CHALLACOLLO SILVER PROPERTY

TECHNICAL REPORT

APRIL 24, 2002

PREPARED FOR

SILVER STANDARD RESOURCES INC.

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1.0 SUMMARY

Thomas Henricksen and Russell Smith (“Consultants”) were retained by Silver Standard Resources Inc. (“Silver Standard”) to prepare an independent Technical Report that meets the standards of Canadian National Instrument (43-101) for the Challacollo Silver Property located in Region I, Northern Chile. The property is located approximately one hundred and thirty (130) kilometers southeast of the coastal town of Iquique.

The Gildemeister family held the property since 1896 under the name Minera Challacollo until 1998 when it was sold to Sociedad Contractual Minera Septentrion (SCMS). Silver Standard Resources Inc. signed a lease option to purchase agreement with Minera Septentrion in the fall of 2001 and since then has spent in exploration costs and option payments approximately $460,000 US. They retained the “Consultants” who mapped the Lolon Vein, took more than 1100 underground and surface rock samples and managed the drilling of 746 meters of diamond core on the Lolon Vein. Silver Standard has spent $160,000 US on option payments to date and will spend a total of 1.5 million dollars US to gain 100% of the property, subject to a 2% NSR royalty that Silver Standard can buy down to zero with a payment of $1,500,000.

The property covers 4000 hectares or 40 square kilometers in 11 mensuras. To maintain the claims in good standing, with the government, March payments of approximately $30,000 will have to be made each year.

The property is underlain by a sequence of Late Paleozoic to Jurassic bi-modal felsic and basic volcanics and sediments. A minimum of four silver-bearing, mineralized, quartz brecciated veins cut the volcanics. They trend north to north-northeast and pinch and swell along northwest and northeast trending cross faults. The Lolon structure hosts the only vein(s) that have been extensively exploited. The structure has been traced for over two and one half (2.5) kilometers in length and averages approximately twenty (20) meters wide where it has been exploited. The most extensively developed part of the structure lies between the Humberto workings at the north and the Challacollo Sur workings at the south.

Silver Standard has calculated a resource on the Lolon structure of the following: Indicated Resources of 1,376,255 tonnes @ 6.76 oz/t Ag for 10,246,095 ounces silver; Inferred Resources of 4,704,513 tonnes @ 7.12 oz/t Ag for 36,918,294 ounces silver. The combined total Indicated and Inferred Resource is 47,164,389 million ounces silver within a total of 6,080,769 tonnes with an average grade of 7.04oz/t Ag. They made these calculations using the polygon method for a block that is roughly 1.2 kilometers long, and 250 meters deep, measure from the surface down to an elevation of 1250 meters. The average widths of the polygons for the underground workings is 6.9m and 13.4m for the drill holes, excluding DTH-CH-09.

The Consultants have reviewed the database and methodology used by Silver Standard to prepare the resource and we are of the opinion that the current tonnage and grade modeling is a reasonable representation of the Mineral Resource, at this time. In our opinion, the Mineral Resource has been prepared according to accepted industry standards using accepted practices, and that the work completed has been both thorough and as accurate as possible given the available database.

It is also the Consultants opinion that the classification of Indicated and Inferred Mineral Resources as estimated herein, meets the definition of Indicated and Inferred Mineral Resources as stated by NI 43-101 and defined by the CIM Standards on Mineral Resources and Reserves Definition and Guidelines, adopted by the CIM council on August 20, 2000.

The Consultants have recommended a program of further exploration that will enhance the property and have proposed a sequence of budgeting to carry this program out. Silver Standard has proposed drilling 1500 meters of RC drilling during the May-July period of year 2002. This drill program is warranted and will give the Company sufficient data to make a decision to continue to hold the property or not before a payment of $250,000 is needed to continue the lease on August 1st 2002.

2.0 INTRODUCTION AND TERMS OF REFERENCE:

2.1 General:

Consultants: Thomas Henricksen and Russell Smith were retained by Silver Standard Resources Inc. ("Silver Standard") to undertake a separate independent Technical Report to meet the requirements for the Canadian National Instrument 43-101. This report conforms to Form 43-101F1 for technical reports.

Henricksen and Smith reviewed many independent technical reports, provided by the previous owners and others and those that were in the possession of the Consultants. These reports are listed in Section 20.0 References. Both Consultants have been intimately involved with the project since late September when they were contracted to evaluate the property by geological mapping, sampling and drilling. Both Consultants took on different tasks while studying the property but are both knowledgeable in all parts of the study and have contributed equally in this report.

2.2 Terms and definitions:

Silver Standard refers to Silver Standard Resources Inc. Chemex refers to ALS Chemex-Bonder Clegg. Minera Challacollo refers to Sociedad Contractual Minera Challacollo. Minera Septentrion or (SCMS) refers to Sociedad

Contractual Minera Septentrion. CIMM refers to Centro de Investigacion Minera y Metalugica. ENAMI refers to Empresa Nacional de Mineria. SERNAGEOMIN refers to Servicio Nacional de Geologia y Mineria. CODELCO refers Corporacion Nacional del Cobre Minera. Minera Silver Standard Chile S.A. refers to Silver Standard's Chilean subsidiary.

2.3 Units:

All units are metric:

Distances are given in meters and kilometers.

Precious metals are given in ppms (parts per million) or unless otherwise shown as g/t and oz/t (ounces per ton).

Base metals are given in ppms (parts per million) or % (percent).

Weights are given as tonnes.

All monetary values are given as United States (US) dollars unless otherwise stated.

3.0 DISCLAIMER:

This report was prepared for Silver Standard Resources Inc. ("Company") by the independent consultants Thomas A. Henricksen and Russell G. Smith ("Consultants") and is based in part on information not in the control of all those parts listed above. While it is believed that the information will be reliable under the conditions and subject to the limitations set forth herein, neither the Company nor consultants guarantee the accuracy thereof. The use of this report or any information contained therein shall be at the user's sole risk, regardless of any fault or negligence of Company or the consultants.

4.0 INTRODUCTION:

4.1 Location and Access:

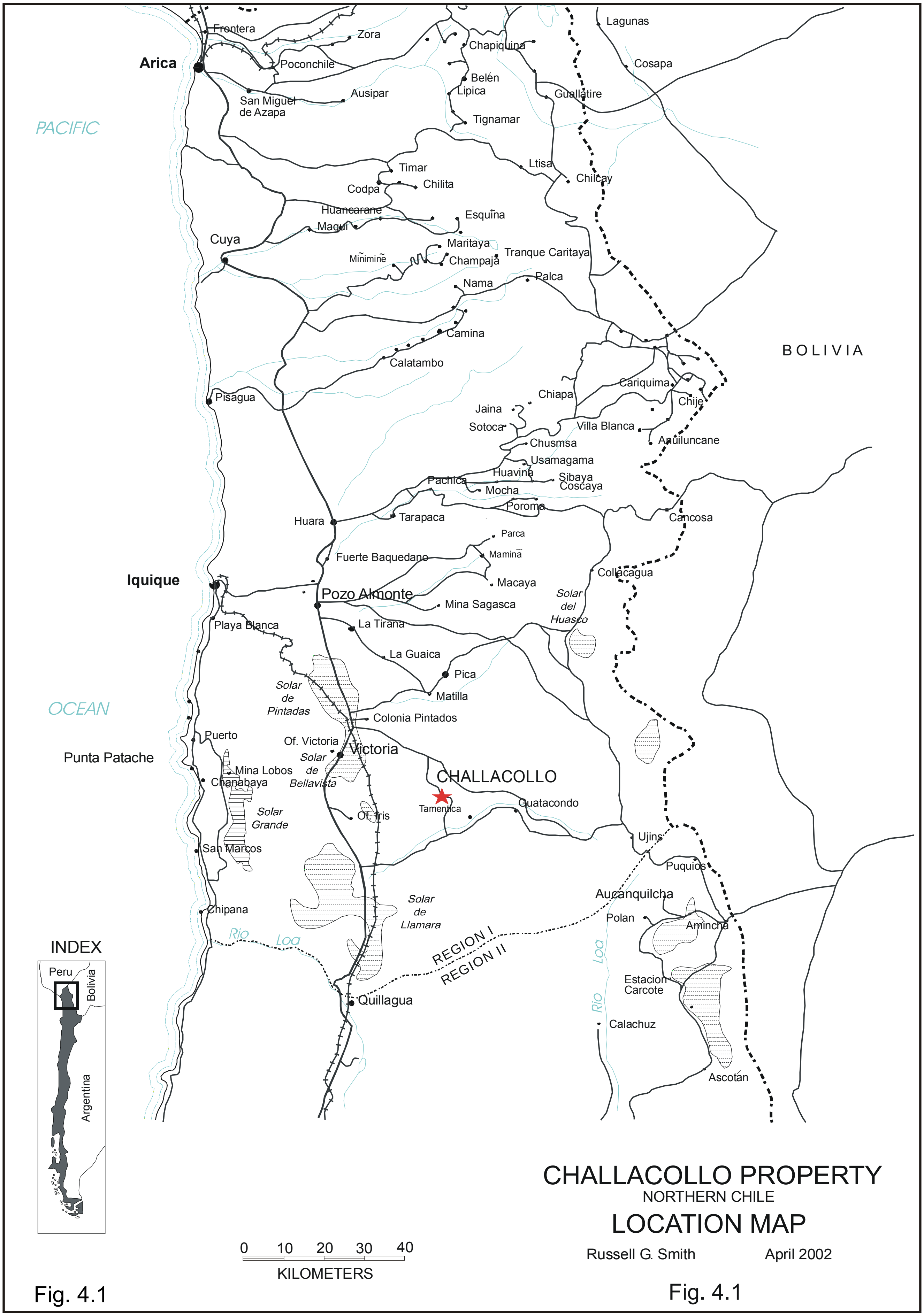
The Challacollo property is located in Region I, "de Tarapaca", at (20° 57'10"Lat, 69° 21'20" Long.) of Chile, Comuna Pozo Almonte and lies 130 air kilometers southeast of Iquique (**Figure 4.1**). It is also located at UTM coordinates 7,682,500 N, 464,300 E, which is the coordinates of the portal to the Challacollo Sur level. The elevation at the property is approximately 1500 meters.

The property can be reached from Iquique the closest largest town to the property. It is served by daily flights from Santiago. From Iquique go east on

CH-16 (Iquique – Pozo Almonte) to the Pan American Highway a distance of approximately 100 km. The intersection with the Pan American Highway is approximately 4 kilometers north of the town of Pozo Almonte. Travel south on CH-5 (Pan Americana Norte) past Pozo Alomonte to the intersection of the Quebrada Blanca road, which is the northern access to the property. It takes off east near the entrance to the Pintadas Petroglyphs lying to the west and the community of Las Pintadas lying to the east. The intersection is also approximately 15 kilometers north of the very small town of Victoria, an old nitrate producing area. Follow the paved road toward Quebrada Blanca from the intersection at Las Pintadas for approximately thirty kilometers to the turnoff to the dirt road leading to Challacollo which is an old oil exploration road trending due south. This road takes off 200 meters past the only significant drainage that crosses the Quebrada Blanca road before climbing the east slope of the Andes. Follow the oil exploration road past the Collahuasi power line and concentrate slurry line and past the only drainage flowing around the north end of the Challacollo range. About one kilometers past the drainage turn to the east following a dirt road that stays on the south side of the drainage that was just crossed. After about 7 kilometers the road splits, take the southern road, it leads to the Challacollo Mill site. The entrance to the Challacollo Sur level, the first workings reached at the silver mine, lies farther up the curvy road leading into the mountains past the mill site. It takes approximately 2 ½ hours from Iquique to reach the property.

The property can also be reached from the south by taking the Guatacondo road that takes off east from the Pan American Highway approximately 40 kilometers south of Victoria. This road eventually goes to the Collahuasi mine and was the only access to that mine before the new paved road originating just north of Pozo Almonte was made. The turnoff to the property off the Guatacondo road lies approximately 30 kilometers up the road where the road comes very close to the Guatacondo drainage. The road connecting the Guatacondo road with Challacollo crosses the desert by crossing the Guatacondo gully, which may have water in it. The road crosses sand filled dips in the road and goes through a long line of barchan sand dunes trending to the northeast. Access to recently drilled RC holes (2002) by CODELCO may have improved this road since several drill sites lie just off this road.

A four-wheel drive vehicle is needed to reach the property in any weather conditions due to the sand that is forever present filling lows in the roadways.



CHALLACOLLO PROPERTY

NORTHERN CHILE

LOCATION MAP

Russell G. Smith April 2002

Fig. 4.1

4.2 Climate:

Challacollo is located in the Atacama Desert of northern Chile one of the driest places on earth. Rainfall is almost nonexistent and when it does fall it generally dries as it hits the ground. If there is rainfall generally it only falls during the summer time, a period called the Invierno Boliviano, when thunderclouds build up over Bolivia and the Alto Plano (high country) of Chile. It sometimes builds west or blows west over northern Chile dropping decreasing amounts of rain westward down the leeward slope of the Andean Mountains. The Challacollo property lies at the base of the Andes Mountains occurring in the Challacollo Range, which isn't high enough to affect rainfall (adiabatic cooling) and is low enough and relatively far from the high Andes that little rainfall reaches the range. The Challacollo Range trends north south rising no more than 500 meters above the surrounding terrain.

According to the Koeppen classification, the Challacollo area has a Normal Desert Type climate whose most significant characteristics are: a very clear atmosphere (total lack of clouds most of the year), low relative humidity (39% annual average), large temperature changes between day and night and almost complete lack of rainfall.

Sand and dust storms blown in from the west and southwest are frequent during the afternoon when heating from the desert and local salars pulls in cooler air from the coast creating strong convection air currents that intensify throughout the day but die out at night.

4.3 Local Resources and Infrastructure:

Road access is fairly good. The paved Pan American Highway lies approximately thirty (30) kilometers to the west. Most of the access from the north is paved except for the last 20 kilometers to the property much of which are roads constantly being crossed and sometimes filled with sand blown in from the southwest. The access roads from the south are dirt and are more difficult to cross due to the dunes that need to be crossed.

Surface water like everywhere in northern Chile is rare, however, the Guatacondo river lying just south of the property, flows much of the year and more during the summer when storms over the Andes lying to the east build and rainfall is more frequent. Ground water is prevalent in the area, it is said to occur at a shallow depth (4 meters) below the Salar de Pintadas and occurs in moderately shallow wells at Cerro Gordo, ten (10) kilometers to the west and in recently drilled RC holes to the east. A drill hole near the old mill site has water in it but is easily pumped dry. A recent pump test was made and it went dry in minutes.

Power is not far away, a high transmission line leading from the coast at Punta Pitache to the Collahuasi porphyry copper mine crosses the entrance road to Challacollo from the north, a distance of approximately fifteen (15) kilometers. The electric power in this line is used for the Collahuasi porphyry copper mine so may not be available for other consumers. Another high transmission power line coming from the power plant at Tocopilla, passes approximately 30 kilometers to the west of Challacollo. Power is routed north from Tocopilla and would be available for commercial use.

There is a labor force in northern Chile with mining experience. Many major mines, mostly open pit copper mines occur throughout Northern Chile.

4.4 Physiography:

The property is located in the Atacama Desert of northern Chile so is very dry with little to no rainfall leaving the Challacollo Range (**Photo 4.4-P1)** of mountains with little to no vegetation and covered with sand filled drainage's and dunes. The sand blows in from the west and southwest during frequent sand-dust storms. The blowing sand climbs up the western slopes of the range and deposits in any lee slope created by drainage's sometimes forming dunes and filling drainage's with many meters of sand, complicating road building. The Challacollo Range is not high but the topography within the range is rugged. The Challacollo Range forms an Island that sticks up above the surrounding relatively flat terrain, however to the east increasingly higher benches lead up into the Andes Mountains.

Fig. 4.4 - P1   Looking east from the Lolon Vein.

4.5 Property Ownership:

Silver Standard Resources Inc. of Canada controls the Challacollo Silver property **(Plates 1& 2)**, through a contractual agreement with Minera Septentrion of Chile. Minera Septentrion is a tightly held Chilean corporation. The option to purchase agreement states that incrementally increasing option payments totaling 1.5 million US dollars are paid to Minera Septentrion for 100% controlling interest in the property. Minera Septentrion however retains a 2% NSR royalty, which can be bought down to zero by further payments of 1.5 million dollars.

The property that Silver Standard controls totals 4000 hectares. The claims cover the entire Challacollo range and all the known silver-gold bearing veins in the district. The property boundaries form a roughly rectangular block that is not exactly aligned north south. The block is described by the UTM coordinates of the corners, which are: northwest corner; 7,687,940 N, 461,380 E, northeast corner, 7,687,820 N, 466,375 E, southeast corner 7,679,800 N, 466,280 E, and southwest corner, 7,679,940 N, 4611,275 E.

4.6 Land Tenure:

Consultants have not examined the claim records but have examined the agreement between Minera Silver Standard Chile S.A. and Sociedad Contractual Minera Septentrion. The Challacollo Silver property consists of approximately 4000 hectares covered by thirty-four groups and or individual exploitation claims or “Mensuras”.

In North American terms a Mensura is a type of claim that gives the owner the right to mine. There is also no need to reduce the size of the claims in subsequent years after they are filed as is the case with exploration claims or pertenencias. Taxes are paid every March to the government to maintain them in good standing. The Challacollo yearly taxes total $ 30,000, which were paid by Silver Standard in March 2002 so are in good standing until March 2003.

4.7 Environmental Liabilities and Permitting:

There are no known environmental liabilities relating to the property.

Permitting to drill is made prior to drilling through the COREMA (Corporation Regional del Medio Ambiente in Iquique, for Region I projects, which then passes to CONAMA (Comision Nacional del Medio Ambiente) in Santiago for final signing. No problems are anticipated with future permitting.

5.0 HISTORY:

The Challacollo mining district's history dates from 1770 when Enrique Espinoza (Geografia Descriptiva de la Republica de Chile, 4a Edicion, 1897) recognized it as the largest silver deposit in Chile. Challacollo may have been discovered a few years before 1772 when the first mining claims were recorded. Exploitation of the main vein, called the San Gabriel at that time, started in 1772. In 1896 the Gildemeister firm acquired all the known claims and initiated industrial scale production: a cable car and railway line, in all more than 30 km long, was built between the mine and the benefication plant installed at the Cerro Gordo railway station. Gildemeister exploited the mines sporadically until 1931. The Lolon Vein would have been worked down to the 1,250meter level (Clavo Rajo 2), the deepest level in the Challacollo Sur workings, at this stage of development. Between 1932 and 1980, before the high silver price period, the main deposit was exploited by small miners (Pirquineros) who possessed no legal right to it. In 1980 the Gildemeister firm which was the original owner recovered its rights of possession and exploited the existing dumps until the beginning of 1981. Production records before December 1980 indicate the ore extracted to that date amounted to approximately 250,000 tonnes, with average grades of 660 g/ton Ag (19.3 oz/ton Ag) and 1.43 g/ton Au.

Between 1979 and 1989 several geological and metallurgical studies were carried out by: CIMM, Mindes, Bernstein and Magma. Also during this time the number of mining claims was enlarged. Mining also took place and the ore and dumps were shipped to Pozo Almonte and sold to ENAMI. During the second half of 1981, due to a drop in the price of silver mining was suspended and material from dumps was selected and stockpiled.

In 1988 Gildemeister decided to install its own pilot benefication plant with 100 tpd (metric tons per day) capacity, to produce via leaching and zinc precipitation a silver "cement" for export to Europe, or by flotation a concentrate for sale to ENAMI's H.Videla Lira smelter in Copiapo. At the end of 1989 a self-sustaining operation was achieved, which due to a new drop in precious metal prices, became unprofitable by early 1990. During that time mining was done by rubber tired equipment when the headings were expanded to 4x4 meter from 2x2 meters. Approximately 70,000 tons of ore was extracted during this time, which was processed by flotation and agitation leaching. According to the former mine manager for Minera Challacollo, Hector Andrade currently residing in Antofagasta, the higher grade (400+ grams Ag) ore was direct shipped to ENAMI at their, Pozo Almonte plant and the lower grade (approximately 250 g/ton Ag) ore was processed on site.

Considering the good metallurgical results of the pilot plant's operation, as well as the low operational costs achieved in spite of limited facilities a prefeasibility study to increase capacity to 200 tpd was carried out with encouraging results. Despite the encouraging results the Directory of Minera Challacollo elected an alternative ore deposit evaluation plan involving geological reconnaissance which resulted in two purchase options being negotiated and signed in 1990. During 1991 S.C.M. Challacollo financed additional geological studies over the additional land. The option agreements did not reach completion, but valuable exploration data was gained during the geological study by the Gildemeister firm, the owners of S.C.M. Challacollo.

In 1993, Canada Tungsten took an Option to Purchase on the mining claims which it denounced a year later. No geologic work was done during this short time except to confirm the information provided by Minera Challacollo.

In 1995-1996 Empresa Minera Mantos Blancos held an option to Purchase agreement on the property from Minera Challacollo. They conducted geological and geophysical studies that resulted in showing increased potential for additional ore at the known Ag-Au veins particularly at the Lolon and porphyry copper potential within the newly acquired mining claims. They drilled a total of approximately 3000 meters in 22 reverse circulation holes at the property during this time, all within the northwest sector of the larger property to test the silver-bearing veins. In December of 1996 Mantos Blancos dropped their lease option agreement saying that their results in the north Challacollo silver area indicated the existence of a precious metal deposit of no interest.

In 1998 Minera Challacollo (Gildemeister) sold the entire property to Minera Septentrion, a closely held Chilean corporation represented by a lawyer in Santiago, Antonio Urrutia. Shortly after purchasing the property Minera Septentrion divided the property into two claim groups and started to market the property based on two distinct mineral potentials in each block of claims. One block covered the Challacollo Range the heart of all the silver-gold potential, while the other covered a very much larger claim group lying to the southeast that had potential to host a porphyry copper deposit.

In 1999 the claim group hosting the porphyry copper potential was first optioned to BHP who drilled some holes and dropped the property. It was then picked up by CODELCO, in late 2001. They drilled over 20 RC holes early in 2002 to further test the porphyry copper potential and dropped the property in March.

In late 2001, about the same time CODELCO optioned the claim group hosting the potential porphyry copper deposits, Silver Standard Resources Inc. of Canada optioned the historically important silver part of the property. The Challacollo silver deposit(s) lie in the extreme northwestern portion of the larger land package held by Minera Septentrion. Silver Standard shortly after optioning the property started to evaluate the property by geologic mapping, underground and surface sampling and core drilling.

6.0 GEOLOGY:

6.1 Geologic Setting:

The Challacollo silver property covers the entire Challacollo Range of mountains, which is an uplifted block at the eastern edge of the Intermediate Depression de Tarapaca. The Intermediate Depression is a topographic low at the base of the Andean Mountains lying east of the Coast Range. The slow eastward moving Pacific (Nazca) Plate is subducting under the faster westward moving South American plate and pushing up the Continental Land mass at a rapid rate that persists today. Along the coast, lying approximately sixty (60) kilometers to the west of Challacollo, 1000 meter high mountains rise abruptly from the coast where shell deposits are left high above beach level.

West of the Challacollo Range is a relatively flat planer surface with the Salar de Pintadas and Salar de Bellevista lying along the western edge of the plane formed by trapped water behind the uplifted Coast Range. East of Challacollo the topography steps up in faulted blocks topped by pediment that eventually give way to the steep rising mountains of the Andes. Tertiary ignimbrites have been deposited on much of the western slopes of the Andes.

The Challacollo property is located along a strong north-south lineament, evident from satellite imagery **(Photo 6.1-P1)**, that includes the Cerro Colorado porphyry copper deposit, Sagasca exotic copper mines and the Mocha porphyry copper prospect, all lying to the north of Challacollo. A possible east-west lineament can be postulated between Collahuasi/Quebrada Blanca and Copaquiri porphyry copper deposits to the east, and Challacollo. Strong east-west fracturing is noted on all the properties along this possible E-W lineament. Prominent northwest fracturing at Challacollo also might be related to a northwest trending transcurrent fault lying approximately sixty kilometers to the south that passes through the Chuqicamata porphyry copper deposit.

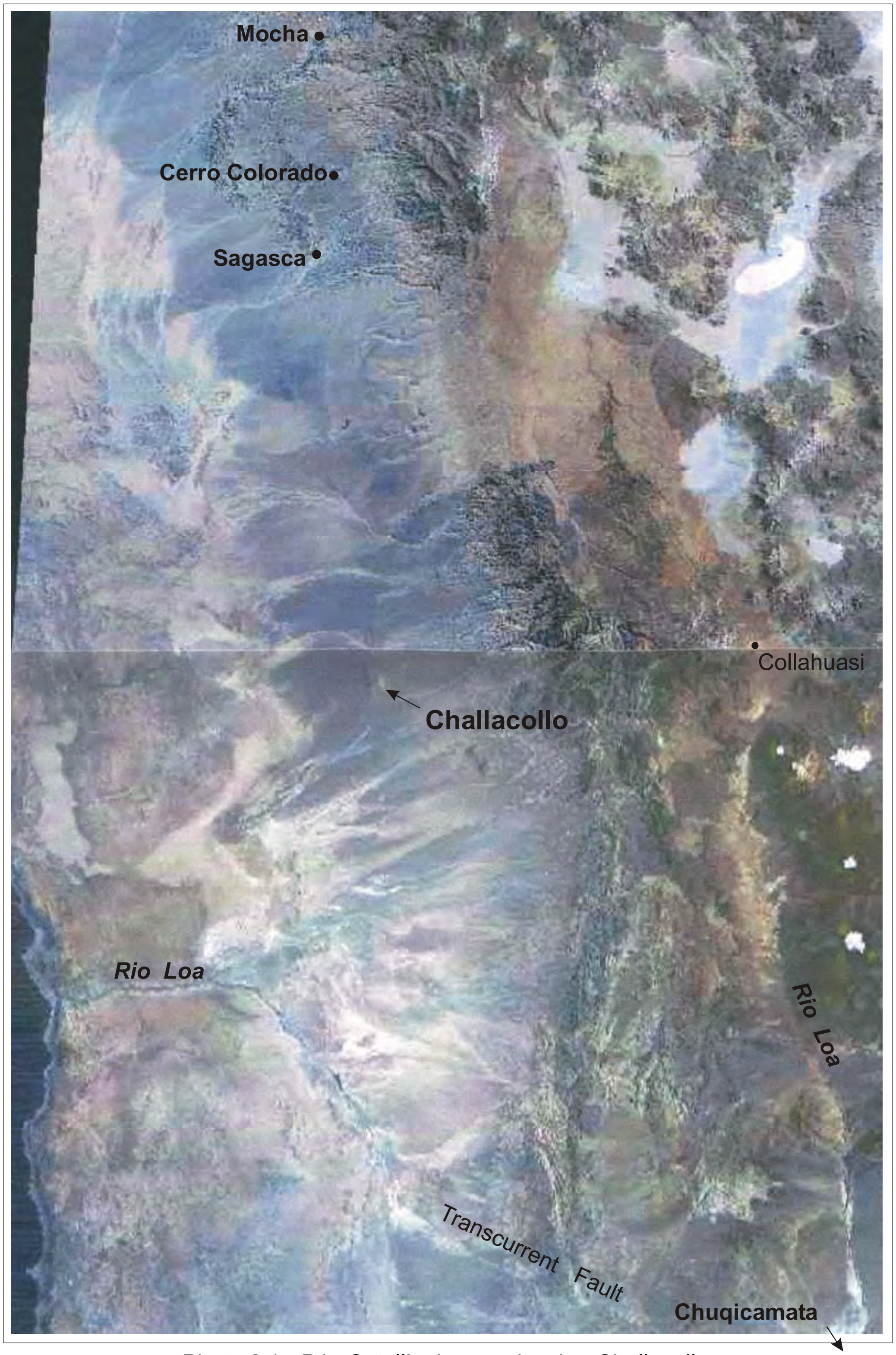


Photo 6.1 - P1 Satellite image showing Challacollo.

6.2 Property Geology:

6.2-1 Stratigraphy:

Three units of rocks have been described at Challacollo; the Challacollo Volcanic Complex, Challacollo Strata and the Intrusive Group (Veliz & Neimeyer, 1996). Although mapped these units have not been positively correlated with other regionally mapped units.

The different sedimentary units **(Plate 3)** have been stratigraphically placed, first due, to the occurrence of Middle Jurassic to Late Jurassic fossils found on the property. Secondly, by the correlation of lithologies at the property with classic sections of units in northern Chile and thirdly, by the spatial distribution of the units at the property with other regionally described units based on known vertical block faulting.

A (Permo–Triassic) (?) age has been tentatively assigned to the Challacollo Volcanic Complex. The volcanic complex is juxtaposed with the Jurassic sediments to the northeast by block faulting and the stratigraphic correlation between them is not known. The Permo-Triassic age is based on the correlation with strata north of the Challacollo district within the Juan de Morales quadrangle. There, a sequence of silicic volcanic rocks, defined by Galli (1968) as Quipisca Formation underlie an angular unconformity cutting the Juan de Morales Formation, of Late Carboniferous age. Lithologically, the Quipisca Formation appears to correlate with the lower member of the Challacollo Volcanic Complex. On the other hand, the Juan Morales and Diablo Formations (Galli, 1968) whose respective ages are Late Carboniferous and Permo–Triassic, consist of continental and marine sedimentary rocks similar to the rocks of the upper member of the Challacollo Volcanic Complex.

Contrarily, Carrasco (1983) assigned an early Cretaceous age to the Challacollo Volcanic Complex, which he correlated with the Cerro Emplexa Formation (Galli, 1968). However, the Cerro Emplexa Formation in the type locality consists of a sequence of andesites, trachyte, and latite, without mention of silicic rocks that occur within the Challacollo Volcanic Complex. In agreement with the discussion above, Veliz & Neimeyer (1996) assign the Challacollo Volcanic Complex with a tentative age between Late Paleozoic and Triassic (Permo-Triassic).

The Challacollo Volcanic Complex consists of two members 1. The lower member, Trvs, consisting of layered latite-rhyolite, dacites and andesites, with local intercalation's up to 2 meters thick of conglomerate, andesitic wackes, sandstone's and fissile shale; 2. The upper member (Trsv), represents a continental sedimentary domain, and consists of a thin to thick-bedded sequence of alternating conglomerate, sandstone and shale. Locally, thin rhyolite and dacite flows occur within the sedimentary section.

The rocks of the Challacollo Volcanic Complex are monoclinally dipping to the southeast at approximately 20° and are cut by hypabyssal dioritic to granodioritic rocks of the Intrusive Group and dikes and sills of microdiorite to microgranite.

The Challacollo Strata unit outcrops in the northwestern and northcentral part of the property. It consists of sandstones, shales and limestones, which has been divided into three members (Lower Member (Jse), Middle Member (Jsma) and Upper Member (Jsmb) by (Veliz & Neimeyer 1966. Its contact relationship with the Challacollo Volcanic Complex is not clear. The presence of ammonoid remains described by Carrasco & Chong 1985 and Veliz & Neimeyer 1966, indicates middle to upper Jurassic age for the unit. The Lower Member consists of calcareous sandstones and shale with scarce limestone intercalations. The Middle Member consists of shales and concretion-bearing limestones with intercalated calcareous fossiliferous sandstones. The Upper Member consists of sandstone and calcareous shale with intercalated limestone including a contact metamorphosed zone adjacent to the hypabyssal diorite/granodiorite group.

The Intrusive Group outcrops in the southern and western parts of the property. It cuts both the Challacollo Volcanic Complex and the Challacollo Strata. It consists of diorite and granodiorite with fine to medium porphyritic to phaneritic texture. An upper Cretaceous age has been assigned to this Group by Veliz & Neimeyer, 1996.

6.2-2 Structure:

The stratified rocks of the area are monoclinally dipping to the SE at 10° to 60° with a strike of N 20°-60° E.

Two main structural systems **(Plate 4)** at Challacollo have strongly influenced the emplacement of mineralization and its distribution at Challacollo: they are northeast and northwest regional strike-slip (shear) faults. In combination they have created stresses that gave rise to intense fracturing. The NW set of shear-faults dates to the Triassic. The northeast shear-faults are related to the Andean tectonic cycle (Late Cretaceous-Early Tertiary) and it's associated Oligocene mineralization. They are sub-vertical and preferentially strike N30°E and have significantly affected the topography of the Challacollo Range more than any other faulting. The northwest faults are subordinate to the northeasterly faults and appear to be associated with the structural stresses due to the emplacement of the granodiorite-diortite intrusives lying in the south-central part of the property. When these two structural sets intersect as at Challacollo they developed subordinate north-south trending dilational (extensional) faults that filled with mineralization forming veins such as the Lolon and others.

6.2-3 Hydrothermal Alteration:

As noted on the land sat image, the southeast part of the Challacollo Range is argillically altered, associated with the silicic volcanic rocks there that dip to the east under gravels. However, hydrothermal alteration associated with the epithermal silver veining at Challacollo is in general weak. The latites cut by the Lolon structure are slightly argilically altered but in part the alteration is a primary feature associated by sub-aqueous volcanism. The felsic volcanics appear to be locally deposited in water forming pillows, which exhibit a very yellow (jarositic) color with the surrounding rock being a pinkish red, hematitic stained color. These features can be seen near the Challacollo Sur portal and shaft area. The hematite-jarosite staining persists within the latites down dip to the east and can be seen in the same rocks above the old Minera Challacollo mill site. Slight argillic alteration also follows northeast and northwest trending faults that cross the Lolon vein.

Silicification occurs locally and was only seen within the andesitic tuffs and wackes north of Cerro Challacollo where resistant silicified thin beds stick out from the slope of the hill.

Alteration within the Intrusive Group is propylitic with chlorite-epidote and magnetite minerals common. The country rocks in contact with the intrusives of the Intrusive Group have undergone contact metasomatism in the northwestern part of the property.

6.2-4 Property Geology- Discussion:

The Challacollo Volcanic Complex hosts most of the veins at the property however the Lolon vein is long (over 2 kms) and it crosses into intrusive and more basic volcanics of basalt and dacite at its south end. The rocks of the Challacollo Volcanic Complex are generally fairly massive units of latite-rhyolite and dacite except for some intercalated andesitic tuffs and andesitic wackes. The andesitic tuffs and wackes are bedded and strike generally N°30E and dip at an average of 20°S. On the surface, the Lolon vein cuts mostly latite north of the Challacollo Sur. Locally the latite contains quartz phenocrysts and can be called a rhyolite. Both latite and rhyolite exhibit some local flow banding and eutaxitic textures with flatted pumice indicating that in part they are pyroclastic **(Photo 6.2-4P1)**. Near the Challacollo Sur portal the latite exhibits some rounded pillow structures so is in part sub-aqueous. The andesitic tuffs and wackes outcrop west of the Challacollo Sur portal and generally parallel the Lolon Vein from a point one hundred meters northwest of the Challacollo Sur portal area to a point approximately one hundred meters north of Cerro Challacollo. They outcrop again on the eastside of the Lolon vein at the Humberto adit, which indicates an apparent dip-slip displacement on the Lolon structure of at least eighty (80) meters. They are locally silicified west of Cerro Challacollo indicating that locally some silica-bearing fluids moved up dip along the tuffs away from the Lolon vein. Dacite outcrops east of the Lolon vein around Cerro Challacollo and stratigraphically sits on top of the latites cut by the Lolon structure.

Photo 6.2-4 - P1 Typical Challacollo latite (CHAG-01 @ 193m).

South of the Challocollo Sur portal the Lolon vein cuts mostly andesites, dacites and basalt, which are intruded by microgranodiorite of the Intrusive Group. These more basic rocks appear to underlie the latites and andesitic wackes above, however their stratigraphic relationship is unclear.

Four major veins trend through the property, however only the Lolon vein has received much exploration attention **(Photo 6.2-4P2)**. The other veins besides the Lolon have only been prospected by old small workings but have been more recently drilled by Mantos Blancos in 1996. Only minor amounts or ore were mined from the other veins. The Lolon by contrast has been worked moderately to a depth of 230 meters in the Challacollo Sur workings and too much shallower depths in the Buenaventura, Catalina, Walkiria, San Francisco and Humberto workings.

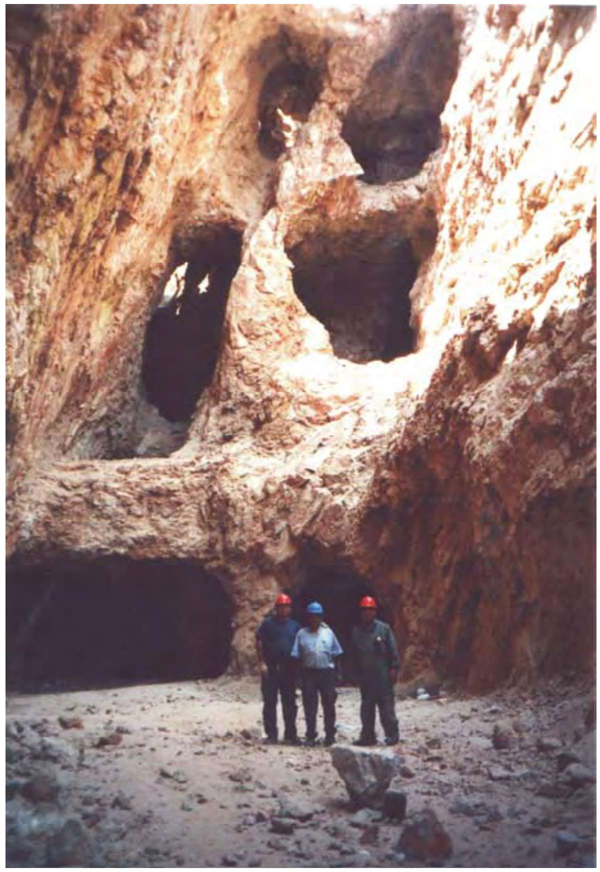


Photo 6.2-4 - P2   Challacollo Sur Level 1.

The Consultants mapped and sampled only the Lolon vein. It was mapped at a scale of 1:400 from the Humberto area at the north to the San Francisco workings at the south, a distance of over two (2) kilometers **(Plate 5)**. This work plus the past drilling by Mantos Blancos and the recent drilling by Silver Standard on the Lolon Vein forms the data base used to define the mineral resource presented in this report. The Lolon vein trends generally north south to northeasterly. The part of the Lolon vein between the Challacollo Sur and the Humberto workings pinches and swells and trends generally north south to north-northeast. The pinching and swelling is due to northwest and northeast cross faults that together cause dilatational widening of the vein. The Lolon vein system between the Challacollo Sur portal and the Catalina has been mined more extensively and stoped from the surface down to approximately forty meters for almost this entire length. South of the Challacollo Sur portal the Lolon structure swings to the west toward the San Francisco workings. Little to no mining or exploration has taken place along this stretch of the vein except for the immediate area surrounding the San Francisco workings. Previously the San Francisco workings were described as being on the San Francisco vein, however the Lolon structure can be traced to the San Francisco workings so is called the Lolon in this report.

7.0 DEPOSIT TYPE:

Based on the characteristics of the mineralization, the Challacollo Property is considered to contain *epithermal low-sulfidation silver-gold vein deposits*. These deposits form in predominantly felsic sub-aerial volcanic complexes in extensional and strike-slip structural regimes like at Challacollo. Near surface hydrothermal systems include surface Hot Springs and deeper hydrothermal fluid-flow zones, both can be the sites of mineralization. Mineral deposition takes place as the fluids undergo cooling by fluid mixing, boiling and decompression. An illustration of a typical system is shown in **Figure 7.0**.

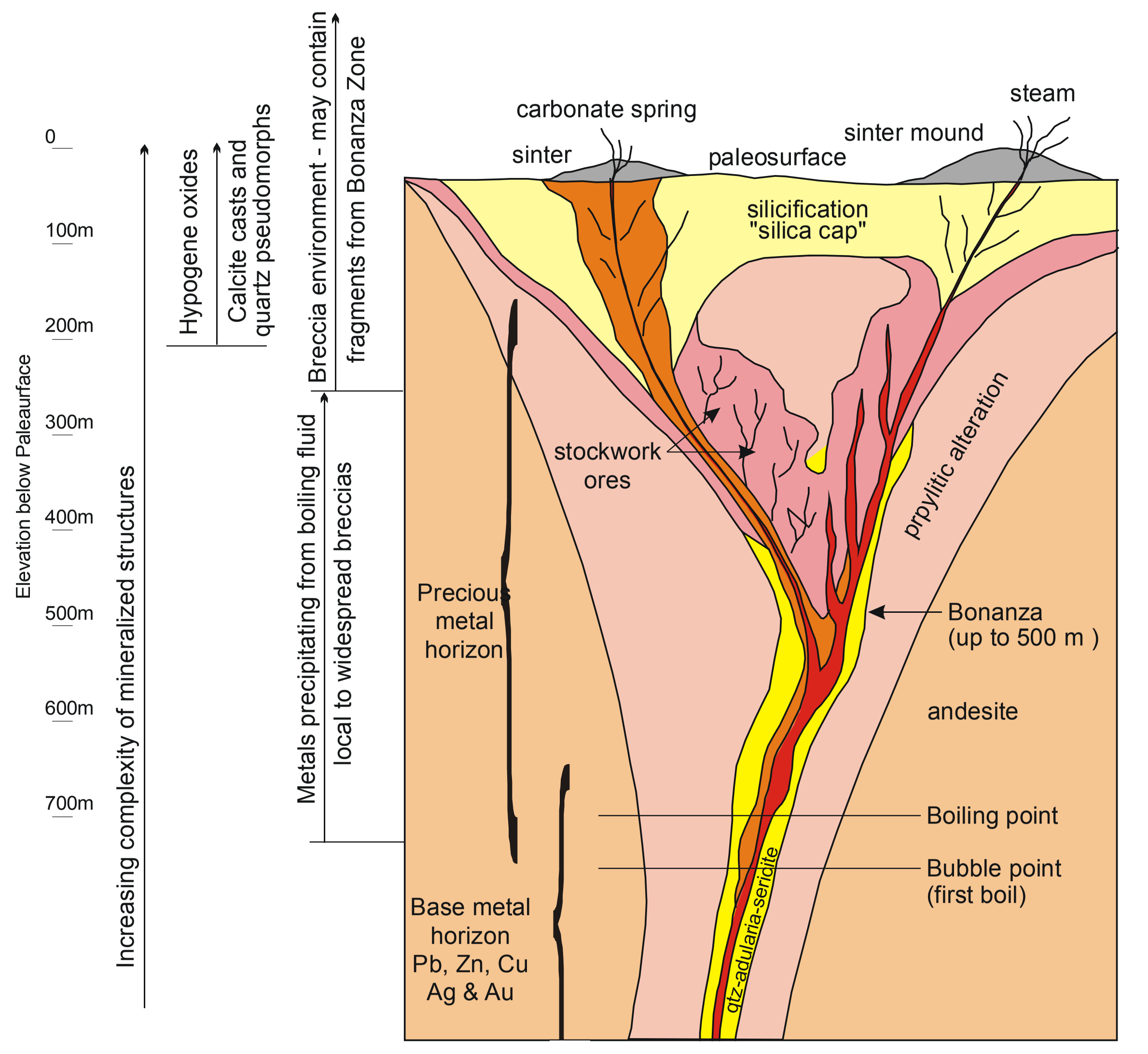
A study by Sernageomin in March 1997 concluded that the mineralization at Challacollo is part of an *epithermal low-sulfidation mineralization system*. The study was principally a fluid inclusion study which showed that the fluid inclusions are biphase (fluid-vapor) with a filling temperature range from 198° to 298° C and salinity ranging from 1.8 to 3.0 weight percent NaCl.

The exact placement of the quartz brecciated silver-gold veins with minor base metals at Challacollo can not be made without more detailed mineralogical and petrographic study's, however due to the high base metal content it probably falls within the lower part of the diagram of **Figure 7.0**.

Textures

Superzone	Textures
Chalcedony Superzone	Carbonate zone massive to granular calcite with chalcedony Blended zone massive chalcedony with patches of lattice blades Massive chalcedony zone increased banding with depth
	?
Crustform - Colloform Superzone	Upper zone chalcedonic to microcrystalline bands dominate over crystalline bands with fine-grained banded sulfides
	?
	Lower zone crystalline bands dominant over chalcedonic and microcrystalline bands with associated comb adularia and disseminated crystalline sulfides and sulfide bands
	?
Crystalline Superzone	contained quartz with macular adularia coarse-grained sulfides and carbonate; general decrease in sulfides and adularia and increase in crystalline carbonate interstitial to crystalline quartz with depth

Exploration Model - Epithermal Veins (Deep Heat Source)



Adapted from Bucannan, Holister 1985, Eimon 1983, Anaconda 1983.

8.0 MINERALIZATION:

8.1 Lolon Vein System:

The Lolon vein system **(Plates 6&7)** is hosted in various rock types cut along its over three (3) kilometer length, however along the most productive parts of the vein, north of the Challacollo Sur portal **(Photo 8.1-P1)**, are hosted in latite-rhyolite and andesite. The Lolon veins are generally represented by a quartz breccia composed of multiphase silica that is surrounded by a quartz stockwork. The quartz stockwork, in general, does not extend very far from the veins into the wall rock. However, where the Lolon vein system is composed of several veins, such as in the Lolon shaft area, Buenaventura, and Catalina/Walkiria working's area **(Photo 8.1-P2)** quartz stockwork can be found in the septum between the veins. Where the vein splits the vein could be called a mineralized system rather than a distinct vein. At the edges of the vein there is generally more intense brecciation with a matrix of chalcedonic quartz followed outwards by a rapidly decreasing zone of quartz stockwork. The Lolon vein system averages approximately twenty (20) meters wide between the north end of the Catalina workings to the Challacollo Sur workings. It pinches and swells up to 40 meters however, due to northwest and northeast trending cross faulting that cuts across the general north-south trend of the vein. The dip of the vein is somewhat variable but it generally dips steeply to the west at 85° with minor parts of the vein that dip 65°, at the shallowest. The vein has undergone repeated explosive brecciation and repeated phases of veining. The vein system has been exploited locally down to approximately 230 meters, the distance from the deepest workings to the surface trace of the vein near the Lolon Shaft.

Photo 8.1 - P1   Challacollo Sur portal.

