

# **NATIONAL INSTRUMENT 43-101 F1 TECHNICAL REPORT ON THE EL ORO PROPERTY, MEXICO**

**LOCATED IN EL ORO - TLALPUJAHUA MINING DISTRICTS  
STATES OF MEXICO & MICHOACAN, MEXICO**

**UTM Location, (NAD27, Mexico Zone 14)  
(UTME 363500E – 388000)  
(UTMN 2197000N – 2185000)**

**PREPARED FOR:  
CANDENTE GOLD CORP.**

by

**Nadia M. Caira, P.Geo.  
*Argonaut Gold Odyssey Inc.***

**Effective Date: November 20<sup>th</sup>, 2013  
Issue Date: November 30<sup>th</sup>, 2013**

### **IMPORTANT NOTICE**

This Report was prepared as a National Instrument 43-101 Technical Report for Candente Gold Corp. (“CDG”) by Nadia Caira of Argonaut Gold Odyssey Inc. (“Argonaut”). The quality of information, conclusions and estimates contained herein is consistent with the level of effort involved in Argonaut’s services, based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this Report. This Report is intended for use by CDG. This Report can be filed as a Technical Report with Canadian Securities Regulatory Authorities pursuant to National Instrument 43-101, *Standards of Disclosure for Mineral Projects*. Except for the purposes legislated under Canadian securities laws, any other uses of this Report by any third party are at that party’s sole risk.

**DATE AND SIGNATURE PAGE**

Effective Date: November 20<sup>th</sup>, 2013

Issue Date: November 30<sup>th</sup>, 2013

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## **CERTIFICATE OF AUTHOR**

To Accompany the Report entitled:

“National Instrument 43-101 F1 Technical Report on the El Oro Property, Mexico” with an effective date of November 20<sup>th</sup>, 2013, an issue date of November 30<sup>th</sup>, 2013.

I, Nadia Caira, P. Geo., do hereby certify that:

1. I am the President of Argonaut Gold Odyssey Inc. with an office situated at 5711 Back Valley Road, 100 Mile House, British Columbia, Canada, V0K 2E1;
2. I am a graduate of the University of British Columbia with a Bachelor’s Degree in Geological Sciences obtained in 1981;
3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia since 2001 (Reg. 19970);
4. I am a fellow of the Society of Economic Geologists (“SEG”) and a fellow of the Canadian Institute of Mining and Metallurgy (“CIM”);
5. I am a member of the Geological Association of America (“GSA”);
6. I have worked continuously worldwide as a geologist, since my graduation in 1981 including extended tenures as follows: 8 years with the Hunter Dickinson Group as Senior Geologist and Site Manager on several advanced stage delineation projects in British Columbia and Mexico; 7 years with the Newcrest Mining Group, Australia as District Geologist, Southeast Asia with a focus on generative in Indonesia; 4 years as Generative Geologist for Teck Cominco in Central Asia with a focus on Kazakhstan; and since 2001, I have consulted for several junior and mid-tier mining companies in Mexico, Greenland, South and Central America, Mainland Asia, Southeast Asia, Central Asia, United States and Canada;
7. I have read the definition of “qualified person” set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined by NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101;
8. I have written the report entitled “**National Instrument 43-101 F1 Technical Report on the El Oro Property, Mexico**” dated November 30<sup>th</sup>, 2013, under Argonaut Gold Odyssey Inc.’s consultation company as President. I am responsible for this report in its entirety;
9. I have not had prior involvement with Candente Gold Corp., and the El Oro Project that is the subject of the Technical Report;
10. I state that, as the date of the certificate, to the best of my qualified knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading;

11. I have no personal knowledge, as of the date of this certificate, of any material fact or material change which is not reflected in this Technical Report;
12. I am independent of the issuer as defined in section 1.5 of NI 43-101;
13. I have read the National Instrument NI 43-101 and the June 30<sup>th</sup>, 2011 Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

This 30<sup>th</sup> day of November, 2013

Original signed and sealed  
Signed for "Nadia Caira"

Nadia Caira, P. Geo.  
President of  
Argonaut Gold Odyssey Inc.

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## 1. SUMMARY

The following report was prepared to provide a National Instrument 43-101 (“NI 43-101”) compliant Technical Report on the El Oro Property in Mexico dated November 30<sup>th</sup>, 2013. The effective date of this report is November 20<sup>th</sup>, 2013. This report post-dates a Second Amendment to a NI 43-101 Report on the El Oro Property dated September 24<sup>th</sup>, 2013 that had an effective date of June 15<sup>th</sup>, 2013.

This report was prepared by Nadia M. Caira, P. Geo. of Argonaut Gold Odyssey Inc. (“Argonaut”) who first visited the project in mid-August of 2012 and has been intermittently working on the project since that time. This report can be filed as a Technical Report with the Canadian Securities Regulatory Authorities pursuant to the *June 30<sup>th</sup>, 2011 Guidelines for contents of a National Instrument 43-101 Report, and the Standards of Disclosure for Mineral Projects*. This report has been reviewed by Joanne C. Freeze, P. Geo.

Candente Gold Corp. (“Candente” or “the Company”) has been intermittently exploring the El Oro and Tlalpujahua Gold Districts since 2007. The most productive part of the two districts occupies an east-northeast vein corridor that measures approximately 4.0 miles (6.5 km) from east to west and 2.5 miles (4.0 km) from north to south.

The Company’s principal asset is the El Oro low sulphidation gold-silver property located in the States of Mexico and Michoacán, Mexico (the “El Oro Property”). As of May 2012, the Company had earned a 70% undivided interest in the El Oro Property. On February 20, 2013 Goldcorp S.A. de C.V. (“Goldcorp Mexico”) formerly Luismin S.A. de C.V., declined to participate in the proposed 2012-2013 exploration work program. According to the Letter Agreement any failure by a participant to elect to contribute to an approved work program, completed to at least 80% of the budgeted exploration expenditures, will result in the dilution of the non-contributing participant’s interest in the El Oro Property.

The El Oro Property (“the Property”) is located in the El Oro-Tlalpujahua Mining Districts at an approximate UTM grid coordinate centered on 373500E and 2190000N (UTM NAD27, Mexico Zone 14), a position located 110 kilometres (“km’s”) west-northwest of Mexico City, straddling the border between the State of Mexico, close to its western border near the town of El Oro and the town of Tlalpujahua located 5.0 kilometres further west of El Oro in the State of Michoacán.

The districts, collectively, host at least twenty (“20”) precious metal veins with past production and more than fifty-seven (“57”) known veins to date, having produced 6.4 million ounces of gold and 74 million ounces of silver from just two of these known veins. One of the most productive veins includes the San Rafael Vein that historically produced over 4 million ounces of gold and 44 million ounces of silver from the upper 150 to 250 metre mine levels, with mine grades averaging 10 to 12 grams per tonne gold and 120 to 160 grams per tonne silver, to as high as > 50 grams per tonne gold and >500 grams per tonne silver (*Candente Gold Corp., NR003 April 6, 2010*).

The El Oro Property consists of 27 claim blocks totaling 17,959.5 hectares (179.595 km<sup>2</sup>). These claims are owned by Industrias Luismin S.A de C.V. (“Luismin”), a 100% owned subsidiary of Goldcorp Inc. (“Goldcorp”). In 2006 Canaco Resources Inc. (“Canaco”) and Candente Resource Corp. (“Candente Resource”) entered into an option agreement on a joint 50:50 basis which gave the combined companies the right to earn up to 70% interest in all of the El Oro mining concessions held by Luismin. To operate this joint venture, Candente and Canaco formed a Mexican subsidiary named Minera CCM S.A. de C.V.

(“Minera CCM”). In April of 2009, Candente Resource and Canaco agreed to transfer, for consideration, their ownership in Minera CCM, S.A. de C.V. (“Minera CCM”) and the El Oro property to Candente Gold Corp. (“Candente Gold”).

On May 1, 2012, Candente Gold Corp had earned a 70% undivided interest in the El Oro property by investing US\$10 million dollars in exploration expenditures on the property. On July 27, 2012 Goldcorp S.A. de C.V. (“Goldcorp Mexico”) formerly Luismin S.A. de C.V., advised the Company of their election not to proceed with the Back-in Option on the Exploration Area and of their election to participate at its existing 30% right title and working interest. On October 22, 2013, in accordance with the Joint Venture Agreement, a 12 month work program with budget was proposed however, this proposal included drilling which required completion of current data compilation and 3D modeling to delineate drill targets.

On February 20, 2013 Goldcorp S.A. de C.V. (“Goldcorp Mexico”) , advised that they were declining to participate in the proposed work program. Various discussions were held with Goldcorp regarding their ongoing interest in the project and it was decided to complete the necessary work to justify drilling before proposing a new budget to Goldcorp.

The property is accessible for most of the year on well-established paved and gravel roads and can be reached by car in 2.5 to 3.0 hours from the Juarez International Airport in Mexico City or in 1.5 hours from the Toluca, Mexico International Airport. The rainy season is in July and August. There is excellent local infrastructure to support exploration and mining activity at the nearby historic mining towns of El Oro and Tlalpujahua.

There are a wide variety of epithermal precious metal deposit types throughout the world, one of which includes the Low Sulphidation (“LS”) Adularia - Sericite type that can be further divided into three subtypes: sulphide-poor associated with subalkalic rhyolitic rocks; sulphide-poor associated with alkalic rocks; and sulphide (and base metal) - rich associated with andesitic to rhyodacitic rocks. The El Oro Property mineralization is classified as a Low Sulphidation Adularia-Sericite type. One of the principal factors influencing mineability is determined largely by structural, lithologic and hydrothermal-induced permeability. Effective fluid conduits may be provided by high- and low-angle faults, in hydrothermally brecciated and/or leached rocks in addition to lithologic variations (*Sillitoe, 1993*).

The El Oro mining district (“El Oro”) lies close to its western border, in the State of Mexico. The Tlalpujahua mining district (“Tlalpujahua”) lies 5.0 km further west of El Oro, in the northeastern part of the State of Michoacán. Collectively, the El Oro and Tlalpujahua mining districts are located in the Trans-Mexican Volcanic Belt in central Mexico comprised of Tertiary and Quaternary andesitic flows and tuffs underlain by Cretaceous and Jurassic meta-sediments and meta-andesite volcanic and subvolcanic rocks.

The gold-silver mineralized region is dominated by easterly trending Tertiary anticlines that parallel the structural grain established in the Cretaceous by the Sierra Madre Occidental anticlines and complimentary troughs. The older Pre-Tertiary metasedimentary and metavolcanic rocks host the productive gold and silver-bearing quartz-adularia-sericite-(carbonate) veins. The mineralized veins outcrop in variably exposed structural windows through folding and faulting spatially related to the easterly Tertiary anticlines. Andesite porphyry, quartz eye rhyolite porphyry and aplite sills, dykes and irregular intrusions are well developed throughout the district and are spatially and potentially genetically related to known mineralization in the area.

The blind El Oro mineralization in the east lies beneath an extensive blanket of younger Tertiary post-mineral volcanic cover. This younger cover in-turn is underlain by variably mineralized rhyodacitic

ignimbrite blanket that infill's a north-trending fault graben. At San Rafael, Verde and other nearby veins, the ignimbrite hosts unconformity-related gold and silver mineralization lying in the apical or up-dip extensions of some of the veins. The exposed Tlalpujahua mineralization in the west is devoid of the post mineral volcanic cover with the mineralized veins and associated stockwork exposed on surface in earlier sediments and volcanics as well as pre-mineral andesite porphyry dykes and sills.

In the late 19th and early 20th centuries, the El Oro and Tlalpujahua Districts were known, collectively, as one of the most important gold-silver mining camps in Mexico with estimated past production of over 8.0 million gold equivalent ounces from the San Rafael and Verde veins with grades averaging 10-12 grams per tonne (g/t) gold and >150 grams per tonne silver. Historically, the San Rafael vein was reported to have produced in excess of 5.0 million gold equivalent ounces over 45 years from 11.9 million tonnes of ore with an average production grade of 10.8 grams per tonne gold and 115 grams per tonne silver over an average mining width of 10 metres (32.8 feet) to a maximum mining width of 36 metres (120 feet).

Collectively the districts still possess the potential to find un-mined portions of mineralized veins including along- and across-strike, and down-dip extensions of known veins, as well as undiscovered blind mineralized veins under post mineral Tertiary volcanic cover. Most of the 100's of kilometres of underground workings in the El Oro and the Tlalpujahua Districts are inaccessible at present due to the historic age of the workings dating back to as early as the late 1800's. The vein - faulted wall rock is primarily sheared, friable, carbonaceous shales that cave easily.

Additional historic tonnage and grade estimates and extensive underground mining activity between the early 1920's and late 1950's has been reviewed and will be discussed extensively in Section 6 under the "History Section" of this report.

In 2010, Candente Gold Corp's exploration program included six core holes totaling 3,336 metres at Zona Oriente located east of the San Rafael Vein, as well as two holes into the San Rafael Vein with a focus on the Esperanza Mine and the northern Buen Despacho vein segments totaling 2,266.75 metres. In addition, the underground rehabilitation of the San Juan adit enabled drilling totaling 2,048.60 metres of the San Rafael footwall zone as well as easier drill access to the Calera and Descubridora vein structures. The 2010 underground and surface drilling and sampling program defined high grades of gold and silver in a portion of the remaining vein mineralization defined by Luismin. Two samples collected 55 metres vertically apart returned grades of 14.92 grams per tonne gold and 117.0 grams per tonne silver over 2.1 metres and 14.64 grams per tonne gold and 54.50 grams per tonne silver over 2.5 metres. Select 2010 drill intercepts included: 30.5 metres of 1.52 grams per tonne gold and 32.9 grams per tonne silver from a depth of 25.00 metres; 15.5 metres of 1.33 grams per tonne gold and 55.18 grams per tonne silver from a depth of 69.0 metres including 6.5 metres of 2.82 grams per tonne gold and 96.08 grams per tonne silver (*Candente Gold Corp, NR008 dated September 14, 2010*).

In addition, the 2010 program discovered a potential bulk tonnage unconformity-related target along the contact between the Somera Tuff, a dacitic ignimbrite with pumice, quartz vein, massive silica, tuff, quartz feldspar porphyry fragments, and the underlying Cretaceous sedimentary rocks hosting the San Rafael vein system. The best interval returned 54.7 metres of 1.17 grams per tonne gold and 5.02 grams per tonne silver coincident with an advanced argillic alteration signature of buddingtonite, illite and smectite clays.

A total of 520 metres of underground workings from the southern part of the San Rafael vein system were rehabilitated in 2010 by Candente. During this work program 160 rock samples from exposed vein side-

wall and mineralized back-fill were sampled. The back-fill material returned an average grade of 4.72 grams per tonne gold and 53.49 grams per tonne silver (*Candente Gold Corp, NR010 dated February 9, 2011*). A total of approximately 500 metres of underground rehabilitation of the easterly trending Dos Estrellas Adit was also completed by Candente to facilitate the underground sampling and drilling of the San Rafael hanging-wall vein zones including the following veins: Verde; El Salto; and the Jesus del Monte veins. In addition, detailed surface mapping and sampling was carried out at the Coronas North, and the Borda - Coronas targets to generate future drill targets.

In 2011, Candente Gold Corp. completed a 10,117.97 metre drill program in 28 core holes. The drill program was based on Placer Dome's "A" Blocks that were created in 2003 using the underground sample control data from El Oro Mining & Railway and from the creation of a grade model made by Placer along the San Rafael Vein (*Pryor, 2011*). Four zones along the San Rafael vein system were drill targeted from south to north including the: Providencia Shaft Zone; Norte Shaft Zone; Mexico Esperanza Zone; and the Buen Despacho Zone.

A total of 18 of the 28 holes drilled (8 holes were lost in bad ground due to faulting) intersected anomalous gold and silver mineralization. At the Tiro Providencia Zone, silver mineralization predominated over gold suggesting a differing paleo-level of exposure and/or a differing mineralization event. One of the most attractive gold targets at San Rafael is the Mexico-Esperanza Zone under the Cerro Somera Tuff where the San Rafael Vein hosts high gold values to a vertical depth of over 500 metres.

In 1992, Luismin S.A. de C.V. and Minera Mexico Michoacán S.A. de C.V. ("MMM") conducted a review of the potential tonnes and potential grade on a conceptual exploration target along a 1.0 km segment of the 3.3 km long San Rafael vein covering the El Oro Mining & Railway Mine (Section 6.4). The review concluded that the potential exists for 6.00 to 6.89 million tonnes grading from 3.00 to 3.44 grams per tonne gold and from 40.00 to 44.00 grams per tonne silver (*Zamorano, 1992*). The detailed results of this study can be found in Section 6.4 of this report. This exploration target assessment was developed during a program of extensive mine rehabilitation of the Tiro Providencia ("Providencia shaft") of the San Juan adit from the zero foot level to the 650 foot (198.12 metres) level below surface. In addition, the Tiro Skip ("Skip Shaft") was rehabilitated to depths of between 300-450 feet (100-150 metres). This assessment was part of an in-house company review and is non-NI 43-101 compliant with the standards and guidelines set out through the NI 43-101.

*The above estimation on the San Rafael vein target is conceptual in nature and should not be relied upon as insufficient drilling has been done to define the target under an inferred mineral resource using CIM resource category with adequate geological confidence (CIM, Nov 2010). According to the CIM Definition Standards November 2010 "An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity". Further verification drilling, to better define mineralized vein zone outlines, a recalculation of the specific gravity and further metallurgical test work is required to identify, with more certainty, the quantity and grade of the San Rafael vein target. A systematic verification drilling and sampling program should be such that continuity can be predicted with confidence and contained metals may be better known with a reasonable level of reliability. A mineral resource can be estimated for material where the geological characteristics and the continuity are known or reasonably assumed and where there is the potential for production at a profit. A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves, and the Company is not treating the historical estimate as current mineral resources or mineral reserves.*

In February of 2013, a detailed structural and ASTER Landsat interpretation was completed. The results defined five principal fault orientations within the study area: WNW/E-W, NE/ENE, NNE-SSW, N-S/NNW and NW-SE. The structural framework of the district is dominated by WNW/E-W and NE/ENE trending faults. Both sets are post mineral extensional faults and are mostly northward down-throwing although some show syn-mineralization activity. At least 31 exploration targets were identified as a result of the satellite image interpretation and alteration processing. The targets are based on criteria including the presence of major faults, intersections, branches or splays along major structures, releasing bends, proximity to intrusions, ASTER/Landsat ETM+ derived anomalies and known vein locations (Section 9.5 of this report) (*Candente Gold Corp, NR023 dated February 28, 2013*).

In April of 2013, a fluid inclusion study was completed on 30 samples collected from surface outcrops, underground workings and drill core from the San Rafael, Verde, Borda, Coronas and Jesus Del Monte vein targets. The results indicate that samples collected show a wide variety of fluid inclusion types and silica-calcite vein textures. The most abundant texture observed in 97% of the samples was the classic jigsaw quartz texture, the most common ore-related quartz texture in the well-known nearby Guanajuato low sulphidation silver-gold district. A total of 38% of the samples have liquid-rich inclusions with trapped illite, a feature closely associated with high grades in the Guanajuato District and several samples had rhombic adularia, the form of potassium feldspar that is precipitated during boiling. In addition, 69% of the samples have the fluid inclusion assemblages (“FIA’s”) of co-existing liquid- and vapor-rich inclusions with a broad range in liquid-to-vapor ratios indicating boiling of the hydrothermal fluids. In 50% of the samples reviewed colloform quartz was present, originally precipitated as amorphous silica as a result of boiling. Bladed calcite and bladed quartz after calcite was present in 41% of the samples reviewed. A detailed summary can be found in Section 9.6 of this report.

On June 12<sup>th</sup>, 2013, the Company signed an agreement with the municipality of El Oro de Hidalgo, Mexico (“the Agreement”) that provides the Company with exploration and processing rights to the tailings deposits (“the deposits”). The deposits are easily accessible, located immediately adjacent to existing road access as well as power and water services, and once reclaimed, would be available for the town’s future development. The first stage (Phase I) of the Agreement allows the Company a one year period to carry out the necessary test work to ascertain recoveries and the potential economic viability of a tailings reclamation and reprocessing operation, for contributions of US\$25,000 upon signing the Agreement and monthly contributions of US\$3,000 starting 30 days after signing the Agreement. The contributions will be used to fund social projects. If Candente Gold decides to enter into the processing and the reclamation phase (Phase II) then an 8% Net Profits Interest (“NPI”) will be paid to the municipality during the period of operation. If during any months of processing there is no NPI due, then a monthly contribution of US\$3,000 will be made (*Candente Gold Corp, NR025 dated June 13<sup>th</sup>, 2013*).

The Mexico Mine Tailings sourced from the northern San Rafael-Mexico Mine that was mined from 1904 to 1926 was studied in detail from 1951 to as recent as 1992. In 1951, a historical estimate was prepared by the Cooperativa de Las Dos Estrellas after having completed a sampling program comprised of 184 drill holes varying in depths of between 5.0 and 27.0 metres, totalling 2,162.7 metres and using a density factor (specific gravity) of 1.3. This historic work defined a potential conceptual estimate of 800,000 to 839,000 dry tonnes grading between 2.80 and 2.95 grams per tonne gold and between 75.0 to 89.0 grams per tonne silver, for a potential contained ounces of up to 91,874 oz of gold and up to 2,505,651 oz of silver (*Aguilar, J.L.P., 1990*). Further in-house tailings studies were done after 1951 to as recent as 1990 by various companies and can be found in Sections 6.4.2 and 6.4.3 of this report.

*The author is not treating the above historical conceptual estimate as current mineral resources or mineral reserves. This estimation is conceptual in nature and should not be relied upon as insufficient drilling has been done to define an inferred mineral resource using CIM resource categories (CIM, Nov 2010). Further verification drilling using current NI 43-101 QA/QC standards, including a recalculation of the specific gravity and further metallurgical test work is required to identify, with more certainty, the quantity and grade of the reported estimation. The homogenous nature of tailings, at least in a lateral sense, suggests that a sample population of the tailings could be systematically verified in a grid drilling and sampling program such that continuity could be predicted with confidence and contained metals may be better known with a reasonable level of reliability. A qualified person has not done sufficient work to classify the historical estimate as current inferred mineral resources or mineral reserves, and the Company is not treating the historical estimate as current mineral resources or mineral reserves.*

In June of 2013, Candente completed a Simple Gold and Silver 3D Grade Block Model on the 1.2 km long San Rafael-El Oro Mining & Railway segment of the 3.3 km long San Rafael vein zone to gain an understanding of mineralization controls that could be applied to the mining district as a whole. This model includes 40% of known historic underground workings (circa 1919-1925) and incorporated 914 historic two-metre sample control gold and silver level plans. The level plans were developed on a local metric mine grid; cover a longitudinal strike length of 1.2 km (3937 ft.); and are defined by northeast trending cross sections A through Z. Vertically, the sample control levels extended from the San Rafael level, just above the San Juan Level (0 foot level), to level N 500 foot (152.4 metres) on all sections A to Z, and between N550 foot (167.64 metres) and N1450 foot (441.96 metres) on sections A to G for Veta Negra (“black vein”). The San Rafael vein segment was modeled from Tiro Hondo in the north to just north of Tiro El Carmen in the south; over a 555 feet (170 metres) vertical distance (at the San Rafael vein); and over a 590.5 foot (180 metres) vertical distance at the hanging-wall vein, Veta Negra.

The simple grade block model defined a rough estimate of 4,500,000 to 5,000,000 tonnes grading from 8.0 to 10.0 grams per tonne gold and from 60 to 65 grams per tonne silver that was historically mined during the period of 1920-1925 from the vein segment modeled. Further unofficial mining was done after 1925 to as recent as 1959. In addition, a geostatistical analysis of the digitized grade data was completed and search ellipses were calculated. Ongoing work includes: definition of vein geometries; definition of faults; a re-calculation of mined out volumes by comparing available production records; and drill testing of stope limits. The secondary objective of the 3D model was to target the San Rafael vein complex as a valid exploration target containing potentially un-mined mineralization. Previous explorers defined remnant mineralization in 1993 drill holes including hole SR93-02 returning 3.5m of 23.2 grams per tonne gold and 224.0 grams per tonne silver that may be deemed economic at today’s metal prices. The last recorded informal mining operation ended in the late 1950’s. A detailed summary of the results can be found in Section 9.3 and 9.4 of this report.

From May 2006 to November 20<sup>th</sup> 2013, Candente Gold Corp. has spent a total of approximately US\$10,757,183 dollars on exploration and related activities on the 17,959.5 hectare (179.595 km<sup>2</sup>) El Oro Property. The author is of the opinion, that based on excellent discoverability due to the voluminous historical data available, the proven historic production grades to date, known strike extents of demonstrated mineralized veins and the proven down-dip vein depths in excess of 500 metres below surface that excellent potential exists for further definition of favourable mineralization along strike and below known mineralized intercepts as well as further discovery of blind mineralized vein structures. Further exploration work is clearly warranted.

Due to a newly defined easterly trending favored extensional mineralization control, sub-parallel to known Tertiary anticlines, transverse to the north-northwest strike of the vein systems, and down-to-the-north fault offsets further drill definition of the San Rafael vein system is required along the 3.3 kilometres strike length as well as several other high priority vein targets of the 57 known veins to date by targeting structural, lithological and hydrothermal controls of mineralization. Given the typical mining widths at the San Rafael vein ranging from 5.0 to 10.0 metres as well as unique transverse mining widths from 50 to 75 metres along easterly mineralized breccias, stockwork zones and disseminated gold horizons, drill hole orientation needs to be carefully considered. Targeting should include drilling initially below existing historical workings from underground drill stations, where possible, due to the difficulty of drilling deep targets from surface below the friable post mineral volcanics and the severely sheared host rock shales in areas of potential remnant mineralization.

In summary, low sulphidation epithermal gold-silver vein deposits, like Candente's El Oro Property can easily lie concealed beneath extensive blankets of clay alteration and/or post mineral volcanic cover. Support and willingness to be drill aggressive is critical as surface features may not be a true representation of what lies at depth.

*This project may or may not be materially affected by scrutiny into environmental, permitting, legal, title, taxation, social, political, marketing or other relevant issues in addition to a down-grading in quantity and grade with further drilling.*

## **2. INTRODUCTION**

### **2.1 TERMS OF REFERENCE**

The following report dated November 30<sup>th</sup>, 2013 was prepared to provide an updated National Instrument 43-101 ("NI 43-101") Technical Report on the El Oro Property in Mexico ("the Property"), located 110 kilometres west-northwest of Mexico City. The effective date of this report is November 20<sup>th</sup>, 2013. This report post-dates a Second Amendment to a NI 43-101 Report on the El Oro Property dated September 24<sup>th</sup>, 2013 that had an effective date of June 15<sup>th</sup>, 2013.

This report was prepared by Nadia M. Caira, P. Geo. of Argonaut Gold Odyssey Inc. ("Argonaut") for Candente Gold Corp. a Vancouver-based public company. The corporate office of Candente Gold Corp. is at Commerce Place, Suite 1650, 400 Burrard St., Vancouver, B. C. Canada.

Candente completed a first option on the El Oro Property on February 15, 2011 and earned a 50% interest in the property from Goldcorp S.A. de C.V. ("Goldcorp Mexico", formerly Luismin S.A. de C.V.), a subsidiary of Goldcorp Inc. by incurring US\$5 million in exploration expenditures (including US\$1.5M in the immediate exploration area) and by issuing 1,000,000 million shares in the capital of the Company (*Candente Gold Corp NR017 dated May 3, 2011*). As of May 1, 2012, the Company had earned a 70% undivided interest in the El Oro Property by investing US\$10 million dollars in exploration expenditures on the property (*Candente Gold Corp. NR021 dated June 20<sup>th</sup>, 2012*).

Nadia Caira ("Caira") is the Qualified Person ("QP") under the regulations of NI 43-101. In addition to multiple site visits between August of 2012 and present, Caira held discussions with local miners and

landowners living in the town of El Oro and Tlalpujahua where ideal infrastructure exists and where all previous exploration programs were successfully serviced. Caira discussed pertinent aspects of all past exploration programs in detail with onsite geologists and reviewed available literature and documented results, including an examination of select drill core intercepts available and individual prospect field visits concerning the property. The reader is referred to those data sources, which are outlined in the References Section 27.0 of this report. In addition, all abbreviations used in this report are defined in Section 2.3.

The present Technical Report was prepared in accordance with the requirements of NI 43-101 of the British Columbia Securities Commission (“BCSC”) and the Canadian Securities administrators (“CSA”). The purpose of the current report is to provide an independent and updated NI 43-101 compliant, Technical Report on the El Oro Gold-Silver Property with an effective date of November 20<sup>th</sup>, 2013. The author understands that this report may be used for internal decision-making purposes and may be filed as required under TMX regulations. This report may also be used to support public equity financings.

## 2.2 SOURCES OF INFORMATION

This report is based, in part, on translated (from Spanish to English) historic reports, internal company technical reports, maps and correspondence, published government reports, public information and a literature review as listed in the References Section 27.0 of this report. Several sections from reports authored by other consultants and from previous historical sources have been directly quoted or summarized in this report and are indicated where appropriate.

The sources of information accessed in preparing this report included Candente Gold Corp’s records and exploration database and historic reports, in particular reports completed by Industrias Luismin S.A de C.V (“Luismin”), a subsidiary of Gold Corp; Teck Cominco Ltd (“Teck”); Placer Dome Gold (“Placer”) and Minera Mexico Michoacán (“MMM”).

The author has drawn heavily on excerpts from material contained in reports as noted below:

- *Caira, N.M., September 2013*: National Instrument 43-101 F1 Amended Technical Report on the Candente Gold Corp., El Oro Project with an effective date of June 15<sup>th</sup>, 2013.
- *Caira, N.M. and Freeze, J.C., June 2012*: National Instrument 43-101 F1 Amended Technical Report on the Candente Gold Corp., El Oro Project written for a 2012 AIF submission.
- *Pryor, M.J., February 2011*: National Instrument 43-101 F1 Amended Technical Report on the Candente Gold Corp., El Oro Project.
- *Pryor, M.J., July 2009*: National Instrument 43-101 F1 Amended Technical Report on the Candente Gold Corp., El Oro Project.
- *Minera Mexico Michoacán, 1989*: Reporte Correspondiente al mes de Junio de 1989, El Oro, Edo, de Mexico.
- *Albinson, Tawn, 1983*: Evaluación Del Distrito El Oro y Tlalpujahua Edo. de Mexico-Michoacán.
- *Flores, Teodoro, 1913*: Instituto Geologico De Mexico 1920: Boletín Numero 37 Estudio Geologico-Minero de Los Distritos De El Oro y Tlalpujahua por El Ingeniero de Minas Teodoro Flores.

- *Locke, Augustus, 1913: The Geology of the El Oro and Tlalpujahua Mining Districts, Mexico.*

Unless otherwise stated all units in this report are in metric. Gold values are reported in grams per tonne (“grams per tonne gold”), and silver values are reported in grams per tonne (“grams per tonne silver”) or in parts per million (“ppm”). Mercury is reported in parts per billion (“ppb”).

