0.12	13.1	2	9	3490	2.17	<10	0.15	<10	0.02	4650	<1	<0.01	5	<10	327	2.47	851	<1	6	<10	<20	
413	0.5	274	10.55	253	1	2	14000	0.1	20	0.14	<10	0.03	8770	4	0.01	1	70	6110	5.66	1950	1	28	70	<20	
414	1.4	82	0.33	23.6	2	10	2620	0.84	10	0.52	<10	0.08	1500	3	0.01	5	20	394	0.92	102	<1	4	<10	<20	
415	0.6	54	0.37	13.5	2	6	1630	0.4	<10	0.17	10	0.02	13450	1	0.01	3	40	34	0.49	106	1	8	<10	<20	
416	0.9	2260	4.47	495	2	2	81500	3.88	40	0.28	<10	0.04	2340	17	0.01	8	50	13900	>10.0	>10000	1	14	860	<20	
417	1.5	52	0.96	193	2	9	53900	2.1	10	0.59	<10	0.09	678	7	0.01	7	80	25100	6.91	>10000	1	7	260	<20	
418	0.6	1585	0.16	376	1	5	39500	3.5	20	0.21	<10	0.03	4750	6	0.01	3	<10	4340	>10.0	8940	<1	3	390	<20	
419	1.1	1315	0.13	241	1	10	58600	0.13	20	0.42	<10	0.06	4710	9	0.01	7	90	6380	8.51	>10000	1	3	530	<20	
420	2.2	32	0.21	416	3	7	42600	2.51	30	0.56	<10	0.08	3250	1	0.01	7	160	35100	9.69	>10000	1	4	330	<20	
421	1.1	326	0.29	169.5	1	8	9200	0.88	10	0.39	<10	0.06	8280	3	0.01	3	10	785	3.36	560	1	5	10	<20	
422	0.6	928	0.4	187	3	7	10800	1.8	10	0.15	<10	0.06	1900	4	0.01	4	10	249	4.64	515	<1	4	10	<20	
423	83.6	708	0.35	1.7	2	35	126	3.27	20	1.51	30	0.37	1820	353	0.11	23	230	200	0.74	12	8	24	<10	<20	
424	0.5	212	<0.01	19.4	<1	8	13800	0.42	<10	0.04	<10	<0.01	4340	<1	<0.01	5	<10	403	0.95	9630	2	2	10	<20	
425	<0.5	69	<0.01	6.1	1	11	1010	0.18	<10	0.04	<10	<0.01	26100	2	<0.01	1	40	490	0.28	1255	12	2	<10	<20	
426	<0.5	101	<0.01	22.9	1	13	2280	0.56	<10	0.04	<10	<0.01	3130	2	<0.01	3	<10	1	270	0.68	422	1	3	<10	<20
427	<0.5	106	<0.01	11	2	16	5880	0.51	<10	0.02	<10	<0.01	3260	3	<0.01	3	10	187	0.58	1705	1	1	<10	<20	
428	<0.5	37	<0.01	5.4	2	12	783	0.48	<10	0.03	<10	<0.01	1560	3	<0.01	5	20	152	0.24	116	<1	2	<10	<20	
429	<0.5	15	<0.01	6	<1	19	225	0.95	<10	0.03	<10	<0.01	1120	1	<0.01	2	<10	38	0.73	20	<1	<1	<10	<20	
430	<0.5	223	<0.01	19.8	1	10	12700	0.28	<10	0.01	<10	<0.01	23400	1	<0.01	5	<10	150	0.96	4350	<1	2	20	<20	
431	<0.5	140	<0.01	19.4	1	10	4120	0.32	<10	0.02	<10	<0.01	21100	3	<0.01	3	60	281	0.68	1240	2	1	<10	<20	
432	<0.5	14	<0.01	2.1	1	15	359	0.49	<10	0.01	<10	<0.01	4900	1	<0.01	3	60	1	348	0.06	61	1	2	<10	<20
433	<0.5	14	<0.01	1.5	1	13	337	0.42	<10	0.01	<10	<0.01	3140	1	<0.01	4	30	192	0.06	46	1	2	<10	<20	
434	<0.5	36	<0.01	4.2	1	18	1250	0.63	<10	0.03	<10	<0.01	401	2	<0.01	4	10	629	0						

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N°	Ti (%)	Ti (ppm)	U (ppm)	V (ppm)	W (ppm)	Zn (ppm)	W (ppm)	W (%)	WO3 (%)	Cu (%)	Zn (%)	Pb (%)	Ag (onz)
385	<0.01	<10	<10	4	4660	94200	0	0.74	0.933	5.040	9.420	0.119	11.381
386	0.01	<10	<10	3	4950	58900	0	0.74	0.933	3.740	5.890	1.060	7.973
387	0.02	<10	<10	16	1330	63800	0	0.09	0.113	3.170	6.380	0.156	5.916
388	0.05	<10	<10	37	150	23700	0	0.01	0.013	1.400	2.370	0.017	2.714
389	<0.01	<10	<10	<1	1980	27700	0	2.03	2.560	0.920	2.770	0.022	1.884
390	<0.01	<10	<10	7	670	30300	0	0.47	0.593	0.767	3.030	0.007	1.302
391	<0.01	<10	<10	4	1030	21400	0	0.16	0.202	0.444	2.140	0.023	1.267
392	<0.01	<10	<10	2	2220	16100	0	0.22	0.277	0.682	1.610	0.008	1.627
393	<0.01	<10	<10	5	980	24900	0	0.42	0.530	0.698	2.490	0.015	1.260
412	0.39	<10	<10	44	3760	108	0	0.37	0.467	0.009	0.011	0.020	0.174
394	0.01	<10	20	4	740	8370	0	2.33	2.938	0.262	0.837	0.017	0.511
404	<0.01	<10	<10	3	1160	21400	0	0.73	0.921	0.652	2.140	0.019	1.231
406	0.68	<10	<10	185	50	151	0	0.01	0.013	0.006	0.015	0.002	0.016
361	<0.01	<10	<10	2	60	51900	0	0.01	0.013	1.170	5.190	0.090	1.286
362	0.03	<10	20	26	750	3800	0	0.07	0.088	0.221	0.380	0.070	0.627
363	0.01	<10	10	13	3710	16000	0	1.19	1.501	1.950	1.600	0.386	4.662
364	0.01	<10	10	18	4790	48300	0	0.47	0.593	2.070	4.830	1.300	5.916
365	0.01	<10	30	8	3070	20200	0	4.15	5.233	4.430	2.020	2.120	12.262
366	0.01	<10	10	11	2010	13800	0	1.13	1.425	0.466	1.380	0.050	1.148
367	<0.01	<10	<10	2	120	63600	0	0.01	0.013	1.370	6.360	0.183	1.370
368	0.01	<10	<10	11	50	2090	0	0.01	0.013	0.192	0.209	0.007	0.328
369	0.02	<10	10	43	190	29000	0	0.01	0.013	0.336	2.900	0.088	0.855
370	0.02	<10	<10	15	30	28500	0	0.01	0.013	0.947	2.850	0.120	2.273
371	0.03	<10	<10	25	30	22400	0	0.01	0.013	0.150	2.240	0.024	0.161
372	0.01	<10	<10	10	760	9600	0	0.65	0.820	0.212	0.960	0.011	0.305
376	<0.01	<10	<10	3	5310	3580	0	0.65	0.820	0.891	0.358	0.417	8.198
377	<0.01	<10	<10	4	5330	6120	0	1.55	1.955	2.370	0.612	0.805	21.380
378	0.01	<10	<10	4	1710	626	0	0.25	0.315	0.103	0.063	0.091	0.627
379	0.01	<10	<10	3	570	332	0	1.15	1.450	0.056	0.033	0.046	0.367
380	<0.01	<10	<10	3	800	806	0	0.72	0.908	0.267	0.117	0.208	1.392
381	<0.01	<10	<10	1	2060	3740	0	0.64	0.807	0.516	0.374	0.843	2.550
330	0.01	<10	<10	1	2490	7240	0	6.97	8.790	0.385	0.724	0.054	1.042
331	<0.01	<10	<10	2	4260	7580	0	1.87	2.358	2.790	0.758	0.640	9.999
332	0.01	<10	<10	13	3280	3380	0	1.04	1.312	0.794	0.338	0.094	2.302
333	0.01	<10	<10	7	4640	5880	0	1.41	1.778	0.926	0.588	0.137	3.408
334	<0.01	<10	<10	4	1740	3300	0	1.54	1.940	0.349	0.330	0.142	1.032
413	<0.01	<10	<10	6	1930	18700	0	3.26	4.111	1.406	7.870	0.611	3.103
414	0.01	<10	<10	24	960	6610	0	0.59	0.744	0.262	0.661	0.039	0.418
415	0.01	<10	<10	2	1550	3450	0	6.15	7.756	0.163	0.345	0.003	0.254
416	<0.01	<10	<10	24	3370	148000	0	*	#VALUE!	8.150	14.800	1.390	19.516
417	0.01	<10	<10	27	680	36300	0	0.04	0.050	5.390	3.630	2.510	14.629
418	<0.01	<10	<10	21	2770	114500	0	1.74	2.194	3.950	11.450	0.434	7.298
419	0.01	<10	20	27	2810	71500	0	1.9	2.306	5.860	7.150	0.638	16.140
420	<0.01	<10	10	26	4770	100500	0	1.13	1.425	4.260	10.050	3.510	11.478
421	0.01	<10	<10	10	1940	49600	0	3.21	4.048	0.920	4.960	0.079	2.074
422	<0.01	<10	<10	9	980	61200	0	0.39	0.492	1.080	6.120	0.025	1.595
423	0.4	10	<10	46	3870	250	0	0.4	0.504	0.013	0.025	0.020	0.109
424	<0.01	<10	<10	1	4490	3190	0	1.57	1.980	1.380	0.319	0.040	2.852
425	<0.01	10	<10	<1	2360	919	0	10.75	13.857	0.352	0.092	0.049	0.990
426	<0.01	<10	<10	2	930	6540	0	1.02	1.286	0.228	0.654	0.027	0.617
427	<0.01	<10	<10	1	4190	2100	0	1.14	1.438	0.588	0.210	0.019	1.492
428	<0.01	<10	<10	1	900	1210	0	0.5	0.631	0.078	0.121	0.015	0.209
429	<0.01	<10	<10	<1	250	1790	0	0.37	0.467	0.023	0.179	0.004	0.068
430	<0.01	<10	<10	<1	2930	3370	0	9.41	11.867	1.270	0.337	0.015	3.045
431	<0.01	<10	<10	<1	2270	4730	0	8.62	10.871	0.473	0.023	0.015	1.093
432	<0.01	<10	<10	1	700	337	0	1.74	2.194	0.036	0.034	0.035	0.093
433	<0.01	<10	<10	1	700	140	0	1.05	1.324	0.034	0.014	0.019	0.093
434	<0.01	<10	<10	1	1120	784	0	0.1	0.126	0.125	0.078	0.063	0.322
435	0.18	<10	<10	30	70	87	0	0.01	0.013	0.011	0.009	0.015	0.055
436	0.01	<10	<10	5	960	12200	0	2.34	2.951	0.228	1.220	0.077	0.575
437	<0.01	<10	<10	<1	9450	2450	0	3.72	4.691	0.809	0.245	0.086	1.408
438	<0.01	10	<10	3	2970	47200	0	3.52	4.459	5.680	4.720	0.592	9.452
439	0.01	<10	<10	9	2920	33700	0	1.85	2.333	1.350	3.370	0.357	2.794
440	<0.01	<10	<10	1	1330	2360	0	3.71	4.679	0.415	0.236	0.115	0.945
441	0.04	<10	<10	36	5900	12100	0	1.58	1.993	2.120	1.210	0.613	3.729
442	<0.01	<10	<10	1	2310	12100	0	5.72	7.213	2.140	1.210	0.868	3.987
443	0.01	<10	10	11	3210	28700	0	4.02	5.070	2.200	2.870	0.621	4.051
444	0.01	<10	<10	23	5000	12600	0	0.68	0.858	4.740	1.260	1.260	8.584
445	<0.01	<10	<10	4	330	3070	0	1.76	2.220	0.450	0.307	1.130	3.125
446	<0.01	<10	<10	6	2960	9210	0	1.11	1.400	1.670	0.921	1.360	9.131
447	0.01	<10	<10	6	2920	9800	0	0.3	0.378	0.592	0.980	0.480	2.167
448	0.03	<10	<10	18	2430	19500	0	0.51	0.643	1.850	1.950	3.850	11.381
449	0.01	<10	<10	11	250	5970	0	0.3	0.378	0.170	0.597	0.324	0.916
450	0.13	<10	<10	37	1970	1236	0	0.98	1.246	0.321	0.024	0.001	0.064
451	0.08	<10	10	22	40	1140	0	0.01	0.013	0.006	0.114	0.004	0.016
452	0.04	<10	<10	55	560	70	0	0.05	0.063	0.012	0.007	0.135	0.048
453	0.03	<10	<10	52	70	35	0	0.01	0.013	0.005	0.004	0.035	0.016
454	0.07	<10	<10	57	100	50	0	0.01	0.013	0.008	0.005	0.016	0.055
455	0.11	<10	<10	153	120	39	0	0.01	0.013	0.009	0.004	0.030	0.029
456	0.1	<10	<10	43	90	19	0	0.01	0.013	0.007	0.002	0.055	0.035
457	0.05	<10	<10	31	40	37	0	0.01	0.013	0.010	0.004	0.029	0.032
458	0.02	<10	<10	27	430	29	0	0.04	0.050	0.011	0.003	0.169	0.048
459	0.02	<10	<10	12	160	658	0	0.02	0.025	0.041	0.066	0.074	0.164
460	0.01	<10	<10	8	140	19	0	0.02	0.025	0.007	0.002	0.018	0.016
461	<0.01	<10	<10	11	210	3220	0	1.16	1.463	0.026	0.322	0.019	0.100
462	<0.01	<10	<10	15	4830	60380	0	1.7	1.475	4.670	6.030	0.075	12.828
463	0.06	<10	<10	69	1600	7720	0	0.47	0.593	0.594	0.772	0.237	2.000
464	0.03	<10	<10	27	1350	23200	0	0.13	0.164	1.320	2.320	0.842	5.498
465	0.01	<10	<10	21	490	20300	0	0.02	0.025	0.325	2.030	0.191	1.701
466	0.05	<10	<10	40	600	11600	0	0.47	0.593	0.263	1.160	0.037	0.534
467	0.01	<10	<10	6	550	1200	0	0.05	0.063	0.112	0.120	0.042	0.370
468	0.11	<10	<10	68	3820	2390	0	1.35	1.702	0.320	0.239	0.040	1.074
469	0.14	<10	<10	15	70	137	0	0.01	0.013	0.013	0.014	0.009	0.064
470	0.39	<10	<10	48	3200	103	0	0.4	0.504	0.009	0.010	0.019	0.100

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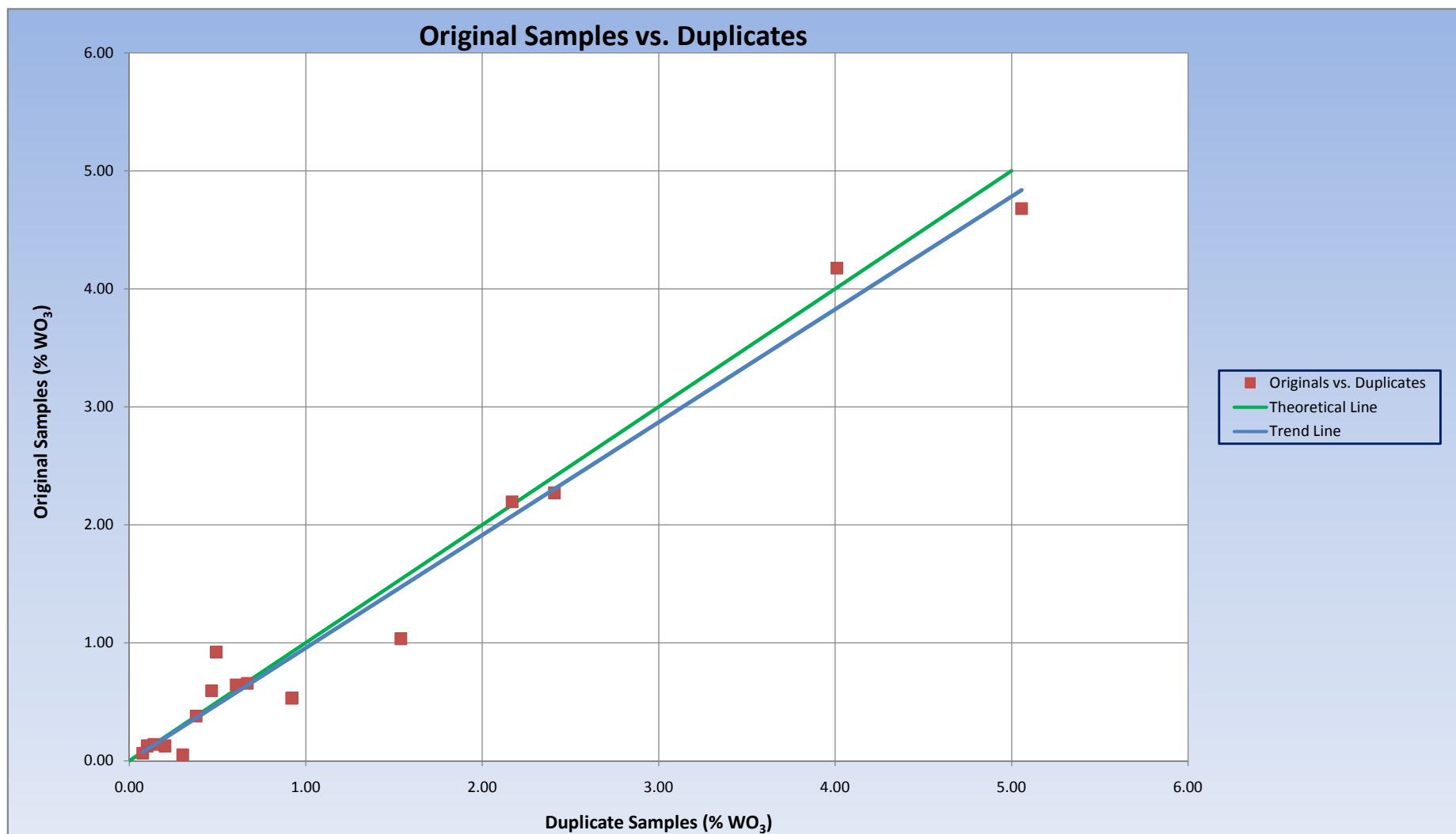
N°	MINA	VETA	NIVEL	LABOR	FECHA	CODIGO	MUESTRA	LADO	AM	AV	REF1	REF2	REF3	REF4	ANALISIS	DESCRIPCION	TIPO-M	ENVIO	CANTIDAD	LAB	SAMPLE	Ag (ppm)	Al (%)	As (ppm)	Ba (ppm)
471	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	471	10565	corona	2.30	0.90	CH 927 +	2.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	471	5.3	2.43	851	90
472	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	472	10566	corona	2.50	0.80	CH 927 +	4.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	472	4.3	1.38	667	20
473	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	473	10567	corona	2.40	0.80	CH 927 +	6.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	473	1	4.67	396	50
474	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	474	10568	corona	2.40	0.80	CH 927 +	8.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	474	0.5	3.69	159	40
475	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	475	10569	corona	2.60	0.50	CH 927 +	10.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	475	0.5	5.15	172	50
476	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	476	10570	corona	2.20	1.10	CH 927 +	19.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	476	0.5	0.69	22	10
477	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	477	10571	corona	2.10	1.20	CH 927 +	21.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	477	0.5	0.42	52	10
478	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	478	10572	corona	2.20	1.20	CH 927 +	23.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	478	0.6	0.97	29	10
479	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	479	10573	corona	2.20	1.00	CH 927 +	25.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	479	0.5	0.58	45	<10
480	HUAURA	CANDELA	9	CH 216	11/9/2008	480	10581	izq	1.20	1.00	T SN 215N +	0.00	m.	izq	Geoquimico	qz.py.td.wo3	muestra	3	1	CH	480	7.1	0.17	181	<10
481	HUAURA	CANDELA	9	CH 216	11/9/2008	481	10582	der	1.20	1.00	T SN 215N +	1.00	m.	der	Geoquimico	qz.py.td.wo3	muestra	3	1	CH	481	6.4	0.85	166	10
482	HUAURA	CANDELA	9	CH 216	11/9/2008	482	10583	izq	2.30	1.20	T SN 215N +	2.00	m.	izq	Geoquimico	qz.py.td.wo3	muestra	3	1	CH	482	16.5	0.8	315	10
483	HUAURA	CANDELA	9	CH 216	11/9/2008	483	10584	der	2.40	1.20	T SN 215N +	3.00	m.	der	Geoquimico	qz.py.td.wo3	muestra	3	1	CH	483	1.4	0.08	46	<10
484	HUAURA	CANDELA	9	CH 216	11/9/2008	484	10585	izq	2.40	1.20	T SN 215N +	4.00	m.	izq	Geoquimico	qz.py.td.wo3	dup-m	3	1	CH	484	7.5	0.25	227	<10
485	HUAURA	CANDELA	9	CH 216	11/9/2008	485	10586	der	1.50	1.20	T SN 215N +	5.00	m.	der	Geoquimico	qz.py.td.wo3	muestra	3	1	CH	485	10.8	0.47	405	<10
486	HUAURA	CANDELA	9	CH 216	11/9/2008	486	10587	izq	2.00	1.20	T SN 215N +	6.00	m.	izq	Geoquimico	qz.py.td.wo3	muestra	3	1	CH	486	5	0.2	145	<10
487	HUAURA	CANDELA	9	CH 216	11/9/2008	487	10588	der	2.00	1.10	T SN 215N +	7.00	m.	der	Geoquimico	qz.py.td.wo3	muestra	3	1	CH	487	177	0.49	6220	<10
488	HUAURA	CANDELA	9	CH 216	11/9/2008	488	10589	izq	2.00	1.20	T SN 215N +	8.00	m.	izq	Geoquimico	qz.py.td.wo3	muestra	3	1	CH	488	38.9	0.3	1220	<10
489	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	489	10590	corona	2.10	1.20	CH 935 +	29.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	489	3	1.65	73	20
490	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	490	10591	corona	2.40	0.60	CH 935 +	31.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	490	9.3	2.97	839	50
491	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	491	10592	corona	2.50	0.90	CH 935 +	33.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	491	246	2.15	2400	50
492	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	492	10593	corona	2.40	1.20	CH 935 +	35.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	492	54.4	1.28	1320	20
493	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	493	10594	corona	2.40	1.10	CH 935 +	37.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	493	140	0.81	1060	10
494	HUAURA	ALONSO-FENIX	7	GL 755 N	11/9/2008	494	10595	corona	2.50	0.60	CH 935 +	39.00	m.N	corona	Geoquimico	qz.py.oxs.wo3	muestra	3	1	GL	494	5.2	0.19	599	<10
495	HUAURA	ALONSO-FENIX	7	GL 755 N	11/10/2008	495	10596	-	-	-	-	-	-	-	Geoquimico	muestra en blanco	blanco	3	1	GL	495	2	1.6	85	30
496	HUAURA	ALONSO-FENIX	7	GL 755 N	11/10/2008	496	10597	corona	2.10	1.00	CH 935 +	41.00	m.N	corona	Geoquimico	qz.py.oxs	muestra	3	1	GL	496	17.6	0.51	1290	10
497	HUAURA	ALONSO-FENIX	7	GL 755 N	11/10/2008	497	10598	corona	2.10	1.10	CH 935 +	43.00	m.N	corona	Geoquimico	qz.py.oxs.pts.wo3	muestra	3	1	GL	497	112	2.59	2060	40
498	HUAURA	ALONSO-FENIX	7	GL 755 N	11/10/2008	498	10599	-	-	-	-	-	-	-	Geoquimico	estandar %WO3 1.04	estandar	3	1	GL	498	2.3	3.01	11	60
499	HUAURA	ALONSO-FENIX	7	GL 755 N	11/10/2008	499	10600	corona	2.00	1.00	CH 935 +	45.00	m.N	corona	Geoquimico	qz.py.oxs.pts.wo3	muestra	3	1	GL	499	50.7	0.52	1305	10
500	HUAURA	ALONSO-FENIX	7	GL 755 N	11/10/2008	500	10601	corona	2.20	1.20	CH 935 +	49.00	m.N	corona	Geoquimico	qz.py.oxs.pts.wo3	muestra	3	1	GL	500	9.6	2.03	1115	20
501	HUAURA	ALONSO-FENIX	7	GL 755 N	11/10/2008	501	10602	corona	2.20	1.10	CH 935 +	51.00	m.N	corona	Geoquimico	qz.py.oxs	muestra	3	1	GL	501	17	1.7	1055	20
502	HUAURA	ALONSO-FENIX	7	GL 755 N	11/10/2008	502	10603	corona	2.20	1.00	CH 935 +	53.00	m.N	corona	Geoquimico	qz.py.oxs	muestra	3	1	GL	502	1.7	3.72	795	40
503	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	503	10604	corona	1.90	0.40	FL XC +	2.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	503	155	0.1	4130	<10
504	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	504	10605	corona	1.50	1.00	FL XC +	4.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	504	5.4	0.1	127	<10
505	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	505	10606	corona	1.60	1.20	FL XC +	6.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	505	10.2	0.43	241	<10
506	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	506	10607	corona	1.60	0.70	FL XC +	8.00	m.N	corona	Geoquimico	qz.py.td.wo3	dup-m	3	1	SN	506	2.9	0.67	79	<10
507	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	507	10608	corona	1.60	0.70	FL XC +	10.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	507	8.1	0.85	284	10
508	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	508	10609	-	-	-	-	-	-	-	Geoquimico	muestra en blanco	blanco	3	1	SN	508	0.5	2	5	70
509	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	509	10610	corona	2.00	0.80	FL XC +	12.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	509	33.1	0.22	792	<10
510	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	510	10611	corona	1.60	1.10	FL XC +	14.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	510	40.9	0.26	982	<10
511	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	511	10612	corona	1.80	1.10	FL XC +	16.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	511	6.4	0.61	183	10
512	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	512	10613	corona	1.80	0.70	FL XC +	24.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	512	2.2	0.36	71	10
513	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	513	10614	corona	1.80	1.10	FL XC +	26.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	513	17.3	0.12	455	30
514	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	514	10615	corona	1.80	0.80	FL XC +	28.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	514	14.1	0.1	286	10
515	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	515	10616	corona	1.90	0.70	FL XC +	30.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	515	3.8	0.09	89	<10
516	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	516	10617	corona	2.10	0.70	FL XC +	32.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	516	1.9	0.03	21	<10
517	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	517	10618	corona	2.00	0.70	FL XC +	34.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	517	3.3	0.05	73	<10
518	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	518	10619	corona	2.00	1.20	FL XC +	36.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	518	80.3	0.14	2310	<10
519	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	519	10620	corona	1.70	0.70	FL XC +	38.00	m.N	corona	Geoquimico	qz.py.td.wo3	muestra	3	1	SN	519	133	0.04	1260	<10
520	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	520	10621	-	-	-	-	-	-	-	Geoquimico	estandar %WO3 0.42	estandar	3	1	SN	520	2.9	3.48	416	190
521	HUAURA	CANDELA TECHO	10	TJ 200 N	11/6/2008	521	10622	corona	1.30	0.80	FL CM 5 +	2.00	m.N	corona	Geoquimico	duplicado de la 10428 dup	dup	3	1	TJ	521	0.51	255	5330	<10
522	HUAURA	CONSUELO	8	TJ 640 N	11/7/2008	522	10623	corona	2.80	1.10	CH 640 +	10.00	m.N	corona	Geoquimico	duplicado de la 10506 dup	dup	3	1	TJ	522	24.2	0.29	991	<10
523	HUAURA	CANDELA	8	GL 115 N	11/8/2008	523	10624	corona	3.00	1.00	CH 220 +	12.00	m.N	corona	Geoquimico	duplicado de la 10585 dup	dup	3	1	GL	523	30.9	3.48	808	90
524	HUAURA	CANDELA	9	CH 216	11/9/2008	524	10625	izq	2.40	1.20	T SN 215N +	4.00	m.	izq	Geoquimico	duplicado de la 10585 dup	dup	3	1	CH	524	11.9	0.21	410	<10
525	HUAURA	CONSUELO	12	SN 035 N	11/10/2008	525	10626	corona	1.60	0.70	FL XC +	8.00	m.N	corona</											

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N°	Be (ppm)	Bi (ppm)	Ca (%)	Cd (ppm)	Co (ppm)	Cr (ppm)	Cu (ppm)	Fe (%)	Ga (ppm)	K (%)	La (ppm)	Mg (%)	Mn (ppm)	Mo (ppm)	Na (%)	Ni (ppm)	P (ppm)	Pb (ppm)	S (%)	Sb (ppm)	Sc (ppm)	Sr (ppm)	Te (ppm)	Th (ppm)
471	2.3	38	<0.01	<0.5	3	18	194	1.9	10	1.09	10	0.11	16550	12	0.03	2	220	1750	0.05	279	10	10	<10	<20
472	1.4	37	<0.01	<0.5	2	13	131	1.8	10	0.62	10	0.08	4030	8	0.02	3	150	946	0.04	135	3	5	<10	<20
473	2.5	6	<0.01	<0.5	3	12	236	5.1	10	0.9	10	0.1	307	33	0.03	8	780	370	0.06	119	3	8	<10	<20
474	2.8	7	<0.01	<0.5	5	11	125	2.36	10	0.88	10	0.1	540	12	0.03	6	430	514	0.03	115	2	9	<10	<20
475	3.3	5	<0.01	<0.5	4	10	158	3.15	10	1.32	10	0.16	437	13	0.03	3	650	1015	0.05	129	3	9	<10	<20
476	0.7	2	<0.01	<0.5	1	7	18	0.55	10	0.25	<10	0.04	106	3	0.01	2	50	92	<0.01	31	<1	1	<10	<20
477	0.5	7	<0.01	<0.5	<1	12	43	1.05	<10	0.15	<10	0.02	82	4	0.01	3	70	64	0.01	64	<1	<1	<10	<20
478	0.8	7	<0.01	<0.5	1	12	33	0.64	10	0.38	<10	0.05	112	3	0.02	1	60	109	0.01	49	1	2	<10	<20
479	0.7	5	<0.01	<0.5	1	12	37	0.8	<10	0.24	<10	0.04	2020	2	0.01	1	50	97	0.01	33	1	1	<10	<20
480	<0.5	98	<0.01	25.8	<1	17	593	0.75	<10	0.07	<10	0.01	2260	3	0.01	4	200	225	0.75	68	<1	4	<10	<20
481	1	81	<0.01	6.3	1	16	532	1.07	10	0.42	<10	0.06	200	6	0.01	4	150	218	0.86	133	1	<1	<10	<20
482	0.8	210	<0.01	22.4	1	20	1150	1.08	10	0.39	<10	0.05	481	12	0.01	2	10	554	1.14	209	1	<1	<10	<20
483	<0.5	12	<0.01	0.7	<1	17	163	0.34	<10	0.04	<10	<0.01	443	2	<0.01	2	10	37	0.04	25	<1	<1	<10	<20
484	<0.5	48	<0.01	19.2	<1	14	898	0.76	<10	0.13	<10	0.02	249	5	0.01	2	10	67	0.79	196	<1	<1	<10	<20
485	0.5	50	<0.01	38.2	<1	17	1420	1.03	10	0.23	<10	0.03	508	6	0.01	2	<10	48	1.42	306	<1	<1	<10	<20
486	<0.5	18	<0.01	10.5	<1	14	548	0.54	<10	0.09	<10	0.01	925	2	<0.01	2	<10	18	0.41	75	<1	<1	<10	<20
487	0.6	728	<0.01	145.5	<1	13	23100	1.91	10	0.25	<10	0.03	1800	13	0.01	1	10	193	4.83	6210	<1	<1	200	<20
488	<0.5	92	<0.01	84.6	1	15	4700	1.04	10	0.15	<10	0.02	1895	4	0.01	2	10	105	2.08	1135	<1	<1	50	<20
489	1.7	5	<0.01	<0.5	<1	20	123	1.12	10	0.83	<10	0.11	193	7	0.02	2	50	79	0.12	69	1	<1	<10	<20
490	2.7	78	<0.01	<0.5	<1	25	386	6.62	20	1.43	10	0.18	218	6	0.03	<1	520	1390	0.13	655	4	2	<10	<20
491	1.4	498	<0.01	2.6	<1	24	839	2.55	20	0.96	10	0.09	133	3	0.03	1	320	4200	0.32	523	3	5	10	<20
492	1.5	235	<0.01	0.5	1	21	248	1.97	10	0.61	10	0.08	390	5	0.01	2	100	2240	0.12	726	1	<1	10	<20
493	1.1	348	<0.01	17.4	1	14	1240	2.96	10	0.39	<10	0.06	147	1	0.01	3	140	1310	1.99	932	<1	<1	20	<20
494	<0.5	8	<0.01	<0.5	<1	11	303	4.44	<10	0.05	<10	0.01	51	3	<0.01	<1	330	484	0.07	344	<1	<1	<10	<20
495	3	4	0.03	<0.5	4	27	98	1.21	10	0.74	10	0.19	216	1	0.03	7	120	84	0.86	16	2	<1	<10	<20
496	0.7	20	<0.01	0.8	<1	15	346	2.31	<10	0.24	<10	0.03	141	2	0.01	<1	80	850	0.13	832	<1	<1	<10	<20
497	2.8	108	<0.01	3.1	<1	18	1155	6.9	20	1.23	10	0.16	1010	16	0.02	<1	550	3230	0.71	2530	2	4	20	<20
498	20.4	597	11.4	<0.5	25	23	2960	16.35	10	0.76	10	1.8	5530	<1	0.21	9	410	2	6.69	<5	4	204	<10	<20
499	0.7	46	0.02	3.3	<1	17	890	2.73	10	0.23	<10	0.03	182	4	0.01	<1	150	1650	0.39	1630	1	1	10	<20
500	2.2	17	0.01	0.7	<1	21	485	5.11	10	0.96	10	0.13	774	19	0.02	1	430	1195	0.17	867	2	2	<10	<20
501	1.9	15	<0.01	<0.5	<1	16	167	3.23	10	0.84	10	0.11	2350	3	0.01	<1	340	1010	0.05	918	2	1	10	<20
502	3.9	8	<0.01	<0.5	<1	22	319	3.83	30	1.83	10	0.26	596	9	0.03	1	80	1155	0.05	790	4	3	<10	<20
503	<0.5	97	0.12	28.1	<1	8	21100	0.41	<10	0.04	<10	<0.01	8310	4	<0.01	1	10	1135	1.41	7280	2	<1	20	<20
504	<0.5	8	0.07	1.1	<1	13	610	0.32	<10	0.04	<10	<0.01	703	2	<0.01	3	<10	133	0.07	102	<1	1	<10	<20
505	0.6	13	0.02	6.3	1	13	1150	0.5	<10	0.21	<10	0.03	771	3	0.01	2	<10	227	0.34	290	1	<1	<10	<20
506	0.8	9	0.03	4.9	<1	10	304	0.52	10	0.33	<10	0.05	405	2	0.01	2	<10	131	0.31	92	1	<1	<10	<20
507	1	23	0.03	8	1	10	1115	0.51	10	0.4	<10	0.05	2150	3	0.01	2	20	220	0.4	205	1	1	<10	<20
508	1.5	5	0.3	3.9	<1	12	33	0.83	10	0.77	10	0.08	278	10	0.58	2	80	15	0.5	<5	1	108	<10	<20
509	<0.5	75	0.02	10.3	<1	10	3980	0.88	<10	0.1	<10	0.01	1945	4	0.01	1	10	780	0.94	1095	1	1	<10	<20
510	<0.5	78	0.08	15.8	<1	12	4350	0.5	<10	0.12	<10	0.01	3120	5	<0.01	2	<10	990	0.72	1340	1	<1	<10	<20
511	0.8	96	0.02	8.5	<1	12	750	0.94	<10	0.28	<10	0.03	3640	3	0.01	2	<10	176	0.75	149	2	1	<10	<20
512	0.6	30	0.01	27.1	<1	16	256	0.76	<10	0.18	<10	0.02	121	8	0.01	1	<10	37	0.91	53	<1	1	<10	<20
513	<0.5	36	0.01	4.6	<1	13	1960	0.45	<10	0.05	<10	<0.01	5990	3	<0.01	1	<10	861	0.28	435	2	1	<10	<20
514	<0.5	26	0.01	3.5	1	15	1645	0.41	<10	0.05	<10	0.01	1390	5	<0.01	1	<10	282	0.2	353	1	1	<10	<20
515	<0.5	4	<0.01	3.6	<1	14	446	0.36	<10	0.04	<10	<0.01	624	1	<0.01	1	<10	115	0.11	83	<1	1	<10	<20
516	<0.5	6	<0.01	0.8	<1	13	116	0.32	<10	0.01	<10	<0.01	5740	<1	<0.01	1	<10	277	0.03	24	1	1	<10	<20
517	<0.5	9	0.01	1.3	1	18	365	0.39	<10	0.02	<10	<0.01	2050	1	<0.01	1	<10	153	0.07	43	1	1	<10	<20
518	<0.5	117	0.01	17.7	<1	11	9320	0.38	<10	0.06	<10	0.01	2750	4	<0.01	<1	<10	1990	0.72	3870	1	<1	10	<20
519	<0.5	248	0.02	18.1	<1	12	9390	0.39	<10	0.01	<10	<0.01	810	2	<0.01	2	<10	3030	0.7	4410	<1	<1	10	<20
520	80	739	0.33	0.8	7	36	118	3.23	20	1.51	30	0.36	1770	335	0.1	21	230	321	0.7	11	9	21	<10	<20
521	1	1395	0.26	352	1	9	38660	2.64	20	0.23	<10	0.04	4910	6	<0.01	2	10	5900	8.24	9050	<1	1	350	<20
522	0.7	56	0.01	8.3	<1	12	3610	0.3	<10	0.07	<10	<0.01	11150	2	<0.01	2	10	1270	0.37	920	4	3	10	<20
523	2.8	63	0.59	28.6	5	24	2710	2.52	20	1.64	10	0.2	1350	8	0.03	15	150	1600	2.88	958	4	13	10	<20
524	<0.5	100	0.01	13.6	<1	12	1420	0.67	<10	0.1	<10	0.01	754	4	0.01	2	10	122	0.65	210	<1	<1	<10	<20
525	0.7	7	0.05	5.4	<1	11	283	0.53	<10	0.26	<10	0.04	562	1	0.01	2	<10	121	0.27	60	<1	<1	<10	<20

ALS Chemex Assay Results

N°	Ti (%)	Ti (ppm)	U (ppm)	V (ppm)	W (ppm)	Zn (ppm)	W (ppm)	W (%)	WO3 (%)	Cu (%)	Zn (%)	Pb (%)	Ag (onz)
471	0.06	<10	10	23	970	40	0	6.81	8.588	0.019	0.004	0.175	0.170
472	0.03	<10	<10	18	330	36	0	1.4	1.766	0.013	0.004	0.095	0.138
473	0.05	<10	<10	77	690	37	0	0.07	0.088	0.024	0.004	0.037	0.032
474	0.06	<10	<10	52	1400	29	0	0.14	0.177	0.013	0.003	0.051	0.016
475	0.06	<10	<10	55	960	36	0	0.09	0.113	0.016	0.004	0.102	0.016
476	0.01	<10	<10	10	40	12	0	0.01	0.013	0.002	0.001	0.009	0.016
477	0.01	<10	<10	6	40	22	0	0.01	0.013	0.004	0.002	0.006	0.016
478	0.02	<10	<10	17	100	12	0	0.01	0.013	0.003	0.001	0.011	0.019
479	0.01	<10	<10	8	210	10	0	0.89	1.122	0.004	0.001	0.010	0.015
480	<0.01	<10	<10	3	270	7600	0	0.76	0.958	0.059	0.760	0.023	0.228
481	0.02	<10	<10	13	230	1775	0	0.02	0.025	0.053	0.178	0.022	0.206
482	0.02	<10	<10	15	1070	6550	0	0.1	0.126	0.115	0.655	0.055	0.530
483	<0.01	<10	<10	1	720	213	0	0.14	0.177	0.016	0.021	0.004	0.045
484	<0.01	<10	<10	4	440	5940	0	0.04	0.050	0.084	0.594	0.007	0.241
485	<0.01	<10	<10	9	1040	11900	0	0.1	0.126	0.142	1.190	0.005	0.347
486	<0.01	<10	<10	3	180	3110	0	0.3	0.378	0.055	0.311	0.002	0.161
487	<0.01	<10	<10	11	4630	41800	0	0.48	0.605	2.310	4.180	0.019	5.691
488	<0.01	<10	<10	6	380	23800	0	0.53	0.668	0.470	2.380	0.011	1.251
489	0.05	<10	<10	44	30	167	0	0.01	0.013	0.012	0.017	0.008	0.096
490	0.09	<10	<10	83	20	118	0	0.01	0.013	0.039	0.012	0.139	0.299
491	0.08	<10	<10	57	40	360	0	0.01	0.013	0.084	0.036	0.420	7.909
492	0.04	<10	<10	50	870	49	0	0.08	0.101	0.025	0.005	0.224	1.749
493	0.01	<10	<10	29	100	1875	0	0.01	0.013	0.124	0.188	0.131	4.501
494	<0.01	<10	<10	5	70	41	0	0.01	0.013	0.030	0.004	0.048	0.167
495	0.16	<10	<10	19	30	110	0	0.01	0.013	0.010	0.011	0.008	0.064
496	0.01	<10	<10	13	230	71	0	0.02	0.025	0.035	0.007	0.085	0.566
497	0.04	<10	<10	50	2880	263	0	0.28	0.353	0.116	0.026	0.323	3.601
498	0.13	<10	<10	35	2800	200	0	0.97	1.223	0.296	0.020	0.000	0.074
499	0.02	<10	<10	12	340	441	0	0.03	0.038	0.089	0.044	0.165	1.630
500	0.05	<10	<10	81	1870	182	0	0.18	0.227	0.049	0.018	0.120	0.309
501	0.04	<10	<10	75	1540	33	0	0.73	0.921	0.017	0.003	0.101	0.547
502	0.13	<10	<10	219	950	55	0	0.1	0.126	0.032	0.006	0.116	0.055
503	<0.01	<10	<10	2	3930	4920	0	3.21	4.048	2.110	0.492	0.114	4.983
504	<0.01	<10	<10	2	220	287	0	0.24	0.303	0.061	0.029	0.013	0.174
505	0.01	<10	<10	6	540	1635	0	0.23	0.290	0.115	0.164	0.023	0.328
506	0.01	<10	<10	9	870	1510	0	0.1	0.126	0.030	0.151	0.013	0.093
507	0.01	<10	<10	8	300	2200	0	0.73	0.921	0.112	0.220	0.022	0.260
508	0.03	<10	<10	14	310	1205	0	0.03	0.038	0.003	0.121	0.002	0.016
509	<0.01	<10	<10	2	360	2360	0	0.68	0.858	0.388	0.236	0.078	1.064
510	<0.01	<10	<10	3	430	3980	0	1.11	1.400	0.435	0.398	0.099	1.315
511	0.01	<10	<10	6	240	2500	0	1.29	1.627	0.075	0.250	0.018	0.206
512	<0.01	<10	<10	6	70	8770	0	0.01	0.013	0.026	0.877	0.004	0.071
513	<0.01	<10	<10	1	320	870	0	2.05	2.585	0.196	0.087	0.086	0.556
514	<0.01	<10	<10	1	340	679	0	0.47	0.593	0.165	0.068	0.028	0.453
515	<0.01	<10	<10	1	450	853	0	0.2	0.252	0.045	0.065	0.012	0.122
516	<0.01	<10	<10	<1	220	152	0	1.85	2.333	0.012	0.015	0.028	0.061
517	<0.01	<10	<10	1	190	256	0	0.69	0.870	0.037	0.026	0.015	0.106
518	<0.01	<10	<10	<1	4250	3460	0	0.95	1.198	0.932	0.346	0.199	2.582
519	<0.01	<10	<10	<1	2720	3170	0	0.27	0.340	0.939	0.317	0.303	4.276
520	0.39	<10	<10	43	3470	112	0	0.4	0.504	0.012	0.011	0.032	0.093
521	<0.01	<10	<10	12	2620	96300	0	1.72	2.169	3.860	0.630	0.590	8.196
522	<0.01	<10	<10	1	470	1700	0	4.01	5.057	0.361	0.170	0.127	0.778
523	0.07	<10	<10	61	3610	7650	0	0.37	0.467	0.271	0.765	0.160	0.993
524	<0.01	<10	<10	3	400	3650	0	0.24	0.303	0.142	0.365	0.012	0.383
525	0.01	<10	<10	7	990	1460	0	0.16	0.202	0.028	0.146	0.012	0.077