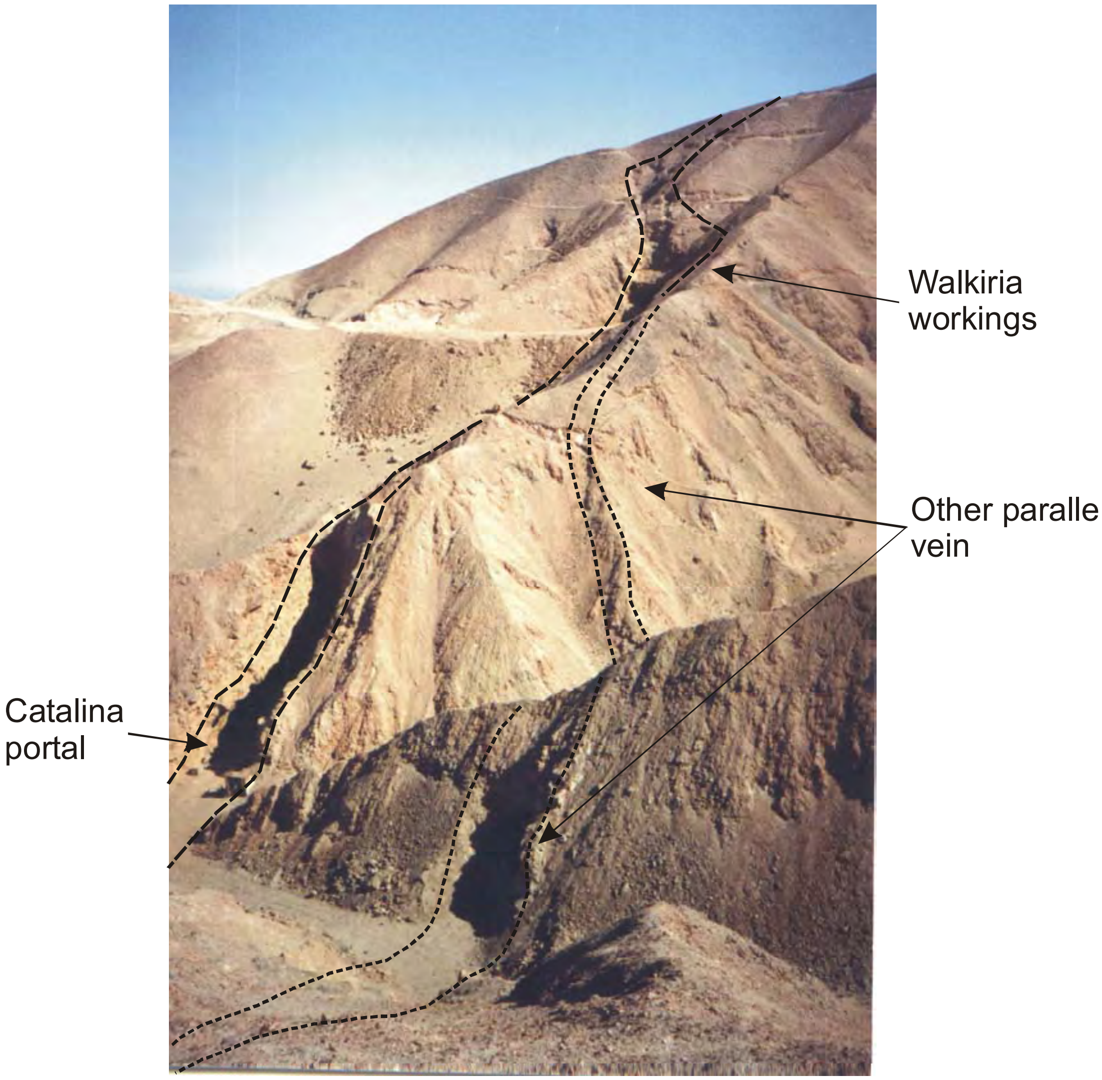


Photo 8.1 - P2   Catalina and Walkiria workings.

The vein quartz in the system exhibits various textures, white to grey silica with massive white quartz predominating. The vein quartz is locally opaline-chalcedonic **(Photo 8.1P3)** with massive and striped with a partial “kidney-shaped” growth and brecciation development with matrix and clasts of a similar composition. The vein was originally a quartz breccia containing minor amounts of fragments of altered wall rock but mostly containing other vein fragments. The quartz breccia vein system has undergone repeatedly explosive brecciation that was also cut by other veins. Locally the vein is crushed and fragmented to the point that it looks like grus and or gravel with some partially rounded fragments. Locally amethyst, barite, calcite and clay occur within the vein. Sericite and adularia also occur within the vein but sparingly. At the San Francisco workings near the south end of the Lolon system chalcedony is common in the vein. Amethyst was seen in the San Francisco workings as well as at the surface in the vicinity of drill hole CHAG-04 north of Cerro Challacollo. Barite is also prevalent at the San Francisco workings as well as north of Cerro Challacollo. Gold values were also the highest in the San Francisco workings to the south.

Photo 8.1 - P3 Lolon vein breccia with banded silica.

Sulfide-rich vein breccia generally follows the hanging and footwall but generally the sulfide content is low, estimated to be 1-2% in the protore. Lead, zinc and copper occur with silver and gold and the value of the base metals is in general directly related to the precious metal contents. There is generally more lead than zinc in the vein. In Mantos Blancos hole DTH-CH-01, a 30 meter intercept averaged 1.31%Pb and 1.0%Zn. Some of the highest lead and zinc values at the property were taken from surface in the Humberto area, where one sample assayed as high as 11% Pb. Galena, sphalerite, and copper-bearing carbonates are locally visible on the surface and in drill core, within this area. Very little pyrite occurs within the vein system or related to it.

In the Challacollo Sur workings the vein is oxidized down to approximately 180 meters however between 40 and 180 meters the vein is secondarily enriched with silver. The Consultants sampled down to the Jaula level or 140 meters below the surface and no sulfides were seen at that level. In parts of the vein where the wall rock is fractured silver has been deposited away from the quartz vein within the wall rock. This is evident when reviewing assay values of silver verses gold within the vein and wallrock. Gold values drop off more dramatically at the edge of the vein than silver does. There is a fairly constant silver-gold ratio within the vein relative to the oxidation level, but it is much higher in the wall rock close to the vein.

Within 10 meters of the surface at some localities within the vein there is intense leaching of the vein. Primary and secondary minerals are gone and metal values are very low. Open spaces within the vein are devoid of even oxides of iron and manganese, which are nevertheless sparse throughout the vein.

The most common sulfosalt silver minerals in decreasing order are believed to be the freibergite(?) (a silver rich tetrahedrite), pyrargerite and proustite. These minerals make up the bulk of the primary silver minerals. Freibergite was seen in outcrop **(Photo 8.1-P4)** near the Humberto Shaft in dense silica breccia (**Photo 8.1-P5).** Silver sulfides of argentite and acanthite also have been reported.

Location of (Photo 8.1 - P5) freibergite

Photo 8.1 - P4 Silicified knob of Lolon Vein near Humberto Shaft - looking south, (10+ meters of 7+ opt Ag).

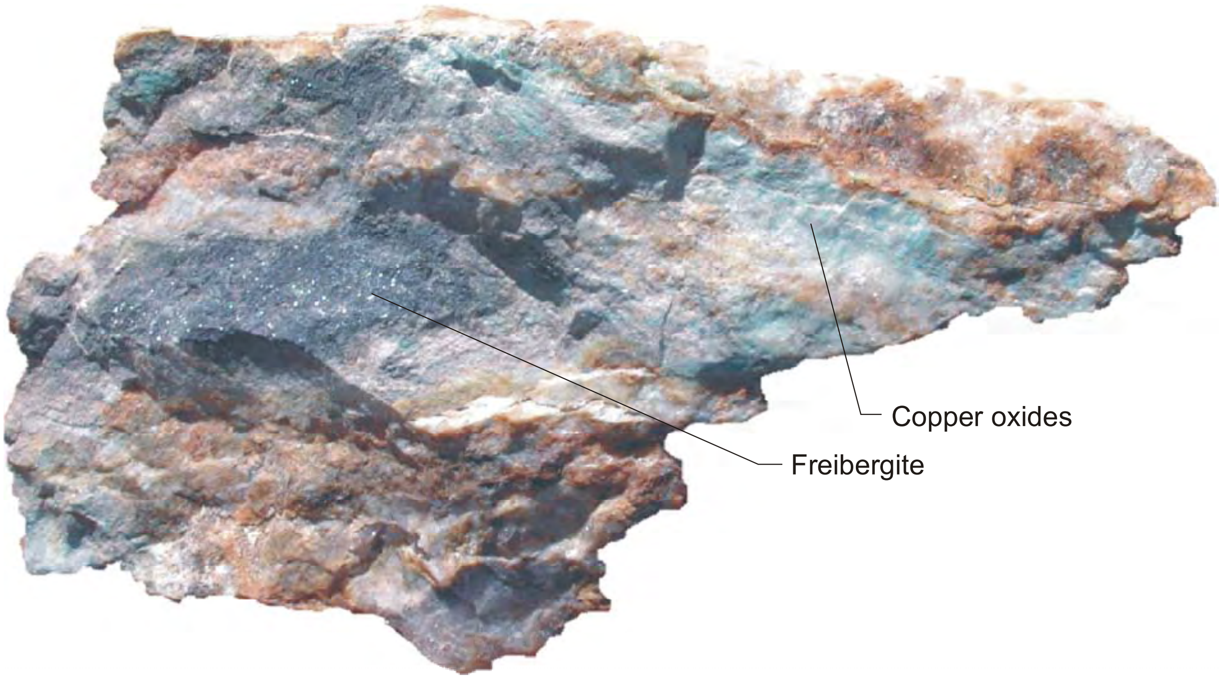


Photo 8.1 - P5   Surface sample at silicified knob, Humberto Shaft, 859 ppm Ag.

Gold values are low within the Lolon Vein however and average approximately 0.3 ppm Au, which if recovered would represent in dollar value approximately one ounce of silver for each ounce of silver mined. The highest values of gold on the property were taken from the San Francisco workings where many gold values assayed higher than 1.0 ppm Au.

8.2 Other Veins:

Palermo, Gladys 4, and Gladys 1 are the other veins at the property (**Plate 6).** All the veins including the Lolon, San Francisco (southern part of Lolon vein), Humberto (northern part of Lolon vein) were named after former geological works (Carrasco & Chong, 1985, Geodatos, 1992). They have been mapped by previous workers and were reconnaissance drilled by Mantos Blancos in 1996. Other veins have been seen at the property besides the four main veins listed above. They have not been mapped nor described. One such vein was discovered during the recent drilling by Silver Standard. It is located trending north south through drill site of CHAG-4 and was cut by the dozer when building the site.

No other veins besides the Lolon vein were mapped nor sampled by the Consultants. The other veins were not used in any resource calculations. Mapping and sampling is needed to evaluate these veins further.

9.0 PROJECT EXPLORATION:

Exploration work by Silver Standard since optioning the property has included mapping, underground and surface sampling and drilling, all performed as part of the Companies due diligence in optioning the property. The fieldwork was all done by or supervised by the Consultants. Over $460,000 have been spent at the property since signing the agreement which includes option payments to the underlying owner, Sociadad Contractual Minera Septentrion, of $160,000 and mining concession fees of $30,000. Exploration work at the property to date totals approximately $270,000.

Geologic mapping includes; brunton-tape mapping of the both the underground workings and surface of the Lolon vein. Over two kilometers of the surface trace of the vein and a swath one hundred meters on both sided of it were mapped. Approximately 4445 meters of underground workings were also mapped.

Over 1100 samples were taken both from underground and on the surface of the Lolon vein. Rock chip-type samples averaged two (2) meters in length; they were taken at an average sample interval of 25 meters throughout all the accessible underground workings. All crosscuts were also sampled. The two lowest levels were not sampled nor mapped because of inaccessibility.

A seven (7) hole diamond drilling program totaling 746 meters was carried out resulting in significant expansion of silver resources above historic reports.

9.1 Underground and Surface Rock Chip Sampling:

Extensive underground and surface rock chip sampling was carried out by Silver Standard on the Challacollo property during November and December of 2001 **(Plates 8 through 18).** Samples containing a minimum of five kilograms of rock, were collected utilizing rock hammers and chisels.

For the underground sampling **(Plate 8)**, sample stations with multiple samples were taken from one wall across the back to the other wall at approximately 25-meter intervals. All crosscuts were also sampled. At the each station, samples were collected that averaged approximately 2-meter in length (**Plates 9-18).** A three-person sampling crew utilized ladders and scaffolding (**Photo 9.1-P1)** to reach areas that otherwise could not be reached. To reach the deeper parts of the mine, otherwise inaccessible by foot, a metal cage (jaula) **(Photo 9.1-P2)** was constructed and personnel were lowered into the deeper workings utilizing a boom truck and 200 meter cable. Approximately 920 rock chip samples were collected underground in a 30-day period.

Photo 9.1 - P1   Sampling of workings with scaffolding.

Photo 9.1 - P2   Descending into Lolon Shaft to Jaula Level.

Selected areas were chosen for surface sampling **(Plate 7)** in order to check total widths of the Lolon vein system beyond the stoped areas or to check surface showings north and south of the known mineralization along strike. Most surface samples were 5 meters long, but some areas were sampled using two-meter lengths. More than 200 surface samples were collected.

The principal purpose of the sampling was to better define the known silver in the Lolon vein system and select targets for drill testing. The results of the sampling demonstrate the following:

1. The mineralized Lolon vein is sometimes represented by two or more parallel veins **(Plate 7)** which are within the Lolon "structure" that is continuously mineralized for more than two kilometers in length.

2. Silver grades are often elevated for 2-4 meters of the hangingwall and/or footwall of the Lolon veins.

3. Upon close examination of the underground workings, previous operators often drifted from hangingwall to footwall, or vice versa, in search of higher grades, probably above 300 grams silver. These drifts commonly passed through lower grade mineralization between each wall **(Plates 15&16)**.

4. From the results of the surface and underground sampling, plus examination of existing stopes, the true width of the elevated (60+ppm) silver probably exceeds 20 meters for a distance of approximately 1.2 kilometers from the Humberto Shaft area at the north, to the Challacollo Sur area at the south. **(Plate 7)** This is the distance used by Silver Standard to calculate the Indicated and Inferred Resources. Because the previous underground development at Challacollo did not expose the entire width of the vein system, the actual average width of mineralization can not be predicted on the basis of underground and leached surface samples, without utilizing drill intercepts. Due to sampling access problems (no back because of open stopes), utilizing previous stope widths is also not reliable for true width calculations of the Lolon silver mineralization.

5. For tonnage and grade calculations, Silver Standard calculated the average width of the vein (polygons) at 6.9 meters, by averaging the widths of mineralization at all underground sample stations. This is a conservative number and does not represent the true width which would be higher, as discussed above, and will be further discussed in the section on drilling and in the section on Mineral Resources.

6. The average grade of the Lolon vein system, as the result of the underground rock-chip sampling, calculated by Silver Standard, is 7.1-oz/t silver. The method used to determine this average grade will be discussed in the section on Mineral Resources.

10.0 PROJECT DRILLING:

10.1 General:

Three campaigns of surface drilling have been done at the Challacollo Silver Property; the first two were by Mantos Blancos in 1996 and the third by Silver Standard Resources Inc. in 2002 **(Plate 6)**.

10.2 Mantos Blancos Drilling:

The drilling done by Mantos Blancos was wide spaced to test all the known veins. Mantos Blancos drilled twenty-two (22) reverse circulation (RC) holes **(Tables 1&2)** in the northwestern part of the property at that time, now known as the Challacollo silver property. Ten of those holes were drilled to test the Lolon vein system. Five of the ten holes numbered DTH-CH-1, 2, 7, 8, and 9 were drilled in the central part of the vein between the Challacollo Sur portal and the Walkiria area. In addition to the 2001-2002 Silver Standard data, the intercepts from the five Mantos Blancos holes were used to calculate the mineral resource of the Lolon vein system presented in this report. DTH-CH-13 was drilled north of the Humberto workings (outside of the resource area) and DTH-CH-5, 6, 10 and 22 were also drilled outside of the resource area in the southern part of the Lolon vein system near the San Francisco workings.

Table 1: Mantos Blancos Drilling 1996

Drill hole Number	Coordinates (N/E)	Elevation (meters)	Azimuth (degree)	Inclination (degrees)	Total Depth (meters)
DTH-CH-01	7,683,013 / 464,232	1480	114° 27'	-70° 00'	312
DTH-CH-02	7,683,011 /, 464,216	1480	245° 25'	-58° 31'	293
DTH-CH-03	7,681,819 / 463,189	1373	256° 01'	-51° 30'	276
DTH-CH-04	7,681,778 / 463,520	1370	289° 35'	-55° 22'	295
DTH-CH-05	7,681,918 / 463,913	1372	287° 51'	-57° 54'	253
DTH-CH-06	7,681,858 / 463,832	1363	106° 48'	-58° 23'	258
DTH-CH-07	7,683,173 / 464,311	1513	101° 24'	-54° 10'	121
DTH-CH-08	7,683,173 / 464,305	1513	98° 28'	-80° 33'	175
DTH-CH-09	7,682,565 / 464,283	1432	127° 16'	-54° 29'	112
DTH-CH-10	7,681,848 / 463,720	1374	111° 17'	-60° 19'	130
DTH-CH-11	7,682,298 / 463,472	1047	83° 55'	-54° 29'	174
DTH-CH-12	7,682,005 / 463,429	1386	84° 07'	-61° 50'	116
DTH-CH-13	7,683,978 / 464,442	1400	82° 15'	-59° 00'	186
DTH-CH-14	7,683,649 / 463,350	1463	81° 57'	-59° 58'	109
DTH-CH-15	7,683,297 / 463,302	1484	85° 57'	-58° 21'	109
DTH-CH-16	7,683,112 / 463,302	1491	85° 14'	-57° 54'	192
DTH-CH-17	7,683,295 / 463,369	1481	274° 05'	-58° 08'	55
DTH-CH-18	7,683,859 / 463,985	1442	86° 49'	-58° 50'	116
DTH-CH-19	7,683,508 / 463,955	1460	89° 24'	-57° 12'	109
DTH-CH-20	7,683,750 / 463,444	1454	273° 28'	-57° 26'	90
DTH-CH-21	7,684,222 / 464,507	1390	90° 00'	-61° 10'	121
DTH-CH-22	7,682,005 / 463,814	1377	129° 07'	-54° 24'	54

Table 2: Mantos Blancos Significant Drill Intercept Data

Drill Hole (Number)	From (meters)	To (meters)	Interval (meters)	Silver Grade (g / ton)	Gold Grade (g / ton)
DTH-CH-01	170	200	30	287	0.3
DTH-CH-02	232	234	2	166	0.89
DTH-CH-03					
DTH-CH-04					
DTH-CH-05					
DTH-CH-06					
DTH-CH-07	86	96	10	153	0.26
DTH-CH-08	140	146	6	133.7	0.55
DTH-CH-09	72	74	2	170	0.09
DTH-CH-10	62	66	4	125.5	0.33
DTH-CH-11					
DTH-CH-12					
DTH-CH-13					
DTH-CH-14					
DTH-CH-15					
DTH-CH-16					
DTH-CH-17					
DTH-CH-18					
DTH-CH-19	96	100	4	150	0.1
DTH-CH-20					
DTH-CH-21					
DTH-CH-22					

10.3 Silver Standard Drilling:

Silver Standard drilled seven holes in 2002. All the holes were diamond core holes and were drilled at angles to the east to cut across the steep westerly dipping Lolon vein system **(Photo 10.1-P1)**. A total of seven hundred and forty six (746) meters were drilled. The drilling by Silver Standard was directed only at the central portion of the Lolon Vein in the hopes of increasing the indicated and inferred silver resources. All Silver Standard drill core was logged and sawed in the mineralized zones **(Photo10.1-P2)** on site. All core holes started as HQ size core but bad hole conditions often forced reduction to NQ core. Major Drilling was the company contracted to do the drilling for Silver Standard.

Photo 10.3 - P1   Diamond drill at CHAG-04 site.

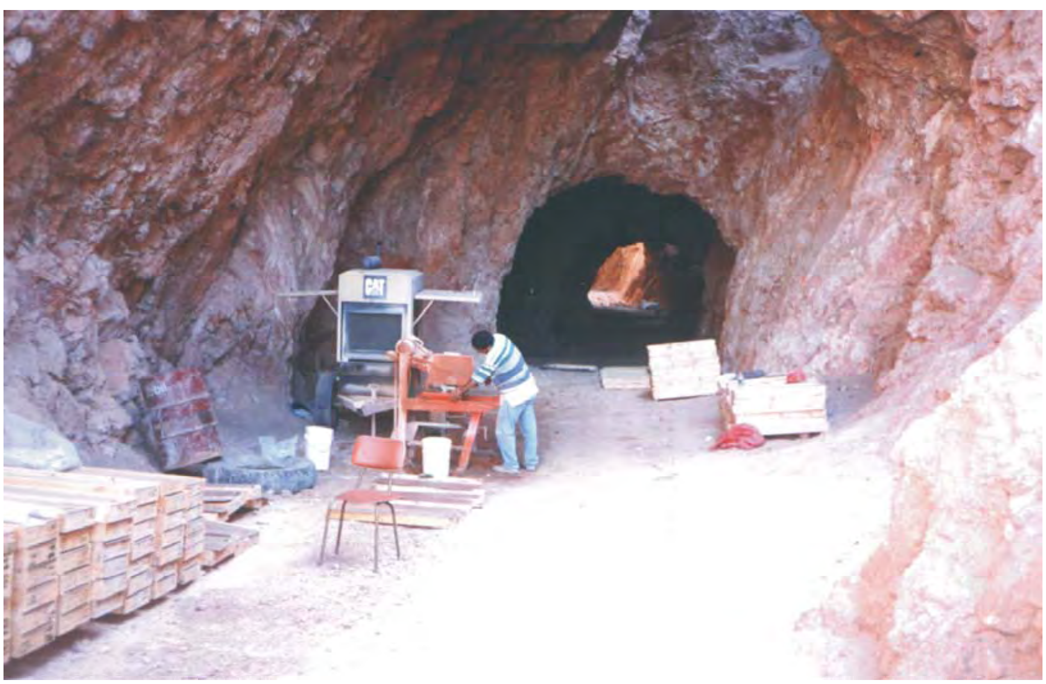


Photo 10.3 - P2   Sawing core

Table 3: Silver Standard Resources Drilling (March 2002)

Drill Hole Number	Coordinate N/E	Elevation (meters)	Azimuth (degrees)	Inclination (degrees)	Total Depth (meters)
CHAG-01	7,683,013 / 464,232	1480	120°	-70°	199.65
CHAG-02	7,682,830 / 464,263	1461	85°	-60°	177.75
CHAG-03	7,683,257 / 464,300	1509	120°	-45°	120.6
CHAG-04	7,683,405 / 464,357	1483	110°	-45°	94.3
CHAG-05	7,683,531 / 464,394	1480	75°	-50°	40.0
CHAG-06	7,683,601 / 464,393	1439	80°	-50°	49.7
CHAG-07	7,683,672 / 464,429	1425	110°	-50°	64.3

Table 4: Silver Standard Resources Drill Intercept Data

Drill Hole number	From (meters)	To (meters)	Interval (in meter)	Silver Grade g / tonne	Interval (in feet)	Silver Grade (oz. / ton)
CHAG-01	130.0	132.0	2.0	129.0	6.6	3.8
CHAG-02	118.0	148.0	30.0	154.3	98.4	4.5
CHAG-03	84.0	106.0	22.0	262.7	72.2	7.7
CHAG-04	66.0	90.0	24.0	370.8	78.7	10.8
CHAG-05	26.0	36.0	10.0	177.4	32.8	5.2
CHAG-06	31.4	48.9	17.5	68.0	57.4	2.0
CHAG-07	53.0	58.0	5.5	72.0	18.0	2.1

10.4 Lolon Vein System and Cross-Sections:

Cross-sections have been constructed to show the Lolon vein system and the 2002 drilling by Silver Standard (**Plates 19-25)**

The purpose of CHAG-01 **(Plate 19)** was to duplicate the interval in Mantos Blancos reverse circulation (RC) hole DTH-CH-01 (170 meters to 200 meters averaging 286 ppm Ag). CHAG-01 was drilled from the same pad as DTH-CH-01 with similar azimuth and direction **(Tables 1&3)** as reported by Mantos Blancos. However, the Silver Standard hole only contained 10 meters (184m to 194m) of

27ppm silver and did not duplicate the higher-grade intercept of the Mantos Blancos hole. There are several possibilities that might explain the difference in values between the two intercepts:

1. The Silver Standard core hole CHAG-01 may have steepened and may not have reached the actual Lolon vein system. No down-the-hole surveys were conducted on either the Mantos Blancos or the Silver Standard holes. No significant breccia, typical of the Lolon structure, was intersected in the Silver Standard drill hole.

2. The Silver Standard core hole may have gone through the Lolon vein system but only weak mineralization and brecciation was intersected close to the high-grade silver intercept of the Mantos Blancos hole.

3. The Mantos Blancos drill hole may have been drilled in a different direction than the southeast direction listed in **(Table 1)** and shown on the Mantos Blancos maps. Their cross-sections also show the geology as if the hole were drilled to the northeast rather than the southeast.

Drill hole CHAG-02 **(Plate 20, and Table 3)** was placed to test the Lolon mineralization immediately north of the deep workings beneath the Lolon shaft **(Plate 8)**. Within the interval from 124 meters to 148 meters, 24 meters of 4.99 oz/t silver was intersected, including 4 meters of 11.36 oz/t silver and 1.77% lead on the footwall between 144 meters and 148 meters.

Drill hole CHAG-03 **(Plate 21 and Table 3)** was placed to test the Lolon vein system beneath the Walkiria workings. Surface sampling within the Lolon structure indicated mineralization as much as 16 meters wide averaging 8.27 oz/t silver **(Sta 89, Plate 18)** in which 10 meters contained 13.07oz/t silver **(Sta 92, Plate 18)**. Drill hole CHAG-03 intersected strong mineralization from 84 meters to 106 meters **(Photo 10.2-P1&P2)**, including intersecting the Buenaventura workings from 91.2 meters to 96.05 meters, the interval of underground sample station 73. Including station 73, CHAG-03 intersected 22 meters of 7.58 oz/t silver below the Walkiria area. This grade is similar to grades encountered in the nearby samples taken within the Catalina and Buenaventura workings.

Photo 10.4 - P1 Lolon Vein in drill hole CHAG-03, 104.5m.

Photo 10.4 - P2   Lolon vein in drill hole CHAG-03, 87m.

Drill hole CHAG-04 **(Plate 22, and Table 3)** was placed to test the area near the north end of the well-mineralized Catalina workings. The north end of the Catalina exhibits some exceptional silver values **(Sta 86, Plate 17, 11 meters of 14.4 oz/t Ag and Sta. 88, 10 meters of 19.26 Ag)**. The Lolon structure was intersected in the hole from 44 meters to 93 meters with exceptional mineralization encountered from 66 meters to 90 meters (10.83-oz/t silver). Copper oxides are common in the interval, probably resulting from the leaching of copper-bearing silver sulfosalts, tentatively identified in the core.

Drill holes CHAG-05, 06, and 07 **(Plates 23-25, and Table 3)** were all drilled to test high-grade surface exposures **(Plate 7)** in the Humberto area and close off the mineralization to the north. CHAG-05, with an interval from 26 meters to 36 meters of 5.2-oz/t silver **(Photo 10.2-P3)** appears to mark the approximate north end of the good grades on the Lolon vein system.

Photo 10.4 - P3   Lolon vein in drill hole CHAG-05, 39.4 meters.

10.5 Other Veins:

Three other significant veins **(Plate 6)** besides the Lolon Vein occur at the property, which have been explored by either workings and drilling. They are the Palermo, Gladys 1 and Gladys 4. These veins were drill tested by Mantos Blancos in 1996 **(Tables 1&2).** Holes DTH-CH- 3, 4, 12, and 11 tested the Gladys 1 Vein. DTH-CH-14, 15, 16, and 20 tested the Palermo Vein and DTH-CH-18 and 19 tested the Gladys 4 vein. All three veins lie to the west of the Lolon Vein. No drill intercepts from the other veins were used in the resource calculations.

11.0 SAMPLE METHODOLOGY:

11.1 Core Sampling:

Mantos Blancos 1996 reverse circulation drill holes were sampled at 2.00-meter intervals. Drill sampling procedures used by Mantos Blancos are unknown.

Silver Standard diamond drill holes were generally sampled at 2.0-meter intervals. Core recovery was fair to good and generally averaged above 90%. However, locally, core recoveries were less than 50% in some of the higher grade silver areas. Silver Standard core is HQ and NQ and was generally sawed when the core was sufficiently solid.

The geologist on site for Silver Standard logged and photographed the drill core **(Photos 11.1-P1 through P6)**. A standardized drill log form was used to record the observed data including collar data, survey data, intervals, rock type, oxidation state, structure, alteration type, and graphic log. The geologist marked out the sample lengths for sawing then half of the core was stored in Pica, a local town close to the project. The pulps and rejects are stored at the assay labs in Antofagasta, Chile, and Vancouver, British Columbia, Canada. Silver Standard's sampling procedures for the drill core have been carried out according to accepted industry standards using accepted practices.

Photo 11.1 - P1   Drill hole CHAG-02 - interval 115 - 132 meters.

Photo 11.1 - P2 Drill hole CHAG-02 - interval 132 - 151.6 meters.

Photo 11.1 - P3   Drill hole CHAG-03 - - interval 98 - 106.3 meters.

Photo 11.1 - P4 Drill hole CHAG-04 - interval 52 - 80 meters.

Photo 11.1 - P5 Drill hole CHAG-04 - interval 80 -94 meters.

Photo 11.1 - P6 Drill hole CHAG-05 - interval 22 - 40 meters.

12.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY:

Assay data utilized in the resource calculation from samples collected by Silver Standard, including surface, underground, and core, comes from ALS Chemex laboratory in Antofagasta, Chile and Vancouver, British Columbia, Canada, and CIMM laboratory in Antofagasta, Chile. The laboratory used by Mantos Blancos is unknown.

Most of the samples collected during the underground, surface and core drilling campaigns of Silver Standard were prepared for analyses by ALS Chemex in Chile and shipped to Vancouver, British Columbia, Canada for Inductively Coupled Plasma (ICP) analysis (32 element). The majority of elements in the package are determined with direct ICP atomic emission spectroscopy (ICP-AES). Two elements lead and silver, are measured by atomic absorption spectroscopy from the same digestion in order to eliminate any possible inter-element interference.

In addition to ICP-AES, the ore grade intervals in drill core were fire assayed by Chemex in Vancouver, British Columbia, Canada. The prepared sample was fused with a mixture of lead oxide, sodium carbonate borax, silica, and other reagents as required and inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead. Following acid digestion and other standard practices, the core samples were analyzed for silver and gold by atomic spectrometry.

Check assaying has not been carried out to date but is recommended prior to the next drilling campaign in 2002.

With respect to sample security, the drill core is stored in Pica, Chile, in a locked and secure area. Drill core was logged on site and transported to the storage facility following completion of the drill campaign in late February. The core was initially logged, sawed, photographed, and stored temporarily at the Challacollo site. The samples were put in plastic bags and labeled with two sample numbers, stapled, and put into large rice sacks for shipping. They were transported by company truck to the TurBus station in Pozo Almonte and shipped to the assay laboratories.

Silver Standard assaying and security procedures have been carried out according to accepted industry standards using accepted practices.

13.0 DATA VERIFICATION:

All the surface and underground samples including samples of drill core were taken under the direct supervision of the Consultants. The only assay values reported in this report that were not taken or under the direct supervision of the Consultants were those intercept values reported for RC holes Ch-1 through Ch-22 drilled by Mantos Blancos. Mantos Blancos is the Chilean subsidiary of Anglo American. Their sampling and assaying are believed to be reputable since Anglo American is a well known international major mining company. The assay results of their drilling are consistent with the sampling done by the Consultants. There is no reason to think that previous assay results were biased in any way.

14.0 ADJACENT PROPERTIES:

There are no adjacent properties with similar types of mineralization as that at Challacollo. The adjacent property to the east and southeast is a copper property and has been tested by drilling for copper recently by BHP and CODELCO. CODELCO recently dropped their lease option agreement with Minera Septentrion the same owners of the Challacollo Silver Property.

15.0 METALLURGICAL TESTING:

Silver Standard Resources Inc. has not done any metallurgical testing. Minera Challacollo constructed a pilot plant in 1988 and it is reported that metallurgical recoveries were good using a vat leach system to produce a silver “cement” by precipitation with zinc.

16.0 MINERAL RESOURCES:

There are no mineral reserves on the property at this time. The mineral resources reported by Silver Standard following the initial sampling and drilling campaign are listed in **(Tables 5 through 10)**. This resource estimate **(Holtby, 2002)** is for the Lolon vein system only. The area extends from 7,682,450N to 7,683,700N (1.2 km of strike length) and from surface down to the 1250m elevation. Silver Standard developed a polygonal model using a longitudinal section based on underground and surface sampling undertaken for Silver Standard in 2001-2002 by Henricksen and Smith, reverse circulation drilling in 1996 by Mantos Blancos, and diamond drilling by Silver Standard in 2002. The average thickness of the polygons from the underground sampling is 6.9 meters and the average thickness of the polygons used from the drill intercepts is 13.4 meters, excluding the thin intercept from DTH-CH-09.

Table 5 – Total Uncut Silver Resources

Total Resource - Uncut Grades.		
tonnes/tons	6,080,769	6,701,007
tonnes Ag	1,480	
g Ag/tonne	243.34	
oz Ag/ton		7.10
oz Ag		47,559,159

Table 6 – Indicated Uncut Silver Resources

Indicated Resource - Uncut Grades.		
tonnes/tons	1,376,255	1,516,633
tonnes Ag	326	
g Ag/tonne	236.75	
oz Ag/ton		6.91
oz Ag		10,472,794

Table 7 – Inferred Uncut Silver Resources

Inferred Resource - Uncut Grades.		
tonnes/tons	4,704,513	5,184,374
tonnes Ag	1,154	
g Ag/tonne	245.26	
oz Ag/ton		7.15
oz Ag		37,086,365

Holtby, March 25,02

Table 8 – Total Cut Silver Resources

Total Resource – Top-Cut Grades @ 826 g/tonne.		
tonnes/tons	6,080,769	6,701,007
tonnes Ag	1,467	
g Ag/tonne	241.32	
oz Ag/ton		7.04
oz Ag		47,164,389

Table 9: Indicated Cut Silver Resources

Indicated Resource - Top-Cut Grades @ 826 g/tonne.		
tonnes/tons	1,376,255	1,516,633
tonnes Ag	319	
g Ag/tonne	231.63	
oz Ag/ton		6.76
oz Ag		10,246,095

Table 10: Inferred Cut Silver Resources

Inferred Resource - Top-Cut Grades @ 826 g/tonne.		
tonnes/tons	4,704,513	5,184,374
tonnes Ag	1,149	
g Ag/tonne	244.15	
oz Ag/ton		7.12
oz Ag		36,918,294

16.1 Underground Sampling:

A three-person sampling crew collected a series of samples at stations spaced 25m +/- 10m apart along most of the accessible underground drifts and in some stopes. At each station both walls and the back were sampled if accessible. Cross cuts were also sampled and in some locations samples were taken oblique to the strike where workings allowed for a more complete sampling. The deepest parts of the Challacollo Sur workings between elevations 1300 and 1250m, were not accessible and were not sampled.

Two-meter length samples comprised 92.8% of the samples; 1m length 0.3%, 1.5m length 3.4%, 2.5m length 2.2%, 3m length 1.1% and 4m lengths 0.3%.

In the resource calculation, sample lengths were adjusted to true widths by projecting them perpendicular to the dip of the Lolon structure. These adjusted lengths were used to calculate a weighted average grade and sampled thickness for each station. The Lolon vein strike and dip varies along the structure. From the south end of the model area to 7,683,010N (Lolon vein, south sector) the strike is south-southwest - north-northeast and the dip is 85° west. From 7,683,010N to 7,683,050N is a transition zone where the model dip is 80° west. From 7,683,050N to the north end of the model area (Lolon vein, central sector) the strike is north – south and the dip is 70° west.

16.2 Surface Sampling:

Surface showings between the Challacollo Sur and Catalina were by and large mined in historical times. While, Henricksen and Smith took surface samples, only those samples near portals were used in the resource calculation.

16.3 Mantos Blancos (1996) Drilling:

Three Mantos Blancos (1996) reverse circulation (RC) drill holes intersected the Lolon vein system (DTH-CH-01, 07, and 09) within the resource area. Individual samples were taken over 2-m lengths. True widths were calculated based upon the hole locations along strike using the same dips as for underground samples.

16.4 Silver Standard (2002) Drilling:

Silver Standard drilled seven diamond core holes (CHAG-01 through 07) in January and February 2002. Of 158 core samples 93.7% were 2m in length, 0.6% were <2m in length, 3.8% were between 1 and 2 m and 1.9% were >2m.

16.5 Statistics:

Holtby compiled statistics on 828 samples, those collected in 2001-2002, the Lolon vein between the Challacollo Sur and Humberto workings from the surface, underground, and core drilling and also includes the Mantos Blancos mineralized intercepts from 1996. **Table 11** shows these statistics for silver values followed by a histogram plot of silver values**.** **Table 12** shows the statistics for the log of silver values followed by a lognormal plot of those values.

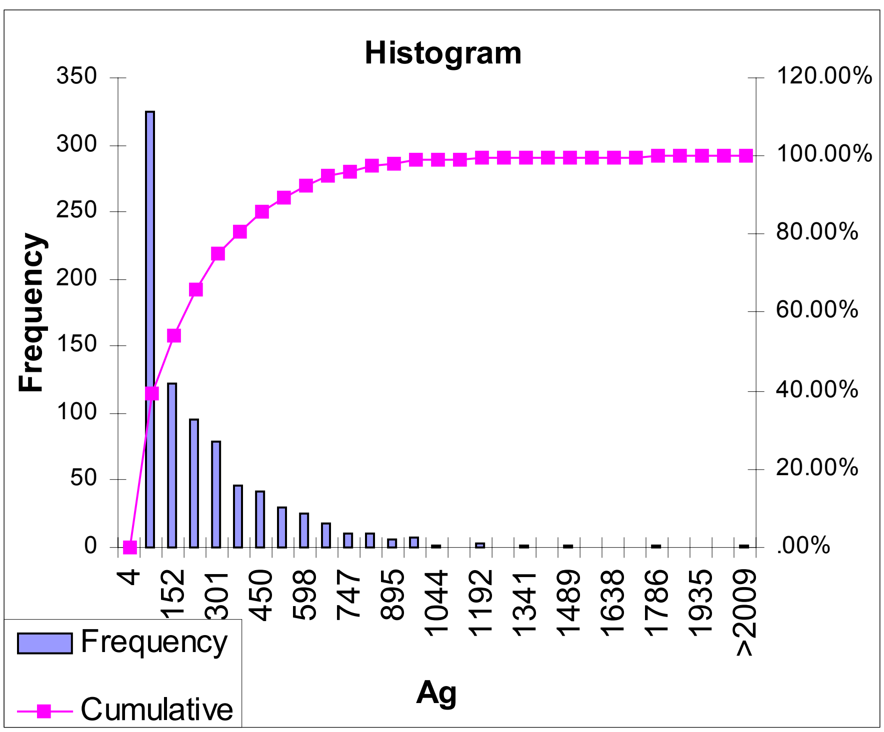
For resource estimation purposes the 97.5th percentile was calculated for these 828 samples, 826 g/tonne, the top-cut grade. All values above 826 g/tonne were given a value of 826 g/tonne in calculating the cut resources.

Resources were calculated by the polygonal method using the longitudinal section for polygon compilation. One hundred and twenty three (123) polygons were constructed around each underground sample station and drill hole intercept on the Lolon vein system **(Plate 8).** AutoCAD plotted and calculated the areas of the polygons. Polygons 121 and 26A were projected 25m north and 25m south, respectively, to determine the boundaries of the resource area. The model was projected to a depth of the 1250m elevation. The thickness of each polygon was the total adjusted length at each station. The weighted average widths for each station was calculated using the adjusted sample lengths previously described. Areas known to have been mined were excluded from the resource estimate. That portion of each polygon within 25m of each sample site was classified as an indicated resource while the remainder of each polygon was considered an inferred resource. A density of 2.7 was used in historical resource estimations and in this estimation.

Table 11: Silver Statistics

Ag	
Mean	213.3681159
Standard Error	8.314275671
Median	132.5
Mode	36
Standard Deviation	239.2431921
Sample Variance	57237.30498
Kurtosis	89489841819
Skewness	2.274935246
Range	2079.6
Minimum	4
Maximum	2083.6
Sum	176668.8
Count	828
Confidence Level(95.0%)	16.319552

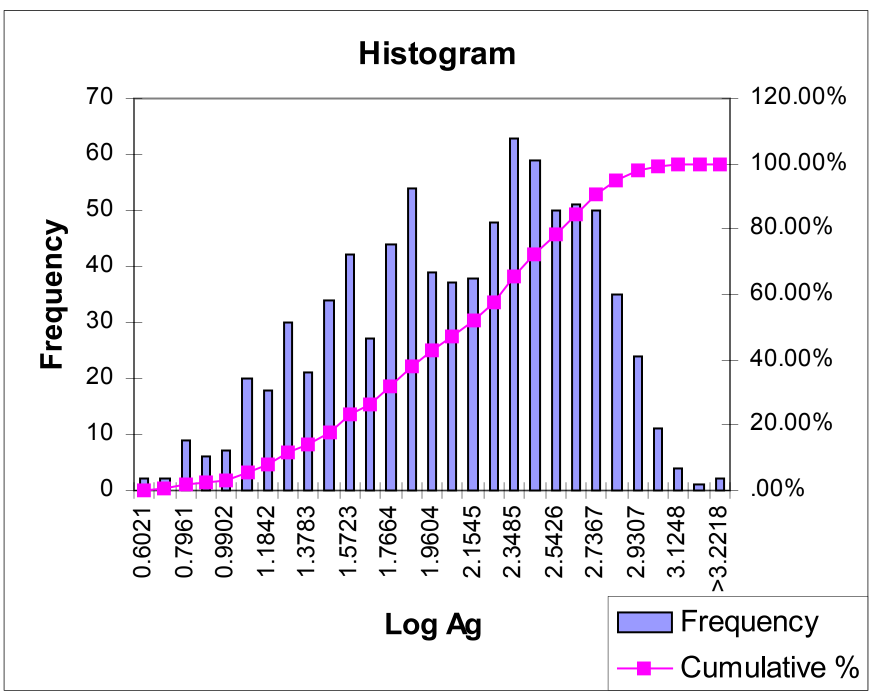
Table 1 - Ag Statistics



Holtby, March 25, 02

Table 12: Log of Ag Statistics

	Log Ag
Mean	2.041591859
Standard Error	0.019231423
Median	2.122212786
Mode	1.556302501
Standard Deviation	0.553383995
Sample Variance	0.306233846
Kurtosis	-0.706823255
Skewness	-0.325293609
Range	2.716754357
Minimum	0.602059991
Maximum	3.318814349
Sum	1690.43806
Count	828
Confidence Level(95.0%)	0.037748112



Holtby, March 25,02

Resources were calculated based on both uncut and cut silver values. A top-end cut at the 97.5th percentile was applied cutting all grades above 826 g/tonnes back to that value. **(Appendix B)** contains an Excel spreadsheet of all data, for cut and uncut silver values, respectively. Uncut and cut resources are listed in **(Tables 5 through 10)**.

16.6 Interpretations and Conclusions Concerning the Mineral Resource Calculations:

During late 2001 and early 2002 Silver Standard carried out a total of 746.3 meters of core drilling plus significant underground and surface sampling of the old workings at Challacollo.

Challacollo contains a Indicated and Inferred cut resource of 6,701,007 tons averaging 7.04 oz/t Ag or 47,164,389 ounces of silver. The uncut resource is calculated at 6,701,007 tonnes averaging 7.1 oz/t Ag, not much different than the cut resource. The gold assays are currently (April, 2002) being received which should increase the contained silver equivalent ounces above 50,000,000 ounces.

It is the opinion of Henricksen and Smith the estimation of the Mineral Resources, as stated above and shown in **(Tables 5 through 10)** has been prepared according to accepted industry standards using accepted practices and that the work completed has been both thorough and as accurate as possible given the available database. It is also Henricksen and Smith's opinion that the classification of Measured, Indicated, and Inferred Mineral Resources as estimated herein, meets the definitions of Measured, Indicated, and Inferred Mineral Resources as stated by NI 43-101 and defined by the CIM Standards on Mineral Resources and Reserves Definitions and Guidelines adopted by the CIM council on August 20, 2000.

Challacollo is considered to have excellent potential for additional resources, along strike and especially at depth, on the Lolon vein system. The 2001-2002 work completed to date by Silver Standard advanced the property and increased the known resources.

17.0 GEOPHYSICS:

Parts of three geophysical surveys cover the Challacollo Silver-Gold Property. They are an Air Magnetometer Survey done by SERNAGEOMIN in 1982, a Ground Magnetic Survey by GEODATOS in 1992, and a CSAMT survey by GEODATOS done in 1992. The air magnetic survey indicates that there is a high magnetic anomaly over Cerro Challacollo. The ground magnetic survey confirmed it. The CSAMT survey along with identifying the four principal mineralized veins described above indicated five others.

18.0 RECOMMENDATIONS:

18.1 Surveying:

The Consultants are recommending that the surface and underground workings be surveyed with a transit-type instrument. Mantos Blancos surveyed the drill hole locations after their 22 RC drilling Campaign and these UTM coordinates were use to rectify the surface brunton-tape mapping done by the Consultants. The Mantos Blancos surveyed drill holes are far enough apart however that the brunton-tape survey of the areas between the holes needs to be further corrected by intermediate survey points. The Silver Standard diamond drill holes also need to be surveyed. By surveying the surface trace of the vein more accurately this would make it more accurate to calculate the dip of the vein, lengths of proposed holes and Resources.

The underground workings should also be surveyed with a surveying instrument to correct any errors in the brunton-tape surveying done by the Consultants. This work is probably the most critical in planning future drill holes and mine plan development if justified in the future. This work is estimated to cost approximately $5000.

18.2 Map Other Major Veins:

The Consultants further recommend that the other known veins besides the Lolon vein be mapped and sampled. These vein systems would include the Palermo, Gladys 1 and Gladys 4 and any other veins that are known. This work is estimated to take approximately sixty (30) days for a budget totaling; $20,650 US

Vein Mapping Budget:

Wages for 1 geologist	7,500
Food & Lodging for Geologist	2,000
Travel for Geologist (two round trips)	1,250
Wages for sampler-helper	1,200
Food & Lodging for helper	700
4X4 Vehicle rental	2,000
Assaying - 300 samples @ 20$/ sample	6,000
Total	$ 20,650 US

18.3 Map the Challacollo Range:

The Consultants further recommend that the Challacollo Range be mapped in more detail. The Challacollo Silver Property covers the entire Range so the mapping proposed would be a property geologic map. The most detailed prior mapping was done at a scale of 1:50,000 by Veliz and Neimeyer in 1996. Their map can be greatly improved. The mapping of the property should also improve the knowledge about the structure, geology and provide insight into ore controls. The mapping could lead to the discovery of other veins or disseminated zones of silver. The potential to find other veins besides the four main veins described above is good. The proposed mapping should also indicate if there is potential for porphyry copper mineralization occurring either within the claim group or adjacent to it. Copper mineralization occurs to the east of the Challacollo Sur workings above the old mill site in apparent strata-form zones that dip to the east.