## 2.3 GLOSSARY AND ABBREVIATIONS OF TERMS

“Az”	means azimuth
“AAS”	means Atomic Absorption Spectroscopy
“AA”	is an acronym-Atomic Absorption, for metal conc. prior to Fire Assay
“ALS”	means ALS Chemex, Canada
“Argonaut”	means Argonaut Gold Odyssey Inc.
“asl”	means above sea level
“BCSC”	means British Columbia Securities Commission
“C”	means degrees Celsius
“CAD\$”	means the currency of Canada
“Candente”	means Candente Gold Corp.
“CIM”	means the Canadian Institute of Mining, Metallurgy and Petroleum
“cm”	means centimetres
“CSA”	means the Canadian Securities Administrators
“g/t”	means grams per metric tonne
“DEM”	means Digital Elevation Model
“E”	means east
“Edo”	means Estado (Spanish) or State (English)
“HS”	means high sulphidation
“ha”	means hectare
“ICP-AES”	means Inductively Coupled Plasma - Atomic Emission Spectroscopy
“ICP-MS”	means Inductively Coupled Plasma - Mass Spectrometry
“km”	means kilometer
“km <sup>2</sup> ”	means square kilometres
“LS”	means low sulphidation
“Placer”	means Placer Dome Corporation
“m”	means meter
“M”	means million
“Ma”	means millions of years
“mm”	means millimetres
“MMB”	means Direccion General de Minas (Spanish)
“MMM”	means Minera Mexico Michoacán (Spanish)
“ME-MS61”	means an ultra-trace level method using ICP-MS and ICP-AES
“Mt”	means millions of tonnes
“N”	means north
“NE”	means northeast

“NI 43-101”	means National Instrument 43-101
“NSAMT”	means Natural Source Audio Magnetic Telluric
“NSR”	means an acronym for net smelter return, the amount actually paid to the mine and mill owner from the sale of the ore, minerals and other materials or concentrates mined and removed from mineral properties, after deducting certain expenditures defined in smelting agreements
“NW”	means northwest
“ppm”	means parts per million
“QMS”	means quality management system
“QP”	means qualified person
“SE”	means southeast
“SEDAR”	means System for Electronic Document Analysis and Retrieval
“SW”	means southwest
“Teck”	means Teck Corporation
“t”	means tonnes in metric measurement
“t/a”	means tonnes per year
“the Property”	means the El Oro Property
“TMX”	means TMX Group Inc. - a market regulatory body set up for joint market surveillance on TSX-V and TSX exchanges
“TN”	means True North
“tpd”	means tonnes per day
“TSX”	means the Toronto Stock Exchange
“TSX-V”	means TSX Venture Exchange
“US\$”	means the currency of the United States
“UTM”	means Universal Transverse Mercator
“W”	means west
“XRF”	means X-Ray Fluorescence
“Xstrata”	means Xstrata Process Support, Canada
“4-acid”	means four acid digestion(s) - a total digestion using nitric, perchloric, hydrofluoric and hydrochloric acids

### 3. RELIANCE ON OTHER EXPERTS

The author has relied on historic data and information developed by previous explorers, some of which, may not be qualified persons including: Mexico Mines of El Oro Ltd., Esperanza Mining Company, El Oro Mining & Railway Co., Luismin S.A. de C.V., Teck, Placer, and Hillsborough to name a few. Based on a detailed data review and multiple site visits the author has no reason to believe that exploration conducted by historic explorers post-1980’s, was completed in a manner inconsistent with normal exploration practices and has no reason not to rely on such historic data and information for basic interpretational purposes however, the author cannot verify a large portion of the historic underground sampling as well as the historic drill data , as a complete set of original assay certificates were not available at the time of the report.

This report is a compilation of proprietary historic and publicly available information, much of it translated from documents originally in Spanish. The focus of this report is to present a summary update of the compilation of historic mining and exploration work by past explorers that defines previously

unknown, unique mineralization controls to higher grades at the San Rafael and related veins. In addition, the report provides an update on the 3D Grade Model and Geostatistical Analysis, a recently translated 1937 report on potential remnant mineralization and the 31 Exploration targets recently defined. The June 2013 to November 2013 exploration work conducted by Candente, postdates a First and Second Amendment to the NI 43-101F1 Technical Report on the El Oro Property, Mexico dated July 17<sup>th</sup>, 2013(*Caira, July 2013*) and September 24<sup>th</sup>, 2013(*Caira, Sept 2013*) respectively.

The historical data and information available for the El Oro property is extensive with hundreds of reports and thousands of hard copy maps. Validation of all the historical information exceeds the objectives and the requirements of this report and, as a result, efforts have focused on a review of the more recent data that is considered relevant to the current exploration objectives.

Argonaut has reviewed technical documents listed in the References section of this report and has reason to believe, that the information is accurate and complete in all material aspects. In addition, the author has carefully reviewed all the pertinent available information presented, including select copies of assay certificates (where available) from the various labs, consultant's technical reports and memos that pertain to previous work on the El Oro and Tlalpujahuá gold-silver veins. Argonaut reserves the right, but will not be obligated to revise this report and conclusions, if additional information becomes available subsequent to the effective date of this report.

As much of the El Oro and Tlalpujahuá property data is historic in nature, quality assurance and quality control (QA/QC) protocols that were applied at the time of data collection cannot be fully verified. More recent exploration work by Candente from 2007 to 2013 utilized current industry QA/QC protocols that are consistent with NI 43-101 requirements. The author considers that the historic work conducted by Luismin, Placer and Teck, although predating the NI 43-101, would likely have followed best practice QA/QC protocols but cannot verify it as such.

With regards to the historic data, the author has made a judgment with regard to the general reliability of the underlying data. There exists an extremely large collection of hundreds of hard copy maps and reports dating back to as early as 1828 to as recent as 1997, prior to Candente's work programs starting in 2007. The historic collection is comprised of hard copy maps, plans, cross sections as well as longitudinal sections of old workings, some of which, show evidence of extensive production. One of the tasks still in progress is a transformation from hard copy to digital format of the highest priority historic data. The quality and accuracy of the historic data cannot be verified without undertaking current sampling programs of underground workings however, access to most of the historic workings is presently unavailable due to water influx and caving of friable shale host rocks. The San Juan and portions of the Dos Estrellas adits have been partially rehabilitated by Candente Gold Corp. The author is confident that the historic data is a fair representation of the old workings, veins systems, gold-silver mineralization and reported production but has not verified it in its entirety. Variations may, however, exist due to the use of varied analytical procedures utilized during the historic work programs as well as unverified QA/QC protocols.

A map of the current claims was reviewed by the author and a verification of the El Oro Property claim title was performed by Candente Gold's legal counsel, RB Abogados Insurgentes Sur 1787 Piso 6, Col. Guadalupe Inn, México D.F., C.P. 01020, Mexico (July, 2012). Operating license permits and work contracts were not reviewed. The author can pass no opinion on the manner of staking, nor can she verify the detailed position of the claims in their entirety. Argonaut has not verified the legality of any underlying agreement(s) that may exist concerning the claims or other agreements between third parties

but has relied on, and believes it has a reasonable basis to rely upon documents provided by Candente Gold Corp. In addition, outside legal counsel for Candente Gold Corp. has included Gowlings located at Bentall 5, 550 Burrard St. Suite 2300, Vancouver, B.C., in Canada.

A draft copy of the report has been reviewed for factual errors by Joanne C. Freeze, the President of Candente Gold Corp. (“Candente Gold”). All statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are neither false nor misleading at the date of this report.

Sources of information for this report include the direct data derived from previous exploration programs, and other sources of information as referenced and listed in the References Section 27.0 of this report.

## **4. PROPERTY DESCRIPTION AND LOCATION**

### **4.1 EL ORO PROPERTY LOCATION**

The two towns of El Oro and Talpujahuá occupy one of the higher parts of the central plateau of Mexico (Figure 4.1) a region of rough detached mountains with north-westerly trends. The elevation above sea level varies between 9,000 and 10,000 feet (*Locke, 1913*). Together, the two towns have a population of approximately 50,000 people. A narrow gauge cargo railroad connects the city of Mexico City to nearby cities of Toluca, Tultenango and Maravatio. The railroad has been decommissioned from Toluca to El Oro.

The El Oro property is located in central Mexico, approximately 110 kilometres west-northwest of Mexico City (Figure 4.1) in the States of Mexico and Michoacán with the center of the land holdings at an approximate location using UTM (NAD27, Mexico Zone 14) grid coordinates UTME 373500 and UTMN 2190000 (100° 7' 53.076" W and 19° 48' 38.53"N). Physiographically, the El Oro district belongs to the province of “Eje Neovolcanico” part of the Trans Mexican Volcanic Belt (“TMVB”) that cuts across the central part of Mexico in an East-West direction (Figure 7.1).

There is excellent road access to the property from two international airports located 3.0 to 4.0 hour drive from Mexico City and 2.0 to 2.5 hour drive from the town of Toluca, Mexico.



Figure 4.1: El Oro Property Location Map within Mexico

## 4.2 PROPERTY DESCRIPTION AND TENURE

The El Oro Property consists of 27 claim blocks (mining concessions) totaling 17,959.5 hectares (179,595 km<sup>2</sup>). These claims are owned by Industrias Luismin S.A. de C.V. (“Luismin”), a 100% owned subsidiary of Goldcorp Inc. (“Goldcorp”). In 2006, Canaco Resources Inc. (“Canaco”) and Candente Resource Corp. (“Candente Gold”) entered into an option agreement on a joint 50:50 basis which gave the combined companies the right to earn up to 70% interest in all of the El Oro mining concessions held by Luismin. To operate this joint venture, Candente and Canaco formed a Mexican subsidiary named Minera CCM S.A. de C.V. (“Minera CCM”). In April of 2009, Candente and Canaco agreed to transfer, for consideration, their ownership in Minera CCM S.A. de C.V. (“Minera CCM”) and the El Oro property to Candente Gold Corp. (“Candente Gold”).

Detailed mining concession descriptions can be accessed on the SIAM website that provides a detailed list in excel file format of all claims in the region (source: [http://www.siam.economia.gob.mx/swb/es/siam/p\\_Titulos](http://www.siam.economia.gob.mx/swb/es/siam/p_Titulos)). For a map representation of the claims in a particular region the CARTOGRAFIA website can be accessed (source: <http://www.cartografia.economia.gob.mx/cartografia/>).

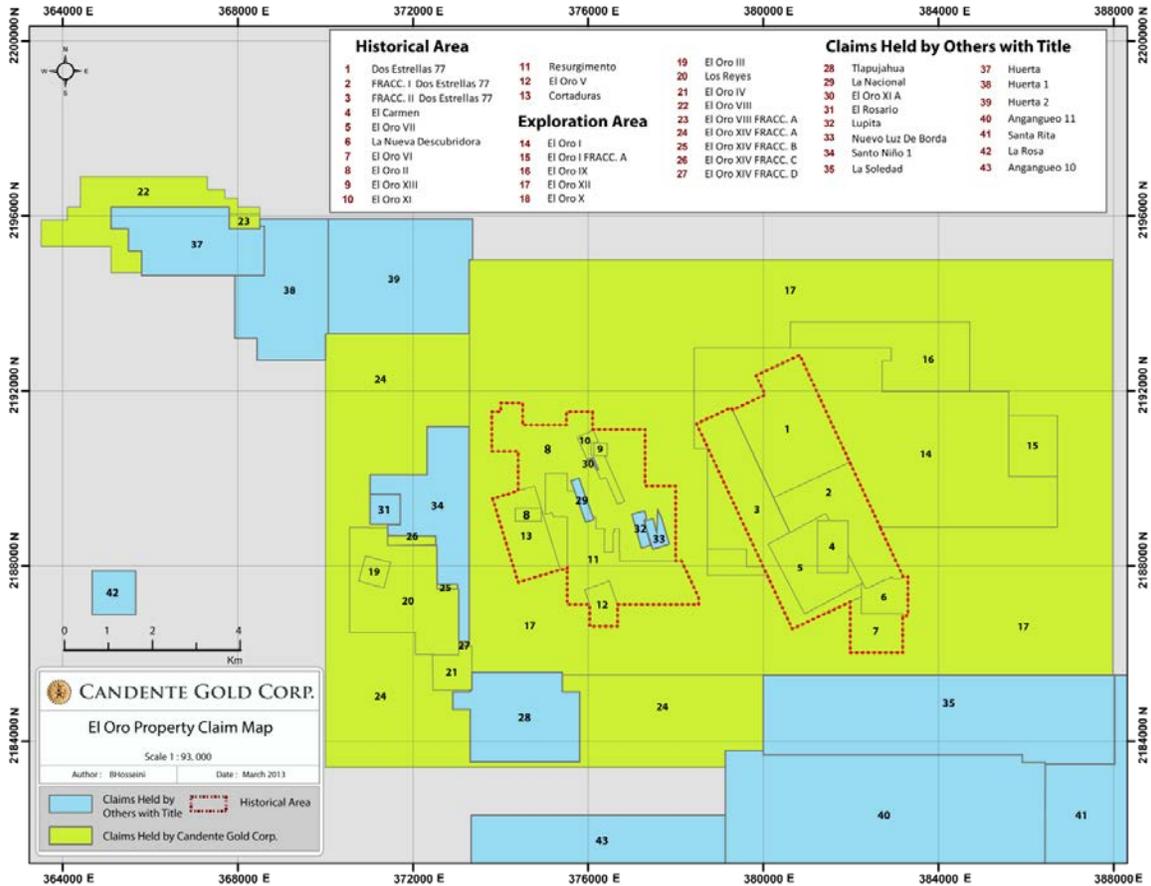


Figure 4.2: El Oro Claim Map (source: <http://www.cartografia.economia.gob.mx/cartografia/>)

A detailed claims title search was conducted in March of 2013 on behalf of Candente Gold Corp. (“Mineral CCM, S.A. de C.V.” or “Minera CCM”) by Lic. Victor Manuel Olavarrieta Beranza. The claim search and validation process was completed at the Director General Mine’s Office (sub-Dirección General de Minas) in the city of Queretaro, State of Mexico, Mexico. The data validated for each of the claims with the original State Files included: title numbers; claim names; size (hectares); municipality; State; the terms of each of the claims; and the concession fees due.

The individual title/concession files owned by Minera CCM were photocopied and are on file for future reference as summarized in Table 4.1 below. The 2012 bi-annual taxes for surface mining fees payable on the present land package is MXN\$1,426,260 or USD\$111,765.35.

Table 4.1: El Oro Property 2013 Claim Holdings and Biannual Claim Payments

Mining Developments San Luis, S.A. de C.V.											
Biannual Mining Rights Payments for January and July 2013-The El Oro Project											
No.	CLAIM NAME	EXPT.E.	TITLE	TERM		Hectares (Has)	Municipality	Mx, State	Pesos	Pesos	SUM(Pesos)
				From (year)	To (year)				Jan-13	Jul-13	TOTAL
1	El Carmen	4825	156873	10/05/1972	09/05/2022	84.0000	El Oro	Mex.	10,478	10,478	20,956
2	Resurgimiento	321.1-9/279	177586	01/04/1986	31/03/2036	412.7565	Tlalpujahu	Mich.	51,487	51,487	102,974
3	Cortaduras	321.1-9/304	179074	17/11/1986	16/11/2036	182.0056	Tlalpujahu	Mich.	22,703	22,703	45,406
4	Los Reyes	321.1/9-305	179519	10/12/1986	09/12/2036	499.3463	Tlalpujahu	Mich.	62,288	62,288	124,576
5	Frac. II Dos Estrellas 77	321.1-6/133	191267	19/12/1991	18/12/2041	380.3055	El Oro	Mex.-Mich.	47,439	47,439	94,878
6	Frac. I Dos Estrellas 77	321.1-6/132	191268	19/12/1991	18/12/2041	330.3153	El Oro	Mex.	41,204	41,204	82,408
7	Dos Estrellas 77	321.1-6/131	191269	19/12/1991	18/12/2041	478.3939	El Oro	Mex.-Mich.	59,675	59,675	119,350
8	El Oro III	6/1.3/00417	215271	14/02/2002	13/02/2052	36.0000	Tlalpujahu	Mich.	4,491	4,491	8,982
9	El Oro VIII Fracc. A	6/1.3/00418	215302	14/02/2002	13/02/2052	24.1920	Tlalpujahu	Mich.	3,018	3,018	6,036
10	El Oro V	6/1.3/00421	215303	14/02/2002	13/02/2052	59.9117	Tlalpujahu	Mich.	7,473	7,473	14,946
11	El Oro IV	6/1.3/00420	215329	14/02/2002	13/02/2052	77.9797	Tlalpujahu	Mich.	9,727	9,727	19,454
12	El Oro X	5/1.3/00523	215533	28/02/2002	27/02/2052	62.4890	El Oro	Mex.	7,795	7,795	15,590
13	El Oro I Frac. A	5/1.3/00525	215534	28/02/2002	27/02/2052	155.3469	El Oro	Mex.	19,378	19,378	38,756
14	El Oro VI	5/1.3/00526	215535	28/02/2002	27/02/2052	115.8852	El Oro	Mex.	14,456	14,456	28,912
15	El Oro I	5/1.3/00527	215536	28/02/2002	27/02/2052	1,846.8273	El Oro	Mex.-Mich.	230,373	230,373	460,746
16	El Oro IX	5/1.3/00528	215537	28/02/2002	27/02/2052	439.6603	El Oro	Mex.-Mich.	54,843	54,843	109,686
17	El Oro VIII	6/1.3/00419	216708	17/05/2002	16/05/2052	416.8080	Tlalpujahu	Mich.	51,993	51,993	103,986
18	El Oro II	6/1.3/00422	216935	05/06/2002	04/06/2052	734.7005	Tlalpujahu	Mich.	91,647	91,647	183,294
19	El Oro VII	5/1.3/00524	217504	16/07/2002	15/07/2052	203.1999	El Oro	Mex.	25,347	25,347	50,694
20	El Oro XII	104/00105	219142	14/02/2003	13/02/2053	8,278.4633	El Oro y Tlalpujahu	Mex.-Mich.	1,032,656	1,032,656	2,065,312
21	El Oro XIII	054/07439	219719	03/04/2003	02/04/2053	8.5056	Tlalpujahu	Mich.	1,061	1,061	2,122
22	El Oro XI (Unif)	6/5/00018	221779	19/03/2004	17/03/2052	43.7478	Tlalpujahu	Mich.	5,457	5,457	10,914
23	La Nueva Descubridora	5-1-00803	226074	16/11/2005	15/11/2055	79.2594	El Oro	Mex.	5,618	5,618	11,236
24	El Oro XIV Fracc. A	54/08566	239006	15/11/2011	14/11/2061	2,981.1786	Maravatio, Tlalpuja y El Oro	Mich. y Mex	25,400	25,400	50,800
25	El Oro XIV Fracc. B	54/08566	239007	15/11/2011	14/11/2061	4.6344	Maravatio, Tlalpuja y El Oro	Mich. y Mex	39	39	78
26	El Oro XIV Fracc. C	54/08566	239008	15/11/2011	14/11/2061	21.2646	Maravatio, Tlalpuja y El Oro	Mich. y Mex	181	181	362
27	El Oro XIV Fracc. D	54/08566	239009	15/11/2011	14/11/2061	2.3728	Maravatio, Tlalpuja y El Oro	Mich. y Mex	20	20	40
<b>TOTAL SURFACE (Has.):</b>						<b>17,959.5501</b>	<b>TOTAL FEE:</b>		<b>1,886,247</b>	<b>1,886,247</b>	<b>3,772,494</b>

### 4.3 MINERAL RIGHTS OBLIGATIONS AND SURFACE MINING FEES

#### Obligations of a Mining Concession Owner with Mineral Rights in Mexico

There are two main obligations for Mexico Mining Concession compliance:

**Obligation 1:** involves the timely payment of the bi-annual taxes or fees for the access rights to surface exploration and mining due within the 12 month year for consideration. The first obligation is calculated based on the date in which the title document of a mining concession was registered before the Public Registry of Mines. The actual value of the surface mining fee depends on two factors including: the age of the mining concession whereby the older the mining concession, the higher the surface mining fee or quota payable; and secondly on the overall surface area (hectares) of the mining concession (Table 4.2).

**Obligation 2:** relates to the Total Investments or Total Expenditures made on the mining concession in the year for consideration or the calculation of the total economic minerals recovered to include yearly work assessment reports on the yearly investments/expenditures on the mining concessions.

### Calculation of the Surface Mining Fees and Investment (Expenditure) Fees

Table 4.2 below contains the applicable fees for investments or expenditures in mining and construction operations that is published by the Official Newspaper of the Federation during the month of December each year. The publication summarized in the table below is the most current update for investment or expenditure fees which will correspond to the following Year 2014. Table 4.3 summarizes investment fees or expenditures required on the El Oro Project.

The investments (work expenditures) made on the mining concessions shall be at least equal to the resulting amounts specified in certain articles of the Mining Law Regulations. The appropriate articles contemplate two classes of rates. The first rate is an annual fixed rate that is applied depending on the "Group Ranking" of hectares in which the mining concession is located. The second rate, known as "the annual additional rate by hectare" is obtained by multiplying the amount that is mentioned under this denomination by the number of hectares that the concession or the Grouping of Mining Concessions covers.

On December 26<sup>th</sup>, 2012 a notification of the current investment fees applicable, as updated by inflation, for the minimum amounts relating to the investment in mining and construction or the value of mineral products obtained was presented.

The Fee Calculation According to Mexican Law Mining Regulations in accordance with the Provisions of the Mexican States: 34 Fraction XXVII of the Organic Law of the Federal Public Service; 1, 2, 7 Fraction IX; and 27 Fraction I, first paragraph of Article 28 and 30 of the Mining Law; and in compliance with the provisions of Article 60 of the Regulation of the Act which establishes that the shares referred to in Article 59 of the same regulation should be updated annually and then multiplied by the *Discount Factor* for the Year to be checked. The *Discount Factor* is calculated by dividing the value in points by the National Consumer Price Index corresponding to the month of October 2012 (for the following year 2013) notified for legal purposes; make the Ref Number 60, the minimum amounts relating to the investment in mining and construction (mineral concessions) and the value of the products obtained to be applied in the respective concessions starting from the month of January 2013 (as translated from pers. com. RB Abogados Insurgentes-Candente Gold's legal counsel).

Table 4.2: Schedule of 2013 Investment Fees for Mineral Rights in Mexico

Range in Hectares	Hectares	MINERAL CONCESSION				
		Fixed fee	Additional rate per hectare			
			(pesos per hectare)			
			1st Year	2nd to 4th Year	5th to 6th Year	7th year greater
up to 30	30	274.24	10.96	43.88	65.82	66.87
> 30 up to 100	100	548.60	21.93	87.77	131.67	131.67
> 100 up to 500	500	1,097.20	43.88	131.67	263.32	263.32
> 500 up to 1000	1000	3,291.62	40.60	124.43	263.32	526.66
> 1000 up to 5000	5000	6,583.25	37.30	125.43	263.32	1,053.31
>5000 up to 50000	50000	23,041.39	34.02	116.30	263.32	2,106.64
> 50000	50001	219,441.86	30.72	109.72	263.32	2,106.64

Note: Referring to the calculation in relation to the mandatory minimum investment for work and mining concessions, if these fees are applied independently to each lot or concession, the investment amount will be less than that if the established formula for a group of lots or concessions.

#### Advantages of the Group Applications

1. The investment resulting from the construction and work (exploration) in 1, 2 or X number of Lots, may be applicable to the rest of the other Lots that form part of the Group of Lots.
2. The excess amounts resulting from the annual minimum investment per year, may be applicable for the following years of testing.
3. The calculation that is done following the rule established for groups, turns out to be more simple.

#### Disadvantages of the Group Applications

1. The investment amounts that resulted from the application of the fixed and additional fees to each Lot separately will be less than the amount that resulted from applying the rule to a group of Lots.

From May 2006 to November 2013 Minera CCM has spent a total of approximately MXN \$140,273,666.32 or US\$10,757,183 dollars (using 1USD\$ = 13.04 MXN\$ (source: <http://www.canadianforex.ca> on November 22<sup>nd</sup>, 2013) on exploration of the 17,959.5 hectare (179.595 km<sup>2</sup>) El Oro Property. In 2013, a reallocation was filed of unusually high expenditure years during drill-focused exploration with significant work expenditure over runs, into consecutive years.

The result of this reallocation has Industrias Luismin S.A de C.V. (“Luismin”), a 100% owned subsidiary of Goldcorp Inc. (“Goldcorp”) and Minera CCM have accumulated an excess in work expenditures requirements.

#### **Article 64: A One-Time Pardon for the Suspension of Exploration/Exploitation Work**

Under Article 64 of the Mexico Mining Law a *one-time, up to 3-year pardon* is allowed for the suspension of exploration/exploitation work required on the claim block as well as a pardon on the investment fees payable on the claim block that cannot be worked on for the following reasons:

1. The technical impossibility to conduct exploration/exploitation work or an unaffordable economic scenario whereby the company cannot raise funds to carry out the required exploration and/or exploitation work. In order to apply the foregoing a written statement explaining the foregoing from the mining holder and/or whomever has the rights to work on the property is required in the calendar year the pardon starts;
2. Strikes or temporary suspension of the employ relations, by means of a certified copy of the resolution or respective authorization;
3. The bankruptcy, seizure of assets order or the death of the holder of the mining concession without an executor by a maximum term of two years following the event, by means of a certified copy of the corresponding judicial resolution or notarial testimony evidencing that the succession proceeding has started; and acceptance of the testamentary executor, or;
4. The explosion, collapses, fire, flood, earthquake, disturbance or any other cause of force majeure, by means of notarial certification or a certification made by an authority with public faith that briefs the facts.

#### **4.4 PROPERTY LEGAL STATUS**

Candente entered into an option agreement with Minera Luismin S.A. de C.V. (“Luismin”) that gives the company the right to earn up to 70% interest in the El Oro Property, which comprises all of the 27 El Oro mining concessions totaling 17,959.5 hectares (179.595 km<sup>2</sup>), held by Luismin (Table 4.1).

Luismin is a 100% owned subsidiary of Goldcorp Inc. Candente formed a Mexican subsidiary named Minera CCM S.A. de C.V. to operate this joint venture.

Candente Gold Corp. announced their earn-in for a total consideration of 70% by having completed US\$10.0 million dollars in exploration expenditures on the property, and Luismin/Goldcorp advised of their election to participate at their 30% level of interest going forward (*Candente Gold Corp., NR021 dated June 20, 2012 and NR022 dated August 10, 2012*).

#### **4.5 PROPERTY SURFACE RIGHTS**

Surface rights within the El Oro Property mineral concessions are held by private owners and communities (Ejidos). In the 1970’s, Luismin purchased the surface rights to twelve hectares over an area within the Cortaduras gold-silver target (Figure 6.32) an area of interest lying in the south-western corner of the present Candente Gold El Oro Property.

For the 2007 to 2013 exploration programs, Candente Gold Corp. obtained permission from the individual property owners, as well as representative heads of the various communities affected to access

and conduct exploration activity on their land. Compensation for road construction and drilling was also agreed upon.

#### **4.6 MINERALIZED VEIN ZONES, MINE WORKINGS AND MINE TAILINGS**

The mineralized veins lie within two well-known mining districts, the El Oro and Tlalpujahua Mining Districts. The most productive part of the two districts occupies an east-northeast structural corridor that measures approximately 4.0 miles (6.5 km) from east to west and 2.5 miles (4.0 km) from north to south. Historically, the most productive veins from east to west can be found in Table 4.3 below.

The majority of the historic gold and silver production came from the El Oro District from two principal veins: the San Rafael Vein in the State of Mexico and the Verde Vein located partially within the States of Mexico and Michoacán. The balance of production from the Tlalpujahua District came from the Borda and the Coronas Veins.

In the El Oro District (“El Oro”), the main San Rafael and Verde veins, as well as an additional 18 of the 57 known veins in both districts, dip steeply to the west, vary from 5 to 30 metres in width, and are covered by post mineral volcanic cover ranging in thickness from 75 to 500 metres.

Production from the western Tlalpujahua Mining District (“Tlalpujahua”) has consisted chiefly of silver from the main Borda and Coronas veins and related stockwork zones. The veins dip steeply east and are exposed at surface and range from 1 to 3 metres in width. There are several other minor veins that branch from the wider Borda and Coronas veins and some that are independent for a total of 30 known veins in the Tlalpujahua District. Gold and silver mineralization occurs in more extensive stockwork zones at Cortaduras, Syenite and the San Francisco de Los Reyes target areas.

Candente Gold Corp. personnel are attempting to locate the 115 historical shafts, 44 adits and test pits in the field, as well as a re-establishment of 143 historic drill collar locations. Some of the drill collars and shafts were surveyed in January of 2013. Many historic shafts, adit entrances and drill hole locations are buried by vegetation, landslides, construction materials and recent buildings hence are difficult to locate accurately.

Table 4.3: Historically the most productive veins in the two mining districts (source: Locke, 1913)

Comments	Vein Name	Mining District
	Descubridora	In the El Oro District
separated by 1000 feet		
	San Rafael and its branches	
separated by 2000 feet		
	San Patricio (Nolan)	
separated by 3000 feet		
	Verde and its branches	In the Tlalpujahua District
separated by 7750 feet	Borda	
separated by 1000 feet		
	Coronas	

Several historic mine tailings deposits occur within the El Oro de Hidalgo Municipality and are included in an Agreement that was recently signed on June 12<sup>th</sup>, 2013 between Candente Gold Corp., and the El Oro de Hidalgo Municipality (*Candente Gold Corp., News Release NR025 dated June 13, 2013*). Further testing is required to ascertain the current potential economic value. The historic tailings sampling and mineralogical work will be discussed in Section 6.4 of this report (*Candente Gold Corp., News Release NR027 dated September 26, 2013*).

The Municipality has requested remediation of the largest known tailings deposit sourced from the San Rafael-Mexico Mine with a historic conceptual estimate of up to 1,039,134 tonnes grading up to 2.80 grams per tonne gold and up to 75.00 grams per tonne silver for a potential contained ounces of up to 91,874 oz of gold and up to 2,505,651 oz of silver. The tailings deposit lies within the town site of El Oro, is easily accessible, and lies immediately adjacent to existing road access, as well as power and water services. The tailings deposit covers an area of approximately 5.6 hectares, that once reclaimed would be available for the town's future development.

*The author is not treating the above historical conceptual estimate as current mineral resources or mineral reserves. A detailed summary of the Mexico Mine Tailings deposit can be found in Sections 6.4.2 and 6.4.3 of this report. This estimation is conceptual in nature and should not be relied upon as insufficient drilling has been done to define an inferred mineral resource using CIM resource categories (CIM, Nov 2010). Further verification drilling using current NI 43-101 QA/QC standards is required to include a reassessment of the specific gravity and further metallurgical test work to identify, with more certainty, the quantity and grade of the reported estimation. The homogenous nature of tailings, at least in a lateral sense, suggests that a small percentage of the tailings could be systematically verified in a grid drilling and sampling program such that continuity can be predicted with confidence and contained metals may be better known with a reasonable level of reliability. A qualified person has not done*

*sufficient work to classify the historical estimate as current inferred mineral resources or mineral reserves, and the Company is not treating the historical estimate as current mineral resources or mineral reserves.*

#### **4.7 ROYALTIES AND OTHER PAYMENTS**

Luismin holds a 100% right, title, and interest in and to the existing concessions subject to the following royalties in respect of all concessions except the “El Oro XI” and “El Oro XII” concessions which do not have any royalties:

1. As to the El Carmen, Resurgimiento, Cortaduras, Los Reyes, La Nueva Descubridora, Frac. I Dos Estrellas 77, Frac. II Dos Estrellas 77, Dos Estrellas 77, El Oro I, El Oro I Frac. A, El Oro II, El Oro III, El Oro IV, El Oro V, El Oro VI, El Oro VII, El Oro VIII, El Oro VIII Frac. A, El Oro IX and El Oro X concessions a 3% net smelter return royalty (NSR) payable to Corporation Tourism San Luis, S.A. de C.V. The before mentioned royalty is capped at, and in no event shall exceed, an aggregate amount of US\$5,000,000.
2. As to El Oro I, El Oro I Frac. A., El Oro II, El Oro III, El Oro IV, El Oro V, El Oro VI, El Oro VII, El Oro VIII, El Oro VIII Frac. A, El Oro IX and El Oro X concesiones, a 3% NSR to Servicio Geológico Mexicano (SGM).
3. As to El Oro XII, El Oro XIII, El Oro XIII, El Oro XI (Unif.). There are no royalties payable to third parties.
4. As to new claims El Oro XIV Fracc. A, El Oro XIV Fracc. B, El Oro XIV Fracc. C and El Oro XIV Fracc. D. There are no royalties payable to third parties.

#### **4.8 ENVIRONMENTAL LIABILITIES**

The author knows of no environmental liabilities related to the El Oro property. Due to minimal surface disturbance caused by the Candente Gold Corp.’s (“Candente’s”) exploration programs there was no requirement to file any environmental assessment reports or to obtain additional permits, under the current law (NORMA-120-SEMARNAT) although Candente Gold has contracted environmental consultants to prepare environmental assessment reports covering the exploration drilling programs in both the Mexican States of Mexico and Michoacán. The “Norma Oficial Mexicana” (Official Mexican Standard) is the name of a series of official, compulsory standards and regulations for diverse activities in Mexico. They are more commonly referred to as *NOM’s or Norma’s*.