ALS CHEMEX BLANKS, DUPLICATES AND STANDARDS

Cuenta de SAMPLE2														
TIPO-M	CODIGO	MUESTRA	DESCRIPCION	W (%)	Cu (ppm)	Zn (ppm)	Pb (ppm)	Ag (ppm)	WO3 (%)	Cu (%)	Zn (%)	Pb (%)	Ag (onz)	Total
blanco	11	10442	muestra en blanco	0.01	35	82	22	0.5	0.01	0.004	0.008	0.002	0.016	1
	55	10443	muestra en blanco	0.01	37	87	19	0.5	0.01	0.004	0.009	0.002	0.016	1
	83	10444	blanco	0.01	45	103	19	0.5	0.01	0.005	0.010	0.002	0.016	1
	111	10445	muestra en blanco	0.01	26	75	14	0.5	0.01	0.003	0.008	0.001	0.016	1
	134	10451	muestra en blanco	0.01	44	84	21	0.5	0.01	0.004	0.008	0.002	0.016	1
	152	10453	muestra en blanco	0.01	41	83	12	0.5	0.01	0.004	0.008	0.001	0.016	1
	184	10993	muestra en blanco	0.01	39	97	18	0.5	0.01	0.004	0.010	0.002	0.016	1
	245	10373	muestra en blanco	0.01	55	105	10	0.5	0.01	0.006	0.011	0.001	0.016	1
	246	10374	muestra en blanco	0.01	37	75	13	0.5	0.01	0.004	0.008	0.001	0.016	1
	247	10375	muestra en blanco	0.01	45	78	15	0.5	0.01	0.005	0.008	0.002	0.016	1
	248	10376	muestra en blanco	0.01	34	75	19	0.5	0.01	0.003	0.008	0.002	0.016	1
	370	10440	muestra en blanco	0.01	47	95	18	0.5	0.01	0.005	0.010	0.002	0.016	1
	389	10441	muestra en blanco	0.01	62	151	18	0.5	0.01	0.006	0.015	0.002	0.016	1
	435	10471	muestra en blanco	0.01	106	87	149	1.7	0.01	0.011	0.009	0.015	0.055	1
	451	10527	muestra en blanco	0.01	63	1140	39	0.5	0.01	0.006	0.114	0.004	0.016	1
	469	10560	muestra en blanco	0.01	131	137	93	2.0	0.01	0.013	0.014	0.009	0.064	1
	495	10596	muestra en blanco	0.01	98	110	84	2.0	0.01	0.010	0.011	0.008	0.064	1
	508	10609	muestra en blanco	0.03	33	1205	15	0.5	0.04	0.003	0.121	0.002	0.016	1
blanco Total														18
dup	28	10446	duplicado de la 9792	0.08	7730	11000	3470	68.1	0.10	0.773	1.100	0.347	2.189	1
	51	10447	duplicado de la 9817	0.11	1085	9600	83	5.1	0.14	0.109	0.960	0.008	0.164	1
	71	10448	duplicado de la 9754	1.91	1545	364	869	12.4	2.41	0.155	0.036	0.087	0.399	1
	100	10449	duplicado de la 9840	3.18	379	2970	170	3.4	4.01	0.038	0.297	0.017	0.109	1
	128	10450	duplicado de la 9879	0.06	1800	623	602	18.5	0.08	0.180	0.062	0.060	0.595	1
	241	10369	duplicado de la 10192	1.22	129	193	68	0.9	1.54	0.013	0.019	0.007	0.029	1
	242	10370	duplicado de la 10152	0.30	623	1840	254	5.9	0.38	0.062	0.184	0.025	0.190	1
	243	10371	duplicado de la 10078	0.39	1530	13200	140	7.9	0.49	0.153	1.320	0.014	0.254	1
	244	10372	duplicado de la 10074	0.48	3720	8520	613	29.6	0.61	0.372	0.852	0.061	0.952	1
	369	10438	duplicado de la 10280	0.53	1010	3520	117	3.4	0.67	0.101	0.352	0.012	0.109	1
	388	10439	duplicado de la 10364	0.73	6520	21400	100	38.3	0.92	0.652	2.140	0.010	1.231	1
	521	10622	duplicado de la 10428	1.72	38600	96300	5900	255.0	2.17	3.860	9.630	0.590	8.198	1
	522	10623	duplicado de la 10506	4.01	3610	1700	1270	24.2	5.06	0.361	0.170	0.127	0.778	1
	523	10624	duplicado de la 10554	0.37	2710	7650	1600	30.9	0.47	0.271	0.765	0.160	0.993	1
	524	10625	duplicado de la 10585	0.24	1420	3650	122	11.9	0.30	0.142	0.365	0.012	0.383	1
	525	10626	duplicado de la 10607	0.16	283	1460	121	2.4	0.20	0.028	0.146	0.012		1
dup Total														16
dup-m	27	9792	qz,py,td,ox,wo3	0.10	7720	10900	3490	68.6	0.13	0.772	1.090	0.349	2.206	1
	56	9817	qz,py,td,ox,wo3	0.11	1100	9850	83	5.3	0.14	0.110	0.985	0.008	0.170	1
	84	9754	qz,py,td,ox,wo3	1.80	1565	369	901	12.7	2.27	0.157	0.037	0.090	0.408	1
	112	9840	qz,py,td,ox,wo3	3.31	344	2820	149	3.5	4.17	0.034	0.282	0.015	0.113	1
	139	9879	qz,py,td,ox,wo3	0.05	1830	630	590	19.1	0.06	0.183	0.063	0.059	0.614	1
	167	9936	qz,py,wo3	0.01	58	1185	23	0.6	0.01	0.006	0.119	0.002	0.019	1
	196	9954	qz,py,td,wo3	1.69	17400	14200	2300	98.1	2.13	1.740	1.420	0.230	3.154	1

ALS CHEMEX BLANKS, DUPLICATES AND STANDARDS

Cuenta de SAMPLE2														
TIPO-M	CODIGO	MUESTRA	DESCRIPCION	W (%)	Cu (ppm)	Zn (ppm)	Pb (ppm)	Ag (ppm)	WO3 (%)	Cu (%)	Zn (%)	Pb (%)	Ag (onz)	Total
dup-m	256	10074	qz,py,wo3	0.73	3140	7060	605	27.3	0.92	0.314	0.706	0.061	0.878	1
	261	10078	qz,py,wo3	0.51	1430	11100	124	7.8	0.64	0.143	1.110	0.012	0.251	1
	311	10192	qz,py,td,wo3	0.82	144	162	118	1.2	1.03	0.014	0.016	0.012	0.039	1
	323	10152	qz,py,td,wo3	0.30	629	932	244	5.9	0.38	0.063	0.093	0.024	0.190	1
	360	10280	qz,py,td,wo3	0.52	1635	11400	155	4.4	0.66	0.164	1.140	0.016	0.141	1
	385	10364	qz,py,td,wo3	0.42	6980	24900	145	39.2	0.53	0.698	2.490	0.015	1.260	1
	418	10428	qz,py,td,wo3	1.74	39500	114500	4340	227.0	2.19	3.950	11.450	0.434	7.298	1
	440	10506	qz,py,td,wo3	3.71	4150	2360	1145	29.4	4.68	0.415	0.236	0.115	0.945	1
	463	10554	qz,py,td,wo3	0.47	5940	7720	2370	62.2	0.59	0.594	0.772	0.237	2.000	1
	484	10585	qz,py,td,wo3	0.04	838	5940	67	7.5	0.05	0.084	0.594	0.007	0.241	1
	506	10607	qz,py,td,wo3	0.10	304	1510	131	2.9	0.13	0.030	0.151	0.013	0.093	1
dup-m Total														18
estandar	16	10454	estandar %W 1.04	0.99	3130	212	17	1.5	1.25	0.313	0.021	0.002	0.048	1
	44	10455	estandar %W 0.42	0.40	89	109	196	2.9	0.50	0.009	0.011	0.020	0.093	1
	77	10456	estandar %W 0.42	0.40	99	107	204	2.8	0.50	0.010				1
	106	10991	estandar %W 1.04	0.98	2940	208	13	1.7	1.24	0.294	0.021	0.001	0.055	1
	140	10457	estandar %W 1.04	0.98	3060	217	7	1.5	1.24	0.306	0.022	0.001	0.048	1
	168	10458	estandar %W 0.42	0.40	89	110	199	3.2	0.50	0.009	0.011	0.020	0.103	1
	191	10994	estandar %W 1.04	0.97	3080	219	11	1.6	1.22	0.308	0.022	0.001	0.051	1
	257	10990	estandar %W 0.42	0.41	93	118	202	3.1	0.52	0.009	0.012	0.020	0.100	1
	262	10459	estandar %W 1.04	0.97	3110	213	14	1.9	1.22	0.311	0.021	0.001	0.061	1
	312	10997	estandar %W 0.42	0.40	93	101	207	2.5	0.50	0.009	0.010	0.021	0.080	1
	322	10998	estandar %W 1.04	0.95	3060	207	3	1.5	1.20	0.306	0.021	0.000	0.048	1
	361	10995	estandar %W 1.04	0.96	3070	209	6	1.3	1.21	0.307	0.021	0.001	0.042	1
	386	10996	estandar %W 0.42	0.37	89	108	198	5.4	0.47	0.009	0.011	0.020	0.174	1
	423	10433	estandar %W 0.42	0.40	126	250	200	3.4	0.50	0.013	0.025	0.020	0.109	1
	450	10526	estandar %W 1.04	0.98	3210	236	5	2.0	1.24	0.321	0.024	0.001	0.064	1
	470	10561	estandar %W 0.42	0.40	93	103	191	3.1	0.50	0.009	0.010	0.019	0.100	1
	498	10599	estandar %W 1.04	0.97	2960	200	2	2.3	1.22	0.296	0.020	0.000	0.074	1
	520	10621	estandar %W 0.42	0.40	118	112	321	2.9	0.50	0.012	0.011	0.032	0.093	1
estandar Total														18
Grand Total														70

BLANKS, DUPLICATES AND STANDARDS ASSAYED BY PASTO BUENO LAB

Cuenta de Tipo-M					
Tipo-M	N°	Muestra	Descripción	WO3 %	Total
blanco	1	8098	Muestra Blanco	0.01	1
	2	8701	Muestra Blanco	0.00	1
	3	113	Muestra Blanco	0.00	1
	4	1753	Muestra Blanco	0.00	1
	5	9313	Muestra Blanco	0.01	1
	6	9483	Muestra Blanco	0.01	1
	7	9521	Muestra Blanco	0.01	1
	8	1766	Muestra Blanco	0.00	1
	9	1772	Muestra Blanco	0.00	1
	10	1800	Muestra Blanco	0.00	1
	11	8120	Muestra Blanco	0.01	1
	12	8117	Muestra Blanco	0.01	1
	13	1807	Muestra Blanco	0.00	1
	14	1818	Muestra Blanco	0.00	1
	15	10222	Muestra Blanco	0.00	1
	16	10262	Muestra Blanco	0.00	1
	17	10221	Muestra Blanco	0.01	1
	18	10285	Muestra Blanco	0.01	1
	19	10287	Muestra Blanco	0.01	1
	20	10286	Muestra Blanco	0.00	1
	21	10497	Muestra Blanco	0.01	1
	22	10575	Muestra Blanco	0.01	1
	23	10656	Muestra Blanco	0.01	1
	24	10698	Muestra Blanco	0.01	1
	25	10774	Muestra Blanco	0.01	1
	26	10791	Muestra Blanco	0.01	1
	27	10838	Muestra Blanco	0.01	1
	28	10860	Muestra Blanco	0.01	1
	29	10882	Muestra Blanco	0.00	1
	30	10925	Muestra Blanco	0.00	1
	31	11052	Muestra Blanco	0.00	1
	32	11056	Muestra Blanco	0.00	1
	33	11061	Muestra Blanco	0.01	1
	34	11104	Muestra Blanco	0.00	1
	35	11146	Muestra Blanco	0.00	1
Total blanco					35
dup	1	8126	Duplicado de la muestra 8088-izq	0.31	1
	2	8291	Duplicado de la muestra 8532-izq	0.41	1
	3	8895	Duplicado de la muestra 8822-corona	0.80	1
	4	9086	Duplicado de la muestra 9091-techo	0.24	1
	5	9234	Duplicado de la muestra 9261-corona	0.46	1
	6	9431	Duplicado de la muestra 9447-corona	1.03	1
	7	9567	Duplicado de la muestra 9524-corona	0.39	1
	8	9662	Duplicado de la muestra 9657-corona	0.64	1
	9	9966	Duplicado de la muestra 9967-techo	0.65	1
	10	8013	Duplicado de la muestra 9508	0.43	1
	11	8277	Duplicado de la muestra 9548	2.22	1
	12	8778	Duplicado de la muestra 9558	0.20	1
	13	8592	Duplicado de la muestra 08-techo	0.28	1
	14	8994	Duplicado de la muestra 9168-piso	1.05	1
	15	9012	Duplicado de la muestra 10024-techo	0.86	1
	16	9189	Duplicado de la muestra 7626-corona	2.72	1
	17	9480	Duplicado de la muestra 8026-corona	0.62	1
	18	9218	Duplicado de la muestra 3778-A	0.48	1
	19	9040	Duplicado de la muestra 3722-A	0.31	1

BLANKS, DUPLICATES AND STANDARDS ASSAYED BY PASTO BUENO LAB

Cuenta de Tipo-M					
Tipo-M	N°	Muestra	Descripción	WO3 %	Total
dup	20	9536	Duplicado de la muestra 8703-der	1.62	1
	21	9439	Duplicado de la muestra 8435-der	0.96	1
	22	9465	Duplicado de la muestra 8855-der	0.61	1
	23	9440	Duplicado de la muestra 8888-izq	0.56	1
	24	9300	Duplicado de la muestra 8339-piso	1.20	1
	25	9671	Duplicado de la muestra 215-corona	0.99	1
	26	9659	Duplicado de la muestra 8721-der	0.83	1
	27	9595	Duplicado de la muestra 7277	0.66	1
	28	9869	Duplicado de la muestra 82-piso	0.96	1
	29	9479	Duplicado de la muestra 6720	0.60	1
	30	9712	Duplicado de la muestra 9705-corona	1.83	1
	31	9173	Duplicado de la muestra 10026-corona	1.13	1
	32	9365	Duplicado de la muestra 72	0.85	1
	33	9604	Duplicado de la muestra 96-der	0.68	1
	34	1752	Duplicado de la muestra 228-der	0.72	1
	35	9860	Duplicado de la muestra 8108-corona	0.90	1
Total dup					35
dup-m	1	8088-izq	Muestra	0.34	1
	2	8532-izq	Muestra	0.40	1
	3	8822-corona	Muestra	0.86	1
	4	9091-techo	Muestra	1.04	1
	5	9261-corona	Muestra	0.48	1
	6	9447-corona	Muestra	1.01	1
	7	9524-corona	Muestra	0.33	1
	8	9657-corona	Muestra	0.65	1
	9	9967-techo	Muestra	0.66	1
	10	9508	Muestra	0.43	1
	11	9548	Muestra	2.21	1
	12	9558	Muestra	0.19	1
	13	08-techo	Muestra	0.30	1
	14	9168-piso	Muestra	1.03	1
	15	10024-techo	Muestra	0.88	1
	16	7626-corona	Muestra	2.72	1
	17	8026-corona	Muestra	0.60	1
	18	3778-A	Muestra	0.49	1
	19	3722-A	Muestra	0.32	1
	20	8703-der	Muestra	1.63	1
	21	8435-der	Muestra	0.96	1
	22	8855-der	Muestra	0.63	1
	23	8888-izq	Muestra	0.55	1
	24	8339-piso	Muestra	1.23	1
	25	215-corona	Muestra	0.97	1
	26	8721-der	Muestra	0.80	1

BLANKS, DUPLICATES AND STANDARDS ASSAYED BY PASTO BUENO LAB

Cuenta de Tipo-M					
Tipo-M	N°	Muestra	Descripción	WO3 %	Total
dup-m	27	7277	Muestra	0.68	1
	28	82-piso	Muestra	0.97	1
	29	6720	Muestra	0.58	1
	30	9705-corona	Muestra	1.81	1
	31	10026-corona	Muestra	1.14	1
	32	72	Muestra	0.84	1
	33	96-der	Muestra	0.67	1
	34	228-der	Muestra	0.71	1
	35	8108-corona	Muestra	0.91	1
Total dup-m					35
estandar	1	8089-S	Estandar 0.43%WO3	0.44	1
	2	8347-S	Estandar 0.06%WO3	0.05	1
	3	8486-S	Estandar 1.32%WO3	1.26	1
	4	236-S	Estandar 1.54%WO3	1.51	1
	5	9165-S	Estandar 0.09%WO3	0.10	1
	6	9366-S	Estandar 0.19%WO3	0.19	1
	7	9495-S	Estandar 0.09%WO3	0.10	1
	8	9615-S	Estandar 0.83%WO3	0.80	1
	9	9858-S	Estandar 1.54%WO3	1.51	1
	10	9504-S	Estandar 1.32%WO3	1.30	1
	11	9514-S	Estandar 1.54%WO3	1.53	1
	12	9555-S	Estandar 0.06%WO3	0.05	1
	13	9527-S	Estandar 0.19%WO3	0.20	1
	14	9141-S	Estandar 0.43%WO3	0.42	1
	15	9989-S	Estandar 0.83%WO3	0.72	1
	16	10132-S	Estandar 0.06%WO3	0.04	1
	17	10186-S	Estandar 0.19%WO3	0.20	1
	18	7786-S	Estandar 0.19%WO3	0.18	1
	19	9995-S	Estandar 1.32%WO3	1.32	1
	20	3758-S	Estandar 1.54%WO3	1.51	1
	21	930-S	Estandar 1.38%WO3	1.42	1
	22	3725-S	Estandar 0.06%WO3	0.06	1
	23	8337-S	Estandar 0.09%WO3	0.08	1
	24	8401-S	Estandar 0.19%WO3	0.18	1
	25	8680-S	Estandar 0.43%WO3	0.45	1
	26	8878-S	Estandar 0.43%WO3	0.46	1
	27	65-S	Estandar 1.32%WO3	1.26	1
	28	8371-S	Estandar 1.32%WO3	1.26	1
	29	213-S	Estandar 1.54%WO3	1.52	1
	30	8718-S	Estandar 0.06%WO3	0.05	1
	31	7191-S	Estandar 0.09%WO3	0.09	1
	32	4017-S	Estandar 0.83%WO3	0.90	1
	33	4006-S	Estandar 0.06%WO3	0.06	1
	34	705-S	Estandar 1.32%WO3	1.29	1
	35	540-S	Estandar 0.09%WO3	0.10	1
	36	9706-S	Estandar 0.83%WO3	0.70	1
	37	9720-S	Estandar 0.83%WO3	1.02	1
	38	7565-S	Estandar 1.54%WO3	1.51	1
	39	73-S	Estandar 0.09%WO3	0.08	1
	40	9003-S	Estandar 0.19%WO3	0.18	1
	41	100-S	Estandar 0.43%WO3	0.50	1
	42	231-S	Estandar 0.43%WO3	0.47	1
	43	8293-S	Estandar 0.83%WO3	0.85	1
Total estandar					43
Total general					148

COMPARISON OF ALS CHEMEX AND PASTO BUENO LAB DUPLICATE ASSAYS

PASTO BUENO LAB ASSAYS		ALS CHEMEX ASSAYS					
Muestra	WO3 %	Muestra	WO3 (%)	Cu (%)	Zn (%)	Pb (%)	Ag (oz)
9445-corona	0.88	9702	0.88	0.12	0.11	0.15	0.69
9448-corona	1.64	9546	1.66	1.05	0.67	1.07	7.17
9555-techo	1.54	9693	1.59	0.37	0.25	0.81	2.71
9575-techo	2.29	9544	2.51	1.13	0.54	0.43	7.81
9676-techo	0.98	9703	0.98	1.49	0.63	1.08	15.27
9699-techo	0.54	9677	0.54	0.53	0.27	0.38	3.44
9967-techo	0.66	9697	0.67	3.11	1.41	1.79	15.21
8751-corona	3.65	9549	3.61	2.27	1.02	1.97	15.66
8753-corona	4.13	9547	3.96	0.22	0.22	0.22	1.46
2488-A	0.64	10464	0.64	0.14	1.11	0.01	0.25
2495-A	1.05	9877	1.02	1.84	1.06	0.75	3.83
2497-A	1.19	10008	1.20	0.96	3.10	0.03	1.16
7301-A	0.69	9804	0.69	0.27	0.54	0.05	0.99
7330-A	2.89	10129	2.89	0.17	0.61	0.06	0.49
7333-A	1.11	10203	1.12	0.21	0.41	0.05	0.71
7347-A	0.08	9808	0.10	0.03	0.15	0.03	0.16
7350-A	0.21	10275	0.19	0.25	0.45	0.02	0.49
7346-A	4.19	9840	4.17	0.03	0.28	0.01	0.11
7370-A	2.54	9812	2.55	0.13	0.09	0.02	0.32
7374-A	0.57	9798	0.53	0.43	3.11	0.08	1.44
7391-A	2.67	9803	2.62	0.38	1.03	0.06	1.36
8839-A	0.68	10019	0.72	0.21	0.11	0.11	0.44
8840-A	0.80	10043	0.83	0.19	1.19	0.04	0.71
8865-A	1.42	10044	1.35	0.83	0.75	0.05	2.36
8887-A	1.40	9810	1.41	0.25	0.15	0.01	0.82
8903-A	3.83	9819	3.86	0.06	1.64	0.01	0.06
8937-A	3.84	10169	3.06	0.13	0.79	0.10	0.34
8943-A	0.88	10291	0.87	1.61	2.14	1.06	4.89
8326-A	2.37	10429	2.40	5.86	7.15	0.64	16.14
8332-A	2.40	10127	2.45	0.28	0.26	0.12	0.77
8173-A	0.80	10321	0.82	0.21	0.96	0.01	0.31
8175-A	0.18	10584	0.18	0.02	0.02	0.00	0.05
8190-A	1.02	10209	1.02	0.12	0.05	0.04	0.46
9762-A	1.14	9876	1.15	0.50	0.16	0.50	1.83
8230-A	0.67	10280	0.66	0.16	1.14	0.02	0.14
8232-A	0.68	9788	0.67	3.89	1.97	0.59	10.87
8249-A	0.60	9871	0.61	0.06	0.27	0.02	0.17
8250-A	0.35	10077	0.34	0.48	2.62	0.21	0.85
8361-A	0.10	10593	0.10	0.02	0.00	0.22	1.75
8371-A	0.03	10067	0.03	1.38	0.40	0.21	2.70
8385-A	0.79	10190	0.78	0.08	0.11	0.13	0.35
8815-A	0.36	9767	0.37	0.02	0.05	0.01	0.05
8396-A	1.90	10191	1.93	0.12	0.08	0.01	0.30
7639-A	1.40	10522	1.40	1.67	0.92	1.36	9.13
7640-A	1.20	9980	1.21	4.97	2.72	1.47	8.94
7655-A	1.05	10304	1.03	1.39	2.29	0.04	2.32
7659-A	0.76	9784	0.77	1.44	0.55	0.81	4.95
7464-A	1.54	10212	1.53	0.22	1.92	0.04	0.59
7465-A	1.31	10164	1.31	0.70	1.76	2.07	1.88
7488-A	1.88	9850	1.87	0.32	0.55	0.32	1.13
8159-A	0.31	9825	0.32	0.13	2.28	0.04	0.15
8171-A	0.35	10620	0.34	0.94	0.32	0.30	4.28

COMPARISON OF ALS CHEMEX AND PASTO BUENO LAB DUPLICATE ASSAYS

PASTO BUENO LAB ASSAYS		ALS CHEMEX ASSAYS					
Muestra	WO3 %	Muestra	WO3 (%)	Cu (%)	Zn (%)	Pb (%)	Ag (oz)
7461-A	2.47	9799	2.48	1.65	1.11	0.35	5.75
7463-A	2.09	9984	2.11	7.53	5.28	0.44	16.27
7465-A	1.31	10469	1.32	0.03	0.01	0.02	0.09
7488-A	3.88	9551	3.92	0.11	0.12	0.35	1.08
8303-A	0.20	9890	0.20	0.02	0.02	0.01	0.05
8326-A	2.37	10296	2.37	5.01	1.77	0.17	14.56
8357-A	3.53	10354	3.57	1.13	6.57	0.03	2.15
9492-A	1.06	10017	1.06	1.10	0.56	0.34	3.17
8024-A	0.16	9948	0.16	1.22	1.51	0.01	2.52
5921-A	3.38	9842	3.35	1.34	0.36	0.74	4.50
5959-A	2.98	10076	2.96	10.55	4.99	0.46	23.02
5972-A	3.15	9915	3.13	1.89	1.05	2.90	19.71
7422-A	2.61	9880	2.62	0.38	1.03	0.06	1.36
289-techo	1.20	10619	1.20	0.93	0.35	0.20	2.58
9144-corona	1.39	10611	1.40	0.44	0.40	0.10	1.31
9524-corona	0.33	10605	0.30	0.06	0.03	0.01	0.17
9525-corona	0.61	10615	0.59	0.16	0.07	0.03	0.45
3616-piso	0.34	9881	0.34	0.52	0.14	0.11	1.84
3619-techo	0.20	10324	0.24	0.94	1.19	0.04	1.19
3622-piso	2.28	9754	2.27	0.16	0.04	0.09	0.41
3645-techo	0.45	10283	0.40	0.37	0.98	0.09	0.51
3647-techo	2.52	9946	2.51	1.96	0.56	0.11	4.44
3650-corona	0.54	10052	0.53	0.22	0.17	0.10	0.77
10133-corona	3.04	10142	3.05	0.13	0.23	0.04	0.42
10135-corona	2.93	10240	2.95	2.37	1.34	0.59	6.17
10186-piso	2.19	10126	2.12	0.40	1.95	0.08	1.21
2044-techo	0.61	10125	0.61	0.55	3.12	0.23	1.57
2072-techo	1.54	10183	1.58	1.16	0.65	0.10	2.10
2079-techo	0.94	9802	0.93	1.49	0.77	0.60	5.34
2103-techo	4.15	10202	4.14	1.60	3.98	0.06	3.63
2107-techo	5.28	10130	5.57	0.24	0.46	0.09	0.69
2109-techo	3.86	10063	3.82	0.30	2.31	0.59	7.56
2170-techo	1.62	10128	1.65	0.26	0.43	0.05	0.93
2172-techo	4.78	10143	4.86	0.70	1.53	0.07	1.75
2345-techo	0.47	10147	0.47	0.47	2.59	0.04	1.18
8025-corona	1.47	10463	1.44	0.59	0.21	0.02	1.49
8026-corona	0.60	10464	0.63	0.08	0.12	0.02	0.21
24-corona	0.50	10465	0.47	0.02	0.18	0.00	0.07
9994-corona	1.96	10507	1.99	2.12	1.21	0.61	3.73
9997-corona	3.21	10502	2.95	0.23	1.22	0.08	0.58
10092-corona	2.24	10505	2.33	1.35	3.37	0.36	2.79
4143	1.23	9836	1.16	1.11	3.04	0.83	2.73
8368-P	0.35	9837	0.34	0.01	0.02	0.02	0.03
8366-techo	3.81	9855	3.72	0.20	0.05	0.05	0.82
215-corona	0.97	9774	0.97	7.11	2.11	2.23	14.79
229-corona	0.58	9847	0.53	0.20	0.29	0.03	0.59
9139-corona	2.00	9846	1.95	0.39	0.09	0.09	1.37
7122 der	2.03	9755	2.08	0.21	0.04	0.17	0.82
7191 der	1.40	9838	1.43	0.01	0.01	0.00	0.02
7192 izq	3.41	9797	3.42	0.54	1.63	0.03	1.33
7213	4.21	10423	4.11	1.40	7.87	0.61	3.10
7275	1.05	10192	1.03	0.01	0.02	0.01	0.04

COMPARISON OF ALS CHEMEX AND PASTO BUENO LAB DUPLICATE ASSAYS

PASTO BUENO LAB ASSAYS		ALS CHEMEX ASSAYS					
Muestra	WO3 %	Muestra	WO3 (%)	Cu (%)	Zn (%)	Pb (%)	Ag (oz)
7678	0.44	9894	0.44	1.49	0.40	0.51	2.40
982	0.57	10049	0.57	0.25	0.68	0.06	0.83
985	0.38	10242	0.39	0.32	1.21	0.02	0.51
986	0.54	10238	0.53	1.17	0.64	0.35	3.04
992	4.32	10504	4.44	5.68	4.72	0.59	9.45
1091	2.64	10204	2.66	0.70	0.65	0.06	2.04
7396-corona	0.50	10432	0.49	1.08	6.12	0.02	1.59
7398-corona	0.40	10598	0.35	0.12	0.03	0.32	3.60
7399-corona	0.28	9789	0.28	0.66	0.53	0.53	2.86
7401-corona	0.41	9950	0.42	0.24	0.26	0.07	0.61
7402-corona	0.92	10602	0.92	0.02	0.00	0.10	0.55
7327-corona	2.75	9692	2.79	4.54	3.99	6.03	28.20
7329-corona	0.78	9931	0.78	0.16	0.07	0.15	0.71
7368-corona	4.62	10506	4.68	0.42	0.24	0.11	0.95
7375-corona	0.24	10601	0.23	0.05	0.02	0.12	0.31
7376-corona	0.38	10587	0.38	0.05	0.31	0.00	0.16
81-corona	0.68	10149	0.62	0.25	0.94	0.08	0.62
82-piso	0.97	10145	0.92	0.08	0.24	0.01	0.20
9046-corona	0.34	10152	0.38	0.06	0.09	0.02	0.19
391	2.51	10271	2.36	2.79	0.76	0.64	10.00
315	2.04	10274	1.94	0.35	0.33	0.03	1.03
283	2.75	10146	2.88	0.29	1.06	0.02	0.56
254	3.47	10211	3.51	1.44	0.56	0.08	3.73
3	0.01	10148	0.01	1.05	2.42	0.14	3.00
9719-corona	0.70	10166	0.71	2.65	3.95	0.13	8.33
9720-corona	0.37	10167	0.34	2.01	2.93	0.15	5.30
10025-corona	0.91	10171	0.95	0.49	1.09	0.30	1.28
10026-corona	1.14	10173	1.10	2.03	2.93	1.19	5.47
10027-corona	0.20	10163	0.24	1.00	1.60	0.01	1.35
7565	0.57	9914	0.58	0.23	0.06	0.27	1.38
7612	1.42	10172	1.44	1.11	3.04	0.17	2.85
7880	1.07	9795	1.08	0.30	0.35	0.14	1.03
7882	1.54	10206	1.53	0.27	1.05	0.03	0.69
2	0.59	10554	0.59	0.59	0.77	0.24	2.00
72	0.84	10510	0.86	4.74	1.26	1.26	8.58
201	2.31	10617	2.33	0.01	0.02	0.03	0.06
202	1.96	9813	1.97	0.16	0.09	0.01	0.15
99-izq	0.58	9790	0.59	0.01	0.04	0.00	0.04
100-der	0.66	9887	0.67	0.86	0.55	0.35	2.27
101-izq	1.10	10013	1.08	0.08	0.05	0.02	0.29
161-der	0.68	10176	0.68	0.46	0.98	0.12	1.01
226-der	0.71	9926	0.71	0.65	0.15	0.16	2.49

Average Grade	1.5204		1.5154	1.01	1.16	0.33	3.13
Standard Deviation	1.235298513		1.233561259				

Appendix C

Assay Certificates (Leduc & Parkinson, 2006)

Appendix C

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SGS Assay Results (8 sheets)	2



ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

ALS Peru S.A.
Calle 1 LT-1A Mz-D, esq. Calle A
Urb. Industrial Bocanegra Callao 01
Lima
Phone: +51 (1) 574 5700 Fax: +51 (1) 574 0721 www.alschemex.com

To: VECTOR PERÚ S.A.C.
CALLE JORGE VANDERGHEN 234
MIRAFLORES LIMA 18

Page: 1
Finalized Date: 22-AUG-2005
This copy reported on 1-SEP-2005
Account: VCTRPR

CERTIFICATE LI05065890		
Project: PASTO BUENO P.O. No.: This report is for 17 Rock samples submitted to our lab in Lima, Peru on 10-AUG-2005. The following have access to data associated with this certificate: MARC LEDUC		
SAMPLE PREPARATION		
ALS CODE	DESCRIPTION	
WEI-21	Received Sample Weight	
PUL-31	Pulverize split to 85% <75 um	
SPL-21	Split sample - riffle splitter	
CRU-31	Fine crushing - 70% <2mm	
LOG-22	Sample login - Rcd w/o BarCode	
ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Cu-AA62b	Ore grade Cu - four acid /AAS h	AAS
Ag-AA63p	Ag Multi-Acid Dig - Basic DLs h	AAS
Ag-AA62b	Ag Ore grade - four acid /AAS h	AAS
Pb-AA63p	Pb Multi-Acid Dig - Basic DLs h	AAS
Pb-AA62b	Ore grade Pb - four acid /AAS h	AAS
Zn-AA63p	Zn Multi-Acid Dig - Basic DLs h	AAS
Zn-AA62b	Ore grade Zn - four acid /AAS h	AAS
As-AA63p	As Multi-Acid Dig - Basic DLs h	AAS
Sb-AA63p	Sb Multi-Acid Dig - Basic DLs h	AAS
ME-XRF10	Fusion XRF - Ore Grade	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM
Au-AA23	Au 30g FA-AA finish	AAS

To: VECTOR PERÚ S.A.C.
ATTN: MARC LEDUC
CALLE JORGE VANDERGHEN 234
MIRAFLORES LIMA 18

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:



ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

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To: VECTOR PERÚ S.A.C.
CALLE JORGE VANDERGHEN 234
MIRAFLORES LIMA 18

Page: 2 - A
Total # Pages: 2 (A)
Finalized Date: 22-AUG-2005
Account: VCTRPR

Project: PASTO BUENO

CERTIFICATE OF ANALYSIS LI05065890												
Sample Description	Method Analyte Units LOR	WEI-21	Au-AA23	Cu-AA62b	Ag-AA63p	Ag-AA62b	Pb-AA63p	Pb-AA62b	Zn-AA63p	Zn-AA62b	As-AA63p	ME-XRF10
		Reced Wt.	Au	Cu	Ag	Ag	Pb	Pb	Zn	Zn	As	Wt
		kg	ppm	%	ppm	ppm	ppm	%	ppm	%	ppm	%
VB-406		0.02	0.005	0.01	1	1	5	0.01	5	0.01	5	0.01
VA-405		4.33	0.007	1.39	77		1080		6690		4060	>1000 5.45
VB-404		4.31	<0.005	0.53	36		424		2250		1240	>1000 12.05
VB-403		6.91	0.024	1.72	59		1110		>10000	1.56	3440	>1000 12.75
VB-401A		5.59	0.018	1.16	98		2320		2800		1790	>1000 21.6
		5.26	0.014	2.43	24		8160		>10000	1.07	3370	>1000 5.67
VB-401B		3.72	0.008	0.13	15		361		>10000	1.74	209	354 1.22
VB-400		3.03	<0.005	0.10	12		347		1115		430	396 2.67
VECTOR 1		5.19	0.009	0.20	21		451		>10000	2.31	360	614 0.64
VB-070		6.60	0.011	0.68	67		3070		2790		957	>1000 18.50
VA-190		5.90	0.037	2.44	>100	166	>10000	1.22	>10000	2.23	2120	>1000 7.80
VB-407A		4.38	0.010	0.34	56		821		7200		686	654 11.85
VB-078		3.05	0.019	0.61	39		229		>10000	1.50	2430	>1000 4.09
VB-246S		5.52	0.007	4.78	42		4170		>10000	1.26	>10000	>1000 11.55
VB-140		6.48	0.029	8.61	64		>10000	2.80	>10000	7.37	>10000	>1000 5.91
VB-407C		4.66	0.008	0.83	77		5130		>10000	1.33	2520	>1000 0.46
VB-407D		4.42	<0.005	0.56	37		1880		3460		2030	>1000 2.78
VECTOR 2		2.04	<0.005	0.01	1		38		114		49	10 <0.01

SGS

LABORATORIOS

SEGUNDO ORIGINAL

INFORME DE ENSAYO

GQ53810

A SOLICITUD DE	DYNACOR EXPLORACIONES DEL PERU S.A.
POR CUENTA DE	Malecón de la Marina 644, Miraflores
ASUNTO	DYNACOR EXPLORACIONES DEL PERU S.A.
PRODUCTO	Malecón de la Marina 644, Miraflores
CANTIDAD DE MUESTRAS	ANALISIS QUIMICO
LUGAR Y FECHA DE RECEPCION	Muestras Exploratorias
CARACTERISTICAS Y CONDICIONES	432
RECEPCION DE LAS MUESTRAS	CALLAO 24/11/05
REFERENCIA DEL CLIENTE	En bolsas de plástico amarradas
FECHA DE REALIZADO EL ENSAYO	Granulometría hasta 3 pulg aprox.
	Peso aprox. de 1 a 6 kilos.
	SOLICITUD 17-10-05
	Callao, 25/11/05 al 12/12/05

METODOS DE ENSAYO:

Esquema

AA_TO4

GQ_FU1

ICMS90

Método/Título

SGS-MN-ME-106 / Abril.2002 Rev.02 / Muestras Menas: Digestión Multiácida - Absorción Atómica

SGS-MN-ME-111 / Abril.2002 Rev.01 / Minerales y Residuos: Fusión con Peróxido de Sodio-ICP

Method ICMS90 Na2O2 Fusion ICP + ICPMS

Pasado el plazo de almacenamiento de 90 días para Remanentes o Pulpas y 30 días para Rechazos o Gruesas, se procederá a descartar las muestras. Favor no considerar esta información si se presentaran instrucciones al inicio del servicio"

"Los análisis de ICMS90 se realizaron en Laboratorio Subcontratado (SGS Canada Inc)"

Emitido en Callao-Perú, el 12/12/05


Cecilia Zuloaga
Jefe Dpto. Inorgánico

Los ensayos han sido realizados en: SGS del Perú S.A.C. - División Laboratorio - Av. Elmer Faucett No 3348, Fundo Bocanegra, Callao - Tel:(51-1) 484-0833/(51-1) 484-0855 / Fax:(51-1) 574-1600

Los resultados de los ensayos no deben ser utilizados como una certificación de conformidad con normas de producto o una certificación del sistema de Calidad de la entidad que lo produce