Challacollo Range Mapping Budget:

Wages for two geologists for 30 days	15,000
Food & Lodging for two geologists	4,000
4X4 Vehicle rental	4,000
Travel expenses, two round trip tickets for both geologists	2,500
Phone & Miscellaneous	1,000
Assaying, petrography studies, miscellaneous	2,000
Rental 2 tracksters (4X4 ATVs)	2,000
Total	$ 30,500 US

18.4 Geologic Map the Underground Workings in more detail:

The Consultants also recommend that the underground workings be mapped in more detail. The mapping by the consultants was mostly to survey the workings prior to sampling when reconnaissance type geologic mapping was done, because of lack of time under budgetary constraints. This work could be done while supervising the drill program that is recommended in following paragraphs.

18.5 Drilling:

Silver Standard has proposed a budget to RC drill 1500 meters on the Lolon vein, to try and increase the Indicated Resource and Inferred Resources that have been calculated and tabulated in this report.

Drilling Budget for 1500 meters of RC holes.

Wages for one geologist for two months	15,000
Food & Lodging for one geologist	4,000
Travel for Geologist two round trip tickets	1,200
4X4 Vehicle rental	3,000
Wages for helper	2,400
Food and Lodging for helper	1,500
Drilling 1500 meters RC	52,500
Assaying (400 assays)	8,000
Road Cleaning	5,000
Total	$92,600 US

18.6 Water Rights:

The Consultants recommend that Silver Standard locate and obtain water rights for the property.

19.0 REFERENCES:

19.1 Reports in Hand:

1. Jaime Arias Farias, November 1997, *Executive Summary Report "Challacollo Silver-Gold Mine & Porphyry Copper Prospect*

2. March 1998, *Summary of Exploration Studies Challacollo Mining District, Iquique-Chile* for Soc. Contractual Minera Septentrion

3. December 1996, *Minera Cerro Challacollo*

4. Eugenio Valdebenito Macho, March 1998, for Soc,. Contractual Minera Septentrion, *Resumen de Estudios de Exploration Districto Minero Challacollo, Iquique-Chile*

5. Geodatos, December 1992, *Estudio Geofisico Mediante CSAMT Y Muestreo Geoquimico de Superficie*

6. Humberto Carvallo F., February 18, 1981, *Informe Challacollo,* MAGMA Geologos Consultores Asociados.

7. M. Holtby, March 25th, 2002, Silver Standard Memorandum: *Challacollo Project Resource Estimation.*

19.2 References for Reports in Hand:

8. *Estudio de los Datos Aeromagneticos de SERNAGEOMIN* (1982); GEODATOS-1992

9*. Estudio Magnetico Terrestre Sector Challacollo*; GEODATOS – May 1992

10. *Modelo Conceptual: Base Geologica para Estudio Geofisico*; GEODATOS, July 1992

11. *Estudio Geofisico Mediante CSAMT y Muestreo Geoquimico de Superficie (9 km ?);* GEODATOS – December, 1992

12*. Historia y Resumen de Prebas Metalurgicas; Gildemeister* S.A.C.-December 1992

13*. Informe de Estimacion de Reservas Geologicas;* Gildemeister S.A.C.- May 1993

14. *Levantamiento Magnetico Terrestre*; GEODATOS – August 1995

15. *Estrudio Geofisico Mediante TEM*; GEODATOS- October 1995

16. *Geologia Estructural del Distrito Minero Challacollo*, Region de Tarapaca, Chile; Niemayer, H. y Veliz H. – June 1996

17. Levantamiento Gravimetrico; INVEREX – October 1996

18*. Informe Resumen;* Mantos Blancos – 1996

19.Marcio Orrego G. October 1996. *Reconocimiento con Sondajes Aire-Reverso de las Vetas de Plata-Oro del Proyecto Challacollo*, Provincia de Iquique; Mantos Blancos: Informe Final Temporada 1996, March

20. By: Lucia Cuitino, *Estudio Petrografico y de Inclusiones Fluidas;* SERNAGEOMIN – March 1997

21. *Informe de Propiedad Minera*; INPROMIN Ltda. – September 1997

22. Levantamiento Gravimetrico Sector Challacollo, I Region; INVEREX LTDA. – Oct. 1996

23. *Estimacion del Potencial de Recursos Geologicos de las Vetas de Ag-Au del Proyecto Challacollo,* Provincia de Iquique; Mantos Blancos, July 1996

24. Informe Annual; Sociedad Contractual Minera Cerro Challacollo – December 1992

25. Mapas Geoquimicos; Minera Pegasus Chile Ltda. – Feb. 1993

20.0 Additional Requirements for Technical Reports on Development Properties and Production Properties:

The Challacollo Property does not contain any mineable reserves at this time and is not currently in production or being developed for production in the immediate future. Pending the successful completion of further exploration and evaluation, the project could be considered for development. At this point in time, however, these additonal requirements are not relevant to this project.

21.0 CERTIFICATES:

CERTIFICATE

Thomas Alva Henricksen
E.5812 25th Ave.
Spokane, WA 99223
Phone: (509) 535-8170

1. I, Tom Henricksen, am a Registered Professional Geologist with the State Wyoming, number PG-3069.

2. I am a graduate of the University of Wisconsin-Oshkosh, holding a Bachelor of Science Degree in Geology, granted in 1969.

3. I received a Ph.D. in Economic Geology from Oregon State University in 1974.

4. I have practiced my profession continuously for more than 32 years and have examined and reported on numerous metal deposits in North, South, and Central America.

5. As a result of my experience and qualifications, I am a Qualified Person as defined in NP43-101.

6. The information contained in this report was obtained by all available sources including Silver Standard Resources Inc. This information is to the best of my knowledge and experience correct. I have also been involved with the ongoing exploration of the Challacollo Silver project since Silver Standard acquired the property in late 2001.

7. I have read NI 43-101 and Form 43-101F and this report has been prepared in compliance with National Instrument 43-101 and Form 43-101F.

8. I am an Independent Person as defined by NI 43-101.

9. I am not aware of any material fact or material change with respect to the subject matter of this technical report which is not reflected in this report, the omission to disclose which would make this report misleading.

10. This report may be used in any Prospectus, Statement of Material Facts or other public document, with the author's consent, which is hereby given.

Dated in Spokane, WA this 24 day of April, 2002.

Tom Henricksen

Tom Henricksen, Ph.D., R.P. Geo. (Wyoming) # 3069

PROFESSIONAL GEOLOGIST
THOMAS ALVA HENRICKSEN
PG-3069
WYOMING

CERTIFICATE

Russell Gordon Smith
14726 W Deno
Spokane, WA 99224
Phone: (303) 244-3478

1. I, Russell Smith, am a Registered Professional Geologist with the State of Idaho, USA, number 340.

2. I am a graduate of the University of Idaho, Moscow, Idaho and hold a Bachelors of Science Degree of Geology, granted in 1967.

3. I have practiced my profession continuously for over 34 years and have examined and reported on numerous metal deposits in North, Central and South America.

4. I am a member and Fellow of the Society of Economic Geologists.

5. As a result of my experience and qualifications I am a Qualified Person as defined in NP43-101.

6. The information contained in this report was obtained by all available sources including Silver Standard Resources Inc. This information is to the best of my knowledge and experience correct. I have also been involved with the ongoing exploration of the Challacollo Silver project since Silver Standard acquired the property in late 2001.

7. I have read NI 43-101 and Form 43-101F1 and this report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.

8. I am an Independent Person as defined by NI 43-101.

9. I am not aware of any material fact or material change with respect to the subject matter of this technical report which is not reflected in this report, the omission to disclose which would make this report misleading.

10. This report may be used in any Prospectus, Statement of Material Facts or other public document, with the author's consent, which is hereby given.

Dated in Spokane, WA this 24th day of April, 2001.

Russell Smith

Russell G. Smith, B.S., R.P. Geo. (Idaho) # 340

APPENDIX A

ASSAYS CERTIFICATES

APPENDIX B

HOTBY'S RESOURCE TABULATION

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C08294
SUB LOTE: 0
No DE MUESTRA: 159
FECHA DE RECEPCION: 07/12/01
FECHA DE ENTREGA: 03/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:
TIPO DE MUESTRA: SEDIMENTO
PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Cu ppm G105 1	Cu ppm G105 1	Ag ppm G105 0.1	Pb ppm G105 1	Zn ppm G105 1	
	P274	190		73.0	1700	4330	
	P275	227		105	1500	7810	
	P276	517		187	5590	7370	
	P277	222		143	3200	3300	
	P278	252		229	2900	4970	
	P279	179		275	2800	2500	
	P280	122	120	198	1800	2400	
	P281	110		195	2500	1500	
	P282	155		193	2300	3300	
	P283	329		343	2600	9740	
	P284	366		232	4030	1.74%	
	P285	222		154	3380	1.66%	
	P286	1100		268	6510	3.87%	
	P287	675		197	4800	2.12%	
	P288	109		188	1100	6740	
	P289	92	89	58.0	1600	3400	
	P290	160		128	4200	4330	
	P291	78		136	2400	2300	
	P292	74		224	1400	1400	
	P293	42		89.0	1100	1200	
	P294	56		374	2100	1400	
	P295	98		48.0	1700	3400	
	P296	258		42.0	3200	8420	
	P297	203		65.0	1.17%	6420	
	P298	152		53.0	3200	5530	
	P299	446	523	84.0	6450	6240	
	P300	143		388	5100	1000	
	P301	337		603	1.76%	5580	
	P302	277		191	5700	3700	
	P303	125		34.0	1700	4200	

NOTAS:

·Este Certificado de Análisis, elimina cualquier certificado preliminar enviado bajo este número de lote.
·Los resultados son válidos sólo para las muestras provistas por el cliente.

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
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ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:
TIPO DE MUESTRA: SEDIMENTO
PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Cu ppm G105 1	Cu ppm G105 1	Ag ppm G105 0.1	Pb ppm G105 1	Zn ppm G105 1	
	P244	109		217	7190	700	
	P245	85		137	5800	800	
	P246	246		33.0	1900	3400	
	P247	81	82	196	1900	600	
	P248	201		27.0	2200	2380	
	P249	177		171	2100	2700	
	P250	111		79.0	1400	1000	
	P251	21		368	600	200	
	P252	129		148	2900	2300	
	P253	75		289	2000	2000	
	P254	198		196	1900	3400	
	P255	96		203	1600	900	
	P256	123	120	488	1800	1000	
	P257	208		290	2700	1900	
	P258	273		134	2900	2500	
	P259	70		228	1000	1000	
	P260	165		145	2000	1300	
	P261	156		367	2900	1400	
	P262	372		525	4500	2100	
	P263	380		275	3000	3600	
	P264	436		167	1800	4300	
	P265	201		150	1100	3400	
	P266	128	136	271	1700	1600	
	P267	297		352	3400	3400	
	P268	455		116	6690	4050	
	P269	106		93.0	2000	1500	
	P270	242		112	3300	6110	
	P271	97		80.0	1700	2200	
	P272	419	418	154	2300	2600	
	P273	170		48.0	2600	2500	

NOTAS:

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CERTIFICADO DE ANALISIS

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
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CANADA V6C 2W2

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No DE MUESTRA: 159
FECHA DE RECEPCION: 07/12/01
FECHA DE ENTREGA: 03/05/02

ORDEN No.: TIPO DE MUESTRA: SEDIMENTO PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Cu ppm G105 1	Cu ppm G105 1	Ag ppm G105 0.1	Pb ppm G105 1	Zn ppm G105 1	
	P214	142	144	48.0	3000	1700	
	P215	38		462	4.26%	174	
	P216	99		33.0	4700	800	
	P217	130		26.0	1800	900	
	P218	102		446	3.78%	166	
	P219	171		40.0	3700	1000	
	P220	145		14.0	1800	600	
	P221	61		7.0	700	1000	
	P222	38		174	2000	200	
	P223	70	71	231	1800	200	
	P224	94		12.0	2100	300	
	P225	185		397	3.89%	554	
	P226	172		407	2.82%	687	
	P227	117		41.0	3700	600	
	P228	44		264	2300	200	
	P229	46		51.0	1500	300	
	P230	178		61.0	2400	300	
	P231	112		30.0	2200	200	
	P232	99		12.0	1200	200	
	P233	49	53	18.0	1700	100	
	P234	59		71.0	5440	1700	
	P235	128		27.0	1800	300	
	P236	104		57.0	3500	800	
	P237	36		73.0	1100	300	
	P238	22		64.0	1000	100	
	P239	49	58	114	900	400	
	P240	43		154	700	200	
	P241	117		16.0	900	1300	
	P242	100		4.0	3000	500	
	P243	120		106	3500	600	

NOTAS:

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ALS Chemex (Chile) S.A.

BONDAR CLEGG

Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

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LOTE NUMERO: C08223
SUB LOTE: 0
No DE MUESTRA: 109
FECHA DE RECEPCION: 07/12/01
FECHA DE ENTREGA: 03/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:
TIPO DE MUESTRA: INTERNAL ESTANDAR
PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Ag ppm G105 0.1	Cu ppm G105 1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1	Zn ppm G105 1
I.D. ESTANDAR		BM-4997	BM-4997	BM-4997	BM-4997	BM-4997	BM-4997
RESULTADO DEL ESTANDAR			3700			5080	
RESULTADO DEL ESTANDAR			3820			5040	
RESULTADO DEL ESTANDAR			3820			5040	
RANGO DE TRABAJO			3690-4080	3690-4080		4850-5360	4850-5360

NOTAS: Los datos que aparecen en este reporte son resultados de estandares internos, analizados conjuntamente con este lote.

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ALS Chemex (Chile) S.A.

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Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

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ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.: TIPO DE MUESTRA: DUPLICATES PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Ag ppm G105 0.1	Cu ppm G105 1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1	Zn ppm G105 1
*** P-100 Resultado Original		11.0	84		1160	2480	
*** P-111 Resultado Original		78.3	154		1590	2290	
*** P-121 Resultado Original		47.4	61		1910	1210	
*** P-147 Resultado Original		555	111		4.64%	219	
*** P-167 Resultado Original		7.7	40		452	5700	
*** P-200 Resultado Original		56.9	66		1.25%	1320	
*** P-210 Resultado Original		14.0	148		1550	897	
*** P-211 Resultado Original		8.7	140		1450	896	

NOTAS: Los resultados que aparecen en este reporte fueron propuestos por el area de control de calidad del laboratorio.

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LABORATORIOS:

FIRMA

CHILE	AUSTRALIA	HONK KONG
ARGENTINA	NUEVA ZELANDIA	SINGAPUR

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
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ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:
TIPO DE MUESTRA: SEDIMENTO
PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Ag ppm G105 0.1	Cu ppm G105 1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1	Zn ppm G105 1
	P-189	18.4	172		1340	294	
	P-192	46.1	162	168	1430	373	370
	P-196	228	92		1280	398	
	P-197	57.4	145		1170	385	
	P-198	50.2	73		510	4220	
	P-199	41.9	67		2800	706	
	P-200	56.9	66		1.25%	1320	
	P-201	32.0	34		3090	258	
	P-202	195	65		4.73%	245	
	P-203	25.5	309	322	2710	746	749
	P-204	26.9	147		1370	583	
	P-205	74.8	415		1390	371	
	P-206	37.9	462		1760	187	
	P-207	39.4	235		5580	1240	
	P-208	142	133		1.17%	204	
	P-209	84.1	270		5740	570	
	P-210	14.0	148		1550	897	
	P-211	8.7	140		1450	896	
	CH-23	4.7	371	379	4110	161	135

NOTAS:

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ALS Chemex (Chile) S.A.

BONDAR CLEGG

Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C08223
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No DE MUESTRA: 109
FECHA DE RECEPCION: 07/12/01
FECHA DE ENTREGA: 03/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:
TIPO DE MUESTRA: SEDIMENTO
PROYECTO:

IDENTIFICACION DE LA MUESTRA — ELEMENTO / UNIDAD / METODO / L. de D.	Ag ppm G105 0.1	Cu ppm G105 1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1	Zn ppm G105 1
P-155	420	61		1.67%	305	
P-156	84.5	58		3050	298	
P-157	555	111		4.64%	219	
P-158	440	13		8320	54	
P-159	620	59		9.35%	166	
P-160	202	59		3700	236	
P-161	560	85	87	3.92%	415	397
P-162	296	52		1.06%	279	
P-163	4800	141		14.27%	500	
P-164	236	233		4.50%	1390	
P-165	460	70		8290	595	
P-166	15.0	30		606	7390	
P-167	7.7	40		452	5700	
P-168	3.9	50		618	9470	
P-169	21.7	390		7520	4500	
P-170	35.6	195	189	2250	3280	3290
P-171	47.9	74		2390	1350	
P-172	68.6	66		1830	1040	
P-173	86.2	86		2380	696	
P-174	292	117		2770	860	
P-175	65.8	47		1250	321	
P-176	2670	92		6800	663	
P-178	54.8	54		1630	549	
P-179	86.8	159		405	2430	
P-181	459	102		4.90%	297	
P-182	107	51	52	1.76%	328	315
P-183	57.4	65		2.97%	291	
P-184	237	48		1.10%	65	
P-185	18.9	108		1340	480	
P-187	21.6	152		1190	265	

NOTAS:

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CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.: TIPO DE MUESTRA: SEDIMENTO PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Ag ppm G105 0.1	Cu ppm G105 1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1	Zn ppm G105 1
	P-123	50.6	48		1700	822	
	P-124	99.0	79		2790	1380	
	P-125	22.9	81		2720	2860	
	P-126	25.9	46	42	2000	1990	1940
	P-127	14.6	28		1610	1360	
	P-128	103	59		2250	670	
	P-129	256	38		845	168	
	P-132	101	119		1400	331	
	P-133	102	53		2400	265	
	P-134	1300	131		13.87%	482	
	P-135	800	106		2.12%	379	
	P-136	543	75		8290	265	
	P-137	53.6	33	28	7780	248	251
	P-138	460	36		3.30%	338	
	P-139	157	65		6440	481	
	P-140	317	36		5280	309	
	P-141	38.8	72		1990	947	
	P-142	15.4	128		1760	1010	
	P-143	28.8	81		1.80%	597	
	P-144	53.3	26		8690	235	
	P-145	26.9	206		1120	3910	
	P-146	63.3	635		1410	3000	
	P-147	37.2	465	473	1960	4300	4430
	P-148	282	92		7.59%	1160	
	P-149	420	68		6980	271	
	P-150	141	92		1.23%	934	
	P-151	49.1	47		1950	710	
	P-152	22.3	23		964	547	
	P-153	336	38	41	3.88%	302	300
	P-154	1720	58		3.87%	280	

NOTAS:

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ALS Chemex (Chile) S.A.

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Una empresa de ALS Chemex

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CANADA V6C 2W2

ORDEN No.:

TIPO DE MUESTRA: SEDIMENTO

PROYECTO:

IDENTIFICACION DE LA MUESTRA / ELEMENTO UNIDAD METODO L. de D.	Ag ppm G105 0.1	Cu ppm G105 1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1	Zn ppm G105 1
P-020	480	1220	1220	7.68%	2180	2190
P-037	279	505		8.68%	1410	
P-038	162	365		6.63%	3370	
P-044	265	813		14.72%	2430	
P-052	1060	1190		11.55%	2510	
P-056	520	478		6.11%	1870	
P-089	700	96		2.37%	346	
P-095	146	52		5.14%	817	
P-100	11.0	84		1160	2480	
P-101	13.3	110	110	1910	2980	3070
P-103	26.5	94		1350	937	
P-104	165	128		2730	1350	
P-105	29.2	257		976	2200	
P-106	21.0	64		1750	1040	
P-107	10.2	74		2140	1450	
P-108	21.1	90		2610	539	
P-109	103	91		1720	224	
P-110	77.9	80		1690	1690	
P-111	78.3	154		1590	2290	
P-112	79.0	108	107	1660	3270	3330
P-113	37.5	98		1150	2380	
P-114	9.5	33		400	1330	
P-115	7.4	33		463	1670	
P-116	29.4	31		428	2390	
P-117	24.6	59		2040	3620	
P-118	23.6	62	63	601	4350	4440
P-119	15.1	85		2280	2100	
P-120	28.0	69		1340	1290	
P-121	47.4	61		1910	1210	
P-122	61.7	135		1230	2160	

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VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:
TIPO DE MUESTRA: SEDIMENTO
PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Cu ppm G105 1	Cu ppm G105 1	Ag ppm G105 0.1	Pb ppm G105 1	Zn ppm G105 1	
	P304	105		80.0	5900	1200	
	P305	63	67	64.0	2500	300	
	P306	126		392	5100	2300	
	P307	122		435	6570	1500	
	P308	43		176	1000	500	
	P309	104		74.0	600	2800	
	P310	39		20.0	1300	1700	
	P311	222		24.0	1400	6190	
	P312	215		68.0	1000	1.60%	
	P313	224	223	23.0	1400	8490	
	P314	194		31.0	1400	9130	
	P315	126		23.0	700	4300	
	P316	315		134	2500	7520	
	P317	551		611	9630	1.95%	
	P318	360		205	7300	1.43%	
	P319	252		338	2700	3100	
	P320	159		544	2300	1500	
	P321	97		53.0	1200	3100	
	P322	492	468	130	4100	1.58%	
	P323	244		324	4700	5000	
	P324	113		451	1400	1000	
	P325	38		36.0	700	1100	
	P326	171		198	6440	400	
	P327	574		164	3.83%	4300	
	P328	568		35.0	5970	7840	
	P329	71		61.0	1700	1200	
	P330	497		94.0	6910	4200	
	P331	170		83.0	9260	2600	
	P332	93	109	34.0	2200	2200	
	P333	232		21.0	4800	4100	

NOTAS:

ALS Chemex
Aurora Laboratory Services Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: SILVER STANDARD RESOURCES INC.

1180 - 999 W. HASTINGS ST.
VANCOUVER, BC
V6C 2W2

Comments: ATTN: TOM HENRICKSEN

CERTIFICATE A0212323

(RRV) - SILVER STANDARD RESOURCES INC.

Project: CHAG 07
P.O. # : AN-3765

Samples submitted to our lab in Antofagasto, Chile
This report was printed on 13-MAR-2002.

SAMPLE PREPARATION

METHOD CODE	NUMBER SAMPLES	DESCRIPTION
8627	5	Sample prepped in Santiago
290	5	Assay HF ICP digestion charge

ANALYTICAL PROCEDURES

METHOD CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
1263	5	Ag ppm: high grade 24 element	AAS	1	200
4031	5	Al %: A22 ICP package	ICP-AES	0.05	30.0
4032	5	Ba ppm: A22 ICP package	ICP-AES	100	50000
4033	5	Be ppm: A22 ICP package	ICP-AES	10	10000
4034	5	Bi ppm: A22 ICP package	ICP-AES	20	50000
4035	5	Ca %: A22 ICP package	ICP-AES	0.05	30.0
4036	5	Cd ppm: A22 ICP package	ICP-AES	10	10000
4037	5	Co ppm: A22 ICP package	ICP-AES	10	100000
4038	5	Cr ppm: A22 ICP package	ICP-AES	10	100000
4039	5	Cu ppm: A22 ICP package	ICP-AES	10	100000
4040	5	Fe %: A22 ICP package	ICP-AES	0.05	30.0
4041	5	K %: A22 ICP package	ICP-AES	0.1	20.0
4042	5	Mg %: A22 ICP package	ICP-AES	0.05	30.0
4043	5	Mn ppm: A22 ICP package	ICP-AES	10	100000
4044	5	Mo ppm: A22 ICP package	ICP-AES	10	100000
4045	5	Na %: A22 ICP package	ICP-AES	0.05	20.0
4046	5	Ni ppm: A22 ICP package	ICP-AES	10	100000
4075	5	Pb %: high grade 24 element	AAS	0.001	10.00
4047	5	Sr ppm: A22 ICP package	ICP-AES	10	100000
4048	5	Ti %: A22 ICP package	ICP-AES	0.05	20.0
4049	5	V ppm: A22 ICP package	ICP-AES	10	50000
4050	5	Zn ppm: A22 ICP package	ICP-AES	20	100000

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C08294
SUB LOTE: 0
No DE MUESTRA: 159
FECHA DE RECEPCION: 07/12/01
FECHA DE ENTREGA: 03/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:

TIPO DE MUESTRA: INTERNAL ESTANDAR PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Cu ppm G105 1	Cu ppm G105 1	Ag ppm G105 0.1	Pb ppm G105 1	Zn ppm G105 1	
I.D. ESTANDAR							
RESULTADO DEL ESTANDAR		693					
RESULTADO DEL ESTANDAR		698					
RESULTADO DEL ESTANDAR		722					
RESULTADO DEL ESTANDAR		722					
RANGO DE TRABAJO		No Data					

NOTAS: Los datos que aparecen en este reporte son resultados de estandares internos, analizados conjuntamente con este lote.

- Este Certificado de Análisis, elimina cualquier certificado preliminar enviado bajo este número de lote.

Los resultados ... (*) ...

ALS Chemex (Chile) S.A.

BONDAR CLEGG

Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

LABORATORIO: COPIAPO
LOTE NUMERO: CO8294
SUB LOTE: 0
No DE MUESTRA: 159
FECHA DE RECEPCION: 07/12/01
FECHA DE ENTREGA: 03/05/02

ORDEN No.:

TIPO DE MUESTRA: DUPLICATES

PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Cu ppm G105 1	Cu ppm G105 1	Ag ppm G105 0.1	Pb ppm G105 1	Zn ppm G105 1	
*** P364							
Resultado Original		603		265	6260	4620	
*** P365							
Resultado Original		346	346	394	5400	3200	

NOTAS:

- Este Certificado de Análisis, elimina cualquier certificado preliminar enviado bajo este número de lote. Los resultados ...

ALS Chemex (Chile) S.A.

CERTIFICADO DE ANALISIS

BONDAR CLEGG
Una empresa de ALS Chemex

LABORATORIO: COPIAPO
LOTE NUMERO: C08294
SUB LOTE: 0
No DE MUESTRA: 159
FECHA DE RECEPCION: 07/12/01
FECHA DE ENTREGA: 03/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.: TIPO DE MUESTRA: DUPLICATES PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Cu ppm G105 1	Cu ppm G105 1	Ag ppm G105 0.1	Pb ppm G105 1	Zn ppm G105 1	
*** P222 Resultado Original		38		174	2000	200	
*** P232 Resultado Original		99		12.0	1200	200	
*** P242 Resultado Original		100		4.0	3000	500	
*** P266 Resultado Original		128	136	271	1700	1600	
*** P276 Resultado Original		517		187	5590	7370	
*** P286 Resultado Original		1100		268	6510	3.87%	
*** P310 Resultado Original		39		20.0	1300	1700	
*** P320 Resultado Original		159		544	2300	1500	
*** P330 Resultado Original		497		94.0	6910	4200	
*** P354 Resultado Original		78		98.0	1000	1300	

NOTAS: Los resultados que aparecen en este reporte fueron propuestos por el area de control de calidad del laboratorio.

- Este Certificado de Análisis, elimina cualquier certificado preliminar enviado bajo este número de lote.
- Los resultados son válidos solo para las muestras provistas por el cliente.

LABORATORIOS:

FIRMA

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C08294
SUB LOTE: 0
No DE MUESTRA: 159
FECHA DE RECEPCION: 07/12/01
FECHA DE ENTREGA: 03/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:
TIPO DE MUESTRA: SEDIMENTO
PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Cu ppm G105 1	Cu ppm G105 1	Ag ppm G105 0.1	Pb ppm G105 1	Zn ppm G105 1
	P364	603		265	6260	4620
	P365	346	346	394	5400	3200
	P366	606		396	8.29%	4500
	P367	220		230	3700	1700
	P368	399		93.0	4600	4350
	P369	390		402	1.09%	3200
	P370	379		270	1.95%	3.78%
	P371	312	339	192	1.73%	1.86%
	P372	195		70.0	2800	4000

NOTAS:

· Este Certificado de Análisis, elimina cualquier certificado preliminar enviado bajo este número de lote.

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C08294
SUB LOTE: 0
No DE MUESTRA: 159
FECHA DE RECEPCION: 07/12/01
FECHA DE ENTREGA: 03/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.: TIPO DE MUESTRA: SEDIMENTO PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Cu ppm G105 1	Cu ppm G105 1	Ag ppm G105 0.1	Pb ppm G105 1	Zn ppm G105 1	
	P334	286		32.0	1000	3300	
	P335	164		39.0	1300	5090	
	P336	210		25.0	1200	8740	
	P337	226		14.0	1200	9670	
	P338	268	279	19.0	1300	9150	
	P339	244		46.0	1800	9120	
	P340	73		35.0	600	3800	
	P341	118		70.0	1500	5140	
	P342	81		49.0	600	1200	
	P343	73		60.0	1800	1000	
	P344	259		73.0	6260	2100	
	P345	167		54.0	5700	900	
	P346	1590	1480	652	8.86%	2.73%	
	P347	1060		462	9.53%	3.22%	
	P348	121		67.0	1600	2000	
	P349	105		24.0	1100	2400	
	P350	195		95.0	1.40%	3100	
	P351	582		146	5300	4200	
	P352	89		159	1200	1100	
	P353	89		70.0	900	1100	
	P354	78		98.0	1000	1300	
	P355	52	61	11.0	1200	800	
	P356	64		16.0	600	1500	
	P357	134		50.0	700	3100	
	P358	220		143	2300	1400	
	P359	170		84.0	3100	4500	
	P360	53		29.0	900	1000	
	P361	79		83.0	1700	1000	
	P362	58		107	3600	900	
	P363	96		44.0	2500	1900	

NOTAS:

CIMM
TECNOLOGIAS Y SERVICIOS S.A.
UNA NUEVA VISION PARA LA TRANSFERENCIA DE TECNOLOGIAS Y SERVICIOS PARA LA MINERIA
Avda. Radomiro Tomic 7101, Fonos: (55) 293004 - 293005 - Fax: (55) 296000 - Casilla 905 Correo 1

Nº
0010-A

CERTIFICADO DE ANALISIS

REFERENCIA:

AT. : SILVER STANDARD RESOURCES INC.
SR. RUSELL SMITH
OBS. : ANALISIS QUIMICO
FECHA : ANTOFAGASTA, ENERO 15 DEL 2002

IDENTIF. MUESTRA	% Cu	% Zn	% Pb	g/T Ag	g/T Au
P 769	0.004	0.021	0.067	33	0.015
P 770	0.027	0.023	0.20	114	0.10
P 771	0.005	0.018	0.070	58	0.020
P 772	0.011	0.010	0.086	133	1.10
P 773	0.024	0.074	1.46	697	0.63
P 774	0.024	0.090	0.61	122	3.75
P 775	0.033	0.10	0.33	47	0.085
P 776	0.023	0.051	0.53	104	0.070
P 777	0.023	0.070	1.11	385	0.34
P 778	0.12	0.55	0.24	47	0.33
P 779	0.018	0.57	0.76	868	0.20
P 780	0.017	0.25	0.18	134	0.085
P 781	0.009	0.081	0.18	73	0.095
P 782	0.013	0.056	0.58	293	0.51
P 783	0.011	0.050	0.34	110	0.16
P 784	0.019	0.13	0.35	49	0.040
P 785	0.012	0.068	0.27	100	0.13
P 786	0.014	0.093	0.29	93	0.13
P 787	0.021	0.070	0.96	74	0.095

ORDEN DE TRABAJO Nº **0569-A**

Jefe Unidad Tecnología Analítica
CIMM T&S S.A.
Sede Antofagasta

Supervisor Laboratorio Químico
CIMM T&S S.A.
Sede Antofagasta

FECHA:

ALS Chemex (Chile) S.A.

BONDAR CLEGG

Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C09000
SUB LOTE: 0
No DE MUESTRA: 217
FECHA DE RECEPCION: 06/05/02
FECHA DE ENTREGA: 07/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.: TIPO DE MUESTRA: SEDIMENTO PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO / UNIDAD / METODO / L. de D.	Au ppm PM209 0.01	Au PM209 ppm CHECKS 0.01	Ag ppm G105 0.1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1
	P-001	0.31		400	267	4000	1.60%
	P-002	0.52		191	334	3200	5200
	P-003	0.38		69.0	568	1.32%	6400
	P-004	0.12		95.0	609	1.60%	7200
	P-005	0.04		60.2	317	3600	4000
	P-006	0.38		192	295	4400	3.60%
	P-007	0.63		440	393	3000	6800
	P-008	0.14		396	267	2800	5200
	P-009	0.54	0.52	588	629	1.36%	2.80%
	P-010	0.05		404	95	3200	2800
	P-011	0.20		524	531	3600	3600
	P-012	0.07		168	348	3200	2400
	P-013	0.62		392	82	2.90%	712
	P-014	0.79		177	504	3600	4000
	P-015	0.12		143	493	1.16%	2800
	P-016	0.03		123	323	2400	2800
	P-017	0.47		472	1150	5.90%	4000
	P-018	0.47		576	1500	1.60%	5600
	P-019	0.32	0.35	269	674	2.36%	2800
	P-020	3.99		440	1300	7.68%	2800
	P-021	0.12		172	347	9600	4800
	P-022	0.19		50.0	239	2400	4800
	P-023	0.17		60.0	227	2800	2400
	P-024	0.03		23.3	144	1600	3200
	P-025	0.01		38.0	240	4000	6800
	P-026	0.02		92.7	403	8400	1.04%
	P-027	0.04		268	274	4000	4400
	P-028	0.04		31.4	837	2400	2800
	P-029	0.30	0.34	288	550	1.52%	3200
	P-030	0.05		82.3	832	4000	2800

NOTAS:

- Este Certificado de Análisis, elimina cualquier certificado preliminar enviado bajo este número de lote.
- Los resultados son válidos sólo para las muestras provistas por el cliente.

DE : ALS CHEMEX NO. DE TEL : 2734148 07 MAY. 2002 06:51PM P2

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C09000
SUB LOTE: 0
No DE MUESTRA: 217
FECHA DE RECEPCION: 06/05/02
FECHA DE ENTREGA: 07/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.: TIPO DE MUESTRA: SEDIMENTO PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Au ppm PM209 0.01	Au PM209 ppm CHECKS 0.01	Ag ppm G105 0.1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1
	P-031	0.07		191	680	4800	5600
	P-032	1.13		472	261	1.60%	1660
	P-033	0.09		256	294	3200	2400
	P-034	0.02		36.0	278	1600	3000
	P-035	0.16		268	428	1.76%	2400
	P-036	0.41		352	330	3.10%	1640
	P-037	1.35		280	468	8.68%	2000
	P-038	0.69		158	360	6.63%	4000
	P-039	0.08		52.0	608	4400	4400
	P-040	0.71		388	470	4.10%	3200
	P-041	0.89		468	620	3.20%	3600
	P-042	0.20		184	280	1.36%	2400
	P-043	0.27		216	260	6000	1200
	P-044	0.59		256	804	14.72%	3200
	P-045	0.26		177	296	3.80%	3200
	P-046	0.03		54.4	234	1.12%	1600
	P-047	0.69		72.4	92	4400	1200
	P-048	0.28		133	160	6800	1200
	P-049	2.30		352	294	2.20%	1200
	P-050	0.96		248	446	5.10%	2800
	P-051	1.22		145	852	2.12%	4000
	P-052	8.30		285	1240	11.55%	3200
	P-053	0.34	0.33	268	256	1.68%	3200
	P-054	1.11		364	322	1.28%	2000
	P-055	0.33		179	342	9200	3600
	P-056	1.19		500	466	6.11%	2400
	P-057	0.52		252	370	6400	3600
	P-058	0.17		312	88	2800	820
	P-059	0.03		17.3	250	1600	4000
	P-060	0.02		27.7	228	1070	3200

NOTAS:

FIRMA

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C09000
SUB LOTE: 0
No DE MUESTRA: 217
FECHA DE RECEPCION: 06/05/02
FECHA DE ENTREGA: 07/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.: TIPO DE MUESTRA: SEDIMENTO PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO / UNIDAD / METODO / L. de D.	Au ppm PM209 0.01	Au PM209 ppm CHECKS 0.01	Ag ppm G105 0.1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1
	P-061	0.01		5.9	164	826	2400
	P-062	0.01		55.6	104	1600	2000
	P-063	0.86	0.89	4.6	302	4000	3200
	P-064	0.05		39.1	184	2400	3200
	P-065	0.05		66.3	210	2400	4000
	P-066	1.07		552	140	2000	2000
	P-067	0.95			136	2400	2800
	P-068	0.17		132	156	1600	2800
	P-069	0.02		17.0	200	957	3600
	P-070	<0.01		26.1	128	1600	3200
	P-071	0.25		94.0	150	881	1070
	P-072	0.29		119	98	512	558
	P-073	0.20	0.18	73.9	22	103	150
	P-074	0.05		60.1	182	1170	1600
	P-075	0.01		38.3	134	1600	2000
	P-076	0.02		71.3	192	1190	2400
	P-077	0.15		24.0	496	875	7600
	P-078	0.02		56.0	276	2000	4000
	P-079	0.01		12.0	270	1600	7200
	P-080	0.01		16.9	130	880	2800
	P-081	0.01		26.0	132	2000	5200
	P-082	0.01		35.0	180	1200	4000
	P-083	1.01		568	100	2000	560
	P-084	0.02		13.0	130	4000	4400
	P-085	0.06		65.0	146	1600	2400
	P-086	0.03		36.0	240	390	1600
	P-087	<0.01		17.0	124	1600	4400
	P-088	0.71		668	96	4400	396
	P-089	1.05		684	104	2.37%	326
	P-090	0.50		412	96	2.20%	566

NOTAS:

LABORATORIOS:
CHILE AUSTRALIA HONK KONG
ARGENTINA NUEVA ZELANDIA SINGAPUR
PERU LAOS MALASIA

FIRMA

ARGENTINA NUEVA ZELANDIA SINGAPUR
PERU LAOS MALASIA

ALS Chemex (Chile) S.A.

BONDAR CLEGG

Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C09000
SUB LOTE: 0
No DE MUESTRA: 217
FECHA DE RECEPCION: 04/05/02
FECHA DE ENTREGA: 07/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.: TIPO DE MUESTRA: SEDIMENTO PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Au ppm PM209 0.01	Au PM209 ppm CHECKS 0.01	Ag ppm G105 0.1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1
	P-091	0.02		44.0	346	1600	4800
	P-092	0.02		26.0	434	2800	5600
	P-093	0.40		284	378	8800	3200
	P-094	0.08		115	78	4800	387
	P-095	0.27		155	60	5.14%	766
	P-096	0.01		37.0	80	4000	1600
	P-097	0.01	0.01	74.0	146	4000	3600
	P-098	0.06		21.0	40	2000	1110
	P-099	0.04		21.0	46	2400	1600
	P-100	0.01		11.0	88	1110	2480
	P-101	0.02		14.0	116	1910	2980
	P-102	0.07		19.0	88	1140	1090
	P-103	0.16		27.0	100	1350	834
	P-104	0.23		180	134	2730	1350
	P-105	0.11		18.0	260	950	2200
	P-106	0.03		19.0	66	1750	1030
	P-107	0.03	0.03	11.0	78	2140	1450
	P-108	0.08		22.0	100	2610	514
	P-109	0.08		74.0	102	1720	230
	P-110	0.05		75.0	92	1690	1690
	P-111	0.12		82.0	170	1590	2290
	P-112	0.53		78.0	114	1660	3270
	P-113	0.02		36.0	104	113	2380
	P-114	<0.01		9.2	40	1190	1330
	P-115	<0.01		7.9	38	400	1670
	P-116	0.03		29.0	36	451	2390
	P-117	0.05	0.04	26.0	68	2040	3620
	P-118	<0.01		24.0	70	375	4350
	P-119	0.03		13.0	92	2280	2100
	P-120	0.02		26.0	80	1340	1290

NOTAS:

FIRMA

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C09000
SUB LOTE: 0
No DE MUESTRA: 217
FECHA DE RECEPCION: 06/05/02
FECHA DE ENTREGA: 07/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:
TIPO DE MUESTRA: SEDIMENTO
PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Au ppm PM209 0.01	Au PM209 ppm CHECKS 0.01	Ag ppm G105 0.1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1
	P-121	0.15		43.0	64	1910	1140
	P-122	0.03		55.0	136	1230	2160
	P-123	0.22		55.0	54	1700	802
	P-124	0.31		91.0	82	2790	1380
	P-125	0.04		23.0	86	2720	2860
	P-126	0.03		24.0	52	2000	1990
	P-127	0.02		14.0	40	1610	1360
	P-128	0.73		109	68	2250	699
	P-129	0.14		256	44	852	159
	P-130	0.15		143	36	594	107
	P-131	0.08		82.0	56	1100	217
	P-132	0.05		94.0	120	1400	352
	P-133	0.07		86.0	60	2400	270
	P-134	4.60		1300	140	13.87%	535
	P-135	0.67		800	112	2.12%	406
	P-136	0.60		543	82	8290	284
	P-137	0.19		61.0	44	7780	279
	P-138	3.71		460	44	3.30%	316
	P-139	0.39		197	70	6440	528
	P-140	0.52		317	46	5280	277
	P-141	0.04	0.05	40.0	76	1990	1070
	P-142	0.07		16.0	134	1760	1120
	P-143	0.30		32.0	88	1.80%	660
	P-144	0.04		50.0	34	8690	246
	P-145	0.01		23.0	206	1080	3910
	P-146	0.03		62.0	640	1410	3000
	P-147	1.00		36.0	466	1960	4300
	P-148	0.33		282	98	7.59%	1150
	P-149	0.98		420	76	6980	275
	P-150	0.22		87.0	96	1.23%	947

NOTAS:

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C09000
SUB LOTE: 0
No DE MUESTRA: 217
FECHA DE RECEPCION: 06/05/02
FECHA DE ENTREGA: 07/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:
TIPO DE MUESTRA: SEDIMENTO
PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Au ppm PM209 0.01	Au PM209 ppm CHECKS 0.01	Ag ppm G105 0.1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1
	P-151	0.02	0.02	48.0	46	1950	725
	P-152	0.02		25.0	26	961	571
	P-153	0.57		336	40	3.88%	290
	P-154	4.10		1720	60	3.87%	265
	P-155	0.83		420	64	1.67%	305
	P-156	0.15		84.5	62	3050	300
	P-157	0.66		555	114	4.64%	224
	P-158	0.29		440	18	8320	37
	P-159	1.12		620	64	9.35%	165
	P-160	0.34		202	60	3700	249
	P-161	0.53	0.50	560	84	3.92%	417
	P-162	0.17		296	56	1.06%	292
	P-163	6.60		4800	142	14.27%	535
	P-164	0.25		236	232	4.50%	1390
	P-165	0.33		460	66	8290	591
	P-166	0.02		18.0	26	605	7390
	P-167	<0.01		6.8	34	425	5700
	P-168	0.01		6.1	46	655	9470
	P-169	<0.01		21.0	380	7520	4500
	P-170	0.01		38.0	186	2250	3280
	P-171	0.02		38.0	74	2390	1350
	P-172	0.06		77.0	68	1830	1080
	P-173	0.10		71.0	84	2380	711
	P-174	0.22		292	116	2770	879
	P-175	0.10		56.0	48	1250	330
	P-176	24.4		2670	88	6800	661
	P-177	0.49		154	52	1060	232
	P-178	0.58		48.0	54	1630	553
	P-179	0.19		79.0	156	394	2430
	P-180	0.19		10.0	218	617	572

NOTAS:

FIRMA

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C09000
SUB LOTE: 0
No DE MUESTRA: 217
FECHA DE RECEPCION: 06/05/02
FECHA DE ENTREGA: 07/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.: TIPO DE MUESTRA: SEDIMENTO PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Au ppm PM209 0.01	Au PM209 ppm CHECKS 0.01	Ag ppm G105 0.1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1
	P-181	3.97		459	92	4.90%	270
	P-182	0.36		76.0	54	1.76%	308
	P-183	0.16		58.0	64	2.97%	294
	P-184	1.39		237	52	1.10%	81
	P-185	0.07	0.07	11.0	100	1340	481
	P-186	0.26		150	152	1090	268
	P-187	0.32		20.0	150	1190	242
	P-188	0.20		17.0	130	1080	246
	P-189	0.32		18.0	166	1340	277
	P-190	0.03		22.0	86	554	205
	P-191	0.01		36.0	90	600	174
	P-192	0.02		44.0	150	1430	365
	P-193	0.06		36.0	88	362	128
	P-194	0.01		9.4	56	180	145
	P-195	0.01	0.01	5.9	94	521	272
	P-196	0.78		228	90	1280	386
	P-197	0.20		58.0	140	1170	398
	P-198	0.08		48.0	70	509	4220
	P-199	0.41		44.0	66	2800	707
	P-200	0.20		59.0	64	1.25%	1320
	P-201	0.02		34.0	34	3090	225
	P-202	0.89		195	64	4.73%	246
	P-203	0.49		27.0	316	2710	744
	P-204	0.11		33.0	150	1370	591
	P-205	2.74	2.80	84.0	396	1390	367
	P-206	0.67		41.0	460	1760	181
	P-207	0.05		39.0	230	5580	1180
	P-208	1.61		146	138	1.17%	202
	P-209	0.50		84.0	276	5740	548
	P-210	0.04		14.0	158	1550	846

NOTAS:

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C09000
SUB LOTE: 0
No DE MUESTRA: 217
FECHA DE RECEPCION: 06/05/02
FECHA DE ENTREGA: 07/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:
TIPO DE MUESTRA: SEDIMENTO
PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Au ppm PM209 0.01	Au PM209 ppm CHECKS 0.01	Ag ppm G105 0.1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1
	P-211	0.14		8.9	140	1450	812
	P-212	0.03		7.7	314		
	P-213	0.23		111	322		
	PA-01	0.01		4.0	128		
	PA-02	4.03		3.4	1380		
	JUL-1	0.46		1.6	2.00%		
	CH-23	0.05		5.3	362	4110	161

NOTAS:

LABORATORIOS:
CHILE · AUSTRALIA · HONK KONG
ARGENTINA · NUEVA ZELANDIA · SINGAPUR
PERU · LAOS · MALASIA

FIRMA

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C09000
SUB LOTE: 0
No DE MUESTRA: 217
FECHA DE RECEPCION: 06/05/02
FECHA DE ENTREGA: 07/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:
TIPO DE MUESTRA: DUPLICATES
PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Ag ppm G105 0.1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1		
*** P-009 Resultado Original		588	629	1.36%	2.80%		
*** P-019 Resultado Original		269	674	2.36%	2800		
*** P-029 Resultado Original		288	550	1.52%	3200		
*** P-053 Resultado Original		268	256	1.68%	3200		
*** P-063 Resultado Original		4.6	302	4000	3200		
*** P-073 Resultado Original		73.9	22	103	150		
*** P-097 Resultado Original		74.0	146	4000	3600		
*** P-107 Resultado Original		11.0	78	2140	1450		
*** P-117 Resultado Original		26.0	68	2040	3620		
*** P-141 Resultado Original		40.0	76	1990	1070		

NOTAS: Los resultados que aparecen en este reporte fueron propuestos por el area de control de calidad del laboratorio.

LABORATORIOS:
CHILE, ARGENTINA, PERU, AUSTRALIA, NUEVA ZELANDIA, LAOS, HONK KONG, SINGAPUR, MALASIA

FIRMA

ALS Chemex (Chile) S.A.