A separate Environmental Impact Assessment (“EIA”) was prepared for a proposed Portal Norte where the focus of underground work was anticipated for access to the north end of the San Rafael vein, and although only in an exploration phase, this work requires 'patios' for the transfer and storage of underground material on surface.

The El Oro district has been mined since the Spanish first discovered the outcropping veins in the Tlalpujahuá area in the year 1529. There are historic waste dumps, tailings facilities and other pre-existing environmental impacts on the property. In the Option Agreement with Luismin no environmental liabilities have been disclosed to Candente Gold. The author is not aware of any environmental liabilities related to the El Oro property. In 2002, Placer Dome completed an environmental review that stated that there were no liabilities at that time.

Under Mexican environmental law all historic work including mines, tailings, and waste dumps performed prior to 1988 is exempt and not the responsibility of the current concession holder. Candente Gold Corp. entered into the Option Agreement in 2006 and transferred it into a Mexican subsidiary, Minera CCM. Candente Gold has not performed any mining activities that have included extraction and/or processing of ores or other material or storage of waste material from mining activities on the property. Candente Gold is not aware of any mining activities by others (other than exploration activities) on the property since 1988. There is currently a private individual that intermittently mines one of the internal licenses, not held by the Minera CCM, on the south part of the Borda vein in the Tlalpujahuá District.

#### **4.9 PERMITTING**

All claim maintenance and property payments are completed by Goldcorp S.A. de C.V. (“Goldcorp Mexico”) formerly Luismin S.A. de C.V. The Company is responsible for all environmental, municipal and state approvals for the exploration activity being conducted by the Company as per the option agreement dated May 5<sup>th</sup>, 2006.

The exploration work being conducted on the El Oro Property, including drilling from surface and drilling from existing underground workings falls under the protocols of Norma-120-SEMARNAT-1997 (“Norma-120”) regulations, the Company is currently in compliance with Norma-120.

As required by Norma-120, the Company has developed the Bitácora de Cumplimientos (one for the State of Mexico and one for Michoacán State). The Bitácora de Cumplimientos outlines “how” the Company is developing its exploration activities and “how” these activities will remain in accordance with Norma-120. These documents are not filed with SEMARNAT and no additional documents are required to remain in compliance with Norma-120.

At the proposed North Portal (Porta Norte) exploration site activities would include the development of a new underground tunnel. This activity falls outside of the Norma-120 and therefore an environmental permit and an explosive permit are required. In May 2011, Candente Gold Corp. was granted all the required environmental permits for this work to commence at any time.

The Company was previously issued the “Movimiento de Tierras” on July 14<sup>th</sup>, 2010 by the municipal government for the earth that was moved when building the patio and road at the North Portal site.

#### **The Option Agreement**

In accordance with the Option Agreement dated May 5<sup>th</sup>, 2006 between Minera Luismin S.A. de C.V. (“Luismin Group”) and Candente Gold Corp. (“Candente”), Canaco Resources Inc. (“Canaco”) and Minera CCM S.A. de C.V. (“Minera CCM”) collectively the Optionee:

With respect to the payment of the applicable taxes and other payments due in respect of the Property (all of which will count as Exploration Expenditures) and the preparation and filing of all required assessment work reports by the Optionee, the following procedures will be applicable:

- (a) the Luismin Group will, not more than thirty (30) days in advance of the due date of the property tax instalments with respect to the Property (being January 31 and June 30 in each year), invoice the Optionee for the required payment, which invoice the Optionee will pay to the Luismin Group within fourteen (14) days of the receipt of such invoice. Upon receipt by the Luismin Group of payment in full, the Luismin Group will arrange for the payment of the requisite taxes in a timely fashion and confirm such payment to the Optionee; and
- (b) Luismin Group will file the Work Assessment Reports with the applicable Mexican authorities on or before March 3<sup>rd</sup> in each calendar year.

#### **4.10 EXPLORATION AND EXPLOITATION WORK REPORTING**

In accordance with Article 27 of the Mexican Mining Law, the holders of mining concessions shall conduct yearly minimum exploration and/or exploitation works on their mining concessions. The value of the work completed (total work expenditures) is contributed to the required investment fee or required expenditure in exploration and/or exploitation works on a yearly basis.

Compliance with this obligation shall be fulfilled through investment fees via work expenditures in the mining concession or by obtaining economically utilizable minerals by profitable exploitation from activities via production revenues. However, in order to fulfill the “performance and verification of exploration and/or exploitation works the obligation of reporting these investments or production revenues becomes enforceable when a mining holder owns mining concessions that jointly comprises more than one thousand hectares (>1000 hectares). This obligation is proven through the filing of a report known as: “Exploration and Exploitation Work Evidence Report” (“Evidence Report”) at the Mexican Mining Bureau (“MMB”). This Evidence Report must be submitted even when the mining concession is substituted for a new one for causes ruled by the Mexico Mining Law.

It is relevant to mention that even if the holders of mining concessions do not have the obligation to submit the Evidence Report, the MMB could request to physically verify at any point and time, the investment(s) on work of exploration and/or exploitation in the mining concessions. The Evidence Report shall be filed before the MMB by May 31st of each year, and those Reports shall cover the investments made in the previous year from January 1<sup>st</sup> to December 31<sup>st</sup>.

Investments in exploration and/or exploitation work will be accepted from the following categories:

- Direct mining works, such as ditches, wells, slashes, tunnels and all others that contribute to geological knowledge of the mining concession or the mining reserves;
- Drilling;
- Topographic, photogrammetric and geodesic surveys;
- Geological, geophysical and geochemical surveys;

- Physical-chemical analysis;
- Metallurgical experimentation tests;
- Development and rehabilitation of mining works;
- Acquisition, lease and maintenance of drilling equipment and the development of mining works;
- Acquisition, lease and maintenance of equipment for physical-chemical laboratories and metallurgical research;
- Acquisition, lease and maintenance of work vehicles and for personnel transportation;
- Works and equipment used for job safety and the prevention of pollution or restoration of the environment;
- Building of facilities for warehouses, offices, workshops, camp sites, dwellings and services to workers;
- Acquisition, lease, construction and maintenance of work and equipment related to access roads, generation and conduction of electric energy, extraction, conduction and storage of water and infrastructure in general;
- Acquisition, lease and maintenance of equipment for mining, hauling and general services in the mine and;
- Acquisition, lease, installation and maintenance of equipment for beneficiation operations and tailings dams.

The evidencing of exploitation work by obtaining economically utilizable minerals (exploitation) is based on the value of the invoices of mineral or payment thereof.

#### **4.11 MINING CLAIM ACQUISITION VIA THE SWEEPSTAKE PROCESS**

The process for staking a mining claim in Mexico is comprised of several steps listed below.

1. Selection of an area of interest.
2. Construction of a monument that represents the original starting point of the claim.
3. Payment of the mining taxes based on the number of hectares of the mining claim.
4. Registration of the mining claim in the mining agency for the claim area.
5. Present the detailed survey of the mining claim within the recommended time period.

Once the Mexico Mining Agency, in the case of the El Oro District, the Agencia de Minería # 54 located in Queretaro City, has received the mining claim registration and has reviewed and approved the survey of the claim, the Mining Minister awards the Mining Title.

The procedure for reporting a mining concession that was previously owned by a third party is complex, but basically requires that the mining claim in question, is declared as OPEN or FREE once it has been published as FREE on the official journal of the Federation (source: <http://dof.gob.mx/>).

Once the claim is reported as free for staking, then second and third parties can submit a request for that mining claim however, if two or more interested parties are interested in a specific mining claim then the “Sweepstakes Concurrency or Lotto Procedure” is launched. The Lotto Procedure involves the drawing of

applications that act as ballots from among the total number of applications or ballots submitted for the mining claim in question. Interested parties can submit more than one application to the mining agency and the last application (or ballot) pulled from the box awards the mining concession in dispute to the owner of that ballot. Hence the more applications that you submit, the better your odds are to winning the mining concession.

#### **4.12 CANCELLATION OF A MINING CLAIM IN MEXICO**

Grounds for cancellation or loss of a mining claim are listed below.

1. Termination by force.
2. The withdrawal of the mining concessions by the individual or the company.
3. Reductions, divisions or modifications of the original mining claim concessions.
4. The non-payment of concession rights, the non-submission of evidence of the survey work required and the expropriation of the mining concession or claim.
5. Judicial decision.

## **5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

### **5.1 ACCESS**

The El Oro property (“the property”) lies in the northern part of the State of Mexico close to its western border. Tlalpujahua lies 5 km further west in the State of Michoacán. The El Oro property is located approximately 110 km west-northwest of Mexico City and 80 km northwest of the town of Toluca. The property has excellent road access and can be reached by paved highway from the Mexico City International Airport in 3 to 4 hours or the Toluca International Airport in 2 to 2.5 hours (Figure 5.1).

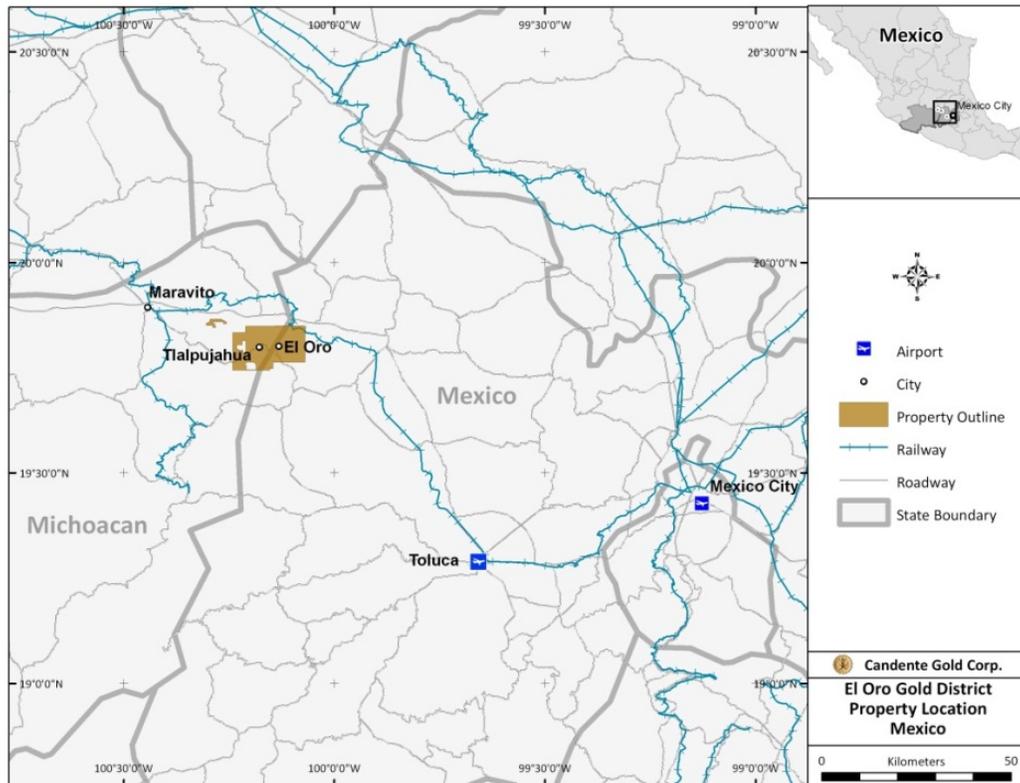


Figure 5.1: Location and Access to the El Oro-Tlalpujahua Mining Districts

## 5.2 PHYSIOGRAPHY, CLIMATE AND VEGETATION

The elevations at the El Oro project area range from approximately 2,200 metres to 3,000 metres (10,000 feet). The landscape consists of gently rolling hills. Vegetation in the area is dominated by cedar, oak and pine forests. Local crops are mainly corn, oats, and small orchards of apple trees. Fauna is dominated by coyotes, rabbits, bats, scorpions and snakes.

There are two dominant seasons in this area. The winter months are from November to January, when the climate is cooler with a light frost and the occasional accumulation of snow at higher elevations. The wet season occurs in the summer months from July through August. At this time of the year, unpaved roads can be difficult to access, and at certain times the roads can be washed out. Access to water can be limited and is easier to secure during the rainy season, however, some of the main creeks can provide a year-round water supply. The best time for field exploration activities is during the dry season which lasts from November through May although working during the wet season is possible at El Oro.

### 5.3 LOCAL RESOURCES AND INFRASTRUCTURE

The town of El Oro is located in the central part of the concession. The second biggest town in this concession is Tlalpujahua. The town of El Oro has a population of approximately 50,000 people and has several elementary and secondary schools, one university, and a hospital. The closest airport is located in Toluca a two hour drive from El Oro. Fuel, food, and basic camp supplies can be purchased locally in El Oro however, nearby larger towns include Atlacomulco which is 45 minutes away by car. El Oro has a grid power supply, several hotels, restaurants, internet access and cellular phone coverage. The various historic tailings deposits on the El Oro Property are easily accessible located immediately adjacent to existing road access, as well as power and nearby water services and once reclaimed would be available for the town's future development.

## 6. HISTORY

### 6.1 EL ORO PROPERTY HISTORY

The El Oro-Tlalpujahua Mining Districts and related targets (Figure 6.1) have collectively, been described as some of the most significant high grade, gold-silver producers in the history of Mexican mining with past production of approximately eight million gold equivalent ounces from the San Rafael and Verde veins alone. The production from the Borda and Coronas veins is poorly documented, although Locke 1913 estimated historic production from the Spanish era of close to \$200 million pesos at Borda. An unknown author estimated informal production for the period from 1743 to 1751 totaling \$36 million pesos.

The veins on the El Oro property have been worked since the Spanish first discovered the veins in 1529 and later in the late 1700's when the Coronas and Borda vein systems were discovered. The height of the mining activity began in 1896 and in a span of 33 years four companies, focused on the San Rafael and Verde veins, produced in excess of 17.5 million tonnes of ore grading 11.9 grams per tonne gold and 121.0 grams per tonne silver (*Pryor, 2011*). Eventually Minera Dos Estrellas consolidated most operations with peak production in the order of 3,000 tons per day (TPD). Production data between the Years of 1907 and 1925 can be found in Section 6.5 of this report.

Historic production from the El Oro District has consisted chiefly of gold and silver. The main San Rafael and Verde veins dip steeply west. The San Rafael vein: is wide from 10 to 70 metres in width; is oxidized to the bottom of the mine workings estimated in 1913 to be close to 300 metres. The Verde Vein is less oxidized to depth; is wide ranging in width from 9.1 to 38.1 metres; has multiple branching variably sulphidic-gold rich veins. At San Rafael a sulphidic branch vein called the San Carlos or Negra vein; is narrow (< 10 cm or 18 inches); is steep; is a sulphidic gold-rich vein that lies in the hanging-wall (the west wall); is located 70 to 122 metres (230 to 400 feet) west of the main San Rafael vein. In the hanging-wall and footwall zones of Verde and San Rafael veins numerous, narrow, independent, oxidized veins dip steeply to the west.

The most important producer(s) on the San Rafael Vein (Figure 6.1) in the early 1900's, were three well known historic mining companies (Figure 6.2) including: Mina El Oro Mining & Railway ("El Oro Mine"); Mina Esperanza ("Esperanza Mine"); and Mina Mexico ("Mexico Mine"). In addition, small but productive veins included the San Patricio Vein (also called the Somera Vein) located 609.6m (2000 feet)

in the hanging-wall and west of the main San Rafael Vein, and the Descubridora vein located 304.8m (1000 feet) in the footwall and east of San Rafael vein. The biggest producer on the Verde Vein was the Dos Estrellas Mine.

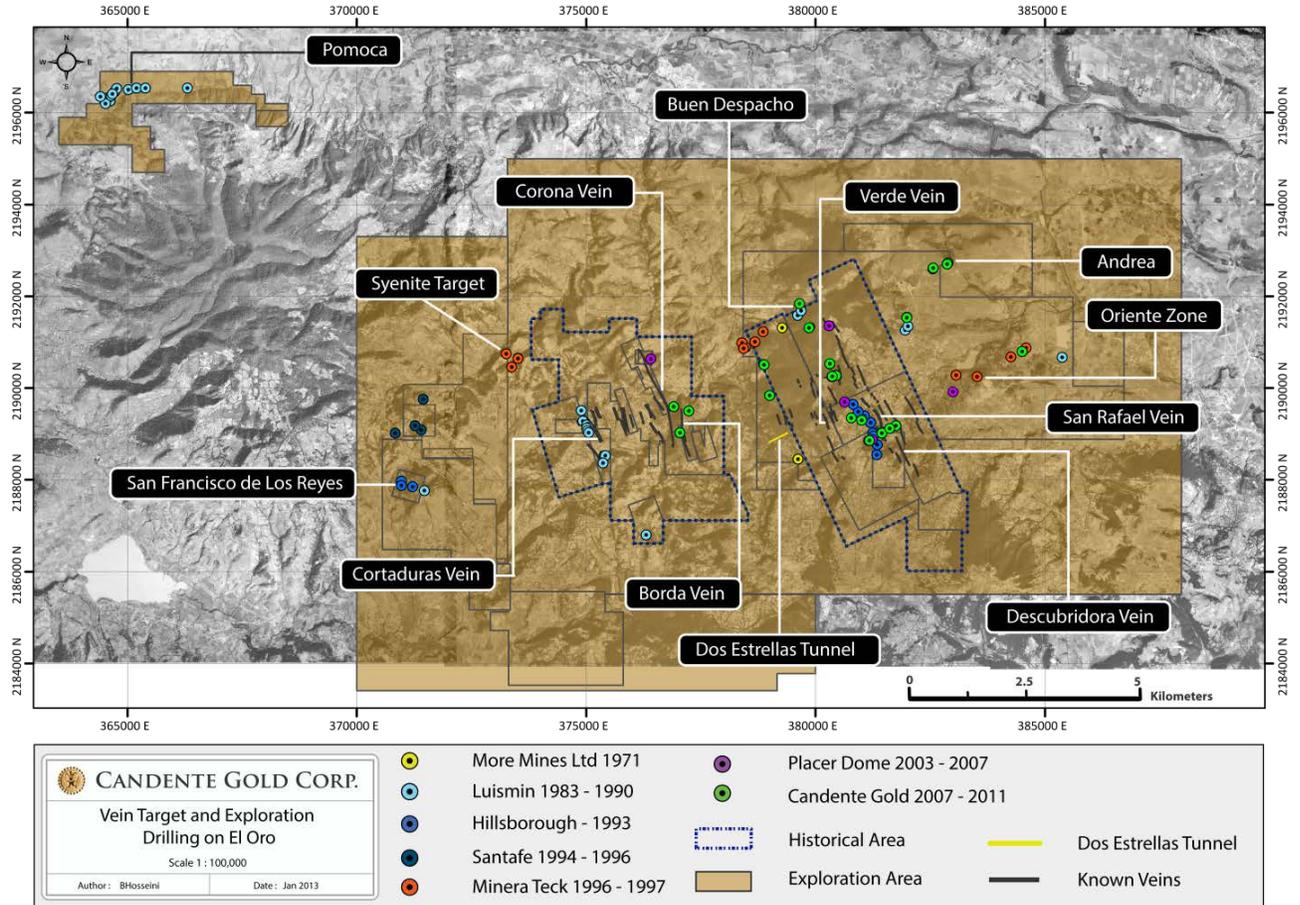


Figure 6.1: Vein Targets and Historic Exploration Drilling on the El Oro Property (north to top of image)

A significant number of the higher priority underground mine records, level plans and cross sections have been digitized from the voluminous historical maps available.

Evidence of past production in the form of 100's of kilometres of underground workings, dump sites, pits, shafts and adits are evidence of the voluminous historic informal production on the property (Figure 6.2). In total, there are 115 known shafts varying in depth of 250 to 575 metres and 44 adits of varying lengths. To the author's knowledge only 3 of the 115 shafts were accessible in the 1950's including: Tiro San Patricio (429 m deep), Tiro Somera (568 m deep) and the Tiro Providencia (400 m deep) access shaft that accesses the San Juan Adit level and the levels below.

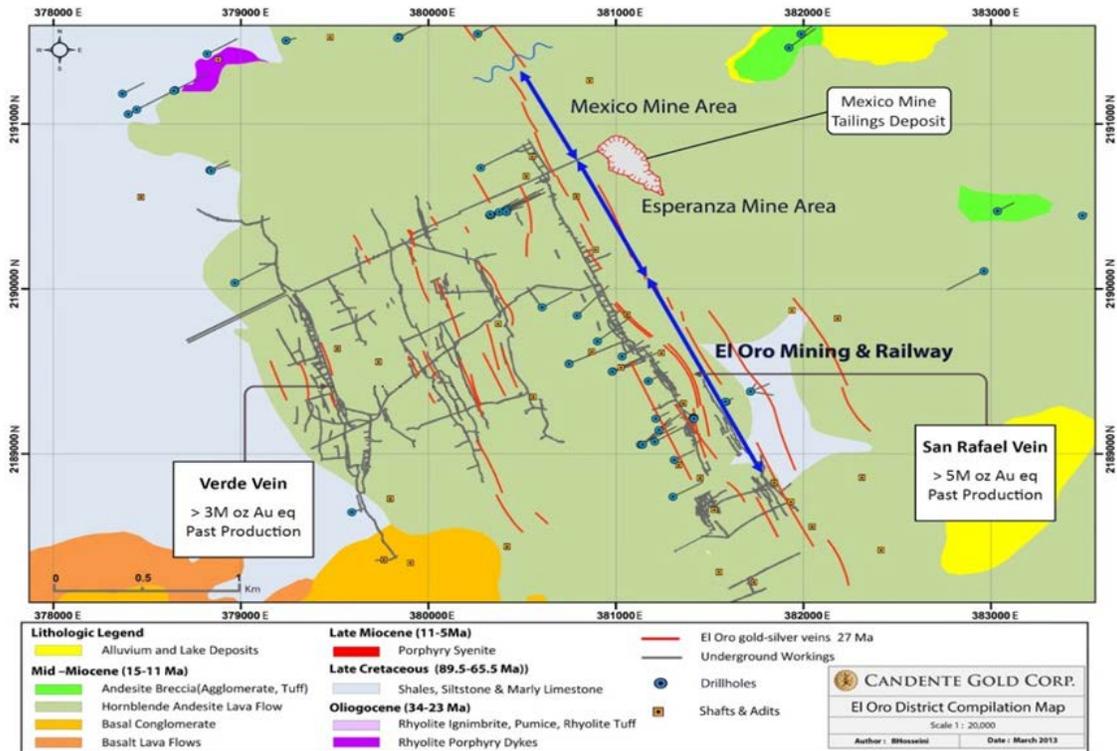


Figure 6.2 El Oro Mining District (veins, workings, shafts and drill holes)

The San Rafael vein is approximately 3.3 km in strike length. A 1.2 km long San Rafael vein segment encompassing the El Oro Mining & Railway Mine from Tiro Esperanza in the north and Tiro El Carmen in the south has 914 historic two-meter grade control level plans (circa 1920-1925) with metal values reported in gold in \$Au/Ton and silver in oz (using the Mines Handbook 1915 precious metal prices). In 2013 this information was incorporated by Candente Gold into 3D Grade Model and will be discussed in Section 9.3 of this report.

Locations of major vein targets and historic exploration drilling can be found in Figure 6.1. Locations of the known underground workings, shafts and mine locations can be found in Figure 6.2. The locations of the individually named veins in the El Oro District can be found in Figure 6.3 and in Table 6.1. The detailed exploration and mining histories of the geographically distinct El Oro and Tlalpujahu Mining Districts are discussed in separate sections below.



- Year 1802: first discovery of ore in a rich and narrow vein in the eastern part of the district near the present location of the Descubridora vein where a structural window exposed mineralized vein material on surface. The Descubridora vein and related veins yielded several millions of dollars' worth of bonanza grade silver-rich gold ore.
- Year 1850's: the cyanide treatment of pan-amalgamation tailings was undertaken and three to four years later the treatment was applied to the known mineral sands.
- Year 1883: a railroad reached a point a few miles away from the town of El Oro and modernization of the town began.
- Year 1890: American Mining Co. acquired the San Rafael part of the El Oro Mine; pan-amalgamation had proven to be difficult.
- Year 1890: San Rafael lode was discovered by the San Juan tunnel which had successfully reached the west under post-mineral volcanic cover; the ground north of El Oro Mine, the Esperanza Mine, had not yet been acquired as the belief was that the San Rafael vein did not continue to the north; discovery of several major blind veins under the post mineral volcanics
- Year 1895: Mine superintendent August Sahlberg, sunk a shaft on the northern San Rafael vein trace and cut the San Rafael vein and opened it on two or three levels in this area.
- Year 1896: the mine began to pay dividends again.
- Year 1895-1903: the Esperanza Mine was owned by a Mexican Company that changed hands to Guggenheim interests in a joint venture with Esperanza Limited, an English corporation.
- Years 1896 to 1925: Three main companies focused on the San Rafael Vein including: El Oro Mining and Railway Co. Ltd.; Esperanza Ltd.; and Mexico Mines of El Oro Ltd. The Verde Vein was held and mined by Cia Minera Las Dos Estrellas, S.A and the El Oro-Tlalpujahu Mining Company.
- Year 1899: El Oro mine was owned by El Oro Mining & Railway Co. Limited (associated with London Exploration Co.); and in 1899 Sahlberg discovered the San Rafael vein trace further north, now called the Mexico Mine (Mexico Mine Tailings deposit source) where the shaft hit the San Rafael vein 600 feet below the post mineral volcanic cap.
- Year 1900: El Oro Mining & Railway Co. Limited put the mill into regular operation. The success of cyanidation became assured and pan-amalgamation was abandoned.
- Post 1900: pumping facilities were built to handle the abundant water in the upper levels of the faulted and deeply oxidized San Rafael vein. The use of the square set method of mining was developed at Comstock to facilitate mining of soft ore from wide stopes followed by shrinkage stoping in narrow, competent, steeply dipping orebodies; both methods were used on the San Rafael and related veins.
- Year 1902: F. J. Fournier discovered localized mineralized float on surface at Verde and drove the Dos Estrellas adit nearly half a mile in length into the barren rock of the Somera Mountain resulting in the discovery of the Nueva Vein, a hanging-wall auriferous-sulphide vein and the much larger Verde Vein to the east. Most remarkably, the tunnel cut the Verde lode at its richest part under the post-mineral volcanic cover.
- Year 1903: the West Bonanza Vein was discovered; a very high grade gold orebody which, for a time, rendered the mine the greatest gold producer in the world.
- Year 1907: the Mexican Venture Company started production from the Mexico Mine on the San Rafael vein with the completion of the 100-stamp cyanide mill.
- Year 1910: the company was sold to the London Exploration Company Limited and certain English and French interests.

- Year 1912: the Esperanza Mine was relinquished to the Esperanza Limited Company. The lowest grade ore profitably exploited contained a quarter of an ounce (0.25) of gold per ton and 2 to 3 ounces of silver per ton. When the patio process was being used, the lowest grades mined was 1 ounce gold and 4 to 9 ounces of silver.
- Year 1920: the American Mining Co. built a 120-stamp cyanide mill
- Years 1925 to 1937: In 1925, all of the mines and properties were acquired by Cia Minera Las Dos Estrellas, S.A. Higher grade backfill, pillars and intermediate veins were mined at this time. A new crushing and processing plant was built to process this ore. In 1937, poor economic conditions coupled with the tragic failure of the main tailings impoundment facility forced Las Dos Estrellas to close its operations.
- Years 1937 to 1959: Mining laws dictated that Minera Dos Estrellas turn the mines over to the mine workers as debt payment from the failure in 1937. La Cooperativa Las Dos Estrellas en el Oro y Tlalpujahua (“The Cooperative”) was formed and continued operating the mines predominantly as a salvage operation from stope-fills in the San Rafael and Verde Veins with the mining of back-fill and exploitation of in-situ higher grade pillars. The Cooperative was administered and subsidized by a commission of the Mexican government that eventually proved uneconomic and resulted in the closure of the mines in 1959.
- Years 1960-1969: The area was idle and equipment was liquidated
- Years 1969 to 1971: Two exploration holes were drilled by More Mines Limited (Figure 6.1). One hole was drilled south of Buen Despacho and was designed to intersect the San Rafael Vein. The second hole was drilled along the main road connecting the towns of El Oro and Tlalpujahua and was intended to test the Verde Vein. Both holes were lost before reaching the target depth and the company left the El Oro area (*Harquail J. 1971, 1972, Seraphim 1971*).
- Years 1977 to 1992: In 1977, the mineral rights over the El Oro veins were opened and a private company, Minera Mexico Michoacán (“MMM”) acquired the exploration rights over the El Oro Property which covered an area of 2700 hectares. In 1979, MMM rehabilitated the Providencia shaft, adits and crosscuts to gain access to the stope-fill in the central portion of the San Rafael
- Years 1980 to 1992: A joint venture was formed between MMM and Industrias Luismin S.A. de C.V. (“Luismin”). Luismin drilled 33 holes with a main objective of confirming remaining in-situ and back-fill mineral resources. The Pomoca area was tested with 12 holes (BDDP-1 to BDDP-10), one hole tested the San Francisco de Reyes Zone (BDDSF-1), three holes tested the Zapateros target area (BDDZ-1 to BDDZ-3), one hole tested the Lillie Vein (BDDL-1), 10 holes tested the Cortaduras Target area (BDDC-1 to BDDC-10), three holes tested the Oriente Target area (BDDO-1 to BDDO-3), and three holes tested the northern strike extent of San Rafael Vein at Buen Despacho (BDDBD-1 to BDDBD-3). Detailed results can be found under Section 6.7 of this report.
- Year 1993: Minera Hillsborough drilled 8 successful diamond drill holes (SR93-1 to SR93-08) into the San Rafael vein target with the objective to verify the Luismin conceptual resource estimate. In addition, 4 diamond drill holes (SF-93-1 to SF-93-4) were completed to test the San Francisco de Los Reyes target in the west. The results suggested significant remnant mineralization along the trace of the San Rafael vein. Detailed results can be found in Section 6.7.
- Year 1995: Minera Santa Fe drilled 15 reverse circulation holes (RC) north of San Francisco de Los Reyes. There are no collar locations, geological or geochemical information available for these holes.
- Years 1996 to 1997: Teck completed IP resistivity and chargeability surveys along the northern extension of the Verde and San Rafael veins and east of the San Rafael vein (Oriente south area).

A total of 13 holes were drilled: 3 holes in the Cortaduras area (DE-97-1 to DE-97-3), 6 holes in the northern extension of the Veta Verde vein (ORO-96-1 to ORO-96-4, ORO-97-1 and ORO-97-2), and 4 holes in the Oriente south area (ORO-97-3 to ORO-97-6). Detailed results can be found in Section 6.3 of this report.

- Years 2002 to 2004: Placer completed a geochemical survey in the Oriente area and took measurements of gas vapors (CO<sub>2</sub>). Three of the defined geochemical targets were drilled. One diamond drill hole (“DDH”) and one reverse circulation (“RC”) drill hole tested the down dip extensions of the Coronas vein, 4 DDH holes tested the San Rafael (SR03-1, SR031A, SR031B) and the north extension of the Descubridora vein in the Buen Despacho area, and two holes were drilled in the Veta Oriente area (ZOSR03-1, ZORCO3-1) and two holes were drilled into Coronas (CRRCO3-1 and CR04-1). A four hole diamond drill program tested the down dip potential of the defined ore shoots at the bottom of (but not below) the historic workings. The holes had poor recoveries. Detailed results can be found in Sections 6.3 and 6.7 of this report.
- Year 2004: Luismin became a 100% subsidiary of Goldcorp Inc.
- Year 2007-present: Candente Gold Corp. under a JV with Goldcorp S.A. de C.V. (“Goldcorp Mexico”) formerly Luismin S.A. de C.V. are currently exploring the El Oro project.