Informe de Ensayo: GQ53810

Fecha: 12/12/05

Final

Elemento	Cu	Cu	Pb	Pb	Zn	Zn	W	W
Método	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	GQ_FU1
Límite Detección	0.001	0.01	0.001	0.01	0.001	0.01	0.0001	0.01
Unidades	%	%	%	%	%	%	%	%
CW- 1 Consuelo-12	0.179	---	0.095	---	>1.00	3.06	0.732	---
CW- 2 Consuelo-12	0.235	---	0.097	---	>1.00	3.13	0.647	---
CW- 3 Consuelo-12	0.273	---	0.312	---	0.742	---	>1.00	3.84
CW- 4 Consuelo-12	0.202	---	0.046	---	0.682	---	0.276	---
CW- 5 Consuelo-12	0.114	---	0.039	---	0.141	---	0.409	---
CW- 6 Consuelo-12	0.139	---	0.050	---	>1.00	1.03	0.319	---
CW- 7 Consuelo-12	0.080	---	0.039	---	0.199	---	0.303	---
CW- 8 Consuelo-12	0.062	---	0.020	---	>1.00	3.64	>1.00	1.08
CW- 9 Consuelo-12	0.120	---	0.046	---	0.226	---	0.524	---
CW-10 Consuelo-12	0.023	---	0.012	---	>1.00	1.30	0.492	---
CW-11 Consuelo-12	0.050	---	0.039	---	>1.00	1.07	0.227	---
CW-12 Consuelo-12	0.065	---	0.040	---	0.141	---	0.195	---
CW-13 Consuelo-12	0.097	---	0.039	---	0.186	---	0.433	---
CW-14 Consuelo-12	0.097	---	0.033	---	0.395	---	0.257	---
CW-15 Consuelo-12	0.028	---	0.010	---	0.078	---	0.416	---
CW-16 Consuelo-12	0.086	---	0.019	---	0.397	---	0.198	---
CW-17 Consuelo-12	0.057	---	0.029	---	0.973	---	0.395	---
CW-18 Consuelo-12	0.415	---	0.096	---	>1.00	2.54	0.904	---
CW-19 Consuelo-12	0.100	---	0.050	---	>1.00	3.82	0.207	---
CW-20 Consuelo-12	0.102	---	0.073	---	>1.00	3.28	>1.00	2.03
CW-21 Consuelo-12	0.160	---	0.080	---	>1.00	3.78	>1.00	1.21
CW-22 Consuelo-12	0.365	---	0.184	---	0.414	---	>1.00	3.13
CW-23 Consuelo-12	0.286	---	0.202	---	>1.00	2.59	0.825	---
CW-24 Consuelo-12	0.520	---	0.114	---	>1.00	1.24	>1.00	1.41
CW-25 Consuelo-12	0.265	---	0.093	---	0.332	---	>1.00	2.67
CW-26 Consuelo-12	0.424	---	0.150	---	0.962	---	>1.00	1.27
CW-27 Consuelo-12	0.128	---	0.107	---	0.553	---	>1.00	2.51
CW-28 Consuelo-12	0.302	---	0.124	---	0.488	---	>1.00	3.56
CW-29 Consuelo-12	0.286	---	0.100	---	0.397	---	>1.00	2.25
CW-30 Consuelo-12	0.215	---	0.065	---	0.547	---	>1.00	1.01
CW-31 Consuelo-12	0.282	---	0.129	---	>1.00	1.39	>1.00	2.57
CW-32 Consuelo-12	0.750	---	0.084	---	0.870	---	>1.00	1.88
CW-33 Consuelo-12	0.348	---	0.142	---	0.374	---	>1.00	3.79
CW-34 Consuelo-12	0.132	---	0.061	---	0.141	---	>1.00	1.72
CW-35 Consuelo-12	0.612	---	0.139	---	0.877	---	>1.00	3.85
CW-36 Consuelo-12	0.298	---	0.113	---	>1.00	2.87	>1.00	4.97
CW-37 Consuelo-12	0.719	---	0.338	---	0.472	---	>1.00	2.24
CW-38 Consuelo-12	0.387	---	0.084	---	0.325	---	>1.00	3.39
CW-39 Consuelo-12	0.378	---	0.091	---	>1.00	1.01	>1.00	2.90
CW-40 Consuelo-12	0.416	---	0.065	---	>1.00	1.11	>1.00	1.46
CW-41 Consuelo-12	0.161	---	0.030	---	0.379	---	>1.00	2.28
CW-42 Consuelo-12	0.105	---	0.064	---	0.301	---	>1.00	1.29
CW-43 Consuelo-12	0.071	---	0.037	---	0.088	---	0.88	---
CW-44 Consuelo-12	0.102	---	0.042	---	0.390	---	>1.00	1.48
CW-45 Consuelo-12	0.052	---	0.029	---	0.939	---	>1.00	1.17
CW-46 Consuelo-12	0.110	---	0.037	---	>1.00	1.26	>1.00	1.62
CW-47 Consuelo-12	0.026	---	0.004	---	>1.00	1.18	>1.00	1.13
CW-48 Consuelo-12	0.048	---	0.017	---	0.103	---	>1.00	1.04
CW-49 Consuelo-12	0.095	---	0.097	---	0.203	---	0.578	---
CW-50 Consuelo-12	0.076	---	0.021	---	0.477	---	0.52	---
CW-51 Consuelo-12	0.215	---	0.029	---	>1.00	1.18	0.536	---
CW-52 Consuelo-12	0.162	---	0.038	---	0.978	---	>1.00	1.01
CW-53 Consuelo-12	0.155	---	0.056	---	0.348	---	0.892	---
CW-54 Consuelo-12	0.075	---	0.045	---	0.362	---	0.842	---
CW-55 Consuelo-12	0.452	---	0.047	---	0.635	---	>1.00	5.17
CW-56 Consuelo-12	0.087	---	0.062	---	>1.00	1.01	>1.00	1.46
CW-57 Consuelo-12	0.245	---	0.175	---	0.393	---	>1.00	1.57



Informe de Ensayo: GQ53810

Fecha: 12/12/05

Final

Elemento	Cu	Cu	Pb	Pb	Zn	Zn	W	W
Método	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	GQ_FU1
Límite Detección	0.001	0.01	0.001	0.01	0.001	0.01	0.0001	0.01
Unidades	%	%	%	%	%	%	%	%
CW-58 Consuelo-12	0.047	---	0.015	---	0.622	---	0.592	---
CW-59 Consuelo-12	0.126	---	0.043	---	>1.00	3.69	0.826	---
CW-60 Consuelo-12	0.090	---	0.018	---	>1.00	3.01	>1.00	1.12
CW-61 Consuelo-12	0.258	---	0.131	---	0.402	---	>1.00	1.80
CW-62 Consuelo-12	0.321	---	0.143	---	0.758	---	0.842	---
CW-63 Consuelo-12	0.264	---	0.073	---	0.202	---	>1.00	2.88
CW-64 Consuelo-12	0.092	---	0.032	---	0.140	---	>1.00	1.13
CW-65 Consuelo-12	0.123	---	0.071	---	0.127	---	0.827	---
CW-66 Consuelo-12	0.209	---	0.098	---	0.227	---	>1.00	2.58
CW-67 Consuelo-12	0.149	---	0.073	---	0.596	---	>1.00	2.80
CW-68 Consuelo-12	0.061	---	0.024	---	0.127	---	>1.00	1.02
CW-69 Consuelo-12	0.183	---	0.031	---	0.181	---	>1.00	2.09
CW-70 Consuelo-12	0.231	---	0.144	---	0.742	---	>1.00	3.01
CW-71 Consuelo-12	0.104	---	0.022	---	0.432	---	>1.00	2.08
CW-72 Consuelo-12	0.347	---	0.057	---	0.171	---	0.943	---
CW-73 Consuelo-12	0.080	---	0.038	---	0.083	---	0.706	---
CW-74 Consuelo-12	0.072	---	0.020	---	0.155	---	>1.00	1.17
CW-75 Consuelo-12	0.311	---	0.062	---	0.314	---	>1.00	2.68
CW-76 Consuelo-12	0.547	---	0.129	---	0.463	---	>1.00	3.29
CW-77 Consuelo-12	0.052	---	0.081	---	0.068	---	>1.00	2.46
CW-78 Consuelo-12	0.179	---	0.214	---	0.168	---	>1.00	3.75
CW-79 Consuelo-12	0.216	---	0.084	---	0.167	---	>1.00	2.45
CW-80 Consuelo-12	0.165	---	0.108	---	0.208	---	>1.00	1.63
CW-81 Consuelo-12	0.234	---	0.060	---	0.309	---	>1.00	3.52
CW-82 Consuelo-12	0.146	---	0.019	---	0.154	---	>1.00	1.97
CW-83 Consuelo-12	0.323	---	0.152	---	0.314	---	>1.00	3.05
CW-84 Consuelo-12	0.325	---	0.031	---	0.517	---	0.824	---
CW-85 Consuelo-12	0.048	---	0.025	---	0.321	---	>1.00	1.33
CW- 86 Consuelo-12	0.268	---	0.042	---	0.178	---	>1.00	1.74
CW- 87 Consuelo-12	0.248	---	0.050	---	0.116	---	0.806	---
CW- 88 Consuelo-12	0.058	---	0.016	---	0.356	---	0.865	---
CW- 89 Consuelo-12	0.065	---	0.042	---	0.074	---	>1.00	1.49
CW- 90 Consuelo-12	0.176	---	0.032	---	0.338	---	>1.00	1.61
CW- 91 Consuelo-12	0.265	---	0.086	---	>1.00	2.58	0.687	---
CW- 92 Consuelo-12	0.232	---	0.052	---	0.185	---	>1.00	2.10
CW- 93 Consuelo-12	0.021	---	0.005	---	0.167	---	0.577	---
CW- 94 Consuelo-12	0.250	---	0.061	---	0.243	---	>1.00	2.30
CW- 95 Consuelo-12	0.127	---	0.055	---	>1.00	2.01	>1.00	2.17
CW- 96 Consuelo-12	0.289	---	0.025	---	0.187	---	0.741	---
CW- 97 Consuelo-12	0.230	---	0.047	---	0.311	---	>1.00	3.39
CW- 98 Consuelo-12	0.168	---	0.068	---	0.294	---	>1.00	2.75
CW- 99 Consuelo-12	0.427	---	0.122	---	0.531	---	>1.00	5.09
CW-100 Consuelo-12	0.326	---	0.119	---	0.376	---	>1.00	3.39
CW-101 Consuelo-12	>1.00	1.33	0.846	---	0.570	---	>1.00	1.84
CW-102 Consuelo-12	0.211	---	0.053	---	0.180	---	>1.00	1.36
CW-103 Consuelo-12	>1.00	1.79	0.323	---	>1.00	3.27	>1.00	1.94
CW-104 Consuelo-12	0.056	---	0.048	---	0.249	---	>1.00	1.17
CW-105 Consuelo-12	0.131	---	0.057	---	0.327	---	>1.00	3.25
CW-106 Consuelo-12	0.533	---	0.332	---	0.492	---	>1.00	3.10
CW-107 Consuelo-12	0.147	---	0.079	---	0.108	---	0.553	---
CW-108 Consuelo-12	0.267	---	0.093	---	0.121	---	>1.00	1.30
CW-109 Consuelo-12	0.284	---	0.067	---	>1.00	2.10	>1.00	1.84
CW-110 Consuelo-12	0.095	---	0.040	---	0.493	---	>1.00	1.54
M- 1 Consuelo-12	0.589	---	0.191	---	0.377	---	>1.00	1.77
M- 2 Consuelo-12	0.368	---	0.120	---	0.248	---	>1.00	2.57
M- 3 Consuelo-12	0.698	---	0.220	---	0.350	---	>1.00	2.45
M- 4 Consuelo-12	0.231	---	0.068	---	0.280	---	>1.00	2.60



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Elemento	Cu	Cu	Pb	Pb	Zn	Zn	W	W
Método	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	GQ_FU1
Límite Detección	0.001	0.01	0.001	0.01	0.001	0.01	0.0001	0.01
Unidades	%	%	%	%	%	%	%	%
M- 5 Consuelo-12	0.404	---	0.130	---	0.423	---	>1.00	2.42
M- 6 Consuelo-12	0.490	---	0.086	---	0.443	---	>1.00	2.90
M- 7 Consuelo-12	0.548	---	0.174	---	0.321	---	>1.00	2.12
M- 8 Consuelo-12	0.725	---	0.240	---	0.562	---	>1.00	3.43
M- 9 Consuelo-12	0.253	---	0.067	---	0.270	---	>1.00	1.60
M-10 Consuelo-12	0.121	---	0.093	---	0.186	---	0.827	---
M-11 Consuelo-12	0.304	---	0.104	---	0.388	---	>1.00	1.67
M-12 Consuelo-12	0.162	---	0.047	---	0.209	---	>1.00	1.61
M-13 Consuelo-12	0.141	---	0.022	---	0.194	---	>1.00	1.78
M-14 Consuelo-12	0.870	---	0.297	---	0.346	---	>1.00	3.37
M-15 Consuelo-12	0.847	---	0.359	---	>1.00	1.27	>1.00	1.62
M-16 Consuelo-12	0.342	---	0.075	---	0.196	---	>1.00	2.45
M-17 Consuelo-12	0.281	---	0.102	---	0.210	---	>1.00	2.48
M-18 Consuelo-11	0.546	---	0.278	---	0.362	---	>1.00	1.77
M-19 Consuelo-11	0.458	---	0.121	---	0.420	---	>1.00	1.71
M-20 Consuelo-11	0.774	---	0.636	---	0.620	---	>1.00	1.74
M-21 Consuelo-11	0.278	---	0.175	---	0.330	---	>1.00	2.43
M-22 Consuelo-11	0.600	---	0.257	---	0.540	---	>1.00	2.36
M-23 Consuelo-11	0.654	---	0.285	---	0.346	---	>1.00	1.75
M-24 Consuelo-11	0.603	---	0.190	---	0.451	---	>1.00	1.65
M-25 Consuelo-11	0.752	---	0.477	---	0.324	---	>1.00	2.10
M-26 Consuelo-11	0.304	---	0.074	---	0.341	---	>1.00	2.13
M-27 Consuelo-11	0.155	---	0.042	---	0.150	---	0.797	---
M-28 Consuelo-11	0.131	---	0.038	---	0.114	---	>1.00	1.35
M-29 Consuelo-11	0.404	---	0.177	---	0.390	---	>1.00	2.58
M-30 Consuelo-11	0.615	---	0.295	---	0.339	---	>1.00	3.49
M-31 Consuelo-11	0.745	---	0.287	---	0.918	---	>1.00	1.53
M-32 Consuelo-11	0.388	---	0.115	---	0.605	---	>1.00	2.00
M-33 Consuelo-11	0.213	---	0.054	---	0.525	---	>1.00	2.62
M-34 Consuelo-11	0.489	---	0.136	---	0.516	---	>1.00	1.21
M-35 Consuelo-11	0.239	---	0.061	---	0.214	---	>1.00	1.99
M-36 Consuelo-11	0.412	---	0.318	---	>1.00	1.13	>1.00	3.48
M-37 Consuelo-11	0.100	---	0.059	---	0.137	---	>1.00	2.29
M-38 Consuelo-11	0.202	---	0.100	---	0.154	---	>1.00	2.31
M-39 Consuelo-11	0.168	---	0.095	---	0.167	---	>1.00	3.44
M-40 Consuelo-11	0.239	---	0.124	---	0.652	---	>1.00	2.84
M-41 Consuelo-11	0.354	---	0.123	---	0.478	---	>1.00	2.98
M-42 Consuelo-11	0.272	---	0.118	---	>1.00	1.15	>1.00	2.18
M-43 Consuelo-11	0.321	---	0.091	---	0.595	---	>1.00	3.29
M-44 Consuelo-11	0.589	---	0.116	---	0.295	---	>1.00	2.85
M-45 Consuelo-11	0.288	---	0.080	---	0.208	---	>1.00	3.44
M-46 Consuelo-11	0.414	---	0.145	---	0.390	---	>1.00	2.51
M-47 Consuelo-11	0.276	---	0.060	---	0.648	---	>1.00	2.50
M-48 Consuelo-11	0.252	---	0.069	---	0.532	---	>1.00	3.83
M-49 Consuelo-11	0.499	---	0.123	---	0.640	---	>1.00	2.96
M-50 Consuelo-11	0.233	---	0.107	---	0.526	---	>1.00	2.45
M-51 Consuelo-11	0.494	---	0.138	---	0.625	---	>1.00	4.05
M-52 Consuelo-11	0.364	---	0.102	---	0.562	---	>1.00	4.25
M-53 Consuelo-11	0.240	---	0.062	---	>1.00	1.08	>1.00	3.44
M-54 Consuelo-10	0.243	---	0.060	---	0.459	---	>1.00	3.06
M-55 Consuelo-10	0.455	---	0.164	---	0.595	---	>1.00	4.12
M-56 Consuelo-10	>1.00	2.77	0.913	---	>1.00	1.06	>1.00	2.49
M-57 Consuelo-10	0.871	---	0.527	---	0.390	---	>1.00	3.39
M-58 Consuelo-10	0.602	---	0.179	---	0.387	---	>1.00	3.88
M-59 Consuelo-10	0.548	---	0.336	---	0.463	---	>1.00	2.66
M-60 Consuelo-10	0.489	---	0.175	---	0.605	---	>1.00	3.60
M-61 Consuelo-10	0.346	---	0.131	---	0.449	---	>1.00	2.31



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Elemento	Cu	Cu	Pb	Pb	Zn	Zn	W	W
Método	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	GQ_FU1
Límite Detección	0.001	0.01	0.001	0.01	0.001	0.01	0.0001	0.01
Unidades	%	%	%	%	%	%	%	%
M-62 Consuelo-10	0.717	---	0.163	---	0.654	---	>1.00	4.58
M-63 Consuelo-10	0.301	---	0.168	---	0.369	---	>1.00	2.89
M-64 Consuelo-10	0.516	---	0.187	---	0.365	---	>1.00	1.68
M-65 Consuelo-10	0.786	---	0.298	---	0.899	---	>1.00	2.32
M-66 Consuelo-10	0.586	---	0.187	---	0.955	---	>1.00	3.46
M-67 Consuelo-10	0.308	---	0.077	---	0.125	---	>1.00	1.95
M-68 Consuelo-10	0.301	---	0.154	---	>1.00	3.94	>1.00	2.40
M-69 Consuelo-10	0.724	---	0.300	---	>1.00	1.28	>1.00	2.09
M-70 Consuelo-10	0.335	---	0.089	---	0.122	---	>1.00	1.36
Consuelo- 1	0.017	---	0.020	---	0.263	---	0.0068	---
Consuelo- 2	0.014	---	0.005	---	0.026	---	0.0034	---
Consuelo- 3	0.032	---	0.025	---	>1.00	1.88	0.0025	---
Consuelo- 4	0.016	---	0.007	---	0.231	---	0.0052	---
Consuelo- 5	0.023	---	0.009	---	0.922	---	0.0028	---
Consuelo- 6	0.003	---	0.002	---	0.010	---	0.0071	---
Consuelo- 7	0.257	---	0.119	---	0.418	---	0.274	---
Consuelo- 8	0.542	---	0.401	---	>1.00	1.50	0.042	---
Consuelo- 9	0.776	---	0.321	---	0.856	---	0.0859	---
Consuelo-10	>1.00	1.13	0.374	---	0.756	---	0.321	---
Consuelo-11	0.464	---	0.137	---	>1.00	3.63	0.349	---
Consuelo-12	>1.00	3.23	0.738	---	>1.00	3.26	>1.00	2.02
Consuelo-13	0.251	---	0.055	---	>1.00	1.83	0.037	---
Consuelo-14	0.714	---	0.317	---	0.603	---	0.126	---
CH-245-M-1 Alonso-12	0.047	---	0.011	---	0.052	---	0.0613	---
CH-245-M-2 Alonso-12	>1.00	2.45	0.995	---	0.713	---	0.6	---
CH-245-M-3 Alonso-12	0.557	---	0.091	---	0.905	---	0.807	---
CH-245-M-4 Alonso-12	>1.00	3.35	0.800	---	0.626	---	0.105	---
CH-245-M-5 Alonso-12	>1.00	1.71	>1.00	1.42	>1.00	4.20	0.306	---
CH-245-M-6 Alonso-12	>1.00	3.93	0.100	---	>1.00	8.33	0.336	---
CH-245-M-7 Alonso-12	>1.00	1.23	0.073	---	>1.00	3.17	0.0062	---
CH-245-M-8 Alonso-12	0.391	---	0.068	---	>1.00	1.36	0.266	---
CH-245-M-9 Alonso-12	0.890	---	0.345	---	0.357	---	0.948	---
H-245-M-10 Alonso-12	0.045	---	0.015	---	0.091	---	0.0059	---
I-228-M-11 Alonso-12	0.290	---	0.042	---	>1.00	5.33	0.0752	---
I-228-M-12 Alonso-12	0.472	---	0.154	---	0.413	---	0.0166	---
I-228-M-13 Alonso-12	>1.00	3.71	>1.00	1.49	0.744	---	0.919	---
I-228-M-14 Alonso-12	>1.00	1.08	0.279	---	0.744	---	0.0234	---
I-228-M-15 Alonso-12	>1.00	5.52	>1.00	2.31	>1.00	1.32	0.0984	---
I-228-M-16 Alonso-12	0.106	---	0.032	---	0.196	---	0.0026	---
I-228-M-17 Alonso-12	0.628	---	0.236	---	0.581	---	0.982	---
I-228-M-18 Alonso-12	0.570	---	0.115	---	>1.00	1.01	0.008	---
I-228-M-19 Alonso-12	0.282	---	0.148	---	0.288	---	0.17	---
I-228-M-20 Alonso-12	>1.00	4.58	>1.00	1.44	>1.00	2.59	>1.00	15.07
I-228-M-21 Alonso-12	0.198	---	0.041	---	>1.00	4.80	0.167	---
I-228-M-22 Alonso-12	>1.00	3.98	0.500	---	>1.00	2.29	0.636	---
o-190-M-23 Alonso-12	>1.00	2.95	0.727	---	>1.00	1.81	>1.00	3.24
o-190-M-24 Alonso-12	0.558	---	0.070	---	0.685	---	0.534	---
o-190-M-25 Alonso-12	0.337	---	0.217	---	0.233	---	0.0899	---
o-190-M-26 Alonso-12	0.324	---	0.109	---	0.255	---	0.11	---
o-190-M-27 Alonso-12	0.623	---	0.093	---	0.787	---	0.626	---
o-190-M-28 Alonso-12	0.288	---	0.109	---	0.394	---	0.381	---
o-190-M-29 Alonso-12	0.665	---	0.105	---	>1.00	1.31	0.475	---
o-190-M-30 Alonso-12	0.615	---	0.133	---	>1.00	3.22	0.525	---
o-190-M-31 Alonso-12	0.072	---	0.012	---	>1.00	1.03	>1.00	1.25
o-190-M-32 Alonso-12	0.650	---	0.090	---	>1.00	6.31	0.208	---
o-190-M-33 Alonso-12	0.105	---	0.022	---	>1.00	1.14	0.0264	---
o-190-M-34 Alonso-12	0.643	---	0.415	---	>1.00	1.11	0.0621	---



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Elemento	Cu		Pb		Zn		W	
Método	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	GQ_FU1
Límite Detección	0.001	0.01	0.001	0.01	0.001	0.01	0.0001	0.01
Unidades	%	%	%	%	%	%	%	%
o-190-M-35 Alonso-12	0.105	—	0.053	—	0.290	—	0.569	—
o-190-M-36 Alonso-12	0.270	—	0.138	—	0.856	—	0.218	—
o-190-M-37 Alonso-12	0.609	—	0.168	—	0.396	—	>1.00	4.08
o-190-M-38 Alonso-12	0.230	—	0.440	—	0.309	—	>1.00	1.70
Alonso- 1	0.285	—	0.051	—	0.239	—	0.964	—
Alonso- 2	0.807	—	0.165	—	0.682	—	>1.00	1.99
Alonso- 3	>1.00	1.70	0.115	—	>1.00	4.05	0.846	—
Alonso- 4	0.286	—	0.124	—	>1.00	1.64	>1.00	8.41
Alonso- 5	>1.00	4.07	>1.00	2.32	>1.00	1.46	>1.00	4.35
Alonso- 6	0.243	—	0.070	—	0.457	—	0.297	—
Alonso- 7	0.162	—	0.446	—	0.382	—	0.933	—
Alonso- 8	0.206	—	0.099	—	0.252	—	0.58	—
Alonso- 9	0.107	—	0.037	—	0.177	—	>1.00	1.31
Alonso-10	0.513	—	0.119	—	0.243	—	>1.00	1.32
Alonso-11	0.622	—	0.036	—	0.856	—	>1.00	1.54
Alonso- 12	0.335	—	0.238	—	0.182	—	>1.00	2.56
Alonso- 13	0.138	—	0.021	—	0.087	—	>1.00	1.03
Alonso- 14	0.205	—	0.061	—	0.182	—	0.794	—
Alonso- 15	0.266	—	0.094	—	0.273	—	>1.00	1.11
Alonso- 16	0.032	—	0.015	—	0.031	—	>1.00	1.39
Alonso- 17	>1.00	1.47	>1.00	1.21	0.697	—	0.667	—
Alonso- 18	>1.00	1.53	0.766	—	>1.00	1.17	>1.00	1.35
Alonso- 19	0.821	—	0.418	—	>1.00	6.07	0.594	—
Alonso- 20	0.434	—	0.110	—	0.780	—	>1.00	2.06
Alonso- 21	0.468	—	0.115	—	0.403	—	0.723	—
Alonso- 22	0.402	—	0.092	—	>1.00	1.03	0.718	—
Alonso- 23	>1.00	1.65	>1.00	1.14	0.865	—	>1.00	2.11
Alonso- 24	0.472	—	0.058	—	0.866	—	0.991	—
Alonso- 25	0.598	—	0.117	—	0.385	—	0.666	—
Alonso- 26	0.071	—	0.037	—	0.048	—	>1.00	2.13
Alonso- 27	0.088	—	0.222	—	0.085	—	0.865	—
Alonso- 28	0.201	—	0.069	—	0.090	—	0.738	—
Alonso- 29	>1.00	1.33	0.618	—	0.563	—	0.628	—
Alonso- 30	0.991	—	0.285	—	0.234	—	0.568	—
Alonso- 31	>1.00	1.55	0.507	—	0.661	—	0.748	—
Alonso- 32	0.896	—	0.221	—	>1.00	1.50	0.69	—
Alonso- 33	0.848	—	0.220	—	>1.00	1.61	0.944	—
Alonso- 34	0.273	—	0.132	—	0.107	—	0.793	—
Alonso- 35	>1.00	1.98	0.494	—	>1.00	1.02	0.417	—
Alonso- 36	0.929	—	0.520	—	0.411	—	0.483	—
Alonso- 37	>1.00	1.49	0.159	—	>1.00	1.01	0.912	—
Alonso- 38	0.434	—	0.063	—	0.443	—	0.843	—
Alonso- 39	>1.00	1.72	0.250	—	0.408	—	0.366	—
Alonso- 40	>1.00	3.78	>1.00	2.00	>1.00	1.24	0.505	—
Alonso- 41	>1.00	1.15	0.212	—	0.498	—	0.566	—
Alonso- 42	0.235	—	0.309	—	0.132	—	0.378	—
Alonso- 43	>1.00	1.86	0.303	—	0.458	—	0.195	—
Alonso- 44	0.253	—	0.113	—	0.111	—	0.213	—
Alonso- 45	0.944	—	0.312	—	0.381	—	0.568	—
Alonso- 46	0.674	—	0.329	—	0.198	—	0.317	—
Alonso- 47	0.037	—	0.059	—	0.030	—	0.613	—
Alonso- 48	0.121	—	0.075	—	0.044	—	0.3	—
Alonso- 49	0.543	—	0.081	—	0.168	—	0.341	—
Alonso- 50	0.336	—	0.156	—	0.346	—	0.366	—
Alonso- 51	0.171	—	0.096	—	0.275	—	0.733	—
Alonso- 52	>1.00	1.14	0.715	—	>1.00	1.17	>1.00	3.86
Alonso- 53	>1.00	1.13	0.465	—	0.627	—	0.367	—



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Final

Elemento	Cu		Pb		Zn		W	
Método	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	GQ_FU1
Límite Detección	0.001	0.01	0.001	0.01	0.001	0.01	0.0001	0.01
Unidades	%	%	%	%	%	%	%	%
Alonso- 54	0.772	---	0.354	---	0.388	---	>1.00	2.56
Alonso- 55	0.869	---	0.392	---	0.440	---	>1.00	1.01
Alonso- 56	0.518	---	0.114	---	0.376	---	0.842	---
Alonso- 57	0.206	---	0.125	---	0.310	---	0.579	---
Alonso- 58	0.365	---	0.181	---	0.269	---	0.949	---
Alonso- 59	0.712	---	0.425	---	0.194	---	0.627	---
Alonso- 60	>1.00	1.25	0.370	---	0.499	---	>1.00	3.46
Alonso- 61	>1.00	1.38	0.374	---	>1.00	1.28	0.478	---
Alonso- 62	>1.00	3.13	0.683	---	>1.00	2.89	0.513	---
Alonso- 63	>1.00	1.45	0.232	---	>1.00	1.08	>1.00	2.45
Alonso- 64	0.187	---	0.023	---	0.428	---	0.371	---
Alonso- 65	0.083	---	0.022	---	0.087	---	0.343	---
Alonso- 66	0.553	---	0.712	---	0.556	---	0.59	---
Alonso- 67	0.181	---	0.042	---	0.063	---	0.454	---
Alonso- 68	0.758	---	0.229	---	0.267	---	0.658	---
Alonso- 69	0.469	---	0.114	---	0.214	---	0.243	---
Alonso- 70	0.349	---	0.029	---	0.104	---	>1.00	1.25
Alonso- 71	0.153	---	0.033	---	0.058	---	>1.00	2.65
Alonso- 72	0.048	---	0.031	---	0.057	---	0.3	---
Alonso- 73	0.074	---	0.021	---	0.097	---	0.485	---
Alonso- 74	>1.00	1.87	0.577	---	0.443	---	>1.00	1.28
Alonso- 75	0.160	---	0.095	---	0.086	---	0.601	---
Alonso- 76	0.553	---	0.113	---	0.217	---	0.349	---
Alonso- 77	>1.00	1.27	0.723	---	>1.00	1.15	0.493	---
Alonso- 78	>1.00	2.88	0.474	---	0.785	---	0.355	---
Alonso- 79	>1.00	2.02	0.340	---	>1.00	1.36	>1.00	1.24
Alonso- 80	0.660	---	0.449	---	0.307	---	0.478	---
Alonso- 81	>1.00	2.45	0.717	---	>1.00	1.27	0.62	---
Alonso- 82	0.411	---	0.135	---	0.376	---	>1.00	2.05
Alonso- 83	0.102	---	0.101	---	0.482	---	0.355	---
Alonso- 84	0.102	---	0.022	---	0.256	---	0.242	---
Alonso- 85	0.612	---	0.146	---	0.567	---	0.39	---
Alonso- 86	0.080	---	0.028	---	0.033	---	0.194	---
Alonso- 87	0.456	---	0.095	---	0.100	---	0.201	---
Alonso- 88	0.231	---	0.120	---	0.333	---	0.607	---
Alonso- 89	0.218	---	0.116	---	0.341	---	0.449	---
Alonso- 90	0.059	---	0.039	---	0.089	---	0.8	---
Alonso- 91	0.200	---	0.054	---	0.276	---	0.345	---
Alonso- 92	0.112	---	0.050	---	0.196	---	0.799	---
Alonso- 93	>1.00	2.47	0.345	---	0.699	---	>1.00	1.56
Alonso- 94	0.217	---	0.151	---	0.205	---	0.486	---
Alonso- 95	0.311	---	0.033	---	>1.00	9.05	0.141	---
Alonso- 96	0.352	---	0.124	---	0.395	---	0.357	---
Alonso- 97	0.362	---	0.579	---	0.726	---	0.0996	---
Alonso- 98	>1.00	6.61	0.385	---	>1.00	1.49	0.121	---
Alonso- 99	>1.00	4.29	0.217	---	>1.00	2.17	0.64	---
Alonso-100	0.649	---	0.465	---	>1.00	1.19	>1.00	1.01
Alonso-101	0.324	---	0.186	---	0.747	---	0.377	---
Alonso-102	0.297	---	0.213	---	0.743	---	0.646	---
Alonso-103	0.197	---	0.064	---	0.180	---	0.47	---
Alonso-104	0.881	---	0.130	---	>1.00	3.44	0.619	---
Alonso-105	0.574	---	>1.00	5.07	>1.00	8.78	>1.00	1.26
Alonso-106	0.190	---	0.245	---	>1.00	1.15	>1.00	1.01
Alonso-107	>1.00	3.57	0.258	---	>1.00	3.75	>1.00	1.47
Alonso-108	0.991	---	0.444	---	>1.00	4.68	0.266	---
ML- 1 María Luisa 12	>1.00	1.06	0.253	---	0.305	---	>1.00	2.36
ML- 2 María Luisa 12	>1.00	5.81	>1.00	1.26	>1.00	2.62	>1.00	3.12



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Final

Elemento	Cu	Cu	Pb	Pb	Zn	Zn	W	W
Método	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	GQ_FU1
Límite Detección	0.001	0.01	0.001	0.01	0.001	0.01	0.0001	0.01
Unidades	%	%	%	%	%	%	%	%
ML- 3 Maria Luisa 12	>1.00	1.22	0.282	---	0.354	---	0.669	---
ML- 4 Maria Luisa 12	0.541	---	0.226	---	0.336	---	0.969	---
ML- 5 Maria Luisa 12	>1.00	2.41	0.863	---	0.978	---	0.262	---
ML- 6 Maria Luisa 12	0.764	---	0.398	---	0.266	---	>1.00	10.21
ML- 7 Maria Luisa 12	>1.00	1.09	0.411	---	0.691	---	>1.00	14.94
ML- 8 Maria Luisa 12	>1.00	4.48	0.359	---	>1.00	3.11	>1.00	2.32
ML- 9 Maria Luisa 12	0.072	---	0.016	---	0.268	---	0.107	---
ML-10 Maria Luisa 12	0.072	---	0.024	---	0.293	---	0.124	---
ML-11 Maria Luisa 12	0.288	---	0.051	---	0.461	---	0.174	---
ML-12 Maria Luisa 12	>1.00	1.89	0.283	---	>1.00	1.78	>1.00	1.48
ML-13 Maria Luisa 12	0.049	---	0.005	---	0.392	---	0.0536	---
ML-14 Maria Luisa 12	0.042	---	0.009	---	0.188	---	0.0289	---
ML-15 Maria Luisa 12	0.515	---	0.380	---	0.326	---	0.606	---
ML-16 Maria Luisa 12	0.217	---	0.356	---	0.355	---	0.729	---
ML-17 Maria Luisa 12	>1.00	1.40	0.233	---	>1.00	1.78	0.614	---
ML-18 Maria Luisa 12	>1.00	1.06	0.058	---	>1.00	1.16	0.279	---
ML-19 Maria Luisa 12	0.208	---	0.054	---	0.131	---	>1.00	2.18
ML-20 Maria Luisa 12	>1.00	1.31	0.070	---	0.645	---	0.109	---
ML-21 Maria Luisa 12	>1.00	1.86	0.341	---	0.391	---	>1.00	2.04
ML-22 Maria Luisa 12	0.598	---	0.093	---	0.167	---	>1.00	1.42
ML-23 Maria Luisa 12	0.410	---	0.083	---	0.200	---	0.205	---
ML-24 Maria Luisa 12	0.268	---	0.108	---	>1.00	1.00	>1.00	1.99
ML-25 Maria Luisa 12	0.059	---	0.027	---	0.138	---	0.0403	---
ML-26 Maria Luisa 12	0.459	---	0.114	---	>1.00	3.25	0.394	---
ML-27 Maria Luisa 12	>1.00	1.79	0.364	---	>1.00	1.56	0.145	---
ML-28 Maria Luisa 12	0.619	---	0.155	---	0.415	---	>1.00	4.14
ML-29 Maria Luisa 12	0.585	---	0.160	---	>1.00	1.02	0.587	---
ML-30 Maria Luisa 12	0.677	---	0.088	---	0.253	---	0.884	---
ML-31 Maria Luisa 12	0.032	---	0.060	---	0.201	---	0.0887	---
ML-32 Maria Luisa 12	0.415	---	0.094	---	0.775	---	>1.00	4.97
ML-33 Maria Luisa 12	>1.00	1.46	0.186	---	>1.00	1.08	>1.00	4.26
ML-34 Maria Luisa 12	0.880	---	0.275	---	>1.00	1.01	0.668	---
M- 1 Fenix 11	0.178	---	0.132	---	0.268	---	0.159	---
M- 2 Fenix 11	0.356	---	0.169	---	0.237	---	>1.00	2.87
M- 3 Fenix 11	0.437	---	0.144	---	0.238	---	0.182	---
M- 4 Fenix 11	0.370	---	0.218	---	0.271	---	0.169	---
M- 5 Fenix 11	0.217	---	0.107	---	0.091	---	0.19	---
M- 6 Fenix 11	0.171	---	0.055	---	0.129	---	0.114	---
M- 7 Fenix 11	0.479	---	0.247	---	0.189	---	0.109	---
M- 8 Fenix 11	0.340	---	0.246	---	0.142	---	0.471	---
M- 9 Fenix 11	0.568	---	0.154	---	0.560	---	0.153	---
M-10 Fenix 11	0.135	---	0.073	---	0.383	---	0.108	---
M-11 Fenix 11	0.340	---	0.103	---	0.209	---	0.33	---
M-12 Fenix 11	0.702	---	0.194	---	0.355	---	0.0872	---
M-13 Fenix 11	0.162	---	0.044	---	0.276	---	0.0967	---
M-14 Fenix 11	0.114	---	0.038	---	0.584	---	0.139	---
M-15 Fenix 11	0.341	---	0.216	---	0.160	---	0.878	---
M-16 Fenix 11	0.637	---	0.105	---	0.249	---	0.0275	---
M-17 Fenix 11	0.650	---	0.145	---	0.581	---	0.232	---
M-18 Fenix 11	0.166	---	0.068	---	0.456	---	0.21	---
M-19 Fenix 11	0.800	---	0.205	---	>1.00	5.36	0.231	---
M-20 Fenix 11	0.815	---	0.146	---	>1.00	4.72	0.157	---
M-21 Fenix 11	0.328	---	0.247	---	0.249	---	0.602	---
M-22 Fenix 11	0.474	---	0.149	---	0.371	---	0.429	---
M-23 Fenix 11	0.816	---	0.294	---	0.510	---	0.128	---
M-24 Fenix 11	0.712	---	0.142	---	0.427	---	0.298	---
M-25 Fenix 11	0.669	---	0.207	---	0.175	---	0.632	---



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Final

Elemento	Cu		Pb		Zn		W	
Método	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	GQ_FU1
Límite Detección	0.001	0.01	0.001	0.01	0.001	0.01	0.0001	0.01
Unidades	%	%	%	%	%	%	%	%
M-26 Fenix 11	0.531	---	0.356	---	0.150	---	0.644	---
M-27 Fenix 11	0.353	---	0.256	---	0.230	---	0.151	---
M-28 Fenix 11	0.242	---	0.125	---	0.153	---	0.167	---
M-29 Fenix 11	0.444	---	0.187	---	>1.00	3.88	0.169	---
M-30 Fenix 11	0.458	---	0.200	---	>1.00	4.92	0.242	---
M-31 Fenix 11	0.047	---	0.009	---	0.679	---	0.0124	---
M-32 Fenix 11	0.140	---	0.022	---	>1.00	3.09	0.0098	---
M-33 Fenix 11	0.454	---	0.222	---	0.887	---	0.313	---
M-34 Fenix 11	0.224	---	0.135	---	0.724	---	0.631	---
M-35 Fenix 11	0.710	---	0.079	---	>1.00	4.81	0.0705	---
M-36 Fenix 11	0.692	---	0.057	---	>1.00	4.82	0.238	---
M-37 Fenix 11	0.908	---	0.267	---	0.385	---	0.384	---
M-38 Fenix 11	>1.00	1.07	0.279	---	0.333	---	0.17	---
CH-295-M- 1 Fenix 12	0.619	---	0.385	---	0.643	---	>1.00	1.39
CH-295-M- 2 Fenix 12	0.545	---	0.252	---	0.881	---	0.773	---
CH-295-M- 3 Fenix 12	0.360	---	0.133	---	>1.00	1.01	>1.00	1.47
CH-295-M- 4 Fenix 12	0.362	---	0.076	---	>1.00	1.02	>1.00	2.40
CH-295-M- 5 Fenix 12	0.263	---	0.064	---	0.698	---	>1.00	1.41
CH-295-M- 6 Fenix 12	0.237	---	0.104	---	0.705	---	0.873	---
CH-295-M- 7 Fenix 12	0.114	---	0.030	---	0.055	---	0.0652	---
CH-295-M- 8 Fenix 12	0.117	---	0.037	---	0.068	---	0.0501	---
CH-295-M- 9 Fenix 12	0.218	---	0.071	---	0.440	---	>1.00	1.15
CH-295-M-10 Fenix 12	0.385	---	0.078	---	0.153	---	>1.00	1.09
I Princ-M-1 Fenix 12	0.416	---	0.125	---	0.433	---	>1.00	1.56
I Princ-M-2 Fenix 12	0.414	---	0.159	---	0.814	---	>1.00	1.95
I Princ-M-3 Fenix 12	>1.00	2.00	0.313	---	0.670	---	>1.00	1.49
I Princ-M-4 Fenix 12	>1.00	2.77	0.322	---	0.816	---	>1.00	1.93
I Princ-M-5 Fenix 12	0.487	---	0.173	---	0.368	---	>1.00	1.05
I Princ-M-6 Fenix 12	0.634	---	0.330	---	0.705	---	>1.00	1.13
I Princ-M-7 Fenix 12	0.494	---	0.288	---	0.172	---	0.704	---
I Princ-M-8 Fenix 12	0.434	---	0.261	---	0.163	---	>1.00	1.25
I Princ-M-9 Fenix 12	0.513	---	0.185	---	0.521	---	>1.00	1.11
Princ-M-10 Fenix 12	0.330	---	0.156	---	0.472	---	>1.00	1.66
DUP-CW- 1 Consuelo-12	0.169	---	0.091	---	>1.00	---	0.75	---
DUP-CW-13 Consuelo-12	0.100	---	0.038	---	0.202	---	0.469	---
DUP-CW-25 Consuelo-12	0.273	---	0.100	---	0.314	---	>1.00	---
DUP-CW-37 Consuelo-12	0.727	---	0.343	---	0.431	---	>1.00	---
DUP-CW-49 Consuelo-12	0.085	---	0.094	---	0.198	---	0.582	---
DUP-CW-61 Consuelo-12	0.260	---	0.134	---	0.428	---	>1.00	---
DUP-CW-73 Consuelo-12	0.082	---	0.037	---	0.087	---	0.632	---
DUP-CW-85 Consuelo-12	0.048	---	0.024	---	0.352	---	>1.00	---
DUP-CW- 86 Consuelo-12	0.263	---	0.043	---	0.174	---	>1.00	---
DUP-CW- 98 Consuelo-12	0.164	---	0.065	---	0.274	---	>1.00	---
DUP-CW-110 Consuelo-12	0.096	---	0.039	---	0.459	---	>1.00	---
DUP-M-12 Consuelo-10	0.159	---	0.043	---	0.200	---	>1.00	---
DUP-M-24 Consuelo-10	0.699	---	0.196	---	0.440	---	>1.00	---
DUP-M-36 Consuelo-10	0.412	---	0.318	---	>1.00	---	>1.00	---
DUP-M-48 Consuelo-10	0.253	---	0.070	---	0.527	---	>1.00	---
DUP-M-60 Consuelo-10	0.463	---	0.175	---	0.650	---	>1.00	---
DUP-Consuelo- 2	0.013	---	0.005	---	0.028	---	0.0038	---
DUP-Consuelo-14	0.699	---	0.328	---	0.510	---	0.134	---
DUP-i-228-M-12 Alonso-12	0.491	---	0.156	---	0.408	---	0.0175	---
DUP-o-190-M-24 Alonso-12	0.568	---	0.071	---	0.658	---	0.51	---
DUP-o-190-M-36 Alonso-12	0.277	---	0.137	---	0.879	---	0.222	---
DUP-Alonso-10	0.506	---	0.114	---	0.241	---	>1.00	---
DUP-Alonso- 12	0.336	---	0.249	---	0.182	---	>1.00	---
DUP-Alonso- 24	0.462	---	0.058	---	0.878	---	0.977	---