BONDAR CLEGG

Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C09000
SUB LOTE: 0
No DE MUESTRA: 217
FECHA DE RECEPCION: 06/05/02
FECHA DE ENTREGA: 07/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:
TIPO DE MUESTRA: DUPLICATES
PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Ag ppm G105 0.1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1		
*** P-151 Resultado Original		48.0	46	1950	725		
*** P-161 Resultado Original		560	84	3.92%	417		
*** P-185 Resultado Original		11.0	100	1340	481		
*** P-195 Resultado Original		5.9	94	521	272		
*** P-205 Resultado Original		84.0	396	1390	367		

NOTAS:

- Este Certificado de Análisis, elimina cualquier certificado preliminar enviado bajo este número de lote.
- Los resultados son válidos sólo para las muestras provistas por el cliente.

FIRMA

ALS Chemex (Chile) S.A.

BONDAR CLEGG
Una empresa de ALS Chemex

CERTIFICADO DE ANALISIS

LABORATORIO: COPIAPO
LOTE NUMERO: C09000
SUB LOTE: 0
No DE MUESTRA: 217
FECHA DE RECEPCION: 06/05/02
FECHA DE ENTREGA: 07/05/02

ATENCION: SR. RUSSELL SMITH
CLIENTE: SILVER STANDARD RESOURCES INC.
DIRECCION: 1180-999 W HASTING ST.
VANCOUVER BC
CANADA V6C 2W2

ORDEN No.:

TIPO DE MUESTRA: INTERNAL ESTANDAR PROYECTO:

IDENTIFICACION DE LA MUESTRA	ELEMENTO UNIDAD METODO L. de D.	Au ppm PM209 0.01	Ag ppm G105 0.1	Cu ppm G105 1	Pb ppm G105 1	Zn ppm G105 1	
I.D. ESTANDAR			BM-4997	BM-4997	BM-4997	BM-4997	
RESULTADO DEL ESTANDAR				3700		5080	
RESULTADO DEL ESTANDAR				3820		5040	
RESULTADO DEL ESTANDAR				3700		5080	
RESULTADO DEL ESTANDAR				3820		5040	
RESULTADO DEL ESTANDAR				3820		5040	
RANGO DE TRABAJO				3690-4080		4850-5360	

NOTAS: Los datos que aparecen en este reporte son resultados de estandares internos, analizados conjuntamente con este lote.

•Este Certificado de Análisis, elimina cualquier certificado preliminar enviado bajo este número de lote.
•Los resultados son válidos sólo para las muestras provistas por el cliente.

LABORATORIOS:
CHILE, ARGENTINA, PERU
AUSTRALIA, NUEVA ZELANDIA, LAOS
HONK KONG, SINGAPUR, MALASIA

FIRMA

CHALLACOLLO

Sample Stn.	smpl #	Ag ppm	Sample length m	Weight length m	Ag * weight length	Weight avg grade g/t	Weight avg width m	Polygon Areas m^2 (Autocad)	Tonnage metric	Total gm Ag	Total oz Ag	Indicated Areas m^2 (Autocad)	Indicated tonnes	Indicated g Ag	Indicated oz Ag	Inferred Areas m^2 (Autocad)	Inferred tonnes	Inferred g Ag	Inferred oz Ag
Total Resource - cut grades - only includes blocks with assays.							**Indicated Resource - cut grades - only includes blocks with assays.**							**Inferred Resource - cut grades - only includes blocks with assays.**					
Total tonnes/tons				6,080,769	6,701,007		**Tonnes/tons**			1,376,255	1,516,633			**Tonnes/tons**			4,704,513	5,184,374	
Total tonnes Ag				1,467			**Tonnes Ag**			319				**Tonnes Ag**			1,149		
g Ag/tonne				241.32			**g/tonne**			231.63				**g/tonne**			244.15		
oz Ag/ton					7.04		**oz/ton**				6.76			**oz/ton**				7.12	
Total oz Ag					47,164,389		**total oz**				10,246,095			**total oz**				36,918,294	
Humberto																			
119	872	221	2	1	221.00	170.00	2.00	1,839.12	9,931	1,688,312	54,280	1,135.25	6,130	1,042,160	33,506	703.87	3,801	646,153	20,774
	873	119	2	1	119.00														
120	874	131	2	1.5	196.50	174.09	3.30	464.48	4,139	720,478	23,164	464.48	4,139	720,478	23,164	0.00	0	0	0
	875	210	2	1.8	378.00														
121	877	205	2	1	205.00	125.30	2.30	1,105.31	6,864	860,086	27,652	614.39	3,815	478,081	15,371	490.92	3,049	382,004	12,282
	876	64	2	1.3	83.20														
Guacolda																			
93A	908	574	2	0.00	0.00	231.26	8.05	756.82	16,439	3,801,686	122,227	641.20	13,928	3,220,899	103,554	115.62	2,511	580,787	18,673
	909	71	2	0.26	18.46														
	910	54	2	0.00	0.00														
	911	143	2	0.20	28.60														
	912	333	2	0.99	329.67														
	913	405	2	0.94	380.70														
	914	40	2	0.50	20.00														
	915	60	2	0.00	0.00														
	916	285	2	0.00	0.00														
	917	20	2	0.00	0.00														
	918	150	2	0.00	0.00														
cut	919	826	2	0.70	578.20														
	920	776	2	1.50	1,164.00														
	907	232	2	1.90	440.80														
	906	160	2	1.80	288.00														
	905	334	2	1.80	601.20														
Walkiria Level 1																			
91 & 91A	659	752.1	2	0.66	496.39	250.15	9.90	2,835.62	75,796	18,960,569	609,596	1,211.25	32,377	8,099,107	260,392	1,624.37	43,419	10,861,462	349,204
	660	215	2	0.66	141.90														
	661	163.8	2	0.66	108.11														
	662	205.2	2	0.66	135.43														
	663	67.3	2	0.66	44.42														
	664	32.2	2	0.66	21.25														
	665	33.2	2	0.66	21.91														
	666	73	2	0.66	48.18														
	667	202.4	2	0.66	133.58														
	668	173	2	0.66	114.18														
	669	326.8	2	0.00	0.00														
	670	103.1	2	0.00	0.00														
	655	105.4	2	0.00	0.00														
	656	122	2	0.00	0.00														
cut	657	826	2	0.00	0.00														
	658	214	2	0.00	0.00														
	654	577.7	2	0.55	317.74														
	653	171.3	2	0.55	94.22														
	652	441	2	0.55	242.55														

	651	387.4	2	0.55	213.07														
	650	300	2	0.55	165.00														
	649	324.7	2	0.55	178.59														
90	638	47.6	2.5	1.20	57.12	241.38	9.90	516.89	13,816	3,334,961	107,221	516.89	13,816	3,334,961	107,221	0.00	0	0	0
	639	346.2	2	1.80	623.16														
	640	188.9	2	2.00	377.80														
	641	282.3	2	0.00	0.00														
	642	283	2	0.70	198.10														
	643	296.7	2	0.70	207.69														
	644	125.8	2	0.70	88.06														
	645	193.4	2	0.70	135.38														
	646	209.8	2	0.70	146.86														
	647	606.4	2	0.70	424.48														
	648	187.1	2	0.70	130.97														
89	627	139	2	0.50	69.50	262.65	15.60	665.07	28,013	7,357,530	236,550	448.84	18,905	4,965,423	159,642	216.23	9,108	2,392,107	76,908
	628	96.6	2	1.60	154.56														
	629	204.1	2	2.00	408.20														
	630	162.5	2	2.60	422.50														
	631	322.9	2	0.00	0.00														
	632	230.4	2	1.90	437.76														
	633	232.2	2	1.70	394.74														
	634	398.9	2	1.60	638.24														
	635	348.8	2	1.60	558.08														
	636	333.5	2	1.10	366.85														
	637	646.9	2	1.00	646.90														
92	692	296.8	2	1.30	385.84	474.88	7.30	572.94	11,293	5,362,615	172,412	572.94	11,293	5,362,615	172,412	0.00	0	0	0
	693	775.8	2	1.90	1,474.02														
	694	562.4	2	0.70	393.68														
	695	263.5	2	1.60	421.60														
	696	462.9	2	1.50	694.35														
	697	323.7	2	0.30	97.11														
Catalina Level																			
88	446	26.2	2	0.50	2,539.72	615.43	6.00	3,134.40	50,778	31,249,988	1,004,710	1,001.87	16,230	9,988,650	321,143	2,132.53	34,547	21,261,338	683,568
	447	612.3	2	2.00	above = avg														
	448	786.1	2	1.50	446-448														
	449	535.1	2	0.00	& 450-451														
	450	35.1	2	2.00	over 4m														
	451	343.8	2	2.00															
cut	452	826	2	0.15	127.08														
	453	710.8	2	0.15	109.36														
cut	454	826	2	0.15	127.08														
	455	789.5	2	0.15	121.46														
	456	397.7	2	0.15	61.19														
	457	824.1	2	0.15	126.79														
	458	615.3	2	0.15	94.66														
	459	460.5	2	0.15	70.85														
cut	460	826	2	0.15	127.08														
	461	319.2	2	0.15	49.11														
	462	477.2	2	0.15	73.42														
	463	252.2	2	0.15	38.80														
	464	169	2	0.15	26.00														
87	465	29.4	2	0.20	5.88	519.79	4.40	1,362.21	16,183	8,411,768	270,445	902.11	10,717	5,570,610	179,099	460.10	5,466	2,841,158	91,345
	466	657.2	2	1.70	1,117.24														
	467	436.2	2	2.00	872.40														
	468	583.1	2	0.50	291.55														

CHALLACOLLO

86	469	84.6	2	0.13	10.58	265.86	5.50	2,753.49	40,889	10,870,911	349,508	1,011.87	15,026	3,994,911	128,439	1,741.62	25,863	6,875,999	221,069
	470	393.4	2	0.13	49.18														
cut	471	826	2	0.13	103.25														
cut	472	826	2	0.13	103.25														
	473	272.4	2	0.50	136.20														
	474	187.1	2	2.50	467.75														
	475	261.3	2	1.80	470.34														
	476	608.5	1.5	0.20	121.70														
85	477	127.2	2	0.70	89.04	563.56	5.60	3,421.33	51,731	29,153,283	937,300	950.92	14,378	8,102,825	260,512	2,470.41	37,353	21,050,457	676,788
	478	287.6	2	1.50	431.40														
	479	735	2	1.90	1,396.50														
cut	480	826	2	1.50	1,239.00														
	481	184.6	2	0.00	0.00														
84	482	16	2	1.10	17.60	67.85	4.90	2,806.94	37,136	2,519,779	81,013	1,093.39	14,466	981,532	31,557	1,713.55	22,670	1,538,247	49,456
	483	164.9	2	1.60	263.84														
	484	23.2	2	2.20	51.04														
	485	28.3	2	0.00	0.00														
83	486	37.4	2.5	1.80	67.32	48.30	6.00	1,850.31	29,975	1,447,893	46,551	1,090.32	17,663	853,191	27,431	759.99	12,312	594,703	19,120
	487	83.5	2	2.20	183.70														
	488	19.4	2	2.00	38.80														
	489	14.7	2	0.00	0.00														
82	490	82.1	2	0.19	15.75	286.62	6.55	726.29	12,847	3,682,285	118,388	726.29	12,847	3,682,285	118,388	0.00	0	0	0
	491	99.5	2	0.19	19.09														
	492	354.9	2	0.19	68.11														
	493	479.3	2	0.19	91.98														
	494	223.9	2	0.19	42.97														
	495	68.8	2	0.80	55.04														
	496	175.2	2	1.30	227.76														
	497	491.6	2	2.00	983.20														
	498	273.5	2	1.30	355.55														
	499	11.2	2	0.00	0.00														
	500	95.5	2	0.19	18.33														
81	502	555.1	2.5	1.30	721.63	378.33	4.30	687.87	7,986	3,021,428	97,141	687.87	7,986	3,021,428	97,141	0.00	0	0	0
	503	160.4	2	2.20	352.88														
	504	690.4	2	0.80	552.32														
	505	164.3	2	0.00	0.00														
80	506	692.3	2.5	1.40	969.22	700.33	5.60	552.18	8,349	5,846,987	187,985	552.18	8,349	5,846,987	187,985	0.00	0	0	0
cut	507	826	2	2.10	1,734.60														
	508	580	2	2.10	1,218.00														
	509	543.8	2	0.00	0.00														
79	510	71.1	2	1.30	92.43	486.35	10.10	655.73	17,882	8,696,748	279,607	655.73	17,882	8,696,748	279,607	0.00	0	0	0
	511	727.1	2	1.30	945.23														
	512	543.8	2	1.30	706.94														
cut	513	826	2	0.00	0.00														
	514	673.1	2	1.80	1,211.58														
	515	289.9	2	2.20	637.78														
cut	516	826	2	1.30	1,073.80														
	517	271.5	2	0.90	244.35														
78	518	18.8	2	0.80	15.04	128.50	4.50	913.49	11,099	1,426,209	45,854	762.00	9,258	1,189,692	38,249	151.49	1,841	236,518	7,604
	519	94.5	2	1.80	170.10														
	520	206.9	2	1.90	393.11														
	521	138.6	2	0.00	0.00														

77	522	60	2	1.30	78.00	60.75	4.60	1,198.52	14,886	904,334	29,075	763.81	9,487	576,327	18,529	434.71	5,399	328,007	10,546
	523	67.9	2	1.60	108.64														
	524	54.6	2	1.70	92.82														
	525	51.7	2	0.00	0.00														
76	526	36.6	2	1.50	54.90	51.92	7.20	941.25	18,298	950,042	30,545	570.69	11,094	576,021	18,519	370.56	7,204	374,021	12,025
	527	36.9	2	2.40	88.56														
	528	81.4	2	2.40	195.36														
	529	38.9	2	0.90	35.01														
	530	43.7	2	0.00	0.00														
75	531	16.9	2	1.60	27.04	47.39	12.50	435.29	14,691	696,238	22,385	382.04	12,894	611,065	19,646	53.25	1,797	85,172	2,738
	532	17.8	2	1.60	28.48														
	533	16.6	2	1.60	26.56														
	534	8.9	2	2.00	17.80														
	535	28.8	2	0.60	17.28														
	536	65.5	2	1.60	104.80														
	537	94.6	2	2.10	198.66														
	538	122.7	2	1.40	171.78														
	539	665.1	2	0.00	0.00														
Buena Ventura Level 1																			
51	309	74	2	1.60	118.40	74.00	1.60	183.55	793	58,677	1,887	183.55	793	58,677	1,887	0.00	0	0	0
50	306	392	3	2.70	1,058.40	331.92	5.90	216.09	3,442	1,142,556	36,734	216.09	3,442	1,142,556	36,734	0.00	0	0	0
	307	435	2	1.30	565.50														
	308	176	2	1.90	334.40														
49	304	80	2	0.70	56.00	70.59	1.70	325.87	1,496	105,582	3,395	325.87	1,496	105,582	3,395	0.00	0	0	0
	305	64	2	1.00	64.00														
48	300	388	2	0.30	116.40	406.31	3.50	253.74	2,398	974,278	31,324	253.74	2,398	974,278	31,324	0.00	0	0	0
	301	603	2	1.80	1,085.40														
	302	191	1.5	1.10	210.10														
	303	34	2	0.30	10.20														
47	290	128	2	0.00	0.00	142.37	15.10	392.63	16,008	2,278,942	73,270	392.63	16,008	2,278,942	73,270	0.00	0	0	0
	291	136	2	1.70	231.20														
	292	224	2	2.00	448.00														
	293	89	2	2.20	195.80														
	294	374	2	2.40	897.60														
	295	48	2	1.90	91.20														
	296	42	2	1.90	79.80														
	297	65	2	1.50	97.50														
	298	53	1.5	0.56	29.68														
	299	84	2	0.94	78.96														
46	274	73	2	0.00	0.00	182.48	10.48	525.56	14,871	2,713,719	87,248	454.05	12,848	2,344,478	75,377	71.51	2,023	369,240	11,871
	275	105	2	2.30	241.50														
	276	187	1.5	1.40	261.80														
	277	143	2	0.30	42.90														
	278	229	2	0.54	123.66														
	279	275	2	0.54	148.50														
	280	198	2	0.54	106.92														
	281	195	2	0.54	105.30														
	282	193	2	0.54	104.22														
	283	343	2	0.54	185.22														
	284	232	2	0.54	125.28														
	285	154	2	0.54	83.16														
	286	268	2	0.54	144.72														
	287	197	2	0.54	106.38														
	288	188	2	0.54	101.52														

	289	58	2	0.54	31.32														
45	266	48	2	0.00	0.00	173.86	11.90	1,254.31	40,301	7,006,613	225,268	578.44	18,585	3,231,183	103,885	675.87	21,716	3,775,430	121,383
	267	73	2	1.80	131.40														
	268	105	2	1.80	189.00														
	269	187	2	1.80	336.60														
	270	143	2	1.60	228.80														
	271	229	2	1.90	435.10														
	272	275	2	2.00	550.00														
	273	198	2	1.00	198.00														
44	252	148	2	0.20	29.60	262.12	16.90	750.05	34,225	8,970,943	288,423	600.23	27,388	7,179,027	230,811	149.82	6,836	1,791,916	57,611
	253	289	2	2.00	578.00														
	254	196	2	1.90	372.40														
	255	203	2	0.50	101.50														
	256	488	2	0.70	341.60														
	257	290	2	1.00	290.00														
	258	134	2	1.50	201.00														
	259	228	2	1.70	387.60														
	260	145	2	1.70	246.50														
	261	367	2	1.50	550.50														
	262	525	2	1.50	787.50														
	263	275	2	1.00	275.00														
	264	167	2	0.80	133.60														
	265	150	2	0.90	135.00														
43	249	171	2	0.70	119.70	147.38	3.90	200.19	2,108	310,687	9,989	200.19	2,108	310,687	9,989	0.00	0	0	0
	250	79	2	2.50	197.50														
	251	368	2	0.70	257.60														
Buena Ventura Level 2																			
74	311	24	2	0.00	0.00	86.13	5.15	11,912.86	165,648	14,267,873	458,723	911.81	12,679	1,092,063	35,111	11,001.05	152,970	13,175,811	423,612
	312	68	2	2.60	176.80														
	313	23	2	1.90	43.70														
	314	31	2	1.00	31.00														
	315	23	2	2.30	52.90														
	316	134	2	2.50	335.00														
73	317	611	2	0.75	458.25	325.02	8.20												
For this station	318	205	2	0.75	153.75														
only the	319	338	2	0.75	253.50														
replacement	320	544	2	0.75	408.00														
for CHAG-03	321	53	2	0.00	0.00														
was used.	322	130	2	2.10	273.00														
	323	324	2	2.20	712.80														
	324	451	2	0.90	405.90														
72	325	36	2	0.00	0.00	150.71	5.10	1,639.23	22,572	3,401,763	109,369	638.73	8,795	1,325,505	42,616	1,000.50	13,777	2,076,258	66,753
	326	198	2	1.80	356.40														
	327	164	2	2.30	377.20														
	328	35	2	1.00	35.00														
71	329	61	2	0.00	0.00	62.01	6.68	585.14	10,554	654,385	21,039	529.48	9,550	592,139	19,038	55.66	1,004	62,247	2,001
	330	94	2	1.70	159.80														
	331	83	2	2.10	174.30														
	332	34	2	0.90	30.60														
	333	21	2	0.33	6.93														
	334	32	2	0.33	10.56														
	335	39	2	0.33	12.87														
	336	25	2	0.33	8.25														
	337	14	2	0.33	4.62														

	338	19	2	0.33	6.27														
70	339	46	2	0.67	30.82	131.78	10.73	306.88	8,891	1,171,582	37,667	306.88	8,891	1,171,582	37,667	0.00	0	0	0
	340	35	2	0.67	23.45														
	341	70	2	0.67	46.90														
	342	49	2	0.67	32.83														
	343	60	2	0.67	40.20														
	344	73	2	0.67	48.91														
	345	54	2	0.67	36.18														
	346	652	2	0.67	436.84														
	347	462	2	0.67	309.54														
	348	67	2	0.00	0.00														
	349	24	2	1.40	33.60														
	350	95	2	2.10	199.50														
	351	146	2	1.20	175.20														
69	352	159	2	0.00	0.00	68.66	4.10	574.15	6,356	436,383	14,030	484.57	5,364	368,297	11,841	89.58	992	68,085	2,189
	353	70	2	1.50	105.00														
	354	98	2	1.70	166.60														
	355	11	2	0.90	9.90														
68	356	16	2	0.00	0.00	98.12	5.10	2,371.94	32,662	3,204,681	103,033	781.01	10,755	1,055,207	33,926	1,590.93	21,907	2,149,474	69,107
	357	50	2	1.70	85.00														
	358	143	2	2.20	314.60														
	359	84	2	1.20	100.80														
67	360	29	2	0.50	14.50	80.67	5.40	3,438.24	50,130	4,043,783	130,011	815.84	11,895	959,526	30,849	2,622.40	38,235	3,084,257	99,161
	361	83	2	2.20	182.60														
	362	107	2	1.90	203.30														
	363	44	2	0.80	35.20														
66	364	265	2	0.00	0.00	335.49	6.80	2,893.69	53,128	17,823,712	573,046	769.26	14,124	4,738,265	152,339	2,124.43	39,005	13,085,448	420,707
	365	394	2	2.60	1,024.40														
	366	396	2	2.00	792.00														
	367	230	2	1.90	437.00														
	368	93	2	0.30	27.90														
65	369	402	2	0.60	241.20	249.96	5.10	2,203.65	30,344	7,584,875	243,859	664.93	9,156	2,288,662	73,582	1,538.72	21,188	5,296,213	170,277
	370	270	2	2.80	756.00														
	371	192	1.5	1.30	249.60														
	372	70	1.5	0.40	28.00														
64	373	53.3	2	0.20	10.66	219.92	4.30	1,905.54	22,123	4,865,278	156,422	618.37	7,179	1,578,840	50,761	1,287.17	14,944	3,286,438	105,661
	374	35.4	2	1.70	60.18														
	375	386.5	2	2.00	773.00														
	376	254.5	2	0.40	101.80														
57	377	554.4	2	0.00	0.00	311.15	11.20	1,164.37	35,211	10,955,605	352,231	463.87	14,027	4,364,572	140,324	700.50	21,183	6,591,033	211,907
	378	521.9	2	1.50	782.85														
	379	683.9	2	2.10	1,436.19														
	380	366.7	2	2.10	770.07														
	381	161.4	2	2.50	403.50														
	382	24.2	2	1.20	29.04														
	383	35.1	2	1.80	63.18														
56	415	207.5	2	0.00	0.00	243.67	4.20	93.33	1,058	257,895	8,292	93.33	1,058	257,895	8,292	0.00	0	0	0
	416	245.8	2	1.90	467.02														
	417	231.7	2	1.50	347.55														
	418	286.6	2	0.60	171.96														
	419	184.5	1.5	0.20	36.90														
55	420	24.3	2	0.00	0.00	156.84	5.00	92.38	1,247	195,600	6,289	92.38	1,247	195,600	6,289	0.00	0	0	0

CHALLACOLLO

	421	318.7	2	1.30	414.31														
	422	88.9	2	2.00	177.80														
	423	136.1	2	1.30	176.93														
	424	37.9	2	0.40	15.16														
54	425	94.1	2	0.20	18.82	203.77	8.00	314.96	6,803	1,386,275	44,570	288.60	6,234	1,270,253	40,840	26.36	569	116,022	3,730
	426	524.6	2	1.60	839.36														
	427	231.1	2	2.20	508.42														
	428	70.5	2	2.10	148.05														
	429	57.7	2	1.20	69.24														
	430	66.1	2	0.70	46.27														
53	439	194.4	2	0.40	77.76	266.70	6.10	145.80	2,401	640,422	20,590	145.80	2,401	640,422	20,590	0.00	0	0	0
	440	60.7	2	0.50	30.35														
	441	241.1	2	1.30	313.43														
	442	343.4	2	1.50	515.10														
	443	299	2	2.00	598.00														
	444	230.5	2	0.40	92.20														
	445	709	2	0.00	0.00														
52	431	17.8	2	0.30	5.34	294.99	12.10	150.69	4,923	1,452,245	46,691	150.69	4,923	1,452,245	46,691	0.00	0	0	0
	432	133	2	1.70	226.10														
	433	126.3	2	1.80	227.34														
	434	33.7	2	1.60	53.92														
cut	435	826	2	1.50	1,239.00														
	436	391	2	1.70	664.70														
	437	301.7	2	1.70	512.89														
	438	355.6	2	1.80	640.08														
Ramp Down																			
58	384	245.5	2	0.66	162.03	378.14	7.38	1,269.38	25,294	9,564,502	307,506	456.38	9,094	3,438,724	110,558	813.00	16,200	6,125,778	196,948
	385	302.4	2	0.66	199.58														
	386	553.6	2	0.66	365.38														
	387	814	2	0.30	244.20														
	388	495.7	2	1.50	743.55														
	389	363	2	2.00	726.00														
	390	218.7	2	1.60	349.92														
	391	83.4	2	0.00	0.00														
63	392	69	2	0.10	6.90	316.38	5.30	1,716.12	24,558	7,769,539	249,796	495.97	7,097	2,245,448	72,193	1,220.15	17,460	5,524,091	177,604
	393	214.1	2	2.40	513.84														
	394	498.8	2	1.90	947.72														
	395	231.5	2	0.90	208.35														
62	396	125.1	2	0.00	0.00	307.29	4.70	1,346.54	17,088	5,250,835	168,818	496.77	6,304	1,937,156	62,281	849.77	10,784	3,313,680	106,537
	397	224.9	2	0.40	89.96														
	398	310.3	2	2.20	682.66														
	399	294.6	2	1.80	530.28														
	400	471.2	2	0.30	141.36														
61	401	634.5	2	0.10	63.45	523.08	6.00	1,627.59	26,367	13,791,897	443,420	588.11	9,527	4,983,535	160,224	1,039.48	16,840	8,808,361	283,195
	402	729.2	2	2.10	1,531.32														
	403	390.6	2	1.80	703.08														
	404	337.8	2	1.50	506.70														
	405	667.8	2	0.50	333.90														
60	406	470.3	2	0.10	47.03	425.56	4.90	1,617.81	21,404	9,108,422	292,843	686.41	9,081	3,864,553	124,248	931.40	12,322	5,243,870	168,594
cut	407	826	2	1.50	1,239.00														
	408	278	2	1.70	472.60														
	409	283.9	2	1.10	312.29														
	410	28.6	2	0.50	14.30														

59	411	419.3	2	0.10	41.93	584.62	4.60	1,944.18	24,147	14,116,747	453,864	664.05	8,248	4,821,686	155,021	1,280.13	15,899	9,295,061	298,843
cut	412	826	2	2.20	1,817.20														
	413	378	2	2.10	793.80														
	414	181.7	2	0.20	36.34														
Pique Lolon																			
114	790	180	2	0.30	54.00	261.62	9.30	330.85	8,308	2,173,476	69,879	330.85	8,308	2,173,476	69,879	0.00	0	0	0
	791	219	2	0.30	65.70														
	792	350	2	0.30	105.00														
	793	471	2	0.30	141.30														
	794	219	2	0.30	65.70														
	795	234	2	0.50	117.00														
	796	826	2	0.80	660.80														
	797	240	2	0.80	192.00														
	798	64	2	0.70	44.80														
	799	94	2	0.80	75.20														
	800	60	2	0.40	24.00														
	801	71	2	0.10	7.10														
	802	68	2	0.20	13.60														
	803	32	2	0.20	6.40														
	804	111	2	0.20	22.20														
	805	73	2	0.10	7.30														
	806	514	2	1.20	616.80														
	807	119	2	1.80	214.20														
113	778	47	2	0.50	23.50	280.36	10.70	522.41	15,092	4,231,380	136,042	522.41	15,092	4,231,380	136,042	0.00	0	0	0
cut	779	826	2	2.40	1,982.40														
	780	134	2	2.60	348.40														
	781	73	2	1.80	131.40														
	782	293	2	0.40	117.20														
	783	110	2	0.50	55.00														
	784	49	2	0.50	24.50														
	785	100	2	0.50	50.00														
	786	93	2	0.50	46.50														
	787	74	2	0.50	37.00														
	788	368	2	0.50	184.00														
Challacollo Level 1																			
42	247	196	2	0.20	39.20	204.97	6.20	98.24	1,645	337,077	10,837	98.24	1,645	337,077	10,837	0.00	0	0	0
	900	337	2	2.80	943.60														
	901	82	2	2.40	196.80														
	902	114	2	0.80	91.20														
41	242	4	2	0.00	0.00	161.12	4.90	36.97	489	78,807	2,534	36.97	489	78,807	2,534	0.00	0	0	0
	243	106	2	0.60	63.60														
	244	217	2	2.10	455.70														
	245	137	2	1.90	260.30														
	246	33	2	0.30	9.90														
40	203	27	2	0.70	18.90	59.71	11.80	629.78	20,065	1,198,021	38,517	339.79	10,826	646,377	20,782	289.99	9,239	551,644	17,736
	204	33	2	0.70	23.10														
	205	84	2	0.00	0.00														
	206	41	2	0.10	4.10														
	207	39	2	1.10	42.90														
	208	146	2	2.00	292.00														
	209	84	2.5	0.70	58.80														
	210	14	2	1.00	14.00														
	211	8.9	2	1.50	13.35														
	212	7.7	2	2.00	15.40														
	213	111	2	2.00	222.00														
39	199	44	2.5	0.00	0.00	135.85	4.20	764.56	8,670	1,177,855	37,869	614.51	6,969	946,693	30,437	150.05	1,702	231,162	7,432

	200	59	1.5	1.00	59.00														
	202	195.3	1	0.60	117.18														
	201	34	2	0.40	13.60														
	903	244	2	0.90	219.60														
	904	124	2	1.30	161.20														
38	214	48	2	0.20	9.60	146.85	10.90	583.04	17,159	2,519,835	81,015	583.04	17,159	2,519,835	81,015	0.00	0	0	0
	215	462	2	1.70	785.40														
	216	33	1.5	1.10	36.30														
	217	26	2	1.20	31.20														
	218	446	2	1.40	624.40														
	219	40	2	1.90	76.00														
	220	14	2	2.00	28.00														
	221	7	3	1.40	9.80														
37	222	174	2	0.00	0.00	219.09	6.80	183.37	3,367	737,598	23,714	183.37	3,367	737,598	23,714	0.00	0	0	0
	223	231	2	1.50	346.50														
	224	12	2	1.80	21.60														
	225	397	1.5	1.00	397.00														
	226	407	2	1.70	691.90														
	227	41	2.5	0.80	32.80														
Decline Level 1 to Level 2																			
35	190	22	2	0.10	2.20	39.74	3.90	278.92	2,937	116,728	3,753	271.13	2,855	113,468	3,648	7.79	82	3,260	105
	191	36	2	1.50	54.00														
	192	44	2	2.00	88.00														
	193	36	2	0.30	10.80														
36	194	9.4	2.5	0.30	2.82	101.05	4.20	364.09	4,129	417,213	13,414	338.69	3,841	388,107	12,478	25.40	288	29,106	936
	195	5.9	2	1.80	10.62														
	196	228.1	1.5	1.70	387.77														
	197	58	2.5	0.40	23.20														
Challacollo Level 2																			
34	166	18	2	0.30	5.40	7.86	2.90	303.14	2,374	18,661	600	303.14	2,374	18,661	600	0.00	0	0	0
	167	6.8	2	2.20	14.96														
	168	6.1	2	0.40	2.44														
33	157	555.2	2	2.00	1,110.40	519.81	6.80	394.95	7,251	3,769,280	121,185	394.95	7,251	3,769,280	121,185	0.00	0	0	0
	158	440	2	2.60	1,144.00														
	159	620	2.5	2.00	1,240.00														
	160	201.5	2.5	0.20	40.30														
32	153	335.8	2	0.40	134.32	557.30	4.10	551.71	6,107	3,403,656	109,430	551.71	6,107	3,403,656	109,430	0.00	0	0	0
cut	154	826	2	1.80	1,486.80														
	155	420	1.5	1.50	630.00														
	156	84.5	2	0.40	33.80														
31	148	282	2	1.40	394.80	197.55	5.80	289.87	4,539	896,759	28,831	289.87	4,539	896,759	28,831	0.00	0	0	0
	149	420	1.5	1.30	546.00														
	150	87	2	1.50	130.50														
	151	48	1.5	1.50	72.00														
	152	25	2	0.10	2.50														
30	145	23	2	1.10	25.30	62.86	10.50	133.21	3,777	237,380	7,632	133.21	3,777	237,380	7,632	0.00	0	0	0
	146	62	2	1.80	111.60														
	147	36	2	0.40	14.40														
	184	237	2	1.50	355.50														
	185	11	2	0.60	6.60														
	186	150	2	0.40	60.00														
	187	20	2.5	2.00	40.00														
	188	17	4	2.00	34.00														

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	189	18	2	0.70	12.60														
29	141	40	2	0.30	12.00	27.76	4.20	144.41	1,638	45,463	1,462	144.41	1,638	45,463	1,462	0.00	0	0	0
	142	16	2	1.60	25.60														
	143	32	2	2.00	64.00														
	144	50	2	0.30	15.00														
28	137	61	2	0.40	24.40	323.92	4.00	335.17	3,620	1,172,519	37,697	250.78	2,708	877,299	28,206	84.39	911	295,220	9,492
	138	460	1.5	2.00	920.00														
	139	197	1.5	1.30	256.10														
	140	317.2	2	0.30	95.16														
27	180	10	2	0.10	1.00	149.66	8.30	716.05	16,047	2,401,492	77,210	201.39	4,513	675,423	21,715	514.66	11,534	1,726,069	55,494
	181	458.5	2	1.50	687.75														
	182	76	2.5	2.40	182.40														
	183	58	2.5	0.50	29.00														
	133	86	2	1.90	163.40														
	132	94	2	1.90	178.60														
26 cut	134	826	2	0.30	247.80	750.81	3.50	1,100.31	10,398	7,806,855	250,996	850.52	8,037	6,034,559	194,016	249.79	2,361	1,772,295	56,981
	135	800	2	2.50	2,000.00														
	136	542.9	2	0.70	380.03														
26B	896	200	2	0.30	60.00	166.11	3.70	907.50	9,066	1,505,924	48,417	907.50	9,066	1,505,924	48,417	0.00	0	0	0
	897	283	2	1.40	396.20														
	898	42	2	1.60	67.20														
	899	228	2	0.40	91.20														
26A	894	22	2	0.70	15.40	126.09	1.6	1,551.15	6,701	844,950	27,166	1,030.35	4,451	561,257	18,045	520.80	2,250	283,693	9,121
	895	89	2	0.90	80.10														
	892	363	2	0.80	290.40														
	893	22	2	0.80	17.60														
Challacollo Level 3																			
15	68	132	2	1.80	237.60	74.50	3.60	1,194.94	11,615	865,304	27,820	931.46	9,054	674,507	21,686	263.48	2,561	190,796	6,134
	69	17	2	1.80	30.60														
16	70	26.1	2	0.10	2.61	99.30	3.70	1,158.34	11,572	1,149,081	36,944	719.33	7,186	713,580	22,942	439.01	4,386	435,501	14,002
	71	94	2	1.70	159.80														
	72	118.8	2	1.50	178.20														
	73	73.9	1	0.20	14.78														
	74	60.1	1.5	0.20	12.02														
17	75	38.3	2	0.00	0.00	124.33	5.9	680.02	10,879	1,352,520	43,485	593.99	9,502	1,181,411	37,983	86.03	1,376	171,109	5,501
	76	71.3	2	1.40	99.82														
	77	24	1.5	1.40	33.60														
	78	56	3	0.50	28.00														
	64	39.1	2	0.88	34.21														
	65	66.3	2	0.88	58.01														
	66	552	2	0.88	483.00														
	67	?	2	0.88															
18	79	12	2	0.00	0.00	26.19	8.10	265.69	5,811	152,196	4,893	265.69	5,811	152,196	4,893	0.00	0	0	0
	80	16.9	2	1.90	32.11														
	81	26	2	2.20	57.20														
	82	35	3	0.50	17.50														
	62	55.6	2	1.75	97.30														
	63	4.6	2	1.75	8.05														
19	83	568	2	0.40	227.20	399.26	8.70	221.30	5,198	2,075,511	66,729	221.30	5,198	2,075,511	66,729	0.00	0	0	0
	88	668	2	1.50	1,002.00														

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	89	684	2	1.90	1,299.60														
	90	412	2	1.90	782.80														
	91	44	2	1.80	79.20														
	92	26	2	1.00	26.00														
	93	284	2	0.20	56.80														
20	87	17	2	1.00	17.00	60.18	7.70	285.75	5,941	357,525	11,495	285.75	5,941	357,525	11,495	0.00	0	0	0
	86	36	2	1.00	36.00														
	85	65	2	1.00	65.00														
	84	13	2	1.00	13.00														
	94	115	2	0.00	0.00														
	95	155	2	1.50	232.50														
	96	37	2	1.70	62.90														
	97	74	3	0.50	37.00														
21	118	24	2	1.90	45.60	36.08	20.90	496.72	28,030	1,011,343	32,515	496.72	28,030	1,011,343	32,515	0.00	0	0	0
	117	26	2	1.90	49.40														
	116	29	2	1.90	55.10														
	115	7.9	2	1.90	15.01														
	114	9.2	2	1.90	17.48														
	113	36	2	1.90	68.40														
	112	78	2	1.90	148.20														
	111	82	2	1.90	155.80														
	110	75	2	1.90	142.50														
	98	21	2	0.30	6.30														
	99	21	1.5	1.00	21.00														
	100	11	2	1.90	20.90														
	101	14	2	0.60	8.40														
22	102	19	2	0.00	0.00	113.14	3.50	1,151.96	10,886	1,231,676	39,599	791.73	7,482	846,518	27,216	360.23	3,404	385,158	12,383
	103	27	2	1.00	27.00														
	104	180	2	2.00	360.00														
	105	18	2	0.50	9.00														
23	106	19	2	0.00	0.00	27.12	3.30	2,903.21	25,868	701,561	22,556	629.66	5,610	152,157	4,892	2,273.55	20,257	549,403	17,664
	107	11	1.5	1.30	14.30														
	108	22	1.5	1.40	30.80														
	109	74	2	0.60	44.40														
24	119	13	2	0.00	0.00	37.11	3.80	413.48	4,242	157,412	5,061	185.93	1,908	70,784	2,276	227.55	2,335	86,628	2,785
	120	26	1.5	1.60	41.60														
	121	43	2	1.80	77.40														
	122	55	2	0.40	22.00														
25	123	55	2	0.50	27.50	97.99	8.00	1,195.97	25,833	2,531,468	81,389	569.66	12,305	1,205,779	38,767	626.31	13,528	1,325,688	42,622
	124	91	2	0.60	54.60														
	125	23	2	0.70	16.10														
	126	24	2	0.80	19.20														
	127	14	2	0.90	12.60														
	128	109	2	1.00	109.00														
	129	255.5	2	1.10	281.05														
	130	143	2	1.10	157.30														
	131	82	2	1.30	106.60														
Stope area between Challacollo Intermediate Level and Leve																			
14	57	252	2	1.80	453.60	122.98	9.00	167.73	4,076	501,247	16,115	167.73	4,076	501,247	16,115	0.00	0	0	0
	58	312	2	1.80	561.60														
	59	17.3	2	1.80	31.14														
	60	27.7	2	1.80	49.86														
	61	5.9	2	1.80	10.62														
13	53	268	2	1.00	268.00	268.00	1.00	83.02	224	60,073	1,931	83.02	224	60,073	1,931	0.00	0	0	0

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12	54	364	2	0.80	291.20	364.00	0.80	71.82	155	56,468	1,815	71.82	155	56,468	1,815	0.00	0	0	0
11	56	500	2	0.90	450.00	500.00	0.90	178.45	434	216,817	6,971	178.45	434	216,817	6,971	0.00	0	0	0
Challacollo Intermediate Level																			
1	1	400	2	1.90	760.00	163.04	9.50	3,950.08	101,320	16,519,140	531,103	1,046.50	26,843	4,376,438	140,706	2,903.58	74,477	12,142,702	390,397
	2	191	2	1.90	362.90														
	3	69	2	1.90	131.10														
	4	95	2	1.90	180.50														
	5	60.2	2	1.90	114.38														
2	6	192.3	2	1.90	365.37	350.37	6.65	428.43	7,692	2,695,218	86,653	428.43	7,692	2,695,218	86,653	0.00	0	0	0
	7	440	2	1.90	836.00														
	8	396	3	2.85	1,128.60														
3	11	524	2	1.90	995.60	321.88	15.20	309.36	12,696	4,086,568	131,386	309.36	12,696	4,086,568	131,386	0.00	0	0	0
	12	168	2	1.90	319.20														
	13	392	2	1.90	744.80														
	14	177	2	1.90	336.30														
	15	143	2	1.90	271.70														
	16	123	2	1.90	233.70														
	17	472	2	1.90	896.80														
	18	576	2	1.90	1,094.40														
4	19	269	2	1.80	484.20	269.00	1.80	213.77	1,039	279,470	8,985	213.77	1,039	279,470	8,985	0.00	0	0	0
5	20	440	2	1.70	748.00	177.53	15.60	388.59	16,367	2,905,635	93,418	388.59	16,367	2,905,635	93,418	0.00	0	0	0
	21	172	2	1.80	309.60														
	22	50	2	1.60	80.00														
	23	60	2	1.40	84.00														
	24	23.3	2	1.20	27.96														
	25	38	2	1.00	38.00														
	32	472	2	1.60	755.20														
	31	191	2	1.50	286.50														
	30	82.3	2	1.80	148.14														
	33	256	2	1.00	256.00														
	34	36	2	1.00	36.00														
6	36	352	2	1.80	633.60	210.50	7.20	639.92	12,440	2,618,629	84,191	639.92	12,440	2,618,629	84,191	0.00	0	0	0
	37	280	2	1.80	504.00														
	38	158	2	1.80	284.40														
	39	52	2	1.80	93.60														
7	42	184	2	1.50	276.00	184.00	1.50	464.81	1,882	346,376	11,136	464.81	1,882	346,376	11,136	0.00	0	0	0
8	44	256	2	0.80	204.80	216.50	1.60	294.53	1,272	275,468	8,857	294.53	1,272	275,468	8,857	0.00	0	0	0
	45	177	2	0.80	141.60														
9	43	216	2	1.40	302.40	216.00	1.40	335.63	1,269	274,035	8,810	335.63	1,269	274,035	8,810	0.00	0	0	0
10	46	54.4	2	1.30	70.72	167.70	8.80	1,754.88	41,696	6,992,221	224,805	991.96	23,569	3,952,409	127,073	762.92	18,127	3,039,812	97,732
	47	72.4	2	1.50	108.60														
	48	133	2	1.50	199.50														
	49	352	2	1.50	528.00														
	50	248	2	1.30	322.40														
	51	145	2	1.70	246.50														
Jaula Level																			
103	752	279.7	2	1.90	531.43	279.70	1.90	2,372.67	12,172	3,404,452	109,456	633.03	3,247	908,310	29,203	1,739.64	8,924	2,496,142	80,253
102	745	313.7	2	1.80	564.66	303.61	12.40	341.45	11,432	3,470,743	111,587	341.45	11,432	3,470,743	111,587	0.00	0	0	0

	746	384.4	2	1.20	461.28														
	747	176.8	2	1.30	229.84														
	748	438.9	2	1.80	790.02														
	749	147	2	1.80	264.60														
	750	99.8	2	1.80	179.64														
	750	472.1	3	2.70	1,274.67														
101	743	492.8	2	1.40	689.92	653.23	2.70	438.15	3,194	2,086,490	67,082	438.15	3,194	2,086,490	67,082	0.00	0	0	0
cut	744	826	2	1.30	1,073.80														
100	735	298.5	2	0.60	179.10	484.10	12.20	382.02	12,584	6,091,757	195,855	382.02	12,584	6,091,757	195,855	0.00	0	0	0
	736	422.8	2	1.70	718.76														
	737	231.6	2	0.40	92.64														
	738	529.9	2	1.90	1,006.81														
cut	739	826	2	1.90	1,569.40														
	740	603.5	2	1.90	1,146.65														
	741	448.6	2	1.90	852.34														
	742	179.1	2	1.90	340.29														
99	725	53.3	2	0.50	26.65	209.12	15.10	404.73	16,501	3,450,599	110,939	404.73	16,501	3,450,599	110,939	0.00	0	0	0
	726	408.6	2	1.70	694.62														
	727	759.3	2	0.30	227.79														
	728	103.4	2	1.80	186.12														
	729	90.8	2	1.80	163.44														
	730	96.4	2	1.80	173.52														
	731	56.3	2	1.80	101.34														
	732	372.4	2	1.80	670.32														
	733	69.8	2	1.80	125.64														
	734	437.9	2	1.80	788.22														
98	721	453.7	2	1.60	725.92	433.65	7.60	219.48	4,504	1,953,042	62,792	219.48	4,504	1,953,042	62,792	0.00	0	0	0
	722	453.7	2	1.90	862.03														
	723	512.3	2	1.70	870.91														
	724	348.7	2	2.40	836.88														
96	720	417.6	2	1.70	709.92	318.86	5.70	345.90	5,323	1,697,436	54,574	293.76	4,521	1,441,570	46,348	52.14	802	255,867	8,226
	757	280.9	2	2.00	561.80														
	758	272.9	2	2.00	545.80														
97	753	539.3	2	1.00	539.30	641.37	6.80	1,071.52	19,673	12,617,810	405,672	651.16	11,955	7,667,811	246,526	420.36	7,718	4,949,999	159,146
	754	545.8	2	1.80	982.44														
cut	755	826	2	2.00	1,652.00														
	756	593.8	2	2.00	1,187.60														
95	719	130.7	2	1.80	235.26	130.70	1.80	2,260.10	10,984	1,435,620	46,156	913.10	4,438	580,003	18,648	1,347.00	6,546	855,617	27,509
94	717	88.9	2	1.00	88.90	115.45	2.00	10,005.57	54,030	6,237,773	200,549	1,259.70	6,802	785,335	25,249	8,745.87	47,228	5,452,438	175,300
	718	142	2	1.00	142.00														
Jualo Sub-Level																			
123	761	187.5	2	1.90	356.25	187.50	1.90	4,538.38	23,282	4,365,354	140,349	935.95	4,801	900,267	28,944	3,602.43	18,480	3,465,087	111,405
124	762	135.6	2	1.90	257.64	296.70	3.80	928.97	9,531	2,827,917	90,920	451.10	4,628	1,373,212	44,150	477.87	4,903	1,454,704	46,770
	763	457.8	2	1.90	869.82														
125	764	369.3	2	1.90	701.67	530.87	5.70	781.12	12,021	6,381,780	205,179	232.63	3,580	1,900,596	61,106	548.49	8,441	4,481,184	144,073
	765	770.2	2	1.90	1,463.38														
	766	453.1	2	1.90	860.89														
126	767	441.1	2	1.90	838.09	405.50	3.80	1,901.83	19,513	7,912,431	254,391	352.06	3,612	1,464,721	47,092	1,549.77	15,901	6,447,710	207,299
	768	369.9	2	1.90	702.81														

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DTH CH-01	MB00602	64	2	0.85	54.40	328.93	13	16,375.70	563,733	185,430,730	5,961,736	1,205.93	41,514	13,655,385	439,031	15,169.77	522,219	171,775,346	5,522,706
	MB00603	520	2	0.85	442.00														
	MB00604	271	2	0.85	230.35														
	MB00605	613	2	0.85	521.05														
	MB00606	203	2	0.85	172.55														
	MB00607	248	2	0.85	210.80														
	MB00608	618	2	0.85	525.30														
	MB00609	356	2	0.85	302.60														
	MB00610	215	2	0.85	182.75														
	MB00611	127	2	0.85	107.95														
	MB00612	125	2	0.85	106.25														
	MB00613	386	2	0.85	328.10														
	MB00614	353	2	0.85	300.05														
	MB00615	32	2	0.85	27.20														
	MB00616	803	2	0.85	682.55														
DTH CH-07	SA3043	93	2	1.66	154.38	152.60	8	16,125.29	361,368	55,144,718	1,772,944	972.31	21,789	3,325,073	106,904	15,152.98	339,578	51,819,646	1,666,040
	SA3044	320	2	1.66	531.20														
	SA3045	140	2	1.66	232.40														
	SA3046	73	2	1.66	121.18														
	SA3047	137	2	1.66	227.42														
DTH CH-09	SA3181	170	2	1.30	221.00	170.00	1	15,876.30	55,726	9,473,388	304,577	1,840.65	6,461	1,098,316	35,312	14,035.65	49,265	8,375,072	269,265
CHAG-01	130-132	129	2	1.20	154.80	32.40	6	10,757.63	174,274	5,646,465	181,538	1,236.31	20,028	648,914	20,863	9,521.32	154,245	4,997,550	160,675
	132-134	31	2	1.20	37.20														
	134-136	16	2	1.20	19.20														
	136-138	20	2	1.20	24.00														
	138-140	16	2	1.20	19.20														
	140-142	17	2	1.20	20.40														
	142-144	29	2	1.20	34.80														
	144-146	21	2	1.20	25.20														
	146-148	32	2	1.20	38.40														
	148-150	17	2	1.20	20.40														
	150-152	7	2	1.20	8.40														
	152-154	6	2	1.20	7.20														
	154-156	14	2	1.20	16.80														
	156-158	12	2	1.20	14.40														
	158-160	15	2	1.20	18.00														
	160-162	18	2	1.20	21.60														
	162-164	22	2	1.20	26.40														
	172-174	15	2	1.20	18.00														
	174-176	15	2	1.20	18.00														
	176-178	12	2	1.20	14.40														
	178-180	11	2	1.20	13.20														
	180-182	12	2	1.20	14.40														
	182-184	36	2	1.20	43.20														
	184-186	63	2	1.20	75.60														
	186-188	12	2	1.20	14.40														
	188-190	10	2	1.20	12.00														
	190-192	31	2	1.20	37.20														
	192-194	46	2	1.20	55.20														
	194-196	21	2	1.20	25.20														
	196-198	6	2	1.20	7.20														
	198-199.65	6	1.65	0.99	5.94														
CHAG-02	50-52	113	2	1.47	166.11	154.33	22	2,260.88	134,601	20,773,497	667,883	724.48	43,132	6,656,692	214,018	1,536.40	91,470	14,116,804	453,866
	52-54	77	2	1.47	113.19														
	54-56	16	2	1.47	23.52														
	56-58	7	2	1.47	10.29														
	58-60	<3	2	1.47	#VALUE!														
	60-62	<3	2	1.47	#VALUE!														