Table 6.1: Historic Known Veins in the El Oro District (source: Flores, 1920)

<b>El Oro District Veins from NE to SW</b>
<i>Veins that dip steep west; covered by volcanic cap</i>
Veta Andrea
Veta Chihuahua
Veta Ocotol (Veta Calera)
Veta Descubridora
Veta San Rafael (Tiro Mexico Norte)
Veta Nolan (Veta Negra)
Veta Somera (Veta San Patricio)
Veta Amarillo
Veta F
Veta E
Veta D
Veta C
Veta B
Veta A
Veta Amparo
Veta Blanca
Veta Verde (Main)
Veta Nueva
<b>TOTAL 18 VEINS</b>

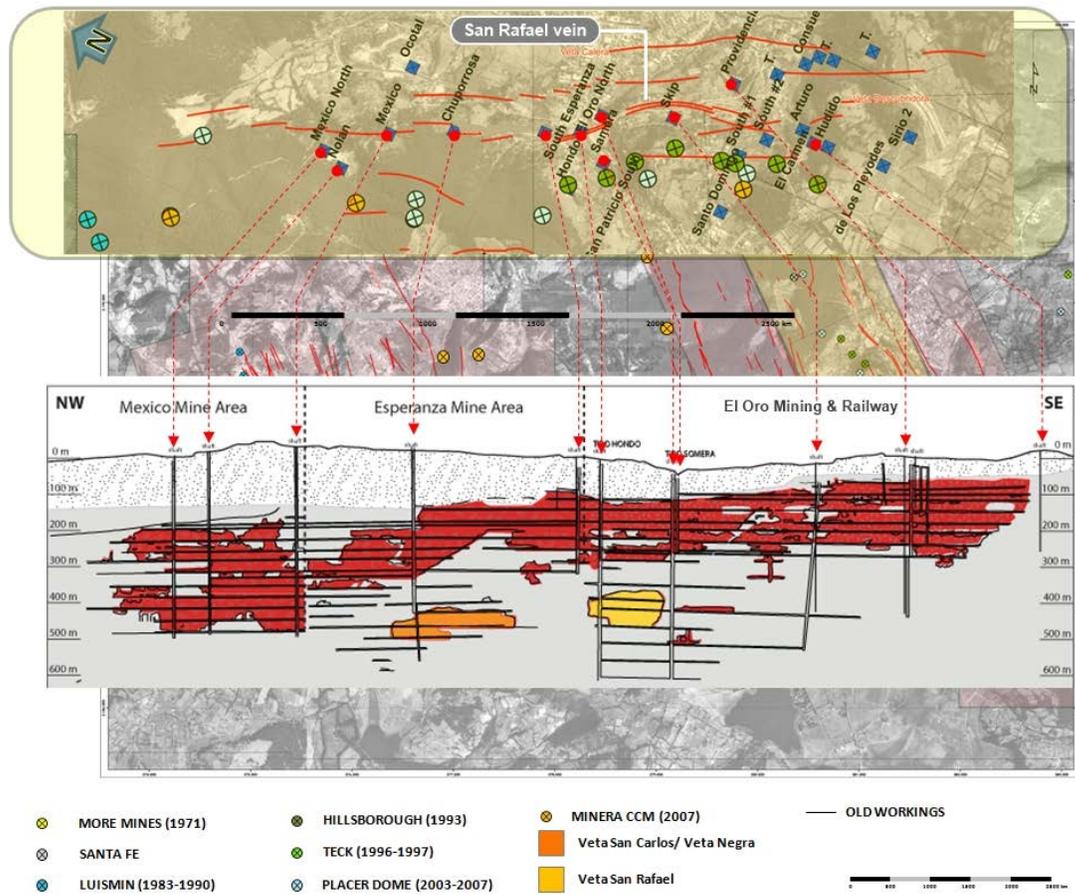


Figure 6.4: Schematic Longitudinal Section-San Rafael and Related Veins, El Oro Mining District Ending 2007

### History of the Talpujahua Mining District

*The Talpujahua Mining District* was one of the more important silver districts that began exploitation soon after the Spanish conquest ended in 1521. The Talpujahua ore was known for its rich, outcropping and chiefly silver ore that was perfectly adapted to the Patio Process for ore treatment with excellent recoveries. The various deposits were easy to find and easy to mine with abundant high grade ore at surface that were mined by a series of pits. The western Talpujahua Mining District includes 30 of the 57 known veins. The accessible surface facilities of the historic workings are limited to a small number of access shafts and adits within the town limits of Talpujahua (Figure 6.5).

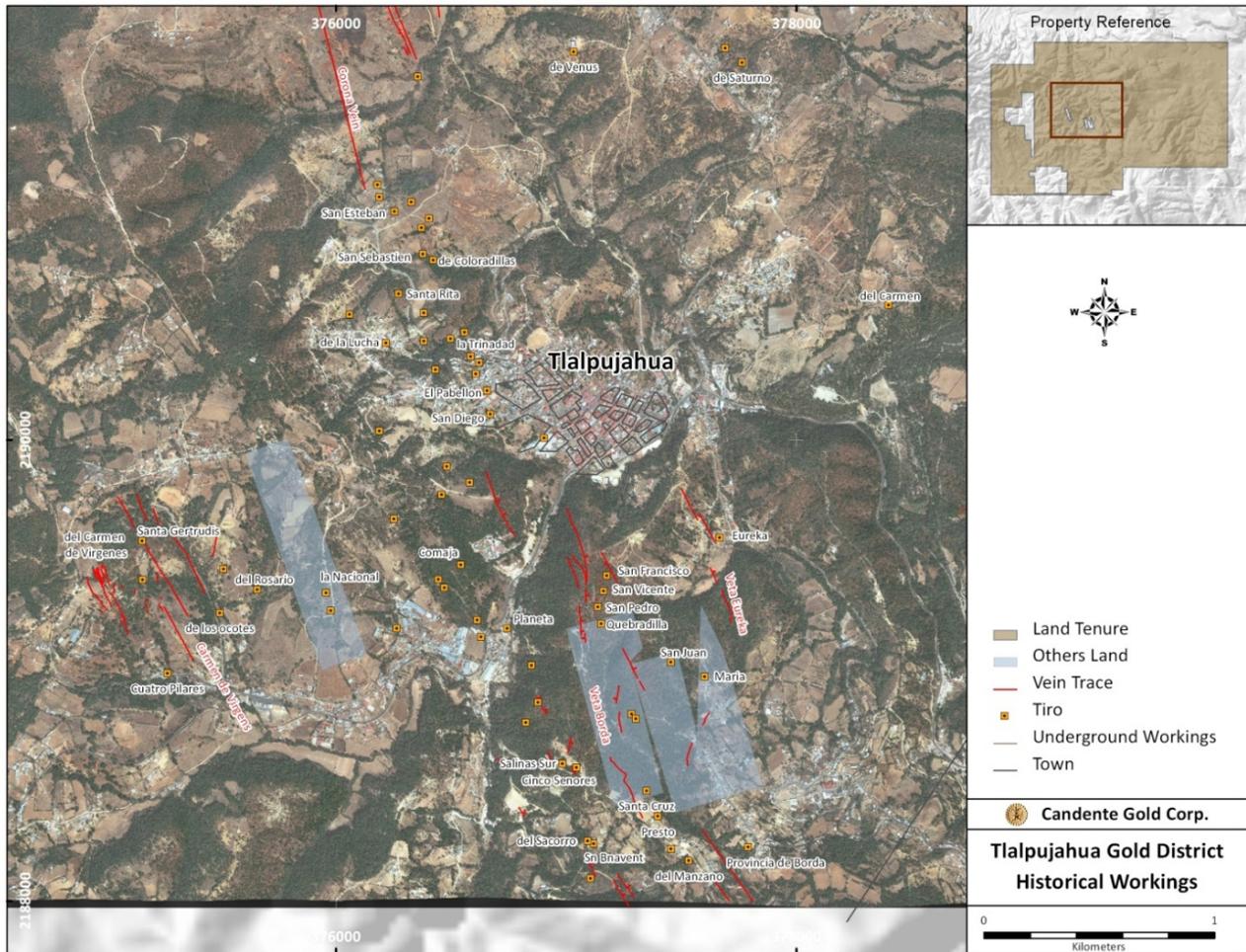


Figure 6.5: Tlalpujahua Mining District with Shafts and Major Veins

- Circa 1500's: Evidence of pre-Hispanic mining from near surface, high grade veins accessible via open pit methods.
- 1557: Development of the Patio Process in Hidalgo Mexico for isolating and recovering silver from ore; ore was crushed by arrastras reducing it to a mud then it was spread over the patio and sprinkled with mercury, salt and copper sulphate; the silver dissolved in the mercury; followed by agitation; the silver-mercury amalgam was heated to drive off mercury leaving silver. This method resulted in high recoveries for silver and poor recoveries for gold.
- Late 1600's: the Coronas vein, named after the cow-herder discoverer "Coronas", was worked in open pits and shallow adits for a distance along a one mile strike length. The general region was historically known for vein deposits that were easy to find, and comparatively easy to mine with abundant high grades that existed at or close to the surface with easy recovery via the Patio Process of beneficiation.

- Circa 1700's: Development of pumps and explosives for use in mining allowing access to deeper mining on exposed veins including the Borda and Coronas Veins; much of the easy ore was taken from veins that were easy to access from small open pits.
- 1743 to 1801: the second mining period was dominated by a Frenchman named “Borde” (usually called Borda) who discovered the Borda Vein and mined for a period of 8 years and took out bullion believed to be worth 36,000,000 pesos (*Locke, 1913*); Borda sunk four shafts to depths of between 525 feet (160m) and 550 feet (167m), along the vein for 1500 feet (457m).
- 1801: After Borda left for Taxco in 1801, the Tlalpujahua Mining District was intermittently active for the next 50 years.
- 1810-1821: The War of Independence.
- 1818: The mines were abandoned in 1818 during the war of independence.
- 1824: At the end of the war in 1821, an English Colony was established at El Oro and countless head frames were erected.
- 1825: By this year approximately 80 “mines” were in operation. The area however, had been robbed by local skillful miners and much of the higher grades remaining outside of pillars were taken by the informal miners and the 1825 mining venture failed.
- 1825-1925: The Tlalpujahua district remained dormant.
- 1913: Minera Las Dos Estrellas acquired control of Borda Antigua and conducted an extensive exploration program. The biggest challenge was managing water influx hence the mines were abandoned in ore; material left was of too low grade to be of interest at this time; ore was missed beyond faults along the strike extensions of the veins outside known bonanzas; and in the veins and veinlets in the nearby wall rock of the Borda and the Coronas vein.
- 1913 Locke: suggested that the superficial bonanzas of the main veins had not been exhausted and that medium grade ore was left below the horizons of bonanzas. He also noted that the underground workings solely followed higher grades; and were lacking crosscuts to effectively define hanging-wall and footwall veins; in addition, when a fault was encountered it stopped all knowledge of the vein trace along strike.

The San Francisco de Los Reyes area includes 9 of the 57 known main veins. The accessible surface facilities of the historic workings are limited to a number of vertical access shafts and adits within the Tlalpujahua Mining District. Local variations on vein dips occur across cross faults.

Table 6.2: Historic Known Veins Tlalpujahu District (source: Flores, 1920)

<b>Tlalpujahu District Veins from NE to SW</b>
<i>Veins that dip steep east; are exposed at surface</i>
Veta Jesús del Monte (fault)
Veta Eureka
Veta Trigueros(fault)
Veta Reforma
Veta Borda
Veta San Sebastian
Veta Olivos
Veta Coronas
Veta San Juan (fault)
Veta Santa Rita
Veta Comanja
Veta Mondermes(fault)
Veta Carrillos
Veta Charcos
Veta El Capulin
Veta Santa Rosa
Veta los Martinez
Veta Temazcales
Veta La Nacional
Veta Colorada
Veta Ocotes (fault)
Veta San Juan (fault)
Veta del Carmen (3 veins)
Veta San Francisco
Veta Tecolotes
Veta Dolores
Veta Carmen de Virgenes
Veta La Ventilla (fault)
Veta San Antonio Abad
Veta El Oro
<b>TOTAL 30 VEINS</b>

Table 6.3: Historic Known Veins in the San Francisco De Los Reyes Area (source: Flores, 1920)

<b>San Francisco De Los Reyes Veins</b>
Veta Murcielagos
Veta Santa Cruz
Veta Santo Nino
Veta Dura
Veta Animas
Veta Bol
Veta Dolores
Veta Milo Colorado
Veta Purisima
<b>TOTAL 9 VEINS</b>

## 6.2 HISTORIC DRILLING

Several mining companies have drill-tested the various targets in the El Oro and Tlalpujahu Mining Districts over the years:

- 1971: More Mines drilled two core holes M-1-71 and M-2-71 totaling 513.9 metres
- 1983: Luismin/Minera Mexico Michoacán JV drilled the Buen Despacho target (core holes BDDBD-1 to BDDBD-2) for 760 metres.
- 1987: Luismin drilled core hole BDDBD-3 (550.05 metres) at Buen Despacho
- 1988: Luismin drilled core holes BDDO-1(257.0 metres), BDDO-2(250.8 metres) and BDDO-3 (230.0 metres) at the Oriente Zone; BDDL-1 (345.6 metres) at Veta Lillie; BDDZ-1 (201.50 metres) at Veta Zapateros; BDDC-1 to BDDC-5 at Cortaduras totaling 924 metres; BDDP-1 at Pomoca for 188.4 metres
- 1989: Luismin drilled core holes BDDC-6 to BDDC-9 at the Cortaduras target totaling 763.5 metres; holes BDDZ-2 and BDDZ-3 at Zapateros for a total of 364.05 metres; hole BDDSF-1 at San Francisco de Los Reyes for 170.0 metres; and holes BDDP-2 to BDDP-11 at Pomoca for a total of 1660.85 metres.
- 1990: Luismin drilled core hole BDDC-10 at northern Cortaduras totaling 238.4 metres; and core hole BDDP-12 at Pomoca for 159.95 metres
- 1993: Hillsborough drilled well mineralized core holes on the main San Rafael Vein in holes SR-93-01 to SR-93-08 for a total of 2431.0 metres.
- 1993: Hillsborough drilled core holes SF-93-1 to SF-93-4 at San Francisco de Los Reyes for a total of 577.5 metres
- 1996: Teck drilled core holes ORO-96-1 to ORO-96-4 at Veta Verde for a total of 1108.72 metres

- 1994-1996: Santa Fe drilled RC holes Santa Fe-a (syenite target); and Santa Fe-b, and Santa Fe-c, Santa Fe-d and Santa Fe-e at the North San Francisco De Los Reyes target for a total of 1000 metres (all 200m deep RC holes)
- 1997: Teck drilled six core holes ORO-97-1 to ORO-97-6 at Zona Oriente for 1543.07 metres
- 1997: Teck drilled 3 core holes DE-97-1, DE-97-2 and DE-97-3 at Cortaduras Norte for a total of 417.6 metres
- 2003: Placer Dome drilled six core holes at San Rafael SR-03-01, SR-03-1, SR-03-1B, SR-03-2, SR-03-3, SR-03-04 for 3287.35 metres
- 2003: Placer Dome drilled core holes at Coronas Norte (CR-RC-03-1) and Borda Norte (BD-RC-03-1); Zona Oriente (ZO-RC-03-1 and a core hole ZO-SR-CO3-1) for 744.0 metres
- 2004: Placer Dome drilled core holes Borda Norte in CR-04-1 for a total of 350.65 metres

The El Oro drill history can be found in Table 6.4 below. The detailed results of historic programs will be discussed in the “Historic Exploration Targets” Section 6.7 below.

There was much confusion when reviewing historic results denoting which assay belonged to which drill hole in each of the target areas as many holes drilled by Luismin had the same drill hole prefix of *BDD-* for geographically different target areas resulting in assay results for different targets with the same drill hole name (e.g. BDD-1 to BDD-3 had results from geographically distinct target areas of Cortaduras, Pomoca and Zapateros).

Candente Gold recoded the drill holes in the database by adding meaningful prefixes as follows: *BDDP-* for drill holes on the Pomoca target; *BDDC-* for drill holes on the Cortaduras target; *BDDBD-* for drill holes on the Buen Despacho target; *BDDZ-* for drill holes on the Zapateros target; *BDDO-* for drill holes on the Oriente target. The database was generated in Microsoft ACCESS.

Hole_ID	Year	Company	Target	Depth (m)	Nad27z14Mex-UTME	Nad27z14Mex-UTMN	Elev.(m)	Azimuth	Dip
M-1-71	1971	More Mines Ltd	Veta Verde Sur	207.30	379620.00	2188450.00	2730.00	70	-20
M-2-71	1971	More Mines Ltd	San Rafael Norte	306.60	379270.00	2191310.00	2660.00	75	-10
BDDBD-1	1983	Luismin	Buen Despacho	365.00	379686.79	2191686.57	2754.15	60	-45
BDDBD-2	1983	Luismin	Buen Despacho	395.00	379611.62	2191586.31	2797.15	60	-50
BDDBD-3	1987	Luismin	Buen Despacho	550.05	379686.79	2191686.57	2754.15	61	-65
BDDO-1	1988	Luismin	Zona Oriente	257.00	381952.00	2191266.00	2682.91	50	-45
BDDO-2	1988	Luismin	Zona Oriente	250.80	382016.92	2191350.03	2673.03	50	-45
BDDO-3	1988	Luismin	Zona Oriente	230.00	385076.54	2190368.24	2642.35	50	-65
BDDC-1	1988	Luismin	Cortaduras	192.15	374980.30	2189240.28	2675.16	61	-20
BDDC-2	1988	Luismin	Cortaduras	210.20	374980.30	2189240.28	2675.16	61	-45
BDDC-3	1988	Luismin	Cortaduras	150.05	374928.03	2189278.93	2683.48	61	-30
BDDC-4	1988	Luismin	Cortaduras	229.40	374928.03	2189278.93	2683.48	61	-55
BDDC-5	1988	Luismin	Cortaduras	142.20	375009.54	2189193.00	2663.84	61	-30
BDDC-6	1989	Luismin	Cortaduras	169.00	375041.91	2189143.53	2667.98	61	-50
BDDC-7	1989	Luismin	Cortaduras	215.60	375012.53	2189126.72	2655.07	61	-45
BDDC-8	1989	Luismin	Cortaduras	216.50	375024.26	2189073.25	2653.12	61	-48
BDDC-9	1989	Luismin	Cortaduras	162.50	375049.35	2189030.42	2649.43	61	-55
BDDC-10	1990	Luismin	Cortaduras	238.40	374891.69	2189513.29	2645.40	70	-44
BDDL-1	1988	Luismin	Veta Lillie	345.60	376303.02	2186798.99	2728.29	61	-37
BDDZ-1	1988	Luismin	Zapateros	201.50	375382.30	2188518.15	2608.46	60	-42
BDDZ-2	1989	Luismin	Zapateros	126.25	375411.71	2188526.45	2608.98	66	-52
BDDZ-3	1989	Luismin	Zapateros	237.80	375361.94	2188365.08	2624.59	65	-40
BDDSF-1	1989	Luismin	San Francisco de Los Reyes	170.00	371465.11	2187761.71	2704.87	90	-45
BDDP-1	1988	Luismin	Pomoca	188.40	364621.34	2196261.46	2202.91	128	-50
BDDP-2	1989	Luismin	Pomoca	185.25	364546.11	2196320.23	2188.17	128	-50
BDDP-3	1989	Luismin	Pomoca	193.30	364514.61	2196202.91	2182.80	128	-43
BDDP-4	1989	Luismin	Pomoca	168.70	364716.25	2196460.42	2189.13	128	-40
BDDP-5	1989	Luismin	Pomoca	200.00	364645.44	2196369.79	2201.18	128	-40
BDDP-6	1989	Luismin	Pomoca	199.50	364763.49	2196531.93	2190.67	128	-40
BDDP-7	1989	Luismin	Pomoca	114.15	365017.31	2196507.11	2216.41	160	-43
BDDP-8	1989	Luismin	Pomoca	123.30	365190.73	2196536.17	2212.12	160	-45
BDDP-9	1989	Luismin	Pomoca	138.00	365386.98	2196539.62	2232.65	90	-45
BDDP-10	1989	Luismin	Pomoca	156.20	366301.24	2196537.67	2253.99	90	-45
BDDP-11	1989	Luismin	Pomoca	182.45	364668.62	2196411.38	2197.12	128	-70
BDDP-12	1990	Luismin	Pomoca	159.95	364403.01	2196355.18	2194.50	128	-50
SR-93-01	1993	Hillsborough	Veta San Rafael	281.00	381339.93	2188766.41	2827.46	61	-64
SR-93-02	1993	Hillsborough	Veta San Rafael	255.50	381201.13	2189244.70	2808.62	61	-63
SR-93-03	1993	Hillsborough	Veta San Rafael	166.50	381240.90	2189016.27	2828.44	61	-61
SR-93-04	1993	Hillsborough	Veta San Rafael	351.00	381060.67	2189395.32	2798.87	50	-65
SR-93-05	1993	Hillsborough	Veta San Rafael	355.50	380930.87	2189486.70	2791.85	50	-53
SR-93-06	1993	Hillsborough	Veta San Rafael	383.00	380821.99	2189643.28	2854.84	43	-50
SR-93-07	1993	Hillsborough	Veta San Rafael	339.00	381333.15	2188544.14	2838.87	61	-58
SR-93-08	1993	Hillsborough	Veta San Rafael	300.00	381259.23	2188949.18	2830.94	50	-61

Hole_ID	Year	Company	Target	Depth (m)	Nad27z14Mex-UTME	Nad27z14Mex-UTMN	Elev.(m)	Azimuth	Dip
SF-93-1	1993	Hillsborough	San Francisco de Los Reyes	201.00	370965.93	2187968.97	2666.91	76	-50
SF-93-2	1993	Hillsborough	San Francisco de Los Reyes	205.50	370967.46	2187871.90	2661.58	90	-50
SF-93-3	1993	Hillsborough	San Francisco de Los Reyes	90.00	371217.36	2187850.65	2750.47	45	-50
SF-93-4	1993	Hillsborough	San Francisco de Los Reyes	81.00	371216.97	2187847.55	2750.47	225	-50
ORO-96-1	1996	Minera Teck	Veta Verde	329.79	378473.00	2190890.00	2649.00	60	-50
ORO-96-2	1996	Minera Teck	Veta Verde	302.05	378679.00	2191009.00	2645.98	60	-50
ORO-96-3	1996	Minera Teck	Veta Verde	226.46	378398.00	2190987.00	2614.00	60	-55
ORO-96-4	1996	Minera Teck	Veta Verde	250.42	378428.00	2190864.00	2664.00	60	-53
SantaFe-a	1994-1996	Santa Fe	Syenita target NW Cort	200.00	373509.00	2190649.00	2592.00	100	-50
SantaFe-b	1994-1996	Santa Fe	North of San Francisco Reyes	200.00	371400.00	2189088.00	2741.00	270	-50
SantaFe-c	1994-1996	Santa Fe	North of San Francisco Reyes	200.00	371447.00	2189753.00	2693.00	60	-50
SantaFe-d	1994-1996	Santa Fe	North of San Francisco Reyes	200.00	371267.00	2189182.00	2744.00	60	-50
SantaFe-e	1994-1996	Santa Fe	North of San Francisco Reyes	200.00	370831.00	2189019.00	2762.00	60	-50
ORO-97-1	1997	Minera Teck	Veta Verde	217.90	378672.00	2191005.00	2645.98	60	-70
ORO-97-2	1997	Minera Teck	Veta Verde	341.90	378850.00	2191228.00	2654.97	60	-58
ORO-97-3	1997	Minera Teck	Zona Oriente	235.61	383063.13	2190276.60	2714.93	60	-65
ORO-97-4	1997	Minera Teck	Zona Oriente	60.96	383516.70	2190248.67	2732.68	60	-65
ORO-97-5	1997	Minera Teck	Zona Oriente	349.00	384591.45	2190870.04	2648.86	60	-60
ORO-97-6	1997	Minera Teck	Zona Oriente	337.70	384257.75	2190678.94	2678.91	60	-60
DE-97-1	1997	Minera Teck	Cortaduras Norte	93.00	373256.00	2190749.00	2638.00	0	-90
DE-97-2	1997	Minera Teck	Cortaduras Norte	185.90	373510.00	2190646.00	2593.00	60	-65
DE-97-3	1997	Minera Teck	Cortaduras Norte	138.70	373374.00	2190462.00	2623.00	40	-65
SR-03-1	2003	Placer Dome	Veta San Rafael	363.70	380367.00	2190260.00	2992.34	60	-70
SR-03-1A	2003	Placer Dome	Veta San Rafael	800.00	380368.00	2190261.00	2991.03	60	-64
SR-03-1B	2003	Placer Dome	Veta San Rafael	598.50	380446.40	2190282.30	2999.89	60	-70
SR-03-2	2003	Placer Dome	Veta San Rafael	537.00	380636.00	2189702.00	2975.00	60	-70
SR-03-3	2003	Placer Dome	Veta San Rafael	536.15	381010.48	2189304.15	2822.29	65	-70
SR-03-4	2003	Placer Dome	Veta San Rafael	452.00	381230.00	2188880.00	2850.00	60	-57
CR-04-1	2004	Placer Dome	Norte Borda	350.65	376403.00	2190626.00	2586.00	240	-65
CR-RC-03-1	2003	Placer Dome	Norte Borda (C. Inversa)	237.00	376403.00	2190626.00	2586.00	240	-57
BD-RC-03-1	2003	Placer Dome	San Rafael	402.00	380292.02	2191351.78	2798.09	60	-60
ZO-RC-03-1	2003	Placer Dome	Zona Oriente	354.00	382020.00	2191590.00	2738.00	240	-60
ZO-SR-C03-1	2003	Placer Dome	Zona Oriente	390.00	382992.00	2189915.00	2738.00	240	-60
<b>TOTAL</b>				<b>METERAGE</b>	<b>19677.49</b>				

Note: In 1994-1996 Santa Fe drilled 15 RC holes in 1884m (DE-RC-01 to DE-RC-15) at San Francisco de Los Reyes with no available information

Table 6.4: Pre-Candente 2007 Historic Drill History

### 6.3 HISTORIC GEOPHYSICS

A variety of geophysical surveys (Figure 6.6) have been completed over the El Oro-Tlalpujahua Mining Districts between the years 1996 and 2007 by various companies.

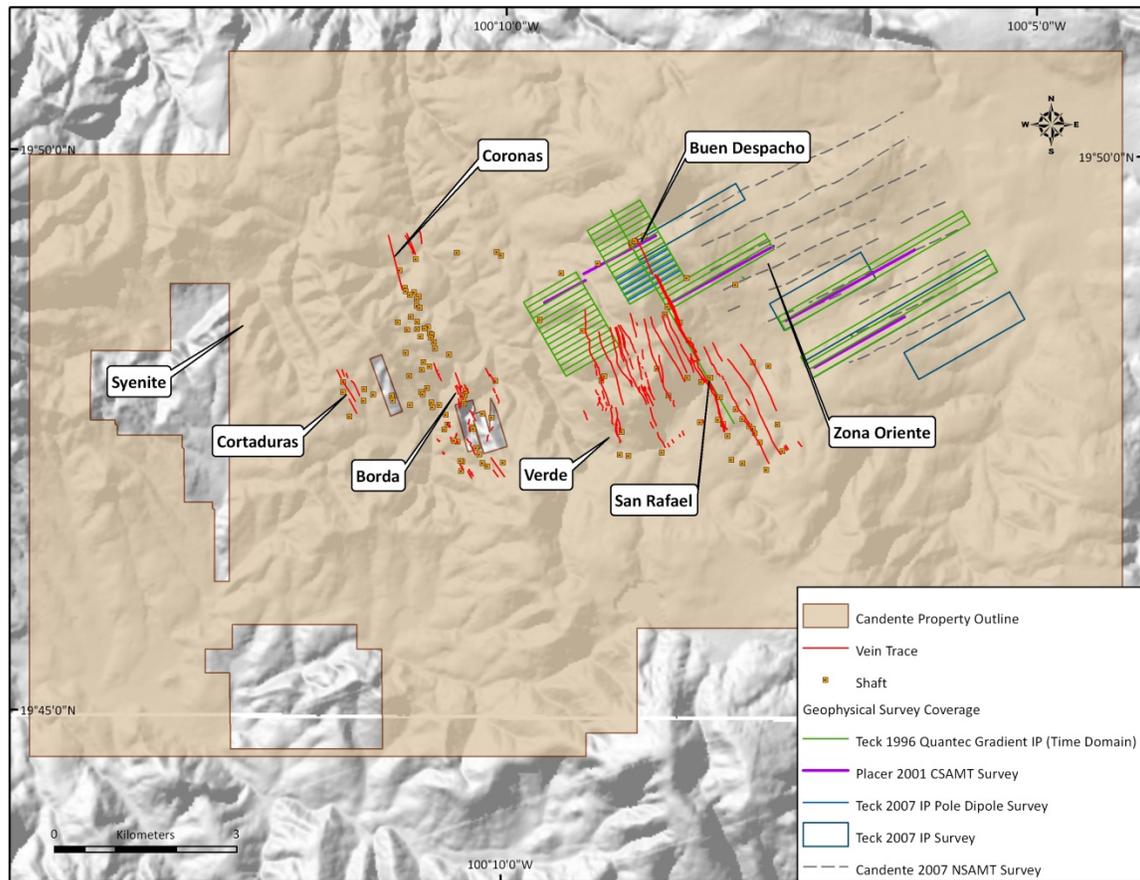


Figure 6.6: Distribution of the El Oro-Tlalpujahua Geophysical Surveys

#### 6.3.1 Teck 1996 Quantec Gradient Time Domain IP Survey

In 1996, Teck completed a 63 line-km Time Domain IP survey (“TIP”) over the El Oro Project. The main objective of the survey was to detect veins and sulphide concentrations below > 100 metres of volcanic ash and post mineral andesite cover. The grid origin (0+00E/0+00N) was at 81500mE/90800mN (UTMNAD27 z14) with a line direction of N60E on a line spacing of 100 metres and stations every 25 metres. The baseline BL 0+00E was along the trace of the San Rafael Vein. The surveys included a

reconnaissance and detailed follow-up survey on the Veta San Rafael (“VSR”) grid totaling 36.1 line-km’s (Figure 6.6) including: over the Buen Despacho, North San Rafael area to detect new veins in the grid center; over the North Verde on the Veta Verde (“VV”) grid to the southwest totaling 21.0 line-km; and over the Veta Oriente (“VO”) grid totaling 5.7 line-km, a larger area to the northeast searching for blind veins under the post mineral volcanic cover.

The Quantec Gradient Time Domain Induced Polarization Survey completed in 1996 was designed to detect gold-bearing vein systems to a depth of > 350 metres. The San Rafael target lies on a NW-trending, steeply west-dipping vein fault system that has had significant dip-slip movement as well as lateral strike-slip movement. The Gradient TIP survey discriminates “resistivity and chargeability signatures” associated with lithologic contacts and fault-fracture zones as well as quartz-altered fracture systems.