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Final

Elemento	Cu	Cu	Pb	Pb	Zn	Zn	W	W
Método	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	AA_TO4	IC90A	GQ_FU1
Límite Detección	0.001	0.01	0.001	0.01	0.001	0.01	0.0001	0.01
Unidades	%	%	%	%	%	%	%	%
DUP-Alonso- 36	0.919	---	0.500	---	0.400	---	0.464	---
DUP-Alonso- 48	0.119	---	0.074	---	0.044	---	0.295	---
DUP-Alonso- 60	>1.00	---	0.388	---	0.467	---	>1.00	---
DUP-Alonso- 72	0.053	---	0.035	---	0.059	---	0.312	---
DUP-Alonso- 84	0.103	---	0.023	---	0.229	---	0.253	---
DUP-Alonso- 96	0.329	---	0.118	---	0.384	---	0.329	---
DUP-Alonso-102	0.308	---	0.223	---	0.754	---	0.714	---
DUP-ML- 6 Maria Luisa 12	0.712	---	0.407	---	0.256	---	>1.00	---
DUP-ML-18 Maria Luisa 12	>1.00	---	0.059	---	>1.00	---	0.311	---
DUP-ML-30 Maria Luisa 12	0.719	---	0.088	---	0.272	---	0.787	---
DUP-M- 8 Fenix 11	0.334	---	0.246	---	0.150	---	0.499	---
DUP-M-20 Fenix 11	0.802	---	0.144	---	>1.00	---	0.15	---
DUP-M-32 Fenix 11	0.137	---	0.023	---	>1.00	---	0.0105	---
DUP-CH-295-M- 6 Fenix 12	0.229	---	0.109	---	0.685	---	0.858	---
DUP-I Princ-M-8 Fenix 12	0.444	---	0.261	---	0.171	---	>1.00	---
DUP CW-11 Consuelo 12	---	---	---	---	---	1.06	---	---
DUP CW-27 Consuelo 12	---	---	---	---	---	---	---	2.43
DUP CW-37 Consuelo 12	---	---	---	---	---	---	---	2.38
DUP CW-48 Consuelo 12	---	---	---	---	---	---	---	1.01
DUP CW-64 Consuelo 12	---	---	---	---	---	---	---	1.08
DUP CW-77 Consuelo 12	---	---	---	---	---	---	---	2.45
DUP CW-90 Consuelo 12	---	---	---	---	---	---	---	1.74
DUP CW-102 Consuelo 12	---	---	---	---	---	---	---	1.46
DUP M-3 Consuelo 10	---	---	---	---	---	---	---	2.33
DUP M-14 Consuelo 10	---	---	---	---	---	---	---	3.49
DUP M-24 Consuelo 10	---	---	---	---	---	---	---	1.53
DUP M-35 Consuelo 10	---	---	---	---	---	---	---	1.95
DUP M-45 Consuelo 10	---	---	---	---	---	---	---	3.30
DUP M-55 Consuelo 10	---	---	---	---	---	---	---	4.34
DUP M-65 Consuelo 10	---	---	---	---	---	---	---	2.39
DUP Consuelo 12	---	3.21	---	---	---	3.24	---	1.90
DUP Subnivel-228-M-14 Alonso 12	---	1.92	---	---	---	---	---	---
DUP Tajo 190-M-32 Alonso 12	---	---	---	---	---	6.41	---	---
DUP Alonso 10	---	---	---	---	---	---	---	1.27
DUP Alonso 22	---	---	---	---	---	1.03	---	---
DUP Alonso 40	---	3.66	---	1.97	---	1.22	---	---
DUP Alonso 63	---	1.42	---	---	---	1.07	---	2.45
DUP Alonso 95	---	---	---	---	---	9.09	---	---
DUP ML-2 Maria Luisa 12	---	5.71	---	1.32	---	2.84	---	3.07
DUP ML-20 Maria Luisa 12	---	1.31	---	---	---	---	---	---
DUP ML-33 Maria Luisa 12	---	1.45	---	---	---	1.11	---	4.13
DUP M-38 Fenix 11	---	1.08	---	---	---	---	---	---
DUP Gal Princ-M-4 Fenix 12	---	2.82	---	---	---	---	---	1.96

Appendix D

Long Sections of Various Veins

Appendix D

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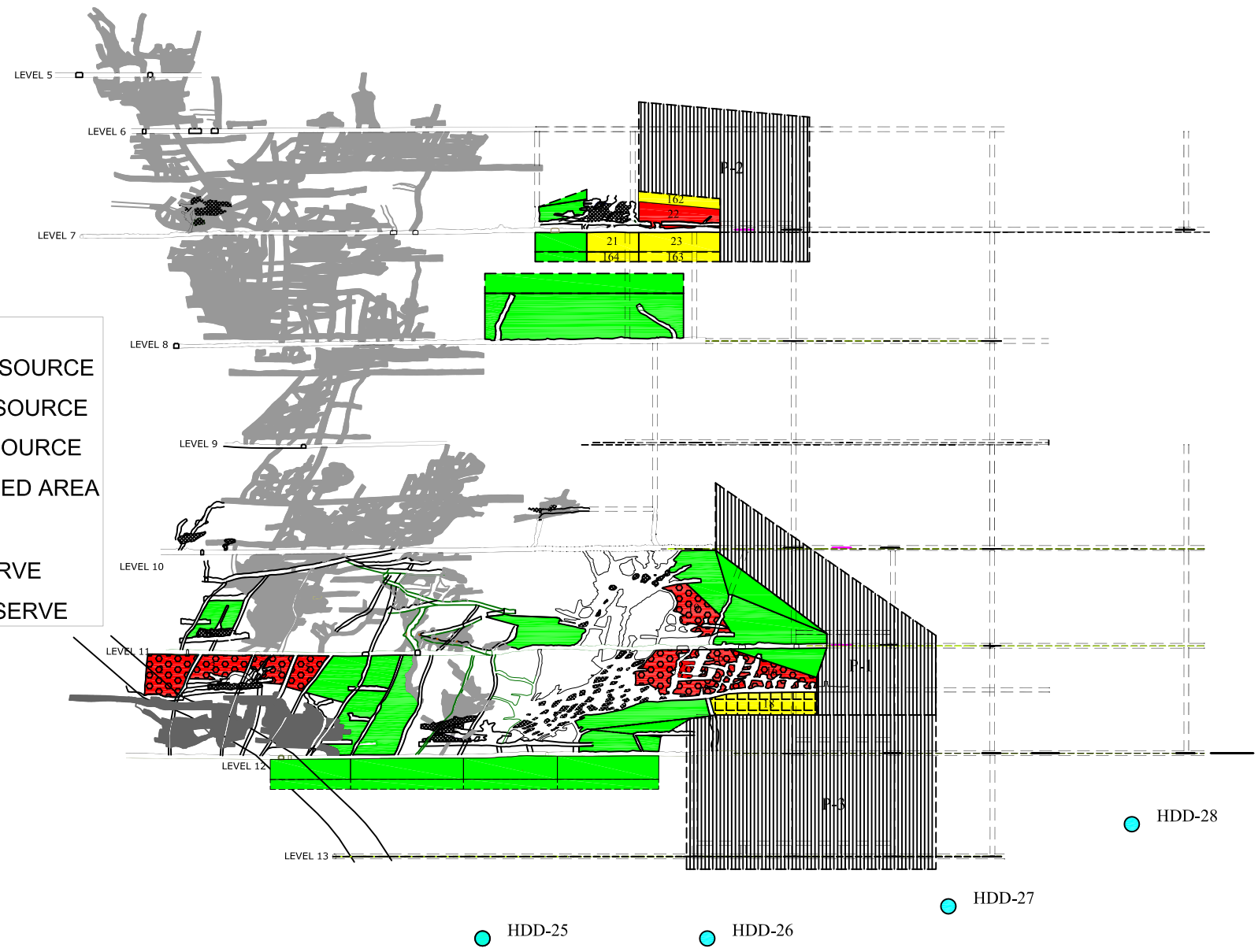
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Santa Marta Vein Long Section	7
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NE

4300
4280
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4000
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3920
3900
3880
3860
3840

LEGEND

- MEASURED RESOURCE
- INDICATED RESOURCE
- INFERRED RESOURCE
- RECENTLY MINED AREA
- LOW GRADE
- PROVEN RESERVE
- PROBABLE RESERVE



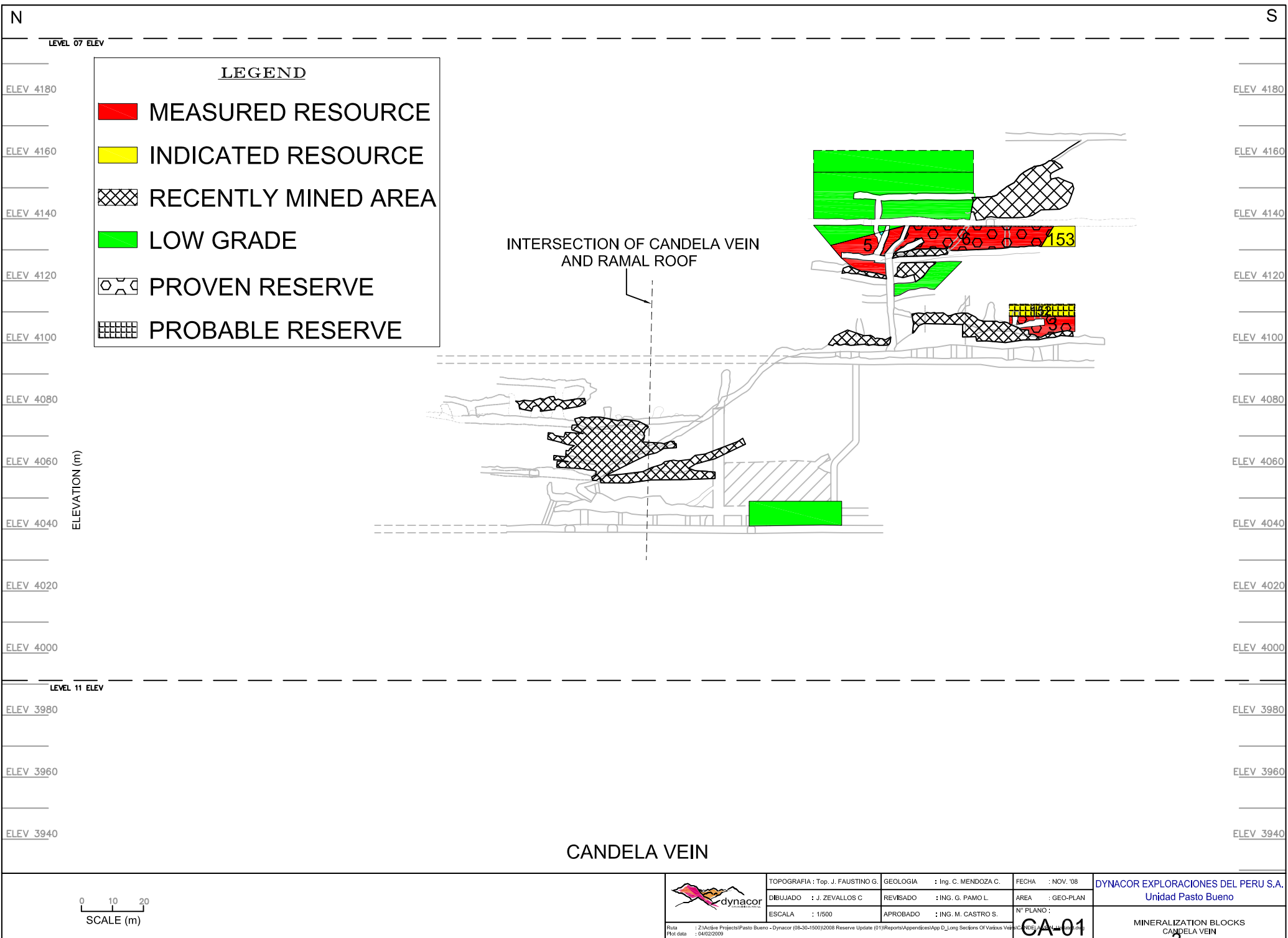
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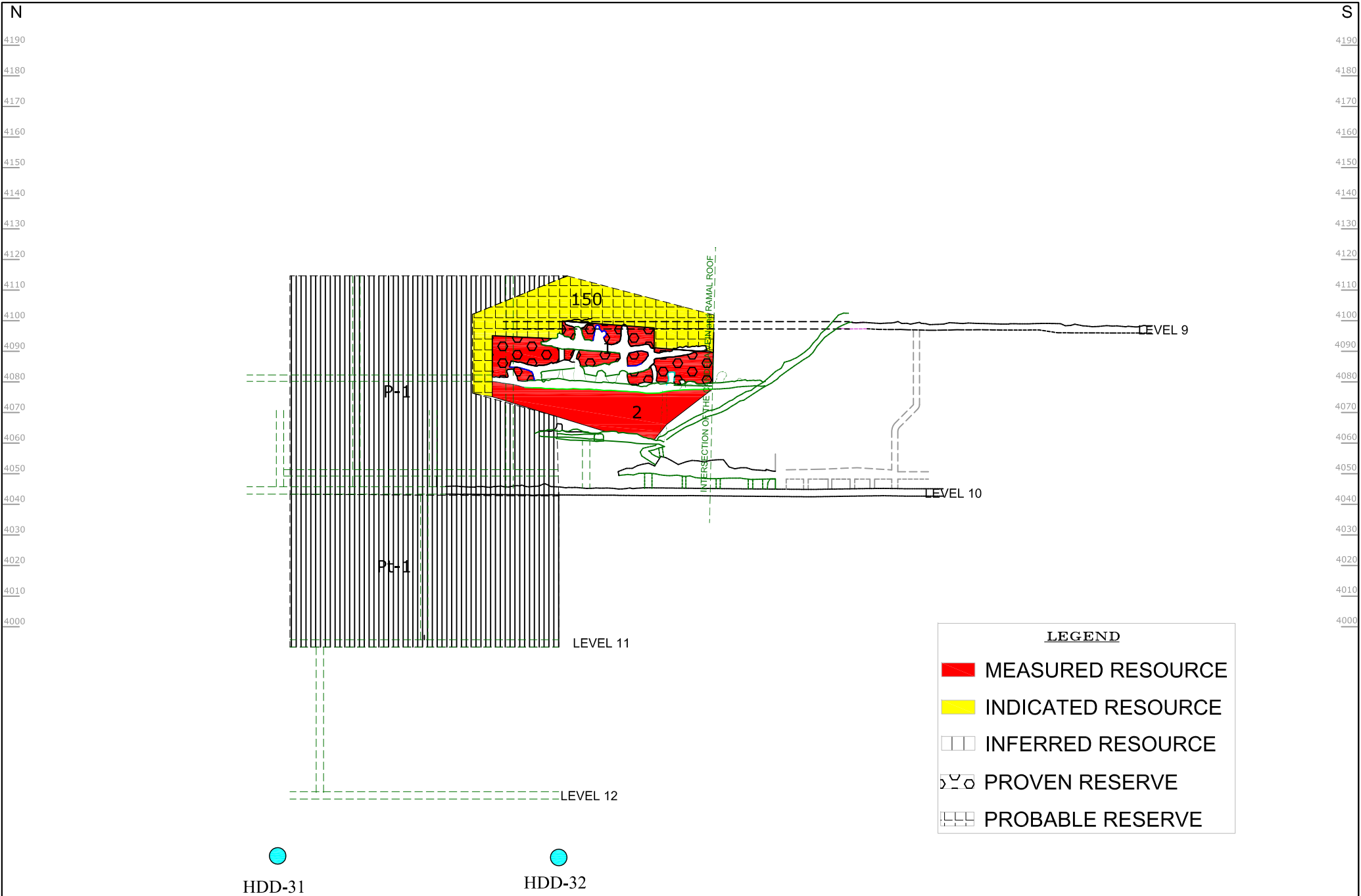
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ESCALA : 1/1000	APROBADO : ING. M. CASTRO S.

FECHA : NOV, '08
AREA : GEOLOGIA
N° PLANO : AF-01

DYNACOR EXPLORACIONES DEL PERU S.A. Unidad Pasto Bueno
PLANO DE CUBICACION VETA ALONSO FENIX

ALONSO-FENIX VEIN

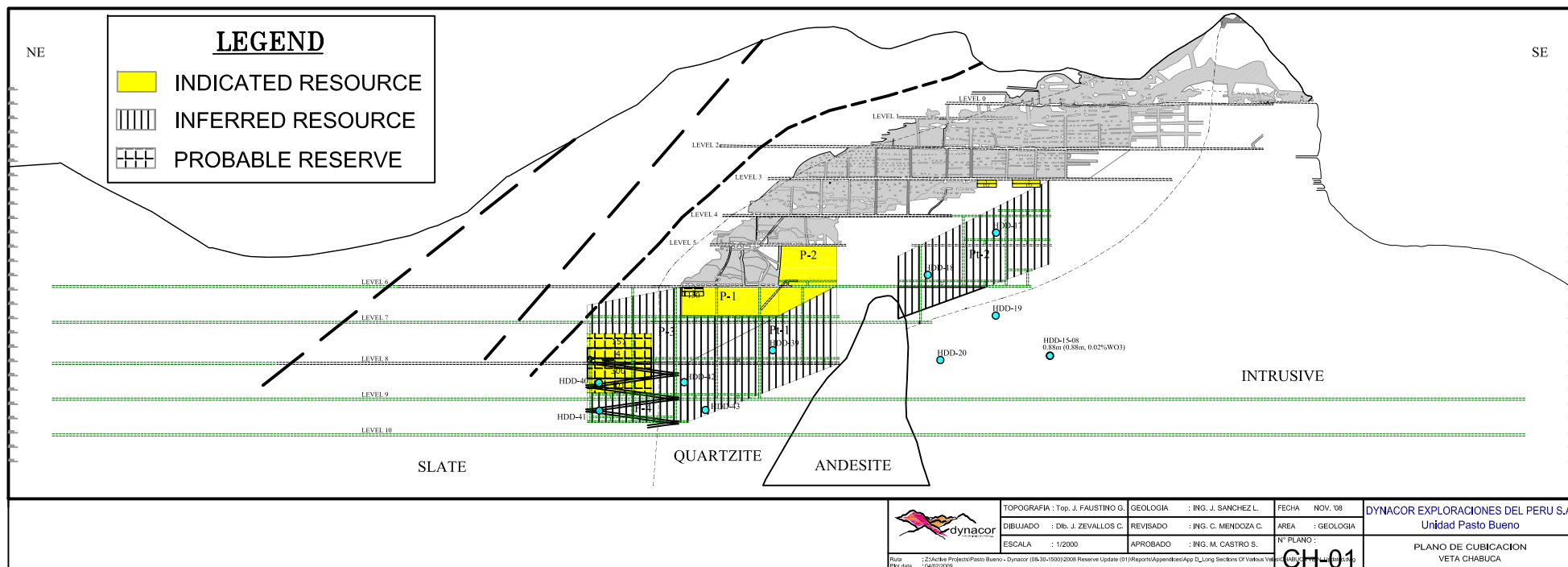


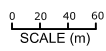
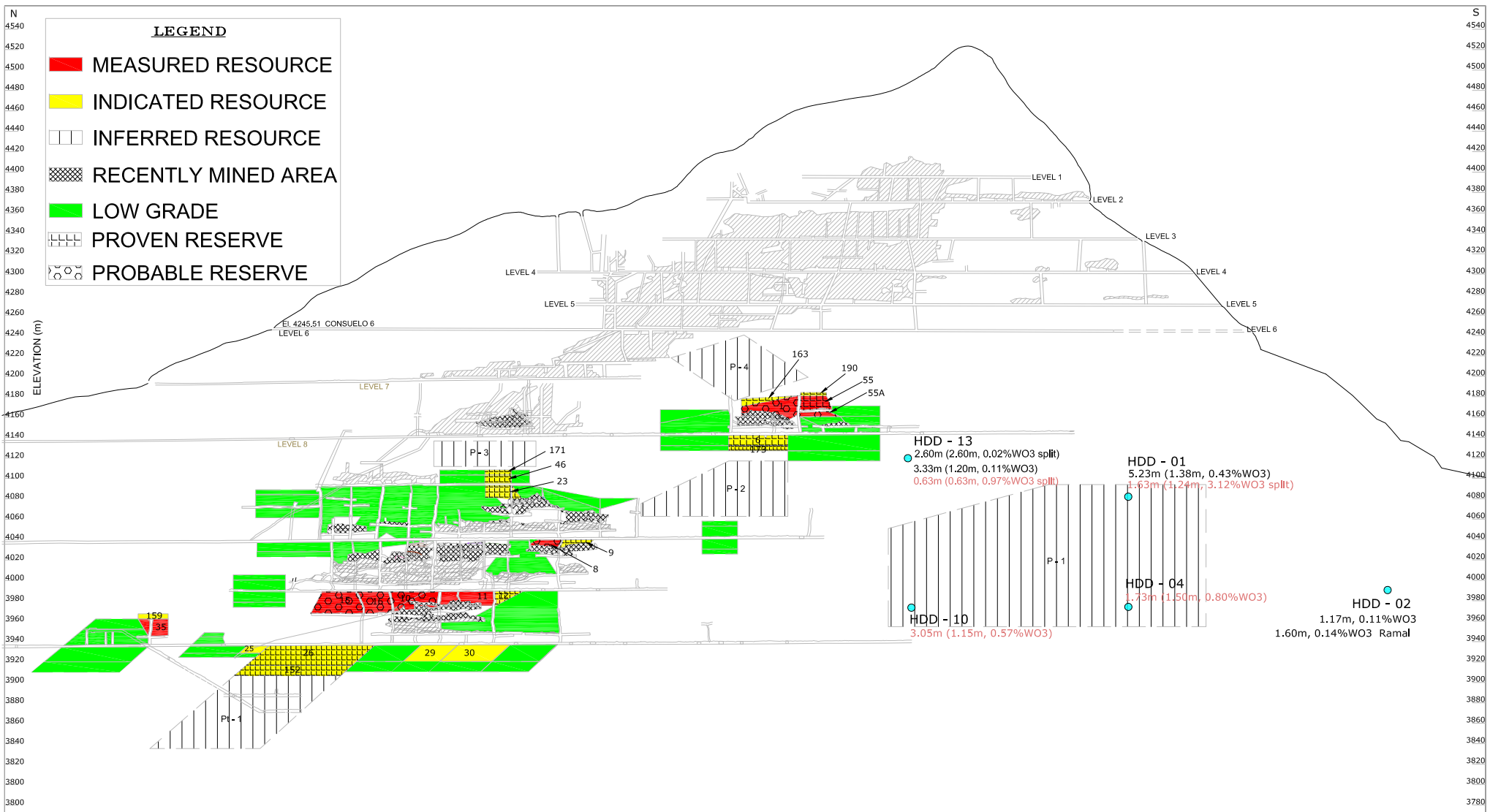


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	ESCALA : 1/1000	APROBADO : ING. M. CASTRO S.	N° PLANO : CA-01	PLANO DE CUBICACION VETA CANDELA TECHO

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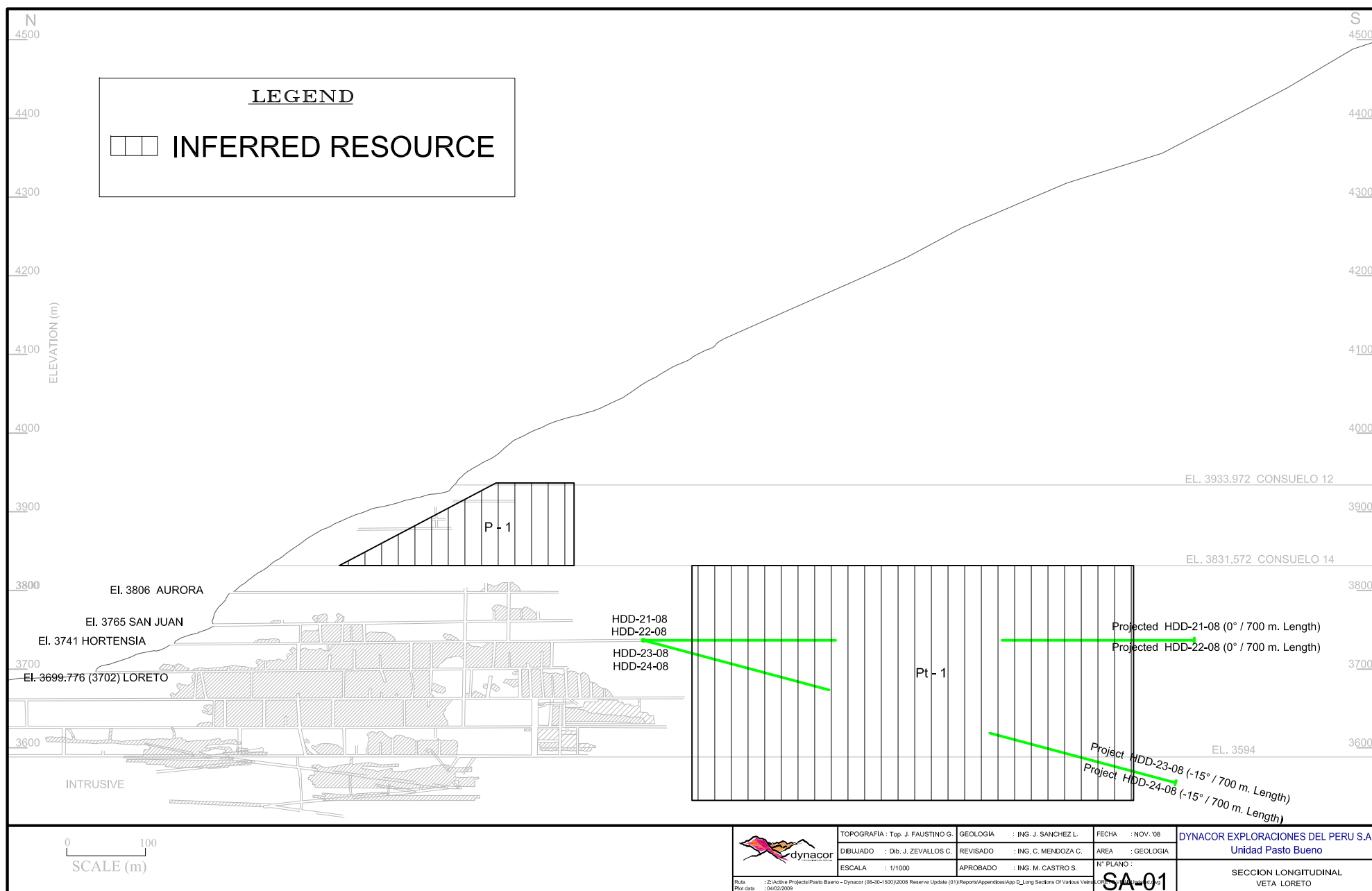
CANDELA TECHO VEIN



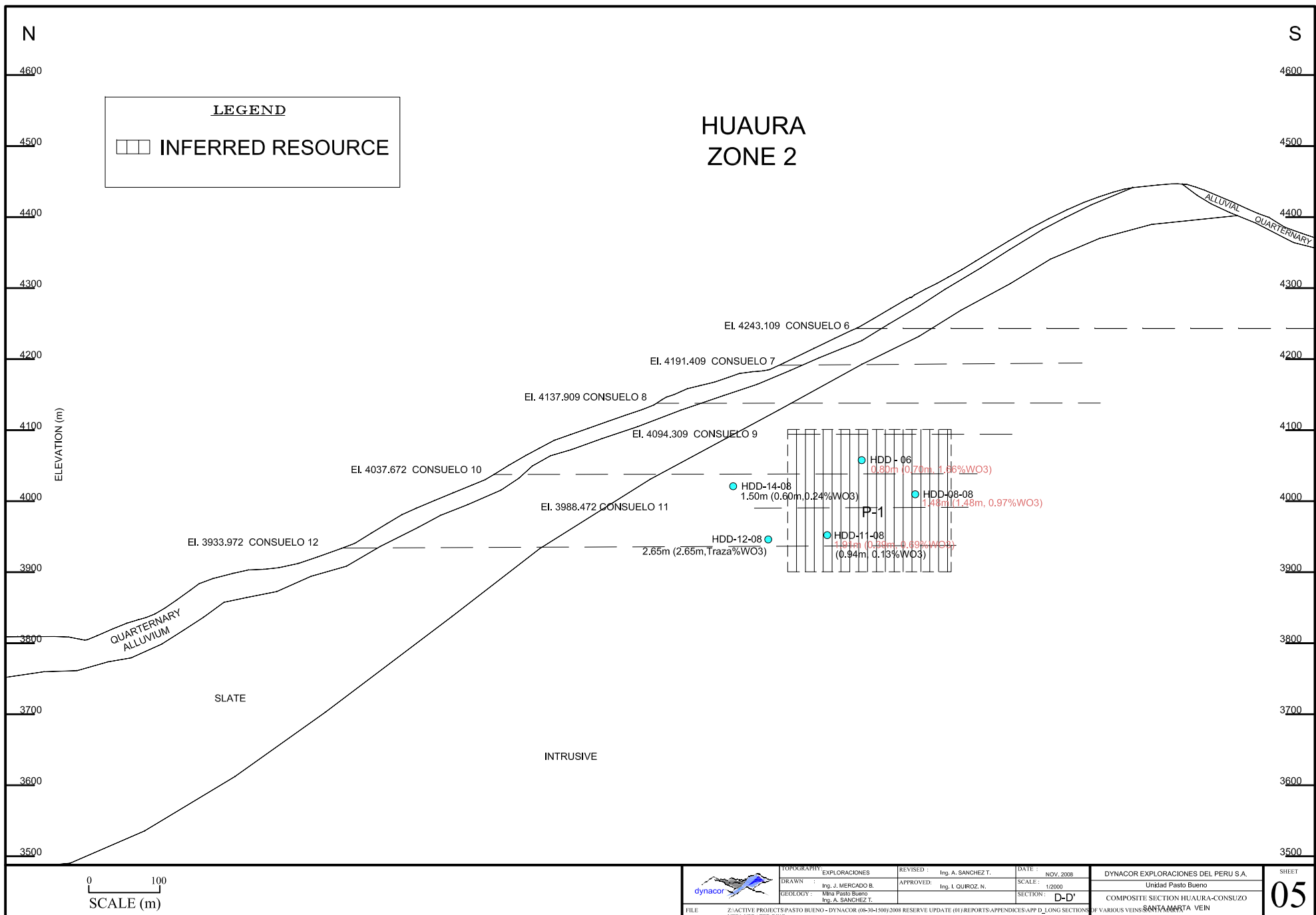


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	DISEÑO: DR. J. ZEVALLOS G.	REVISADO: ING. G. PAMO L.	ÁREA: GEOLOGÍA	
	ESCALA: 1:11000	APROBADO: ING. M. CASTRO G.	PROYECTO:	
			CO-01	
MINERALIZATION BLOCKS CONSUELO VEIN				

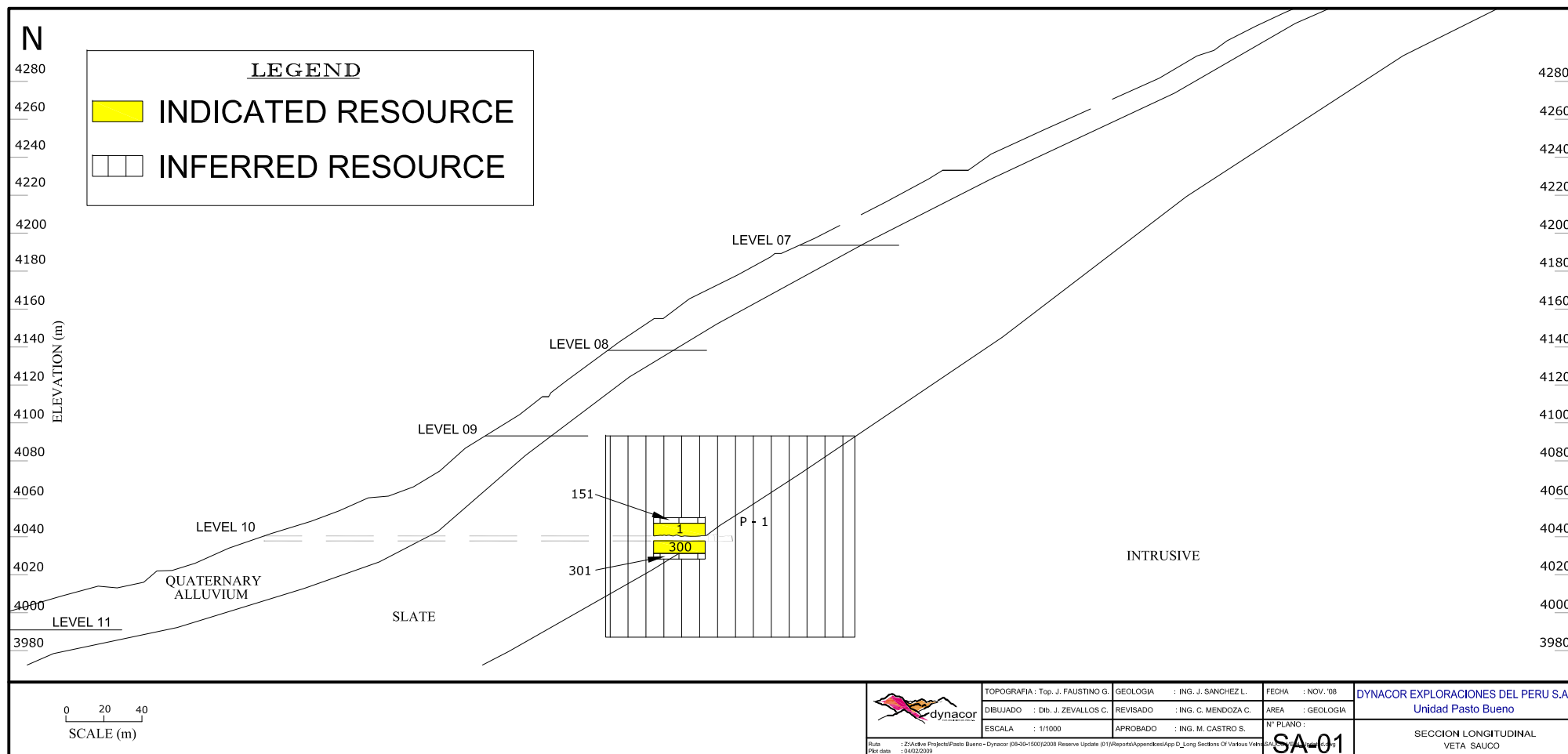
CONSUELO VEIN



LORETO VEIN



SANTA MARTA VEIN



SAUCO VEIN

Appendix E

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Photo 1: Village of Consuzo

Photo 2: View to the northwest of Pasto Bueno looking at two nearby mines.



Natural revegetation following a recent landslide is the model for tailings restoration.

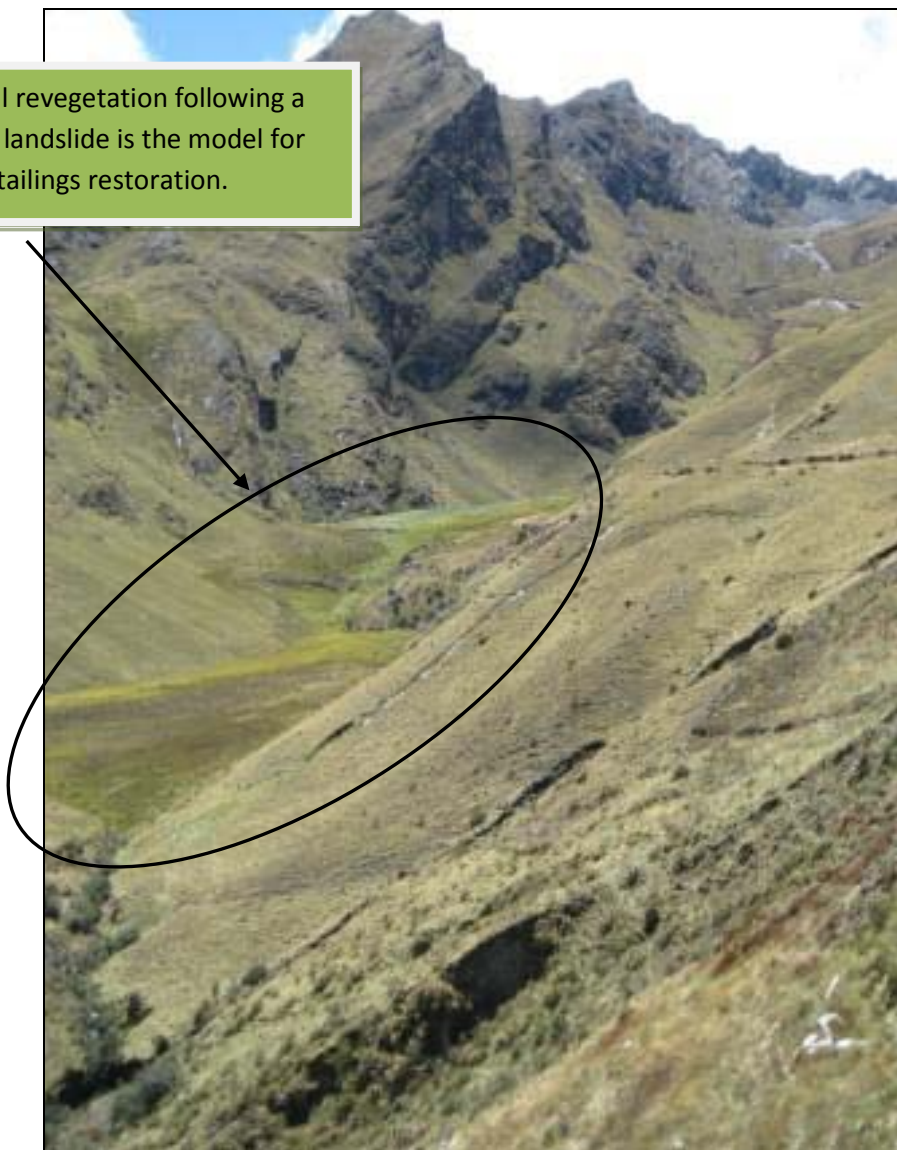


Photo 3: Recent landslide—analogue for restored tailings site.



Photo 4: Power transformer in hydroelectric plant.

Photo 5: 700 MW generator in hydroelectric plant.





Photo 6: Penstock feed to hydroelectric plant.

Photo 7: View looking west toward Huaura Mill.





Photo 8: Vibratory feeder

Photo 9: Denver Jigs № 1 & №2



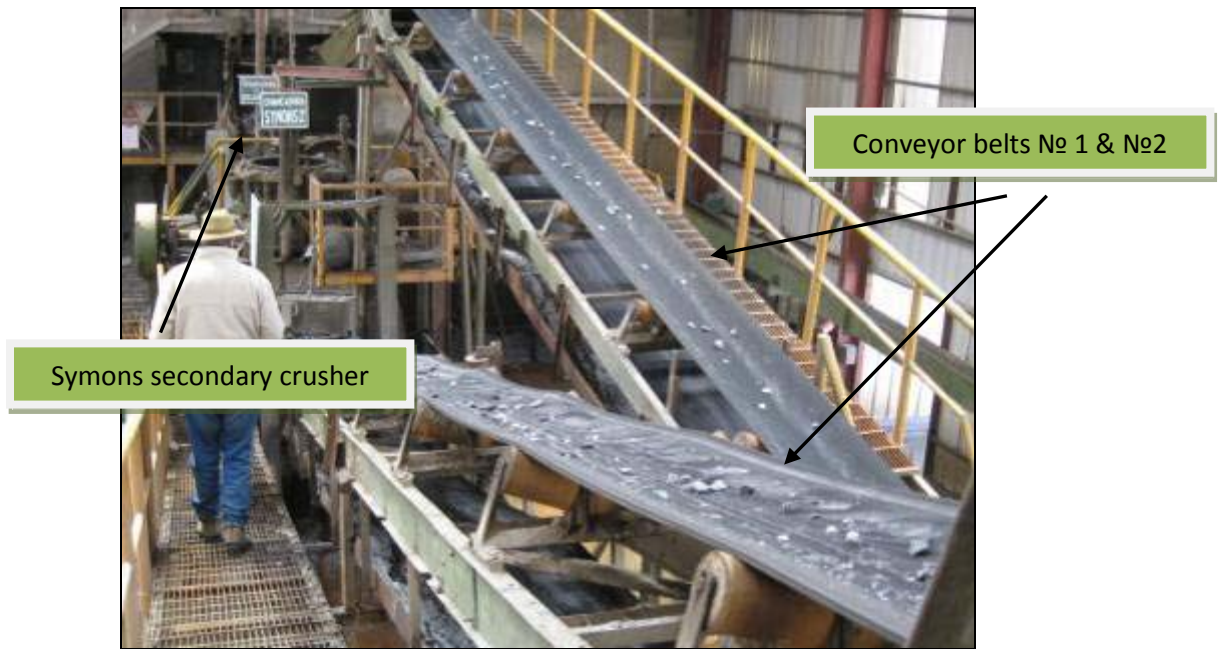


Photo 10: Conveyor belts and secondary crusher

Photo 11: Fines hopper





Photo 12: Bar mill, Denver Jig №7 and Hydrocyclonic Classifier

Photo 13: Vibratory tables (bank A)





Photos 14: Flotation Bank №1

Photos 15: Concentrate Drier



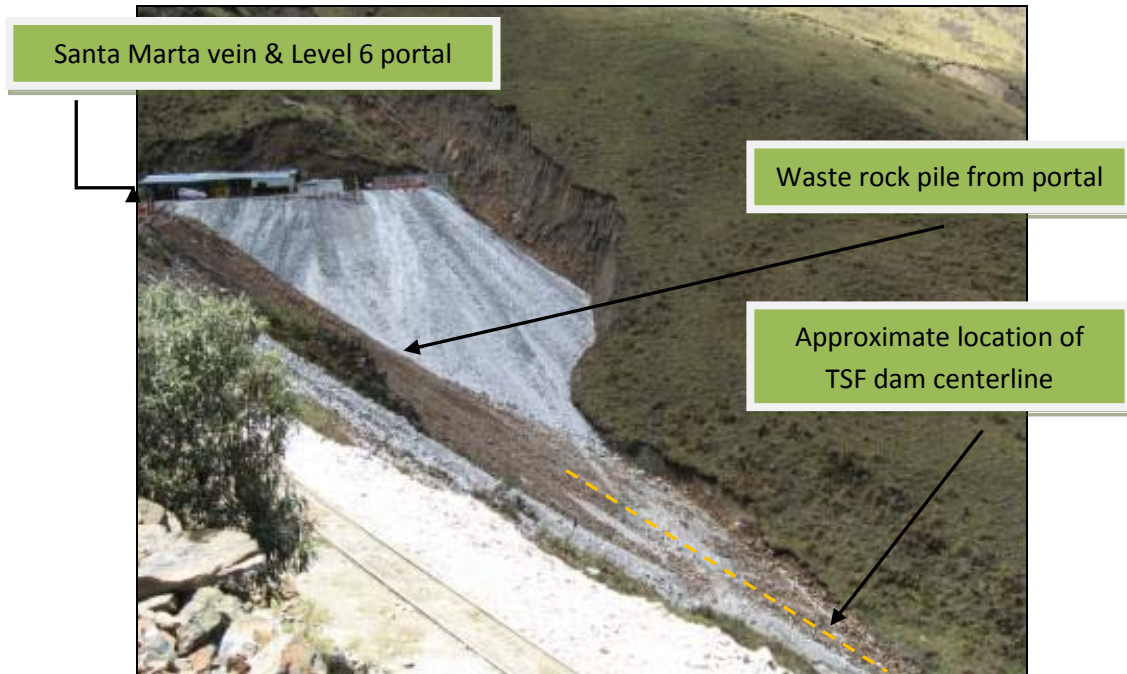


Photo 16: Future location of new Tailings Storage Facility (TSF) at Huaura

Photo 17: Overflow from flotation unit (non-Tungsten concentrates).