	62-64	11	2	1.47	16.17														
	64-66	13	2	1.47	19.11														
	66-68	11	2	1.47	16.17														
	68-70	18	2	1.47	26.46														
	70-72	15	2	1.47	22.05														
	72-74	289	2	1.47	424.83														
	74-76	6	2	1.47	8.82														
	76-78	25	2	1.47	36.75														
	78-80	9	2	1.47	13.23														
	80-82	<3	2	1.47	#VALUE!														
	82-84	<3	2	1.47	#VALUE!														
	84-86	30	2	1.47	44.10														
	86-88	7	2	1.47	10.29														
	88-90	26	2	1.47	38.22														
	90-92	6	2	1.47	8.82														
	92-94	<3	2	1.47	#VALUE!														
	94-96	22	2	1.47	32.34														
	96-98	79	2	1.47	116.13														
	98-100	183	2	1.47	269.01														
	100-102	15	2	1.47	22.05														
	102-104	33	2	1.47	48.51														
	104-106	47	2	1.47	69.09														
	106-108	50	2	1.47	73.50														
	108-110	57	2	1.47	83.79														
	110-112	65	2	1.47	95.55														
	112-114	54	2	1.47	79.38														
	114-116	90	2	1.47	132.30														
	116-118	29	2	1.47	42.63														
	118-120	126	2	1.47	185.22														
	120-122	105	2	1.47	154.35														
	122-124	42	2	1.47	61.74														
	124-126	196	2	1.47	288.12														
	126-128	235	2	1.47	345.45														
	128-130	235	2	1.47	345.45														
	130-132	64	2	1.47	94.08														
	132-134	52	2	1.47	76.44														
	134-136	52	2	1.47	76.44														
	136-138	136	2	1.47	199.92														
	138-140	82	2	1.47	120.54														
	140-142	151	2	1.47	221.97														
	142-144	61	2	1.47	89.67														
	144-146	420	2	1.47	617.40														
	146-148	358	2	1.47	526.26														
	148-150	33	2	1.47	48.51														
	150-152	10	2	1.47	14.70														
	152-154	<3	2	1.47	#VALUE!														
	154-156	5	2	1.47	7.35														
CHAG-03	36-38	<3	2	1.96	#VALUE!	262.72	22	3,539.85	205,851	54,082,030	1,738,778	623.80	36,276	9,530,452	306,411	2,916.05	169,576	44,551,578	1,432,366
	38-40	4	2	1.96	7.83														
	40-42	10	2	1.96	19.58														
	42-44	182	2	1.96	356.36														
	44-46	45	2	1.96	88.11														
	46-48	49	2	1.96	95.94														
	48-50	12	2	1.96	23.50														
	50-52	15	2	1.96	29.37														
	52-54	<3	2	1.96	#VALUE!														
	54-56	<3	2	1.96	#VALUE!														
	56-58	15	2	1.96	29.37														
	78-80	144	2	1.96	281.95														
	80-82	19	2	1.96	37.20														
	82-84	6	2	1.96	11.75														

	84-86	278	2	1.96	544.32														
	86-88	562	2	1.96	1,100.40														
	88-90	178	2	1.96	348.52														
	90-91.2	263	1.2	1.17	308.97														
drift stn 73	91.2-96.05	314.52	4.85	4.75	1,493.38														
	96.05-97.4	210	1.35	1.32	277.55														
	97.4-100	239	2.6	2.55	608.35														
	100-102	190	2	1.96	372.02														
	102-104	195	2	1.96	381.81														
	104-106	114	2	1.96	223.21														
	106-108	35	2	1.96	68.53														
	108-110	8	2	1.96	15.66														
	110-112	24	2	1.96	46.99														
CHAG-04	40-42	36	2	1.72	61.92	370.83	21	26,286.93	1,464,918	543,240,438	17,465,586	1,424.68	79,395	29,442,152	946,587	24,862.25	1,385,523	513,798,286	16,518,998
	42-44	28	2	1.72	48.16														
	44-46	17	2	1.72	29.24														
	46-48	59	2	1.72	101.48														
	48-50	31	2	1.72	53.32														
	50-52	44	2	1.72	75.68														
	52-54	<3	2	1.72	#VALUE!														
	54-56	25	2	1.72	43.00														
	56-58	48	2	1.72	82.56														
	58-60	29	2	1.72	49.88														
	60-62	178	2	1.72	306.16														
	62-64	49	2	1.72	84.28														
	64-66	67	2	1.72	115.24														
	66-68	272	2	1.72	467.84														
	68-70	245	2	1.72	421.40														
	70-72	135	2	1.72	232.20														
	72-74	731	2	1.72	1,257.32														
	74-76	380	2	1.72	653.60														
	76-78	197	2	1.72	338.84														
	78-80	394	2	1.72	677.68														
	80-82	244	2	1.72	419.68														
	82-84	456	2	1.72	784.32														
	84-86	605	2	1.72	1,040.60														
	86-88	585	2	1.72	1,006.20														
	88-90	206	2	1.72	354.32														
	90-92	10	2	1.72	17.20														
	92-94	68	2	1.72	116.96														
CHAG-05	20-22	77	2	1.86	143.07	177.40	9	20,635.74	517,606	91,823,352	2,952,189	1,953.54	49,001	8,692,714	279,477	18,682.20	468,606	83,130,637	2,672,712
	22-24	50	2	1.86	92.90														
	24-26	39	2	1.86	72.46														
	26-28	196	2	1.86	364.17														
	28-30	148	2	1.86	274.98														
	30-32	168	2	1.86	312.14														
	32-34	254	2	1.86	471.93														
	34-36	121	2	1.86	224.82														
	36-38	35	2	1.86	65.03														
	38-38.6	18	0.6	0.56	10.03														
CHAG-06	31.4-32	19	1.6	1.38	26.30	68.02	16	11,547.13	498,914	33,934,240	1,091,011	1,953.54	84,406	5,740,985	184,577	9,593.59	414,508	28,193,255	906,434
	32-34	58	2	1.73	100.34														
	34-36	101	2	1.73	174.73														
	36-38	109	2	1.73	188.57														
	38-40	173	2	1.73	299.29														
	40-42	48	2	1.73	83.04														
	42-44	28	2	1.73	48.44														
	44-46	52	2	1.73	89.96														
	46-48.9	31	2.9	2.51	77.76														

CHALLACOLLO

CHAG-07	53-55	101	2	1.49	150.49	72.00	4	16,238.51	179,651	12,934,850	415,865	1,815.20	20,082	1,445,905	46,487	14,423.31	159,569	11,488,945	369,378
	55-57	61	2	1.49	90.89														
	57-58.5	48	1.5	1.12	53.64														
	58.5-61	13	2.5	1.86	24.21														
	61-62	<3	1	0.75	#VALUE!														
Totals									**6,080,769**	**1,467,391,229**	**47,177,724**		**1,376,255**	**318,779,268**	**10,248,991**		**4,704,513**	**1,148,611,961**	**36,928,732**
Avg. thickness of polygons		6.90		Avg. thickness of workings samples polygons			6.43		Avg. thickness of drill holes excluding hole DTH-CH09				13.41						
									Avg. thickness of all drill hole polygons				12.20						
Specific **G**ravity used in Resource Calculation =					**2.7**														
Total tonnes/tons				6,080,769	6,701,007		**Tonnes/tons indicated**					1,376,255.22	1,516,633						
Total tonnes Ag				1,467			**Tonnes Ag**					318.78							
g/tonne				241.32			**g/tonne**					231.63							
oz/ton					7.04		**oz/ton**						6.76						
Total oz					47,164,389		**total oz**						10,246,095						
Note: This is a check calculation of table below.																			
Total tonnes/tons indicated plus inferred					6,080,769	6,701,007			**Tonnes/tons inferred**			4,704,513	5,184,373.86						
Total tonnes Ag					1,467				**Tonnes Ag**			1,149							
g/tonne					241.32				**g/tonne**			244.15							
oz/ton						7.04			**oz/ton**				7.12						
total oz						47,164,389			**total oz**				36,918,294.34						

CHALLACOLLO

Sample Stn.	smpl #	Ag ppm	Sample length m	Weight length m	Ag * weight length	Weight avg grade g/t	Weight avg width m	Polygon Areas m^2 (Autocad)	Tonnage metric	Total gm Ag	Total oz Ag	Indicated Areas m^2 (Autocad)	Indicated tonnes	Indicated g Ag	Indicated oz Ag	Inferred Areas m^2 (Autocad)	Inferred tonnes	Inferred g Ag	Inferred oz Ag
Total Resource - cut grades - only includes blocks with assays.							**Indicated Resource - cut grades - only includes blocks with assays.**							**Inferred Resource - cut grades - only includes blocks with assays.**					
Total tonnes/tons				6,080,769	6,701,007		**Tonnes/tons**			1,376,255	1,516,633			**Tonnes/tons**			4,704,513	5,184,374	
Total tonnes Ag				1,480			**Tonnes Ag**			326				**Tonnes Ag**			1,154		
g Ag/tonne				243.34			**g/tonne**			236.75				**g/tonne**			245.26		
oz Ag/ton					7.10		**oz/ton**				6.91			**oz/ton**				7.15	
Total oz Ag					47,559,159		**total oz**				10,472,794			**total oz**				37,086,365	
Humberto																			
119	872	221	2	1	221.00	170.00	2.00	1,839.12	9,931	1,688,312	54,280	1,135.25	6,130	1,042,160	33,506	703.87	3,801	646,153	20,774
	873	119	2	1	119.00														
120	874	131	2	1.5	196.50	174.09	3.30	464.48	4,139	720,478	23,164	464.48	4,139	720,478	23,164	0.00	0	0	0
	875	210	2	1.8	378.00														
121	877	205	2	1	205.00	125.30	2.30	1,105.31	6,864	860,086	27,652	614.39	3,815	478,081	15,371	490.92	3,049	382,004	12,282
	876	64	2	1.3	83.20														
Guacolda																			
93A	908	574	2	0.00	0.00	238.00	8.05	756.82	16,439	3,912,541	125,791	641.20	13,928	3,314,819	106,574	115.62	2,511	597,722	19,217
	909	71	2	0.26	18.46														
	910	54	2	0.00	0.00														
	911	143	2	0.20	28.60														
	912	333	2	0.99	329.67														
	913	405	2	0.94	380.70														
	914	40	2	0.50	20.00														
	915	60	2	0.00	0.00														
	916	285	2	0.00	0.00														
	917	20	2	0.00	0.00														
	918	150	2	0.00	0.00														
	919	1167	2	0.70	816.90														
	920	776	2	1.50	1,164.00														
	907	232	2	1.90	440.80														
	906	160	2	1.80	288.00														
	905	334	2	1.80	601.20														
Walkiria Level 1																			
91 & 91A	659	752.1	2	0.66	496.39	250.15	9.90	2,835.62	75,796	18,960,569	609,596	1,211.25	32,377	8,099,107	260,392	1,624.37	43,419	10,861,462	349,204
	660	215	2	0.66	141.90														
	661	163.8	2	0.66	108.11														
	662	205.2	2	0.66	135.43														
	663	67.3	2	0.66	44.42														
	664	32.2	2	0.66	21.25														
	665	33.2	2	0.66	21.91														
	666	73	2	0.66	48.18														
	667	202.4	2	0.66	133.58														
	668	173	2	0.66	114.18														
	669	326.8	2	0.00	0.00														
	670	103.1	2	0.00	0.00														
	655	105.4	2	0.00	0.00														
	656	122	2	0.00	0.00														
	657	1484.3	2	0.00	0.00														
	658	214	2	0.00	0.00														
	654	577.7	2	0.55	317.74														
	653	171.3	2	0.55	94.22														
	652	441	2	0.55	242.55														

	651	387.4	2	0.55	213.07														
	650	300	2	0.55	165.00														
	649	324.7	2	0.55	178.59														
90	638	47.6	2.5	1.20	57.12	241.38	9.90	516.89	13,816	3,334,961	107,221	516.89	13,816	3,334,961	107,221	0.00	0	0	0
	639	346.2	2	1.80	623.16														
	640	188.9	2	2.00	377.80														
	641	282.3	2	0.00	0.00														
	642	283	2	0.70	198.10														
	643	296.7	2	0.70	207.69														
	644	125.8	2	0.70	88.06														
	645	193.4	2	0.70	135.38														
	646	209.8	2	0.70	146.86														
	647	606.4	2	0.70	424.48														
	648	187.1	2	0.70	130.97														
89	627	139	2	0.50	69.50	262.65	15.60	665.07	28,013	7,357,530	236,550	448.84	18,905	4,965,423	159,642	216.23	9,108	2,392,107	76,908
	628	96.6	2	1.60	154.56														
	629	204.1	2	2.00	408.20														
	630	162.5	2	2.60	422.50														
	631	322.9	2	0.00	0.00														
	632	230.4	2	1.90	437.76														
	633	232.2	2	1.70	394.74														
	634	398.9	2	1.60	638.24														
	635	348.8	2	1.60	558.08														
	636	333.5	2	1.10	366.85														
	637	646.9	2	1.00	646.90														
92	692	296.8	2	1.30	385.84	474.88	7.30	572.94	11,293	5,362,615	172,412	572.94	11,293	5,362,615	172,412	0.00	0	0	0
	693	775.8	2	1.90	1,474.02														
	694	562.4	2	0.70	393.68														
	695	263.5	2	1.60	421.60														
	696	462.9	2	1.50	694.35														
	697	323.7	2	0.30	97.11														
Catalina Level																			
88	446	26.2	2	0.50	2,539.72	652.34	6.00	3,134.40	50,778	33,124,237	1,064,969	1,001.87	16,230	10,587,730	340,403	2,132.53	34,547	22,536,508	724,566
	447	612.3	2	2.00	above = avg														
	448	786.1	2	1.50	446-448														
	449	535.1	2	0.00	& 450-451														
	450	35.1	2	2.00	over 4m														
	451	343.8	2	2.00															
	452	841.2	2	0.15	129.42														
	453	710.8	2	0.15	109.36														
	454	992.7	2	0.15	152.73														
	455	789.5	2	0.15	121.46														
	456	397.7	2	0.15	61.19														
	457	824.1	2	0.15	126.79														
	458	615.3	2	0.15	94.66														
	459	460.5	2	0.15	70.85														
	460	2083.6	2	0.15	320.56														
	461	319.2	2	0.15	49.11														
	462	477.2	2	0.15	73.42														
	463	252.2	2	0.15	38.80														
	464	169	2	0.15	26.00														
87	465	29.4	2	0.20	5.88	519.79	4.40	1,362.21	16,183	8,411,768	270,445	902.11	10,717	5,570,610	179,099	460.10	5,466	2,841,158	91,345
	466	657.2	2	1.70	1,117.24														
	467	436.2	2	2.00	872.40														
	468	583.1	2	0.50	291.55														

86	469	84.6	2	0.13	10.58	276.98	5.50	2,753.49	40,889	11,325,340	364,118	1,011.87	15,026	4,161,908	133,808	1,741.62	25,863	7,163,432	230,310
	470	393.4	2	0.13	49.18														
	471	1182.4	2	0.13	147.80														
	472	958.6	2	0.13	119.83														
	473	272.4	2	0.50	136.20														
	474	187.1	2	2.50	467.75														
	475	261.3	2	1.80	470.34														
	476	608.5	1.5	0.20	121.70														
85	477	127.2	2	0.70	89.04	615.79	5.60	3,421.33	51,731	31,855,278	1,024,171	950.92	14,378	8,853,815	284,657	2,470.41	37,353	23,001,464	739,514
	478	287.6	2	1.50	431.40														
	479	735	2	1.90	1,396.50														
	480	1021	2	1.50	1,531.50														
	481	184.6	2	0.00	0.00														
84	482	16	2	1.10	17.60	67.85	4.90	2,806.94	37,136	2,519,779	81,013	1,093.39	14,466	981,532	31,557	1,713.55	22,670	1,538,247	49,456
	483	164.9	2	1.60	263.84														
	484	23.2	2	2.20	51.04														
	485	28.3	2	0.00	0.00														
83	486	37.4	2.5	1.80	67.32	48.30	6.00	1,850.31	29,975	1,447,893	46,551	1,090.32	17,663	853,191	27,431	759.99	12,312	594,703	19,120
	487	83.5	2	2.20	183.70														
	488	19.4	2	2.00	38.80														
	489	14.7	2	0.00	0.00														
82	490	82.1	2	0.19	15.75	286.62	6.55	726.29	12,847	3,682,285	118,388	726.29	12,847	3,682,285	118,388	0.00	0	0	0
	491	99.5	2	0.19	19.09														
	492	354.9	2	0.19	68.11														
	493	479.3	2	0.19	91.98														
	494	223.9	2	0.19	42.97														
	495	68.8	2	0.80	55.04														
	496	175.2	2	1.30	227.76														
	497	491.6	2	2.00	983.20														
	498	273.5	2	1.30	355.55														
	499	11.2	2	0.00	0.00														
	500	95.5	2	0.19	18.33														
81	502	555.1	2.5	1.30	721.63	378.33	4.30	687.87	7,986	3,021,428	97,141	687.87	7,986	3,021,428	97,141	0.00	0	0	0
	503	160.4	2	2.20	352.88														
	504	690.4	2	0.80	552.32														
	505	164.3	2	0.00	0.00														
80	506	692.3	2.5	1.40	969.22	733.29	5.60	552.18	8,349	6,122,189	196,833	552.18	8,349	6,122,189	196,833	0.00	0	0	0
	507	913.9	2	2.10	1,919.19														
	508	580	2	2.10	1,218.00														
	509	543.8	2	0.00	0.00														
79	510	71.1	2	1.30	92.43	532.34	10.10	655.73	17,882	9,519,114	306,047	655.73	17,882	9,519,114	306,047	0.00	0	0	0
	511	727.1	2	1.30	945.23														
	512	543.8	2	1.30	706.94														
	513	946.7	2	0.00	0.00														
	514	673.1	2	1.80	1,211.58														
	515	289.9	2	2.20	637.78														
	516	1183.3	2	1.30	1,538.29														
	517	271.5	2	0.90	244.35														
78	518	18.8	2	0.80	15.04	128.50	4.50	913.49	11,099	1,426,209	45,854	762.00	9,258	1,189,692	38,249	151.49	1,841	236,518	7,604
	519	94.5	2	1.80	170.10														
	520	206.9	2	1.90	393.11														
	521	138.6	2	0.00	0.00														

CHALLACOLLO

77	522	60	2	1.30	78.00	60.75	4.60	1,198.52	14,886	904,334	29,075	763.81	9,487	576,327	18,529	434.71	5,399	328,007	10,546
	523	67.9	2	1.60	108.64														
	524	54.6	2	1.70	92.82														
	525	51.7	2	0.00	0.00														
76	526	36.6	2	1.50	54.90	51.92	7.20	941.25	18,298	950,042	30,545	570.69	11,094	576,021	18,519	370.56	7,204	374,021	12,025
	527	36.9	2	2.40	88.56														
	528	81.4	2	2.40	195.36														
	529	38.9	2	0.90	35.01														
	530	43.7	2	0.00	0.00														
75	531	16.9	2	1.60	27.04	47.39	12.50	435.29	14,691	696,238	22,385	382.04	12,894	611,065	19,646	53.25	1,797	85,172	2,738
	532	17.8	2	1.60	28.48														
	533	16.6	2	1.60	26.56														
	534	8.9	2	2.00	17.80														
	535	28.8	2	0.60	17.28														
	536	65.5	2	1.60	104.80														
	537	94.6	2	2.10	198.66														
	538	122.7	2	1.40	171.78														
	539	665.1	2	0.00	0.00														
Buena Ventura Level 1																			
51	309	74	2	1.60	118.40	74.00	1.60	183.55	793	58,677	1,887	183.55	793	58,677	1,887	0.00	0	0	0
50	306	392	3	2.70	1,058.40	331.92	5.90	216.09	3,442	1,142,556	36,734	216.09	3,442	1,142,556	36,734	0.00	0	0	0
	307	435	2	1.30	565.50														
	308	176	2	1.90	334.40														
49	304	80	2	0.70	56.00	70.59	1.70	325.87	1,496	105,582	3,395	325.87	1,496	105,582	3,395	0.00	0	0	0
	305	64	2	1.00	64.00														
48	300	388	2	0.30	116.40	406.31	3.50	253.74	2,398	974,278	31,324	253.74	2,398	974,278	31,324	0.00	0	0	0
	301	603	2	1.80	1,085.40														
	302	191	1.5	1.10	210.10														
	303	34	2	0.30	10.20														
47	290	128	2	0.00	0.00	142.37	15.10	392.63	16,008	2,278,942	73,270	392.63	16,008	2,278,942	73,270	0.00	0	0	0
	291	136	2	1.70	231.20														
	292	224	2	2.00	448.00														
	293	89	2	2.20	195.80														
	294	374	2	2.40	897.60														
	295	48	2	1.90	91.20														
	296	42	2	1.90	79.80														
	297	65	2	1.50	97.50														
	298	53	1.5	0.56	29.68														
	299	84	2	0.94	78.96														
46	274	73	2	0.00	0.00	182.48	10.48	525.56	14,871	2,713,719	87,248	454.05	12,848	2,344,478	75,377	71.51	2,023	369,240	11,871
	275	105	2	2.30	241.50														
	276	187	1.5	1.40	261.80														
	277	143	2	0.30	42.90														
	278	229	2	0.54	123.66														
	279	275	2	0.54	148.50														
	280	198	2	0.54	106.92														
	281	195	2	0.54	105.30														
	282	193	2	0.54	104.22														
	283	343	2	0.54	185.22														
	284	232	2	0.54	125.28														
	285	154	2	0.54	83.16														
	286	268	2	0.54	144.72														
	287	197	2	0.54	106.38														
	288	188	2	0.54	101.52														

	289	58	2	0.54	31.32														
45	266	48	2	0.00	0.00	173.86	11.90	1,254.31	40,301	7,006,613	225,268	578.44	18,585	3,231,183	103,885	675.87	21,716	3,775,430	121,383
	267	73	2	1.80	131.40														
	268	105	2	1.80	189.00														
	269	187	2	1.80	336.60														
	270	143	2	1.60	228.80														
	271	229	2	1.90	435.10														
	272	275	2	2.00	550.00														
	273	198	2	1.00	198.00														
44	252	148	2	0.20	29.60	262.12	16.90	750.05	34,225	8,970,943	288,423	600.23	27,388	7,179,027	230,811	149.82	6,836	1,791,916	57,611
	253	289	2	2.00	578.00														
	254	196	2	1.90	372.40														
	255	203	2	0.50	101.50														
	256	488	2	0.70	341.60														
	257	290	2	1.00	290.00														
	258	134	2	1.50	201.00														
	259	228	2	1.70	387.60														
	260	145	2	1.70	246.50														
	261	367	2	1.50	550.50														
	262	525	2	1.50	787.50														
	263	275	2	1.00	275.00														
	264	167	2	0.80	133.60														
	265	150	2	0.90	135.00														
43	249	171	2	0.70	119.70	147.38	3.90	200.19	2,108	310,687	9,989	200.19	2,108	310,687	9,989	0.00	0	0	0
	250	79	2	2.50	197.50														
	251	368	2	0.70	257.60														
Buena Ventura Level 2																			
74	311	24	2	0.00	0.00	86.13	5.15	11,912.86	165,648	14,267,873	458,723	911.81	12,679	1,092,063	35,111	11,001.05	152,970	13,175,811	423,612
	312	68	2	2.60	176.80														
	313	23	2	1.90	43.70														
	314	31	2	1.00	31.00														
	315	23	2	2.30	52.90														
	316	134	2	2.50	335.00														
73	317	611	2	0.75	458.25	325.02	8.20												
For this station	318	205	2	0.75	153.75														
only the	319	338	2	0.75	253.50														
replacement	320	544	2	0.75	408.00														
for CHAG-03	321	53	2	0.00	0.00														
was used.	322	130	2	2.10	273.00														
	323	324	2	2.20	712.80														
	324	451	2	0.90	405.90														
72	325	36	2	0.00	0.00	150.71	5.10	1,639.23	22,572	3,401,763	109,369	638.73	8,795	1,325,505	42,616	1,000.50	13,777	2,076,258	66,753
	326	198	2	1.80	356.40														
	327	164	2	2.30	377.20														
	328	35	2	1.00	35.00														
71	329	61	2	0.00	0.00	62.01	6.68	585.14	10,554	654,385	21,039	529.48	9,550	592,139	19,038	55.66	1,004	62,247	2,001
	330	94	2	1.70	159.80														
	331	83	2	2.10	174.30														
	332	34	2	0.90	30.60														
	333	21	2	0.33	6.93														
	334	32	2	0.33	10.56														
	335	39	2	0.33	12.87														
	336	25	2	0.33	8.25														
	337	14	2	0.33	4.62														

	338	19	2	0.33	6.27														
70	339	46	2	0.67	30.82	131.78	10.73	306.88	8,891	1,171,582	37,667	306.88	8,891	1,171,582	37,667	0.00	0	0	0
	340	35	2	0.67	23.45														
	341	70	2	0.67	46.90														
	342	49	2	0.67	32.83														
	343	60	2	0.67	40.20														
	344	73	2	0.67	48.91														
	345	54	2	0.67	36.18														
	346	652	2	0.67	436.84														
	347	462	2	0.67	309.54														
	348	67	2	0.00	0.00														
	349	24	2	1.40	33.60														
	350	95	2	2.10	199.50														
	351	146	2	1.20	175.20														
69	352	159	2	0.00	0.00	68.66	4.10	574.15	6,356	436,383	14,030	484.57	5,364	368,297	11,841	89.58	992	68,085	2,189
	353	70	2	1.50	105.00														
	354	98	2	1.70	166.60														
	355	11	2	0.90	9.90														
68	356	16	2	0.00	0.00	98.12	5.10	2,371.94	32,662	3,204,681	103,033	781.01	10,755	1,055,207	33,926	1,590.93	21,907	2,149,474	69,107
	357	50	2	1.70	85.00														
	358	143	2	2.20	314.60														
	359	84	2	1.20	100.80														
67	360	29	2	0.50	14.50	80.67	5.40	3,438.24	50,130	4,043,783	130,011	815.84	11,895	959,526	30,849	2,622.40	38,235	3,084,257	99,161
	361	83	2	2.20	182.60														
	362	107	2	1.90	203.30														
	363	44	2	0.80	35.20														
66	364	265	2	0.00	0.00	335.49	6.80	2,893.69	53,128	17,823,712	573,046	769.26	14,124	4,738,265	152,339	2,124.43	39,005	13,085,448	420,707
	365	394	2	2.60	1,024.40														
	366	396	2	2.00	792.00														
	367	230	2	1.90	437.00														
	368	93	2	0.30	27.90														
65	369	402	2	0.60	241.20	249.96	5.10	2,203.65	30,344	7,584,875	243,859	664.93	9,156	2,288,662	73,582	1,538.72	21,188	5,296,213	170,277
	370	270	2	2.80	756.00														
	371	192	1.5	1.30	249.60														
	372	70	1.5	0.40	28.00														
64	373	53.3	2	0.20	10.66	219.92	4.30	1,905.54	22,123	4,865,278	156,422	618.37	7,179	1,578,840	50,761	1,287.17	14,944	3,286,438	105,661
	374	35.4	2	1.70	60.18														
	375	386.5	2	2.00	773.00														
	376	254.5	2	0.40	101.80														
57	377	554.4	2	0.00	0.00	311.15	11.20	1,164.37	35,211	10,955,605	352,231	463.87	14,027	4,364,572	140,324	700.50	21,183	6,591,033	211,907
	378	521.9	2	1.50	782.85														
	379	683.9	2	2.10	1,436.19														
	380	366.7	2	2.10	770.07														
	381	161.4	2	2.50	403.50														
	382	24.2	2	1.20	29.04														
	383	35.1	2	1.80	63.18														
56	415	207.5	2	0.00	0.00	243.67	4.20	93.33	1,058	257,895	8,292	93.33	1,058	257,895	8,292	0.00	0	0	0
	416	245.8	2	1.90	467.02														
	417	231.7	2	1.50	347.55														
	418	286.6	2	0.60	171.96														
	419	184.5	1.5	0.20	36.90														
55	420	24.3	2	0.00	0.00	156.84	5.00	92.38	1,247	195,600	6,289	92.38	1,247	195,600	6,289	0.00	0	0	0

	421	318.7	2	1.30	414.31														
	422	88.9	2	2.00	177.80														
	423	136.1	2	1.30	176.93														
	424	37.9	2	0.40	15.16														
54	425	94.1	2	0.20	18.82	203.77	8.00	314.96	6,803	1,386,275	44,570	288.60	6,234	1,270,253	40,840	26.36	569	116,022	3,730
	426	524.6	2	1.60	839.36														
	427	231.1	2	2.20	508.42														
	428	70.5	2	2.10	148.05														
	429	57.7	2	1.20	69.24														
	430	66.1	2	0.70	46.27														
53	439	194.4	2	0.40	77.76	266.70	6.10	145.80	2,401	640,422	20,590	145.80	2,401	640,422	20,590	0.00	0	0	0
	440	60.7	2	0.50	30.35														
	441	241.1	2	1.30	313.43														
	442	343.4	2	1.50	515.10														
	443	299	2	2.00	598.00														
	444	230.5	2	0.40	92.20														
	445	709	2	0.00	0.00														
52	431	17.8	2	0.30	5.34	299.24	12.10	150.69	4,923	1,473,178	47,364	150.69	4,923	1,473,178	47,364	0.00	0	0	0
	432	133	2	1.70	226.10														
	433	126.3	2	1.80	227.34														
	434	33.7	2	1.60	53.92														
	435	860.3	2	1.50	1,290.45														
	436	391	2	1.70	664.70														
	437	301.7	2	1.70	512.89														
	438	355.6	2	1.80	640.08														
Ramp Down																			
58	384	245.5	2	0.66	162.03	378.14	7.38	1,269.38	25,294	9,564,502	307,506	456.38	9,094	3,438,724	110,558	813.00	16,200	6,125,778	196,948
	385	302.4	2	0.66	199.58														
	386	553.6	2	0.66	365.38														
	387	814	2	0.30	244.20														
	388	495.7	2	1.50	743.55														
	389	363	2	2.00	726.00														
	390	218.7	2	1.60	349.92														
	391	83.4	2	0.00	0.00														
63	392	69	2	0.10	6.90	316.38	5.30	1,716.12	24,558	7,769,539	249,796	495.97	7,097	2,245,448	72,193	1,220.15	17,460	5,524,091	177,604
	393	214.1	2	2.40	513.84														
	394	498.8	2	1.90	947.72														
	395	231.5	2	0.90	208.35														
62	396	125.1	2	0.00	0.00	307.29	4.70	1,346.54	17,088	5,250,835	168,818	496.77	6,304	1,937,156	62,281	849.77	10,784	3,313,680	106,537
	397	224.9	2	0.40	89.96														
	398	310.3	2	2.20	682.66														
	399	294.6	2	1.80	530.28														
	400	471.2	2	0.30	141.36														
61	401	634.5	2	0.10	63.45	523.08	6.00	1,627.59	26,367	13,791,897	443,420	588.11	9,527	4,983,535	160,224	1,039.48	16,840	8,808,361	283,195
	402	729.2	2	2.10	1,531.32														
	403	390.6	2	1.80	703.08														
	404	337.8	2	1.50	506.70														
	405	667.8	2	0.50	333.90														
60	406	470.3	2	0.10	47.03	463.09	4.90	1,617.81	21,404	9,911,714	318,669	686.41	9,081	4,205,376	135,206	931.40	12,322	5,706,338	183,463
	407	948.6	2	1.50	1,422.90														
	408	278	2	1.70	472.60														
	409	283.9	2	1.10	312.29														
	410	28.6	2	0.50	14.30														

59	411	419.3	2	0.10	41.93	641.73	4.60	1,944.18	24,147	15,495,630	498,196	664.05	8,248	5,292,654	170,163	1,280.13	15,899	10,202,975	328,033
	412	945.4	2	2.20	2,079.88														
	413	378	2	2.10	793.80														
	414	181.7	2	0.20	36.34														
Pique Lolon																			
114	790	180	2	0.30	54.00	261.62	9.30	330.85	8,308	2,173,476	69,879	330.85	8,308	2,173,476	69,879	0.00	0	0	0
	791	219	2	0.30	65.70														
	792	350	2	0.30	105.00														
	793	471	2	0.30	141.30														
	794	219	2	0.30	65.70														
	795	234	2	0.50	117.00														
	796	826	2	0.80	660.80														
	797	240	2	0.80	192.00														
	798	64	2	0.70	44.80														
	799	94	2	0.80	75.20														
	800	60	2	0.40	24.00														
	801	71	2	0.10	7.10														
	802	68	2	0.20	13.60														
	803	32	2	0.20	6.40														
	804	111	2	0.20	22.20														
	805	73	2	0.10	7.30														
	806	514	2	1.20	616.80														
	807	119	2	1.80	214.20														
113	778	47	2	0.50	23.50	289.79	10.70	522.41	15,092	4,373,559	140,613	522.41	15,092	4,373,559	140,613	0.00	0	0	0
	779	868	2	2.40	2,083.20														
	780	134	2	2.60	348.40														
	781	73	2	1.80	131.40														
	782	293	2	0.40	117.20														
	783	110	2	0.50	55.00														
	784	49	2	0.50	24.50														
	785	100	2	0.50	50.00														
	786	93	2	0.50	46.50														
	787	74	2	0.50	37.00														
	788	368	2	0.50	184.00														
Challacollo Level 1																			
42	247	196	2	0.20	39.20	204.97	6.20	98.24	1,645	337,077	10,837	98.24	1,645	337,077	10,837	0.00	0	0	0
	900	337	2	2.80	943.60														
	901	82	2	2.40	196.80														
	902	114	2	0.80	91.20														
41	242	4	2	0.00	0.00	161.12	4.90	36.97	489	78,807	2,534	36.97	489	78,807	2,534	0.00	0	0	0
	243	106	2	0.60	63.60														
	244	217	2	2.10	455.70														
	245	137	2	1.90	260.30														
	246	33	2	0.30	9.90														
40	203	27	2	0.70	18.90	59.71	11.80	629.78	20,065	1,198,021	38,517	339.79	10,826	646,377	20,782	289.99	9,239	551,644	17,736
	204	33	2	0.70	23.10														
	205	84	2	0.00	0.00														
	206	41	2	0.10	4.10														
	207	39	2	1.10	42.90														
	208	146	2	2.00	292.00														
	209	84	2.5	0.70	58.80														
	210	14	2	1.00	14.00														
	211	8.9	2	1.50	13.35														
	212	7.7	2	2.00	15.40														
	213	111	2	2.00	222.00														
39	199	44	2.5	0.00	0.00	135.85	4.20	764.56	8,670	1,177,855	37,869	614.51	6,969	946,693	30,437	150.05	1,702	231,162	7,432

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	200	59	1.5	1.00	59.00														
	202	195.3	1	0.60	117.18														
	201	34	2	0.40	13.60														
	903	244	2	0.90	219.60														
	904	124	2	1.30	161.20														
38	214	48	2	0.20	9.60	146.85	10.90	583.04	17,159	2,519,835	81,015	583.04	17,159	2,519,835	81,015	0.00	0	0	0
	215	462	2	1.70	785.40														
	216	33	1.5	1.10	36.30														
	217	26	2	1.20	31.20														
	218	446	2	1.40	624.40														
	219	40	2	1.90	76.00														
	220	14	2	2.00	28.00														
	221	7	3	1.40	9.80														
37	222	174	2	0.00	0.00	219.09	6.80	183.37	3,367	737,598	23,714	183.37	3,367	737,598	23,714	0.00	0	0	0
	223	231	2	1.50	346.50														
	224	12	2	1.80	21.60														
	225	397	1.5	1.00	397.00														
	226	407	2	1.70	691.90														
	227	41	2.5	0.80	32.80														
Decline Level 1 to Level 2																			
35	190	22	2	0.10	2.20	39.74	3.90	278.92	2,937	116,728	3,753	271.13	2,855	113,468	3,648	7.79	82	3,260	105
	191	36	2	1.50	54.00														
	192	44	2	2.00	88.00														
	193	36	2	0.30	10.80														
36	194	9.4	2.5	0.30	2.82	101.05	4.20	364.09	4,129	417,213	13,414	338.69	3,841	388,107	12,478	25.40	288	29,106	936
	195	5.9	2	1.80	10.62														
	196	228.1	1.5	1.70	387.77														
	197	58	2.5	0.40	23.20														
Challacollo Level 2																			
34	166	18	2	0.30	5.40	7.86	2.90	303.14	2,374	18,661	600	303.14	2,374	18,661	600	0.00	0	0	0
	167	6.8	2	2.20	14.96														
	168	6.1	2	0.40	2.44														
33	157	555.2	2	2.00	1,110.40	519.81	6.80	394.95	7,251	3,769,280	121,185	394.95	7,251	3,769,280	121,185	0.00	0	0	0
	158	440	2	2.60	1,144.00														
	159	620	2.5	2.00	1,240.00														
	160	201.5	2.5	0.20	40.30														
32	153	335.8	2	0.40	134.32	949.79	4.10	551.71	6,107	5,800,747	186,498	551.71	6,107	5,800,747	186,498	0.00	0	0	0
	154	1720	2	1.80	3,096.00														
	155	420	1.5	1.50	630.00														
	156	84.5	2	0.40	33.80														
31	148	282	2	1.40	394.80	197.55	5.80	289.87	4,539	896,759	28,831	289.87	4,539	896,759	28,831	0.00	0	0	0
	149	420	1.5	1.30	546.00														
	150	87	2	1.50	130.50														
	151	48	1.5	1.50	72.00														
	152	25	2	0.10	2.50														
30	145	23	2	1.10	25.30	62.86	10.50	133.21	3,777	237,380	7,632	133.21	3,777	237,380	7,632	0.00	0	0	0
	146	62	2	1.80	111.60														
	147	36	2	0.40	14.40														
	184	237	2	1.50	355.50														
	185	11	2	0.60	6.60														
	186	150	2	0.40	60.00														
	187	20	2.5	2.00	40.00														
	188	17	4	2.00	34.00														

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	189	18	2	0.70	12.60														
29	141	40	2	0.30	12.00	27.76	4.20	144.41	1,638	45,463	1,462	144.41	1,638	45,463	1,462	0.00	0	0	0
	142	16	2	1.60	25.60														
	143	32	2	2.00	64.00														
	144	50	2	0.30	15.00														
28	137	61	2	0.40	24.40	323.92	4.00	335.17	3,620	1,172,519	37,697	250.78	2,708	877,299	28,206	84.39	911	295,220	9,492
	138	460	1.5	2.00	920.00														
	139	197	1.5	1.30	256.10														
	140	317.2	2	0.30	95.16														
27	180	10	2	0.10	1.00	149.66	8.30	716.05	16,047	2,401,492	77,210	201.39	4,513	675,423	21,715	514.66	11,534	1,726,069	55,494
	181	458.5	2	1.50	687.75														
	182	76	2.5	2.40	182.40														
	183	58	2.5	0.50	29.00														
	133	86	2	1.90	163.40														
	132	94	2	1.90	178.60														
26	134	1300	2	0.30	390.00	791.44	3.50	1,100.31	10,398	8,229,308	264,578	850.52	8,037	6,361,108	204,514	249.79	2,361	1,868,200	60,064
	135	800	2	2.50	2,000.00														
	136	542.9	2	0.70	380.03														
26B	896	200	2	0.30	60.00	166.11	3.70	907.50	9,066	1,505,924	48,417	907.50	9,066	1,505,924	48,417	0.00	0	0	0
	897	283	2	1.40	396.20														
	898	42	2	1.60	67.20														
	899	228	2	0.40	91.20														
26A	894	22	2	0.70	15.40	126.09	1.6	1,551.15	6,701	844,950	27,166	1,030.35	4,451	561,257	18,045	520.80	2,250	283,693	9,121
	895	89	2	0.90	80.10														
	892	363	2	0.80	290.40														
	893	22	2	0.80	17.60														
Challacollo Level 3																			
15	68	132	2	1.80	237.60	74.50	3.60	1,194.94	11,615	865,304	27,820	931.46	9,054	674,507	21,686	263.48	2,561	190,796	6,134
	69	17	2	1.80	30.60														
16	70	26.1	2	0.10	2.61	99.30	3.70	1,158.34	11,572	1,149,081	36,944	719.33	7,186	713,580	22,942	439.01	4,386	435,501	14,002
	71	94	2	1.70	159.80														
	72	118.8	2	1.50	178.20														
	73	73.9	1	0.20	14.78														
	74	60.1	1.5	0.20	12.02														
17	75	38.3	2	0.00	0.00	124.33	5.9	680.02	10,879	1,352,520	43,485	593.99	9,502	1,181,411	37,983	86.03	1,376	171,109	5,501
	76	71.3	2	1.40	99.82														
	77	24	1.5	1.40	33.60														
	78	56	3	0.50	28.00														
	64	39.1	2	0.88	34.21														
	65	66.3	2	0.88	58.01														
	66	552	2	0.88	483.00														
	67	?	2	0.88															
18	79	12	2	0.00	0.00	26.19	8.10	265.69	5,811	152,196	4,893	265.69	5,811	152,196	4,893	0.00	0	0	0
	80	16.9	2	1.90	32.11														
	81	26	2	2.20	57.20														
	82	35	3	0.50	17.50														
	62	55.6	2	1.75	97.30														
	63	4.6	2	1.75	8.05														
19	83	568	2	0.40	227.20	399.26	8.70	221.30	5,198	2,075,511	66,729	221.30	5,198	2,075,511	66,729	0.00	0	0	0
	88	668	2	1.50	1,002.00														

	89	684	2	1.90	1,299.60														
	90	412	2	1.90	782.80														
	91	44	2	1.80	79.20														
	92	26	2	1.00	26.00														
	93	284	2	0.20	56.80														
20	87	17	2	1.00	17.00	60.18	7.70	285.75	5,941	357,525	11,495	285.75	5,941	357,525	11,495	0.00	0	0	0
	86	36	2	1.00	36.00														
	85	65	2	1.00	65.00														
	84	13	2	1.00	13.00														
	94	115	2	0.00	0.00														
	95	155	2	1.50	232.50														
	96	37	2	1.70	62.90														
	97	74	3	0.50	37.00														
21	118	24	2	1.90	45.60	36.08	20.90	496.72	28,030	1,011,343	32,515	496.72	28,030	1,011,343	32,515	0.00	0	0	0
	117	26	2	1.90	49.40														
	116	29	2	1.90	55.10														
	115	7.9	2	1.90	15.01														
	114	9.2	2	1.90	17.48														
	113	36	2	1.90	68.40														
	112	78	2	1.90	148.20														
	111	82	2	1.90	155.80														
	110	75	2	1.90	142.50														
	98	21	2	0.30	6.30														
	99	21	1.5	1.00	21.00														
	100	11	2	1.90	20.90														
	101	14	2	0.60	8.40														
22	102	19	2	0.00	0.00	113.14	3.50	1,151.96	10,886	1,231,676	39,599	791.73	7,482	846,518	27,216	360.23	3,404	385,158	12,383
	103	27	2	1.00	27.00														
	104	180	2	2.00	360.00														
	105	18	2	0.50	9.00														
23	106	19	2	0.00	0.00	27.12	3.30	2,903.21	25,868	701,561	22,556	629.66	5,610	152,157	4,892	2,273.55	20,257	549,403	17,664
	107	11	1.5	1.30	14.30														
	108	22	1.5	1.40	30.80														
	109	74	2	0.60	44.40														
24	119	13	2	0.00	0.00	37.11	3.80	413.48	4,242	157,412	5,061	185.93	1,908	70,784	2,276	227.55	2,335	86,628	2,785
	120	26	1.5	1.60	41.60														
	121	43	2	1.80	77.40														
	122	55	2	0.40	22.00														
25	123	55	2	0.50	27.50	97.99	8.00	1,195.97	25,833	2,531,468	81,389	569.66	12,305	1,205,779	38,767	626.31	13,528	1,325,688	42,622
	124	91	2	0.60	54.60														
	125	23	2	0.70	16.10														
	126	24	2	0.80	19.20														
	127	14	2	0.90	12.60														
	128	109	2	1.00	109.00														
	129	255.5	2	1.10	281.05														
	130	143	2	1.10	157.30														
	131	82	2	1.30	106.60														
Stope area between Challacollo Intermediate Level and Leve																			
14	57	252	2	1.80	453.60	122.98	9.00	167.73	4,076	501,247	16,115	167.73	4,076	501,247	16,115	0.00	0	0	0
	58	312	2	1.80	561.60														
	59	17.3	2	1.80	31.14														
	60	27.7	2	1.80	49.86														
	61	5.9	2	1.80	10.62														
13	53	268	2	1.00	268.00	268.00	1.00	83.02	224	60,073	1,931	83.02	224	60,073	1,931	0.00	0	0	0