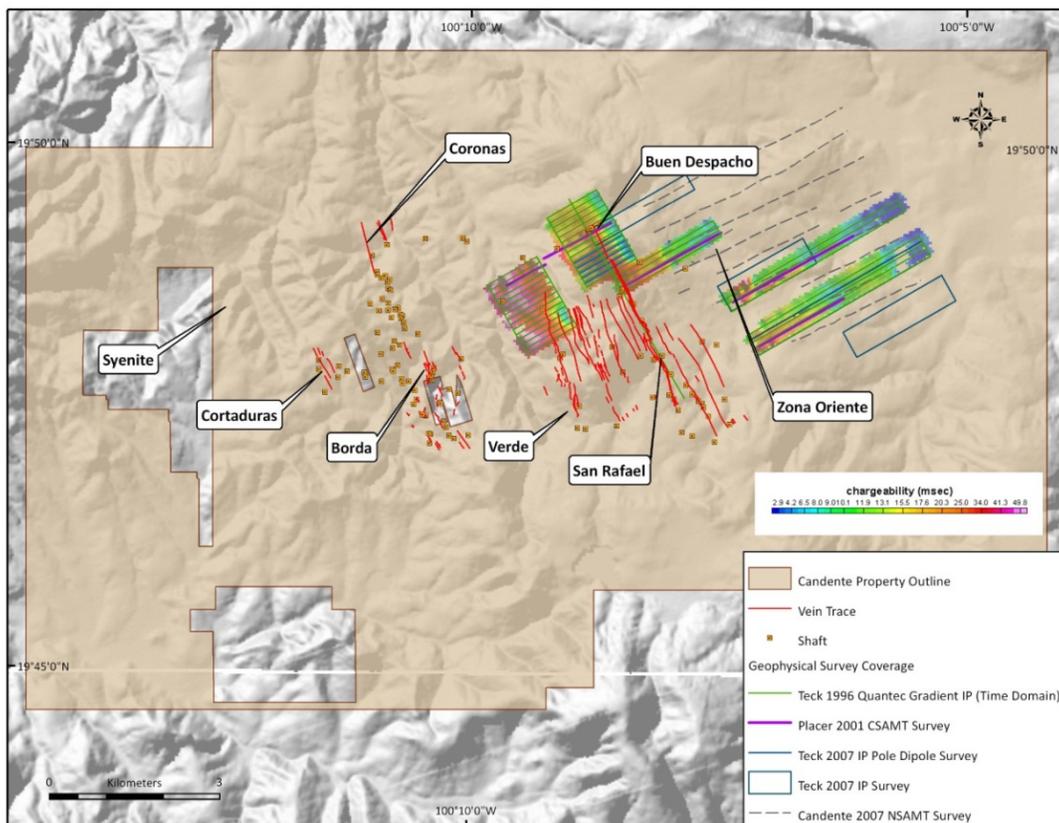


Figure 6.7: Results of the Teck 1996 Quantec Gradient TIP Survey (Chargeability)

The TIP survey over the VSR grid delineated the El Oro San Rafael signature as a well-defined resistivity zone accompanied by a weak to moderate chargeability within a structurally-controlled quartz vein system. In addition, the TIP survey delineated a sub-parallel conductive zone, a possible perched water table, at the base of the post mineral Tertiary volcanic cap. The thick volcanic cap rocks resulted in poorly

defined anomalies. The highly resistive vein faults seem to extend locally into the cap rocks. Additional high resistivity veins and low resistivity graphitic units were identified along the footwall of the vein faults. The chargeability signatures were a better indicator of depth of burial, while the resistivity signatures more accurately described wall rock alteration. The results of the Teck 1996 Gradient TIP Surveys can be found in Figures 6.7 to 6.10 and in Table's 6.5 and 6.8.

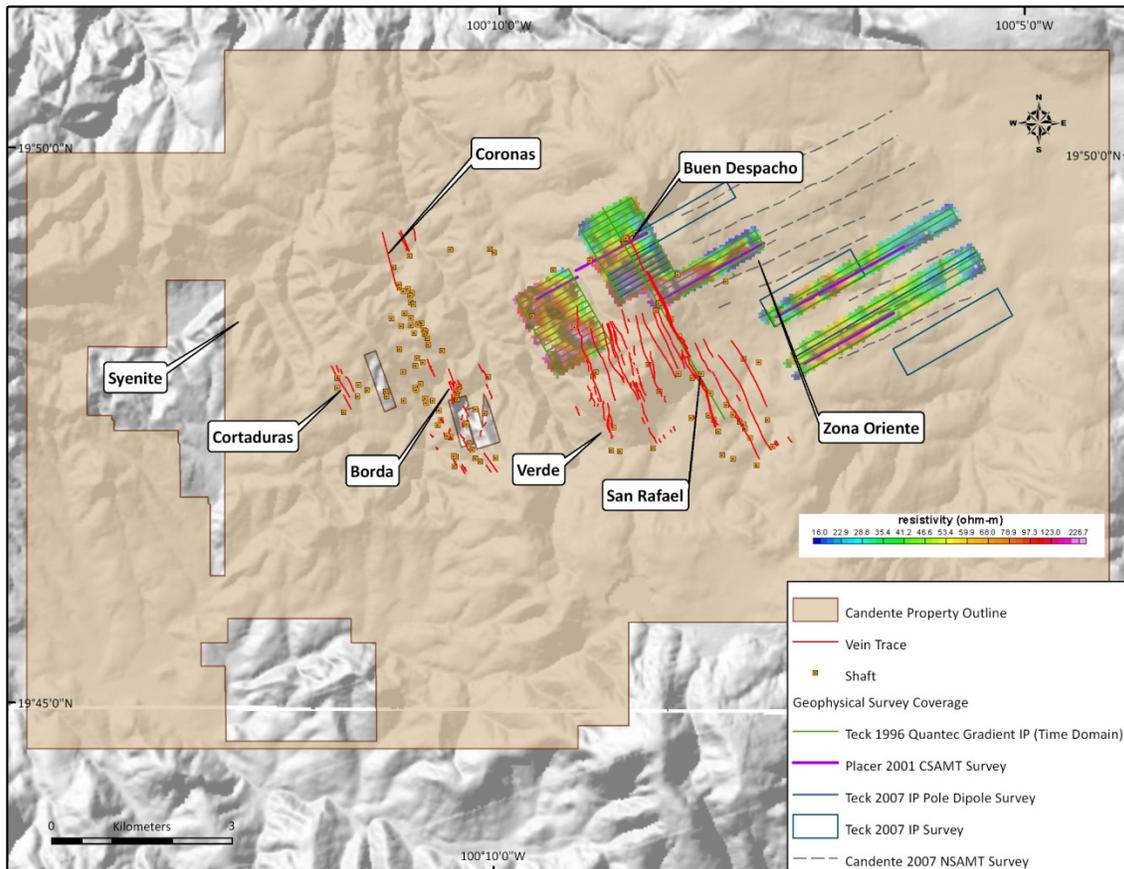


Figure 6.8: Results of the Teck 1996 Quantec Gradient TIP Survey (Resistivity)

The detailed anomalies described in Table's 6.5 and 6.8 have been prioritized according to the resistivity association, relative strength and strike continuity with the assumption that quartz-carbonate-silicification, % sulphide content and strike length are the most appropriate economic indicators. The San Rafael and Verde vein systems are characterized by a variety of mineralization styles including: extensive silica breccia bodies; discontinuous pyrite-dominant (5-7%) lenses/veins; severely bisected vein fault strands; and Au-Ag rich sulphide - poor stockwork. The anomalies described below range in target depth from 200 to >350 metres below surface. Many of the drill holes that were targeting these anomalies may not have actually reached the optimum target depth as many were lost in faults with poor recoveries.

Table 6.5: Teck 1996 Gradient TIP Survey on the *North Verde Survey* Priority Targets

No.	Name	Priority	Line	Station	Target Depth	Comments
1	B2-BN2'	2	600N	1475W	Deep?	Moderate to strong IP in narrow (deeply buried or weakly silicified); <b>&gt;300m long NNE trending zone</b> ; no RSIP (dip and depth unknown); may merge with Bn3-B3 to east; on strike with Bn2-B2 and VVZ; <b>Medium Priority Target</b> : recommend RSIP follow-up prior to drilling; <b>tested by VV-07-02 and VV-07-03</b>
2	B5-BN5	2	700N	1388W	Moderate?	Strong IP in wide (moderately buried?); <b>&lt;300m long NNW trending zone</b> ; no RSIP (dip and depth unknown); may merge with B4 to SE; on strike with Veta Amparo; <b>Medium Priority target</b> : recommend RSIP follow-up before drilling
3	B6	3	1000N	1488W	Shallow?	Strong IP in narrow (shallow buried?); <b>&lt;200m long NNW trending zone</b> ; no RSIP(dip and depth unknown); may merge with B6-Bn6 to east; on strike with B7-Bn7 to north and B3 to south; on strike with VVZ; recommend RSIP follow-up prior to drilling
4	Bn6-B6'	1	1100N	1412W	200-300m	Strong IP in narrow to wide (shallow buried?); <b>long NNE trending zone</b> ; probably merges with B6 to west; RSIP indicates steep west dip; vertically homogenous; top has not been resolved and strengthens with depth (no root); <b>High Priority Target</b> (D Morrison pers. comm.); recommend DDH between 200-300m depths; <b>tested offline by ORO-96-2 and ORO-97-1</b>
5	B7-Bn7	1	1200N	1575W	>225m	Strong IP in wide(moderately buried?), <b>short NNE-trending zone</b> ; may be associated with B6 to south; open to north; RSIP suggests west dip or multiple parallel zones; top lies near 200m depth; zone strengthens with depth; <b>High Priority Target</b> : recommend DDH below 250m; <b>tested offline by ORO-96-1/3</b>
6	C2-C2'	2	0N	1638W	<300m	Moderate to strong IP in wide (buried or broad) short, possibly discontinuous <b>NW-trending zone</b> ; C2 coincides with VVZ along L0, but C2' possibly NW splay; open to south but terminates north of 0+00; RSIP indicates top not resolved(<200m); but zone pinches out below 300-350m depths; <b>Medium Priority target</b> : recommend DDH at 250m or less; <b>tested by VV-07-01</b>
7	C3-Cn3	3	600N	1575W	Shallow?	moderate to strong IP in narrow(thin, shallow buried?); short, <b>weak NNW trending zone</b> ; likely associated with C4-Cn4-C4' to east and VVZ; no RSIP(dip, depth extent unknown); recommend RSIP prior to drilling
8	C5	3	1000N	1538W	Moderate?	Moderate-strong IP in <b>short &lt;100m N-S(?) trending zone</b> ; likely associated with B6 to east and on strike with C4-Cn4 and VVZ to south; no RSIP(dip, depth extent known); recommend RSIP coverage prior to drilling
9	C6	1	1200N	1575W	>200m	Strong IP in wide, moderately buried, <b>&gt;300m long NNE-trending zone</b> ; open to north; RSIP indicates sub-vertical or steep west dip; buried; but top is nearly resolved at <200m and strengthens with depth(no root); <b>Highest priority target</b> ; recommend DDH target at 250, depths; <b>tested offline by ORO-96-1/3</b>
10	D1-Dn1	1	100N	1712W	250m	Strong IP in wide, moderately buried, <b>&gt;300m long N-S trending zone</b> ; open to south and may extend to D4 in north; RSIP indicates steep west dip and top not resolved (<200m); all sections suggest pinch out below 300-350m; sub-horizontal nature at 300m level(likely source affect=pant leg) or culture (mine slope) or mineralization along unconformity?; <b>High Priority Target</b> : recommend DDH at 250m depths; <b>never drill tested</b>
11	D3-D5'	2	200N	1838W	<350m	Strong IP in two wide EOL zones suggests <b>NNW trending feature</b> ; possibly merges with D2 to south; RSIP coverage incomplete but suggests west dip; and pinch out below 300-350m; sub-horizontal nature at 300m likely source affect but also could be culture (mine slope) or mineralization. along unconformity; <b>Medium Priority</b> : recommend additional RSIP coverage between L2N-L5N prior to drill targeting at <300m; <b>never drill tested</b>

12	D6-D6'-Dn4	1	1100N	1625W	225->350m	Very strong >600m long IP along edges of <b>wide NNW trending zones</b> ; open to north; closely parallel to D7' to west and C6 to the east; RSIP indicates steep west dip; top of IP close to 200m depth but top of rest zone much shallower; zone strengthens with depth (no root); <b>Highest Priority Target</b> : recommended DDH at >250m depths ; <b>tested offline by ORO-96-4 and ORO-96-2</b>
13	D7-Dn5-D7'	1	1200N	1688W	250-350m	Very strong, >500m long IP axis centered <b>on NNE trending zones</b> ; possible pinches out along L13N; likely extends south to D5 or D4; RSIP indicates sub-vertical or steep east dip; top of IP close to 200m depth; resistivity zone more shallow and strengthens with depth (no root); <b>Highest Priority Target</b> DDH at >250m depth; <b>never drill tested</b>
14	D9-Dn7-D9'	1	1100N	1788W	250->350m	Strong >400m long, <b>NNE trending IP axis</b> in discontinuous, narrow zone; open to north and possibly related to D5 to south; RSIP suggests sub-vertical or steep east dip; resistivity zone pinches out below 300-350m; top of IP likely near 250m depth and zone strengthens with depth; <b>High priority target</b> : recommend DDH at >250m depth; <b>never drill tested</b>
15	D8-Dn6	3	800N	1888W	Moderate?	Moderate-strong, <b>NNE trending IP axis</b> crosscuts in short high resistivity zone; possible related to D5' to south and Dn6' to north; no RSIP (dip and depth extent unknown); recommend RSIP coverage prior to DDH targeting
16	D10	1	1200N	1888W	250->350m	Strong broad, > <b>200m long NNE trending IP</b> inside EOL high resist zone; open to north and south; RSIP coverage incomplete but indicates possible steep east dip and buried; top >250m deep; zone strengthens with depth (no root); <b>High Priority Target</b> : recommend DDH at +300m; <b>never drill tested</b>

Table 6.6: Teck 1996-1997 and Candente 2007 North Verde Drill Holes

Hole ID	Year	Company	Area	NAD27z14Mx-UTME	Nad27z14Mx-UTMN	Elevation(m)	Azimuth	Dip	Depth(m)
ORO-96-1	1996	Minera Teck	Veta Verde	378473.00	2190890.00	2649.00	60	-50	329.79
ORO-96-2	1996	Minera Teck	Veta Verde	378679.00	2191009.00	2645.98	60	-50	302.05
ORO-96-3	1996	Minera Teck	Veta Verde	378398.00	2190987.00	2614.00	60	-55	226.46
ORO-96-4	1996	Minera Teck	Veta Verde	378428.00	2190864.00	2664.00	60	-53	250.42
ORO-97-1	1997	Minera Teck	Veta Verde	378672.00	2191005.00	2645.98	60	-70	217.90
ORO-97-2	1997	Minera Teck	Veta Verde	378850.00	2191228.00	2654.97	60	-58	341.90
VV-07-01	2007	Candente	Veta Verde	378996.00	2189840.00	2804.00	60	-60	505.15
VV-07-02	2007	Candente	Veta Verde	378864.00	2190524.00	2644.00	60	-50	173.70
VV-07-03	2007	Candente	Veta Verde	378870.00	2190520.00	2644.00	70	-50	165.00
<b>TOTAL</b>									<b>2512.37</b>

#### North Verde Drill Hole Results Targeting the Quantec TIP Anomalies

**ORO-96-1:** was targeting the southern strike extension of anomaly #5 and #9 ; best results were from 109.0-109.5m (0.12 grams per tonne Au and 6.0 grams per tonne Ag); hole placement poor relative to anomaly.

**ORO-96-2:** was targeting anomaly #4 (strong IP in long NNE trending zones; anomaly between 200-300m); best results were from 138.5-139.0m (0.14 grams per tonne Au and 5.8 grams per tonne Ag); 139-302.5m (not sampled); hole placement poor relative to anomaly.

**ORO-96-3:** was drilled north of and targeting anomalies #5 and #9 (both are N-S high resistivity and high chargeability anomalies). No significant results. Drill hole collared well north of actual target location.

ORO-96-4: was drilled south of and was targeting anomaly #9 (high resistivity and high chargeability) and #5 (high resistivity and high chargeability steep west dip; between 200-300m depth). The hole was drilled offline to the south of the actual anomaly location.

ORO-97-1: was located near ORO-96-2 was targeting anomaly #4 (high resistivity and strong chargeability); hole collared exactly on station anomaly (poor placement of drill hole at #4); hole also tested NNW trending low resistivity features with moderate chargeability. The best results were 165.5-167.3m (1.8m of 0.24 grams per tonne Au and 2.4 grams per tonne Ag).

VV-07-01: was targeting anomaly #6 (moderate to strong IP in a N-NNW trending zone); this hole was well placed to the west of the actual known vein and geophysical target location. This hole was drilled within a domal feature and drilled the down-dip extension of known quartz veins (Table 6.7).

Table 6.7: Candente 2007 Drill Hole VV-07-01 Highlights

<b>From(m)</b>	<b>To(m)</b>	<b>Interval(m)</b>	<b>Au g/t</b>	<b>Ag g/t</b>
288.2	301.5	13.3	0.24	57.5
307.2	322.1	14.9	0.23	53.3
392.5	416.8	24.3	0.07	15.1
446.9	447.3	0.4	0.14	93.9

VV-07-02 and VV-07-03: holes were targeting anomaly #1 (moderate to strong IP in a narrow NNE trending zone). There were no significant results for these two holes.

In summary the Teck 1996-1997 holes targeting the North Verde anomalies defined in Table 6.5 may have missed the targets due to “apparent” poor collar placement (Figure 6.9).

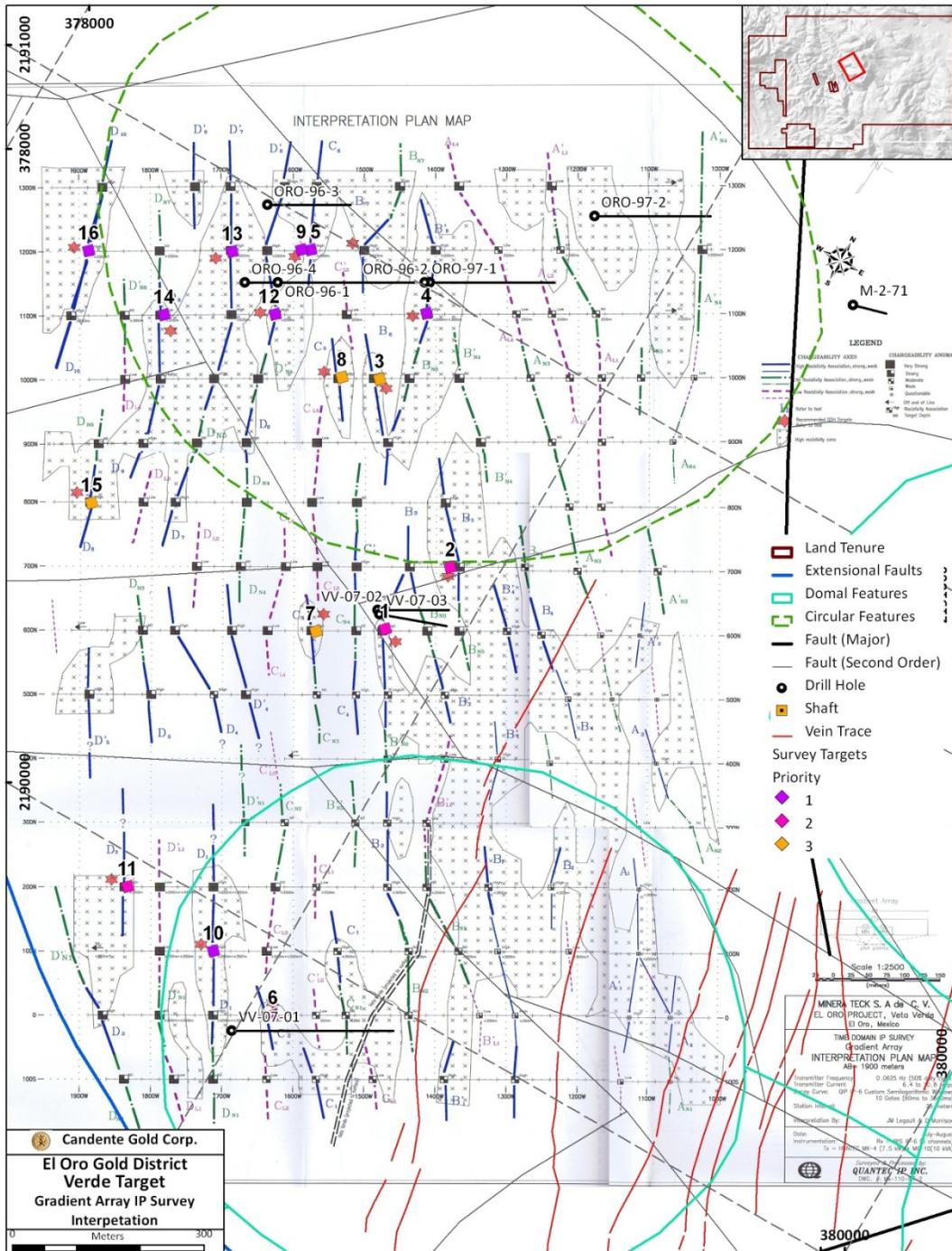
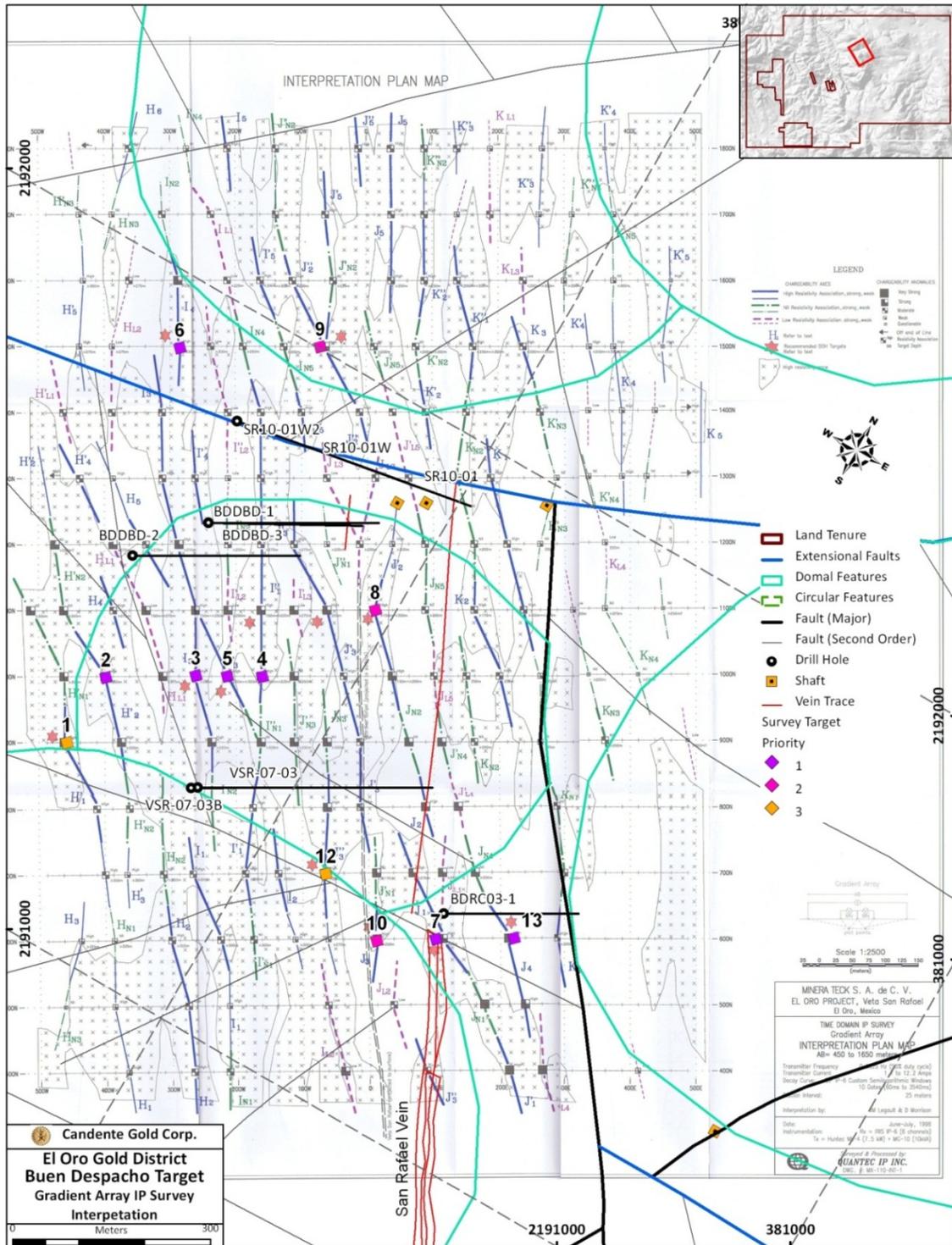


Figure 6.9: Teck 1996 Quantec Gradient TIP North Verde Survey (Priority Targets)

Table 6.8: Teck 1996 Gradient TIP *Buen Despacho* Survey Priority Targets

No.	Name	Priority	Line	Station	Target Depth	Comments
1	H1'-Hn1'	3	900N	462W	>250m	<b>NNW trending</b> moderate-strong IP axis along the western edge of a broad high resistivity zone; part of >700m long axis along with weaker H1-Hn1; deeply buried; top of zone plunges to south from 250-300m (fits geology); insufficient deep RSIP coverage to determine dip or depth extent; caution for basement topographic effects/source; recommend deeper RSIP coverage prior to drilling
2	H2'-Hn2'- H3'	1	1000N	400W	>250m	<b>NNW trending</b> ; moderate-strong IP axis centred axis on high resist lineament; part of >600m long axis along Hn2'-H2'; RSIP indicates deep burial to top of IP zone; plunges to south from 250-300m (fits with geology); but resist high extends vertically into <100m depths; sub-vertical dip (topography distortion); <b>High Priority Target:</b> recommend deeper RSIP or <b>target DDH &gt;250m</b>
3	I3-In3	1	1000N	262W	>250-300m	<b>NS-NNW trending</b> , moderate-strong IP axis centered on narrow, prominent high resistivity lineament; >700m length; RSIP indicates deep burial to best part of IP zone but suggest weaker mineralization follows high resist structure into cap rocks (<100m); uniform signature/depth along NS-strike; sub-vertical to steep west dip; <b>High Priority Target:</b> recommend deeper RSIP or <b>target DDH to &gt;250m depths</b>
4	I1''-In1''- In4	1	1100N	162W	>225-300m	<b>NS-NNW trending</b> moderate IP axis, centered on narrow but prominent high resist lineament; >1km in length possibly related to I5 in north; becomes weaker I1'-In1' axis to south; best width strength and quartz veining suggested between I2N-I0N; RSIP indicates mod -deep burial (>200m) plunging to north; suggest weaker mineralization follows high resist structure into cap rocks (<100m below surface); sub-vertical dip (topographic distortion); <b>High Priority Target :</b> recommend deeper RSIP or <b>target DDH to &gt;250m</b>
5	I3'	1	1000N	212W	>300m	Narrow isolated mod-strong IP anomaly coincides with thin sub-vertical high resistivity structure; <b>likely NE trending</b> and merges with I3 to NW and I1' to SE; RSIP indicates top of zone near 200m but weak mineralization may extend with high resist feature which reaches within 100m from surface; <b>High Priority:</b> (despite short length) but DDH test axis I1'' at <b>&gt;300m depths</b>
6	I4	1	1500N	288W	>300m	<b>Short(&lt;300m) NNW-trending</b> moderate IP axis coincides with defined high resistive zone; pinches to north but on strike with I3 and I4' and possibly associated with H6 to NW; RSIP indicates east dip (topography distortion); IP strengthens below top at 275m: <b>High Priority:</b> recommend <b>DDH below 300m</b>
7	J1-Jn1-J1'	1	600N	100E	200->300m	<b>NW-SE trending</b> strong prominent IP axis coincides with defined mod-high resistivity zone; >400m length (opens to SE); parallels weaker J3-Jn4 axis; intersects-terminates at VSRZ and zones J3-Jn1 and J3''-Jn3; possibly becomes NNW J3' zone to NW; RSIP indicates sub-vertical to east dip (topography distortion?); top of IP/high resist zone near 200m; strengthens with depth and to south; <b>High Priority Target:</b> recommend <b>DDH test along 65 at 300m</b> and extends RSIP to south

8	J2-Jn2-J2'	2	1100N	012E	250m	<b>Sinuus NNW-NNE trend;</b> narrow, weak to strong IP axis coincides with narrow, mod to well defined high resist lineament closely parallels VSRZ just 25-100m west; possibly related to J1 to south and J2" to NNW; RSIP suggests sub-vertical dip to high resist structure and moderate vertical dip to IP(?); only weakly stronger IP at depth-possibly more disseminated; top of IP + resist feature at 150m (fits geology); better IP to south but weaker quartz alteration; proximity to VSRZ suggests already explained; <b>Medium to Low Priority:</b> recommend verification validation prior to <b>DDH follow-up at 250m depth</b>
9	J2"-Jn2"	2	1500N	062W	300m	<b>NW to NNW trending</b> moderate IP axis generally coincides with discontinuous or fault offset high resist zone(appears to be crosscut by similar NNE structures); possibly is strike extension of axes J2-J2' and J1-J1', near VSRZ to south; open to north and stronger; RSIP coverage in center of feature-suggests mixed dips, likely due to topographic distortion or cross structures; top of resist +IP zone near 200m, but strengthens at depth; <b>Med to High Priority Target:</b> recommend additional RSIP to north and south prior to <b>DDH follow-up at +300m depths.</b>
10	J3-Jn1'	2	600N	012E	300m	<b>Short (&lt;200m long) ENE trending</b> strong IP axis coincides with narrow, mod to weak high resist feature which is discordant to NW trending VSRZ fault; parallel nearby J3"-Jn3 to west possibly merges/intersects NW J1-Jn1 axis to east becoming NNW J3' zone; RSIP suggests top of zone near 200m depth(agree with geology); west dip or multiple zones below 300m; strengthens with depth; <b>Medium to Low priority target</b> (due to proximity of VSRZ and short strike length); verification prior to <b>DDH follow-up at &gt; 275m</b>
11	J3'	2	1100N	062S	>275m	<b>NS-NNW trending</b> narrow moderate IP axis coincides with defined high resist structure; >500m NS length, on strike and associated with NW J1-Jn1 and NNE J3-Jn1' to south and merges with I1" to NW; RSIP indicate steep west dip and top of zone near 150-225m(agree with geology); appears to strengthen with depth; high resist structure appears to extend further into cap rock (at 100m) due to proximity to VSRZ to target; <b>Medium to Low Priority:</b> recommend validation prior to <b>DDH follow-up at 300m depths</b>
12	J3"-Jn3	3	700N	062W	>200-300m	<b>N-S trending</b> moderate to strong IP centred within a wide strike extensive high resist lineament extends from grid south and intersects terminates at VSRZ fault at 9N/BLO; RSIP indicates sub-vertical to steep west dip; moderate burial (<200m to 225m plunging to the north); zone strengthens with depth; best part of axis coincides with VSRZ fault; <b>Medium to Low Priority;</b> recommend verification prior to <b>DDH follow-up at &gt;250m depth</b>
13	J4-Jn4	1	600N	225E	>300m	<b>NW-SE trending medium length (&gt;300m)</b> strong IP axis centred on narrow moderately resistive lineament; nearby (east) and parallel to stronger J1-Jn1-J1' axis; possibly associated with NNW J2-Jn2 to North; RSIP indicates sub-vertical to east dip (topographic distortion?); and zone strengthens with depth; top of zone near or below 200m (agree with geology); <b>High Priority Target:</b> recommend DDH-test with zone J1 at >300m; <b>tested by DDH BDRCO3-1</b>



### *Drill Holes Targeting the Buen Despacho Quantec TIP Targets*

SR10-01, SR10-01W, and SR10-01W2 were targeting the northern strike extent of the San Rafael vein system. The drill holes were drilled parallel to a major WNW-ESE fault (down-to-the-north) that bisects two domal features defined in a recent interpretation. The best results were from hole SR10-001 W1 returning 0.6m from 501.8 to 502.4 metres returning 230 grams per tonne silver.

BDDBD-1, BDDBD-2 and BDDBD-3 were drilled to the east targeting N-S, NNE and NNW resistivity anomalies in moderate chargeability along the northern edge of a domal feature. The holes were drilled well north of the high priority Gradient IP targets #2, #3, #4 and #5 (Figure 6.10). The BDDBD-1 and BDDBD-2 were drilled southeast of the Buen Despacho shaft in the hanging-wall of an easterly trending low angle fault. BDDBD-3 was drilled from BDDBD-1 in the footwall of the same low angle fault just below the 285 foot level and returned 0.5m of 0.3 grams per tonne gold and 761 grams per tonne silver and BDDBD-2 returned 80.4m of 24.2 grams per tonne silver.

VSR07-03 and VSR07-03B were drilled to depths of 842.05 m. The holes were drilled north of moderate priority Target #12 and were targeting several N-S trending weak to moderate resistivity and strong chargeability anomalies. The best results were in VSR-07-03B from 555.5 to 555.9 m returning 0.54 grams per tonne gold and 15.5 grams per tonne silver. The holes were targeting a strong surface antimony anomaly coincident with a major WNW fault.

BDRC03-1 was targeting high priority Target #13 and missed High Priority Target #7 along the known northern strike extent of the San Rafael vein (Figure 6.10). There were no significant results.

The drill holes in this target area were, in general, poorly placed relative to “apparent” target locations, with poor recoveries resulting in overall poor results.