Photo 18: View above Huaura Mill looking east at existing tailing storage facility.



Photo 19: Tailings pond during construction

Photo 20: Tailings pond after construction



Appendix F

Manual de Inventario de Minerales (Handbook of Mineral Inventory)

Appendix F

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MANUAL DE INVENTARIO DE MINERALES

1.0 GENERALIDADES

1.1 DEFINICIÓN

El Inventario de Minerales es la estimación cuantitativa de los tonelajes y leyes de un yacimiento de acuerdo a su valor, certeza y accesibilidad que incluye a los Minerales de interés Económico, como las Reservas de Minerales y Recursos Minerales, así como a otros que no lo tienen en el momento de la estimación.

1.2 FINALIDAD

Tiene por objeto definir las **Reservas, Recursos y Otros Minerales de un yacimiento**, así como su distribución, a fin de planear su explotación o ampliar la escala de producción para un tiempo determinado cuando se trata de Reservas Minerales. La estimación de Recursos Minerales es importante porque con un estudio de Factibilidad pueden convertirse en Reservas y por lo tanto proceder a su explotación. La estimación de Otros Minerales, pues no tienen valor económico, es necesario, porque una subida de los precios pueden convertirlos en Reservas, por lo tanto estarán sujetos a explotarse o permitir una ampliación.

1.3 IMPORTANCIA

La importancia radica en que las Reservas Minerales y Recursos Minerales pueden garantizar, además de la vida operativa, un mayor financiamiento para una posible ampliación u optimización de la operación con la inversión en compra de equipos de mina o planta.

2.0 COMPONENTES DEL INVENTARIO DE MINERALES

El Inventario de Minerales está compuesto de Reservas Minerales, Recursos Minerales y Otros Minerales.

En minas en operación el Inventario comúnmente contiene los 3 componentes arriba mencionados.

En Proyectos de Exploración Avanzados en los que no se tiene estudio de factibilidad técnico-económico, pero con pruebas metalúrgicas, contiene Recursos Minerales y Otros Minerales. Con un estudio de factibilidad técnico económico los Recursos Minerales de un Proyecto pueden convertirse en Reservas Minerales Parcial o Totalmente.

2.1 RESERVAS MINERALES

Es la parte de un yacimiento mineral, cuya explotación es posible o razonablemente justificable desde el punto de vista económico y legal al momento de su determinación. Para su estimación se considera haberse llevado a cabo evaluaciones apropiadas que podrían incluir estudios de factibilidad en los cuales se tiene en cuenta factores mineros, metalúrgicos, económicos, ambientales, de mercado, sociales y gubernamentales. En la estimación se incluye solamente mineral recuperable y diluido, expresado en tonelaje y leyes.

El término "económicamente minable" implica que la extracción de las Reservas Minerales ha sido demostrada ser viable bajo razonables asunciones de inversión.

Por lo general se expresa en términos de Mineral cuando se trata de mineral metálico.

Normalmente, para la estimación de Reservas Minerales es necesario determinar una Ley Mínima Explotable (Cut Off), cuyo cálculo está directamente relacionado al Costo Total, Resultados Metalúrgicos, Condiciones de Comercialización y Precio de los Metales. Una vez determinado el Cut-Off, el yacimiento ya explorado y desarrollado se separa en Bloques de Mineral de acuerdo a su Valor y Certeza, con lo que se definirán que bloques de una o varias estructuras mineralizadas constituyen las Reservas Minerales.

Acorde con lo mencionado, en Buenaventura se considera como Reservas Minerales a aquellos que tienen certeza de Probado y Probable, tengan Valor de Mena y Marginal, y sean Accesibles y Eventualmente Accesibles.

2.1.1 CLASES DE RESERVAS MINERALES SEGÚN LA CERTEZA

De acuerdo a la Certeza las Reservas se clasifican como sigue:

Reserva Mineral Probado (Comprobado – A la vista – Positivo)

Es aquella Reserva cuyo tonelaje, ley, densidad, forma, tamaño y otras características físicas pueden ser estimadas con un Alto Nivel de Confianza. Su estimación se basa en una detallada y confiable información de exploración, muestreo y exámenes obtenidas mediante técnicas apropiadas en lugares tales como afloramientos, trincheras, tajos, labores subterráneas y sondajes. Los tonelajes y leyes son estimados en base a los resultados de un detallado muestreo en los cuales las muestras y mediciones están estrecha y sistemáticamente espaciadas, y en donde los caracteres geológicos están tan bien definidos de modo que el tamaño, forma y contenido de las Reservas están bien determinados

En estas Reservas no existe virtualmente riesgo de discontinuidad de la mineralización.

La categoría de Reserva Mineral Probado implica el más alto grado de confianza y certeza en la estimación, con las expectativas consiguientes que se puedan formar los lectores del informe.

En caso de estructuras tabulares y cuerpos mineralizados elongados, cuando el yacimiento ha sido desarrollado mediante labores subterráneas, para la Estimación de Reservas, se separa en Bloques de Mineral. Puede haber bloques de uno (incluye afloramiento) o mas caras muestreadas, el cual depende de la cantidad de labores con que se dimensiona cada bloque.

Cuando el mineral ha sido desarrollado con una sola labor (incluye afloramiento), la altura del bloque variará de acuerdo a la longitud mineralizada de esa labor o afloramiento. Así para longitudes entre 10m y 25m, la altura será de 5m (figura1); para longitudes entre 25m y 100m, la altura será el 20% de esa longitud (figuras 1 y 2); y para longitudes mayores a 100m, la altura será de 20m. (Figura 5). Cuando hay 2 o más bloques contiguos con valores de Mena o de Marginal, pero de diferente ley (uno con más leyes que el otro), para definir la altura, se tendrá en cuenta la suma de las longitudes correspondientes.

Estas medidas son aplicables si no se tienen sondeos complementarios ni interpretación geológica (estructural, mineralógica y curvas de isovalores), ni definición de rangos verticales de la mineralización, ni estudios geoestadísticos, etc. Por ejemplo si el fracturamiento premineral a lo largo del cual se emplazó la mineralización, tuvo movimiento horizontal o vertical o ambos, el rango vertical de mineralización estaría relacionado a este aspecto, por lo que las alturas de los bloques de una sola labor estaría supeditado a la interpretación respectiva.

Para dos o más labores, que limitan los bloques, se muestran como ejemplo en las figuras 3, 4 y 5. Cuando hay sondeos complementarios la altura de Bloques tanto Probados como Probables serán mayores que si no los hubieran (figura 6). Más casos y ejemplos se dan en el rubro 4.2

Cuando se disponen de curvas de isovalores, éstas definen los Bloques Probados, Probables, Inferidos y Potenciales, siguiendo la tendencia de la franja (figura 15).

En el caso de Cuerpos Mineralizados irregulares, desarrollados en un solo nivel sin chimeneas ni sondajes, la altura del bloque estará en relación a la longitud del eje mayor (figura 8). En caso de no definirse un eje mayor por la irregularidad del cuerpo, la altura será igual a la mitad de la raíz cuadrada del área del cuerpo en ese nivel. Para dos o más labores, considerando los niveles de desarrollo, mas información de sondajes complementarios, etc., la altura de los bloques son mayores que en el caso de no haber sondaje, o puede formarse un solo Bloque Probado entre niveles. Se da ejemplo en la figura 9.

En depósitos diseminados la estimación de Reservas Probadas y Probables está basado principalmente en los resultados de los sondajes suficiente y sistemáticamente espaciados. Comúnmente la delimitación de bloques y estimación de Reservas Minerales se hacen usando la geostatística.

El Coeficiente de Certeza para el Mineral Probado es de 100%.

Reserva Mineral Probable

Es aquella **Reserva** cuyo tonelaje, ley, densidad, forma, tamaño y otras características físicas pueden ser estimadas con un razonable nivel de confianza. Su estimación se basa en informaciones de exploración, muestreos y exámenes obtenidos mediante técnicas apropiadas en lugares tales como afloramientos, trincheras, rajos, labores subterráneas y sondajes. Los tonelajes y leyes son estimados en base a los resultados de las muestras que están mas espaciadas que en el caso de Reservas Probadas o inapropiadamente espaciadas como para confirmar la continuidad geológica y/o de ley, pero este espaciamiento es suficiente como para asumir dicha continuidad.

El grado de confianza y de certeza es lo suficientemente alto para asumir la continuidad, pero el riesgo de discontinuidad es mayor que el del Mineral Probado.

Generalmente (no necesariamente) se delinea en la continuación del Mineral Probado, con una altura igual o menor que este mineral probado (figuras 1, 2, 3, 4 y 5). Algunas veces se delimitan, además de dimensionarse en la continuación de Bloques Probados, o debajo de afloramientos con muestras inapropiadamente pero suficientemente espaciadas, mediante sondajes complementarios, también sistemática y suficientemente espaciados, y en número suficiente, en cuyo caso la altura va a corresponder a la extensión que abarcan los sondajes (figuras 6, 7, 9 y 12). El tonelaje se estimará en base a la información del Mineral Probado correspondiente o de los afloramientos respectivos, y la de los sondajes. La ley se estimará ponderadamente con estas informaciones.

Más casos y ejemplos se dan en el rubro 4.2. Cuando se tienen curvas de Isovalores, éstas definen los Bloques Probados, Probables, Inferidos y Potenciales (figura 15).

El **Coefficiente de Certeza** aplicable al tonelaje de la Reserva Mineral Probable es mas bajo que el de los Minerales Probados pero lo suficientemente alto para asumir su continuidad. Para los efectos de nuestras estimaciones se consideran entre 90% y 100%, siempre y cuando la altura del bloque sea igual que el del Probado correspondiente; esto depende de la regularidad de la mineralización. Los Bloques Probables se pintan achurados con líneas inclinadas a la izquierda, del color correspondiente a su valor.

2.1.2 CLASES DE RESERVAS MINERALES SEGÚN EL VALOR

De acuerdo al Valor las Reservas Minerales se clasifican como sigue:

Reserva Mineral de Mena

Es una Reserva Mineral que siempre genera utilidades, cuyo valor excede todo los siguientes gastos:

- a) Costo de Producción (Incluye depreciación y amortización)
- b) Gastos de Venta.
- c) Gastos Administrativos.
- d) Gastos Financieros.
- e) Regalías (si es que la tienen, es el 10% de la suma de a, b, c y d).

Se tiene que definir el Cut-Off para determinar los **Bloques de Mena**. En los planos, los bloques que conforman el Mineral de Mena se colorean de rojo.

Reserva Mineral Marginal

Es el mineral que forma parte de la Reserva, que en el momento de su determinación bordea ser económicamente explotable. Este mineral, por si solo no genera utilidades, pero si ayuda a generarla, al explotarse junto al Mineral de Mena, pues además los gastos de desarrollo, de infraestructura, de servicios, etc., ya son cubiertos por el Mineral de Mena.

Este mineral puede fácilmente convertirse en mineral de mena con mejoras en los parámetros económicos. Cubre el 90% de los Costos de Producción, el 100% de los Gastos de Venta y el 20% de los Gastos Administrativos y Financieros, y también cubre las Regalías correspondientes el cual es el 10% de la suma de $a+b+c+d$.

El Mineral Marginal se presenta en cuadros aparte de modo que cuando se planea explotarlo se sepa su tonelaje y ley, con el cual se puede hacer una mezcla adecuada con el Mineral de Mena, debiendo ser el promedio de ley mayor que el Cut-Off de Mena.

Se tiene que estimar el Cut-Off correspondiente.

En los planos se le colorea de naranja.

2.1.3 CLASES DE RESERVAS MINERALES SEGÚN LA ACCESIBILIDAD

De acuerdo a la Accesibilidad las Reservas se clasifican como sigue:

Reserva Mineral Accesible

Es aquella Reserva constituida por Bloques Minerales que han sido reconocidos y/o desarrollados por labores subterráneas (galerías, chimenea, sub-niveles) y/o complementados por sondajes, que generalmente están listos para entrar a la etapa de preparación y su consiguiente explotación económicamente.

Reserva Mineral Eventualmente Accesible

Es aquella Reserva que no se encuentra expedita para su inmediata explotación, y está constituida por Bloques Minerales que comúnmente se hallan en la parte inferior del nivel mas bajo, alejados de labores de desarrollo, o con acceso truncado por derrumbes, bóvedas vacías, etc., por lo que, requieren la apertura de nuevas labores o de rehabilitación de las existentes antes de iniciar su preparación.

Estos minerales constiuyen Reservas pues las inversiones adicionales en desarrollo y/o rehabilitación (costos de desarrollo) para hacerlos accesibles, están cubiertos por el saldo entre el valor de dichos bloques y los costos totales.

2.2 RECURSOS MINERALES

Un **Recurso Mineral** es una concentración u ocurrencia de material de Interés económico intrínseco dentro o fuera de la corteza terrestre en tal forma que por la calidad y cantidad haya "perspectivas razonables de una eventual explotación económica". La ubicación, cantidad, ley, características geológicas y de continuidad de un Recurso Mineral son conocidas, estimadas o interpretadas en base a evidencias y conocimientos geológicos específicos.

Los Recursos Minerales se subdividen en orden de confianza geológica decreciente en categorías de **Medido, Indicado e Inferido**. Estas categorías sólo indican la certeza.

No deben incluirse en un Recurso Mineral las porciones de un yacimiento que no tienen perspectivas razonables de una eventual explotación económica.

El término **Recurso Mineral** abarca la mineralización identificada y estimada mediante exploración y muestreo.

El término "perspectivas razonables de una eventual explotación económica" implica un criterio de valor económico, aunque sea preliminar a nivel de perfil, por parte de la persona competente con respecto a los factores técnico y económicos que podrían influir en la perspectiva de explotación económica, incluyendo los parámetros mineros aproximados.

En otras palabras, un **Recurso Mineral** no es un inventario de toda la mineralización perforada o muestreada, cualquiera que sea la ley de corte (Cut-Off), las probables escalas de producción, ubicación y continuidad. En un inventario realista del yacimiento mineral que, bajo condiciones técnicas y económicas asumidas y justificables, podría, total o parcialmente, llegar a ser económicamente explotable, en cuyo caso se le asume valores de Mena y/o Marginal.

Se les clasifica como sigue:

Recurso Mineral Medido

Es aquella parte de un **Recurso Mineral** cuyo tonelaje, ley, densidad, forma, tamaño y otras características físicas pueden ser estimados con un alto nivel de confianza. Se basa en una detallada y confiable información de exploración, muestreo y exámenes obtenidos por medio de técnicas apropiadas en lugares como afloramientos, trincheras, rajos, labores y sondajes. Los lugares de la toma de información (muestreo mediciones y

otros) están suficientemente cercanos como para confirmar una continuidad geológica y de ley.

Parte de un yacimiento explorado y desarrollado puede ser clasificado como **Recurso Mineral Medido** cuando la naturaleza, calidad, cantidad y distribución de los datos son tales que como para no dejar ninguna duda razonable, en opinión de la persona competente que determina el Recurso Mineral, que el tonelaje y ley de la mineralización puede ser estimado dentro de estrechos límites y cualquier variación de lo estimado no afectaría significativamente la posible viabilidad económica.

Esta categoría requiere de un alto nivel de confianza en, y el entendimiento de, la geología y los controles de yacimiento.

La confianza en la estimación es suficiente como para permitir la aplicación de parámetros técnicos y económicos, y hacer posible una evaluación de la viabilidad económica, la cual tiene un mayor grado de certeza que una evaluación basada en un Recurso Mineral Indicado.

El nivel de confianza geológica y el grado de certeza del **Recurso Mineral Medido** es similar al requerido para la determinación de **Reserva Mineral Probado**.

Si se eliminan las incertidumbres en los factores modificantes un **Recurso Mineral Medido** puede convertirse en **Reserva Mineral Probado** (figura A). El **Coefficiente de Certeza** de este mineral es del 100%.

En Proyectos Brownfields de una mina en Producción, para la estimación de este **Recurso** se puede utilizar las mismas **Leyes Mínimas de Explotación** usadas en la evaluación de Reservas de la Mina, siempre y cuando sean de mineralizaciones similares.

Recurso Mineral Indicado

Es aquella parte de un **Recurso Mineral** cuyo tonelaje, ley, densidad, forma, tamaño y otras características geológicas pueden ser estimadas con un razonable nivel de confianza. Su estimación se basa en información de exploración, muestreo y examen obtenidos mediante técnicas apropiadas en lugares tales como afloramientos, trincheras, tajos, labores y sondajes. Los lugares de la toma de información (muestreo, mediciones y otros) están tan espaciados o inapropiadamente espaciadas como para confirmar una continuidad geológica y de ley, pero este espaciamiento es suficiente como para asumir dicha continuidad. El grado de confianza es suficientemente alto como para asumir la continuidad.

Parte de un **Recurso Mineral** puede ser clasificado como un **Recurso Mineral Indicado** cuando la naturaleza, calidad, cantidad y distribución de los datos son tales como para permitir una interpretación confiable del aspecto geológico y asumir la continuidad de la mineralización.

La confianza en la estimación es suficiente para permitir la aplicación de parámetros técnicos y económicos, y una evaluación de viabilidad económica.

El nivel de confianza geológica y el grado de certeza del **Recurso Mineral Indicado** es similar al requerido para determinar una **Reserva Mineral Probable**. Si se eliminan las incertidumbres en los factores modificantes un **Recurso Mineral Indicado** puede convertirse en **Reserva Mineral Probable** (Figura A). El **Coefficiente de Certeza** de este mineral es entre 90% y 100%.

En Proyectos Brownfields de una mina en Producción, en la estimación de este **Recurso**, se puede utilizar las mismas Leyes Mínimas de Explotación consideradas en la evaluación de Reservas de la Mina, siempre y cuando sean de mineralizaciones similares.

Recurso Mineral Inferido (Prospectivo, Posible)

Es aquella parte de un **Recurso Mineral** cuyo tonelaje y ley puede ser estimado con un bajo nivel de confianza. Es estimado e inferido a partir de evidencias geológicas, y la continuidad geológica y la ley es asumida pero no verificada. Está basado en la información obtenida, por medio de apropiadas técnicas, de afloramientos, trincheras, rajos, labores y sondajes que pueden ser limitados o de calidad y confianza inciertos.

La categoría de Inferido tiene la intención de informar situaciones donde una concentración y ocurrencia de mineral ha sido identificado, y se ha completado limitadas mediciones y muestreos, pero donde los datos son insuficientes para permitir la continuidad geológica y/o de ley, sea interpretado confiablemente. Comúnmente sería razonable esperar que la mayoría de los **Recursos Minerales Inferidos** podrían pasar a ser **Recursos Minerales Indicados** con una exploración continua. Sin embargo, debido a la incertidumbre del **Recurso Mineral Inferido**, no se asumirá que tal cambio siempre ocurrirá.

La confianza en la estimación de **Recursos Minerales Inferidos** usualmente no es suficiente como para permitir que los resultados de la aplicación de los parámetros técnicos y económicos sean usados en un planeamiento detallado. Por esta razón no hay relación directa entre un **Recurso Inferido** y alguna categoría de **Reservas Minerales** (ver figura A).

La estimación de este Recurso se basa también en la continuidad asumida o de repetición de evidencias geológicas favorables que a continuación se dan:

- a) Diagramas de Curvas de Isovalores
- b) Aislados sondajes
- c) Áreas de influencia de Recursos Indicados o de Reservas Probables
- d) Indicios de buena valorización en afloramientos con muestreos muy espaciados en trincheras, labores, rajos, etc.

Generalmente se les dimensionan en la extensión inmediata no explorada de 1 o varios bloques de **Reservas Probables** o de **Recursos Indicados** con valores de **Mena o Marginal**. Asimismo, se delinean con la información de uno o más sondajes muy espaciados y/o combinando ambas situaciones. Otras veces se delimitan a partir de afloramientos muestreados en trincheras y cateos, en los cuales los resultados de los muestreos dan información sobre la existencia de mineralización económica hacia abajo. Si se tuviera un solo sondaje muy aislado, sin relación a bloques **Probables** o **Indicados** o a afloramientos bastante anómalos, éste no generaría un **Recurso Inferido**.

La altura de los bloques de un **Recurso Mineral Inferido** puede ser correspondiente a la suma de las alturas de bloques de **Recursos Medidos + Indicados** ó a la suma de las alturas de **Bloques Probados + Probables**, ó a la mitad de la longitud del afloramiento muestreado con valor de Mena y/o Marginal, salvo que el criterio geológico y las indicaciones de curvas de isovalores o la intersección de sondajes bastante espaciados sugieran otra altura u otra dimensión.

Referente al **Coefficiente de Certeza** aplicable al tonelaje del **Recurso Inferido**, se sugiere dos rangos:

1. Cuando el **Bloque Inferido** está ubicado en la continuación de un **Bloque Probable**, pero con información de muestreos de sondajes, de labores (correspondientes al **Bloque Probado** respectivo) o de afloramientos respectivos, el **Coefficiente de Certeza** será entre 70% y 90%, lo que depende de la regularidad de la mineralización y de la cantidad y/o espaciamiento de los lugares de muestreo.
2. Cuando el **Bloque Inferido** está situado solamente en la continuación de un **Bloque Probable** o sea que no hay sondajes, o si los hay son escasos, en cuyo caso las muestras son también escasas, o sea que su delimitación está basada en la interpretación estructural y mineralógica principalmente, el **Coefficiente de Certeza** será entre 50% y 70%.

Los **Bloques de Recursos Minerales Inferidos** se achuran con líneas horizontales del color de mena o marginal según el caso.

2.3 OTROS MINERALES (NO RESERVAS NI RECURSOS)

Estos Otros Minerales que vamos a mencionar en adelante **no se consideran como Reservas Minerales ni como Recursos Minerales.**

2.3.1 SEGÚN LA CERTEZA

Mineral Probado (ya se describió, pero es sin valor económico)

Mineral Probable (ya se describió, pero es sin valor económico)

Mineral Inferido (ya se describió, pero es sin valor económico)

Mineral Potencial

Mineral Potencial

Es aquella parte de un **Yacimiento Mineral** cuyo tonelaje y ley puede ser estimado con bastante bajo nivel de confianza menor que el del Recurso Mineral Inferido. Su estimación se basa mayormente en el conocimiento geológico del yacimiento, es decir muchas veces no depende de la exposición directa de la mineralización económica, sino de indicaciones indirectas tales como: 1) Presencia de Recurso Mineral Inferido en cuya extensión puede dimensionarse, 2) Curvas de Isovalores y/o rangos verticales de mineralización que se extiendan fuera del Recurso Inferido, 3) Controles Litoestructurales, 4) Anomalías geofísicas y/o geoquímicas que se correlacionan bien con la geología superficial, 5) Relación con minas vecinas o estructuras cercanas mineralizadas desarrolladas, etc.

Muchas veces su estimación depende de la información geológica y del muestreo de los afloramientos, que sin tener valores de mena o marginal, tienen: Óxidos, ensambles y alteraciones favorables, valores anómalos interesantes, y estructuralmente sean de interés y correlacionables con anomalías geofísicas y/o geoquímicas. En este caso se puede asumir la presencia de **Mineral Potencial** en profundidad con mineralización económica y/o marginal. (figura 13)

A veces se les dimensionan a partir de los afloramientos de estructuras, cuyos muestreos arrojan bajos valores pero anómalos, pero estructural y mineralógicamente interesantes, y a la vez sean paralelas a otras estructuras de similares características mineralógicas y estructurales en superficie, las cuales fueron ya reconocidas suficientemente y cuentan con **Reservas y Recursos**. En este caso el **Bloque de Mineral Potencial** se ubicará debajo de los afloramientos con anomalías y tendrá el mismo rango vertical de las **Reservas + Recursos** de las estructuras paralelas ya desarrolladas, y estará a una profundidad similar que el de las **Reservas y Recursos** de esas estructuras (figura 14) y, no se estimará la ley.

En los casos que se delimiten en la extensión del **Recurso Mineral Inferido** la altura de los bloques puede ser igual a la altura de dicho Recurso, siempre y cuando no se tenga un criterio geológico que de otra altura (curvas de isovalores, interpretación geostadística, profundización de estructuras vecinas, etc.). En este caso la ley será de los **Recursos Minerales Inferidos** correspondientes.

Cuando se estima a partir de afloramientos cuyos muestreos muy espaciados dan valores de interés económico, la altura media desde superficie del bloque correspondiente, puede ser igual a la longitud de la mineralización de interés o igual a la altura de la mineralización de estructuras vecinas que contienen Reservas y/o Recursos, salvo otros criterios geológicos den otra altura. La ley será el promedio de los afloramientos correspondientes.

Ocasionalmente puede dimensionarse a partir de un sondaje muy aislado.

Cuando se estiman a partir de anomalías geofísicas y/o geoquímicas, las alturas de los bloques pueden corresponder al de las estructuras mineralizadas de minas vecinas. En este caso no se estima la ley de este mineral.

Respecto al **Coeficiente de Certeza del Mineral Potencial** se sugiere aplicar dos rangos al tonelaje: 1) **Cuando el Bloque Potencial** está en la continuación de un Bloque Inferido, pero con información de muestreos de sondajes, de labores (correspondientes al Bloque Probado respectivo), o de afloramientos respectivos, el **Coeficiente de Certeza será entre 50% y 70%** y dependerá de las evidencias geológicas favorables que se tiene. 2) **Cuando el Bloque Potencial** está solamente situado en la extensión del Bloque Inferido o sea no hay sondajes, o si los hay en el Bloque Inferido son escasos, en cuyo caso las muestras son también escasas, o sea que su delimitación está basada en la interpretación estructural y minerológica. El **Coeficiente de Certeza** será entre 25% y 50%.

Este mineral no constituye ni Reservas ni Recursos y sus bloques tendrán un achurado de líneas verticales con el color correspondiente a Mena o Marginal, según el caso. Si bien este mineral no constituye ni Reservas ni Recursos, su presencia indica la magnitud y posible vida operativa de un yacimiento.

No hay Mineral Potencial con valores de Submarginal ni de Baja Ley

2.3.2 SEGÚN EL VALOR

Mineral Submarginal

Es aquel **mineral no económico** cuyo valor sólo cubre los Costos de Producción y las Regalías correspondientes, por lo que no debe explotarse aún bajo mejores condiciones previsibles en el mediano plazo, porque su valor no alcanzaría a cubrir los otros gastos. Se requerirá variaciones favorables mas allá de lo previsible en los parámetros económicos para transformarse en Mineral económicamente explotable. Aunque puedan tener un grado de confianza y de certeza, en su estimación, similares a los correspondientes a Reservas Probadas y Probables, esto no es suficiente para considerarlas como Reservas Minerales.

En los planos se les pinta de color azul.

No hay Mineral Inferido ni Mineral Potencial para Mineral Submarginal

Mineral de Baja Ley

Es aquel **mineral no económico** cuyo valor es inferior al del mineral submarginal y cuyo Límite Mínimo es menor que el costo de Producción, pero equivalente a \$25/Tc.

En los planos se coloreará de verde.

No hay Mineral Inferido ni Mineral Potencial para este Mineral

2.3.3 SEGÚN LA ACCESIBILIDAD

Mineral Accesible (ya se describió, pero es sin valor económico)

Mineral Eventualmente Accesible (ya se describió, pero es sin valor económico)

Mineral Inaccesible

Mineral Inaccesible

Es aquel mineral cuya ubicación en el espacio es similar a lo indicado para el Mineral Eventualmente Accesible, pero que la ejecución de las labores o rehabilitaciones para hacerlos Accesibles es evidentemente muy costosa, tal es el caso de bloques asilados, bloques que en conjunto son de poco tonelaje, o los ubicados debajo de una laguna, o los situados en zonas cuya explotación afectará a instalaciones cercanas a piques, etc.

En éstas el costo/Tcs de inversión necesaria para hacerles Accesibles no es cubierto por el saldo entre valor del ó de los bloques Inaccesibles/Tcs y Cut-Off correspondiente.

Este mineral no constituye Reserva Mineral, aunque su valor sea de Mena o Marginal; pero puede ser considerado un Recurso Mineral si el tonelaje es considerable (con bloques no aislados), porque una subida de precios o

bajada de costos podría hacer económico su explotación, en cuyo caso se convertiría en Reserva Mineral. Además puede haber Bloques Submarginales y de Baja Ley Inaccesibles, los cuales no constituyen ni Reservas ni Recursos Minerales.

En los planos no se les colorea.

2.4 SIMBOLOGÍA DEL INVENTARIO DE MINERALES

Se refiere a la representación en los planos de los bloques del Inventario de Minerales, de acuerdo a la clasificación de los componentes de dicho Inventario (Rubro 2.0). Esta simbología se resume en la figura D

3.0 CÁLCULO DE LEYES MÍNIMAS EXPLOTABLES Y EQUIVALENTES

3.1 LEY MÍNIMA EXPLOTABLE

La Ley Mínima Explotable es aquella cuyo valor es igual al Costo Total / Tc que se incurre al explotar una Tonelada de Mineral en una Operación Minera. Esta Ley Mínima o Cut-Off sirve para determinar qué bloques previamente valorizados de estructuras mineralizadas de un yacimiento, tienen mayores valores que esta Ley Mínima, y por lo tanto constituirán las Reservas.

La información necesaria para el Cálculo de Leyes Mínimas Explotables lo conforman:

- Costo Total.- Incluye: a) Costos de Producción, b) Gastos de Ventas, c) Gastos Administrativos, d) Gastos Financieros, y e) Regalías.
- Balance Metalúrgico: a) Leyes de Mineral de Cabeza, b) Leyes de Concentrados, c) Radios de Concentración, y d) Ley de elementos penalizables.
- Condiciones de Comercialización y/o Contratos de Venta.
- Precios de los Metales.

1. Costo Total

Es el factor principal en el Cálculo de la Ley Mínima Explotable. La determinación de este Costo se hace en base a la información proporcionada por el Departamento de Costos y Presupuestos cada fin de año, y esta información consiste en cuadros de: Costos de Producción, y Cash Costs en onzas de oro y plata. En esta información aparecen las partes del Costo Total, que como se mencionó antes está constituido por: Costo de Producción (con Depreciación y Amortización), Gastos de Venta, Gastos Administrativos, Gastos Financieros (en caso de tenerlos), y Regalías (en caso de tenerlos).

2. Balance Metalúrgico

En los planeamientos operacionales de fin de año, cada Unidad Minera, reporta los Balances Metalúrgicos Proyectados para el año siguiente, los cuales son utilizados en la determinación de las Leyes Mínimas para la estimación de Reservas Minerales al 31 de diciembre de cada año.

3. Condiciones de Comercialización

El Departamento Comercial es el que dispone de las condiciones de comercialización y/o contratos de Venta de los Concentrados o de los metales refinados.

4. Precios de los Metales

Para el cálculo de Leyes Mínimas es necesario valorizar los concentradores o los productos refinados. Los precios utilizados en la Estimación de Reservas Minerales para el SEC (Securities Exchange and Commission, Institución Estatal Reguladora de Empresas y Valores de USA) corresponden al promedio de los últimos 3 años que para la estimación de reservas de 2006 fueron los siguientes: Ag=\$6.3Oz; Pb=\$793/TM; Zn=\$1,085/TM; Cu= \$2,774/TM y Au=\$350/Oz. Es conveniente usar también los precios proyectados por el Departamento de Comercialización que se espera tener cada año, en base a lo cual se estimarán también las Reservas Minerales cuyo uso sería mas en la Operación Minera.

El hecho que Buenaventura está en la Bolsa de Valores de Nueva York, está comprometida a utilizar los Precios y Normas Regulados por el SEC para estimar sus Reservas Minerales.

Aparte de calcular Las Leyes Mínimas Explotables que corresponden a las Reservas de Mena, es necesario también determinar Cut-Offs para: Mineral Marginal (que se incluyen en las Reservas), Submarginal y Baja Ley, utilizando sus costos correspondientes, porque estos, sobretodo el Mineral Submarginal, puede pasar a ser Reserva con una fuerte subida de precios, o una bajada de costos. En la determinación de los Cut-Offs correspondientes se tendrán en cuenta lo mencionado en Reservas Minerales (Rubro 2.1). Ejemplo Anexo 1

3.2 PROCESO DE CÁLCULO DE LA LEY MÍNIMA EXPLOTABLE Y LOS OTROS CUT-OFFS.

- 1) Se determinan los costos para **Mineral de Mena, Marginal, Submarginal y Baja Ley**. Ejemplo: Veta Camucha (Recuperada), Anexo No.1.
- 2) El Departamento Comercial Valoriza los Concentrados y/o Productos Refinados, con precios promedios de los últimos tres años (para el SEC), y también con precios Proyectados. Como se verá mas adelante en esta valorización determina el Valor Bruto y Valor Neto de los Concentrados. Ejemplo de Valorización de Concentrados de Veta Camucha, Anexo No. 2.
- 3) En base a esta información, que incluye el Balance Metalúrgico, Geología Lima utiliza Excell en el cálculo de las Leyes Mínimas para el Mineral de Mena y Marginal (Reservas Minerales), Submarginal y Baja Ley (Otros Minerales que no conforman ni Reservas ni Recursos Minerales). Ejemplo de Veta Camucha (Recuperada) en Anexo 3.

3.3 EQUIVALENTES Y LEYES POR 1\$ Y SU USO

En el proceso 3, por el cual se definen los Cut-Offs, también se determinan los Equivalentes Metálicos, y Leyes por 1\$, los cuales se usan para obtener Las

Leyes Mínimas Equivalentes en Plata, en Oro, o en Zinc, etc., lo que dependerá de la predominancia de alguno de ellos.

Cuando en el Balance Metalúrgico se tiene más de un elemento pagable es imprescindible la determinación de los Equivalentes Metálicos referidos a uno de los elementos predominantes. Por ejemplo para la estimación de Reservas de la Veta Camucha (Recuperada) para el 2006, se utilizaron los siguientes precios SEC. Ag=\$6.30/Oz, Pb=\$793/TM y Zn=\$1,085/TM, con los cuales se determinó los siguientes equivalentes referidos al a plata y cuyo detalle de cálculo esta en el Anexo 3.

$$1\% \text{ Pb} = 1.0995 \text{ Oz/Tc Ag}$$

$$1\% \text{ Zn} = 1.0853 \text{ Oz/Tc Ag}$$

y las siguientes leyes/\$ que se dan a continuación

$$\text{\$1} = 0.230835 \text{ Oz/Tc Ag}$$

$$\text{\$1} = 0.20994 \% \text{ Pb}$$

$$\text{\$1} = 0.21269 \% \text{ Zn}$$

Con esta información y los Costos de Reservas de Mena y Marginal, y de Mineral Sub-Marginal y Baja Ley (No Reservas) se determinan las siguientes Leyes Mínimas referidas a la Plata.

Mineral	Costo \$/Tc	Ley Ag por \$	Ley Mínima Eq. Ag
Mena	83.80	0.23083	19.34
Marginal	68.80	0.23083	15.88
Submarginal	65.00	0.23083	15.00
Baja Ley	25.00	0.23083	5.77

La definición de Mineral de Mena y Marginal, así como de Mineral Submarginal y Baja Ley se da en el Rubro 2.1 y 2.3

Supongamos que un Bloque Probado X tiene las siguientes leyes: 6.0 Oz/Tc Ag, 3.8 % Pb y 7.5%Zn. Entonces su Ley Equivalente en Ag será: 6.0 Oz/Tc Ag + 3.8% Pb x 1.0995 Oz/Tc Ag + 7.5% Zn x 1.0853 Oz/Tc Ag = 18.31 Oz/Tc Ag.

Entonces el Bloque Probado X es Marginal

4.0 BLOQUEO DE MINERAL

Una vez determinadas las Leyes Mínimas (Cut-Offs) para cada tipo de mineral de acuerdo a su valor (Mena, Marginal, Submarginal y Baja Ley), se procederá a la definición de bloques de Mineral, para lo cual es necesario contar con: Registros de ensayos de las labores y sondajes en el que deben estar incluidos los ancho de muestras, y también disponer de los planos de muestreo.

4.1 Información para Determinación de Bloques de Mineral

Previamente los ensayos reportados por laboratorio se ingresan como base de datos al software respectivo, en el cual la tabla ASSAY genera dos campos iguales, uno de leyes originales, y otro donde se corregirán las leyes erráticas. Asimismo en tabla SURVEY cada canal es registrado en relación a su ubicación espacial (coordenadas Norte, Este y Cota). Para el bloqueo de mineral se necesitan, previamente los siguientes datos:

Promedio de Leyes de cada Canal

Normalmente un canal tiene mas de una muestra, motivo por el cual tiene que obtenerse el promedio ponderado de Leyes de cada canal. Las leyes muy bajas de muestras que están ubicados en los lados del canal no se consideran para promediar. Ejemplo:

El cálculo es como sigue:

S Ancho de Muestra x Ley = Ley Promedio del Canal

S Anchos de Muestra

Leyes Erráticas

(Se menciona en el Manual de Muestreo)

En caso que hayan Leyes Erráticas, se deberá reemplazarlas por el promedio de las dos muestras anteriores y las dos muestras posteriores, o por el promedio del tramo (sin considerar la Ley Errática) en el que se encuentra.

Dilución

(Se menciona en el Manual de Muestreo)

En seguida se aplica la dilución correspondiente muestra por muestra, cuando haya muestras con anchos menores al Ancho Mínimo de Minado, en caso contrario se aplicará la Dilución Mínima al promedio del tramo de muestras de una labor (Ver figura 16).

Dilución Mínima.-

(Se menciona en el Manual de Muestreo) Es aquella mezcla inevitable de material pobre al explotarse una estructura cuyo ancho es mayor que la diferencia entre el Ancho Mínimo de Minado y dicha Dilución. Ejemplo en figura 16.

Ancho Mínimo de Minado

(Se menciona en el Manual de Muestreo)

En cada Unidad de Operación Minera se tiene definido uno o mas Anchos Mínimos de Minado, lo que depende de los equipos que se usan para extraer mineral de los tajeos.

Este dato se usa en los casos de estructuras angostas y en estructuras anchas (según el equipo que se usa) que tienen que diluirse a un Ancho Mínimo de Minado.

Calificación de Leyes Canal por Canal

Una vez efectuado los pasos anteriores se hace la **calificación de la ley de cada canal** teniendo en cuenta los Cut-Offs determinados, de modo si su ley pueda corresponder a valor de Mena, Marginal, Submarginal, o Baja Ley, para luego definir que tramos de canales corresponden a Mena, etc.

Indudablemente en algunos tramos pueden considerarse algunas partes estériles o de menor ley que el Cut-Off correspondiente, siempre y cuando no se tengan cinco canales consecutivos con leyes debajo de valores de Mena, Marginal o Submarginal. Si esto ocurriera se procederá a separar el tramo de 5 canales como Mineral Submarginal o Baja Ley según el caso.

Longitud Mínima y Máxima de Bloque de Mineral

La Longitud Mínima para formar un Bloque de Mineral será de 10m para minerales polimetálicos y de 5m para minerales de metales preciosos, y la máxima será 60m en yacimientos metales preciosos y 120m en depósitos polimetálicos.

Entre los bloques de Mena, pueden haber o no Bloques Marginales o Submarginales o de Baja Ley según los casos.

En Bloques de Baja Ley de gran longitud, y en donde haya algún tramo de Mena o Marginal que por su poca longitud no llegaron a formar un bloque independiente, se subdividirán en bloques de distinta ley para indicar las posibilidades de exploración con chimeneas, o su explotación respectiva.

Cálculo del Ancho y Leyes de muestras de un Tramo

- a) Si se cuenta con un software GEMCOM (Orcopampa), u otro en alguna Unidad, para el cálculo de Ancho y Leyes de un Tramo se hace ingresando los datos de anchos y leyes de los canales al software respectivo, mediante el cual se puede generar un plano de leyes por labor. En ese plano se tendrán ploteados los anchos y leyes de los canales. En base a estos datos se genera un polígono que encierra

todas las leyes que entrarán en los cálculos del tramo seleccionado, para obtener usando el programa del software dos datos principales:

- 1) Promedio ponderado de las Leyes de Muestreo del Tramo
- 2) El área del polígono inscrito.

Para obtener el Ancho Promedio del Tramo se recurre usar la fórmula:

Area = Longitud x ancho, del cual se despeja:

$$\text{Ancho} = \frac{\text{Area}}{\text{Longitud}}$$

Este método de cálculo es mejor sobre todo en estructuras anchas (vetas, mantos o cuerpos alargados, etc.), en las que comúnmente se hacen ventanas para definir las cajas.

Luego de obtener estos datos se aplica la dilución correspondiente al Promedio de Anchos y Leyes.

- b) En Estructuras Angostas como en Julcani, Recuperada, Antapite, etc, el cálculo de ancho y leyes de un tramo puede hacerse por el método tradicional, en las cuales la dilución se aplica muchas veces muestra por muestra; o se aplica la dilución Mínima al Promedio del Tramo, cuando los anchos de estructura sean mayores a la diferencia entre el Ancho Mínimo de Minado y dicha dilución (Figura 16).

En estructuras angostas el Método Tradicional, para el cálculo de Anchos y Leyes Diluidos es el siguiente:

$$\text{Ancho Promedio Diluido del tramo} = \frac{\text{Anchos Diluidos de Canales}}{\text{No. de Canales}}$$

$$\text{Leyes Promedios Dil del Tramo} = \frac{\sum \text{Anchos Dil de Canales} \times \text{Leyes Dil de Canales}}{\sum \text{Anchos Dil de Canales}}$$

En Estructuras Anchas el Método Tradicional para el Cálculo de Anchos y Leyes Diluidas es el siguiente:

$$\text{Ancho Promedio del Tramo} = \frac{\sum \text{Anchos de Canales}}{\text{No. de Canales}}$$

$$\text{Leyes Promedios del tramo} = \frac{\sum \text{Anchos de Canales} \times \text{Leyes de Canales}}{\sum \text{Anchos de Canales}}$$

$$\text{Ancho Promedio Diluido del tramo} = \text{Ancho Promedio del Tramo} + \text{Dilución}$$

$$\text{Leyes Promedios Dil del Tramo} = \frac{\sum \text{Ancho Promedio Dil del Tramo} \times \text{Leyes Promedio del Tramo}}{\sum \text{Ancho Promedio Dil del Tramo}}$$

c) **En Estructuras Anchas (Método Software)**

Usando un software se determinan leyes promedios del tramo.

$$\text{Ancho promedio del Tramo} = \frac{\text{Area del Polígono}}{\text{Longitud del Tramo}}$$

$$\text{Ancho Promedio Diluido del tramo} = \text{Ancho Promedio del Tramo} + \text{Dilución}$$

$$\text{Leyes Promedios Dil del Tramo} = \frac{\text{Ancho Promedio del Tramo} \times \text{Leyes Promedios del Tramo}}{\text{Ancho Promedio Dil del Tramo}}$$

En todos estos casos para el cálculo de Ancho Promedio, Leyes Promedios y Leyes Promedios Diluidas se calculan utilizando un software.