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12	54	364	2	0.80	291.20	364.00	0.80	71.82	155	56,468	1,815	71.82	155	56,468	1,815	0.00	0	0	0
11	56	500	2	0.90	450.00	500.00	0.90	178.45	434	216,817	6,971	178.45	434	216,817	6,971	0.00	0	0	0
Challacollo Intermediate Level																			
1	1	400	2	1.90	760.00	163.04	9.50	3,950.08	101,320	16,519,140	531,103	1,046.50	26,843	4,376,438	140,706	2,903.58	74,477	12,142,702	390,397
	2	191	2	1.90	362.90														
	3	69	2	1.90	131.10														
	4	95	2	1.90	180.50														
	5	60.2	2	1.90	114.38														
2	6	192.3	2	1.90	365.37	350.37	6.65	428.43	7,692	2,695,218	86,653	428.43	7,692	2,695,218	86,653	0.00	0	0	0
	7	440	2	1.90	836.00														
	8	396	3	2.85	1,128.60														
3	11	524	2	1.90	995.60	321.88	15.20	309.36	12,696	4,086,568	131,386	309.36	12,696	4,086,568	131,386	0.00	0	0	0
	12	168	2	1.90	319.20														
	13	392	2	1.90	744.80														
	14	177	2	1.90	336.30														
	15	143	2	1.90	271.70														
	16	123	2	1.90	233.70														
	17	472	2	1.90	896.80														
	18	576	2	1.90	1,094.40														
4	19	269	2	1.80	484.20	269.00	1.80	213.77	1,039	279,470	8,985	213.77	1,039	279,470	8,985	0.00	0	0	0
5	20	440	2	1.70	748.00	177.53	15.60	388.59	16,367	2,905,635	93,418	388.59	16,367	2,905,635	93,418	0.00	0	0	0
	21	172	2	1.80	309.60														
	22	50	2	1.60	80.00														
	23	60	2	1.40	84.00														
	24	23.3	2	1.20	27.96														
	25	38	2	1.00	38.00														
	32	472	2	1.60	755.20														
	31	191	2	1.50	286.50														
	30	82.3	2	1.80	148.14														
	33	256	2	1.00	256.00														
	34	36	2	1.00	36.00														
6	36	352	2	1.80	633.60	210.50	7.20	639.92	12,440	2,618,629	84,191	639.92	12,440	2,618,629	84,191	0.00	0	0	0
	37	280	2	1.80	504.00														
	38	158	2	1.80	284.40														
	39	52	2	1.80	93.60														
7	42	184	2	1.50	276.00	184.00	1.50	464.81	1,882	346,376	11,136	464.81	1,882	346,376	11,136	0.00	0	0	0
8	44	256	2	0.80	204.80	216.50	1.60	294.53	1,272	275,468	8,857	294.53	1,272	275,468	8,857	0.00	0	0	0
	45	177	2	0.80	141.60														
9	43	216	2	1.40	302.40	216.00	1.40	335.63	1,269	274,035	8,810	335.63	1,269	274,035	8,810	0.00	0	0	0
10	46	54.4	2	1.30	70.72	167.70	8.80	1,754.88	41,696	6,992,221	224,805	991.96	23,569	3,952,409	127,073	762.92	18,127	3,039,812	97,732
	47	72.4	2	1.50	108.60														
	48	133	2	1.50	199.50														
	49	352	2	1.50	528.00														
	50	248	2	1.30	322.40														
	51	145	2	1.70	246.50														
Jaula Level																			
103	752	279.7	2	1.90	531.43	279.70	1.90	2,372.67	12,172	3,404,452	109,456	633.03	3,247	908,310	29,203	1,739.64	8,924	2,496,142	80,253
102	745	313.7	2	1.80	564.66	303.61	12.40	341.45	11,432	3,470,743	111,587	341.45	11,432	3,470,743	111,587	0.00	0	0	0

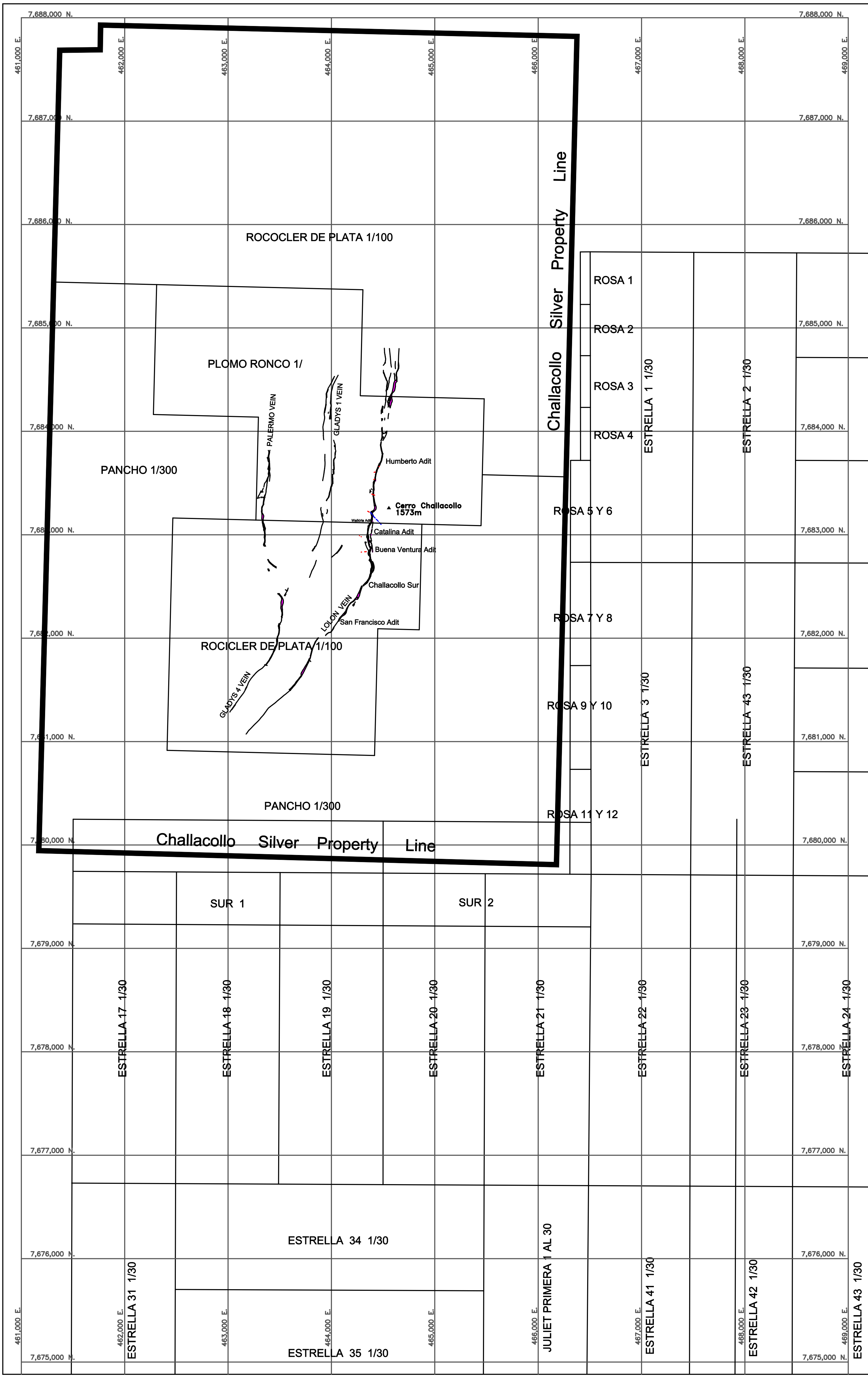
	746	384.4	2	1.20	461.28														
	747	176.8	2	1.30	229.84														
	748	438.9	2	1.80	790.02														
	749	147	2	1.80	264.60														
	750	99.8	2	1.80	179.64														
	750	472.1	3	2.70	1,274.67														
101	743	492.8	2	1.40	689.92	660.84	2.70	438.15	3,194	2,110,789	67,863	438.15	3,194	2,110,789	67,863	0.00	0	0	0
	744	841.8	2	1.30	1,094.34														
100	735	298.5	2	0.60	179.10	504.92	12.20	382.02	12,584	6,353,777	204,279	382.02	12,584	6,353,777	204,279	0.00	0	0	0
	736	422.8	2	1.70	718.76														
	737	231.6	2	0.40	92.64														
	738	529.9	2	1.90	1,006.81														
	739	959.7	2	1.90	1,823.43														
	740	603.5	2	1.90	1,146.65														
	741	448.6	2	1.90	852.34														
	742	179.1	2	1.90	340.29														
99	725	53.3	2	0.50	26.65	209.12	15.10	404.73	16,501	3,450,599	110,939	404.73	16,501	3,450,599	110,939	0.00	0	0	0
	726	408.6	2	1.70	694.62														
	727	759.3	2	0.30	227.79														
	728	103.4	2	1.80	186.12														
	729	90.8	2	1.80	163.44														
	730	96.4	2	1.80	173.52														
	731	56.3	2	1.80	101.34														
	732	372.4	2	1.80	670.32														
	733	69.8	2	1.80	125.64														
	734	437.9	2	1.80	788.22														
98	721	453.7	2	1.60	725.92	433.65	7.60	219.48	4,504	1,953,042	62,792	219.48	4,504	1,953,042	62,792	0.00	0	0	0
	722	453.7	2	1.90	862.03														
	723	512.3	2	1.70	870.91														
	724	348.7	2	2.40	836.88														
96	720	417.6	2	1.70	709.92	318.86	5.70	345.90	5,323	1,697,436	54,574	293.76	4,521	1,441,570	46,348	52.14	802	255,867	8,226
	757	280.9	2	2.00	561.80														
	758	272.9	2	2.00	545.80														
97	753	539.3	2	1.00	539.30	671.46	6.80	1,071.52	19,673	13,209,739	424,703	651.16	11,955	8,027,525	258,091	420.36	7,718	5,182,214	166,612
	754	545.8	2	1.80	982.44														
	755	928.3	2	2.00	1,856.60														
	756	593.8	2	2.00	1,187.60														
95	719	130.7	2	1.80	235.26	130.70	1.80	2,260.10	10,984	1,435,620	46,156	913.10	4,438	580,003	18,648	1,347.00	6,546	855,617	27,509
94	717	88.9	2	1.00	88.90	115.45	2.00	10,005.57	54,030	6,237,773	200,549	1,259.70	6,802	785,335	25,249	8,745.87	47,228	5,452,438	175,300
	718	142	2	1.00	142.00														
Jualo Sub-Level																			
123	761	187.5	2	1.90	356.25	187.50	1.90	4,538.38	23,282	4,365,354	140,349	935.95	4,801	900,267	28,944	3,602.43	18,480	3,465,087	111,405
124	762	135.6	2	1.90	257.64	296.70	3.80	928.97	9,531	2,827,917	90,920	451.10	4,628	1,373,212	44,150	477.87	4,903	1,454,704	46,770
	763	457.8	2	1.90	869.82														
125	764	369.3	2	1.90	701.67	530.87	5.70	781.12	12,021	6,381,780	205,179	232.63	3,580	1,900,596	61,106	548.49	8,441	4,481,184	144,073
	765	770.2	2	1.90	1,463.38														
	766	453.1	2	1.90	860.89														
126	767	441.1	2	1.90	838.09	405.50	3.80	1,901.83	19,513	7,912,431	254,391	352.06	3,612	1,464,721	47,092	1,549.77	15,901	6,447,710	207,299
	768	369.9	2	1.90	702.81														

DTH CH-01	MB00602	64	2	0.85	54.40	328.93	13	16,375.70	563,733	185,430,730	5,961,736	1,205.93	41,514	13,655,385	439,031	15,169.77	522,219	171,775,346	5,522,706
	MB00603	520	2	0.85	442.00														
	MB00604	271	2	0.85	230.35														
	MB00605	613	2	0.85	521.05														
	MB00606	203	2	0.85	172.55														
	MB00607	248	2	0.85	210.80														
	MB00608	618	2	0.85	525.30														
	MB00609	356	2	0.85	302.60														
	MB00610	215	2	0.85	182.75														
	MB00611	127	2	0.85	107.95														
	MB00612	125	2	0.85	106.25														
	MB00613	386	2	0.85	328.10														
	MB00614	353	2	0.85	300.05														
	MB00615	32	2	0.85	27.20														
	MB00616	803	2	0.85	682.55														
DTH CH-07	SA3043	93	2	1.66	154.38	152.60	8	16,125.29	361,368	55,144,718	1,772,944	972.31	21,789	3,325,073	106,904	15,152.98	339,578	51,819,646	1,666,040
	SA3044	320	2	1.66	531.20														
	SA3045	140	2	1.66	232.40														
	SA3046	73	2	1.66	121.18														
	SA3047	137	2	1.66	227.42														
DTH CH-09	SA3181	170	2	1.30	221.00	170.00	1	15,876.30	55,726	9,473,388	304,577	1,840.65	6,461	1,098,316	35,312	14,035.65	49,265	8,375,072	269,265
CHAG-01	130-132	129	2	1.20	154.80	32.40	6	10,757.63	174,274	5,646,465	181,538	1,236.31	20,028	648,914	20,863	9,521.32	154,245	4,997,550	160,675
	132-134	31	2	1.20	37.20														
	134-136	16	2	1.20	19.20														
	136-138	20	2	1.20	24.00														
	138-140	16	2	1.20	19.20														
	140-142	17	2	1.20	20.40														
	142-144	29	2	1.20	34.80														
	144-146	21	2	1.20	25.20														
	146-148	32	2	1.20	38.40														
	148-150	17	2	1.20	20.40														
	150-152	7	2	1.20	8.40														
	152-154	6	2	1.20	7.20														
	154-156	14	2	1.20	16.80														
	156-158	12	2	1.20	14.40														
	158-160	15	2	1.20	18.00														
	160-162	18	2	1.20	21.60														
	162-164	22	2	1.20	26.40														
	172-174	15	2	1.20	18.00														
	174-176	15	2	1.20	18.00														
	176-178	12	2	1.20	14.40														
	178-180	11	2	1.20	13.20														
	180-182	12	2	1.20	14.40														
	182-184	36	2	1.20	43.20														
	184-186	63	2	1.20	75.60														
	186-188	12	2	1.20	14.40														
	188-190	10	2	1.20	12.00														
	190-192	31	2	1.20	37.20														
	192-194	46	2	1.20	55.20														
	194-196	21	2	1.20	25.20														
	196-198	6	2	1.20	7.20														
	198-199.65	6	1.65	0.99	5.94														
CHAG-02	50-52	113	2	1.47	166.11	154.33	22	2,260.88	134,601	20,773,497	667,883	724.48	43,132	6,656,692	214,018	1,536.40	91,470	14,116,804	453,866
	52-54	77	2	1.47	113.19														
	54-56	16	2	1.47	23.52														
	56-58	7	2	1.47	10.29														
	58-60	<3	2	1.47	#VALUE!														
	60-62	<3	2	1.47	#VALUE!														

	62-64	11	2	1.47	16.17														
	64-66	13	2	1.47	19.11														
	66-68	11	2	1.47	16.17														
	68-70	18	2	1.47	26.46														
	70-72	15	2	1.47	22.05														
	72-74	289	2	1.47	424.83														
	74-76	6	2	1.47	8.82														
	76-78	25	2	1.47	36.75														
	78-80	9	2	1.47	13.23														
	80-82	<3	2	1.47	#VALUE!														
	82-84	<3	2	1.47	#VALUE!														
	84-86	30	2	1.47	44.10														
	86-88	7	2	1.47	10.29														
	88-90	26	2	1.47	38.22														
	90-92	6	2	1.47	8.82														
	92-94	<3	2	1.47	#VALUE!														
	94-96	22	2	1.47	32.34														
	96-98	79	2	1.47	116.13														
	98-100	183	2	1.47	269.01														
	100-102	15	2	1.47	22.05														
	102-104	33	2	1.47	48.51														
	104-106	47	2	1.47	69.09														
	106-108	50	2	1.47	73.50														
	108-110	57	2	1.47	83.79														
	110-112	65	2	1.47	95.55														
	112-114	54	2	1.47	79.38														
	114-116	90	2	1.47	132.30														
	116-118	29	2	1.47	42.63														
	118-120	126	2	1.47	185.22														
	120-122	105	2	1.47	154.35														
	122-124	42	2	1.47	61.74														
	124-126	196	2	1.47	288.12														
	126-128	235	2	1.47	345.45														
	128-130	235	2	1.47	345.45														
	130-132	64	2	1.47	94.08														
	132-134	52	2	1.47	76.44														
	134-136	52	2	1.47	76.44														
	136-138	136	2	1.47	199.92														
	138-140	82	2	1.47	120.54														
	140-142	151	2	1.47	221.97														
	142-144	61	2	1.47	89.67														
	144-146	420	2	1.47	617.40														
	146-148	358	2	1.47	526.26														
	148-150	33	2	1.47	48.51														
	150-152	10	2	1.47	14.70														
	152-154	<3	2	1.47	#VALUE!														
	154-156	5	2	1.47	7.35														
CHAG-03	36-38	<3	2	1.96	#VALUE!	262.72	22	3,539.85	205,851	54,082,030	1,738,778	623.80	36,276	9,530,452	306,411	2,916.05	169,576	44,551,578	1,432,366
	38-40	4	2	1.96	7.83														
	40-42	10	2	1.96	19.58														
	42-44	182	2	1.96	356.36														
	44-46	45	2	1.96	88.11														
	46-48	49	2	1.96	95.94														
	48-50	12	2	1.96	23.50														
	50-52	15	2	1.96	29.37														
	52-54	<3	2	1.96	#VALUE!														
	54-56	<3	2	1.96	#VALUE!														
	56-58	15	2	1.96	29.37														
	78-80	144	2	1.96	281.95														
	80-82	19	2	1.96	37.20														
	82-84	6	2	1.96	11.75														

	84-86	278	2	1.96	544.32														
	86-88	562	2	1.96	1,100.40														
	88-90	178	2	1.96	348.52														
	90-91.2	263	1.2	1.17	308.97														
drift stn 73	91.2-96.05	314.52	4.85	4.75	1,493.38														
	96.05-97.4	210	1.35	1.32	277.55														
	97.4-100	239	2.6	2.55	608.35														
	100-102	190	2	1.96	372.02														
	102-104	195	2	1.96	381.81														
	104-106	114	2	1.96	223.21														
	106-108	35	2	1.96	68.53														
	108-110	8	2	1.96	15.66														
	110-112	24	2	1.96	46.99														
CHAG-04	40-42	36	2	1.72	61.92	370.83	21	26,286.93	1,464,918	543,240,438	17,465,586	1,424.68	79,395	29,442,152	946,587	24,862.25	1,385,523	513,798,286	16,518,998
	42-44	28	2	1.72	48.16														
	44-46	17	2	1.72	29.24														
	46-48	59	2	1.72	101.48														
	48-50	31	2	1.72	53.32														
	50-52	44	2	1.72	75.68														
	52-54	<3	2	1.72	#VALUE!														
	54-56	25	2	1.72	43.00														
	56-58	48	2	1.72	82.56														
	58-60	29	2	1.72	49.88														
	60-62	178	2	1.72	306.16														
	62-64	49	2	1.72	84.28														
	64-66	67	2	1.72	115.24														
	66-68	272	2	1.72	467.84														
	68-70	245	2	1.72	421.40														
	70-72	135	2	1.72	232.20														
	72-74	731	2	1.72	1,257.32														
	74-76	380	2	1.72	653.60														
	76-78	197	2	1.72	338.84														
	78-80	394	2	1.72	677.68														
	80-82	244	2	1.72	419.68														
	82-84	456	2	1.72	784.32														
	84-86	605	2	1.72	1,040.60														
	86-88	585	2	1.72	1,006.20														
	88-90	206	2	1.72	354.32														
	90-92	10	2	1.72	17.20														
	92-94	68	2	1.72	116.96														
CHAG-05	20-22	77	2	1.86	143.07	177.40	9	20,635.74	517,606	91,823,352	2,952,189	1,953.54	49,001	8,692,714	279,477	18,682.20	468,606	83,130,637	2,672,712
	22-24	50	2	1.86	92.90														
	24-26	39	2	1.86	72.46														
	26-28	196	2	1.86	364.17														
	28-30	148	2	1.86	274.98														
	30-32	168	2	1.86	312.14														
	32-34	254	2	1.86	471.93														
	34-36	121	2	1.86	224.82														
	36-38	35	2	1.86	65.03														
	38-38.6	18	0.6	0.56	10.03														
CHAG-06	31.4-32	19	1.6	1.38	26.30	68.02	16	11,547.13	498,914	33,934,240	1,091,011	1,953.54	84,406	5,740,985	184,577	9,593.59	414,508	28,193,255	906,434
	32-34	58	2	1.73	100.34														
	34-36	101	2	1.73	174.73														
	36-38	109	2	1.73	188.57														
	38-40	173	2	1.73	299.29														
	40-42	48	2	1.73	83.04														
	42-44	28	2	1.73	48.44														
	44-46	52	2	1.73	89.96														
	46-48.9	31	2.9	2.51	77.76														

CHAG-07	53-55	101	2	1.49	150.49	72.00	4	16,238.51	179,651	12,934,850	415,865	1,815.20	20,082	1,445,905	46,487	14,423.31	159,569	11,488,945	369,378
	55-57	61	2	1.49	90.89														
	57-58.5	48	1.5	1.12	53.64														
	58.5-61	13	2.5	1.86	24.21														
	61-62	<3	1	0.75	#VALUE!														
Totals									**6,080,769**	**1,479,673,406**	**47,572,605**		**1,376,255**	**325,832,398**	**10,475,755**		**4,704,513**	**1,153,841,007**	**37,096,850**
Avg. thickness of polygons	6.90			Avg. thickness of workings samples polygons			6.43		Avg. thickness of drill holes excluding hole DTH-CH09				13.41						
									Avg. thickness of all drill hole polygons				12.20						
Specific **G**ravity used in Resource Calculation =					**2.7**														
Total tonnes/tons				6,080,769	6,701,007		**Tonnes/tons indicated**					1,376,255.22	1,516,633						
Total tonnes Ag				1,480			**Tonnes Ag**					325.83							
g/tonne				243.34			**g/tonne**					236.75							
oz/ton					7.10		**oz/ton**						6.91						
Total oz					47,559,159		**total oz**						10,472,794						
Note: This is a check calculation of table below.																			
Total tonnes/tons indicated plus inferred					6,080,769	6,701,007			**Tonnes/tons inferred**			4,704,513	5,184,373.86						
Total tonnes Ag					1,480				**Tonnes Ag**			1,154							
g/tonne					243.34				**g/tonne**			245.26							
oz/ton						7.10			**oz/ton**				7.15						
total oz						47,559,159			**total oz**				37,086,364.57						

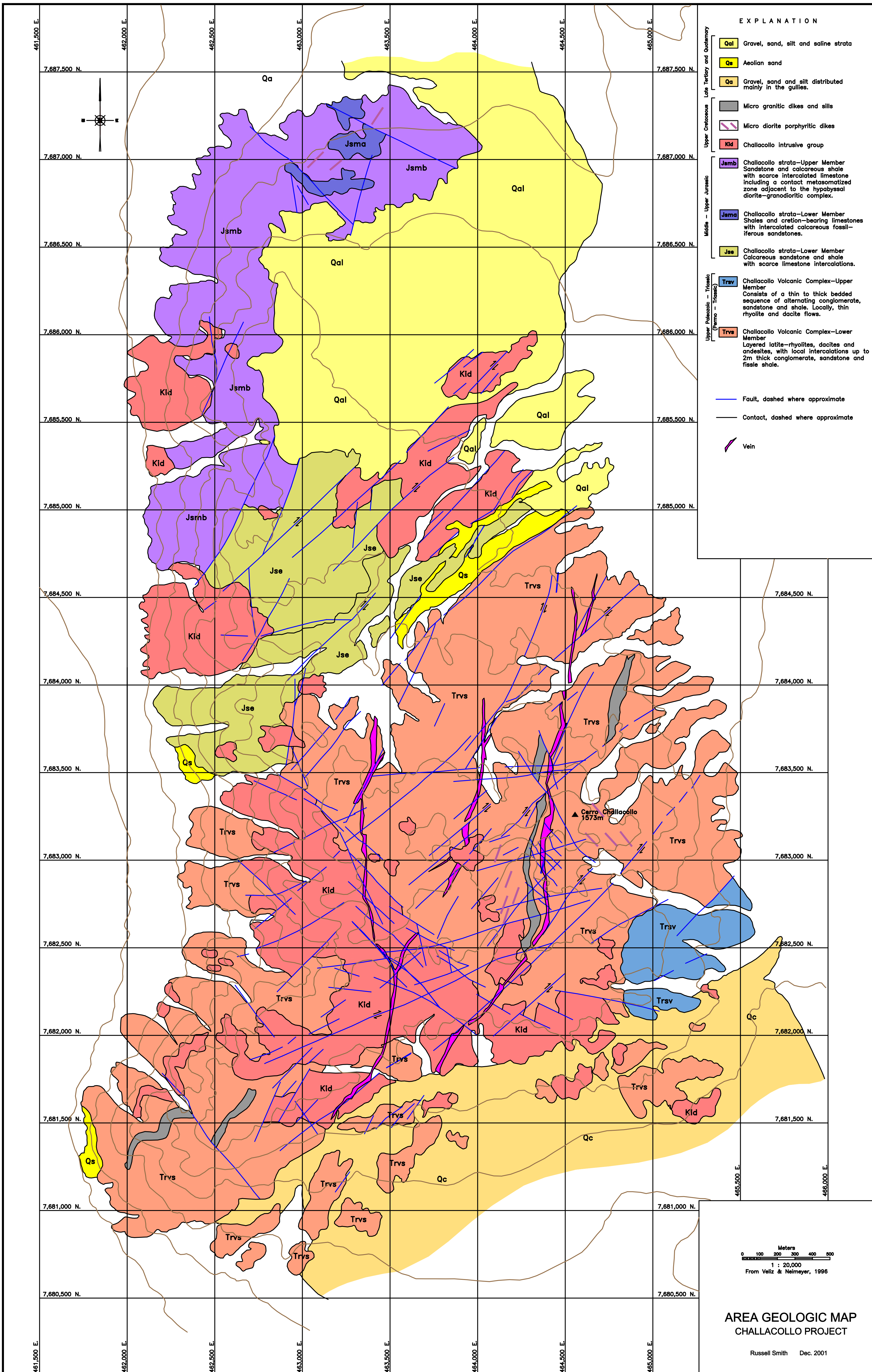


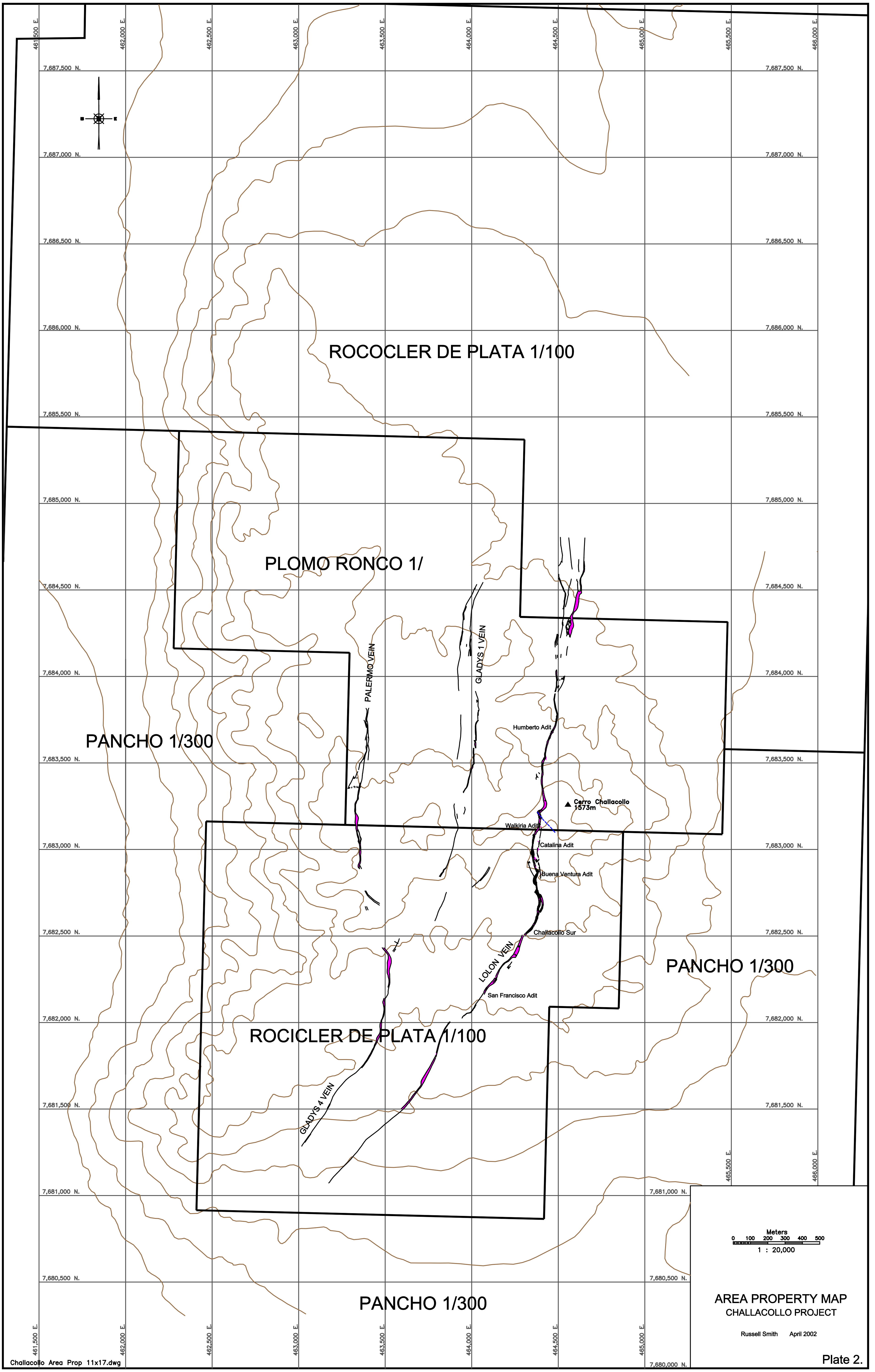
REGIONAL PROPERTY MAP
CHALLACOLLO PROJECT

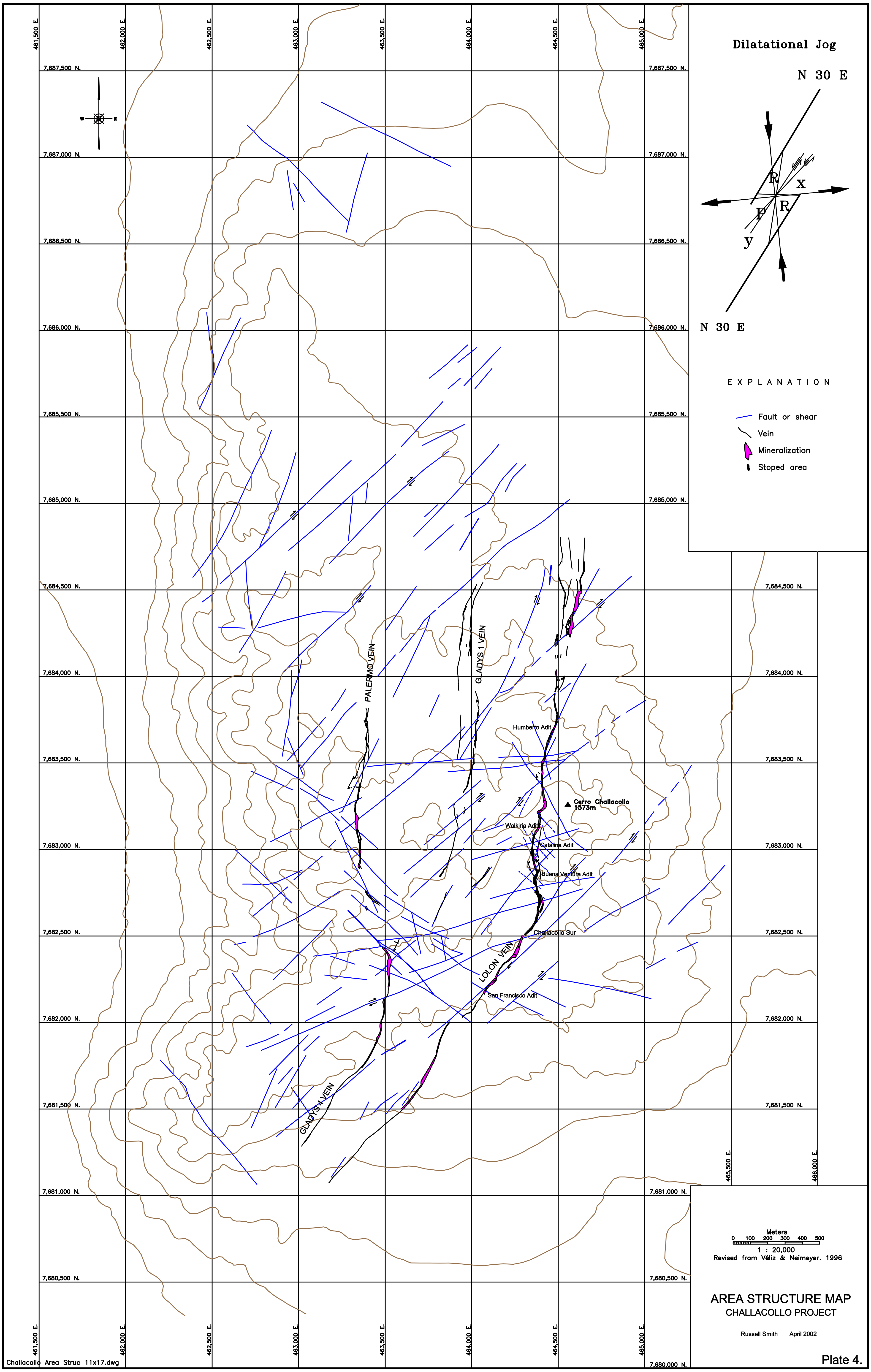
Russell Smith April 2002

Plate 1.

Challacollo Area Property 11x17.dwg


EXPLANATION
Late Tertiary and Quaternary
Qal Gravel, sand, silt and saline strata
Qs Aeolian sand
Qa Gravel, sand and silt distributed mainly in the gullies.
Upper Cretaceous
Micro granitic dikes and sills
Micro diorite porphyritic dikes
Kid Challacollo intrusive group
Middle – Upper Jurassic
Jsmb Challacollo strata–Upper Member Sandstone and calcareous shale with scarce intercalated limestone including a contact metasomatized zone adjacent to the hypabyssal diorite–granodioritic complex.
Jsma Challacollo strata–Lower Member Shales and cretion–bearing limestones with intercalated calcareous fossiliferous sandstones.
Jse Challacollo strata–Lower Member Calcareous sandstone and shale with scarce limestone intercalations.
Upper Paleozoic – Triassic (Permo – Triassic)
Trsv Challacollo Volcanic Complex–Upper Member Consists of a thin to thick bedded sequence of alternating conglomerate, sandstone and shale. Locally, thin rhyolite and dacite flows.
Trvs Challacollo Volcanic Complex–Lower Member Layered latite–rhyolites, dacites and andesites, with local intercalations up to 2m thick conglomerate, sandstone and fissile shale.
Fault, dashed where approximate
Contact, dashed where approximate
Vein
Cerro Challacollo 1573m
Meters
0 100 200 300 400 500
1 : 20,000
From Veliz & Neimeyer, 1996
AREA GEOLOGIC MAP
CHALLACOLLO PROJECT
Russell Smith Dec. 2001
Challacollo Area Geol 11x17.dwg
Plate 3.


ROCOCLER DE PLATA 1/100
PLOMO RONCO 1/
PANCHO 1/300
ROCICLER DE PLATA 1/100
PANCHO 1/300
PANCHO 1/300
PALERMO VEIN
GLADYS 1 VEIN
GLADYS 4 VEIN
LOLON VEIN
Humberto Adit
Cerro Challacollo
1573m
Walkiria Adit
Catalina Adit
Buena Ventura Adit
Challacollo Sur
San Francisco Adit
461,500 E.
462,000 E.
462,500 E.
463,000 E.
463,500 E.
464,000 E.
464,500 E.
465,000 E.
465,500 E.
466,000 E.
7,687,500 N.
7,687,000 N.
7,686,500 N.
7,686,000 N.
7,685,500 N.
7,685,000 N.
7,684,500 N.
7,684,000 N.
7,683,500 N.
7,683,000 N.
7,682,500 N.
7,682,000 N.
7,681,500 N.
7,681,000 N.
7,680,500 N.
7,680,000 N.
Meters
0 100 200 300 400 500
1 : 20,000
AREA PROPERTY MAP
CHALLACOLLO PROJECT
Russell Smith April 2002
Plate 2.
Challacollo Area Prop 11x17.dwg

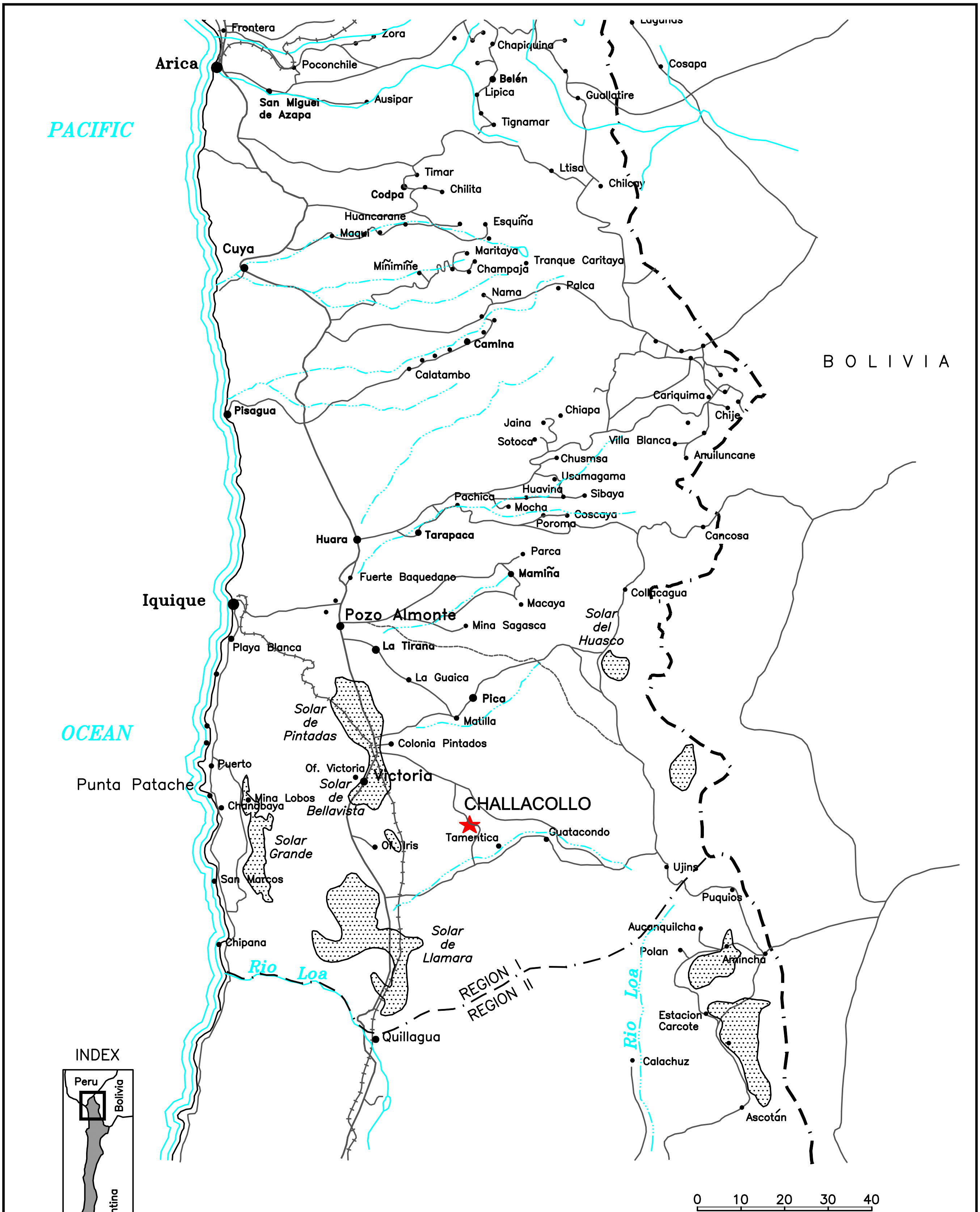


AREA STRUCTURE MAP
CHALLACOLLO PROJECT

Russell Smith April 2002

Plate 4.

Challacollo Area Struc 11x17.dwg



CHALLACOLLO PROPERTY
NORTHERN CHILE
LOCATION MAP

Russell G. Smith April 2002

Fig. 4.1

Challacollo Regional Map.dwg

Silver Standard RESOURCES INC.

CHALLACOLLO PROJECT, CHILE

VETA LOLON

March, 2002

POLYGONAL RESOURCE

MAR. 2002 | SCALE: 1: 1000

CHALLACOLLO PROJECT, CHILE

LOLON VEIN

LONGITUDINAL SECTION A - A'

WITH

UNDERGROUND SAMPLE STATIONS

Russell Smith March 22, 2002

Challacollo Long-Polys_2.dwg

Plate 8.

		Cu %	Pb %	Zn %
	HB-1S	0.03	1.68	1.11
	HB-2S	0.02	0.16	0.48
	HB-3S	0.01	0.08	0.20
	HB-4S	0.04	0.52	0.63
	HB-5S	0.01	0.03	0.19
93A	908	0.08	0.73	0.58
	909	0.01	0.11	0.13
	910	0.01	0.10	0.14
	911	0.01	0.12	0.14
	912	0.02	0.32	0.52
	913	0.02	0.42	0.11
	914	0.01	0.03	0.04
	915	0.01	0.10	0.09
	916	0.02	0.02	0.13
	917	0.01	0.02	0.04
	918	0.004	0.02	0.04
112	769	0.004	0.07	0.02
	770	0.03	0.20	0.02
	771	0.01	0.08	0.20
	772	0.01	0.07	0.02
	773	0.01	0.09	0.01
	774	0.02	1.46	0.07
113	778	0.12	0.24	0.55
	779	0.02	0.76	0.57
	780	0.02	0.18	0.25
	781	0.01	0.18	0.08
	782	0.01	0.58	0.06
	783	0.01	0.34	0.05
	784	0.02	0.35	0.13
	785	0.01	0.27	0.07
	786	0.01	0.29	0.09
	787	0.02	0.96	0.07
	788	0.06	0.54	1.06
114	790	0.02	0.61	0.15
	791	0.01	3.46	0.06
	792	0.07	3.94	0.18
	793	0.02	5.78	0.07
	794	0.01	0.66	0.06
	795	0.04	0.68	0.12
	796	0.03	0.24	0.32
	797	0.02	0.19	0.27
	798	0.03	0.07	0.25
	799	0.01	0.14	0.28
	800	0.01	0.10	0.28
	801	0.01	2.45	0.33
	802	0.01	0.05	0.51
	803	0.01	0.06	0.27
	804	0.01	0.12	0.51
	805	0.02	0.08	0.58
115	818	0.01	0.06	0.02
	819	0.01	0.04	0.01
	820	0.01	0.11	0.03
	821	0.01	0.04	0.02
	822	0.02	0.11	0.02
	823	0.01	0.19	0.03
	824	0.01	0.23	0.06
116	808	0.003	0.05	0.02
	809	0.003	0.04	0.02
117	810	<0.003	0.02	0.01
	811	<0.003	0.04	0.04
	812	0.01	0.04	0.04
	813	0.004	0.05	0.06
	814	0.01	0.04	0.02
118	815	0.01	0.21	0.04
	816	0.01	0.12	0.05
	817	0.01	0.14	0.02
119	872	0.01	0.53	0.02
	873	0.02	12.10	1.98
120	874	0.08	2.44	0.39
	875	0.04	1.40	0.39
121	876	0.04	1.43	2.68
	877	0.04	4.05	1.34
	861	0.01	0.19	0.06
	861B	0.01	0.02	0.05
	862	0.03	0.18	0.77
	863	0.01	0.11	0.21
	864	0.01	2.35	0.03
	865	0.01	0.38	0.02
	866	0.01	0.26	0.02
	867	0.004	0.10	0.02
	868	<0.003	0.04	0.01
	869	0.02	0.05	0.01
	870	0.003	0.57	0.01
	871	0.02	0.80	0.02
	878	0.04	1.93	2.27
	879	0.03	0.94	2.26
	880	0.02	0.49	1.12
	881	0.05	0.79	0.07
	882	0.04	0.12	0.83
	883	0.02	0.12	0.88
	884	0.03	0.62	0.15
	885	0.04	0.10	0.29
	886	0.01	11.0	2.39
	887	0.02	0.37	1.23
	888	0.01	0.18	0.57
	889	0.02	0.15	1.87
	890	0.04	1.84	3.68
	891	0.03	0.47	1.51

	Cu ppm	Pb ppm	Zn ppm
230	178	2400	300
231	112	2200	200
232	99	1200	200
233	49	1700	100
PS-03	104	3017	375
PS-04	92	1966	646
PS-05	66	2000	423
PS-06	46	358	419
PS-07	33	170	633
PS-08	25	245	518
PS-09	17	75	493
PS-10	42	143	575
PS-11	292	1870	3295
PS-12	14	117	144

EXPLANATION

Quartz vein, brecciated

Outcrop

Fault, dashed where approximate

Contact, dashed where approximate

Alteration

Open stope at surface or glory hole.