### **6.3.2 Placer Dome 2001 UTEM-EM and CSAMT Surveys**

In 2001, Placer Dome completed a UTEM gradient IP chargeability-resistivity survey to map silicification over portions of the San Rafael vein system as well as four lines of CSAMT over the Oriente Zone to map lithology/silicification over the area east of the main San Rafael Vein (Figure 6.11). The results of the survey defined multiple, broad resistivity high features in the Oriente Zone.

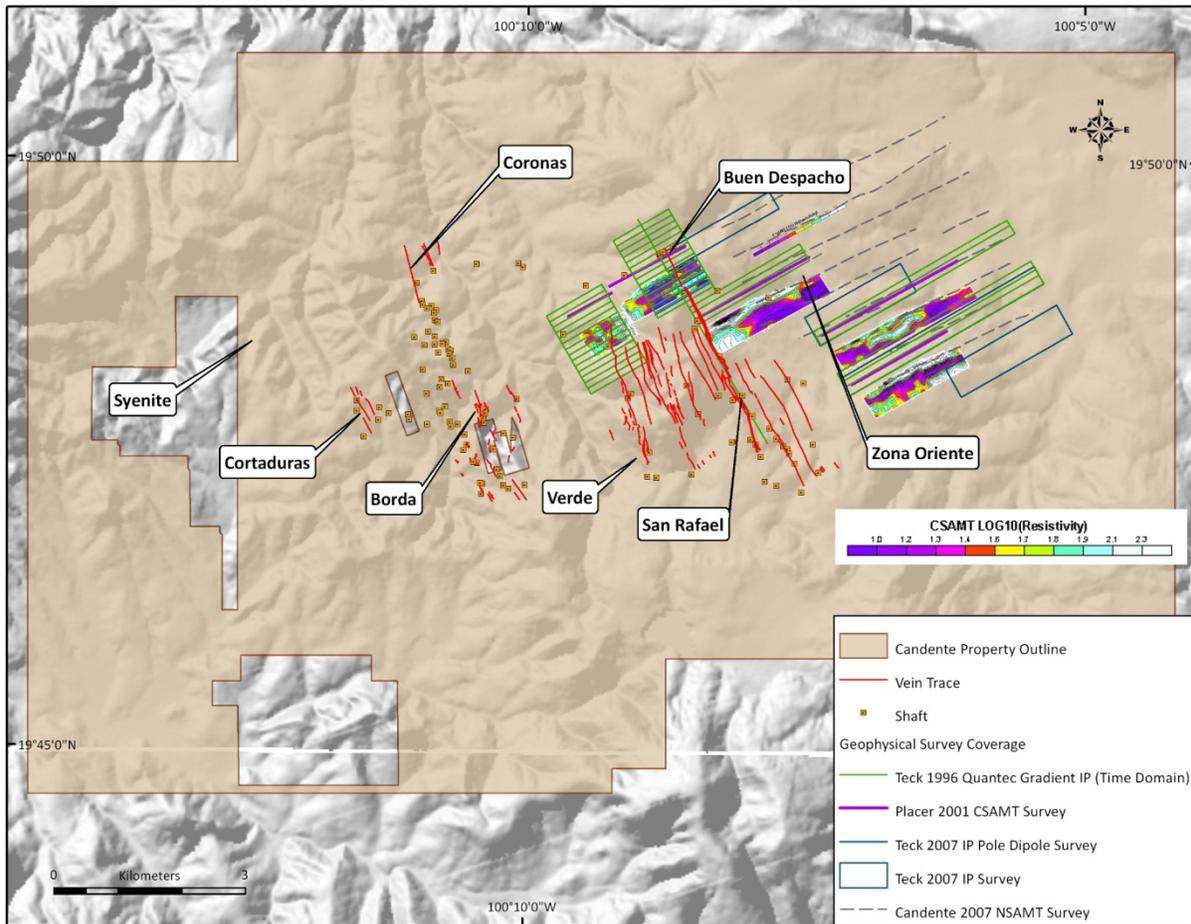


Figure 6.11: Placer 2001 CSAMT Log 10-Resistivity Survey Results

### 6.3.3 Placer Dome 2001 Pole-Dipole San Rafael Vein Orientation Survey

In 2001, Placer Dome completed three pole-dipole IP orientation lines numbered 500N, 300N and 100N over the main San Rafael Vein to characterize the geophysical response of the vein and related mineralization. The exact location of these lines is not known. The style of mineralization was predicted as a resistivity high related to a siliceous vein/vein breccia zone along the San Rafael vein fault zone. A chargeability anomaly was anticipated as the earlier Teck work showed a coincident chargeability trend. The pole-dipole IP data was inverted. The results can be found in Figures 6.12, 6.13 and 6.14.

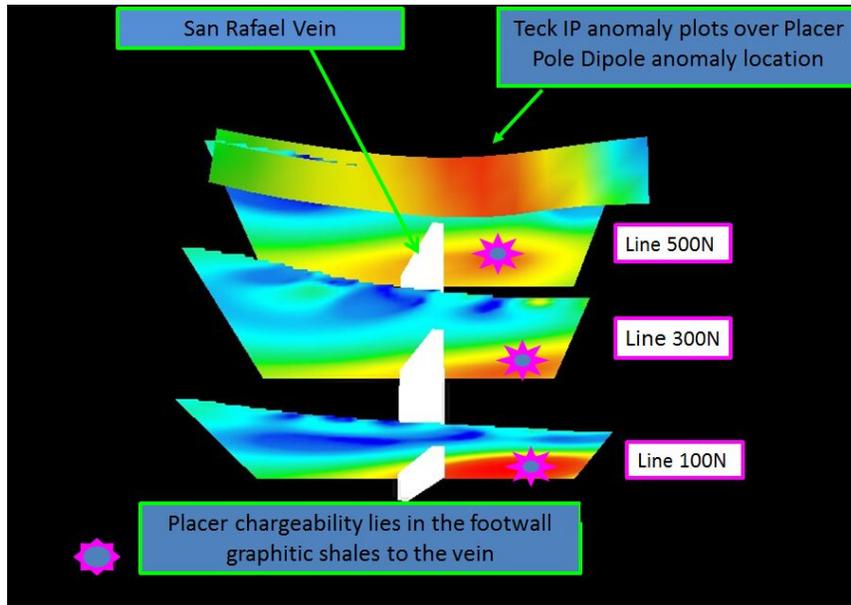


Figure 6.12: Placer 2001 Pole-Dipole IP (looking-north) Chargeability

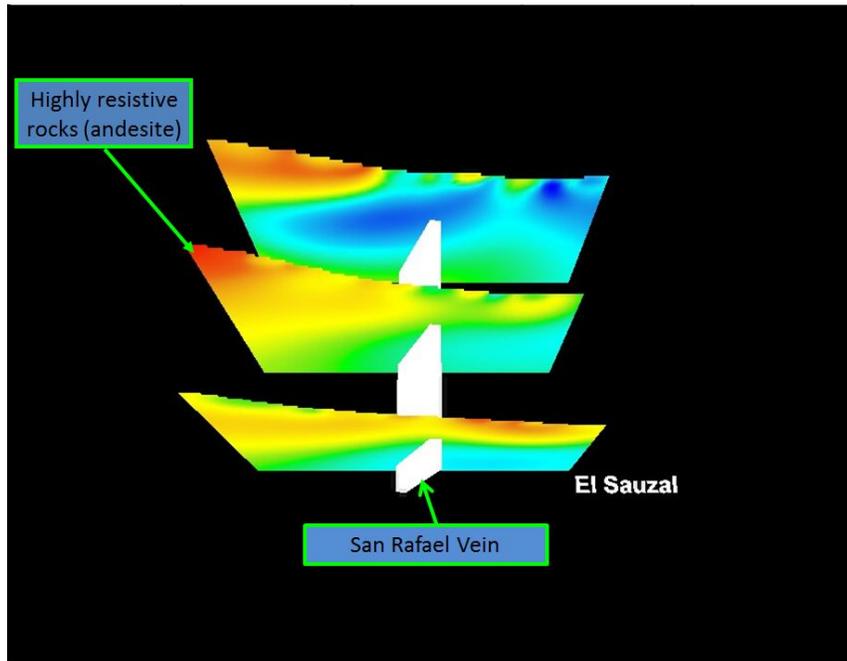


Figure 6.13: Placer 2001 Pole-Dipole IP (looking north) Resistivity

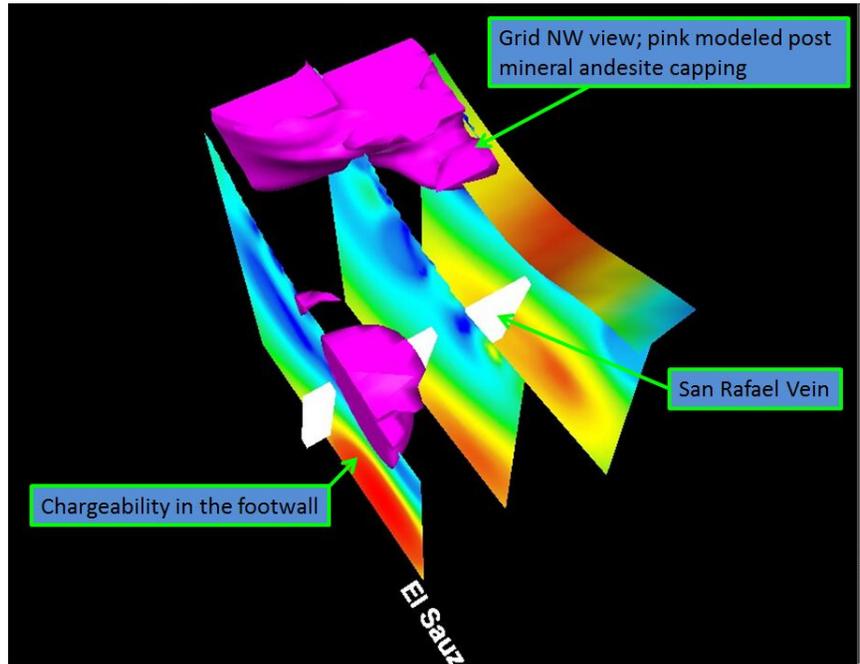


Figure 6.14: Placer 2001 Pole-Dipole IP (looking northwest) Chargeability

The results of the survey defined a sheared footwall to the San Rafael vein of graphitic shale-siltstone and a potential vein breccia zone as a well-defined chargeability anomaly. The post mineral andesite cap depicted in pink in the image above was defined as a resistivity anomaly (Figure 6.14).

#### 6.3.4 Teck 2007 IP Survey

In 2007, Teck completed five grid lines of IP over the northwest strike extension of the San Rafael vein near the Buen Despacho target. The results of this survey were not available.

#### 6.3.5 Candente 2007 NSAMT Survey

In February of 2007, Zonge Engineering and Research Organization (“Zonge”), at the request of Candente Resource Corp., mobilized a geophysical crew to conduct a Natural Source Audio-Frequency Magnetotelluric (“NSAMT”) Survey to define potential buried veins along strike from known veins.

The 2007 NSAMT program focused on the Oriente grid (Figure 6.15) that was previously tested with two orientation NSAMT lines in 2006. The 2006 NSAMT test results suggested that broad resistive features similar to stockwork/silicification and conductive features similar to faults could be potentially identifiable by NSAMT. These features and related alteration halos may lead to blind or buried veins and vein breccia discoveries at depth under the post mineral volcanics (Figure 6.15 and Figure 6.16).

Changes in imaged resistivity's can aid in the identification of lithologic characteristics. The terms "Resistivity" and "Conductivity" identify two opposite ends of an electrically based scale used to categorize rock types and/or identify structure. "Conductive" features are identified in the modeled sections by low resistivity values defined by the yellow and red shading seen in the 1D and 2D images. "Resistive" features are defined by the green and blue shading seen in the Figures 6.15. The pseudo-sections produced as a result of the survey are represented by contoured resistivity in "ohm-metres".

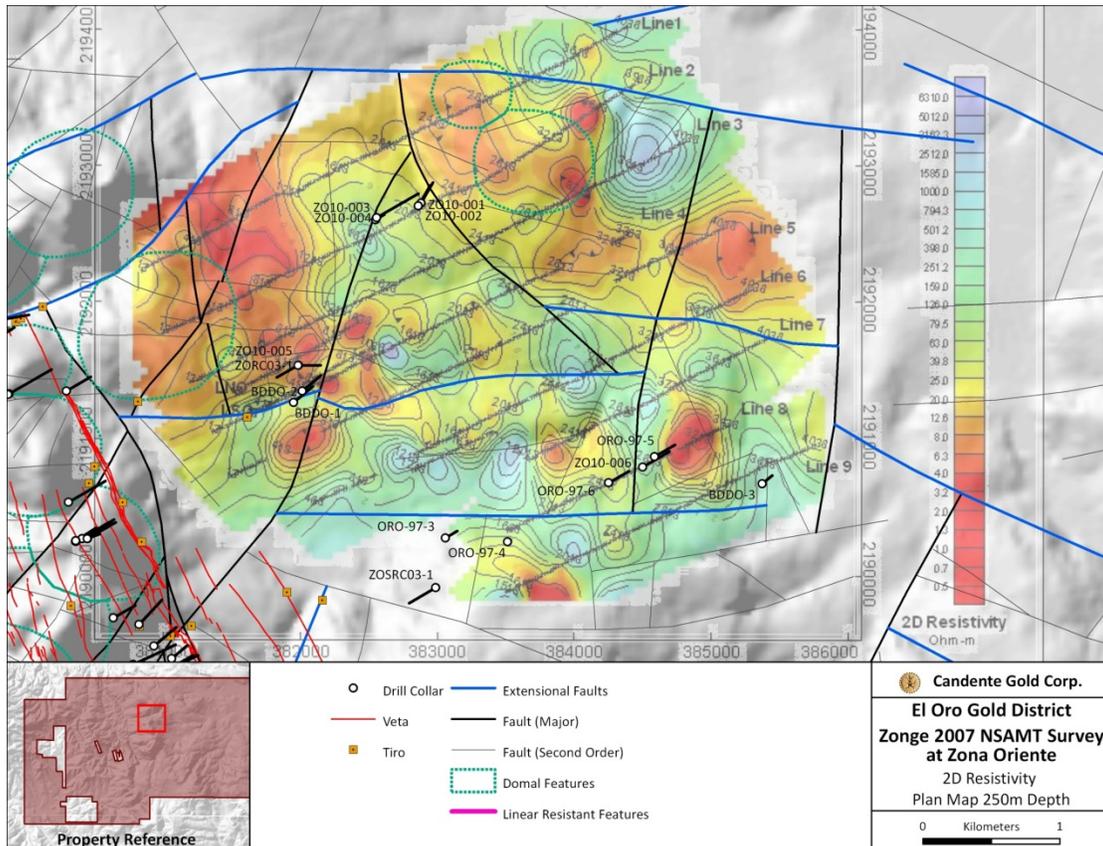


Figure 6.15: Candente's 2007 NSAMT survey showing 2D resistivity at Oriente

The physical properties of the various rock types at El Oro Oriente Zone are important in the interpretation of the NSAMT data. Prior to the NSAMT survey, fifteen rock samples from the survey site were sent to Zonge's office to assess physical properties. The evaluation of these results is critical in interpreting the NSAMT survey. In general, the graphitic/carbonaceous shales that underlie the post mineral volcanic cover were expected to range from moderately conductive to extremely conductive. In the physical strength laboratory tests, the El Oro quartz-carbonate vein samples were highly resistive. The resistivity contrast between the vein and host metasediment was an important factor in this survey. From the Zonge NSAMT field tests several broad resistive zones were identified in the survey. These features were interpreted as potential broad silica breccia zones, felsic intrusions or andesite subvolcanic rocks that were intersected in various drill holes.

Known veins in the original 2006 NSAMT orientation lines were identified within a broad moderately conductive area (graphitic shales). The 2D imaged sections identify larger scale differences in lithology (for example the conductive horizon and the broad resistive zones at Oriente).

The known mineralization at San Rafael to the west varies from resistive northwest trending massive 4 to 15 metre wide milky quartz-carbonate veins to >35 metres in width, easterly trending, and silica clay-cemented breccia. The widest mining widths were reported as high as 70 metres from oxidized vein-fault material. The footwall sediments are known to be highly conductive due to the severely sheared, graphitic-carbonaceous characteristics.

In reference to Figure 6.15, two resistivity lows are coincident with NNE-SSW trending faults in the vicinity of drill holes ZO10-001 to ZO10-004. A major E-W trending resistivity high, sub-parallel to a known E-W fault lies in the south.

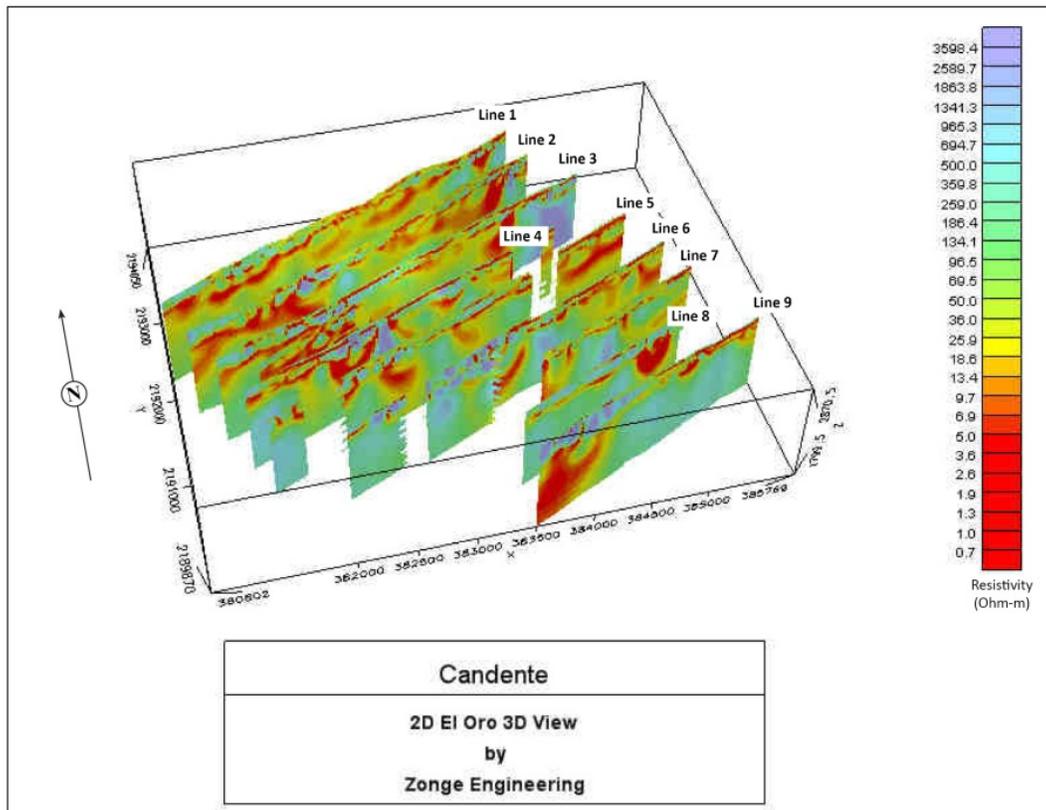


Figure 6.16: Candente's 2007 NSAMT survey showing 2D resistivity sections at Oriente

## 6.4 HISTORIC CONCEPTUAL EXPLORATION TARGET REVIEW

### 6.4.1 Esperanza & El Oro Mines & Railway San Rafael Vein

A NI 43-101 compliant mineral resource estimate has not been completed for the El Oro Property. Historical reviews of the potential tonnes and the potential grades quoted in this section are conceptual in nature. Conceptual historical reviews of in-situ and stope-fill material have been estimated for the San Rafael vein as the documentation and data is most complete for this vein. The remaining, likely lower grade, mineralization is contained in vein material that is predominantly situated laterally to known workings including hanging-wall and foot-wall material as well as remnant pillars and back-fill material.

The most comprehensive historical conceptual review was completed by Luismin in 1992 (*Zamorano G., 1992*). Luismin estimated that the El Oro Mining & Railway/Esperanza portion of the San Rafael vein hosted a potential in-situ estimate of 6.00 to 6.89 million tonnes grading from 3.00 to 3.44 grams per tonne gold and from 40.00 to 44.00 grams per tonne silver containing approximately 760,000 ounces of gold and 9,750,000 ounces of silver. This in-situ conceptual estimate of the potential tonnes and grade is contained in 40% of known historic workings within pillars and areas not mined and stope-fill and back-fill material.

*The estimation on the San Rafael vein target is conceptual in nature and should not be relied upon as insufficient drilling has been done to define the target under an inferred mineral resource using CIM definitions and standards for resource categories with adequate geological confidence (CIM, Nov 2010). Further verification drilling, to better define mineralized zone outlines, a recalculation of the specific gravity and further metallurgical test work is required to identify, with more certainty, the quantity and grade of the reported estimation. A systematic verification drilling and sampling program should be such that grade continuity can be predicted with confidence and contained metals may be better known with a reasonable level of reliability. A mineral resource can be estimated for material where the geological characteristics and the continuity are known or reasonably assumed and where there is the potential for production at a profit. A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves, and the Company is not treating the historical estimate as current mineral resources or mineral reserves. It is uncertain if further exploration drilling will result in the target being delineated as a mineral resource. This target estimate may or may not be materially affected by scrutiny into environmental, permitting, legal, title, taxation, social, political, marketing or other relevant issues in addition to a down-grading in quantity and grade with further drilling.*

The review of this conceptual target was based on an assessment of historic El Oro Mining & Railway mine records including: a review of 914 two-metre sample control level plans with gold reported in Au\$/Ton and silver reported in Ag oz/Ton; summary cross sections; and limited production documentation. The block model used two-metre blocks with an area of influence of two metres.

In 1993, Hillsborough in a joint venture with Luismin re-evaluated the historic estimate of tonnes and grade described above (*Zamorano, 1993*) and concluded that it was sound and warranted follow-up work. Eight diamond drill holes (SR-93-1 to SR-93-08) over a 1.0 km strike length were completed by Hillsborough to assess the reliability of the historic conceptual estimate by Luisman. Gold and silver grades obtained from drilling confirmed the presence of remnant gold and silver mineralization (Section 6.7). Drilling also confirmed an estimate that approximately 50 to 60 % of the actual quartz-carbonate vein had been mined out, although the entire vein may not be mineralized. The area of mine workings assessed by Luismin to create the historic conceptual estimate from the 1.2 km portion (El Oro Mining &

Railway Mine) of the 3.3 km long San Rafael vein represents approximately 40% of known workings on the San Rafael vein.

The positive, probable and conceptual categories of the historical 1992 conceptual tonnage and grade estimate by Luismin is non-compliant with NI 43-101 Standards for Disclosure of Mineral Resources as they differ from the measured, indicated and inferred categories set out in NI 43-101 defined above.

The Luismin report categorized the estimate as:

2,625,218 tonnes-positive (3 sides with sample data)

1,763,402 tonnes-probable (2 sides with sample data)

2,500,000 tonnes-conceptual (estimated from sample sections)

TOTAL ALL CATEGORIES 6,888,620 tonnes

The total tonnage and grade estimation was between 6,000,000 to 6,888,620 tonnes of Total Insitu material grading from 3.00 to 3.44 grams per tonne gold and from 40.00 to 44.00 grams per tonne silver.

The above conceptual target assessment was developed during a program of extensive mine rehabilitation of the Tiro Providencia (“Providencia shaft”) from the San Juan adit at the zero foot level to the 650 foot (198.12 metres) level below surface. In addition, the Tiro Skip (“Skip Shaft”) was rehabilitated to depths of between 300 to 450 feet (100 to 150 metres). This assessment was part of an in-house company review and is non-NI 43-101 compliant with the standards and guidelines set out through the NI 43-101.

One of the first historic attempts to calculate a mineral inventory in the San Rafael mine was made as early as 1937 by the Mexican Government Commission (*La Comisión Investigadora de las Condiciones Económicas de la Compañía Dos Estrellas, 1937*) to assess the assets of the company Dos Estrellas before handing over mining to the newly formed Mining Cooperative (Cooperativa de Las Dos Estrellas). A comprehensive re-sampling of underground workings to confirm reported grades by the company was considered, but due to the high assay costs, a limited sampling program was completed to confirm grades in both the insitu vein material as well as in the mine back-fill. The calculation was completed to a rough estimate level and combines estimates of in-situ material with stope-fill material to give a total of between 10,000,000 to 12,324,394 tonnes grading from 2.00 to 2.13 grams per tonne gold and from 60.00 to 67.40 grams per tonne silver.

The total conceptual estimate of approximately 1.5 to 1.7 million ounces of gold and 35 to 38 million ounces of silver (grades from the San Rafael vein averaged 3.67 grams per tonne gold and 69.43 grams per tonne silver, respectively) was estimated for the complete San Rafael vein by Luismin and published in company reports in 1972 (*Luismin, 1972*). Luismin calculated resources separately for the in-situ vein and stope -fill material and then combined the two numbers.

*This was based on an extrapolation of the estimate calculated on 40% of the San Rafael-El Oro Mines & Railway to the remaining 60% of historic mine workings on the San Rafael vein using broad assumptions. This estimation is conceptual in nature and should not be relied upon as insufficient drilling has been done to define an inferred mineral resource using CIM resource categories (CIM, Nov 2010). Further verification drilling using current NI 43-101 QA/QC standards, including a recalculation of the specific gravity and further metallurgical test work is required to identify, with more certainty, the*

*quantity and grade of the reported estimation. This estimate could be systematically verified in a drilling and sampling program such that continuity can be predicted with confidence and contained metals may be better known with a reasonable level of reliability. A qualified person has not done sufficient work to classify the historical estimate as current inferred mineral resources or mineral reserves, and the Company is not treating the historical estimate as current mineral resources or mineral reserves.*

In 1978, on behalf of Minera Mexico Michoacán, Mountain States Research & Development (Mountain States Research, 1979) conducted a historic conceptual resource estimate of in-situ and mine-fill material with grade ranges. This conceptual estimate did not take into consideration geological concepts and is not considered reliable.

With regard to the historic data, the author has made a judgment with regard to the general reliability of the underlying data. There exists an extremely large volume of historic data dating back to the early 1900's that contains detailed maps, plans and sections of the old workings along with extensive production records. *The quality and accuracy of the historic data cannot be verified without undertaking a verification sampling program of the underground workings that are, for the most part, inaccessible at this time due to caving of underground workings*

#### **6.4.2 Mexico Mine Tailings Review**

The Mexico Mine Tailings Deposit is located in central Mexico, in the municipality of El Oro de Hidalgo, in the State of Mexico, in Mexico. The deposit covers an area measuring 5.6 hectares and lies within the current town site of El Oro, an area that would be useful for the town's future development (Figure 6.17).

The tailings material was extracted from the historic Mexico Mine's milling plant as well as from smaller portions of the Esperanza Mine (e.g. San Rafael Vein, Negra Vein and the San Carlos Vein). The ore consists of oxides and sulphides mined from predominantly the upper branches of the San Rafael Vein within the northern Mexico Mine San Rafael vein segment.

Candente Gold Corp ("Candente" or the "Company") believes the potential exists for positive results from a responsible stewardship removal, reprocessing and reclamation of the El Oro de Hidalgo municipality-owned 5.6 hectare tailings deposit that lies on surface within its 100% owned El Oro project (the "El Oro Project"). The historic 1904 - 1926 tailing's deposit contains a conceptual estimate of 800,000 to 839,000 tonnes grading from 2.80 to 2.95 grams per tonne gold and from 75.0 to 89.0 grams per tonne silver (Aguilar, J.L.P., 1990).

*The author is not treating the above historical conceptual estimate as current mineral resources or mineral reserves. This estimation is conceptual in nature and should not be relied upon as insufficient drilling has been done to define an inferred mineral resource using CIM resource categories (CIM, Nov 2010). Further verification drilling using current NI 43-101 QA/QC standards, including a recalculation of the specific gravity and further metallurgical test work is required to identify, with more certainty, the quantity and grade of the reported estimation. The homogenous nature of tailings, at least in a lateral sense, suggests that a small percentage of the tailings could be systematically verified in a grid drilling and sampling program such that continuity can be predicted with confidence and contained metals may be better known with a reasonable level of reliability. A qualified person has not done sufficient work to classify the historical estimate as current inferred mineral resources or mineral reserves, and the Company is not treating the historical estimate as current mineral resources or mineral reserves.*

*reserves. This project may or may not be materially affected by scrutiny into environmental, permitting, legal, title, taxation, social, political, marketing or other relevant issues in addition to a down-grading in quantity and grade with further drilling.*

This site could easily be accessed for removal, transport, reprocessing and retreatment of the contained gold and silver for a potential profit to Candente Gold Corp and the town of El Oro. A portion of the gold and silver mineralization could be recovered for an economic benefit at a relatively low cost. The tailings deposit might also contain deleterious elements including arsenic, mercury, selenium and cadmium that if left in place could potentially contaminate the existing water resources used by the El Oro town's people.

Further test work is required by Candente to establish whether or not the tailings have economic value in today's operational costs and current metal prices. If the results suggest that reclamation and reprocessing of the tailings is technically feasible and economically viable then Candente would commit to raising the capital to finance the processing of the tailings, build new infrastructure required for the tailings clean-up and reclamation operation.

In June 2013, Candente conducted an in-house review of the Tailings Reprocessing and Reclamation Project. Some of the highlights include: *the* tailings are located near existing infrastructure in the town site of El Oro; *the* Environmental benefit and value to the community by the removal of the hazardous and unsightly old tailings pile; *the* Economic benefit and value to the community in access to reclaimed real estate and potential for future development; *and* the potential profitable project for the community and company by recovery of precious metals contained in the tailings.

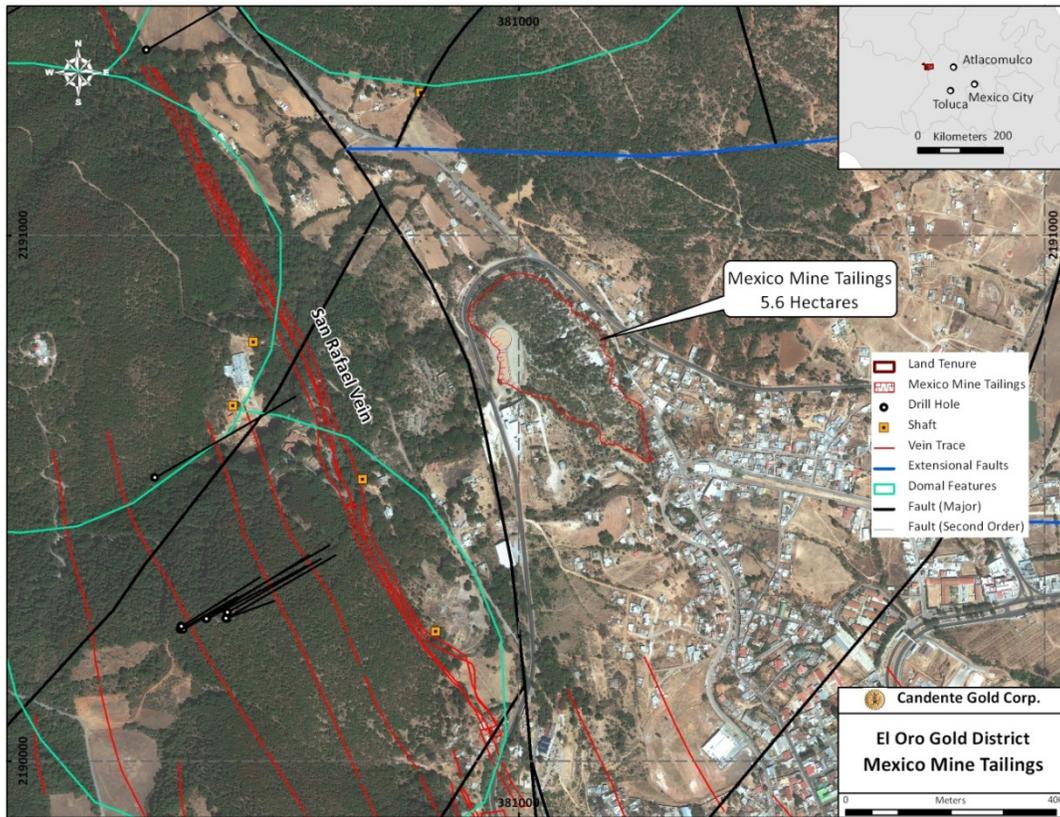


Figure 6.17: Location of the Tailings Deposit in the Town of El Oro, Municipality of El Oro de Hidalgo

The following discussion refers to the history of the Mexico Mine and parts of the Esperanza Mine (Veta Negra and Veta San Carlos), the source of the Mexico Mine tailings.