4.2 Dimensionamiento de Bloques

Una vez que se determinan los Anchos y Leyes Promedios Diluidos de los diferentes tramos de Mineral ubicados en Galerías y Chimeneas, se procede a dimensionar los Bloques de Mineral de acuerdo al valor (Mena, Marginal, Submarginal y Baja Ley) y de acuerdo a la certeza (Probado y Probable). Es decir se procede a representar en figuras geométricas (Bloques de Mineral), la forma de la mineralización de acuerdo a su valor y a su certeza, para lo cual como se dijo antes se tiene que contar con los Cut-Offs correspondientes.

Para determinar la forma y tamaño de los bloques depende de la cantidad de labores que lo limita, pero siempre debe tenerse en cuenta primero los criterios geológicos (curvas de isovalores, interpretación estructural y mineralógica) e información de sondajes, y si es posible aplicar la geoestadística con los cuales se puede dar la forma mas apropiada.

En caso de depósitos diseminados o cuerpos irregulares se usan mayormente la geoestadística.

4.2.1 Dimensión de Bloques

- a) El caso mas simple es cuando el mineral ha sido desarrollando con una sola labor (galerías o chimeneas), en donde puede haber uno o mas tramos mineralizados, o también ha sido muestreado sólo en afloramientos. En este caso, en cada tramo, se delineará un Bloque Rectangular, cuyo lado mayor será igual a la longitud del tramo correspondiente, y su lado menor será la altura, la cual tendrá una longitud proporcional al lado mayor, siempre y cuando no hayan criterios geológicos.

Cuando se trata de labores habrán Bloques a ambos lados de esas. En caso de afloramiento se tendrá bloques sólo hacia abajo.

En Buenaventura se ha establecido lo siguiente:

- Los Bloques tendrán una longitud mínima de 10m.
- El Mineral Probado (o el Mineral Medido) con longitudes entre 10m y 25m tendrá una altura de 5m (figura 1); los de 25m a 100m, tendrán el 20% de la longitud correspondiente (figura 1); y para longitudes mayores a 100m la altura será 20m.
(Figura 4 y 5)
- El Mineral Probable (o el Mineral Indicado) se delinea a continuación del Mineral Probado, tendrá la misma longitud de este y su altura será igual o menor que el mismo. (Figuras 1, 2, 3, 4, 5, 6, 8, 9, 10 y 11)
- El Recurso Inferido, en el caso que esté en la continuación del Mineral Probable (o del Indicado), podrá tener una altura igual a

- la suma de las alturas de los bloques probados y probables (figuras 3, 4, 5, 9, 10 y 11).
- El mineral potencial, en caso que esté en la continuación del Recurso Inferido, tendrá una altura igual que aquel (figura 6, 7 y 12).
- La altura sugerida para los Minerales Probados (Minerales Medidos), Probables (Minerales Indicados), Inferidos y Potenciales podrán ser diferentes si usan criterios geológicos (curvas de isovalores, etc.) y/o sondajes complementarios.

b) En los casos en que el yacimiento ha sido desarrollado con mas de una labor (más de una galería, o mas de una chimenea, etc.) o muestreados en afloramientos y complementados con sondajes, se configuran Bloques combinando las dimensiones de los respectivos tramos y/o incluyendo la influencia de los sondajes

Indudablemente si se tienen sondajes debajo donde se trata definir un bloque probado y otro probable, estos deberían tener mayor altura, y ciertamente el bloque probable tendrá mayor certeza que si no hubiera sondaje.

Se dan algunos ejemplos:

- Cuando se tienen dos galerías en diferentes niveles, con tramos correlacionables se bloquea 2 Bloques Probados (o 2 Bloques Medidos) con sus respectivos Probables (o Indicado); y si queda un espacio grande entre ellos en ese espacio puede bloquearse un Recurso Inferido (figura 10), y si hubieran sondajes bastante cercanos en ese espacio que demuestran continuidad de la mineralización se consideraría un solo Bloque Probado (o Medido) entre ambos niveles (figura 11), como entre niveles 1 y 2, y entre niveles 3 y 4.
- Cuando se tienen dos galerías en diferentes niveles con tramos correlacionables y sus respectivos Bloques Probables (o

- Indicados) se cruzan o se empalman se considera un solo Bloque Probable (o Indicado) entre ambos niveles (figura 10, entre niveles 3 y 4).
- Cuando se tiene una galería y una chimenea se bloqueará de dos formas (figura 3), todo depende del criterio geológico.
- Cuando se tiene dos galerías en diferentes niveles mas una o dos chimeneas, con tramos correlacionables, se formará un solo Bloque Probado (o medido) entre en esos niveles y las chimeneas. (figura 5, entre niveles 1 y 2).
- Cuando se tiene una galería y dos chimeneas se dimensiona un Bloque Probado (o Medido) entre el nivel y las dos chimeneas mas un Bloque Probable (o Indicado) fuera de los límites de la chimenea cuya altura puede ser el 20% del a longitud que separa dichas chimeneas (figura 4)

En los casos a y b mencionados, los criterios geológicos (curvas de isovalores, controles estructurales y mineralógicos, rangos verticales de mineralización) o estudios geoestadísticos, son siempre buenas herramientas que ayudan al dimensionamiento de bloques.

- c) Hay casos en que se tienen afloramientos con bajos valores pero anómalos y solamente explorados mediante sondajes debajo de dichos afloramientos.

Si los sondajes muestran valores de interés económico, claro que no todos, pueden estimarse ya sea Reservas Minerales o Recursos Minerales, todo dependerá si la exploración está dentro de una Unidad de Producción, o en un Proyecto con o sin estudio de factibilidad, también dependerá del espaciamiento de los sondajes y de la interpretación geológica (estructural, mineralógica, etc.), o estudio geostadístico.

- En una Unidad de Producción o en Proyectos haya también casos cuyo espaciamiento de sondajes es suficiente como asumir la continuidad geológica y de Ley, se puede dimensionar

- Bloques Probados o Probables (figura 7), que corresponde a Recursos medidos o Indicados en un Proyecto sin estudio de Factibilidad.
- Cuando los sondajes cortan estructuras mineralizadas cuyo espaciamiento no es suficiente como para asumir la continuidad geológica y de Ley, se puede dimensionar Bloques Inferidos (figuras 7 y 12), o Bloques de Mineral Potencial si las intersecciones de sondajes son muy aisladas y escasas o no hay sondajes (figuras 7 y 12).
- Muchas veces en un proyecto los sondajes con espaciamiento sistemático, por decir, entre 50m y 100m pueden generar Recursos Inferidos; si se cierra la malla entre 20m y 50m pueden dar lugar a Bloques de Recursos Indicados; y si se cierra la malla a 20m o menos pueden generar Bloque de Recursos Medidos; en todo caso esto puede ser sustentado por estudios geostatísticos (figuras 7 y 12).

Por ejemplo en Orcopampa, cuando el espaciamiento de sondajes fuera entre 20m y 50m, el bloque dimensionable podría considerarse como Probable, y con mayor espaciamiento (entre 50m y 100m) como bloque Inferido (Prospectivo o Posible), siempre y cuando corresponda a un clavo conocido o que los criterios geológicos (curvas de isovalores, controles estructurales y mineralógicos, definición de rangos verticales de mineralización, etc.); en todo caso es necesario un estudio geoestadístico para definir un espaciamiento mínimo.

Estos mismos criterios (dados en a, b y c) se tendrán en cuenta para definir el dimensionamiento de bloques en cuerpos mineralizados elongados o irregulares y mantos.

- d) Los criterios de dimensionamiento de bloques mencionados en a, b y c, aplicables a estructuras tabulares también son aplicables a cuerpos mineralizados, elongados, y aún a los cuerpos irregulares, como el caso que se menciona en Reserva Mineral

Probado cuando se refería a cuerpos mineralizados irregulares.

4.2.2. Cálculo de Tonelaje y Ley de Bloques de Mineral

Una vez definidos los Bloques de Mineral se procede al cálculo de tonelaje y ley correspondientes.

Se entiende que ya se tienen determinadas las longitudes de los tramos mineralizados que conforman un bloque, así como sus anchos y leyes promedios, habiéndose hecho además, la corrección de las leyes altamente erráticas, y aplicado la dilución respectiva. Teniendo los cut-offs correspondientes y las leyes promedios de los tramos, se puede asignar a cada tramo la categoría de MENA, Marginal, Submarginal, o Baja Ley según el valor.

- En el proceso convencional del cálculo de tonelaje de un bloque con estructura tabular, primero se debe determinar su volumen para lo cual se calcula el área del bloque en sección longitudinal (muchas veces con planímetro) y el ancho promedio diluido respectivo como se mencionó antes; entonces para calcular el volumen se utiliza la formula:

Volumen = Área del Bloque x Ancho Promedio Diluido

En el caso de cuerpos mineralizados se determina áreas del cuerpo en planta en los 2 niveles (si el cuerpo se extiende entre nivel y nivel), y si es posible, calcular el área en un nivel intermedio, en cuyo caso se estimarán 2 volúmenes para un mismo bloque.

Entonces el cálculo de volumen será: $V = \frac{\sum \text{Áreas}}{2}$

El tonelaje es :

Tonelaje = Volumen x Factor de tonelaje

La ley Promedio Diluido de un bloque en una estructura tabular es:

Ley Promedio Diluido = $\frac{\sum \text{Longitudes de tramos} \times \text{Leyes Promedios Diluidos de tramos}}{\sum \text{Longitudes de tramos}}$

La Ley promedio Diluido de un bloque en cuerpo mineralizado es:

Ley Promedio Diluido = $\frac{\sum \text{Áreas de los niveles} \times \text{Leyes Promedios Diluidos de áreas}}{\sum \text{Áreas de los niveles}}$

NOTA: Como referencia se dan equivalencias y conversiones de tonelaje y leyes en Anexo 5

Peso Específico y Factor de Tonelaje

Es el peso en toneladas métricas de un metro cúbico de material. Por lo visto este Peso Específico sirve para convertir metros cúbicos a toneladas métricas.

En el caso de Buenaventura para convertir metros cúbicos de mineral a toneladas cortas, se puede aplicar un Factor de Tonelaje, el cual se obtiene multiplicando el Peso Específico por 1.102311.

Es común en un yacimiento que las diferentes estructuras mineralizadas que la conforman pueden tener variaciones mineralógicas tanto del mineral de MENA como del de la ganga, quizás debido a un zoneamiento, o a diferentes pulsos de mineralización.

Esas diferentes mineralogías tienen relación directa a la existencia de diferentes Pesos Específicos en los sectores de un yacimiento, motivo por el cual es necesario determinar Pesos Específicos cuando se tengan cambios mineralógicos por sectores. Por ejemplo en Uchucchacua hay zonas de mineralización polimetálica (galena y esfalerita) con ganga de pirita principalmente (socorro y casualidad); también hay zonas mineralizadas de plata en ganga de carbonatos y silicatos, junto a mineralización polimetálica (pirita, galena y esfalerita en Marión); y la mayor parte del yacimiento es argentífera con gangas de carbonatos, silicatos y/o alabandita. Por esta razón en Uchucchacua es necesario determinar los Pesos Específicos de las zonas mencionadas.

El proceso para medir el Peso Específico de los minerales de las minas en general es:

- Tomar varias muestras de cada zona mineralizada.
- Pesar cada muestra colgada en un marco de metal en una balanza de precisión. A este peso se le denomina **Ps**. (Figura B)
- Pesar la muestra sumergida en agua dentro de un vaso, el cual descansa en una base que no se apoya en la balanza (Figura C). A esta medida se le denomina **Pa**; luego se aplica la formula

$$PE = \frac{Ps}{Ps - Pa}, \text{ en donde PE es el peso específico.}$$

4.3 Cálculo de Tonelaje y Ley del yacimiento

Se tiene la información de los diferentes tramos (Ancho Promedio Diluido, Ley Promedio, Longitud del Tramo) que conforman los bloques respectivos de una estructura mineralizada o de las estructuras de todo el yacimiento, previamente clasificado, en Mena, Marginal, Sub marginal y Baja Ley (según su valor); en Probado, Probable, Inferido y Potencial (según su certeza), y Accesible, Eventualmente Accesible e Inaccesible (según la accesibilidad de cada bloque de mineral)

Codificación de Datos

Esta información se registra en una Tarjeta de Inventario de Minerales (Anexo 4) (Tarjeta de Bloqueo) para un proceso computarizado, en el cual están considerados los siguientes datos:

Unidad, Nombre de Registro, Acción, Localidad, Mina, Estructura Mineralizada, Tipo de Mineral, Accesibilidad, Certeza, N° de Bloque, Coordenadas N y E, Cota del Bloque, Nivel, Año, Área, Factor de tonelaje, Referencias, Longitud, Ancho de estructura, Leyes, Ancho diluido, Leyes diluidas.

Ejemplo de una Tarjeta de Inventario de Minerales se da en el Anexo N° 4.

Para el procesamiento computarizado, se codifica los datos según el siguiente cuadro, los cuales son registrados en las respectivas tarjetas para cada bloque:

Datos Código

N° de Registro:

Acción: Representa la vigencia del bloque correspondiente.

1. Bloque Nuevo (interviene en el proceso)
2. Bloque Modificador (interviene en el proceso)
7. Bloque Modificado anulado (no interviene en el proceso)
8. Bloque Eliminado o Reinterpretado (no interviene en el proceso)
9. Bloque Explotado (no interviene en el proceso)

Localidad : Cada unidad tiene su localidad

Mina : Cada mina tiene un código

Tipo de Mineral : 01 Mineral de plomo - plata
 02 Mineral de cobre
 03 Mineral de oro
 04 Mineral de Plomo-Zinc
 Reservas y otros

Accesibilidad : 1 Accesible
 2 Inaccesible
 3 Eventualmente accesible

Certeza	1 Probado	5 Medido
	2 Probable	6 Indicado
	3 Inferido	3 Inferido
	4 Potencial	

N° de bloque	: Con el que se designa al Bloque.
Coordenadas	: Las correspondientes al punto central de la figura geométrica del Bloque, proyectado en planta.
Cota del Bloque	: Correspondiente al punto central del Bloque
Nivel	: De acuerdo al código correspondiente
Año	: Correspondiente al cálculo
Área	: La calculada en m ² utilizando un decimal
Referencias	: Labores que conforman el Bloque
Longitud	: Longitud de los tramos de la labor que limitan el Bloque
Ancho de estructura:	Ancho de la Muestra de la Estructura
Leyes	: Las que corresponden al tramo de la labor respectiva
Ancho Diluido	: Ancho de Muestra + Dilución

Procesamiento computarizado

Las informaciones registradas en las Tarjetas de Bloqueo es procesada utilizando un software (proceso computarizado) con lo que al final se obtendrá los tonelajes y leyes de los bloques clasificados para cada Estructura y de todas las Estructuras Mineralizadas del yacimiento.

Con esto se tendrán los tonelajes y las leyes de las Reservas Minerales y de los Recursos Minerales por estructura, y los tonelajes y leyes de todo el depósito mineral, clasificados por su Valor, Certeza y Accesibilidad.

Al final se tendrá el total de Reservas Minerales y el total de Recursos Minerales, correctamente clasificados de acuerdo lo mencionado en el párrafo anterior.

Además se generará un listado de Bloques en Orden Decreciente de las leyes equivalentes del elemento más importante.

5.0 INFORME DEL INVENTARIO DE MINERALES

Normalmente el informe del Inventario de Minerales se está realizando al 31 de diciembre de cada año, en el cual se considerarán lo siguiente:

Memorandum Resumen: En esta carta, previa introducción, se mostrarán los Resúmenes de Reservas Minerales seguidos de Recursos Minerales y Otros minerales.

El contenido será:

RESERVAS MINERALES

A.-	Por el Valor	Tcs	Leyes	Ancho Dil.	Ley Eq.
	MENA				
	Marginal				
	Total Reservas				

B.-	Por la Certeza	Tcs	Leyes	Ancho Dil.	Ley Eq.
	Probado				
	Probable				
	Total Reservas				

C.-	Por la Accesibilidad	Tcs	Leyes	Ancho Dil.	Ley Eq.
	Accesible				
	V. Accesible				
	Total Reservas				

RECURSOS MINERALES

D.-	Por la Certeza	Tcs	Leyes	Ancho Dil.	Ley Eq.
	Medido				
	Indicado				
	Inferido				
	Total Recursos				

OTROS MINERALES

E.-	Por el Valor	Tcs	Leyes	Ancho Dil.	Ley Eq.
	Mineral Submarginal				
	Mineral de Baja Ley				

F.- Por la Certeza

Submarginal probado
Submarginal probable

Total Submarginal

Baja Ley Probado
Baja Ley Probable

Total Baja Ley

Mena Potencial
Marginal Potencial

Total Mineral Potencial

G.- Por la Accesibilidad

Submarginal Accesible
Submarginal Ev. accesible

Total submarginal

Baja Ley Accesible
Baja Ley Ev. Accesible

Total Baja Ley

Total Mineral Inaccesible

En seguida en el Memorandum se harán comentarios referente a los avances del año en labores de exploración y desarrollo, así como en sondajes efectuados. También se indicarán los precios utilizados en la estimación de Reservas y Recursos y se mencionarán las estructuras que contribuyeron en el incremento de Reservas y Recursos, etc. Asimismo se pondrán los radios de cubicación por metro de avance de las diferentes áreas de la unidad.

En seguida se mostrará el índice respectivo del volumen del Inventario de Minerales, el cual será como sigue:

Capítulo I Geología del Yacimiento Minero

- Ubicación – acceso y geografía
- Geología Regional
- Geología Local
- Geología Estructural
- Geología Económica
- Bibliografía

Capítulo II Exploraciones y Desarrollos del Año

- Introducción
- Exploraciones en la Mina
- Exploraciones en los Brownfields
- Cuadro General de avances en labores
- Cuadro general de avances en sondajes
- Ganancia neta de mineral – Ganancia neta por Minas
- Ganancia neta por Minas
- Relaciones de Ganancia Neta/ Toneladas Producidas
- Relaciones de Ganancia Neta/Mts. de Avance (radio de cubicación)

Capítulo III Cálculo de la Ley Mínima Explotable y Equivalentes, y los otros Cut-offs

- Costos – Balance Metalúrgico
- Condiciones de comercialización
- Precios de los Metales
- Procesos de Cálculo

Capítulo IV Inventario de Minerales

Componentes del Inventario de Minerales

Reservas Minerales – Clases

- por el Valor
- por la Certeza
- por la Accesibilidad

Recursos Minerales – Clases

- Por la Certeza

Otros Minerales – Clases

- Por el Valor
- Por la Certeza
- Por la Accesibilidad

Bloqueo del Mineral

- **Información para la Determinación de Bloques de Mineral**
Promedio de Leyes de Cada Canal
Leyes Erráticas
Dilución y Dilución Mínima
Ancho Mínimo de Minado
Calificación de Leyes Canal por Canal
Longitud Mínima y Máxima de Bloque de Mineral
Cálculo del Ancho y Leyes de Muestras de un Tramo.
- **Dimensionamientos de Bloques**
Dimensión de Bloques

Cálculo de Tonelaje y Leyes

- Cálculo de Tonelaje y Ley de Bloque de Mineral
Peso Específico – Factor de Tonelaje
- Cálculo de Tonelaje y Ley del yacimiento
Codificación de Datos
Procesamiento Computarizado

Capítulo V Relación o Listado de Bloques en Orden Decreciente de los Elementos Equivalentes

Capítulo VI Resúmenes del Inventario de Minerales

- Resumen general de Reservas, Recursos y Otros Minerales de la unidad por el Valor, la Certeza y la Accesibilidad. (anexo 6)
- Resumen General de Reservas Minerales por: Valor, Certeza y Accesibilidad (anexos 7, 8 y 9).
- Resumen General de Recursos Minerales por Certeza (anexo 10).
- Resumen General de Otros Minerales por: Valor, Certeza, Accesibilidad (anexos 11, 12 y 13).
- Resumen General de Reservas Minerales por Minas o Áreas de acuerdo a Valor, Certeza y Accesibilidad. (anexo 14)
- Resumen General de Recursos Minerales por Minas o Áreas de acuerdo a Certeza (anexo 14).
- Resumen General de Otros Minerales por Minas o Áreas de acuerdo a Valor, Certeza y Accesibilidad (anexo 14).
- Resumen General de Reservas por Estructuras Mineralizadas (anexo 15)
- Resumen de Reservas por Estructuras Mineralizadas (anexo 16)
- Resumen General de Recursos por Estructuras Mineralizadas (anexo 17)
- Resumen de Recursos por Estructuras Mineralizadas (anexo 18)
- Resumen General de Otros Minerales por Estructuras Mineralizadas (anexo 19)
- Resumen de Otros Minerales por Estructuras Mineralizadas (anexo 20)
- Relación (tonelaje y leyes) de Bloques de Reservas por Vetas de cada Mina o Área.
- Relación de Bloques de Recursos por Vetas de cada Mina o Área.
- Relación de Bloques de otros Minerales por vetas de cada Mina o Área.
- Cuadros de Detalle de Reservas, Recursos y Otros minerales por veta de cada Mina o Área.

BIBLIOGRAFÍA

- | | | |
|---|------|---|
| BAXTER CH., PARKS R. | 1939 | Mine Examination and Evaluation
Michigan College of Mines |
| MC KINSTRY H.E. | 1949 | Geología de Minas |
| ALARCÓN J., MAYTA O. | 1979 | Normas para la Evaluación de
Reservas Minerales de Explotación
Subterránea
IV Congreso Peruano de Geología |
| SOCIETY FOR MINING
METALLURGY AND
EXPLORATION INC | 1988 | A Guide For Reporting Exploration
Information Resources and Reserves |
| OWEN OWENS AND
W.P. ARMSTRONG | 1992 | Ore Reserves-The Four Cs. |
| BOWE & CO., INC | 1993 | Descripción de la Propiedad
Proporcionada por los Emisores que
se dedican o se dedicarán a
Operaciones Minerales importantes
Boletín N. 154 |
| SIRVAS E., MAYTA O.
VALDIVIA J. | 1995 | Workshop de Geología Orcopampa
1995 |
| THE JORC CODE | 1996 | Australasian Code For Reporting of
Identified Mineral Resources and
Ore Reserves. |
| THE JORC CODE | 1999 | Código de Australasia para Informar
sobre Recursos y Reservas de Mena. |

RODRIGUEZ J.	1999	Manual de Inventario de Recursos Minerales de Cia. de Minas Buenaventura S.A.
SEC. GUIDE 7	2001	Description of Property By Issuers Enaged or to be Enaged in Significant Mining Operations
BOLSA DE VALORES DE LIMA	2003	Código de Estándares de Reporte para Informar sobre Recursos y Reservas de Mena BVL-Venture Exchange
THE JORC CODE	2004	Australasian Code For Reporting of Exploration Results, Mineral Resources and Ore Reserves
JEAN MICHEL RENDU	—	International Standars For Reserve Reporting in Gold Mining. Newmont Mining Corporation – Colorado 80203 USA
GEOLOGICAL SURVEY CIRCULAR 831	—	Principles of a Resource/Reserve Clasification for Minerals
TONY BREWIS	—	Mineral Reserves

COSTO EN DOLARES PARA DETERMINAR LEYES MINIMAS DEL AÑO 2006

Anexo 1

UNIDAD	RESERVAS MINERALES ← →		OTROS MINERALES	
	MENA US\$/TC	MARGINAL US\$/TC	SUBMARGINAL US\$/TC	BAJA LEY US\$/TC
ORCOPAMPA (a 39,000 Tcs/mes)				
Costo de Producción	84.1	75.7	75.7	25.0
Gastos de Venta	2.8	2.8		
Gastos Administrativos	17.8	3.5		
Regalías	10.5	8.2	7.6	2.5
Costos Totales	115.2	90.2	83.3	27.5
UCHUCCHACUA (a 68,438 Tcs/mes)				
Costos de Producción	41.9	37.7	37.7	25.0
Gastos de Venta	2.9	2.9		
Gastos Administrativos	8.6	1.7		
Costos Totales	53.4	42.3	37.7	25.0
JULCANI (a 6,000 Tcs/mes)				
Costos de Producción	92.0	82.8	82.8	25.0
Gastos de Venta	2.1	2.1		
Gastos Administrativos	11.8	2.3		
Costos Totales	105.9	87.2	82.8	25.0
RECUPERADA (a 8,000 Tcs/mes)				
Costos de Producción	72.6	65.0	65.0	25.0
Gastos de Venta	2.0	2.0		
Gastos Administrativos	9.2	1.8		
Costos Totales	83.8	68.8	65.0	25.0

Anexo 2

Cia. de Minas Buenavenura S.A.A

27 de Diciembre del 2005

Parte Metalúrgica Veta Camucha

Cotizaciones		
AG	6.3	US \$/Oz
AU	350	US \$/Oz
PB	793	US \$/TM
CU	2774	US \$/TM
ZN	1085	US \$TM

		Concentrados			
		PLOMO		ZINC	
AG	Oz/TC	170		14	
AU	Oz/TC				
PB	%	45		2.44	
CU	%				
ZN	%	11		55	
H2O	%	10		10	
AS	%	0.25			
SB	%	1.1			
BI	%	0.01			
HG	PPM				
MN	%				
SB	%				
SIO2	%				
FE	%				
CD	%				
Ratio de concentración		19.767		19.643	
Valor del conc.en US \$/TC		1,065.04		358.18	
Valor del Mineral en US \$/TC		53.88		18.23	
Valor Total US \$/TC					72.11

Comprador		Mercado Plomo	Cantidad TM	0	Cotizaciones			
Fecha		Año 2006	Nº Contrato	Mercado	Cotizac.	Deduc.	% pago	Cotiz.Neta
Pesos				Ag	6.300		100.000	6.300
TMH	1.000			Au	350.000		100.000	350.000
% H2O	10.000	TMNS	0.896	Pb	793.000		100.000	793.000
TMS	0.900	TCS	0.988	Cu	2774.000		100.000	2774.000
%Merma	0.500	Merma US\$	4.712	Zn	1085.000		100.000	1085.000
Pago de contenidos								
	Ley	Deduc.	%pago	D.M.	Ley Neta			US\$/TC
Ag	170.000		95.000	2.722	161.500			1,017.45
Au								
Pb	45.000		95.000	3.000	42.000			302.147
Cu								
Zn	11.000							
Total Pago de Contenidos								1,319.597
Deducciones								
Maquila								158.758
Escaladores por Cotización								
PB	Cotizac.	Base	Difer.	Premio	Castigo	Cada C/U		
	793.000	650.000	143.000		0.136	1.000		19.459
Estandares por Ley								
	Ley	Base	Difer.	Premio	Castigo	Cada C/U		
Escaladores por Valor pagable total								
	Valor	Base	Difer.	Premio	Castigo	Cada C/U		
Valor total	1,319.60		1,319.60					
Penalizaciones								
Elemento	Ley	deducc.	Difer.	Cargo	Cada C/U			
AS	0.250	0.700		1.814	0.100			
SB	1.100	0.500	0.600	1.814	0.100			10.886
Gastos de refinación								
Elemento	Ley		Cargo					
AG	161.500		0.350					56.525
Total Deducciones								245.628
Sub Total								1,073.969
%Merma								0.500
Valor CIF								1,068.599
Flete Marítimo								
Seguro								
Gastos financieros								
	% Pago	Días	Tasa		% Interes			
Provisional	90.00	20	5.00		0.25000			3.562
Final	10.00	60			0.08333			
Valor Neto Final								1,065.037

Comprador		Mercado Zinc		Cantidad TM	0	Cotizaciones			
Fecha		Año 2006		N° Contrato	Mercado	Cotizac.	Deduc.	% pago	Cotiz.Neta
Pesos					Ag	6.300		100.000	6.300
TMH	1.000				Au	350.000		100.000	350.000
% H2O	10.000	TMNS	0.896		Pb	793.000		100.000	793.000
TMS	0.900	TCS	0.988		Cu	2774.000		100.000	2774.000
%Merma	0.500	Merma US\$	1.586		Zn	1085.000		100.000	1085.000
Pago de contenidos									
	Ley	Deduc.	%pago	D.M.	Ley Neta				US\$/TC
Ag	14.000	2.722	70.000		7.895				49.739
Au									
Pb	2.440								
Cu									
Zn	55.000		85.000	8.000	46.750				460.159
							Total Pago de Contenidos		509.898
Deducciones									
Maquila									
Escaladores por Cotización									
ZN	Cotizac.	Base	Difer.	Premio	Castigo	Cada C/U			
	1085.000	1000.000	85.000	0.127	0.145	1.000			12.338
Estandares por Ley									
	Ley	Base	Difer.	Premio	Castigo	Cada C/U			
Escaladores por Valor pagable total									
	Valor	Base	Difer.	Premio	Castigo	Cada C/U			
Valor total	509.898		509.898						
Penalizaciones									
Elemento	Ley	deducc.	Difer.	Cargo	Cada C/U				
Gastos de refinación									
Elemento	Ley		Cargo						
							Total Deducciones		148.416
							Sub Total		361.482
							%Merma	0.500	1.807
							Valor CIF		359.675
Flete Marítimo		\$ /TMH							
Seguro		(Europa="E", America="A", Local="L") =					L		
Gastos financieros								Valor FOB	359.675
	% Pago	Dias	Tasa			% Interes			
Provisional	90.00	20	5.00			0.25000			1.499
Final	10.00	120	\$ /TMH			0.16667			
							Valor Neto Final		358.176

VETA CAMUCHA										
PARTE METALURGICO PROYECTADO N° 3- VETA CAMUCHA										
LEYES					CONTENIDOS			RECUPERACIONES		
	T.C.S	Oz.Ag.	%Pb	%Zn	Ag	Pb	Zn	Ag	Pb	Zn
Cabeza	14400.00	10.00	2.59	3.50	144000	372.96	504.00	100.00	100.00	100.00
Conc.Ag	728.49	170.00	45.00	11.00	123840	327.83	80.14	86.00	87.90	15.90
Conc.Zn	733.09	14.00	2.44	55.00	10260	17.90	403.20	7.13	4.80	80.00
Relave	12938.43	0.77	0.21	0.16	9900	27.23	20.66	6.88	7.30	4.10
R.C.Ag=19.767					R.C.Zn=19.641					
PENALIDADES:					AS=0.25%					
En concentraciones de					SB=1.10%					
Plomo					Bi=0.01%					

PARTE METALURGICO PROYECTADO N° 3- VETA CAMUCHA

		LEYES			CONTENIDOS			RECUPERACIONES		
	T.C.S	Oz.Ag.	%Pb	%Zn	Ag	Pb	Zn	Ag	Pb	Zn
Cabeza	14400.00	10.00	2.59	3.50	144000	372.96	504.00	100.00	100.00	100.00
Conc.Ag	728.49	170.00	45.00	11.00	123840	327.83	80.14	86.00	87.90	15.90
Conc.Zn	733.09	14.00	2.44	55.00	10260	17.90	403.20	7.13	4.80	80.00
Relave	12938.43	0.77	0.21	0.16	9900	27.23	20.66	6.88	7.30	4.10
	R.C.Ag=19.767				R.C.Zn=19.641					
		PENALIDADES:			AS=0.25%					
		En concentraciones de			SB=1.10%					
		Plomo			Bi=0.01%					

CONTENIDOS

RECUPERACIONES

	T.C.S	Oz.Ag.	%Pb	%Zn	Ag	Pb	Zn	Ag	Pb	Zn
Cabeza	14400.00	10.00	2.59	3.50	144000	372.96	504.00	100.00	100.00	100.00
Conc.Ag	728.49	170.00	45.00	11.00	123840	327.83	80.14	86.00	87.90	15.90
Conc.Zn	733.09	14.00	2.44	55.00	10260	17.90	403.20	7.13	4.80	80.00
Relave	12938.43	0.77	0.21	0.16	9900	27.23	20.66	6.88	7.30	4.10

R.C.Ag=19.767

$$R.C.Zn=19.641$$

PENALIDADES:

En concentraciones de	
Plomo	

AS=0.25%

$$SB=1.10\%$$

Bi=0.01%

VETA CAMUCHA

PROYECCION 2006 SEC
LEYES MINIMAS-VETA CAMUCHA

DATOS POR RELLENAR									
ELEMENTOS		UN.		LEYES DE LOS COMENTARIOS					
				LEYES		CONTINGENCIAS			
						LEYES		CONTINGENCIAS	
		</							

ANEXO 4

DEPARTAMENTO DE GEOLOGIA - INVENTARIO DE MINERALES

TARJETA DE BLOQUES - UNIDAD.....

Registro N°.....		Bloque N°.....	
Acción		Coordenadas Norte	
Localidad		Coordenada Este	
Mina		Cota Bloque	
Estructura mineralizada		Nivel	
Tipo de Mineral		Año	
Accesibilidad		Área	
Certeza		Factor de Tonelaje (para T.C.S)	

LEYES DE ENSAYES

REFERENCIA	Longitud	Ancho Estructura	Oz. Au.	Oz. Ag	%Pb	%Zn	%Cu			Ancho Minado
1.-										
2.-										
3.-										
4.-										
5.-										

CALCULADOR

VºBº GEOLOGIA

PROCESADOR

ANEXO 5

Equivalencias

- 1 Tonelada corta = 2000 Libras avoirdupois
- 1 Tonelada métrica = 2,204.62 Libras avoirdupois
- 1 Tonelada métrica = 1.102311 Toneladas cortas
- 1 Oz troy = 31.1035 gramos

Conversiones

de gramos (ppm) a Oz/Tc → gramos: 34.2857
de gramos (ppm) a Oz/Tm → gramos: 31.1035

gramos a Oz/Tc → gramos x 0.02916666
gramos a Oz/Tm → gramos x 0.0321507
gramos (ppm) a % → gramos: 10,000

ANEXO 6

Resumen General de Reservas, Recursos y Otros Minerales por el valor, la Certeza y la Accesibilidad.

RESERVAS MINERALES

A. Por el Valor

	Tcs	Leyes	Ancho Dil	Ley Eq.
Mena				
Marginal				

Total Reservas

B. Por la Certeza

Probado
Probable

Total Reservas

C. Por la Accesibilidad

Accesible
Ev. Accesible

Total Reservas

RECURSOS MINERALES

D. Por la Certeza

	Tcs	Leyes	Ancho Dil	Ley Eq.
Medido				
Indicado				
Inferido				

Total Recursos

OTROS MINERALES

E. Por el valor

	Tcs	Leyes	Ancho Dil	Ley Eq.	Mineral
Submarginal					
Mineral de Baja Ley					

F. Por la Certeza

Submarginal Probado
Submarginal Probable

Total Submarginal

Baja Ley Probado
Baja Ley Probable

Baja Ley

Total Mineral Potencial

Total

G. Por la Accesibilidad

Submarginal Accesible
Submarginal Ev. Accesible

Total Submarginal

Baja Ley Accesible
Baja Ley Ev. Accesible

Total Baja Ley

Total Mineral Inaccesible

ANEXO 7

RESUMEN GENERAL DE RESERVAS MINERALES POR EL VALOR

MENA

	Tcs	Leyes	Ancho Dil	Ley Eq.
Probado Accesible				
Probado Ev. Acces.				
Total Probado				
Probable Acces.				
Probable Ev. Acces.				
Total Probable				
Total Mena				

MARGINAL

Probado Acces.
Probado Ev. Acc.

Total Probado
Probable Acc.
Probable Ev. Acc.

Total Probable

Total Marginal
Total Mena + Marginal

ANEXO 8

RESUMEN GENERAL DE RESERVAS MINERALES POR LA CERTEZA

PROBADO

	Tcs	Leyes	Ancho Dil	Ley Eq.
Mena Acces.				
Mena Ev. Acc.				

Total Mena Probado

Marginal Acces.
Marginal Ev. Acc.

Total Marginal Probado
Total Probado

PROBABLE

Mena Acces.
Mena Ev. Acc.

Total Mena Probable

Marginal Acces.
Marginal Ev. Acc.

Total Marginal Probable
Total Probado + Probable

ANEXO 9

RESUMEN GENERAL DE RESERVAS MINERALES POR LA ACCESIBILIDAD

ACCESIBLE

	Tcs	Leyes	Ancho Dil	Ley Eq.
Mena Probado				
Mena Probable				
Total Mena Accesible				
Marginal Probado				
Marginal Probable				
Total Marginal Accesible				
Total Accesible				

EVENTUALMENTE ACCESIBLE

Mena Probado
Mena Probable

Total Mena Ev. Acces.

Marginal Probado
Marginal Probable

Total Marginal Ev. Acces.

Total Ev. Acces.

Total Acc. + Ev. Acc.

ANEXO 10

RESUMEN GENERAL DE RECURSOS MINERALES POR LA CERTEZA

	Tcs	Leyes	Ancho Dil	Ley Eq.
Recurso Mineral Medido				
Recurso Mineral Indicado				
Recurso Mineral Inferido				
Total Recursos Minerales				

ANEXO 11

RESUMEN GENERAL DE OTROS MINERALES POR EL VALOR

SUBMARGINAL

	Tcs	Leyes	Ancho Dil	Ley Eq.
--	-----	-------	-----------	---------

Probado Accesible

Probado Ev. Accesible

Total Probado

Probable Accesible

Probable Ev. Accesible

Total Probable

Total Submarginal

BAJA LEY

Probado Accesible

Probado Ev. Accesible

Total Probado

Probable Accesible

Probable Ev. Accesible

Total Probable

Total Baja Ley

ANEXO 12

RESUMEN GENERAL DE OTROS MINERALES POR LA CERTEZA

SUBMARGINAL

PROBADO

	Tcs	Leyes	Ancho Dil	Ley Eq.
--	-----	-------	-----------	---------

Submarginal Accesible

Submarginal Ev. Accesible

Total Submarginal Probado

PROBABLE

Submarginal Accesible

Submarginal Ev. Accesible

Total Submarginal Probable

Total Submarginal Probado + Probable

BAJA LEY

PROBADO

Baja Ley Accesible

Baja Ley Ev. Accesible

Total Baja Ley Probado

PROBABLE

Baja Ley Accesible

Baja Ley Ev. Accesible

Total Baja Ley Probable

MINERAL POTENCIAL

Potencial

Total Potencial

ANEXO 13

RESUMEN GENERAL DE OTROS MINERALES POR LA ACCESIBILIDAD

MINERAL SUBMARGINAL

	Tcs	Leyes	Ancho Dil	Ley Eq.
Probado Accesible				
Probable Accesible				
Total Accesible				
Probado Ev. Accesible				
Probable Ev. Accesible				
Total Ev. Accesible				
Total Submarginal				

MINERAL DE BAJA LEY

Probado Accesible
Probable Accesible

Total Accesible
Probado Ev. Accesible
Probable Ev. Accesible

Total Ev. Accesible
Total Baja Ley

MINERAL INACCESIBLE

Probado
Probable

Total Inaccesible

ANEXO 14

RESUMEN GENERAL DE RESERVAS POR MINAS O AREAS

En harán Resúmenes por minas o áreas siempre y cuando en el yacimiento haya más de una mina o área, en cuyo caso estos resúmenes de minas o áreas tendrán el mismo orden de lo mencionado en los resúmenes anteriores.

RESUMEN GENERAL DE RECURSOS POR MINAS O ÁREAS

Se harán Resúmenes por minas o áreas siempre y cuando en el yacimiento haya más de una mina o área, de cuyo caso los resúmenes de minas o áreas tendrán el mismo orden de lo mencionado en los resúmenes anteriores.

RESUMEN GENERAL DE OTROS MINERALES POR MINAS O ÁREAS

Se harán Resúmenes por minas o áreas siempre y cuando en el yacimiento haya más de una mina o área, de cuyo caso los resúmenes de minas o áreas tendrán el mismo orden de lo mencionado en los resúmenes anteriores.