CHAG-01
120° AZ
-70°
EL. 1480m
Silver Standard 2002 drilling

DTH-CH-09
1966 drilling

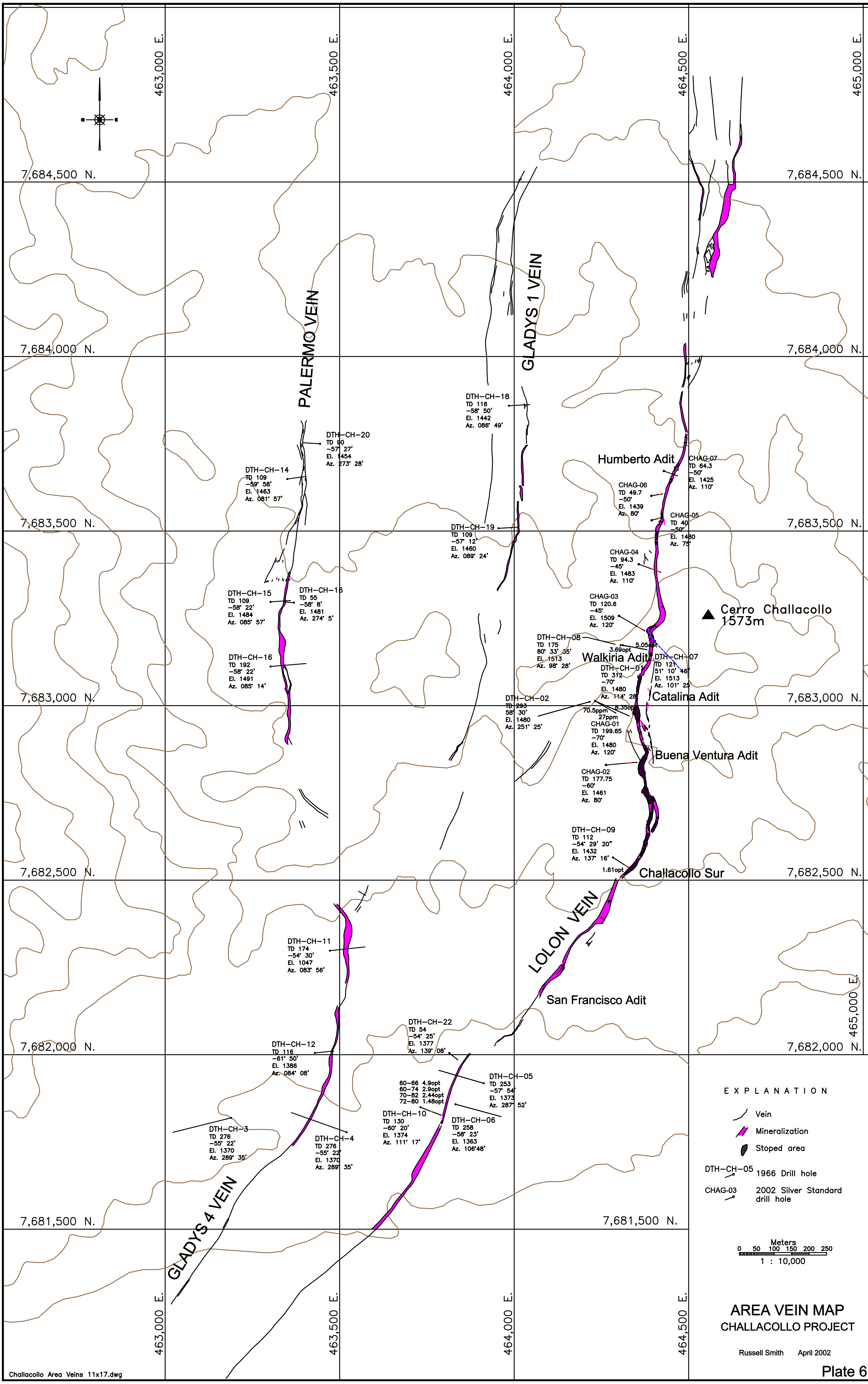
Meters
20 0 20 40 60 80
1 : 2000
Contour interval = 10m
Mapped with Brunton and chain.

LOLON VEIN AND WORKINGS TO LEVEL 3
CHALLACOLLO PROJECT

Russell Smith Dec. 2001

Plate 7.

Challacollo Vein revised.dwg



463,000 E.
463,500 E.
464,000 E.
464,500 E.
465,000 E.
7,684,500 N.
7,684,000 N.
7,683,500 N.
7,683,000 N.
7,682,500 N.
7,682,000 N.
7,681,500 N.
PALERMO VEIN
GLADYS 1 VEIN
LOLON VEIN
GLADYS 4 VEIN
Humberto Adit
Walkiria Adit
Catalina Adit
Buena Ventura Adit
Challacollo Sur
San Francisco Adit
Cerro Challacollo 1573m
DTH-CH-18 TD 116 -58° 50' El. 1442 Az. 086° 49'
DTH-CH-20 TD 90 -57° 27' El. 1454 Az. 273° 28'
DTH-CH-14 TD 109 -59° 58' El. 1463 Az. 081° 57'
DTH-CH-19 TD 109 -57° 12' El. 1460 Az. 089° 24'
DTH-CH-15 TD 109 -58° 22' El. 1484 Az. 085° 57'
DTH-CH-16 TD 55 -58° 8' El. 1481 Az. 274° 5'
DTH-CH-16 TD 192 -58° 22' El. 1491 Az. 085° 14'
CHAG-07 TD 64.3 -50° El. 1425 Az. 110°
CHAG-06 TD 49.7 -50° El. 1439 Az. 80°
CHAG-05 TD 40 -50° El. 1480 Az. 75°
CHAG-04 TD 94.3 -45° El. 1483 Az. 110°
CHAG-03 TD 120.6 -45° El. 1509 Az. 120°
DTH-CH-08 TD 175 80° 33' 35' El. 1513 Az. 98° 28'
3.69opt
5.05opt
DTH-CH-07 TD 121 51° 10' 46' El. 1513 Az. 101° 25'
DTH-CH-01 TD 312 -70° El. 1480 Az. 114° 28'
DTH-CH-02 TD 293 58° 30' El. 1480 Az. 251° 25'
70.5ppm
27ppm
8.35opt
CHAG-01 TD 199.65 -70° El. 1480 Az. 120°
CHAG-02 TD 177.75 -60° El. 1461 Az. 80°
DTH-CH-09 TD 112 -54° 29' 20" El. 1432 Az. 137° 16'
1.61opt
DTH-CH-11 TD 174 -54° 30' El. 1047 Az. 083° 56'
DTH-CH-22 TD 54 -54° 25' El. 1377 Az. 139° 08'
DTH-CH-12 TD 116 -61° 50' El. 1386 Az. 084° 08'
DTH-CH-05 TD 253 -57° 54' El. 1373 Az. 287° 52'
60-66 4.9opt
60-74 2.9opt
70-82 2.44opt
72-80 1.48opt
DTH-CH-10 TD 130 -60° 20' El. 1374 Az. 111° 17'
DTH-CH-06 TD 258 -58° 23' El. 1363 Az. 106°48'
DTH-CH-3 TD 276 -55° 22' El. 1370 Az. 289° 35'
DTH-CH-4 TD 276 -55° 22' El. 1370 Az. 289° 35'
EXPLANATION
Vein
Mineralization
Stoped area
DTH-CH-05 1966 Drill hole
CHAG-03 2002 Silver Standard drill hole
Meters
0 50 100 150 200 250
1 : 10,000
AREA VEIN MAP
CHALLACOLLO PROJECT
Russell Smith April 2002
Challacollo Area Veins 11x17.dwg

Plate 6.

EXPLANATION

Cretaceous
- Quartz vein, brecciated
- Granodiorite, fine grained

Permo Triassic
- Rhyodacite – dacite, black unaltered
- Latite porphyry to rhyolite – few quartz phenos, pink with yellow jarositic (pillows ?).
- Pyroclastic, bedded
- Andesite – basalt, unaltered green–brown, locally fissile.
- Latite porphyry

- Outcrop
- Fault, dashed where approximate
- Contact, dashed where approximate
- Alteration
- Open stope at surface or glory hole.

CHAG-01 120° AZ –70° EL. 1480m — Silver Standard 2002 drilling

DTH–CH–09 — 1966 drilling

Meters
20 0 20 40 60 80
1 : 2000
Contour interval = 10m
Mapped by Brunton and chain.

LOLON VEIN GEOLOGIC MAP
CHALLACOLLO PROJECT

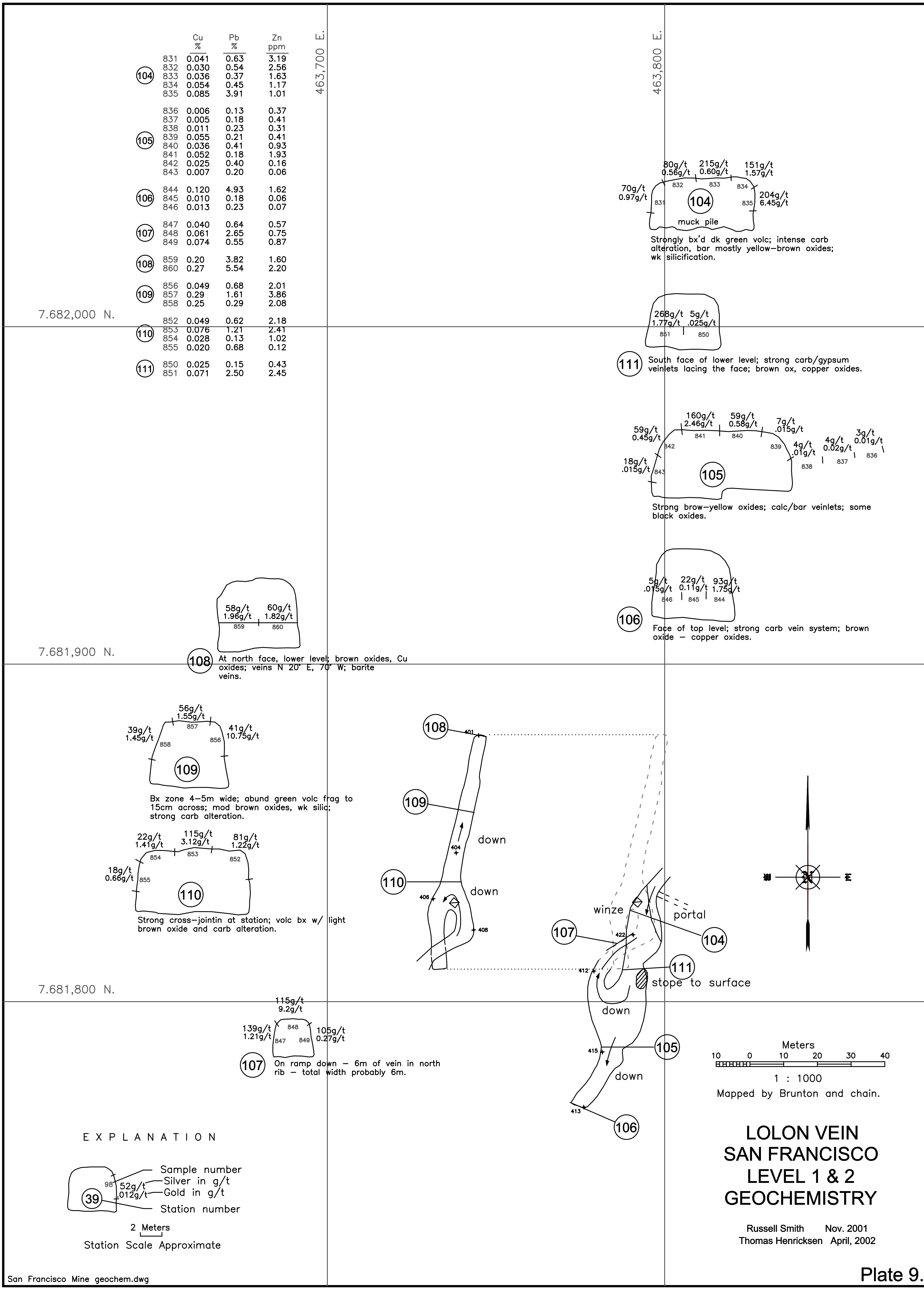
Russell Smith Dec. 2001

Challacollo revised.dwg

Plate 5.

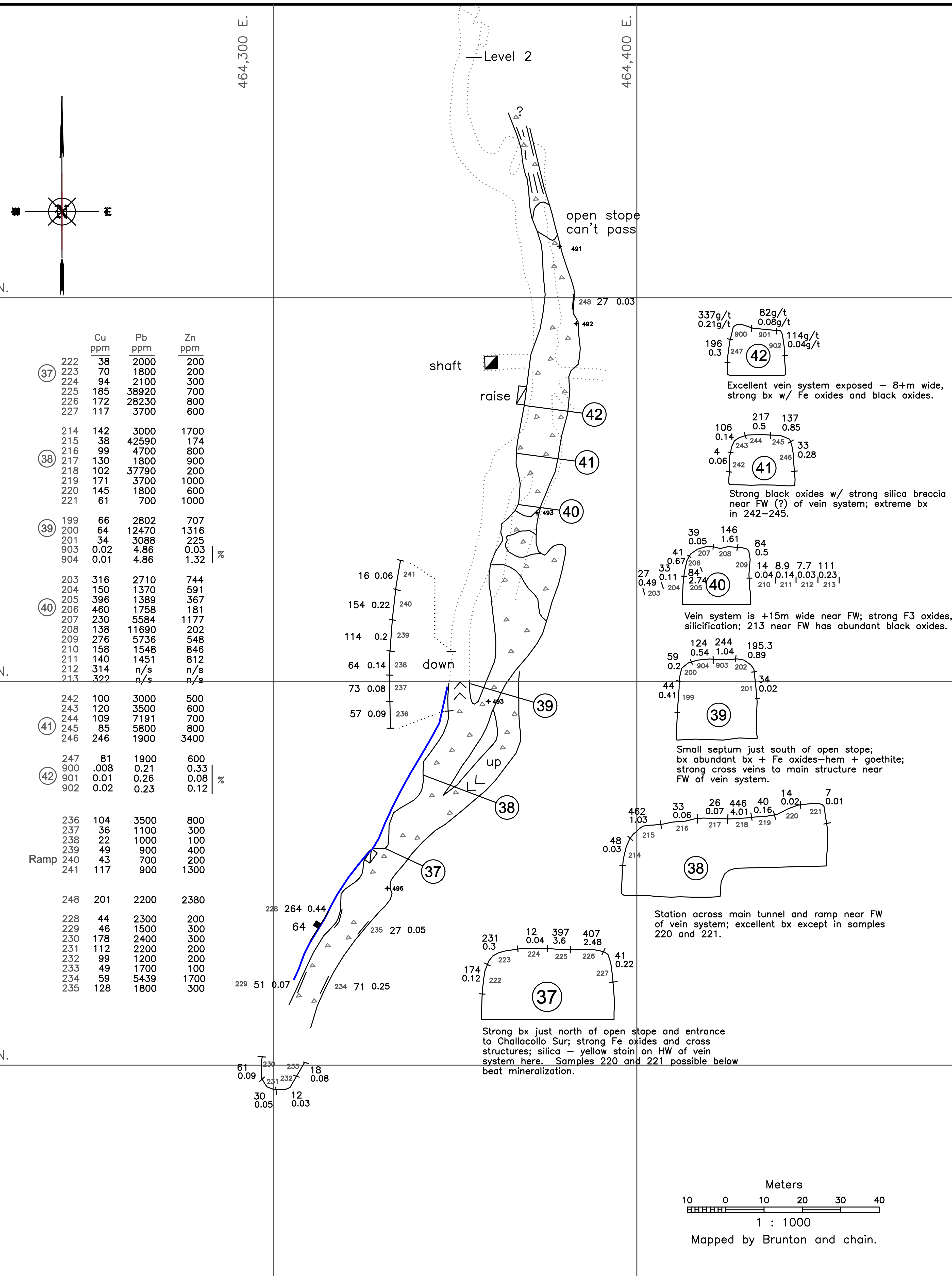
LOLON VEIN SAN FRANCISCO LEVEL 1 & 2 GEOCHEMISTRY

Station	Sample	Cu %	Pb %	Zn ppm
104	831	0.041	0.63	3.19
	832	0.030	0.54	2.56
	833	0.036	0.37	1.63
	834	0.054	0.45	1.17
	835	0.085	3.91	1.01
105	836	0.006	0.13	0.37
	837	0.005	0.18	0.41
	838	0.011	0.23	0.31
	839	0.055	0.21	0.41
	840	0.036	0.41	0.93
	841	0.052	0.18	1.93
	842	0.025	0.40	0.16
	843	0.007	0.20	0.06
106	844	0.120	4.93	1.62
	845	0.010	0.18	0.06
	846	0.013	0.23	0.07
107	847	0.040	0.64	0.57
	848	0.061	2.65	0.75
	849	0.074	0.55	0.87
108	859	0.20	3.82	1.60
	860	0.27	5.54	2.20
109	856	0.049	0.68	2.01
	857	0.29	1.61	3.86
	858	0.25	0.29	2.08
110	852	0.049	0.62	2.18
	853	0.076	1.21	2.41
	854	0.028	0.13	1.02
	855	0.020	0.68	0.12
111	850	0.025	0.15	0.43
	851	0.071	2.50	2.45



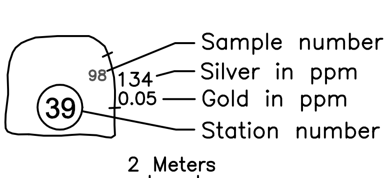
Russell Smith Nov. 2001
Thomas Henricksen April, 2002

San Francisco Mine geochem.dwg



Station	Sample	Cu ppm	Pb ppm	Zn ppm	
	222	38	2000	200	
37	223	70	1800	200	
	224	94	2100	300	
	225	185	38920	700	
	226	172	28230	800	
	227	117	3700	600	
	214	142	3000	1700	
	215	38	42590	174	
	216	99	4700	800	
38	217	130	1800	900	
	218	102	37790	200	
	219	171	3700	1000	
	220	145	1800	600	
	221	61	700	1000	
	199	66	2802	707	
39	200	64	12470	1316	
	201	34	3088	225	
	903	0.02	4.86	0.03	%
	904	0.01	4.86	1.32	%
	203	316	2710	744	
	204	150	1370	591	
	205	396	1389	367	
40	206	460	1758	181	
	207	230	5584	1177	
	208	138	11690	202	
	209	276	5736	548	
	210	158	1548	846	
	211	140	1451	812	
	212	314	n/s	n/s	
	213	322	n/s	n/s	
	242	100	3000	500	
	243	120	3500	600	
	244	109	7191	700	
41	245	85	5800	800	
	246	246	1900	3400	
	247	81	1900	600	
	900	.008	0.21	0.33	%
42	901	0.01	0.26	0.08	%
	902	0.02	0.23	0.12	%
	236	104	3500	800	
	237	36	1100	300	
	238	22	1000	100	
	239	49	900	400	
Ramp	240	43	700	200	
	241	117	900	1300	
	248	201	2200	2380	
	228	44	2300	200	
	229	46	1500	300	
	230	178	2400	300	
	231	112	2200	200	
	232	99	1200	200	
	233	49	1700	100	
	234	59	5439	1700	
	235	128	1800	300	

EXPLANATION



Station Scale Approximate

LOLON VEIN CHALLACOLLO SUR LEVEL 1 GEOCHEMISTRY

Russell Smith Nov. 2001
Thomas Henricksen April 2002

Challacollo Level 1 geochem.dwg

Plate 10.

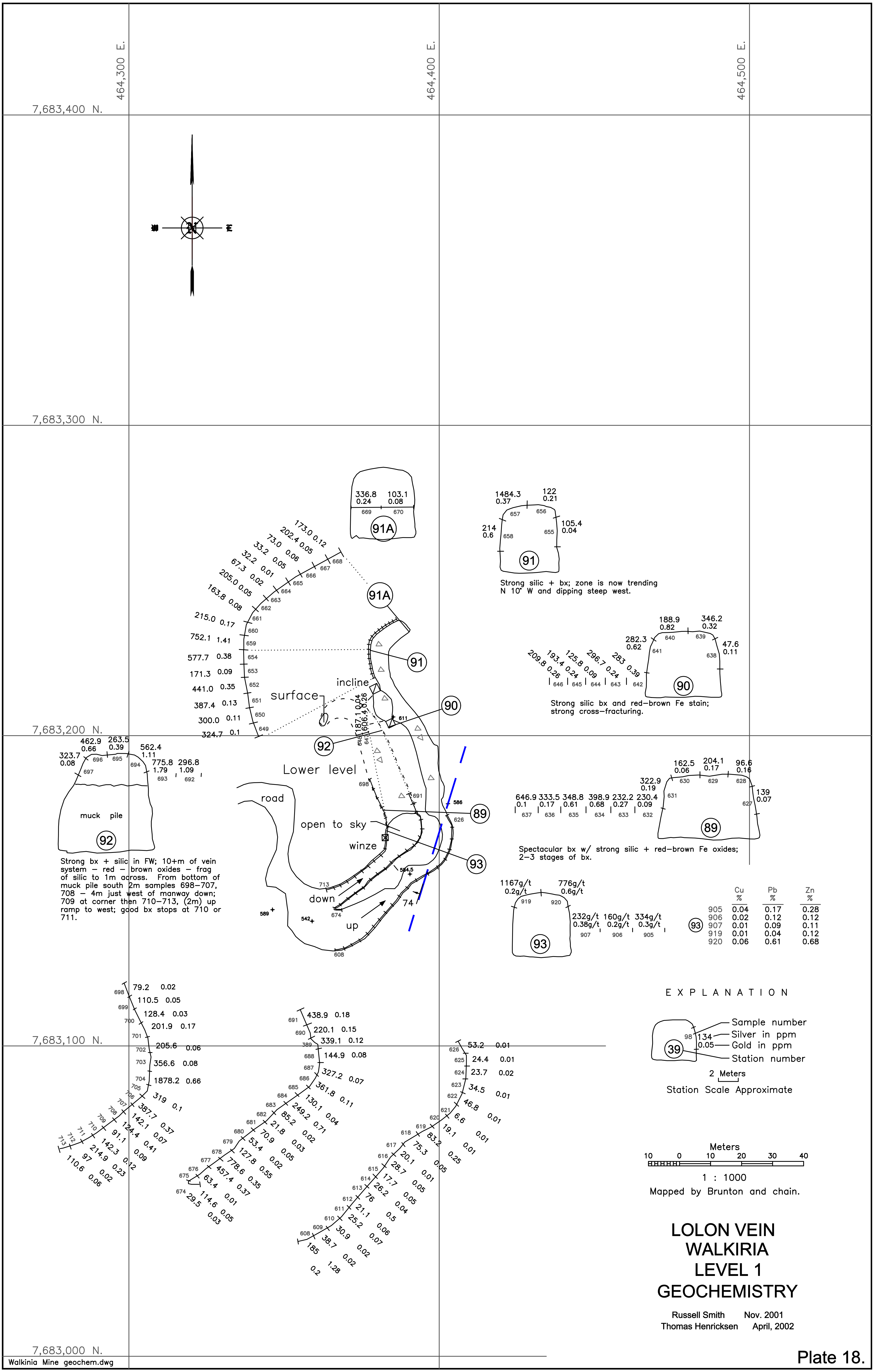
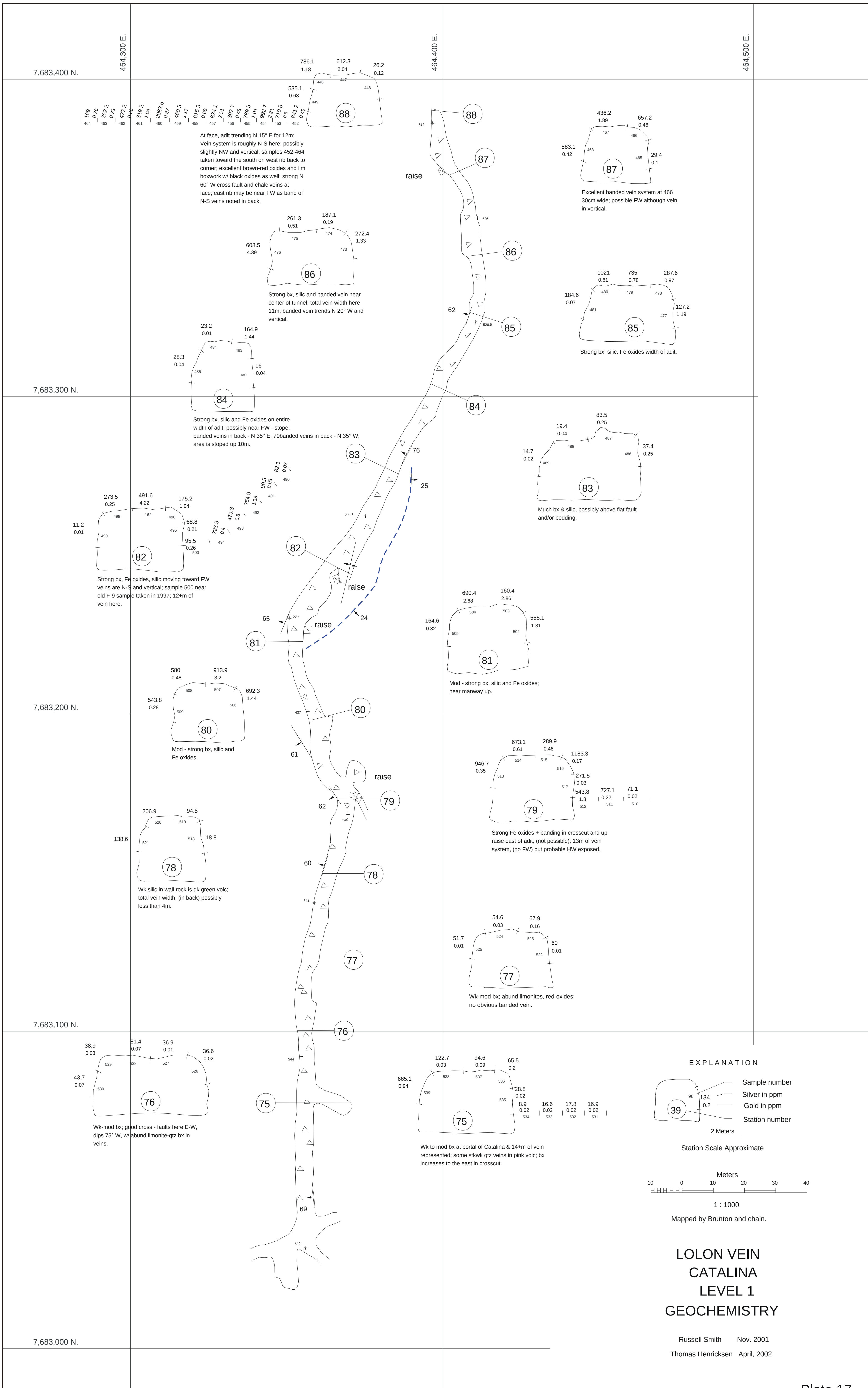
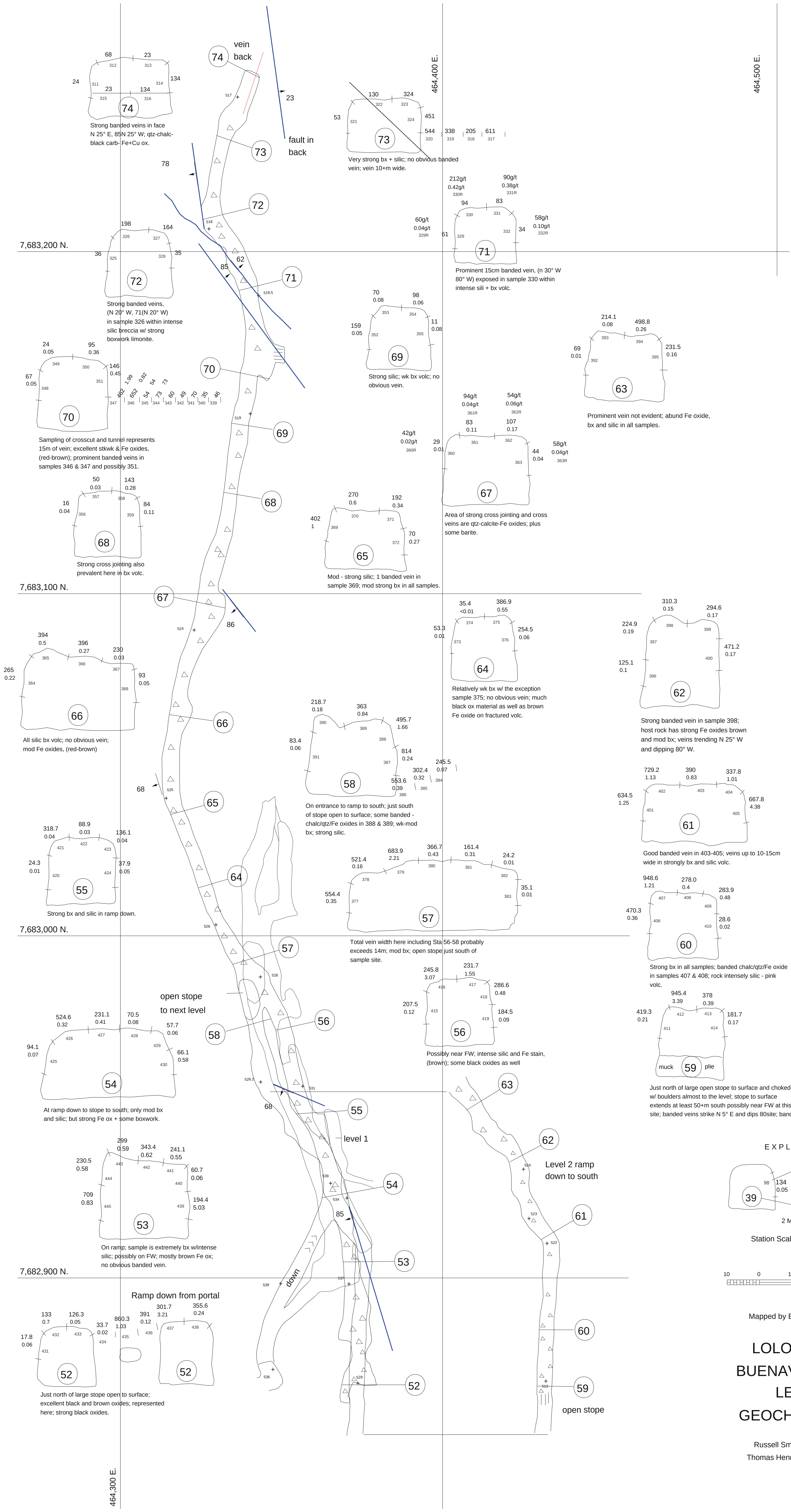

464,300 E.
464,400 E.
464,500 E.
7,683,400 N.
7,683,300 N.
7,683,200 N.
7,683,100 N.
7,683,000 N.
91A
91
90
92
89
93
Strong silic + bx; zone is now trending N 10° W and dipping steep west.
Strong silic bx and red−brown Fe stain; strong cross−fracturing.
Spectacular bx w/ strong silic + red−brown Fe oxides; 2−3 stages of bx.
Strong bx + silic in FW; 10+m of vein system − red − brown oxides − frag of silic to 1m across. From bottom of muck pile south 2m samples 698−707, 708 − 4m just west of manway down; 709 at corner then 710−713, (2m) up ramp to west; good bx stops at 710 or 711.
muck pile
surface
incline
Lower level
road
open to sky
winze
down
up
1167g/t 0.2g/t
776g/t 0.6g/t
232g/t 0.38g/t
160g/t 0.2g/t
334g/t 0.3g/t
Cu %
Pb %
Zn %
905 0.04 0.17 0.28
906 0.02 0.12 0.12
907 0.01 0.09 0.11
919 0.01 0.04 0.12
920 0.06 0.61 0.68
EXPLANATION
Sample number
Silver in ppm
Gold in ppm
Station number
2 Meters
Station Scale Approximate
Meters
10 0 10 20 30 40
1 : 1000
Mapped by Brunton and chain.
LOLON VEIN
WALKIRIA
LEVEL 1
GEOCHEMISTRY
Russell Smith Nov. 2001
Thomas Henricksen April, 2002
Walkinia Mine geochem.dwg

Plate 18.


464,300 E.
464,400 E.
464,500 E.
7,683,400 N.
7,683,300 N.
7,683,200 N.
7,683,100 N.
7,683,000 N.
At face, adit trending N 15° E for 12m; Vein system is roughly N-S here; possibly slightly NW and vertical; samples 452-464 taken toward the south on west rib back to corner; excellent brown-red oxides and lim boxwork w/ black oxides as well; strong N 60° W cross fault and chalc veins at face; east rib may be near FW as band of N-S veins noted in back.
Excellent banded vein system at 466 30cm wide; possible FW although vein in vertical.
Strong bx, silic and banded vein near center of tunnel; total vein width here 11m; banded vein trends N 20° W and vertical.
Strong bx, silic, Fe oxides width of adit.
Strong bx, silic and Fe oxides on entire width of adit; possibly near FW - stope; banded veins in back - N 35° E, 70banded veins in back - N 35° W; area is stoped up 10m.
Much bx & silic, possibly above flat fault and/or bedding.
Strong bx, Fe oxides, silic moving toward FW veins are N-S and vertical; sample 500 near old F-9 sample taken in 1997; 12+m of vein here.
Mod - strong bx, silic and Fe oxides; near manway up.
Mod - strong bx, silic and Fe oxides.
Strong Fe oxides + banding in crosscut and up raise east of adit, (not possible); 13m of vein system, (no FW) but probable HW exposed.
Wk silic in wall rock is dk green volc; total vein width, (in back) possibly less than 4m.
Wk-mod bx; abund limonites, red-oxides; no obvious banded vein.
Wk-mod bx; good cross - faults here E-W, dips 75° W, w/ abund limonite-qtz bx in veins.
Wk to mod bx at portal of Catalina & 14+m of vein represented; some stkwk qtz veins in pink volc; bx increases to the east in crosscut.
raise
EXPLANATION
Sample number
Silver in ppm
Gold in ppm
Station number
2 Meters
Station Scale Approximate
Meters
10 0 10 20 30 40
1 : 1000
Mapped by Brunton and chain.
LOLON VEIN
CATALINA
LEVEL 1
GEOCHEMISTRY
Russell Smith Nov. 2001
Thomas Henricksen April, 2002
Plate 17.



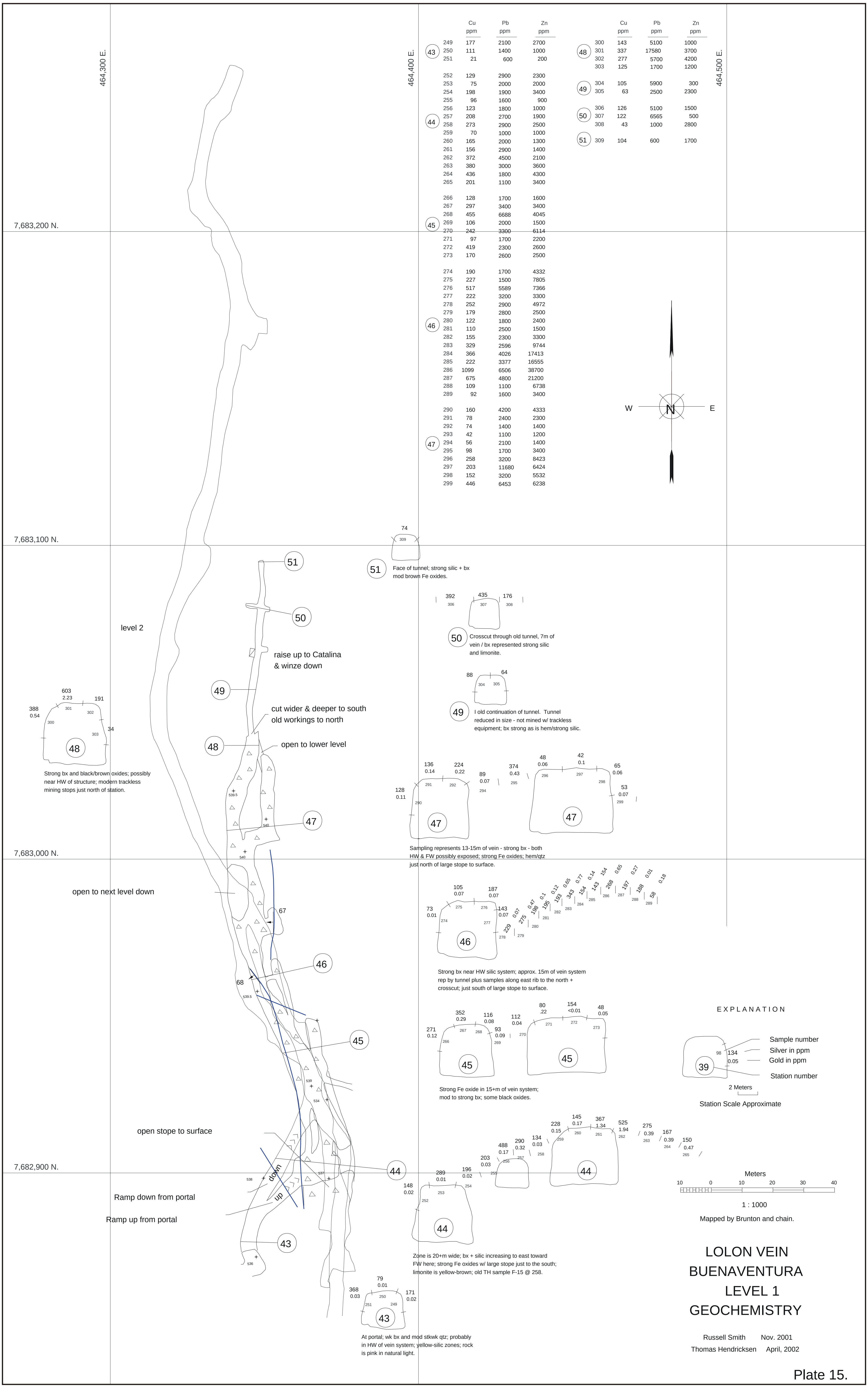
		Cu ppm	Pb ppm	Zn ppm	
65	369	390	10860	3200	
	370	379	19500	37800	
	371	312	17320	18591	
	372	195	2800	4000	
66	364	603	6258	4624	
	365	346	5400	3200	
	366	606	82900	4500	
	367	220	3700	1700	
	368	399	4600	4345	
67	360	53	900	1000	
	361	79	1700	1000	
	362	58	3600	900	
	363	96	2500	1900	
	360R	0.004	0.06	0.06	%
	361R	0.005	0.10	0.03	%
	362R	0.004	0.07	0.05	%
	363R	0.007	0.16	0.08	%
68	356	64	600	1500	
	357	134	700	3100	
	358	220	2300	1400	
	359	170	3100	4500	
69	352	89	1200	1100	
	353	89	900	1100	
	354	78	1000	1300	
	355	52	1200	800	
70	339	244	1800	9116	
	340	73	600	3800	
	341	118	1500	5140	
	342	81	600	1200	
	343	73	1800	1000	
	344	259	6259	2100	
	345	167	5700	900	
	346	1590	88600	27300	
	347	1059	95300	32200	
	348	121	1600	2000	
	349	105	1100	2400	
	350	195	14010	3100	
	351	582	5300	4200	
71	329	71	1700	1200	
	330	497	6909	4200	
	331	170	9263	2600	
	332	93	2200	2200	
	329R	0.02	0.08	0.10	%
	330R	0.02	0.88	0.19	%
	331R	0.03	2.04	0.46	%
	332R	0.02	0.22	0.42	%
72	325	38	700	1100	
	326	171	6437	400	
	327	574	38250	4301	
	328	568	5973	7836	
73	317	551	9626	19528	
	318	360	7303	14281	
	319	252	2700	3100	
	320	568	5973	7836	
	321	171	6437	400	
	322	574	38250	4301	
	323	568	5973	7836	
	324	574	38250	4301	
	325	568	5973	7836	
74	311	222	1400	6191	
	312	215	1000	15992	
	313	224	1400	8487	
	314	194	1400	9129	
	315	126	700	4300	
	316	315	2500	7520	

LOLON VEIN
BUENAVENTURA
LEVEL 2
GEOCHEMISTRY

Russell Smith Nov. 2001
Thomas Henricksen April, 2002

Plate 16.

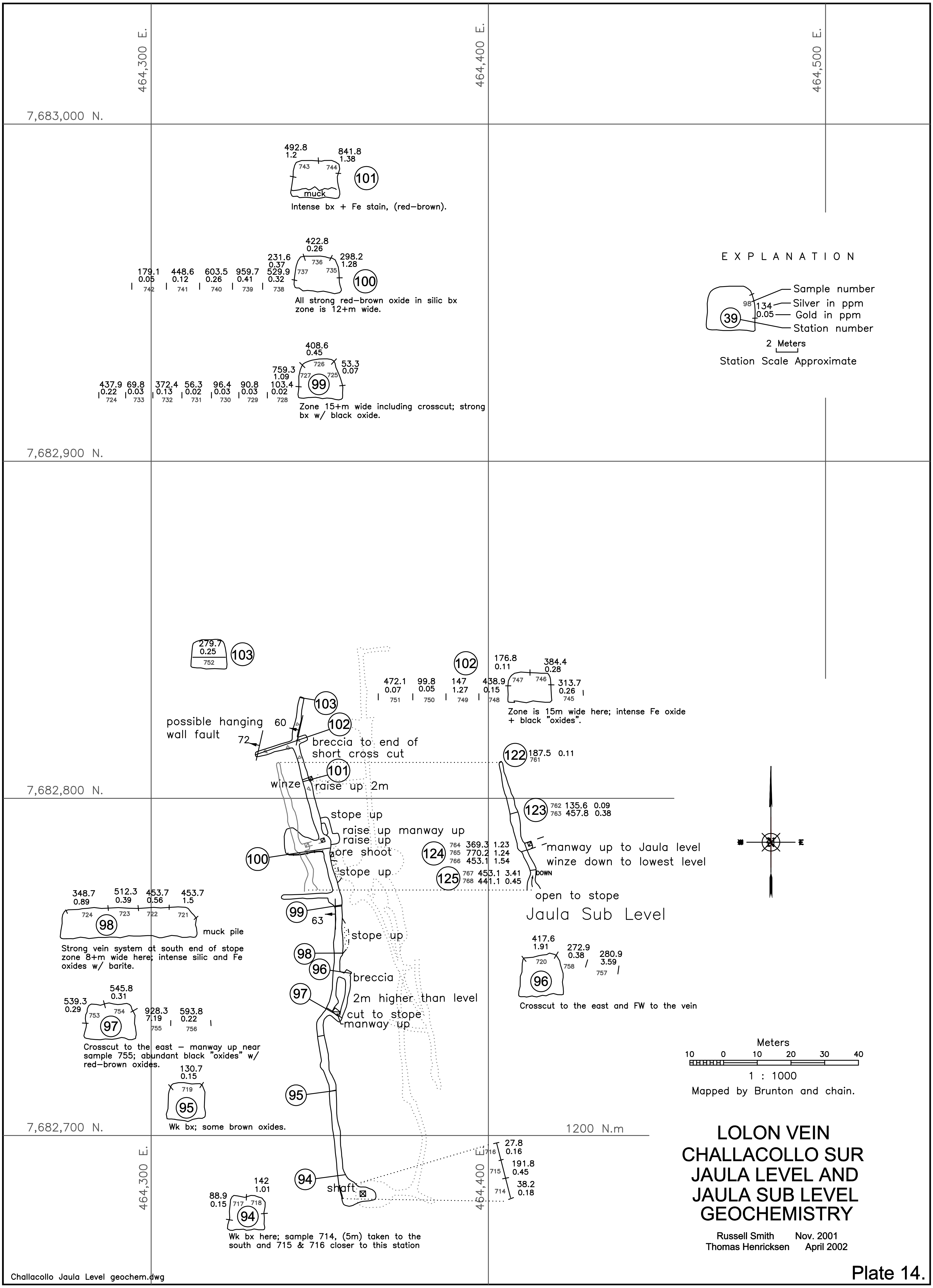
Station	Sample	Cu ppm	Pb ppm	Zn ppm
43	249	177	2100	2700
	250	111	1400	1000
	251	21	600	200
44	252	129	2900	2300
	253	75	2000	2000
	254	198	1900	3400
	255	96	1600	900
	256	123	1800	1000
	257	208	2700	1900
	258	273	2900	2500
	259	70	1000	1000
	260	165	2000	1300
	261	156	2900	1400
	262	372	4500	2100
	263	380	3000	3600
	264	436	1800	4300
	265	201	1100	3400
45	266	128	1700	1600
	267	297	3400	3400
	268	455	6688	4045
	269	106	2000	1500
	270	242	3300	6114
	271	97	1700	2200
	272	419	2300	2600
	273	170	2600	2500
46	274	190	1700	4332
	275	227	1500	7805
	276	517	5589	7366
	277	222	3200	3300
	278	252	2900	4972
	279	179	2800	2500
	280	122	1800	2400
	281	110	2500	1500
	282	155	2300	3300
	283	329	2596	9744
	284	366	4026	17413
	285	222	3377	16555
	286	1099	6506	38700
	287	675	4800	21200
	288	109	1100	6738
	289	92	1600	3400
47	290	160	4200	4333
	291	78	2400	2300
	292	74	1400	1400
	293	42	1100	1200
	294	56	2100	1400
	295	98	1700	3400
	296	258	3200	8423
	297	203	11680	6424
	298	152	3200	5532
	299	446	6453	6238
48	300	143	5100	1000
	301	337	17580	3700
	302	277	5700	4200
	303	125	1700	1200
49	304	105	5900	300
	305	63	2500	2300
50	306	126	5100	1500
	307	122	6565	500
	308	43	1000	2800
51	309	104	600	1700

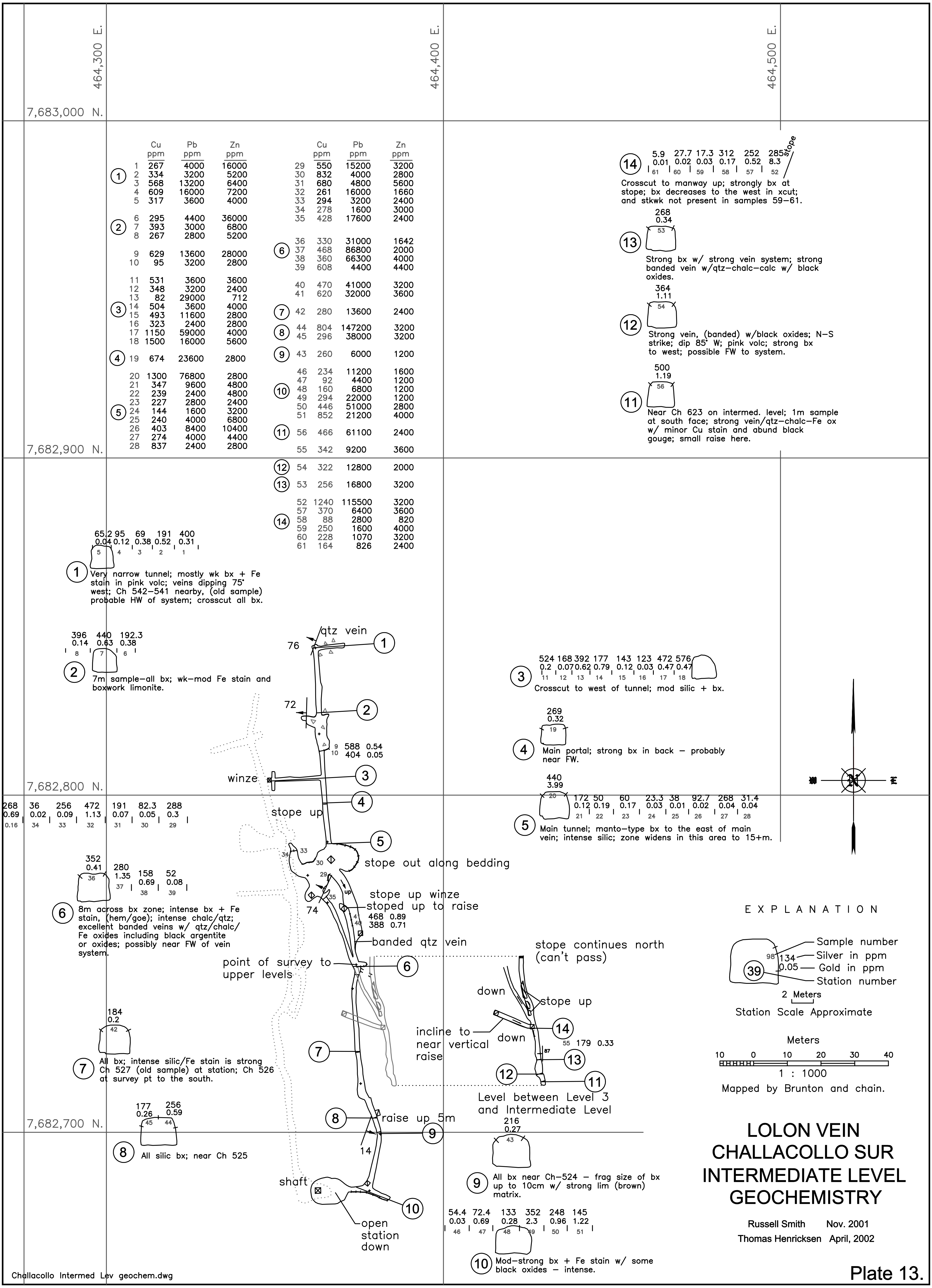


LOLON VEIN
BUENAVENTURA
LEVEL 1
GEOCHEMISTRY

Russell Smith Nov. 2001
Thomas Hendricksen April, 2002

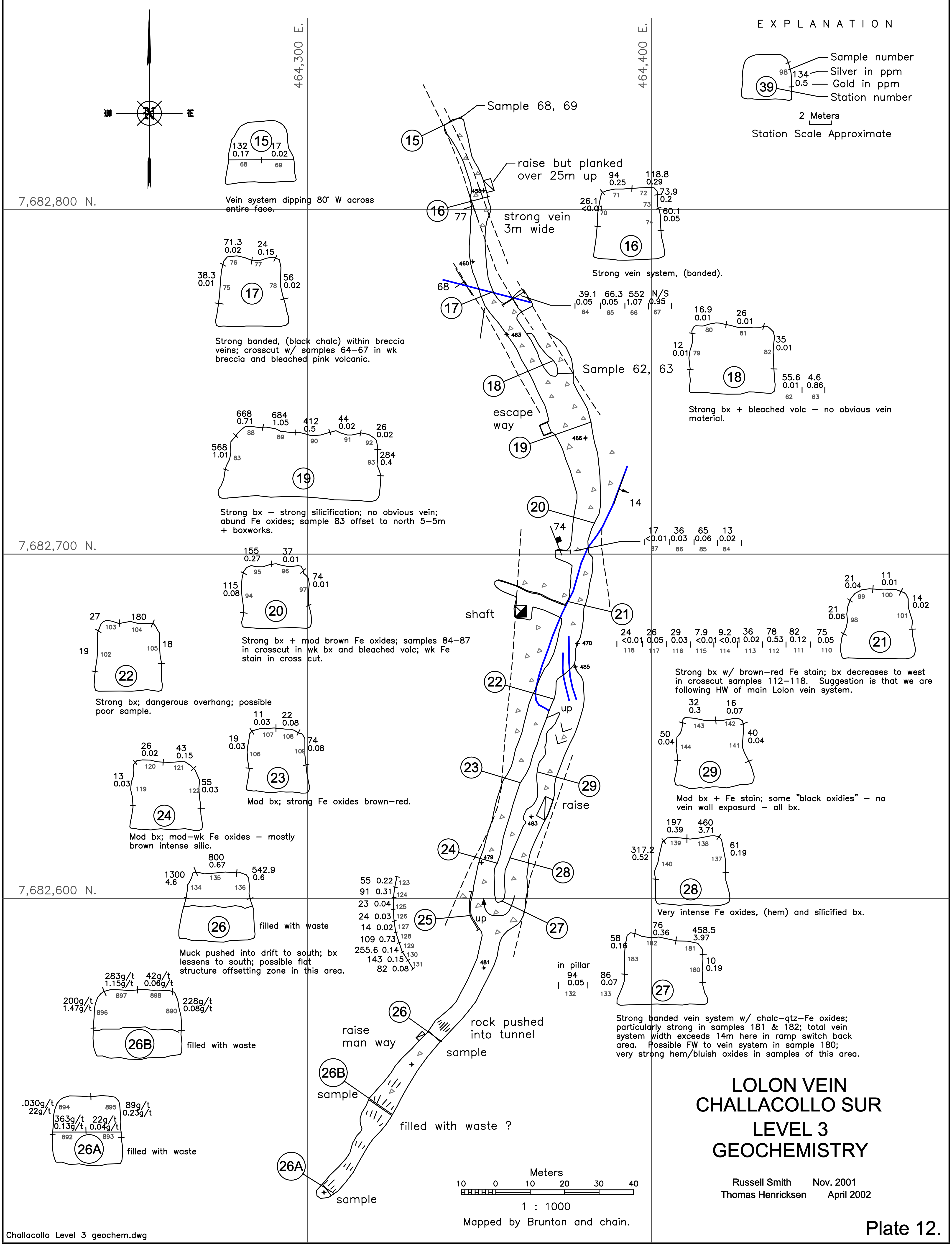
Plate 15.