- Year 1907: The Mexico mine was owned by the Mexican Venture Company and started production on the San Rafael vein with the completion of the 100-stamp cyanide mill.
- Year 1910: The Mexico Venture Company was sold to the London Exploration Company Limited and certain English and French interests.
- Year 1912: The Esperanza Mine was relinquished to the Esperanza Limited Company. The lowest grade ore profitably exploited contained 0.25 oz gold Au/ton and 2-3 oz silver Ag/ton.
- Year 1920: the American Mining Co. built a 120-stamp cyanide mill.
- Years 1925 to 1937: In 1925, all of the mines and properties, including the Mexico Mine were acquired by Las Dos Estrellas. Higher grade backfill, pillars and intermediate veins were mined at this time. A new crushing and processing plant was built to process this ore. Most of the Mexico Mine tailings were produced in during this period.
- Years 1937 to 1960: In 1937, Minera Dos Estrellas turned the mines over to the mine workers as debt repayment and newly formed La Cooperativa de Las Dos Estrellas en el Oro y Tlalpujahuá continued operating as a salvage operation from stope fills in the San Rafael/Veta Verde Veins mining backfill and exploitation of in-situ higher grade pillars.

- Year 1951: La Cooperativa Las Dos Estrellas conducted a comprehensive Mexico Mine Tailings sampling program by drilling 184 holes totaling 2,162.7 metres and defined up to 91,874 oz gold and 2,505,651 oz silver; and completed metallurgical test work
- Year 1959: La Cooperativa Las Dos Estrellas conducted further tailings treatment test work with varying results for gold and silver recoveries: 49 to 81% gold and 22 to 41 % for silver
- Year 1977: The mineral rights over the El Oro veins, including Mexico Mine on San Rafael, opened a private company; Minera Mexico Michoacán (“MMM”) acquired the exploration rights to the El Oro property covering a 2700 hectare area.
- Year 1979: MMM rehabilitated some of the deeper shafts including Tiro Providencia, as well as adits and crosscuts to gain access to stope-fill in the central portion of the San Rafael vein.
- Year 1980-1981: Luismin acquired a majority interest in the El Oro property from MMM and drilled 18 verification holes into the Mexico Mine tailings and conducted metallurgical test work simultaneously at two differing labs including the metallurgical lab in Tucson, Arizona and the Tayoltita mine site lab. The results from the two labs produced variable metal recoveries.
- Year 1982: Heap leach test characteristics were completed on behalf of Luismin.
- Year 1989-1990: Luismin conducted a further 22 verification drill holes equally - spaced over the tailings deposit with further metallurgical test work at the Metallurgical Institute of San Luis Potosi. Results included increased metal recoveries for both metals.

### 6.4.3 Mexico Mine Tailings Drilling and Sampling Programs

There have been a series of detailed tailings sampling programs between 1951 to 1990 by drilling, trenching, test pitting and soil sampling. The drilling and sampling programs are summarized below.

#### The 1951 Cooperativa Minera Las Dos Estrellas 1951 Tailings Sample Program

The most comprehensive sampling program was conducted in 1951 by the Cooperativa de Las Dos Estrellas including 184 drill holes of varying in depths from 5.0 to 27.0 metres totalling 2,162.7 metres for a potential contained gold of 90,000 to 91,874 oz gold and 2,400,000 to 2,505,651 oz silver using a density factor (specific gravity) of 1.3.

*The author is not treating the above historical conceptual estimate as current mineral resources or mineral reserves. This estimation is conceptual in nature and should not be relied upon as insufficient drilling has been done to define an inferred mineral resource using CIM resource categories (CIM, Nov 2010). Further verification drilling using current NI 43-101 QA/QC standards, including a recalculation of the specific gravity and further metallurgical test work is required to identify, with more certainty, the quantity and grade of the reported estimation. The homogenous nature of tailings, at least in a lateral sense, suggests that a small percentage of the tailings could be systematically verified in a grid drilling and sampling program such that continuity can be predicted with confidence and contained metals may be better known with a reasonable level of reliability in today’s market. A qualified person has not done sufficient work to classify the historical estimate as current inferred mineral resources or mineral reserves, and the Company is not treating the historical estimate as current mineral resources or mineral reserves. A summary of the results of the program can be found in Table 6.9.*

Table 6.9: Cooperativa Minera Las Dos Estrellas 1951 Tailings Historic Estimate

<b>Cooperativa de Las Dos Estrellas</b>	
Drill Hole Metres (184 holes)	2,163
Cubic metres	865,080
Density	1.3
Wet tons	1,124,604
Humidity % 7.6	85,470
Dry tons	1,039,134
Contained kg of gold	2,857.62
Contained kg of silver	77,935
Contained oz gold	91,874
Contained oz of silver	2,505,651

The detailed assay results of the 1951 Cooperativa de Las Dos Estrellas 184 drill hole sampling program can be found in Table's 6.10a to 6.10d and in Figure 6.18 below. The results presented in Figure 6.18 are colour coded according to Au EQ (equivalent). The detailed results for gold in grams per tonne are located in the upper left hand corner of each 10 m<sup>2</sup> block and the silver results are presented in grams per tonne located in the lower right hand corner of the each 10 m<sup>2</sup> block.

Table 6.10a: Cooperativa Minera de Las Dos Estrellas 1 to 46 of the 184 Drill Hole Results

Drill ID	Depth(m)	Tons	Au gr/Ton	Ag gr/Ton	Humidity	Gold(grams)	Silver(grams)
1-5	2.3	676	2.50	78.0	5	1690	52728
1-6	3.5	1820	2.50	78.0	9	4550	141960
1-7	3.7	1924	2.50	78.0	6	4810	150072
2-5	1.0	520	2.50	73.0	4	1300	37960
2-6	5.2	2704	2.50	88.0	5	6760	237952
2-7	10.0	5200	2.25	63.0	8	11700	327600
2-8	5.3	2756	2.00	58.0	8	5512	159848
3-4	1.7	858	2.75	82.0	6	2360	70356
3-5	3.8	1950	2.25	53.0	10	4388	103350
3-6	10.4	5408	2.75	72.0	10	14872	389376
3-7	10.0	5200	2.25	73.0	9	11700	379600
3-8	6.9	3562	2.50	73.0	8	8905	260026
3-9	1.6	832	2.75	87.0	8	2288	72384
4-3	3.2	1664	2.25	48.0	9	3744	79872
4-4	4.6	2392	2.50	58.0	8	5980	138736
4-5	6.4	3328	3.00	82.0	8	9984	272896
4-6	11.5	5380	2.75	72.0	7	14795	387360
4-7	11.7	6084	3.00	77.0	7	18252	468468
4-8	8.0	4160	3.25	72.0	6	13520	299520
5-4	2.1	1092	2.75	90.0	9	3003	98280
5-5	10.1	5252	3.00	62.0	6	15756	325624
5-6	13.3	6916	3.00	87.0	5	20748	601692
5-7	10.4	5408	2.75	77.0	7	14872	416416
5-8	15.7	8164	2.75	82.0	7	22451	669448
5-9	8.6	4472	2.50	68.0	6	11180	304096
6-4	3.2	1664	3.00	82.0	6	4992	136448
6-5	10.3	5356	2.75	62.0	7	14729	332072
6-6	14.2	7384	3.00	82.0	7	22152	605488
6-7	15.0	7800	3.25	82.0	6	25350	639600
6-8	19.2	9984	2.75	78.0	5	27456	778752
6-9	8.0	4160	2.25	72.0	9	9360	299520
7-4	4.4	2299	2.75	72.0	8	6322	165528
7-5	10.5	5460	3.50	82.0	9	19110	447720
7-6	19.8	10296	2.75	82.0	6	28314	844272
7-7	21.0	10920	3.00	87.0	7	32760	950040
7-8	21.5	11180	2.50	83.0	8	27950	927940
7-9	13.5	7020	2.25	80.0	10	15795	561600
7-10	9.5	4940	2.50	77.0	8	12350	380380
8-4	1.6	832	3.00	60.0	7	2496	49920
8-5	3.6	4472	3.25	107.0	10	14534	478504
8-6	17.5	9100	3.00	87.0	8	27300	791700
8-7	23.3	12116	2.75	77.0	8	33319	932932
8-8	25.6	13312	3.00	97.0	8	39936	1291264
8-9	18.4	9568	2.50	78.0	9	23920	746304
8-10	11.2	5824	2.00	78.0	10	11648	454272

Table 6.10b: Cooperativa Minera de Las Dos Estrellas 46 to 92 of the 184 Drill Hole Results

Drill ID	Depth(m)	Tons	Au gr/ton	Ag gr/ton	Humidity	Gold(grams)	Silver(grams)
8-11	7.1	3692	2.75	82.0	10	10153	302744
9-4	1.9	988	3.00	74.0	8	2964	73112
9-5	5.8	3016	3.00	77.0	8	9048	232232
9-6	14.6	7592	2.50	87.0	7	18980	660504
9-7	27.0	14040	2.50	88.0	8	35100	1235520
9-8	26.5	13780	3.00	92.0	7	41340	1267760
9-9	22.4	11648	3.00	92.0	8	34944	1071616
9-10	12.6	6552	2.50	78.0	10	16380	511056
9-11	5.1	2652	2.75	87.0	10	7293	230724
10-4	1.7	884	2.50	93.0	5	2210	82212
10-5	3.4	1768	3.75	81.0	5	6630	143208
10-6	13.8	7176	3.50	107.0	6	25116	767832
10-7	24.0	12480	2.50	63.0	6	31200	786240
10-8	25.3	13186	2.00	83.0	9	26372	1094438
10-9	21.6	11232	3.00	77.0	8	33696	864864
10-10	13.3	6916	2.50	63.0	8	17290	435708
10-11	6.8	3536	2.50	83.0	10	8840	293488
10-12	2.6	1352	2.50	63.0	6	3380	85176
11-5	5.4	2808	3.00	92.0	7	8424	258336
11-6	14.5	7540	3.00	87.0	9	22620	655980
11-7	23.0	11960	2.50	68.0	4	29900	813280
11-8	24.6	12792	2.50	63.0	8	31980	805896
11-9	22.3	11596	2.50	78.0	8	28990	904488
11-10	13.5	7020	2.00	78.0	10	14040	547560
11-11	7.0	3640	2.50	63.0	10	9100	229320
11-12	5.4	2808	2.50	72.0	11	7020	202176
12-5	6.4	3328	3.00	72.0	5	9984	239616
12-6	14.0	7250	2.50	68.0	6	18125	493000
12-7	21.7	11284	2.50	78.0	7	28210	880152
12-8	24.4	12688	2.50	73.0	8	31720	926224
12-9	25.8	13416	3.00	72.0	10	40248	965952
12-10	12.4	6448	2.00	58.0	9	12896	373984
12-11	6.3	3276	2.50	48.0	11	8190	157248
12-12	4.6	2392	3.00	77.0	9	7176	184184
13-2	5.2	2704	1.50	24.0	10	4056	64896
13-3	3.8	1976	3.50	42.0	10	6916	82992
13-4	5.7	2964	3.00	87.0	10	8892	257868
13-5	9.3	4836	2.50	68.0	10	12090	328848
13-6	15.4	8008	2.50	77.0	9	20020	616616
13-7	20.0	10400	3.00	77.0	6	31200	800800
13-8	23.6	12272	2.75	82.0	6	33748	1006304
13-9	22.3	11596	3.00	72.0	7	34788	834912
13-10	9.6	4992	2.50	53.0	8	12480	264576
13-11	7.3	3796	3.00	57.0	9	11388	216372
13-12	7.6	3352	3.00	72.0	8	10056	241344
14-0	5.0	2600	3.00	67.0	6	7800	174200

Table 6.10c: Cooperativa Minera de Las Dos Estrellas 92 to 139 of the 184 Drill Hole Results

Drill ID	Depth(m)	Tons	Au gr/ton	Ag gr/ton	Humidity	Gold(grams)	Silver(grams)
14-1	10.7	5564	2.50	83.0	6	13910	461812
14-2	10.2	5304	2.50	93.0	6	13260	493272
14-3	11.2	5824	2.50	93.0	8	14560	541632
14-4	11.5	5980	2.50	88.0	8	14950	526240
14-5	17.7	9204	2.50	63.0	6	23010	579852
14-6	18.3	9516	2.00	73.0	8	19032	694668
14-7	22.5	11700	2.50	58.0	8	29285	678600
14-8	14.7	7641	3.00	57.0	6	22923	435537
14-9	14.8	7696	2.00	68.0	8	15392	523328
14-10	16.0	8320	1.50	64.0	8	12480	532480
14-11	11.5	5980	2.00	58.0	9	11960	346840
14-12	8.0	4160	2.00	58.0	7	8320	241280
14-13	5.0	2600	2.50	83.0	4	6500	215800
15-1	5.4	2808	3.50	72.0	7	9828	202176
15-2	10.5	5460	3.00	82.0	8	16380	447720
15-3	12.0	6240	3.00	87.0	8	18720	542880
15-4	15.0	7800	3.00	82.0	8	23400	639600
15-5	16.5	8580	2.50	33.0	4	21450	283140
15-6	18.6	9776	3.00	77.0	8	29328	752752
15-7	20.1	10452	2.50	23.0	7	26130	240396
15-8	14.2	7384	2.50	78.0	7	18460	575952
15-9	14.0	7280	2.50	58.0	8	18222	422240
15-10	15.6	8112	3.00	72.0	8	24336	584064
15-11	9.6	4992	2.50	78.0	9	12480	389376
15-12	6.1	3172	3.00	72.0	8	9516	228384
16-2	5.0	2600	3.00	72.0	7	7800	187200
16-3	9.4	4688	3.00	82.0	8	14064	384416
16-4	12.1	6445	3.00	82.0	6	19335	528490
16-5	13.5	7176	3.00	82.0	6	21528	588432
16-6	15.5	8060	2.50	73.0	6	20150	588380
16-7	16.7	8684	2.75	82.0	7	23881	712088
16-8	13.0	6760	2.50	73.0	8	16900	493480
16-9	15.4	8008	2.50	53.0	6	20020	424424
16-10	14.5	7540	2.00	48.0	6	15080	361920
16-11	14.6	7592	3.00	87.0	8	22776	660504
16-12	12.3	6396	3.00	72.0	9	19188	460512
16-13	9.4	4888	3.00	82.0	8	14664	400816
17-3	5.1	2652	3.50	72.0	7	9282	190944
17-4	9.9	5149	3.50	87.0	9	18022	447963
17-5	11.1	5772	3.00	67.0	6	17316	386724
17-6	12.6	6552	2.75	82.0	6	18018	537264
17-7	14.1	7332	3.00	77.0	8	21996	564564
17-8	14.5	7540	3.00	77.0	7	22620	580580
17-9	15.8	8216	2.75	62.0	9	22594	509392
17-10	12.0	6240	2.50	58.0	6	15600	361920
17-11	12.2	6344	3.00	77.0	7	19032	488488
17-12	10.5	5460	3.00	62.0	9	16380	338520

Table 6.10d: Cooperativa Minera de Las Dos Estrellas 139 to 184 Drill Hole Results

Drill ID	Depth(m)	Tons	Au gr/ton	Ag gr/ton	Humidity	Gold(grams)	Silver(grams)
17-13	8.5	4120	3.00	47.0	9	12360	193640
18-4	4.0	2080	3.25	87.0	6	6760	180960
18-5	9.5	4940	2.50	73.0	6	12350	360620
18-6	11.0	5720	2.75	77.0	7	15730	440440
18-7	14.0	7280	2.75	72.0	6	20020	524160
18-8	16.8	8736	3.00	77.0	5	26208	672672
18-9	20.2	10504	2.75	62.0	9	28886	651248
18-10	13.6	7072	2.50	48.0	7	17680	339456
18-11	11.2	5324	2.50	58.0	6	13310	308792
18-12	10.5	5616	2.50	48.0	8	14040	269568
18-13	9.5	1940	2.50	48.0	8	4850	93120
19-4	6.0	3432	2.50	68.0	6	8580	233376
19-5	9.7	5044	3.00	82.0	7	15132	413608
19-6	12.5	6500	2.75	62.0	7	17875	403000
19-7	14.9	7748	3.00	87.0	6	23244	674076
19-8	17.2	8944	3.00	77.0	8	26832	688688
19-9	19.5	10140	3.00	87.0	6	30420	882180
19-10	20.0	10400	3.00	82.0	8	31200	852800
19-11	9.6	4992	2.50	58.0	9	12480	289536
19-12	6.7	3484	2.50	53.0	10	8710	184652
19-13	8.2	4264	2.50	48.0	9	10660	204672
20-4	5.0	2600	3.00	52.0	8	7800	135200
20-5	9.3	4836	2.50	73.0	9	12090	353028
20-6	15.3	7904	3.00	87.0	6	23712	687648
20-7	15.5	8060	3.00	82.0	8	24180	660920
20-8	17.1	8892	2.50	73.0	9	22230	649116
20-9	17.4	9048	3.00	72.0	7	27144	651456
20-10	19.5	10140	3.00	72.0	9	30420	730080
20-11	9.4	4888	2.50	58.0	8	12220	283504
20-12	8.3	4316	2.50	43.0	9	10790	185588
20-13	9.1	4732	2.50	68.0	8	11830	321776
21-5	8.5	4420	3.00	72.0	6	13260	318240
21-6	11.1	5772	3.00	72.0	7	17316	415584
21-7	10.6	5512	3.25	77.0	8	17914	424424
21-8	11.0	5720	2.75	87.0	7	15730	497640
21-9	12.5	6500	3.50	82.0	6	22750	533000
21-10	14.0	7290	3.00	89.0	8	21870	648810
21-11	9.0	4680	2.50	63.0	7	11700	294840
21-12	8.7	4524	2.00	45.0	9	9048	203580
22-5	4.0	2080	2.50	43.0	8	5200	89440
22-6	5.0	2600	3.00	47.0	8	7800	122200
22-7	4.5	2496	3.25	67.0	7	8112	167232
22-11	8.0	4160	2.50	53.0	7	10400	220480
22-12	8.4	4368	2.00	43.0	8	8736	187824
23-10	3.5	1794	2.25	48.0	7	4037	86112
23-11	8.0	4160	2.25	48.0	6	9360	199680
23-12	8.4	4368	2.50	48.0	8	10920	209664
<b>TOTALS</b>	<b>2156.8</b>	<b>1119420</b>	Average gold grams per tonne estimated at 2.71 g/t Au (compared to the 1950 estimate of 2.8 g/t Au) Average silver grams per tonne estimated at 73.11 g/t Ag (compared to the 1950 estimate of 75.00 g/t Ag)			<b>3031878</b>	<b>81840806</b>

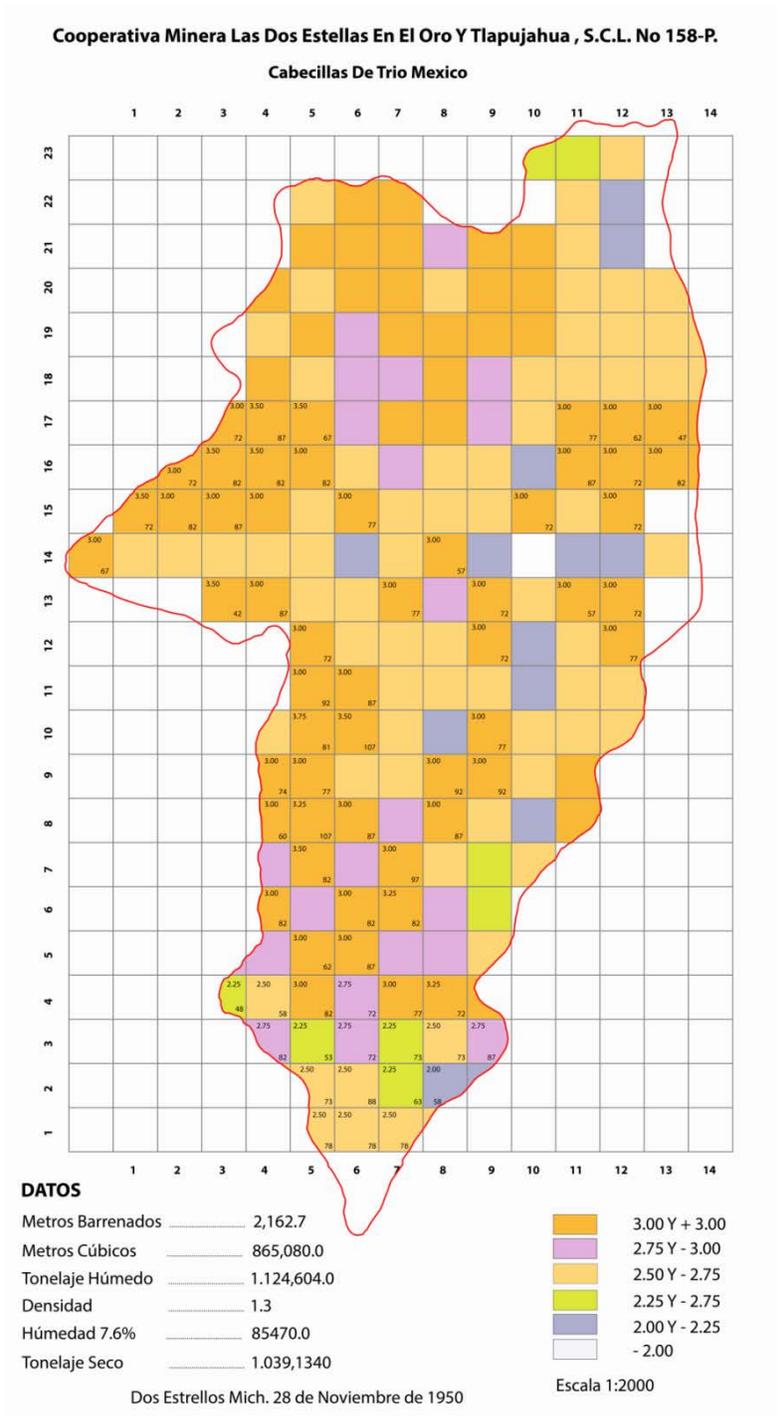


Figure 6.18: Results from the 184 Drill Sampling Program in 1951

### The 1980 Minera Mexico Michoacán 18 Infill Drill Verification Tailings Sampling Program

The 1980 Minera Mexico Michoacán Mexico Mine tailings re-calculation of the conceptual estimate can be found in Table 6.11 (*Mathis G. C., 1980*). As part of the re-calculation process Minera Mexico Michoacán drilled a total of 18 verification drill holes (Figure 6.19) in the tailings area and conducted detailed mineralogical studies (Table 6.12) in an effort to characterize the Tailings material as summarized under Section 6.6 of this report.

A summary of the various conceptual estimates can be found in Table 6.11 below.

Table 6.11: Summary Table of the Tailings Historic Conceptual Estimates

Company	Year	Method	Dry Tonnes	Au grams	Ag grams	Specific Gravity
Cooperativa Minera Las Dos Estrellas	1951	184 holes at 20 metres deep	1,039,134	2.75	75	1.27
Mountain States	1980	recalculation based on 184 holes	1,196,723	2.73	73.5	1.4
Minera Mexico Michoacán	1980	18 holes on 1x1 metres	1,073,011	2.73	73.5	1.4

*The author is not treating the above historical conceptual estimates as current mineral resources or mineral reserves. This estimation is conceptual in nature and should not be relied upon as insufficient drilling has been done to define an inferred mineral resource using CIM resource categories (CIM, Nov 2010). Further verification drilling using current NI 43-101 QA/QC standards, including a recalculation of the specific gravity and further metallurgical test work is required to identify, with more certainty, the quantity and grade of the reported estimation using today's standards. The homogenous nature of tailings, at least in a lateral sense, suggests that a small percentage of the tailings could be systematically verified in a grid drilling and sampling program such that continuity can be predicted with confidence and contained metals may be better known with a reasonable level of reliability. A qualified person has not done sufficient work to classify the historical estimate as current inferred mineral resources or mineral reserves, and the Company is not treating the historical estimate as current mineral resources or mineral reserves.*

*This tailings target may or may not be materially affected by scrutiny into environmental, permitting, legal, title, taxation, social political, marketing or other relevant issues in addition to a down-grading in quantity and grade with further drilling.*

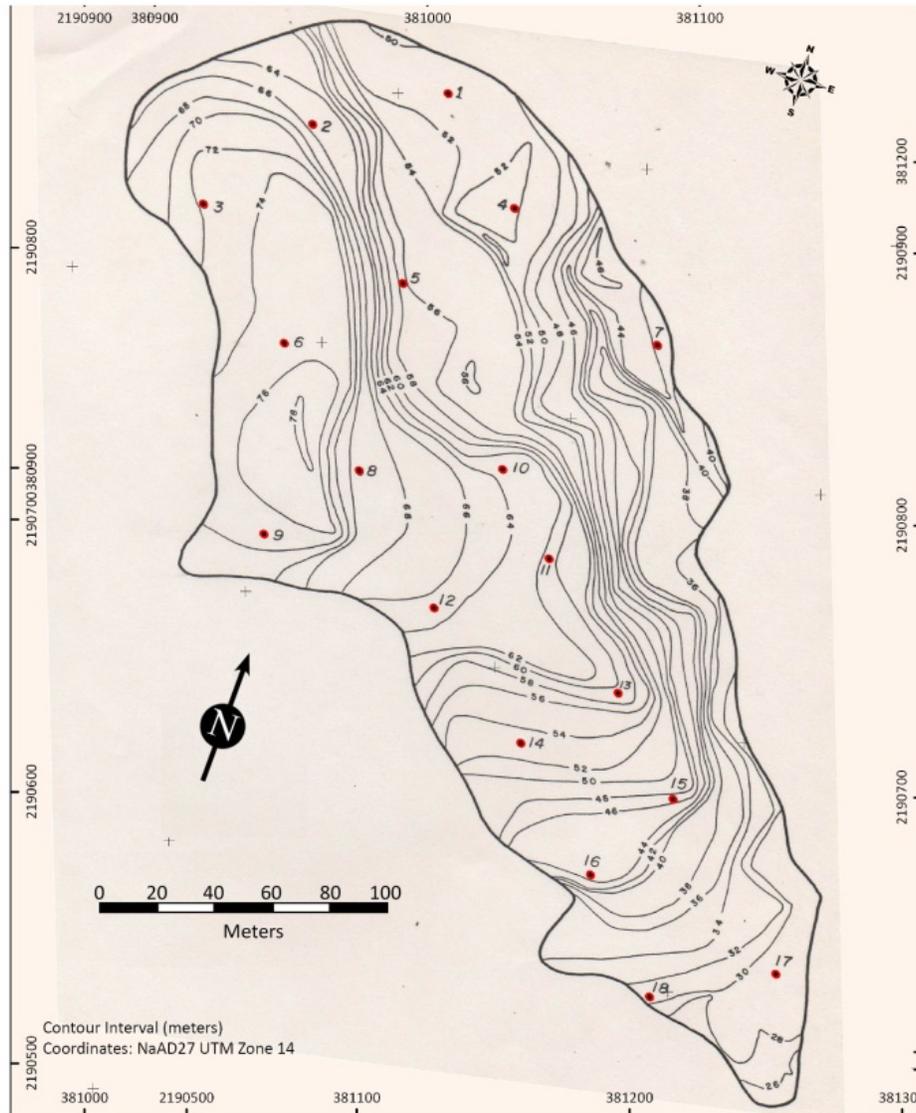


Table 6.12: Summary Table of the 1980 Minera Mexico Michoacán Holes

Hole No.	Tailings depth(m)	Tonnes Mined (1980)
1	13.00	18.2
2	19.00	26.6
3	15.00	21
4	11.00	15.4
5	15.00	21
6	15.00	21
7	7.80	10
8	20.60	28.8
9	11.20	15.6
10	23.70	33.1
11	17.80	24.9
12	21.50	30.1
13	26.50	37.1
14	14.50	20.2
15	21.00	29.4
16	14.20	19.8
17	4.00	5.6
18	2.50	3.5
<b>TOTAL</b>	<b>273.30</b>	<b>381.3</b>

Note: specific gravity factor used in calculation was 1.4

### The 1990, Luismin 22 Infill Drill Hole Verification Tailings Sampling Program

Luismin consolidated the existing El Oro mining concessions and acquired the rights to an additional number of claims covering both mining districts held under the National Mining Reserve from the Mexican government arm of “Servicio Geologico Mexicano (“SGM”) to create a single contiguous land package. This land package covered the Mexico Mine Tailings Deposit however, the rights to the tailings reverted to the holder of the surface rights being the Municipality of El Oro when the owner of the mine who produced the tailings gave up the mining rights.

In 1990, Luismin conducted a 22 drill hole verification program (Figure 6.20) to define the length, width and depth of the tailings deposit and to verify previous results described above. Luismin calculated a conceptual estimate of 800,000 to 839,774 tonnes grading between 2.60 to 2.93 grams per tonne gold and 80.00 to 89.00 grams per tonne silver. A total of 297.67 metres were drilled in 22 AQ diameters core holes with variable core recoveries. The total estimated precious metal content was approximately 79,099 ounces of gold and 2,403,858 ounces of silver (*Aguilar, J.L.P., 1990*).

The author is not treating the above historical conceptual estimates as current mineral resources or mineral reserves. This estimation is conceptual in nature and should not be relied upon as insufficient drilling has been done to define an inferred mineral resource using CIM resource categories (CIM, Nov 2010). Further verification drilling using current NI 43-101 QA/QC standards, including a recalculation of the specific gravity and further metallurgical test work is required to identify, with more certainty, the quantity and grade of the reported estimation using today's standards. The homogenous nature of tailings, at least in a lateral sense, suggests that a small percentage of the tailings could be systematically verified in a grid drilling and sampling program such that continuity can be predicted with confidence and contained metals may be better known with a reasonable level of reliability. A qualified person has not done sufficient work to classify the historical estimate as current inferred mineral resources or mineral reserves, and the Company is not treating the historical estimate as current mineral resources or mineral reserves.

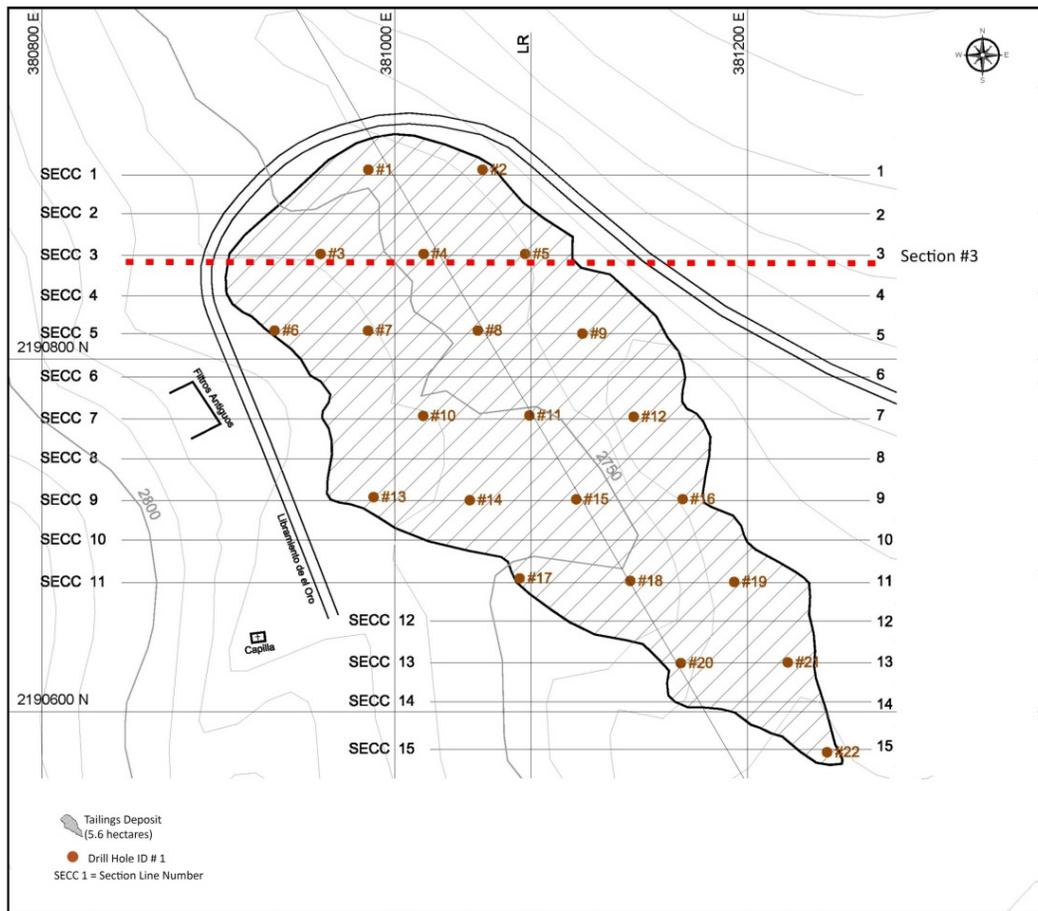


Figure 6.20: Plan Map Showing the 1990 Locations of the 22 Drill Holes by Luismin

The 22 drill holes depicted in Figure 6.20 and in Table 6.13 were drilled on roughly equally - spaced centers over the areal extent of the 5.6 hectare tailings deposit. According to the 1990 Luismin program, the tailings deposit varies in thickness from 5 to 27 metres. Significant erosion has occurred over the years from rain-induced wash-outs.