ANEXO 15

RESUMEN GENERAL DE RESERVAS POR ESTRUCTURAS MINERALIZADAS

Mina o Área A

Estructura	Tcs	Leyes	Ancho Dil	Ley Eq.
------------	-----	-------	-----------	---------

A

B

Total Mina o veta A

Mina o Área B

Estructura	Tcs	Leyes	Ancho Dil	Ley Eq.
------------	-----	-------	-----------	---------

C

Total Mina o Área B

Total Reservas Unidad

ANEXO 16

RESUMEN DE RESERVAS POR ESTRUCTURAS MINERALIZADAS

MINA O ÁREA A

Estructura A

Mena

	Tcs	Leyes	Ancho Dil	Ley Eq.
Probado				
Probable				

Total Mena

Marginal

Probado

Probable

Total Marginal

Total Estructura A

Estructura B

Mena

	Tcs	Leyes	Ancho Dil	Ley Eq.
Probado				
Probable				

Total Mena

Marginal

Probado
Probable

Total Marginal
Total Estructura B
Total Mina o Área A

MINA O ÁREA B

Estructura C

Mena

	Tcs	Leyes	Ancho Dil	Ley Eq.
Probado				
Probable				

Total Mena

Marginal

Probado
Probable

Total Marginal
Total Estructura C
Total Mina o Área B
Total Reserva Unidad

ANEXO 17

RESUMEN GENERAL DE RECURSOS POR ESTRUCTURAS MINERALIZADAS

MINA O ÁREA A

Estructura	Tcs	Leyes	Ancho Dil	Ley Eq.
A				
B				

Total Mina o Área A

MINA O ÁREA B

Estructura	Tcs	Leyes	Ancho Dil	Ley Eq.
C				

Total Mina o Área B

Total Recursos Unidad

ANEXO 18

RESUMEN DE RECURSOS POR ESTRUCTURAS MINERALIZADAS

MINA O ÁREA A

Estructura A

Recurso	Tcs	Leyes	Ancho Dil	Ley Eq.
Medido				
Indicado				
Inferido				

Total Recursos Estructura A

Estructura B

Recurso	Tcs	Leyes	Ancho Dil	Ley Eq.
Medido				
Indicado				
Inferido				

Total Recursos Estructura B

Estructura C

Recurso	Tcs	Leyes	Ancho Dil	Ley Eq.
Medido				
Indicado				
Inferido				

Total Recursos Estructura C

Total Recursos Medidos

Total Recursos Indicados

Total Recursos Inferidos

Total Recursos Unidad

ANEXO 19

RESUMEN GENERAL DE OTROS MINERALES POR ESTRUCTURAS MINERALIZADAS

MINERAL SUBMARGINAL

MINA O ÁREA A

Estructura	Tcs	Leyes	Ancho Dil	Ley Eq.
A				
B				

Total Mina o Área A

MINA O ÁREA B

Estructura	Tcs	Leyes	Ancho Dil	Ley Eq.
C				

Total Mina o Area B

Total Submarginal

MINERAL DE BAJA LEY

Mina o Área A

Estructura	Tcs	Leyes	Ancho Dil	Ley Eq.
A				
B				

Total Mina o Área A

Mina o Área B

Estructura	Tcs	Leyes	Ancho Dil	Ley Eq.
C				

Total Mina o Área B

Total Baja Ley

MINERAL POTENCIAL**Mina o Área A**

Estructura	Tcs	Leyes	Ancho Dil	Ley Eq.
A y B				

Total Mina o Área A

Mina o Área B

Estructura	Tcs	Leyes	Ancho Dil	Ley Eq.
C				

Total Mina o Área B

Total Mineral Potencial

ANEXO 20

RESUMEN DE OTROS MINERALES POR ESTRUCTURAS MINERALIZADAS

SUBMARGINAL

Mina o Área A

Estructura A	Tcs	Leyes	Ancho Dil	Ley Eq.
Probado				
Probable				

Total Estructura A

Estructura B	Tcs	Leyes	Ancho Dil	Ley Eq.
Probado				
Probable				

Total Estructura B

Total Mina o Área A

Mina o Área B

Estructura C	Tcs	Leyes	Ancho Dil	Ley Eq.
Probado				
Probable				

Total Estructura C

Total Mina Área B

Total Submarginal

BAJA LEY

Mina o Área A

Estructura A	Tcs	Leyes	Ancho Dil	Ley Eq.
Probado				
Probable				

Total Estructura A

Estructura B	Tcs	Leyes	Ancho Dil	Ley Eq.
Probado				
Probable				

Total Estructura B

Total Mina o Área A

Mina o Área B

Estructura C	Tcs	Leyes	Ancho Dil	Ley Eq.
Probado				
Probable				

Total Estructura C

Total Mina o Área B

Total Baja Ley

MINERAL POTENCIAL**Mina o Área A**

Estructura	Tcs	Leyes	Ancho Dil	Ley Eq.
A				
B				

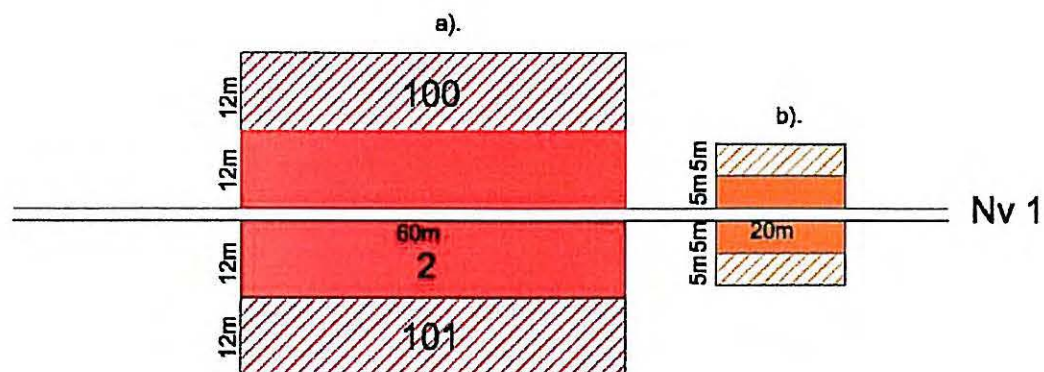
Total Mina o Area B

Estructura	Tcs	Leyes	Ancho Dil	Ley Eq.
C				

Total Mina o Area B

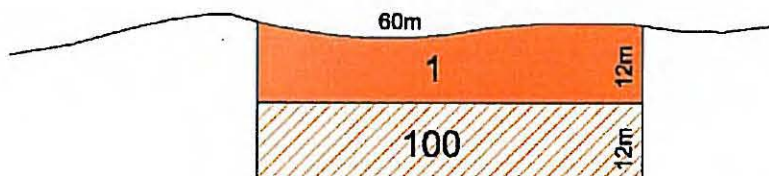
Total Potencial

Figura 1



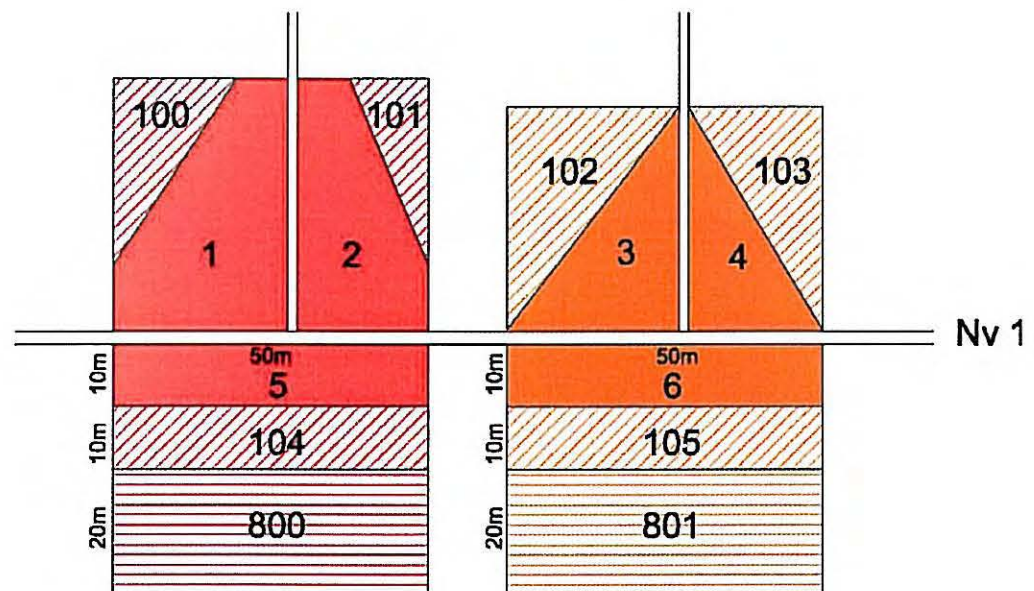
- a). Longitud de mineral entre 25m y 100m, la altura será 20% de la longitud de dicha longitud. En este caso para 60m es 12m
- b). Longitud de mineral entre 10m y 25m, la altura será de 5m.

Figura 2



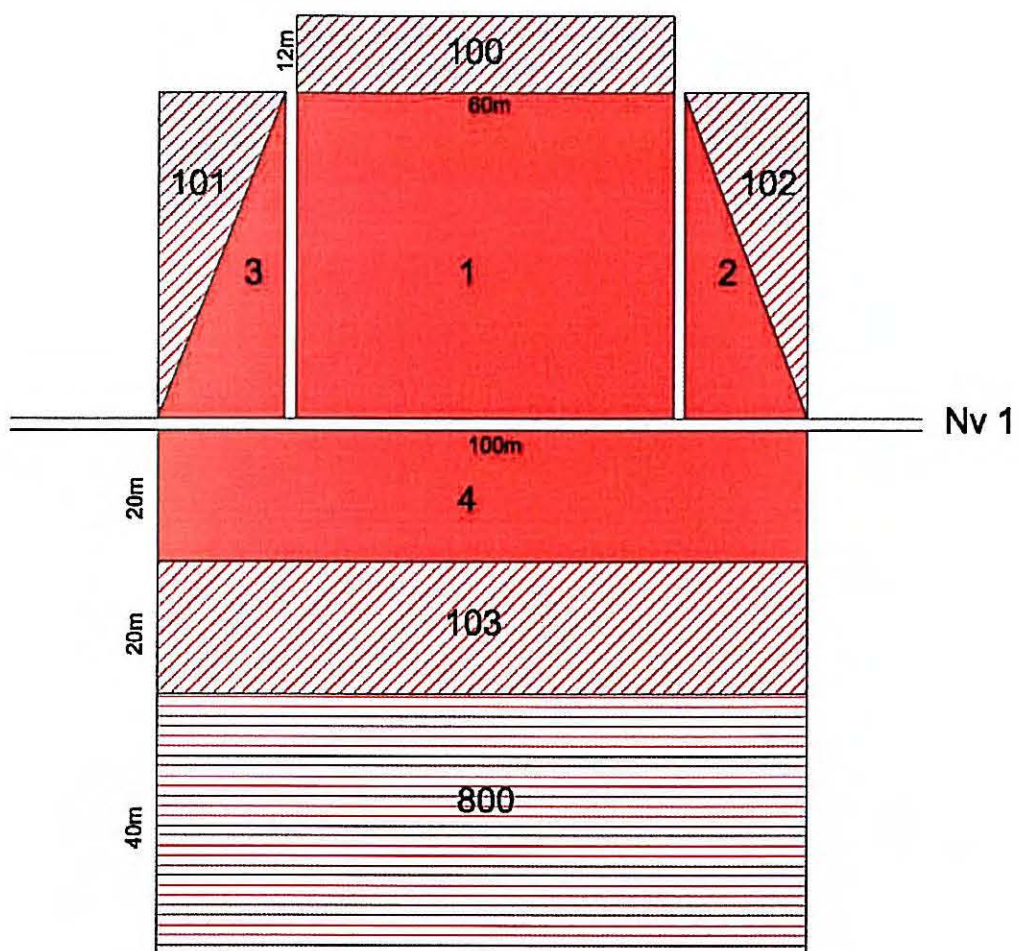
Longitud de mineral entre 25m y 100m, la altura será 20% de la longitud en este caso para 60m → 12m de altura

MENA		MARGINAL
	PROBADO	
	PROBABLE	



MENA		MARGINAL
	PROBADO	
	PROBABLE	
	INFERIDO	

Figura 3



MENA

	PROBADO
	PROBABLE
	INFERIDO

Figura 4

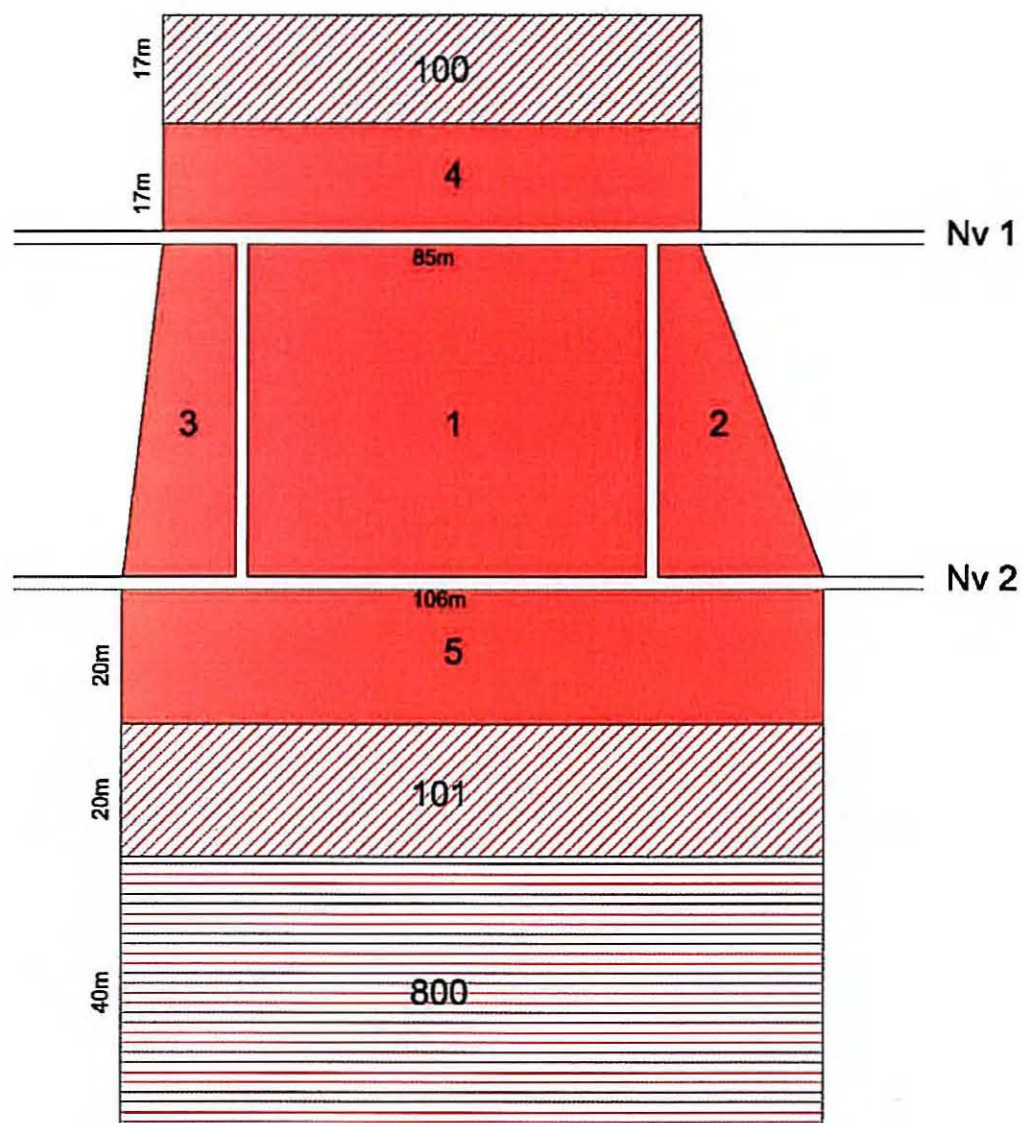
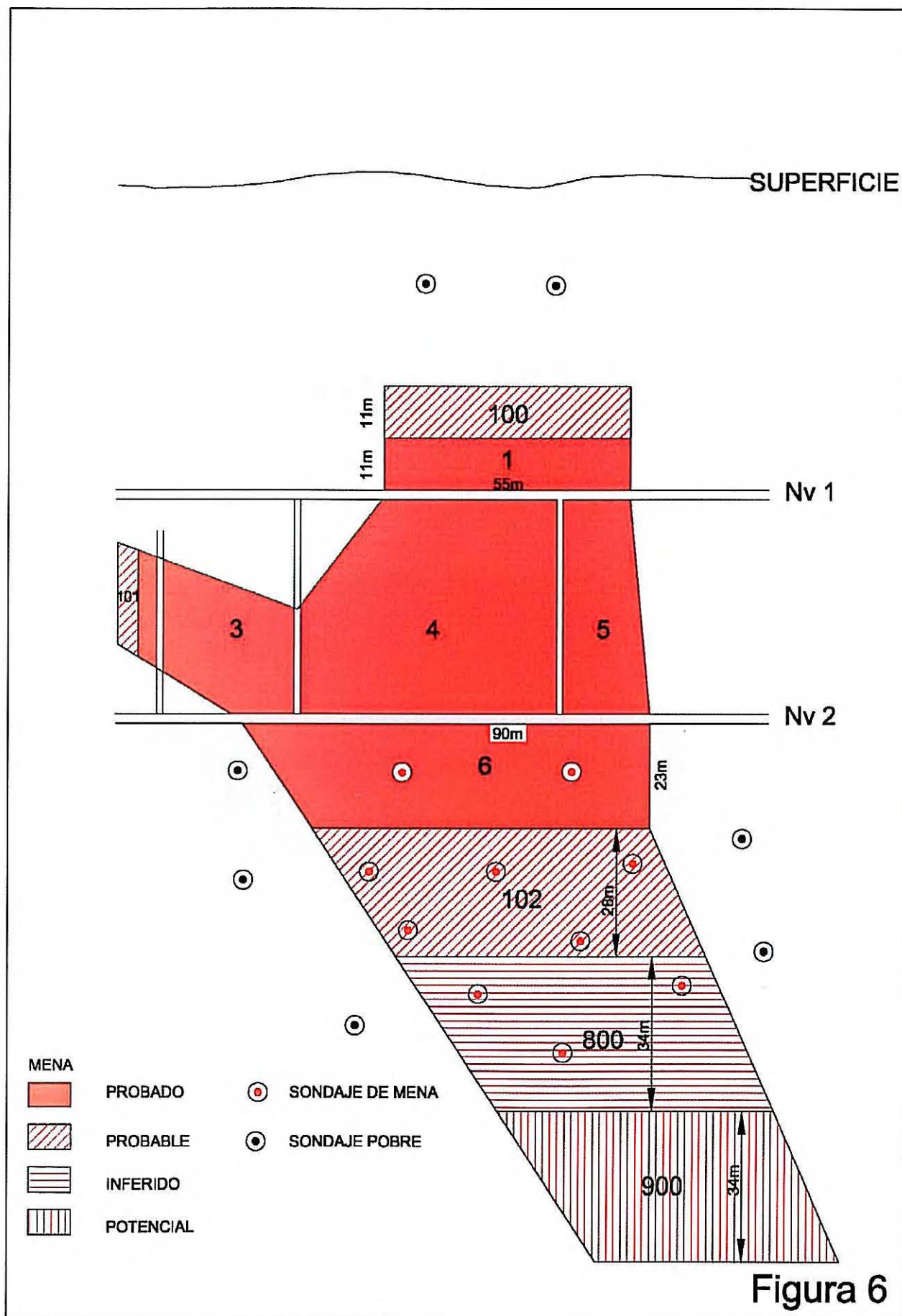


Figura 5



BLOQUEO A PARTIR DE AFLORAMIENTOS

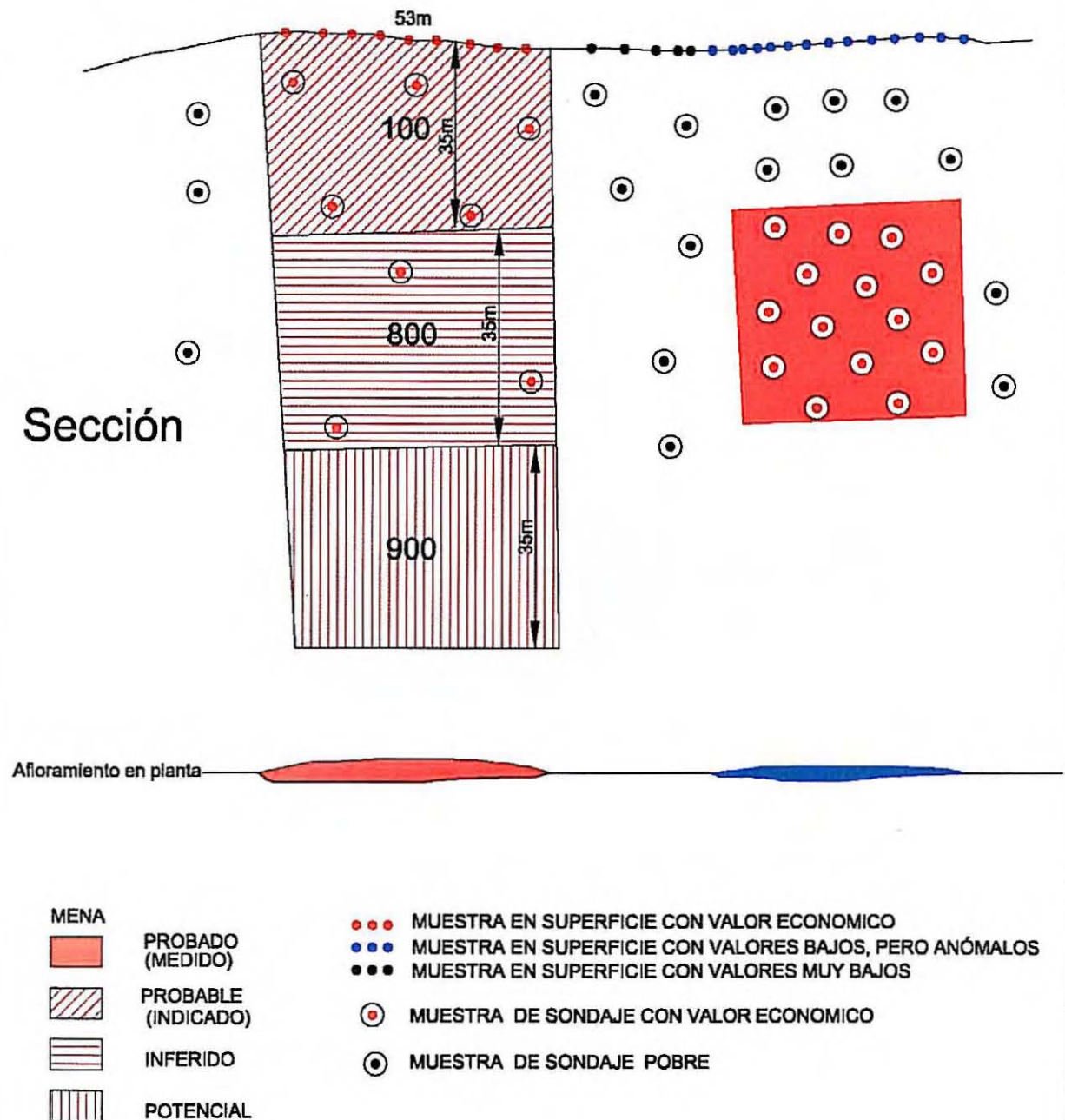
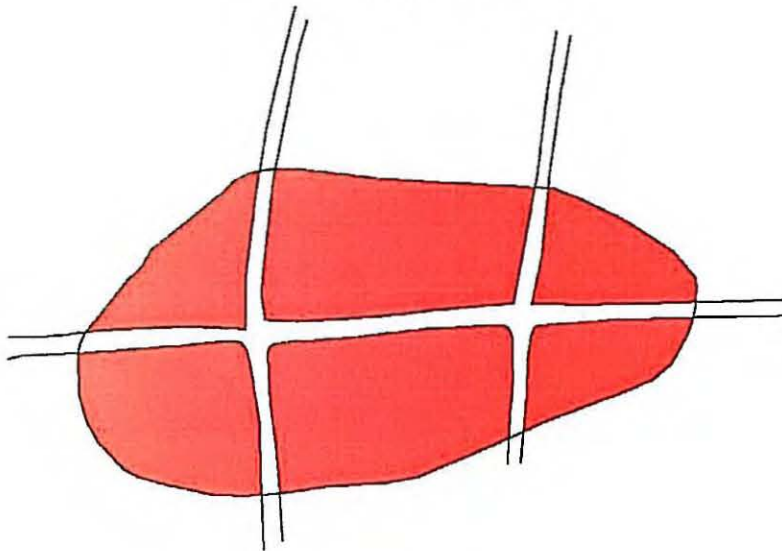


Figura 7

CUERPO MINERALIZADO

PLANTA



SECCION

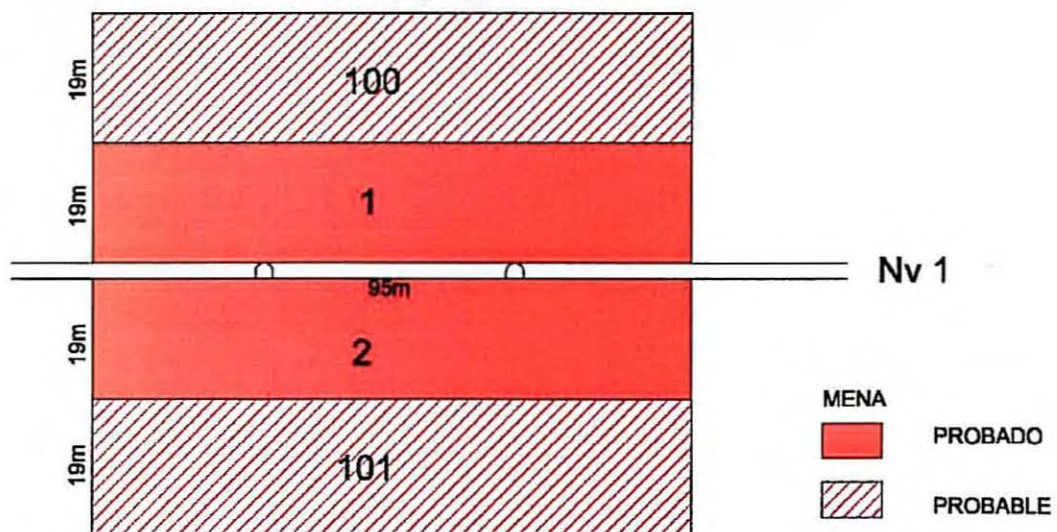


Figura 8

Cuerpo Mineralizado

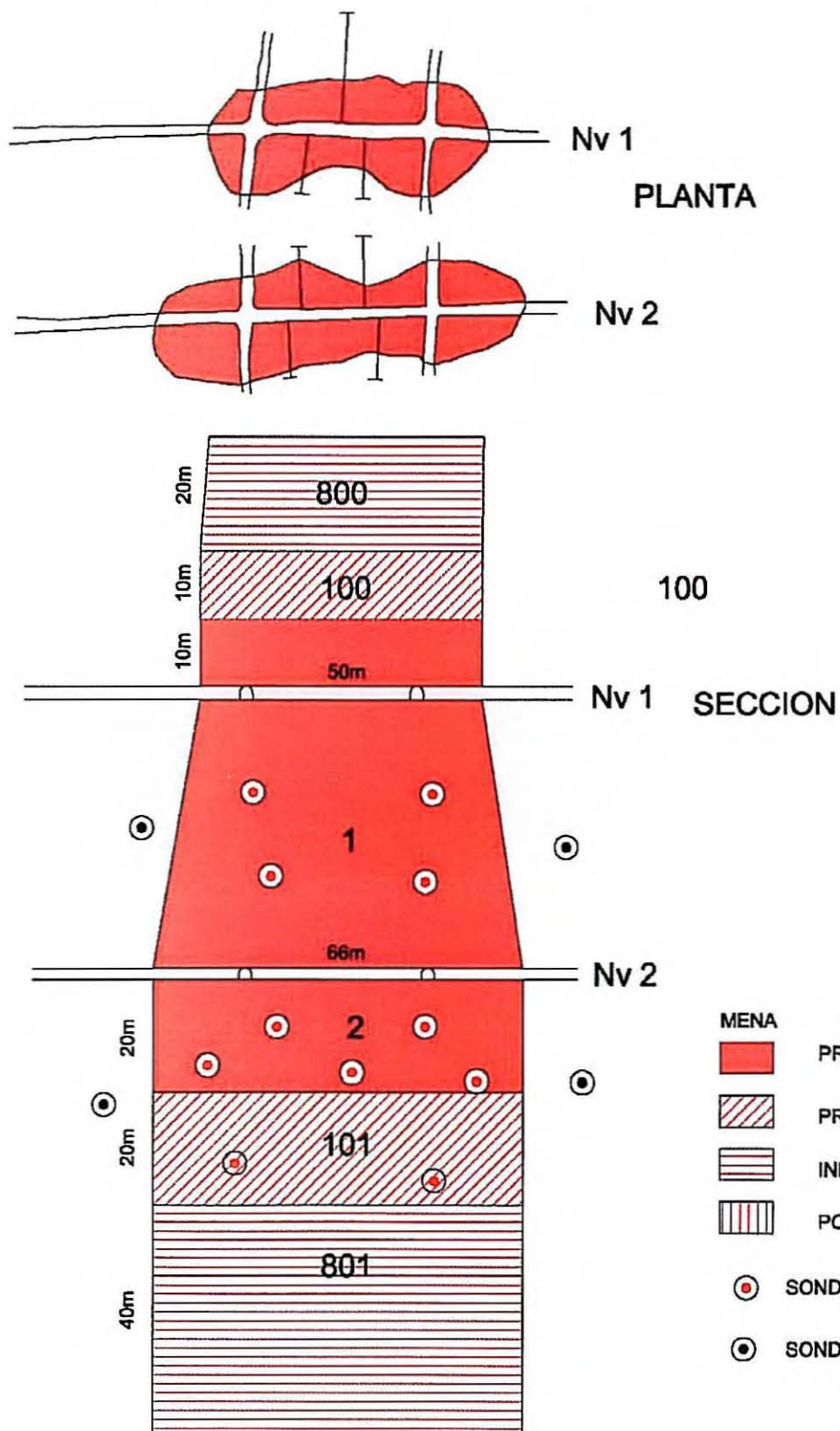


Figura 9

Pg-5

Pg-27

Pg-6

Pg-28

Bloqueo sin Sondajes

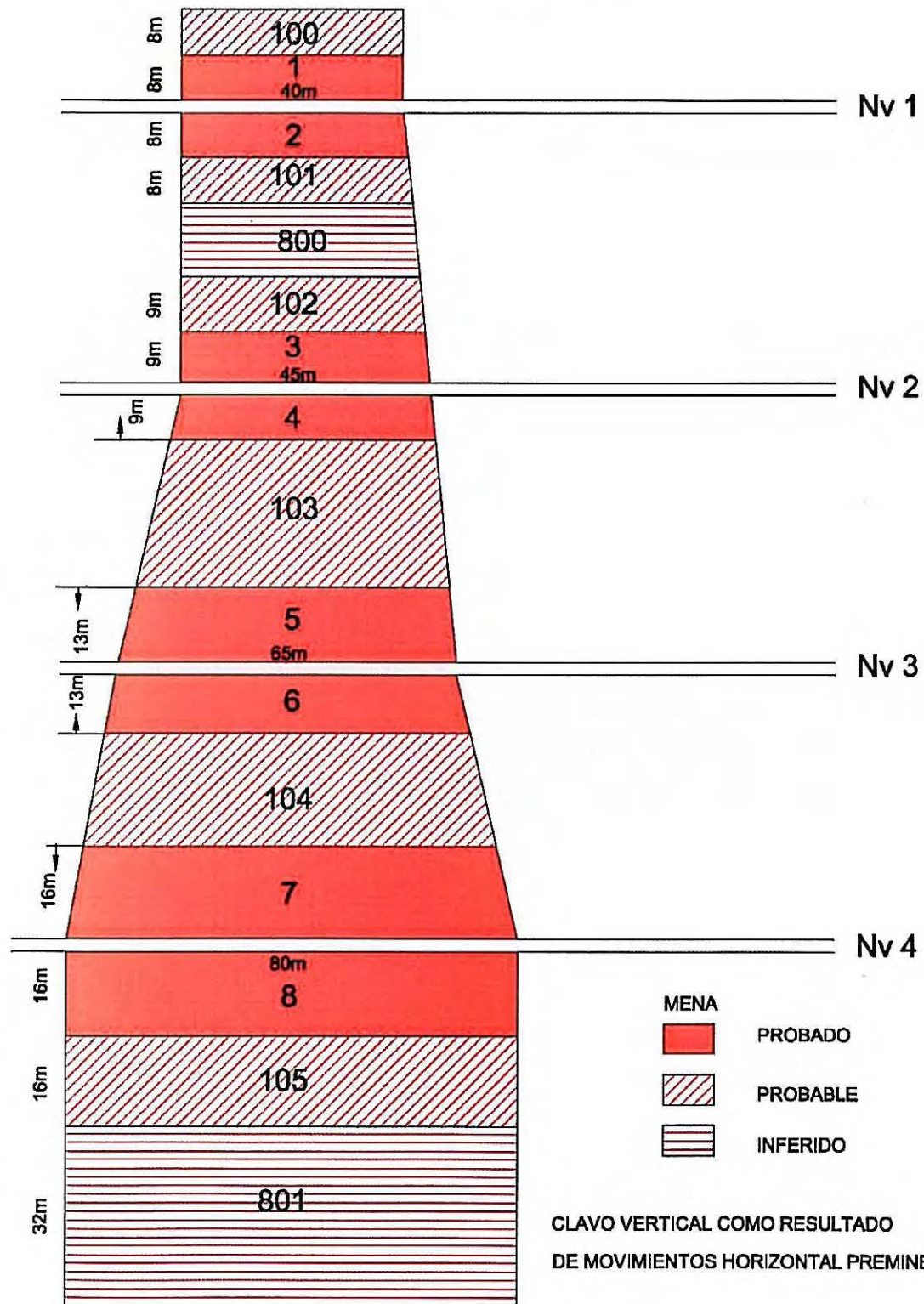


Figura 10

Bloqueo con Sondajes

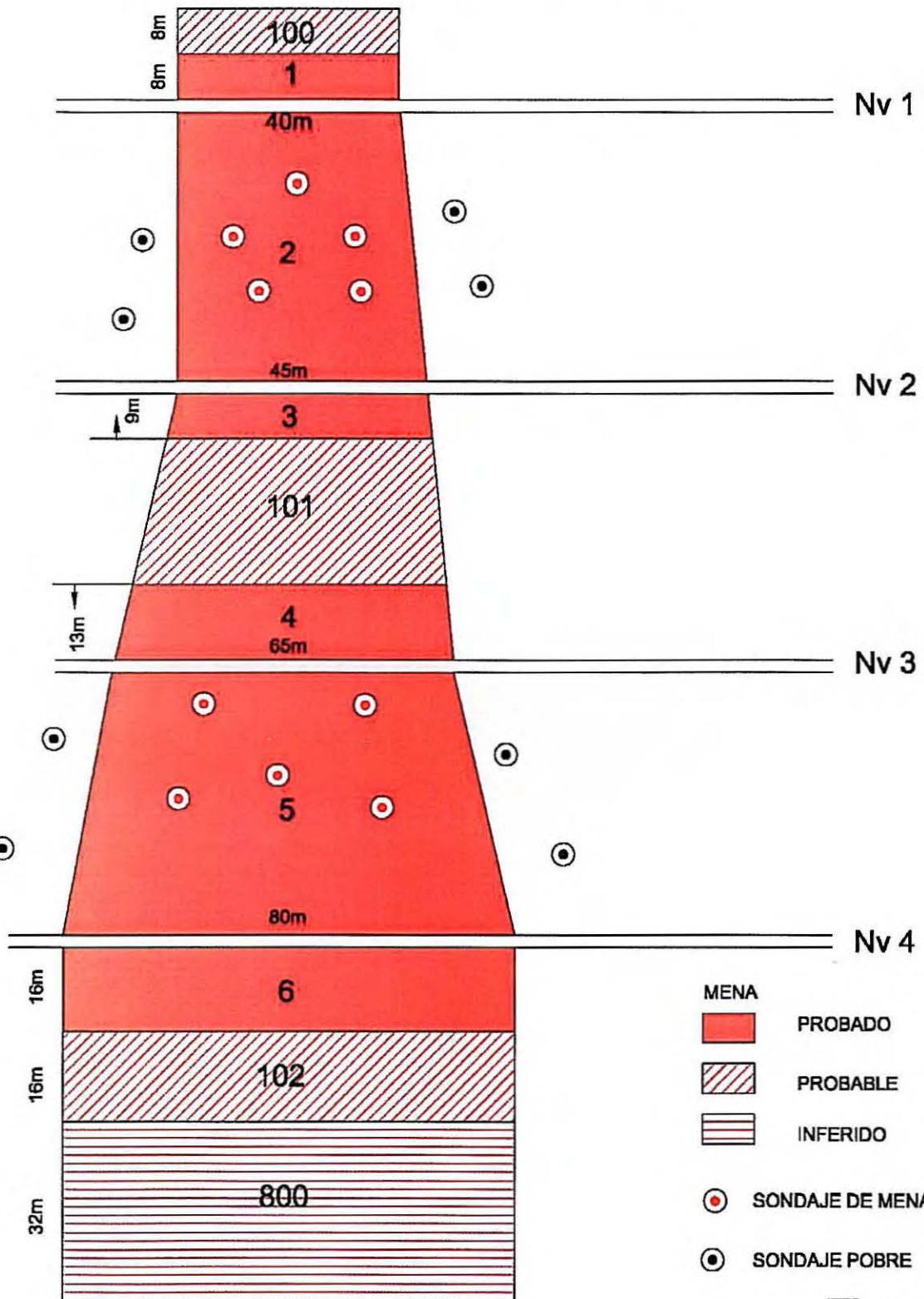


Figura 11

BLOQUEO A PARTIR DE AFLORAMIENTOS

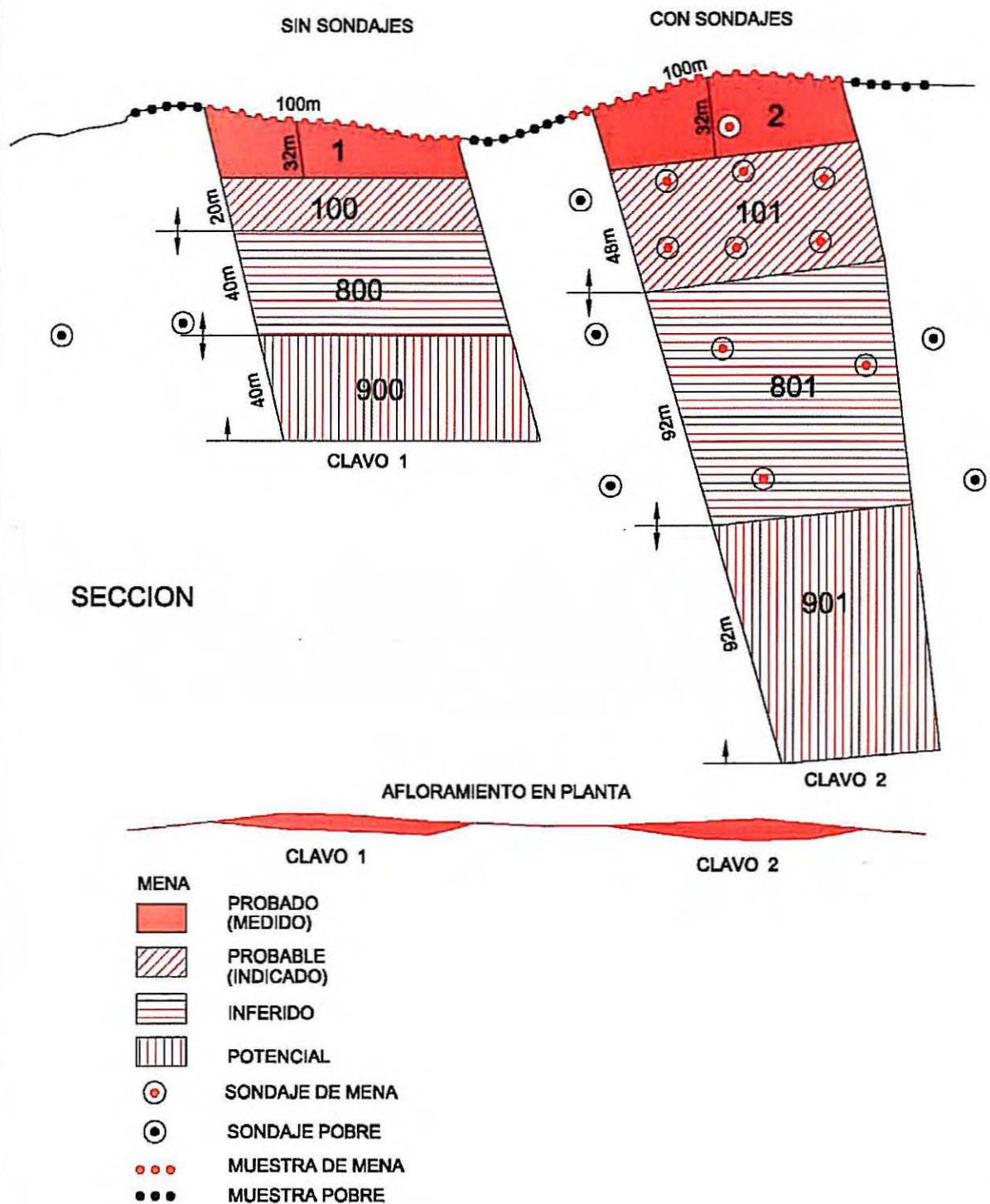


Figura 12

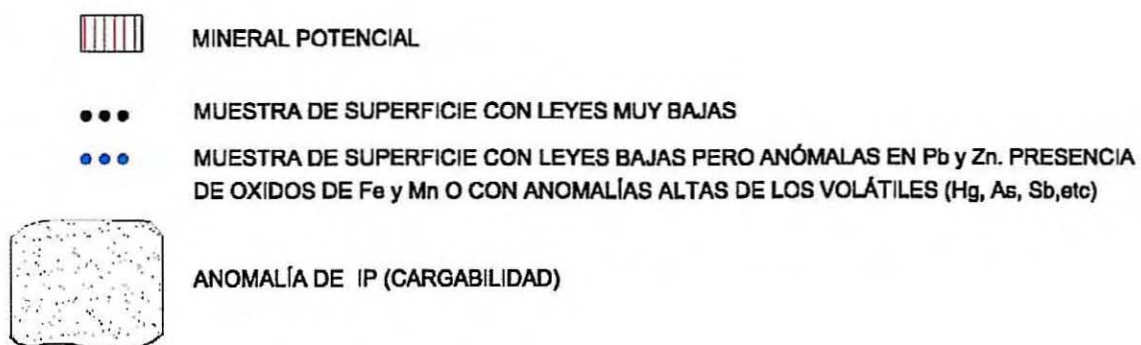
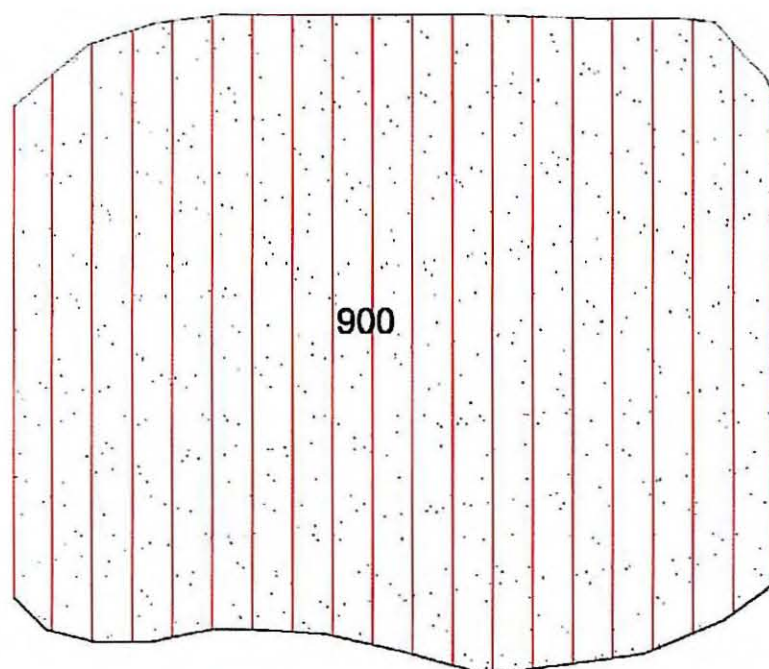