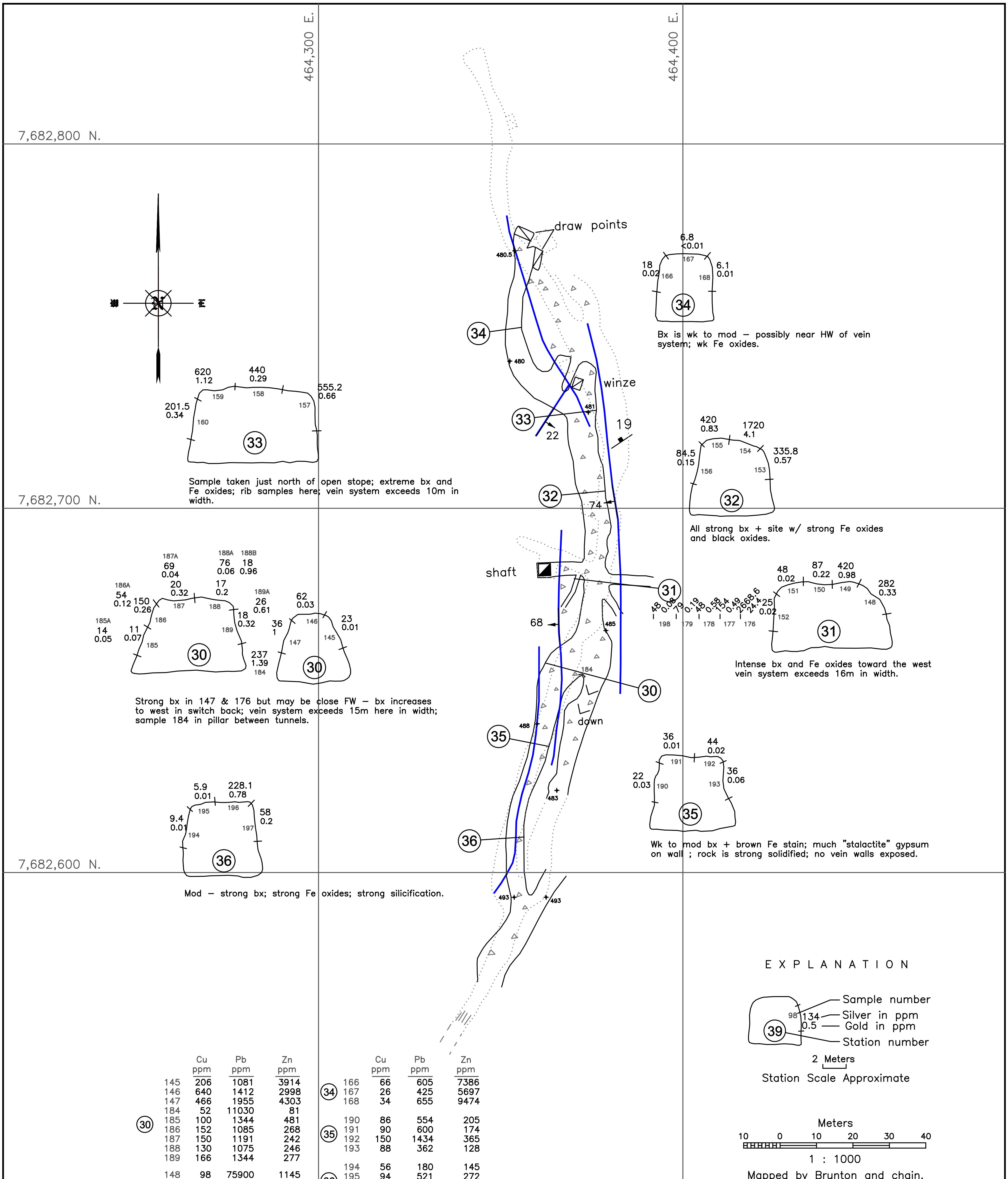

464,300 E.
464,400 E.
464,500 E.
7,683,000 N.
7,682,900 N.
7,682,800 N.
7,682,700 N.
492.8
1.2
841.8
1.38
743
744
101
muck
Intense bx + Fe stain, (red-brown).
422.8
0.26
231.6
0.37
298.2
1.28
179.1 448.6 603.5 959.7 529.9
0.05 0.12 0.26 0.41 0.32
742 741 740 739 738
737 736 735
100
All strong red-brown oxide in silic bx zone is 12+m wide.
408.6
0.45
759.3
1.09
53.3
0.07
437.9 69.8 372.4 56.3 96.4 90.8 103.4
0.22 0.03 0.13 0.02 0.03 0.03 0.02
724 733 732 731 730 729 728
727 726 725
99
Zone 15+m wide including crosscut; strong bx w/ black oxide.
EXPLANATION
Sample number
Silver in ppm
Gold in ppm
Station number
98
134
0.05
39
2 Meters
Station Scale Approximate
279.7
0.25
752
103
102
176.8
0.11
384.4
0.28
472.1 99.8 147 438.9
0.07 0.05 1.27 0.15
751 750 749 748
747 746
313.7
0.26
745
Zone is 15m wide here; intense Fe oxide + black "oxides".
possible hanging wall fault
60
72
breccia to end of short cross cut
122 187.5 0.11
761
winze
raise up 2m
123 762 135.6 0.09
763 457.8 0.38
stope up
raise up manway up
raise up
ore shoot
124 764 369.3 1.23
765 770.2 1.24
766 453.1 1.54
manway up to Jaula level
winze down to lowest level
stope up
125 767 453.1 3.41
768 441.1 0.45
DOWN
open to stope
Jaula Sub Level
348.7 512.3 453.7 453.7
0.89 0.39 0.56 1.5
724 723 722 721
98
muck pile
Strong vein system at south end of stope zone 8+m wide here; intense silic and Fe oxides w/ barite.
63
stope up
96
breccia
97
2m higher than level
cut to stope
manway up
417.6
1.91
272.9
0.38
280.9
3.59
720 758 757
96
Crosscut to the east and FW to the vein
545.8
0.31
539.3
0.29
928.3 593.8
7.19 0.22
753 754 755 756
97
Crosscut to the east - manway up near sample 755; abundant black "oxides" w/ red-brown oxides.
130.7
0.15
719
95
Wk bx; some brown oxides.
Meters
10 0 10 20 30 40
1 : 1000
Mapped by Brunton and chain.
1200 N.m
27.8
0.16
716
191.8
0.45
715
38.2
0.18
714
94
shaft
142
1.01
88.9
0.15
717 718
94
Wk bx here; sample 714, (5m) taken to the south and 715 & 716 closer to this station
LOLON VEIN
CHALLACOLLO SUR
JAULA LEVEL AND
JAULA SUB LEVEL
GEOCHEMISTRY
Russell Smith Nov. 2001
Thomas Henricksen April 2002
Challacollo Jaula Level geochem.dwg
Plate 14.



Station	Sample	Cu ppm	Pb ppm	Zn ppm
1	1	267	4000	16000
	2	334	3200	5200
	3	568	13200	6400
	4	609	16000	7200
	5	317	3600	4000
2	6	295	4400	36000
	7	393	3000	6800
	8	267	2800	5200
	9	629	13600	28000
	10	95	3200	2800
3	11	531	3600	3600
	12	348	3200	2400
	13	82	29000	712
	14	504	3600	4000
	15	493	11600	2800
	16	323	2400	2800
	17	1150	59000	4000
	18	1500	16000	5600
4	19	674	23600	2800
5	20	1300	76800	2800
	21	347	9600	4800
	22	239	2400	4800
	23	227	2800	2400
	24	144	1600	3200
	25	240	4000	6800
	26	403	8400	10400
	27	274	4000	4400
	28	837	2400	2800
	29	550	15200	3200
	30	832	4000	2800
	31	680	4800	5600
	32	261	16000	1660
	33	294	3200	2400
	34	278	1600	3000
	35	428	17600	2400
6	36	330	31000	1642
	37	468	86800	2000
	38	360	66300	4000
	39	608	4400	4400
	40	470	41000	3200
	41	620	32000	3600
7	42	280	13600	2400
8	44	804	147200	3200
	45	296	38000	3200
9	43	260	6000	1200
10	46	234	11200	1600
	47	92	4400	1200
	48	160	6800	1200
	49	294	22000	1200
	50	446	51000	2800
	51	852	21200	4000
11	56	466	61100	2400
	55	342	9200	3600
12	54	322	12800	2000
13	53	256	16800	3200
14	52	1240	115500	3200
	57	370	6400	3600
	58	88	2800	820
	59	250	1600	4000
	60	228	1070	3200
	61	164	826	2400

Station	Sample	Cu ppm	Pb ppm	Zn ppm
15	68	156	1600	2800
	69	200	957	3600
16	70	128	1600	3200
	71	150	881	1073
	72	98	512	558
	73	22	103	150
	74	182	1172	1600
17	75	134	1600	2000
	76	192	1185	2400
	77	496	875	7600
	78	276	2000	4000
18	62	104	1600	2000
	63	302	4000	3200
	79	270	1600	7200
	80	130	880	2800
	81	132	2000	5200
	82	180	1200	4000
19	83	100	2000	560
	88	96	4400	396
	89	104	23680	326
	90	96	22000	566
	91	346	1600	4800
	92	434	2800	5600
	93	378	8800	3200
20	94	78	4800	387
	95	60	51400	766
	96	80	4000	1600
	97	146	4000	3600
21	98	40	2000	1114
	99	46	2400	1600
	100	88	1110	2481
	110	92	1693	1690
	111	170	1594	2289
	112	114	1660	3273
	113	104	113	2381
	114	40	1192	1325
	115	38	400	1673
	116	36	451	2385
	117	68	2042	3617
	118	70	375	4352
22	102	88	1142	1093
	103	100	1351	834
	104	134	2731	1351
	105	260	950	2196
23	106	66	1747	1034
	107	78	2144	1445
	108	100	2613	514
	109	102	1718	230
24	119	92	2275	2096
	120	80	1341	1291
	121	64	1907	1137
	122	136	1231	2158
25	123	54	1702	802
	124	82	2786	1380
	125	86	2723	2857
	126	52	2002	1989
	127	40	1612	1364
	128	68	2248	699
	129	44	852	159
	130	36	594	107
	131	56	1095	217
26	134	44	852	159
	135	36	594	107
	136	56	1095	217
26A	892	.009%	.15%	.030%
	893	.003%	.086%	.025%
	894	.007%	.20%	.034%
	895	.003%	.081%	.081%
26B	896	.012%	6.00%	.041%
	897	.006%	.11%	.031%
	898	.006%	.15%	.039%
	899	.012%	.075%	.076%
27	132	120	1397	352
	133	60	2398	270
	180	218	617	572
	181	92	49000	270
	182	54	17630	308
	183	64	29730	294
28	137	44	7827	279
	138	44	32990	316
	139	70	6442	528
	140	46	5280	277
29	141	76	1991	1065
	142	134	1759	1121
	143	88	17950	660
	144	34	8690	246
	64	184	2400	3200
	65	210	2400	4000
	66	140	2000	2000
	67	136	2400	2800





Station	Sample	Cu ppm	Pb ppm	Zn ppm
30	145	206	1081	3914
	146	640	1412	2998
	147	466	1955	4303
	184	52	11030	81
	185	100	1344	481
	186	152	1085	268
	187	150	1191	242
	188	130	1075	246
	189	166	1344	277
31	148	98	75900	1145
	149	76	6981	275
	150	96	12270	947
	151	46	1945	725
	152	26	961	571
	176	88	6798	661
	177	52	1061	232
	178	54	1629	553
	179	156	394	2433
	198	70	509	4220
32	153	40	38810	290
	154	60	38670	265
	155	64	16730	305
	156	62	3047	300
33	157	114	46400	224
	158	18	8324	37
	159	64	93500	165
	160	60	3704	249

Station	Sample	Cu ppm	Pb ppm	Zn ppm
34	166	66	605	7386
	167	26	425	5697
	168	34	655	9474
35	190	86	554	205
	191	90	600	174
	192	150	1434	365
	193	88	362	128
36	194	56	180	145
	195	94	521	272
	196	90	1282	386
	197	140	1171	398

DUPLICATE SAMPLES

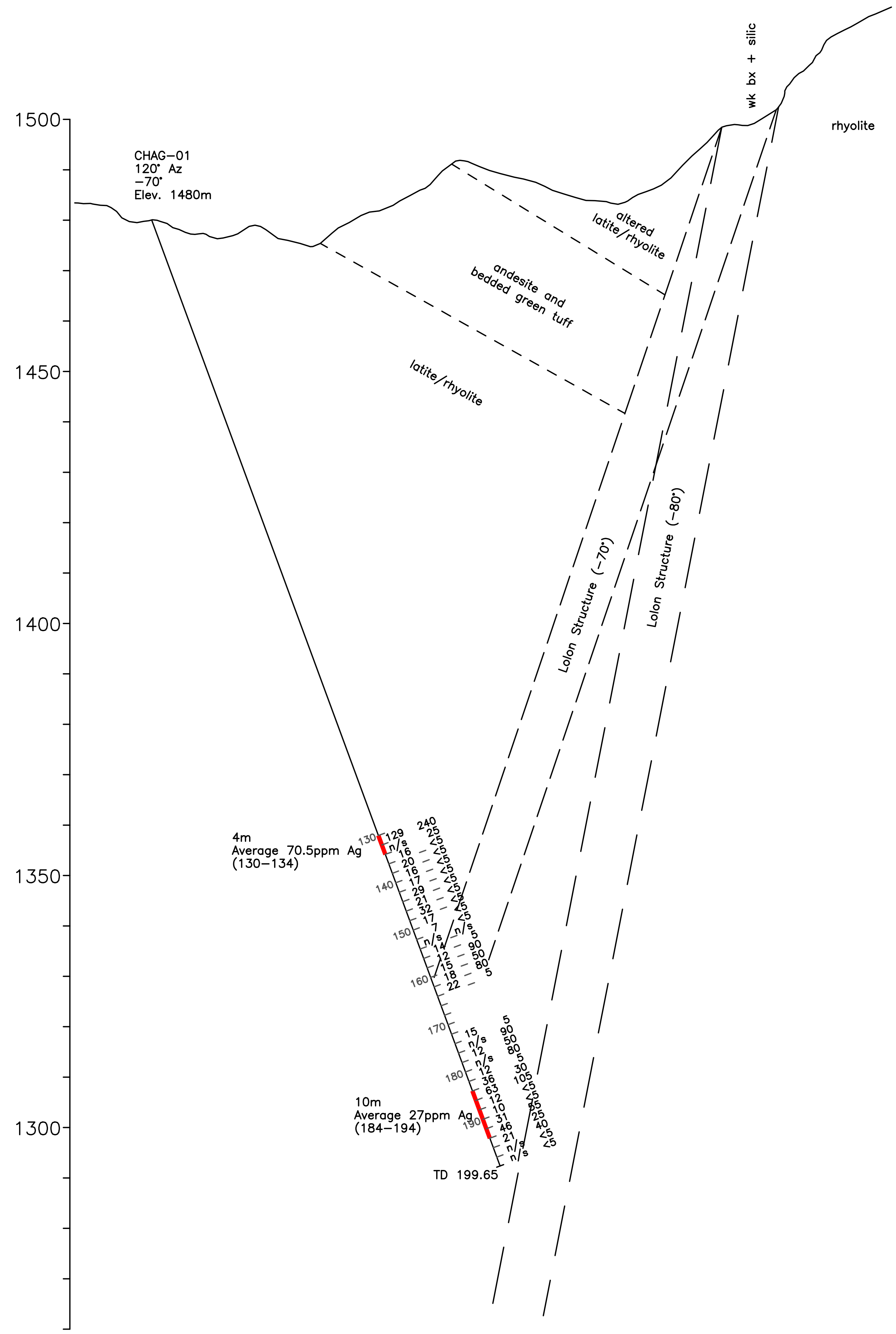
Station	Sample	Cu	Pb	Zn	
30	185A	0.02	0.08	0.07	%
	186A	0.01	0.09	0.13	
	187A	0.02	0.21	0.05	
	188A	0.02	0.40	0.04	
	188B	0.01	0.23	0.03	
	189A	0.02	0.12	0.03	

LOLON VEIN
CHALLACOLLO SUR
LEVEL 2
CEOCHEMISTRY

Russell Smith Nov. 2001
Thomas Henricksen April 2002

Challacollo Level 2 geochem.dwg

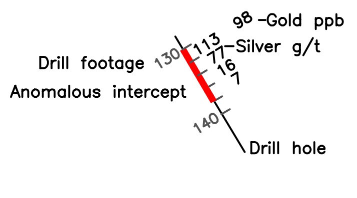
Plate 11.



LOOKING N. 30° E.

Meters
10 0 10 20 30 40
1 : 1000

EXPLANATION



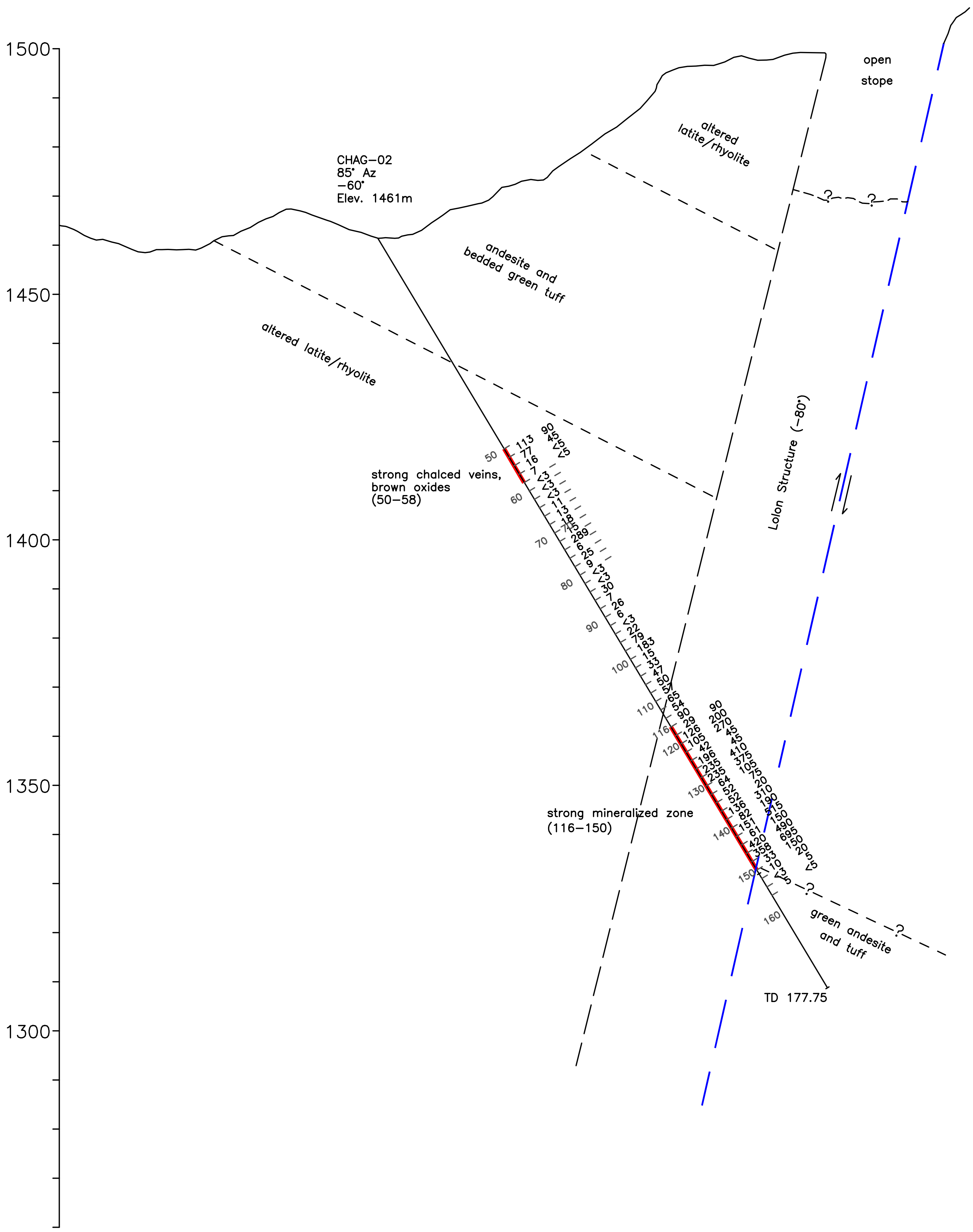
CHALLACOLLO PROJECT
CHILE

CROSS SECTION
CHAG-01 DRILL HOLE
UTM 7683013 N., 464232 E.

Thomas Henricksen April. 2002

Challacollo CHAG-01.dwg 4/2/02

Plate 19.



LOOKING N. 5° W.

Meters

1 : 1000

EXPLANATION

CHALLACOLLO PROJECT

CHILE

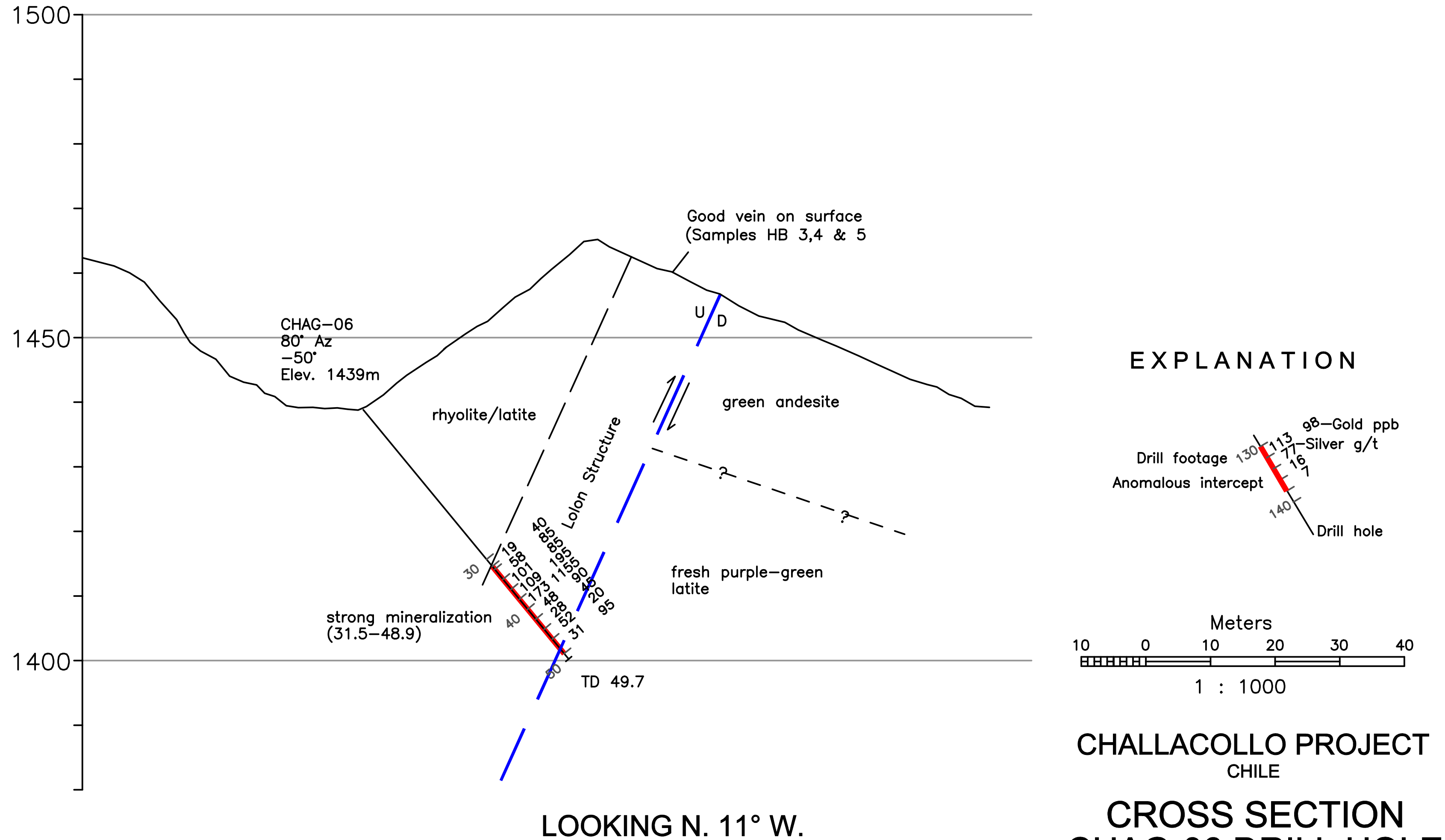
CROSS SECTION
CHAG-02 DRILL HOLE

UTM 7682830 N., 464263 E.

Thomas Henricksen April. 2002

Challacollo CHAG-02.dwg 4/2/02

Plate 20.



CHALLACOLLO PROJECT

CHILE

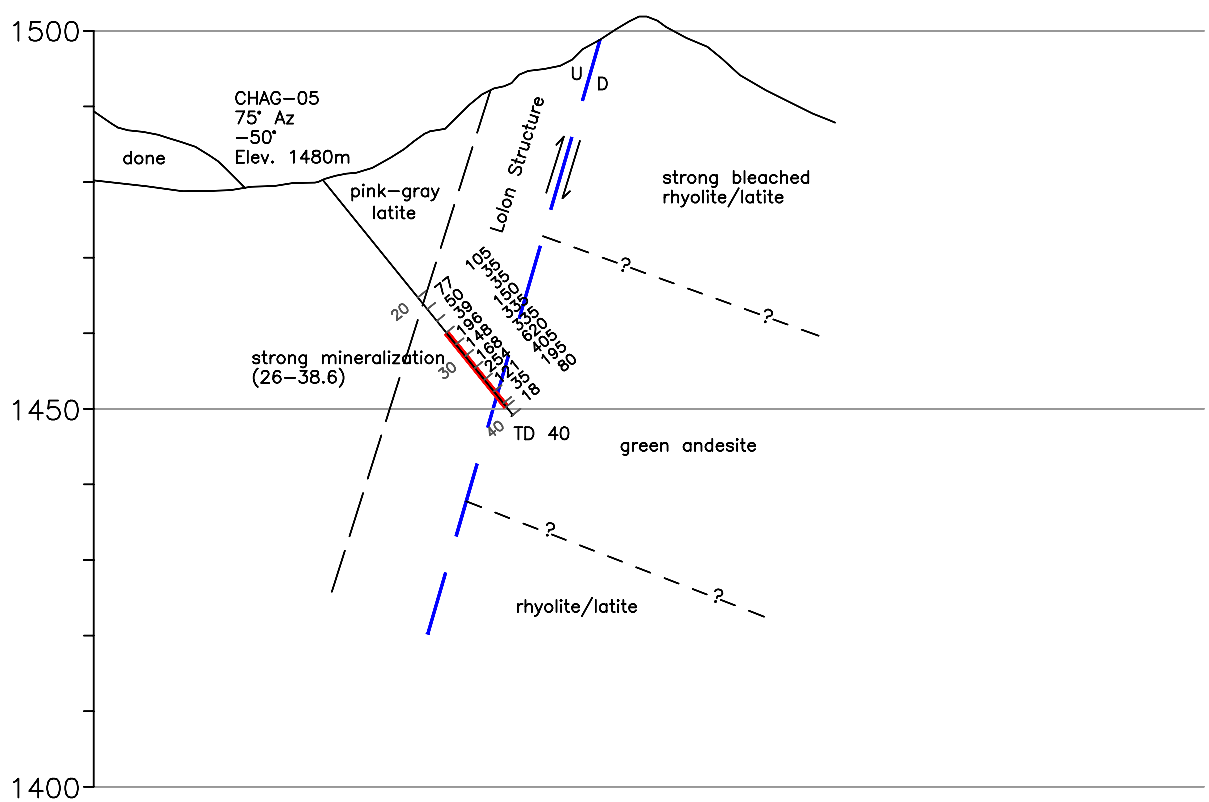
CROSS SECTION
CHAG-06 DRILL HOLE

UTM 7683601 N., 464393 E.

Thomas Henricksen April. 2002

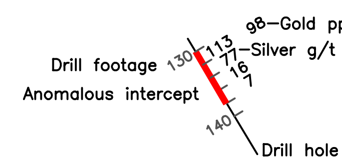
Plate 24.

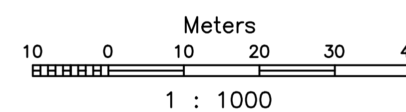
Challacollo CHAG–06.dwg 4/3/02



LOOKING N. 15° W.

EXPLANATION





CHALLACOLLO PROJECT
CHILE

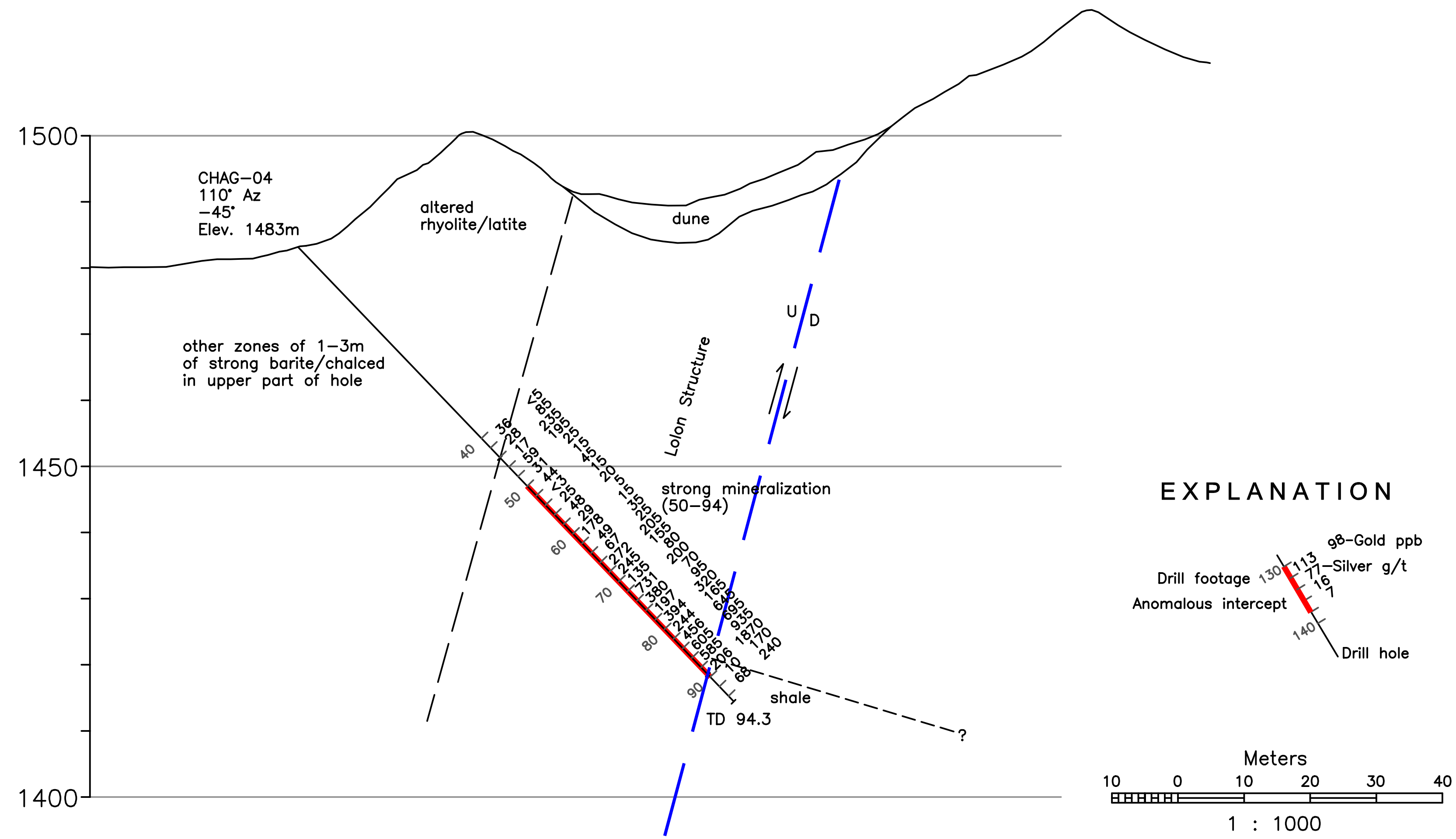
CROSS SECTION
CHAG-05 DRILL HOLE

UTM 7683531 N., 464394 E.

Thomas Henricksen April. 2002

Plate 23

Challacollo CHAG−05.dwg 4/3/02



LOOKING N. 20° E.

CHALLACOLLO PROJECT

CHILE

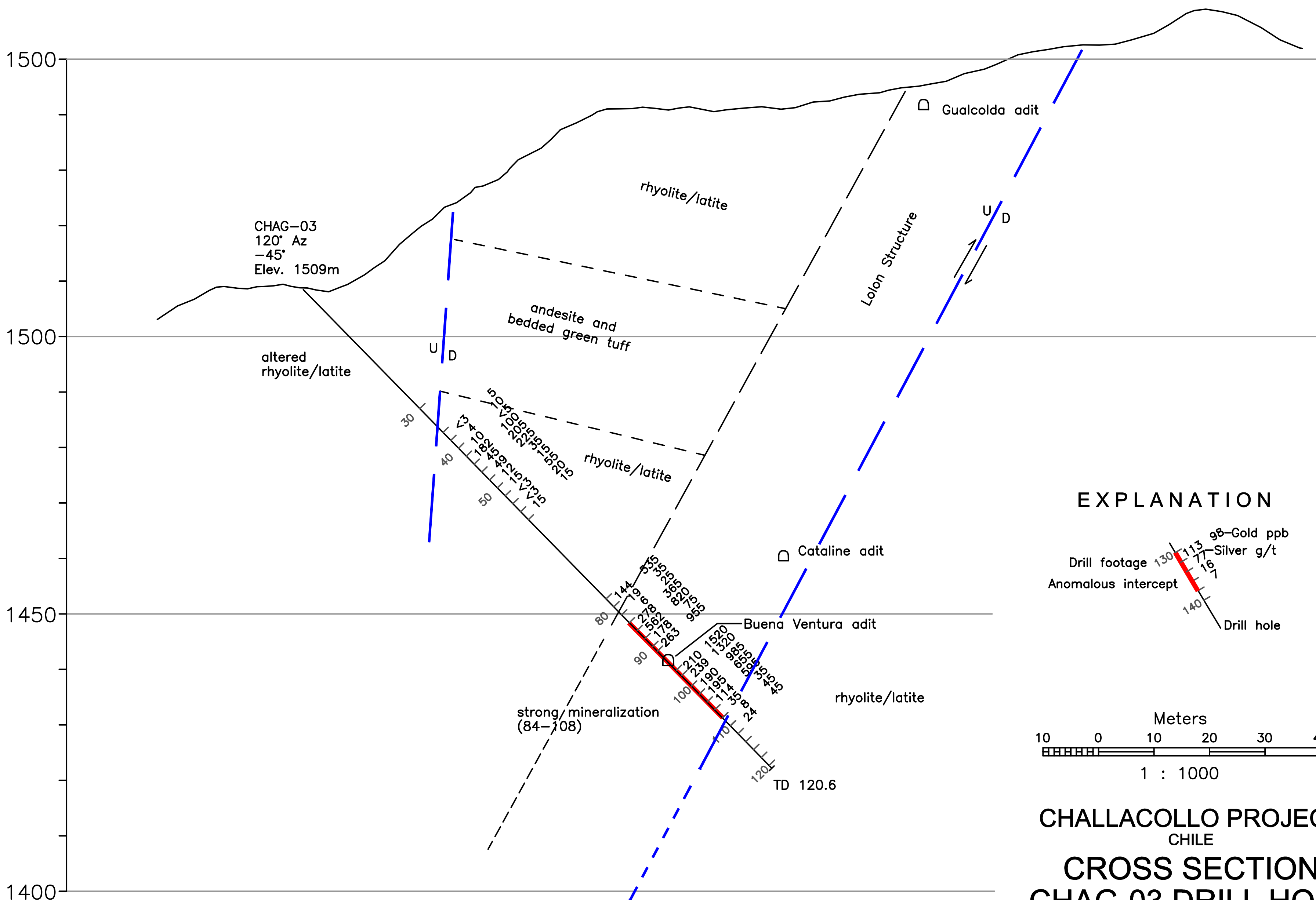
CROSS SECTION
CHAG-04 DRILL HOLE

UTM 7683405 N., 464357 E.

Thomas Henricksen April. 2002

Plate 22.

Challacollo CHAG-04.dwg 4/3/02



LOOKING N. 30° E.

CHALLACOLLO PROJECT
CHILE

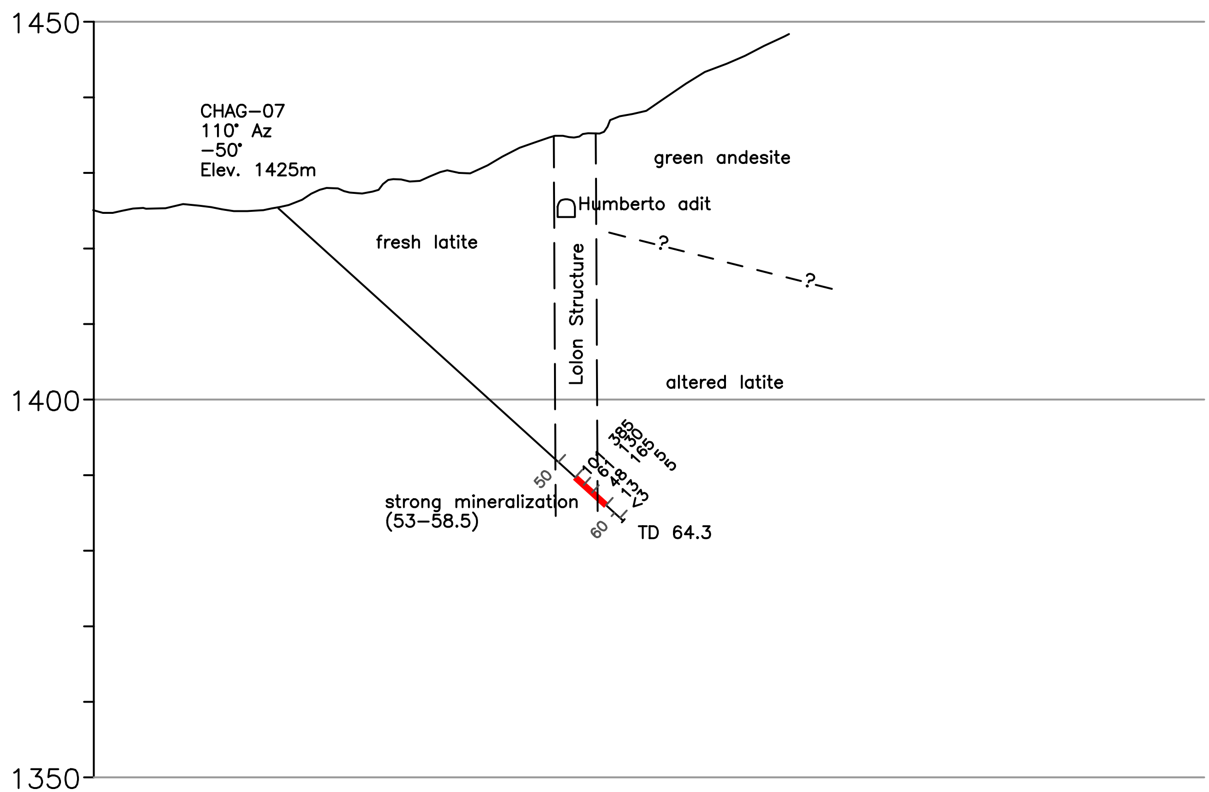
CROSS SECTION
CHAG-03 DRILL HOLE

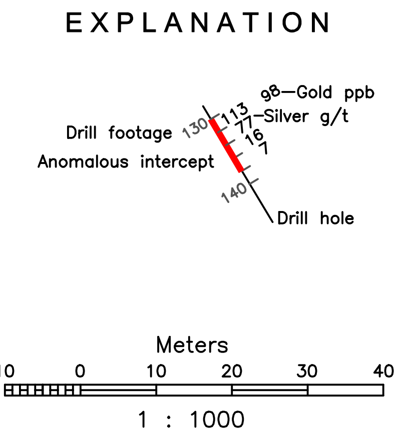
UTM 7683257 N., 464300 E.

Thomas Henricksen April. 2002

Challacollo CHAG-03.dwg 4/3/02

Plate 21.





LOOKING N. 19° E.

CHALLACOLLO PROJECT
CHILE

CROSS SECTION CHAG-07 DRILL HOLE

UTM 7683672 N., 464429 E.

Thomas Henricksen April. 2002

Plate 25.

Challacollo CHAG-07.dwg 4/3/02