Figura 13

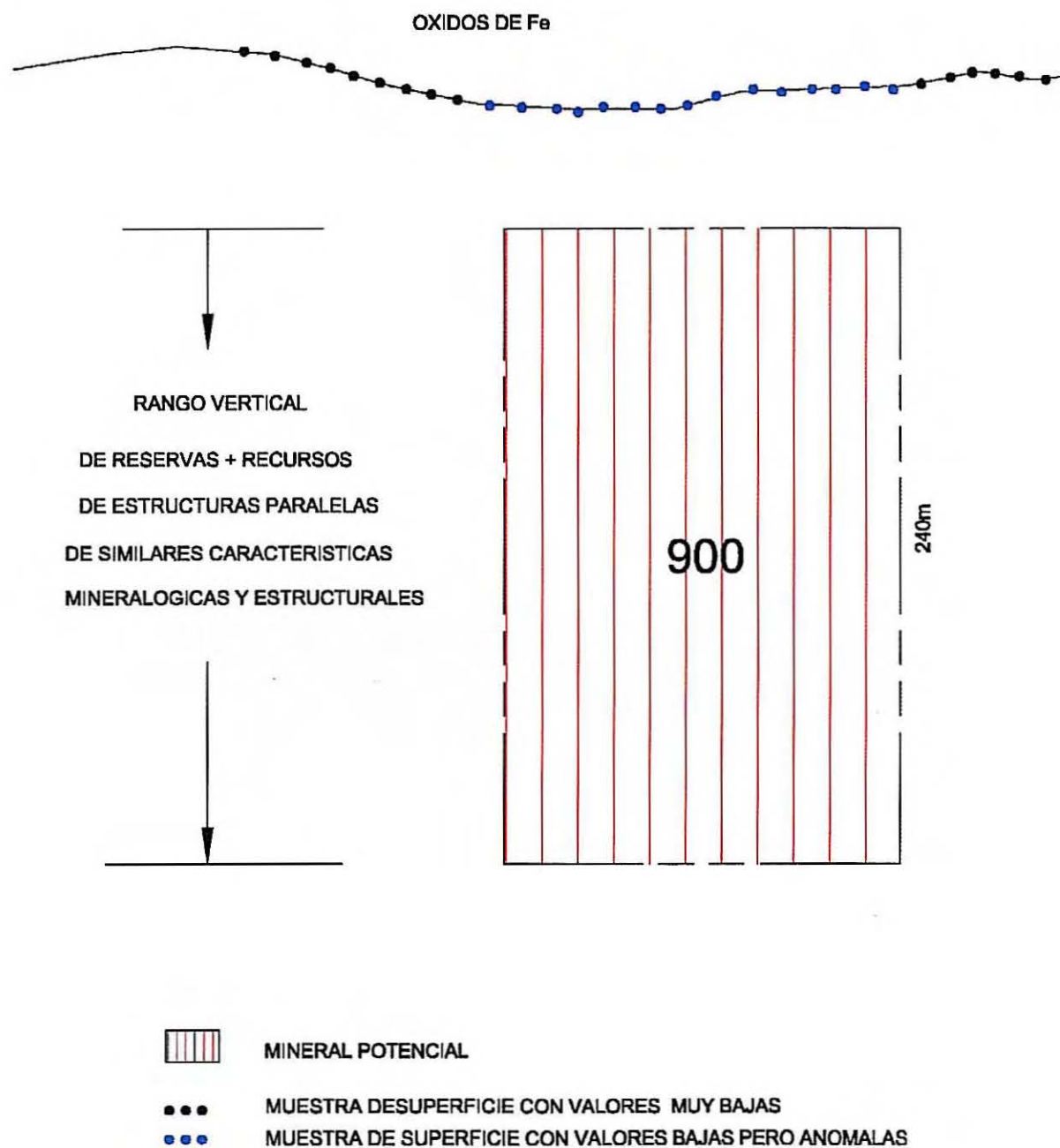
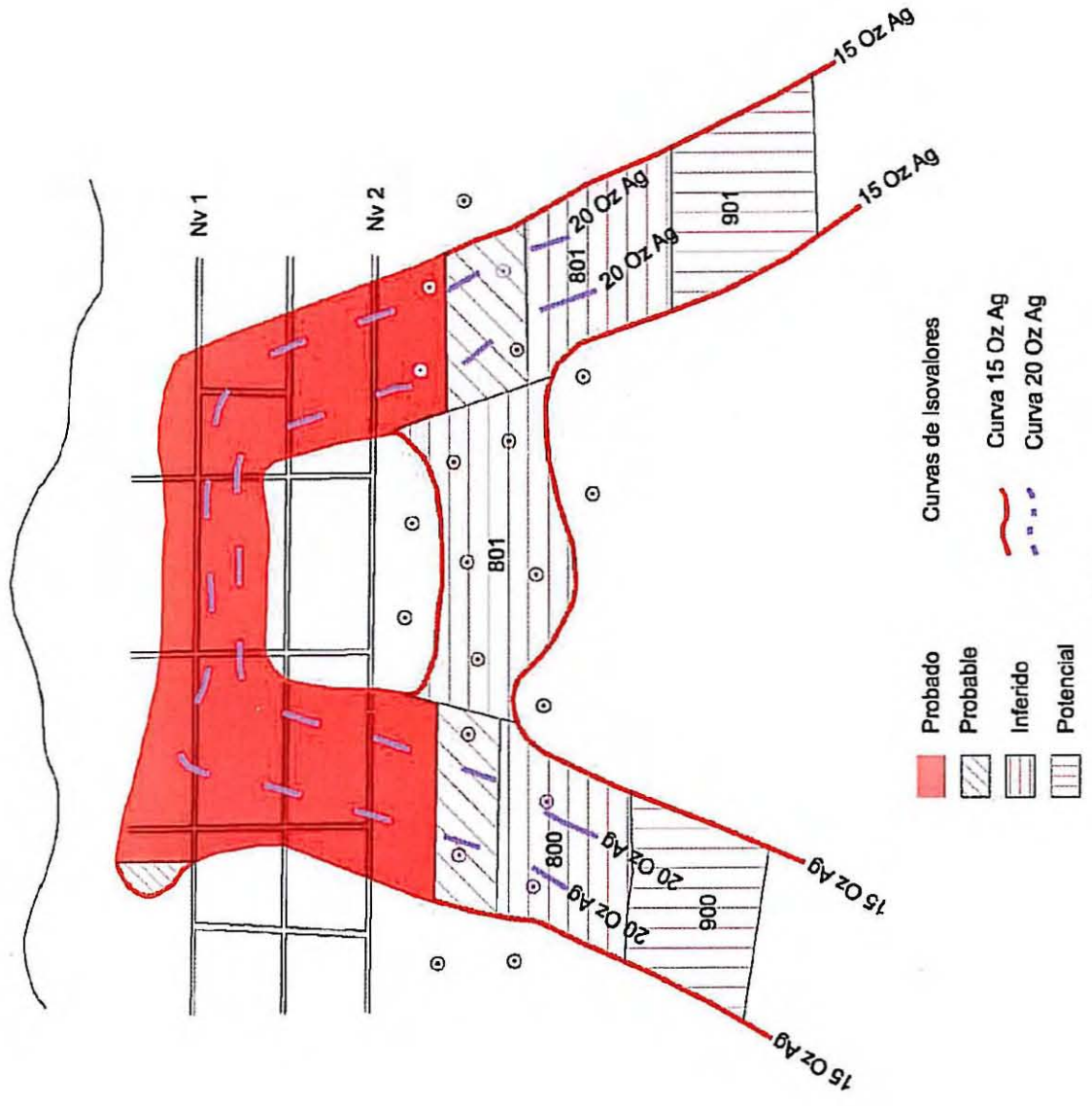


Figura 14

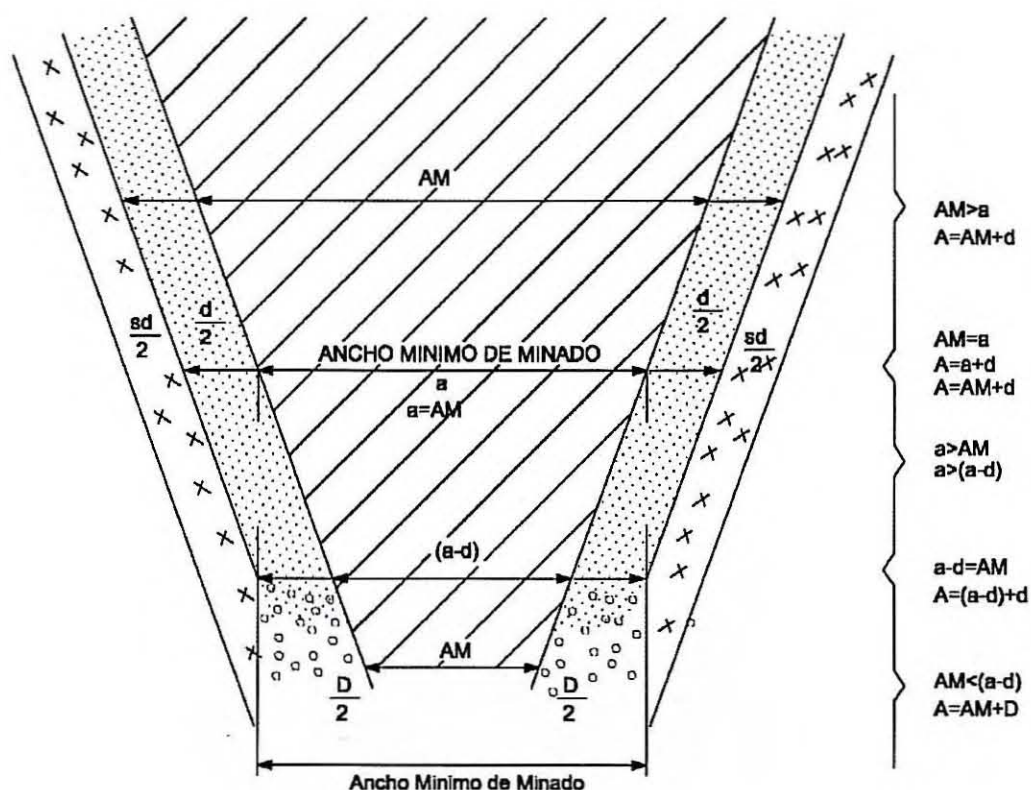
Figura 15



Pg-6

Pg-5

ANCHO MÍNIMO DE MINADO, DILUCIÓN, DILUCIÓN MÍNIMA

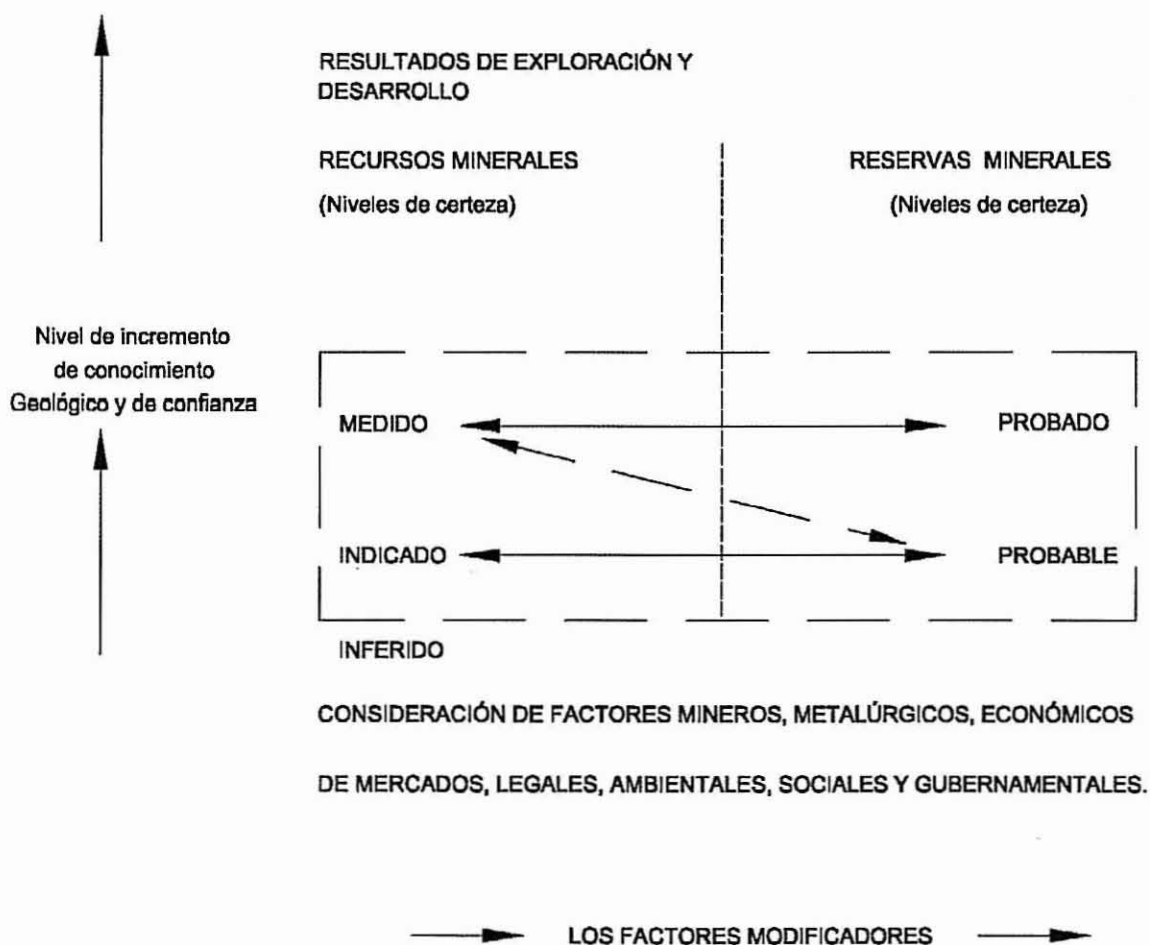


- AM** = Ancho de Muestra = Ancho Horizontal de estructura
a = Ancho Mínimo de Minado
A = Ancho de Minado
d = Dilución mínima
D = Dilución
sd = Sobre dilución

AM m	D m	d m	a m	A m
0.35	0.40	-	0.75	0.75
0.40	0.35	-	0.75	0.75
0.45	0.30	0.30	0.75	0.75
0.50	-	0.30	-	0.80
0.55	-	0.30	-	0.85

Figura 16

RELACIÓN GENERAL ENTRE RESULTADOS DE EXPLORACIÓN Y DESARROLLO, RESERVAS Y RECURSOS



Modificado de (referencia)The

The 2004 Australian code for Reporting Exploration Results, Mineral Resources and ore Reservas (The Jorc Code)

Figura A

DETERMINACIÓN DEL PESO ESPECÍFICO

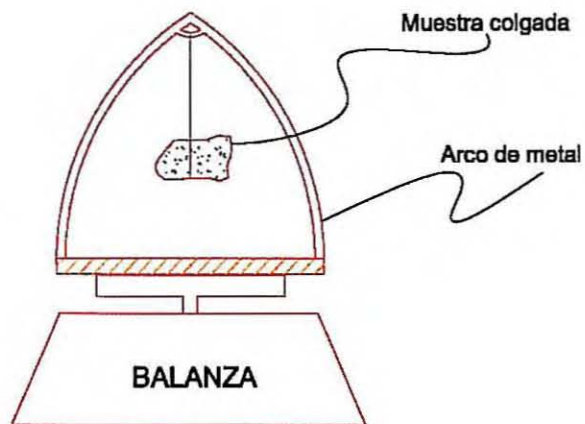


Fig. B: El primer paso para medir la gravedad específica, es pesar la muestra colgada de un arco que descansa en una balanza de precisión (Ps); previamente se gradúa la balanza a "0"gr. con el arco de encima.

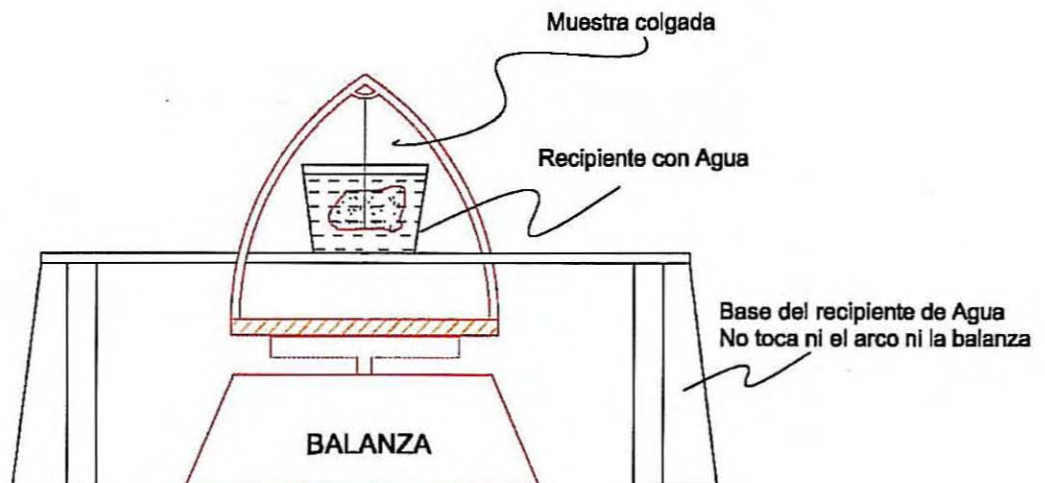


Fig. C: El segundo paso es pesar la muestra sumergida en agua (Pa), para ello se introduce la muestra en un recipiente con agua; el recipiente descansa sobre una base que no está en contacto con la balanza.

INVENTARIO DE MINERALES

SÍMBOLOS DE BLOQUES

MINERAL DE SULFUROS Au-Ag-Pb-Zn-Cu				MINERAL DE OXIDOS			
MENA	MARGINAL	SUBMARGINAL	BAJA LEY	MENA	MARGINAL	SUBMARGINAL	BAJA LEY

- Los bloques Accesibles de Minerales: PROBADO, PROBABLE, MENA, MARGINAL, SUBMARGINAL Y BAJA LEY NO LLEVAN NINGUN SIGNO.
- Los bloques Eventualmente Accesibles de Minerales: PROBADO, PROBABLE, MENA, MARGINAL, SUBMARGINAL Y BAJA LEY, llevarán el signo E-AC.
- Todos los bloques de Mineral Inferido y Potencial son Eventualmente Accesibles, pero no llevarán signo alguno.
- Los Bloques Inaccesibles llevarán signo INC solamente para Minerales con Valores de MENA O MARGINAL, PROBADOS Y PROBABLES Y se marcarán los bordes con el color de MENA O MARGINAL.

LAMINA D

Appendix G

Financial Model

Capital and Operating Cost Estimates

Appendix G

Table of Contents

Financial Model	1
Operating Costs (3 Sheets)	2
Mine Capital Costs	5
Mill and Tailings Capital Costs	6

Pasto Bueno Financial Evaluation

Year	2008					2009					2010					Totals
Month	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan		
Mine Production																
Ore (tonnes)	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	1,000		98,500
Grade (% WO ₃)	0.95%	0.95%	0.95%	0.95%	0.95%	0.95%	0.95%	0.95%	0.95%	0.95%	0.95%	0.95%	0.95%	0.95%		0.95%
Plant Recovery (%)	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%		80%
Concentrate Grade (% WO ₃)	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%		75%
Tonnes Concentrate	76	76	76	76	76	76	76	76	76	76	76	76	76	10		1,004
Revenue																
Tonnes WO ₃ recovered	57	57	57	57	57	57	57	57	57	57	57	57	57	8		749
Metric Tonne Units (MTU) WO ₃ recovered	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700	760		74,860
Price (\$US/MTU)	185	182	182	182	189	189	189	194	194	194	194	194	194	200		190
Revenue (\$US)	1,054,272	1,034,550	1,034,550	1,034,550	1,075,305	1,075,305	1,075,305	1,106,028	1,106,028	1,106,028	1,106,028	1,106,028	1,106,028	152,152		14,172,157
Controllable Cash Costs (\$USD)																
Unit Cost																
Operating Cost	\$ 89.51	671,359	671,359	671,359	671,359	671,359	671,359	671,359	671,359	671,359	671,359	671,359	671,359	89,515		8,817,187
Admin Cost	\$ 10.21	76,609	76,609	76,609	76,609	76,609	76,609	76,609	76,609	76,609	76,609	76,609	76,609	10,215		1,006,130
Sale Cost	\$ 3.17	23,738	23,738	23,738	23,738	23,738	23,738	23,738	23,738	23,738	23,738	23,738	23,738	3,165		311,759
Financial Cost	\$ 4.62	34,646	34,646	34,646	34,646	34,646	34,646	34,646	34,646	34,646	34,646	34,646	34,646	4,619		455,012
Non Controllable Cash Costs (\$USD)	0%															
Royalty Payment (0% for small producer)	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
EBITA (\$US)	247,920	228,198	228,198	228,198	268,953	268,953	268,953	299,676	299,676	299,676	299,676	299,676	299,676	44,638		3,582,068
Depreciation and Amortization																
Amortization	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000		1,008,000
Depreciation	51,000	51,000	51,000	51,000	51,000	51,000	51,000	51,000	51,000	51,000	51,000	51,000	51,000	51,000		714,000
Total D&A	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000	123,000		1,722,000
Tax																
Taxable Income	124,920	105,198	105,198	105,198	145,953	145,953	145,953	176,676	176,676	176,676	176,676	176,676	176,676	0		1,938,430
Tax @ 30%	37,476	31,559	31,559	31,559	43,786	43,786	43,786	53,003	53,003	53,003	53,003	53,003	53,003	0		581,529
After Tax Income	87,444	73,639	73,639	73,639	102,167	102,167	102,167	123,673	123,673	123,673	123,673	123,673	123,673	0		1,356,901
Cash Flow																
EBITA	247,920	228,198	228,198	228,198	268,953	268,953	268,953	299,676	299,676	299,676	299,676	299,676	299,676	44,638		3,582,068
Taxes	37,476	31,559	31,559	31,559	43,786	43,786	43,786	53,003	53,003	53,003	53,003	53,003	53,003	0		581,529
Capital with 15% Contingency	15%	55,510	0	627,634	332,120	268,525	187,450	229,310	153,295	385,135	100,625	28,175	24,150	11,155	88,895	2,491,980
Net Cash Flow	154,934	196,639	-430,996	-135,481	-43,358	37,717	-4,143	93,378	-138,462	146,048	218,498	222,523	235,518	-44,257		508,560

NPV @ 15% (\$1,000s) = \$426
IRR 89%

MINA PASTO BUENO - PRESUPUESTO 2008-2009-2010
(Expresado en Dólares Americanos)

13/12/08

CUADRO 1

Peso de un contenedor =====>	17.50													
Escenario +														
Precio de APT (Fuente: Bulletin Metal of Londres)	ESPERADO	232.00	233.56	239.00	255.00	252.22	250.00	249.88	251.44	252.00	252.00	252.00	252.00	
		PRIMER SEMESTRE-2008						SEGUNDO SEMESTRE-2008						
		ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE	OCTUBRE	NOVIEMBRE	DICIEMBRE	TOTAL
Precio de UTM por meses	US\$	163.40	164.49	168.30	179.50	177.55	176.00	175.92	184.55	184.96	184.96	184.96	184.96	
		30	28	30	29	30	29	31	31	30	31	30	31	
PRODUCCION MINA														
Tonelaje tratado en planta (toneladas por día)		187.83	242.95	262.43	250.29	234.00	259.74	255.72	242.57	257.63	257.12	250.00	250.00	252
Tonelaje Producido Mina		5,634.91	6,802.60	7,872.78	7,258.37	7,020.12	7,532.46	7,927.36	7,519.80	7,728.99	7,970.81	7,500.00	7,750.00	88,518
Ley de Cabeza % WO3	ESPERADO	0.87%	0.88%	0.74%	0.80%	0.69%	0.89%	0.83%	0.79%	0.73%	0.67%	0.84%	0.84%	0.79%
Recuperacion de Planta		80.50%	79.20%	76.98%	79.75%	80.98%	82.71%	82.58%	82.18%	79.88%	79.81%	80.00%	80.00%	80.38%
Ley del Concentrado		75.17%	75.36%	75.33%	75.31%	75.29%	75.30%	75.08%	75.85%	73.59%	73.93%	74.56%	74.56%	74.93%
Toneladas de Concentrado Producido		52.23	62.72	59.35	61.22	51.83	73.78	72.24	64.19	61.32	58.03	67.88	70.14	755
UTM Producidas		3,926.14	4,726.23	4,471.04	4,610.12	3,902.11	5,555.31	5,424.16	4,868.75	4,512.07	4,290.32	5,061.00	5,229.70	56,577
Nro. Contenedores		3.0	3.6	3.4	3.5	3.0	4.2	4.1	3.7	3.5	3.3	3.9	4.0	43
Ventas														
Toneladas de Concentrado fino, Ventidas		39.26	47.26	44.71	46.10	39.02	55.55	54.24	48.69	45.12	42.90	50.61	52.30	565.77
UTM vendidas		3,926	4,726	4,471	4,610	3,902	5,555	5,424	4,869	4,512	4,290	5,061	5,230	56,577
INGRESO (Valorización de la Producción)	US\$	641,532	777,427	752,476	827,516	692,835	977,734	954,197	898,533	834,552	793,538	936,083	967,285	10,053,708
Numero de Contenedores a Exportar		4.0	4.0	4.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	3.9	4.0	46
Ley del Concentrado (Dynacor)		74.62%	75.08%	74.89%	74.40%	73.13%	74.11%	74.26%	74.51%	74.11%	74.0			
Tonelaje Exportado		70.94	69.71	70.33	53.31	52.71	70.45	71.07	71.14	71.06	70.92			
UTM Exportado		5,293	5,234	5,267	3,966	3,855	5,221	5,277	5,300	5,266	5,175	5,061	5,230	60,145
INGRESO POR VENTA (Valor-Exportación)	US\$	864,916	860,873	886,388	711,971	684,440	918,853	928,372	978,185	973,992	957,223	936,083	967,285	10,668,581
EGRESOS														
Costo Operativo	US\$	512,609	532,442	529,105	868,715	597,192	659,407	704,860	594,231	819,412	740,599	648,198	648,198	7,854,968
Gasto Administrativo	US\$	64,858	81,878	73,145	78,443	79,359	73,879	73,722	75,851	65,303	81,962	74,840	74,840	898,079
Gasto de Ventas	US\$	24,108	21,497	14,592	22,630	16,848	29,541	22,674	30,623	23,746	25,641	23,190	23,190	278,279
Gasto Financiero	US\$	20,428	22,011	22,426	25,560	27,130	25,250	22,735	36,897	41,025	50,847	29,575	29,575	353,459
Amortización	US\$	52,624	71,034	82,528	68,096	70,786	73,437	78,642	130,913	74,316	20,623	72,112	72,112	867,224
Depreciación	US\$	44,385	43,193	46,229	42,790	47,629	52,493	59,039	56,040	59,262	55,363	50,061	50,061	606,547
Costo Total	ESPERADO	719,013	772,054	768,025	1,106,234	838,945	914,008	961,672	924,555	1,083,064	975,035	897,976	897,976	10,858,556
UTILIDAD OPERATIVA	US\$	-77,481	5,374	-15,549	-278,718	-146,110	63,726	-7,475	-26,022	-248,512	-181,497	38,107	69,310	-804,848
CASH COST	\$/UTM	622,003	657,827	639,267	995,348	720,530	788,078	823,991	737,601	949,486	899,048	775,803	775,803	9,384,786
		158	139	143	216	185	142	152	151	210	210	153	148	166
EBIT		-57,053	27,384	6,877	-253,159	-118,980	88,976	15,260	10,875	-207,487	-130,650	67,682	98,885	-451,389
EBITDA		39,956	141,611	135,634	-142,272	-565	214,907	152,941	197,829	-73,909	-54,663	189,855	221,057	1,022,382
CUT OFF	%WO3	0.97%	0.87%	0.75%	1.06%	0.83%	0.83%	0.84%	0.81%	0.95%	0.83%	0.81%	0.78%	0.86%

Peso de un contenedor =====>	17.50													
Escenario +														
Precio de APT (Fuente: Bulletin Metal of Londres)	ESPERADO	242.00	242.00	242.00	245.00	245.00	245.00	252.00	252.00	252.00	252.00	252.00	252.00	
		2009												
		ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE	OCTUBRE	NOVIEMBRE	DICIEMBRE	TOTAL
Precio de UTM por meses	US\$	181.50	181.50	181.50	188.65	188.65	188.65	194.04	194.04	194.04	194.04	194.04	194.04	
		Inversión en Equipos de Mina												
		Montaje de Planta												
PRODUCCION MINA														
Tonelaje tratado en planta (toneladas por día)		280.00	290.00	280.00	280.00	280.00	280.00	300.00	300.00	300.00	300.00	400.00	420.00	309
Tonelaje Producido Mina		8,400.00	7,830.00	8,400.00	8,120.00	8,400.00	8,120.00	9,000.00	9,000.00	8,700.00	9,000.00	11,600.00	12,600.00	109,170
Ley de Cabeza % WO3	ESPERADO	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%	0.75%	0.73%	0.73%	0.73%	0.73%	0.73%	0.76%
Recuperacion de Planta		80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%	80.00%
Ley del Concentrado		74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%
Toneladas de Concentrado Producido		72.10	67.21	72.10	69.70	72.10	69.70	72.42	70.49	68.14	70.49	90.86	98.69	894.02
UTM Producidas		5,376.00	5,011.20	5,376.00	5,196.80	5,376.00	5,196.80	5,400.00	5,256.00	5,080.80	5,256.00	6,774.40	7,358.40	66,658
Nro. Contenedores		4.1	3.8	4.1	4.0	4.1	4.0	4.1	4.0	3.9	4.0	5.2	5.6	51
Ventas														
Toneladas de Concentrado fino, Ventidas		53.76	50.11	53.76	51.97	53.76	51.97	54.00	52.56	50.81	52.56	67.74	73.58	667
UTM vendidas		5,376	5,011	5,376	5,197	5,376	5,197	5,400	5,256	5,081	5,256	6,774	7,358	66,658
INGRESO (Valorización de la Producción)	US\$	975,744	909,533	975,744	980,376	1,014,182	980,376	1,047,816	1,019,874	985,878	1,019,874	1,314,505	1,427,824	12,651,727
Numero de Contenedores a Exportar		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0	6.0	52
Ley del Concentrado (Dynacor)														
Tonelaje Exportado														
UTM Exportado		5,219	5,219	5,219	5,219	5,219	5,219	5,219	5,219	5,219	5,219	7,829	7,829	67,850
INGRESO POR VENTA (Valor-Exportación)	US\$	947,285	947,285	947,285	984,602	984,602	984,602	1,012,734	1,012,734	1,012,734	1,012,734	1,519,100	1,519,100	12,884,796
EGRESOS														
Costo Operativo	US\$	689,100	689,100	689,100	737,700	737,700	737,700	737,700	737,700	737,700	737,700	737,700	737,700	8,706,600
Gasto Administrativo	US\$	74,840	74,840	74,840	74,840	74,840	74,840	74,840	74,840	74,840	74,840	74,840	74,840	898,080
Gasto de Ventas	US\$	28,190	28,190	28,190	28,190	28,190	28,190	28,190	38,190	38,190	38,190	38,190	38,190	388,280
Gasto Financiero	US\$	29,575	29,575	29,575	29,575	29,575	29,575	29,575	29,575	29,575	29,575	29,575	29,575	354,900
Amortización	US\$	75,717	75,717	75,717	75,717	75,717	75,717	79,503	79,503	79,503	79,503	79,503	79,503	931,321
Depreciación	US\$	58,076	58,076	58,076	58,076	58,076	58,076	60,980	60,980	60,980	60,980	60,980	60,980	714,335
Costo Total	ESPERADO	955,498	955,498	955,498	1,004,098	1,004,098	1,004,098	1,010,788	1,020,788	1,020,788	1,020,788	1,020,788	1,020,788	11,993,516
UTILIDAD OPERATIVA	US\$	20,246	-45,965	20,246	-23,722	10,084	-23,722	37,028	-914	-34,909	-914	293,717	407,036	658,211
CASH COST	\$/UTM	821,705	821,705	821,705	870,305	870,305	870,305	870,305	880,305	880,305	880,305	880,305	880,305	10,347,860
		153	164	153	167	162	167	161	167	173	167	130	120	155
EBIT		49,821	-16,390	49,821	5,853	39,659	5,853	66,603	28,661	-5,334	28,661	323,292	436,611	1,013,111
EBITDA		183,614	117,403	183,614	139,646	173,452	139,646	207,086	169,144	135,148	169,144	463,775	577,094	2,658,767
CUT OFF	%WO3	0.78%	0.84%	0.78%	0.82%	0.79%	0.82%	0.72%	0.73%	0.76%	0.73%	0.65%	0.60%	0.74%

Peso de un contenedor =====>	17.50													
Escenario +														
Precio de APT (Fuente: Bulletin Metal of Londres)	ESPERADO	260.00	260.00	260.00	260.00	260.00	260.00	270.00	270.00	270.00	270.00	270.00	270.00	
		2010												
		Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	TOTAL
Precio de UTM por meses	US\$	200.20	200.20	200.20	200.20	200.20	200.20	207.90	207.90	207.90	207.90	207.90	207.90	
PRODUCCION MINA														
Tonelaje tratado en planta (toneladas por día)		500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500
Tonelaje Producido Mina		15,000.00	13,500.00	15,000.00	14,500.00	15,000.00	14,500.00	15,000.00	15,000.00	14,500.00	15,000.00	14,500.00	15,000.00	176,500
Ley de Cabeza % WO3	ESPERADO	0.73%	0.73%	0.73%	0.73%	0.73%	0.73%	0.73%	0.73%	0.73%	0.73%	0.73%	0.73%	0.73%
Recuperacion de Planta		81.00%	81.00%	81.00%	81.00%	81.00%	81.00%	81.00%	81.00%	81.00%	81.00%	81.00%	81.00%	81.00%
Ley del Concentrado		74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%	74.56%
Toneladas de Concentrado Producido		118.96	107.06	118.96	114.99	118.96	114.99	118.96	118.96	114.99	118.96	114.99	118.96	1,399.74
UTM Producidas		8,869.50	7,982.55	8,869.50	8,573.85	8,869.50	8,573.85	8,869.50	8,869.50	8,573.85	8,869.50	8,573.85	8,869.50	104,364
Nro. Contenedores		6.8	6.1	6.8	6.6	6.8	6.6	6.8	6.8	6.6	6.8	6.6	6.8	80
Ventas														
Toneladas de Concentrado fino, Ventidas		88.70	79.83	88.70	85.74	88.70	85.74	88.70	88.70	85.74	88.70	85.74	88.70	1,044
UTM vendidas		8,870	7,983	8,870	8,574	8,870	8,574	8,870	8,870	8,574	8,870	8,574	8,870	104,364
INGRESO (Valorización de la Producción)	US\$	1,775,674	1,598,107	1,775,674	1,716,485	1,775,674	1,716,485	1,843,969	1,843,969	1,782,503	1,843,969	1,782,503	1,843,969	21,298,981
Numero de Contenedores a Exportar		7.0	6.0	7.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	82
Ley del Concentrado (Dynacor)														
Tonelaje Exportado														
UTM Exportado		9,134	7,829	9,134	7,829	9,134	9,134	9,134	9,134	9,134	9,134	9,134	9,134	106,994
INGRESO POR VENTA (Valor-Exportación)	US\$	1,828,547	1,567,326	1,828,547	1,567,326	1,828,547	1,828,547	1,898,875	1,898,875	1,898,875	1,898,875	1,898,875	1,898,875	21,842,091
EGRESOS														
Costo Operativo	US\$	930,000	930,000	930,000	930,000	930,000	930,000	930,000	930,000	930,000	930,000	930,000	930,000	11,160,000
Gasto Administrativo	US\$	80,000	80,000	80,000	80,000	80,000	85,000	85,000	85,000	85,000	85,000	85,000	85,000	995,000
Gasto de Ventas	US\$	40,000	40,000	40,000	40,000	40,000	45,500	45,500	45,500	45,500	45,500	45,500	45,500	518,500
Gasto Financiero	US\$	27,000	27,000	27,000	27,000	27,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	345,000
Amortización	US\$	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	960,000
Depreciación	US\$	85,000	85,000	85,000	85,000	85,000	85,000	85,000	85,000	85,000	85,000	85,000	85,000	1,020,000
Costo Total	ESPERADO	1,242,000	1,242,000	1,242,000	1,242,000	1,242,000	1,255,500	1,255,500	1,255,500	1,255,500	1,255,500	1,255,500	1,255,500	14,998,500
UTILIDAD OPERATIVA	US\$	533,674	356,107	533,674	474,485	533,674	460,985	588,469	588,469	527,003	588,469	527,003	588,469	6,300,481
CASH COST	\$/UTM	1,077,000	1,077,000	1,077,000	1,077,000	1,077,000	1,090,500	1,090,500	1,090,500	1,090,500	1,090,500	1,090,500	1,090,500	13,018,500
		121	135	121	126	121	127	123	123	127	123	127	123	125
EBIT		560,674	383,107	560,674	501,485	560,674	490,985	618,469	618,469	557,003	618,469	557,003	618,469	6,645,481
EBITDA		725,674	548,107	725,674	666,485	725,674	655,985	783,469	783,469	722,003	783,469	722,003	783,469	8,625,481
CUT OFF	%WO3	0.57%	0.64%	0.57%	0.59%	0.57%	0.60%	0.56%	0.56%	0.58%	0.56%	0.58%	0.56%	0.58%

Mine Capital

INVERSIONES MINA

ESCENARIO CON INVERSION

	2008		2009											2010
	Diciembre	Enero	Febrero	Marzo	Abril	Mayo	Junio	Julio	Agosto	Septiembre	Octubre	Noviembre	Diciembre	Enero
INVERSIONES EN MINA	20,000	0	442,250	284,600	194,800	137,300	50,700	44,600	87,700	10,300	10,300	9,800	9,000	32,600
N° 10 y N° 12 - HUAURA														
Locomotoras Bateria de 4.5 Tn + cargador			40,000											
Carros Mineros U-35, Trocha 500 mm														15,000
N°13 - HUAURA														
Línea de Cauville 30 lbsr/yd			15,000		10,000									
Pala Neumática				35,000										
Bombas Eléctricas Estacionarias			70,000											
Bombas Eléctricas Sumergibles			35,000											
Cable Tripolar N2XSEY de 3x16,25 y 50 mm2			16,250											
Cable Eléctrico Trifásico 440 v de 25m2			8,000											
Transformadores de 250 KVA				10,000										
Pala Neumática			35,000											
Winches de arrastre 15 HP			40,000											
Línea de Cauville 30 lbsr/yd				20,500	7,500	10,300	18,200	13,800	5,500	3,500	5,000	3,800	4,000	10,000
N° 6 y N° 8 HUAYLLAPON														
Locomotora a Bateria 1.5 ton + Cargador			35,000											
Locomotora a Bateria 4.5 ton + Cargador			40,000											
Línea de Cauville 30 lbsr/yd					8,800	8,000	7,500	7,800	7,200	6,800	5,300	6,000	5,000	
Carros Mineros U-35, Trocha 600 mm			15,000											
Ventiladores Eléctricos 20000 CFM			20,000											
Pala Neumática			35,000											
Cable Eléctrico Trifásico 440 v de 25m2			8,000											
Transformador de 250 KVA			10,000											
Transformador de 450 KVA+tablero(Nv-8)			20,000	20,000										
cerchas y/o vigas H Sost. Crucero				16,500										
N° 4 HUAYLLAPON														
Línea de Cauville 30 lbsr/yd				7,600	8,500	7,500								7,600
VIVIENDAS				45,000	40,000	40,000								
MAQUINARIA PARA MINA(Locomotoras, Palas,etc)				80,000	70,000									
ENERGIA ELECTRICA(Transformadores, Tablero)				50,000	50,000									
Comedores de obreros = 150 personas (180 m2)						11,500			25,000					
Comedores de Empleados = 50 personas (60 m2)								11,500						
Vivienda para 80 personas (obreros) 60 m2								11,500						
Implementacion de topico						25,000	25,000							
Ambulancia	20,000													
Camion Mitsubishi Modelo Canter						35,000								
Ampliacion de carretera afirmada									50,000					

Plant & Tailings Capital

ESCENARIO CON INVERSION

DESCRIPCION	2008	2009												2010
	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10
Planta														
Compra de equipos* (FUNVESA)														
Montaje Planta y Materiales														
Pesómetro									20,000					
Flujómetros									20,000					
Laboratorio														
Bomba de reciclaje para aguas de relaves			65,000											
Apron Feeder														
EIA y diseño	\$16,660													
Construcción Relavera (2 etapas)					30,000		120,000	60,000	150,000	40,000				
Imprevistos(EIA, Diseño, MEM)	\$1,488		20,000			10,000	10,000		20,000	20,000				2,500
Tableros Eléctricos														
Celdas de flotacion (03 bancos de 8 celdas c/u)														
Acondicionadores (02 unidades)														
Molino de bolas 4" x 4"														
Hornos de secado (02 unidades)														
Fajas transportadoras														
Tolvas (03 unidades)														
Jigs duplex (03 unidades)														
Obras civiles, mecanicas, electricas, etc.														
Inversiones en Medio Ambiente	\$4,291		18,519	4,200	4,200	15,700	700	19,700	14,700	11,200	14,200	11,200	700	42,200
SUBTOTAL	22,439	0	103,519	4,200	34,200	25,700	130,700	79,700	224,700	71,200	14,200	11,200	700	44,700
G.G	2,499	0	0	0	4,500	0	18,000	9,000	22,500	6,000	0	0	0	0
Utilidad	3,332	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	28,270	0	103,519	4,200	38,700	25,700	148,700	88,700	247,200	77,200	14,200	11,200	700	44,700

MEDIO AMBIENTE	2008	2009												2010
ÍTEM	DEC	JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN
Equipos de monitoreo														
Ph, Cond, Temp.			\$1,319											
Detector de gases			\$4,000											
Estación meteorológica			\$3,500											
Piezómetros														\$20,000
Hitos topográficos														\$1,500
Estudios ambientales														
Ejecucion del Plan de cierre de relavera									\$10,000		\$10,000			\$10,000
Ejecucion de Estabilidad de talud de relavera														
Relleno sanitario			\$5,000					\$5,000						\$2,500
Controles Ambientales: Monitoreo*														
Monitoreo de agua, aire y ruido	\$3,791		\$3,500		\$3,500			\$3,500			\$3,500			\$3,500
Agua de consumo humano			\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200
Proyectos Ambientales														
Transporte de residuos				\$3,500					\$3,500					\$3,500
Tratamiento de aguas residuales						\$15,000		\$10,000		\$10,000		\$10,000		
Gastos operativos	\$500		\$1,000	\$500	\$500	\$500	\$500	\$1,000	\$1,000	\$1,000	\$500	\$1,000	\$500	\$1,000
TOTAL	\$4,291	\$0	\$18,519	\$4,200	\$4,200	\$15,700	\$700	\$19,700	\$14,700	\$11,200	\$14,200	\$11,200	\$700	\$42,200