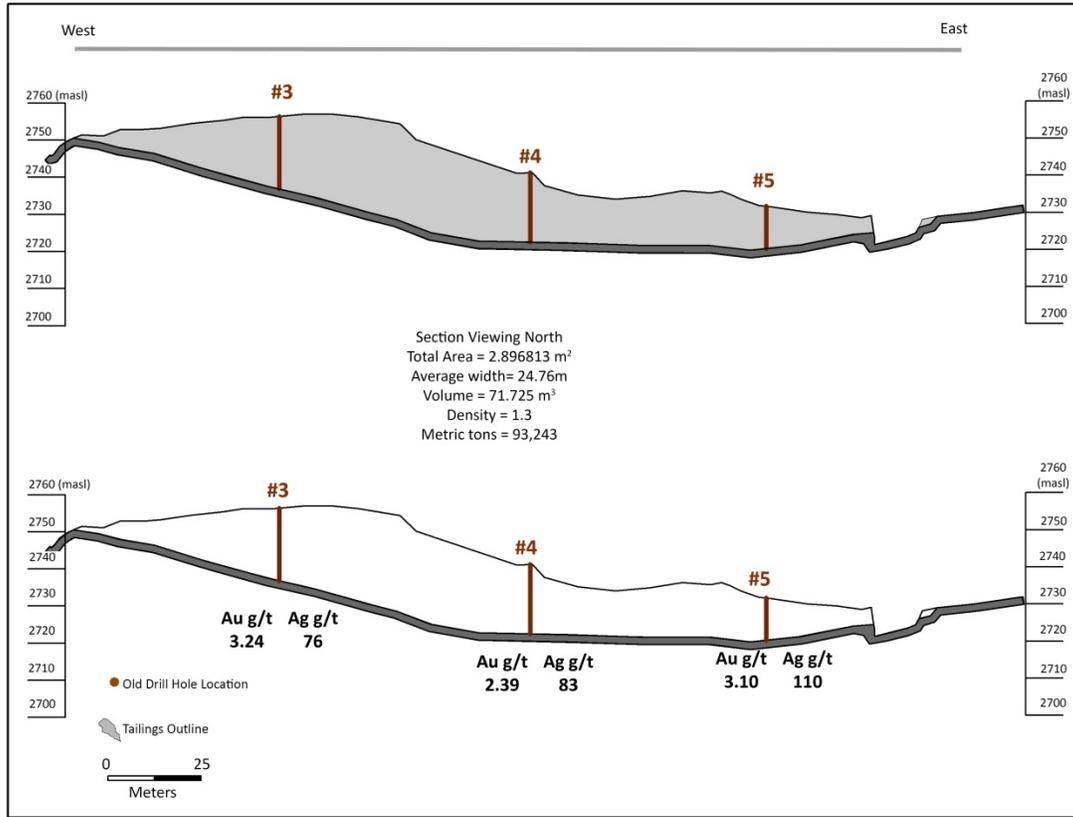


Figure 6.21: Section #3 Showing the Locations of Holes #3, #4 and #5 by Luismin 1990

Table 6.13: Results of the 22 Holes Luismin 1990 Tailings Sampling Program

Hole No.	Tailings depth(m)	Gold (gr/ton)	Silver (gr/ton)
1	12.09	2.09	64.0
2	9.02	2.16	51.0
3*	19.89	3.24	76.0
4*	18.38	2.39	83.0
5*	11.88	3.10	110.0
6	8.14	3.81	113.0
7	21.48	2.82	77.0
8	18.09	2.74	85.0
9	11.70	2.68	89.0
10	19.33	2.81	100.0
11	27.85	2.88	92.0
12	9.59	3.41	95.0
13	17.60	3.23	102.0
14	9.75	3.33	96.0
15	25.04	3.17	95.0
16	19.69	2.82	98.0
17	1.17	3.65	90.0
18	17.12	3.27	88.0
19	5.70	2.64	74.0
20	9.00	3.00	88.0
21	4.27	3.14	104.0
22	0.90	2.50	70.0
<b>TOTAL</b>	<b>297.67</b>	<b>2.93</b>	<b>89.0</b>

#### 6.4.4 Federal Commission Review in 1937 - Cooperative Las Dos Estrellas (as translated)

The following summary is from “*Comisión Investigadora de las Condiciones Económicas de la Compañía Las Dos Estrellas-Programas de Obras de Exploración* by (Antúnez E. et. al. 1937) a commission of the Federal Government of Mexico that was asked to review and recommend work programs for the mines owned by the Dos Estrellas Cooperative. This report describes detailed vein target orientations, geometries, mineralogy, and grades from a geological review of each of the higher priority precious metal veins as well as detailed recommendations for further developments to further economic exploitation of these veins.

The main lithologies in the hanging-wall and footwalls of the San Rafael and Verde veins include: shale, pre-mineral andesite porphyry and rhyolite porphyry with all lithologies severely affected by faulting. Faulting has offset veins both in a horizontal and vertical sense on multiple mine levels. As an example at the Mexico Mine North Shaft, the San Rafael vein has had up to 260 metres of vertical displacement.

The district is defined by multiple NNW trending vein-faults hosting banded quartz veins indicative of long-lived multiple mineralization pulses. On surface post mineral andesite dykes, mineralogically similar to the post mineral andesite cap that now covers the blind veins in the El Oro District, crosscut older fracture planes in the vicinity of veins. When viewing a NNW trending longitudinal section along the San Rafael vein, normal down-to-north fault offsets on easterly cross faults have displaced the vein vertically to depth in both horizontal and vertical displacements of 30, 40 and 120 metres respectively. The post mineral andesite cap has been locally offset up to 30 metres and is contact with the South Fault of the Dos Estrellas Mine indicating that the easterly transverse faults have had continuous movement over the history of the system. The vein faults were active before, during and after, the emplacement of the post mineral andesite cap.

The host rock shales are highly plastic relative to the brittle andesite porphyry and rhyolite porphyry intrusive rocks having focussed mineralization in dilational cavities near at lithologic contacts in planes of pre-existing weakness (the vein faults). The vein faults, fractures, vein branches and sub-parallel veins locally coalesce into extensive horse-tailed complex structural zones. The vein widths, textures, grades and ore-gangue mineralogy varies along-strike and down-dip transitioning from brecciated horse-tail structural zones to narrow vein faults reduced to a single fracture plane in shales at depth. Mineralization styles vary along the trace of the veins from banded, to disseminate both within and outside of the veins to much wider vein breccias.. The gold-silver-arsenic vein grades typically decrease with depth. There is a severe lack of geological and structural data in the mines outside of basic geologic mapping by Flores (1920) and Lindgren (1925).

The Commission proposed a work program to assess whether or not the San Rafael vein system persists to the east. The hydrothermal source of both the San Rafael and Verde was deemed to lie between San Rafael and the Verde veins. The first veins in the region were discovered in structural windows on surface to the east and west of these larger veins at San Rafael and Verde.

The San Rafael vein is the most important producer in El Oro Mining District both for grades and strike length. On the 5<sup>th</sup> level of the Esperanza Mine the vein is 20 metres in width, however the width varies both along-strike and at-depth. In the upper levels of the Esperanza and the Mexico mines, the vein varies in width from 20 to 40 metres, decreasing to 5 metres at its deepest part. The San Rafael vein is persistent along strike and was recognized in the El Oro Mining District to have a strike length of 3.0 km from the

boundary of Cometa de Oro Property to the No. 2 Shaft of the El Oro Mining & Railway Co., southward where it divides into two branches.

*San Rafael Vein-El Oro Mining & Railway Co. Mine (as translated)*

- San Rafael-El Oro Mining & Railway Co. (“EOM&R”) vein segment is persistent to depth and retains a constant vein dip estimated to average 70°SW.
- The footwall of the vein widens and narrows both along-strike and down-dip creating geometry of an elongated lens.
- The San Rafael Vein-EOM&R has several vein branches in both the hanging-wall and footwall with the same characteristics as the main vein. These veins are Veta Sulfurosa, Veta del Alto, Veta del Bajo, and Veta Oriente.
- The predominant internal structure of the vein filling is fine, parallel bands with comb-texture quartz infilling cavities.
- The vein-fill is much more compact at lower levels and is strongly leached and oxidized in the upper mine levels. No significant changes were observed in the nature of the vein-filling in differing host rocks.
- The matrix of these veins consists entirely of white quartz; and in other more oxidized sections, the vein has a sandy, granular and cellular texture.
- The ore in the oxidation zone consists mainly of native gold and native silver, rarely accompanied by argentite as well as secondary minerals including limonite, hematite and manganese oxide.
- Vein sulphide mineralogy is pyrite, chalcopyrite, marcasite and sphalerite. The ore consists of native gold that occurs microscopically along the cleavage planes of pyrite. The silver is in the form of argentite, pyrargyrite, proustite and stephanite.

*San Rafael-Esperanza Mine (as translated)*

- The San Rafael vein at Esperanza reached a maximum width of 70 metres within this mine however; the grades were located in two narrow ore-bodies located in the hanging-wall and the footwall of the much wider main vein.
- The Esperanza Mine has 17 mine levels spaced approximately 30 metres or 100 feet apart, excluding the intermediate levels 8<sup>th</sup> and 9<sup>th</sup> spaced 22.5 metres (75 feet) from the level immediately above them. The lowest level of the Esperanza Mine is the 15<sup>th</sup> Level, which reached a depth of 171.9 metres (564 feet) below the South Shaft (Tiro Sur).
- The San Rafael vein, between the post mineral andesite cap and Level -135 (6<sup>th</sup> Level) was exploited by the Esperanza Mining Co.
- In the hanging-wall of the San Rafael vein, the high grade Oriente Vein was found.
- In the footwall of the San Rafael vein the high grade silver-rich Descubridora vein was found on the 3rd level, south of the Esperanza Fault.

*San Rafael-Mexico Mine (as translated)*

- The depth of the San Rafael vein is not known however, exploration in the Mexico Mine was done via an inclined Shaft #23 that did not cut the vein, potentially due to an insufficient length. The vein dip varies between 16 ° and 19 ° changing to 40 ° to the southwest.
- Above the 3rd Mine Level, high grade silver mineralization was found comprised of silver sulphides and sulfo-antimonides.

- According to data collected by the Commission, the best grades on the San Rafael Vein were found between the 4<sup>th</sup> and 8<sup>th</sup> mine levels of the Mexico Mine (75 to 175 metres below the Dos Estrellas Tunnel)
- On the 9<sup>th</sup> level, most of the vein was barren, and only short sections had mineable values near a backrest. The mineralization was mineable up to the 11<sup>th</sup> Level however, below this level, the grades were lower with narrow mineralized sections measuring 50 metres in length near the limit with the Esperanza Mine..
- At the lower mine levels only short, scattered and isolated values were found deeming the Mexico Mine uneconomic at the 1937 metal prices of USD\$34.79 per ounce of gold (*source: World Gold Council Timothy Green's Historic Gold Price Table*)
- The northern extension of the San Rafael vein was inconsistently explored on the Cometa de Oro property on Levels 3 and 6 that were extended to the north in the Mexico Mine,
- The San Rafael vein in the Mexico Mine was sterile from the northern boundary of the Esperanza Mine for a distance of 250 metres to the southern property boundary. .
- After the barren 250-metre segment, the vein was well mineralized from this point up to the Cometa de Oro fault (Golden Comet Fault).
- Higher grades of gold and silver were found on the 3<sup>rd</sup> to the 6<sup>th</sup> levels, which was exploited completely by the Mexico Mines of El Oro.

The 1937 Commission described the San Rafael vein, “*as a wide mineralized vein with ore shoots of great economic potential. In 1937, the vein still contained significant reserves of low-grade ore that could be mined by using more efficient mining methods in conjunction with, the mining of higher grades from the veins remaining in the hanging-wall and footwall of the main San Rafael ore shoot as well as targeting the veins between the San Rafael and the Verde vein*”.

The commission believed that future exploration should include exploration north of the Cometa de Oro Fault on the San Rafael vein where the strike and dip of the vein is unknown. The Del Poniente Vein (the west vein) located in the hanging-wall of the San Rafael vein has similar vein characteristics as the San Rafael vein segment to the north. The Del Poniente vein had very high grade areas between Levels 4 and 6, however below Level 6 the grades decreased to the 9<sup>th</sup> level. The grades in Veta Sulphurous had magnificent grades both in the Esperanza and the Mexico Mines, between Levels 7 and 11. The well mineralized Veta Sulphurous had the best grades on the 6<sup>th</sup> level, gradually decreasing in grade down to the 9<sup>th</sup> level. Although the best grades were exploited in the past, the Commission recommended exploring the small veinlets that exist in the hanging-wall and footwall via crosscuts and methodically mining all the pillars, back-fill and stope-fill of remnant un-mined mineralization.

In a quote by the Directors of the Mexico of El Oro Mining Ltd., as presented to the General Assembly of Shareholders for the year ending June 30, 1923, on page 12 of the report: *"The results of the operation of the Veta Poniente (West Vein) on the Nolan property, were more than satisfactory since a value of USD\$1,000,000 of ore was exported during the reporting year and the amount of remnant mineralization defined ending the year was estimated at USD\$535,000 (gold price of approx. USD\$21.32/oz from <http://www.nma.org/pdf/gold/pdf>).*

San Rafael-Nolan Mine (as translated)

- In the Nolan Mines No. 1, No. 2 and No. 3, the San Rafael Vein was first intersected at a depth of 513 metres below the surface by a crosscut to the East on the 483 foot level in the Nolan shaft. The San Rafael vein had a width of 21 metres, including some intermediate shale lenses up to 2.50 metres thick.
- The direction of the vein in this mine is 225Az. varying in dip between 55 to and 60° to the SW. The vein is infilled by quartz, trace pyrite and iron oxide.
- At the top of the San Rafael vein, there are a series of smaller veins, one of which was called the Nolan Vein, characterized by higher sulphide content including pyrite with higher gold and silver values. As of 1937, the other smaller veins had very little exploration to date.
- In the Nolan Mine, a hornblende-pyroxene andesite intrusion was cut at depth in the shaft with similar petrographic characteristics as the post mineral andesite cap exposed at surface. The andesite intrusion at depth was cut by rhyolite porphyry dykes in the mine.

The Nolan Vein (as translated)

The Nolan Vein is located approximately 210 metres west in the hanging-wall of the main San Rafael vein, and was cut on Level -30m of the Nolan shaft. The Nolan vein is an ore shoot that varies in width from 0.30 to 2.5 metres. The strike of the vein is parallel to the San Rafael vein, although to the north near the Nolan shaft, it tends to drift westward. The host rock in the south, in both backrests is rhyolitic porphyry, but in the northern part of the face of the -30m level, at a distance of 225 metres south from the Nolan shaft, the host rock is carbonaceous shales.

The Nolan vein is comprised of 3 orebodies or vein seams called the Nolan No.1, No.2 and No.3 characterized by high gold and silver grades. The Nolan No. 1 seam is the highest grade and is characterized by in-filling of compact quartz bands with abundant pyrite, silver sulphide and native gold. Exposure to groundwater along the andesite cap resulted in near surface oxidation of the sulphidic massive quartz vein resulting in limonite, and quartz with crystals of secondary oxidized pyrite with native gold.

The Commission recommended the following work program on the Nolan Vein:

1. Develop new levels above Level 0m along the entire length of the vein discovered to date, up to the upper contact with the post mineral andesite cap
2. Open a shaft between level 0m and the andesite cap
3. Develop the southern front on Level -130m via the Nolan shaft to the southern limit of this ore shoot.
4. Open shafts between Levels -130m and -100m.
5. The Nolan vein is completely unknown to the north; two veinlets were cut on Levels -30m and -45m with a width of .10 to .25 m with very high grades of gold and silver at the height of the Nolan vein on Level -30m of the Nolan Shaft. This vein should be explored both along-strike and down-dip.

Amarilla Vein (as translated)

- The Verde and the Amarilla veins were intersected approximately 252 metres to the east along the El Cedro Adit. The vein strikes 168Az and dips from 65 to 70°SW on Level

0m, locally decreasing in dip to 50° SW on Levels -30m to -100m and has a variable width of 0.70 to 2.5 metres.

- The Amarilla vein is comprised of compact to locally quartz-limonite box-work infilled with native gold and argentiferous silver.
- This vein had remarkably high gold to silver ratios such that the gold content was higher than silver in most of the samples taken by the Commission in 1937.
- This vein was recognized on Levels 0m, -30m and -100m where the strike length was over 330 metres.
- The vein is underexplored to the north and south of known mineralization.

The Commission recommended the following work program on the Amarilla Vein:

1. Explore the -100m level by means of a forehead in the south of Shaft No. 75, for a length of 165 metres.
2. Extend the face to the north on Level -100m over a length of 75 metres.
3. Extend Shafts #195, #130, and #75, below the -100m level to the depth of Level -135.
4. Use the internal inclined shafts used for ventilation indicated in 3 to advance the face to the north and south, in order to develop Level -135m for a distance of 360 metres.
5. From inclined Shaft# 75, open Level -60m for a distance of 165 metres and develop 30 x 30 metre shafts to transport ore on Levels -30m and -100m levels.

*Narrow Vein in the Hanging-wall of the Somera Vein (Hilo del Bajo of Somera Vein) as translated)*

- The Somera vein is located 850 metres to the east from the entrance of the Dos Estrellas adit between the Verde and San Rafael veins.
- The vein ranges in width from 0.15 to 3.0 metres and strikes from 175 to 155Az and dips to the SW.
- The vein has consistent gold and silver grades from Level 0m to Level -60m and was developed all levels, both north and south of the crosscut at Shaft# 8.
- The grades fluctuated from 1.0 to 34.0 grams per tonne gold and 47.0 to 1382.0 grams per tonne silver.
- The Somera Vein is silver-rich with abundant silver sulphides in seams and as disseminations.
- Most of the economically feasible veins continued up to the -60m level outside of isolated pillars that continue to depth.
- The Somera Fault is exploited by a rhyolite porphyry intrusion on Level 0m similar to the felsic intrusions at the San Rafael vein. The rhyolite porphyry hosts quartz veins varying in width between 0.10 and 0.40 metres returning gold grades up to 3 grams per tonne gold and up to 57 grams per tonne silver.

The Commission recommended the following work program on the Hilo del Bajo of Somera Vein: Work is proposed on veins within the rhyolite body, in particular the wider veins with higher gold and silver grades.

1. North of fault, proceed along a crosscut to the Oriente vein to define potential parallel veins to the Somera veins.
2. Develop the mineralized quartz-veined rhyolite porphyry selecting those veins within the porphyry that have the highest values.

The Commission recommended the following work program on the Somera Vein:

The Somera vein can be followed for a distance of 70 metres to a region near to the contact with the upper post mineral andesite cap on Level 0m.

1. Develop the North Front on Level 0m to the Somera Fault
2. Develop the North Front on Level -60m to the Somera Fault
3. Open the vein on Levels -30m, +30m and +60m and develop internal ventilation shafts to block-out the mineralization.

*Vein in the Footwall of Vein E (Hilo del Bajo Veta E) as translated)*

- This vein was intersected approximately 660 metres east of the Verde Vein in the Dos Estrellas adit.
- Veta E or the Vein E is divided into 3 different orebodies including: Vein E; vein in the hanging-wall of Vein E (Hilo del Bajo Vein E); and the vein in the footwall of Vein E (Hilo del Alto of Vein E).
- The vein in the footwall of Vein E is well established and widest on Levels -60m and +30m with a variable width of 0.35 to 1.50 metres; and varies in strike from 175 and 155Az and the dips to the SW.
- This vein is located in a zone of intense fracturing where further exploration is warranted.
- The character of this vein is silver-rich with the best mineralization was found in a series of high grade gold-rich pockets in both the hanging-wall and footwall where gold-rich sands totaling 5,000 kg gold and 85 kg of gold were recovered.

The Commission recommended the following work program on the Hilo del Bajo de la Veta E:

1. Advance the North front from level +72m for 152 metres to investigate the vein to the north of the fault.
2. Continue the advancement along the Southern Front for 330 metres to the east to the boundary of the ground owned by El Oro Mining & Railway Co.
3. Explore the vein at depth on Levels -30m and -60m, between crosscut #520 and the above the boundary with El Oro Mining & Railway Co.
4. Develop the internal shafts and inclines for ventilation, exploration and access to move the ore from one level to another without transportation wagons and other facilities.

*Vein E (Veta E) as translated)*

Veta E belonged to the El Oro Mining & Railway Co, and was called the Somera No. 1 vein.

The Commission recommended the following work program on Veta E:

1. Continue exploration of the vein to the south of Hole 312 to the El Oro Mining & Railway Co. claim boundary on mine levels -30 m and -60 m. A zone measuring 180 metres between Vein E and the El Cedro Adit is very important due to a zone of extensive fracturing and branching of the veins similar to those at Shaft 312 where impressive economic values occur; in addition, a mineralized cross fault in this area suggests an extension is required on the fronts of Levels -30 m and -60 m to the south of Shaft 312 to the boundary with El Oro Mining & Railway.
2. Develop a crosscut on the North front of Level -60m by Shaft #312, in order to investigate the vein between the internal inclined shaft at 440 and the well at 570 on Level -30 m.
3. Extend the North front of Level -60 m from the well at #570 for a distance of 260 metres to the North of Adit El Cedro.
4. Extend the North of Socavon del Cedro for a distance of 225 metres to the Hilo veins, past the division at 1900 North. The vein that was cut on Level -30m, does not correspond to the one that was assumed to be Vein E, therefore it is recommended that a crosscut be developed west for a distance of 30 metres.
5. Two smaller veins exist underneath Shaft #312 of Socavon del Cedro that had not been identified on Levels -30 m and -60 m so it was recommended to crosscut to the east, to identify Vein E at its starting point for future exploration of these smaller veins.
6. In crosscut # 406, between Veta E and Hilo del Alto, and west of that vein, the veins have not been fully explored with impressive widths between 0.40 to 1.0 metres. Advancements of the fronts is recommended in this area.

Vein in the Hanging-wall of Vein E (Hilo del Alto de la Veta "E") as translated

The Commission recommended the following work program on the Hilo del Alto de la Veta E:

1. Develop the South front by crosscut #180 on Levels 0m, -30m and -60m from the present top, to the limit of the claims owned by Oro Mining & Railway Co.
2. Explore via a North front from crosscut # 180 of Hilo del Alto of the Vein E, between the crosscut and the vertical of Cedro Adit on Level -60m.
3. Explore Levels +30m and +72m in the north region north of the fault.
4. Explore the vein to the north of the Cedro Adit by a front to probe the continuity of this ore shoot.

Vein D (Veta D) as translated)

Veta D is located 530 metres under the Verde Vein and was found by continuing the Dos Estrellas Adit to the east and is part of the narrow vein between the first of the listed ore shoots and the San Rafael Vein.

Veta D varies in strike from 345 to 330° and ranges in width from 0.30 to 1.50 metres and dips 50° to 65° to the SW. Mineralization is characterized by argentiferous gold, however in a vein in the hanging-wall of Vein D, there was a notable enrichment in silver grades. Vein D congregates south along Adit#180 and was separated again north of this adit, such that further exploration is warranted at depth

The Commission recommended the following work program on the Vein D:

1. Explore this vein through fronts on Levels 0m, +30m and +32m, north of the #180 crosscut.
2. Extend the Northern and Southern fronts in the Cedro Adit to check the continuity of this vein and mineralization along strike.
3. Search for the same vein through -30m and -60m levels in the North Cedro mine.

*Vein C (Veta C) as translated*

Veta C is located 445 metres to the east of the Verde Vein along the Dos Estrellas adit; measures 0.10 to 0.30 metres in width; and has high gold and silver grades. Veta C had both the north and south faces opened up for a total length of 105 metres, and a small well and inclined shaft measuring 10m<sup>2</sup>. Veta C is silver-rich and is remarkably similar to Veta E.

The Commission recommended the following work program on the Vein C:

1. Extend the North Face to connect to the face of the Alto de la Veta D at Level 0 m.
2. Develop areas where the vein is widest and better mineralized by inclined shafts and wells from Level 0 m in order to explore the vein, both up-dip and down-dip.
3. Upon reaching the inclined shafts/proposed wells and the corresponding Levels -30 m, -60 m, +30 m and +60 m faces to open development to the North and to the South to investigate the mineralization.

*Vein A and Vein B (Veta A and Veta B) as translated*

Veta A and Veta B are gold and silver rich veins located to the east of Veta Amparo. The veins were first explored primarily between Levels +36 m and Level +72 m. The region between the North Crosscut #60 on Level +36 m and the vertical Crosscut #220 on Level +30 m, and the area between +36m level and the contact with the overlying post mineral andesite cap was developed. The mineralization is offset locally down-to-the-north and the amount of enrichment has a close relationship with the distance from the post mineral andesite cap.

The Commission recommended the following work program on the Vein A and Vein B:

1. Develop the north face to the NW along the North Crosscut #60 on Level +36m over a distance of 260 metres.
2. Open an Intermediate Level on the vein between Level +36m and the contact with the overlying post mineral andesite cap.

*Amparo Vein (Veta Amparo) as translated*

- This vein is located approximately 220 metres at the east of Veta Verde at the same level as the Socavon Dos Estrellas.
- Veta Amparo has an azimuth of 340° to 345° and is almost vertical with a vein thickness of 1.5 to 7.0 metres.

- When veinlets occur in the hanging-wall, the main structures form the thickest part of the vein within a wider horsetail structures.
- Previous exploration on Levels +35m and +72m indicated that the best grades were located between Level +36m and the contact with the post mineral andesite cap between the segments of internal Shaft #68S and Shaft #175N, also on Level +72 m between the internal Shaft #175N and the fault located Shafts #4 and #5.
- The development on Level 0 m along the N and S extension of the vein recovered lower grades.
- The grades of the Amparo Vein, at the lower levels, are unknown along strike to the north and south due to a lack of exploration. The north and south extensions of Level 0m at 300 metres along Socavon Cedro have not been explored.
- The mineralization is mainly micron-size native gold and silver sulfides.
- The only section where the Amparo Vein was argentiferous in samples taken by the Commission, were located between Shafts #4 and Shaft #5
- Iron Oxides including limonite, pyrolusite, are more abundant on the upper levels close to the contact with the post mineral andesite.
- Vein filling is comprised of sugary silica and crystalline quartz with pervasive iron oxides, calcite crystals with rare siderite, rhodochrosite and rhodonite. The veins do not have fluorite.

The Commission recommended the following work program on the Amparo Vein:

1. Develop the North front at Level +36m, along the fault between shafts #4 and #5 until the vertical extension of the level of the Socavon Cedro.
2. Develop several internal shafts separated by 30 metres for exploration from level +36m along the development that was proposed in the previous subsections.
3. Develop the North front on Level 0m from Socavon Dos Estrellas to Socavon Cedros.
4. Develop the South front on Level 0m from Socavon Dos Estrellas until the South fault.
5. Develop Veta Amparo on Levels +36m, +72m and +100m to the south direction to internal shaft #68S and the faulted area.
6. Develop a few exploration shafts where the best grades are located along the south front at the level of Socavon Cedro to lower levels.
7. Develop from Level 0m to the Lower Levels -30m and -60m and based on the results of the previous subsection VI follow and develop the Amparo Vein.

### Verde Vein as translated

The Verde Vein is the second most important historic production vein in the El Oro Mining District. The vein has a maximum thickness of 40 metres along the SW fault; has a strike of 155° Az and dips between 50 to 65° at the SW. The vein has a minimum thickness of 2.0 metres at the far northern end and a width of 1.5 metres at the furthest southern end of the vein.

The Verde Vein can be traced along strike for 1.9 km and was exploited to a known depth of 610 metres on 17 mine levels including: +160m, +120m, +100m, +90m, +72m, +36m, +30m, +0m, -30m, -60m, -90m, -120m, -140m, -150m, -210m, -300m, and -450m.

The underground development was accessed by the following external shafts: Tiro Sur #1, Shaft #3, Shaft #4, Shaft #5, Shaft #8, South Shaft Esperanza (this shaft was used for ore, supplies, timbers and personnel transportation from the lower levels to Level 0m), North Shaft Esperanza (Chuparrosha Shaft), North Shaft and South Shaft from the Mexico Mine (were used as ventilation shafts), Nolan Shaft (was used for ventilation, ore, supplies, timber and personal to levels below Level 0m). The Dos Estrellas and El Cedro Adits are referenced as Level 0m and have good access with the Nolan Mine, Mexico Mine and the Esperanza mine and were used to develop levels: +160m, +120m, +90m, +72m, +36m, -30m, and -60m.

The Verde Vein has approximately the same strike as the San Rafael vein with several smaller veins in the hanging-wall and footwall. The Verde vein pinches and swells until at some point the solid vein disappears in the south and in the north where its only trace is centimeter wide veins in brecciated horsetail structures. At depth, in the hanging-wall, the Verde vein divides into several different horse-tailed veins within strongly altered and brecciated host rock shales.

The Verde vein-filling is extremely variable depending on the level of the vein. At the upper elevation levels, the vein is extremely oxidized with red, yellow and green bands of quartz with pervasive limonite(s) and malachite. Some vein sections are comprised of sugary, massive, and pitted textured quartz.

At the northern extreme of Verde vein, between levels 0m, -30m, and -60m, the vein has a soft, sugary, sandy texture with a strong yellow color and contains abundant pyrite and disseminated marcasite. At the southern end of the mine the vein has the same characteristics as the Northern end with quartz, pyrite and abundant marcasite.

At the upper mine levels strong oxidation produced native gold and silver as sheets and fracture fillings locally up to 10 metres into the surrounding shale wall rock. The ore is characterized by free micron-sized gold, native silver with quartz, limonite and silver sulphides.

### Verde Vein Structure

The Verde Vein and the surrounding veins are both vertically and laterally offset by several Miocene-age post mineral fault displacements. The slicken-sided vein walls of the host rocks show evidence of multiple displacement events of differing ages and differing orientations. There are at least 8 major faults in the district that have affected the Verde and related veins. Four of these faults from NW to SE include:

**Fault No.1:** is a reverse fault (267/85°N) located at the south side of Shaft #211 that was cut by crosscut #231 and displaces the Blanca Vein, Verde Vein, Colorada Vein, Nueva Vein, Del Salto Vein and Fault B.

Fault A: an easterly trending, north-dipping reverse fault. The distance between Fault A and Fault B on Level 0m is 33 meters where the Verde Vein has a maximum thickness of 20 metres. Veta Nueva is in faulted contact with Fault B at the southern end of Veta Verde. The Verde vein has had 40 metres of sinistral horizontal displacement to the West between Shafts #4 and #5.

Fault 180: displaces the Verde vein 11.5 metres to the west. Another fault located 40 metres to the North of Shaft #280, has displaced the Verde vein by 4.2 metres to the West; another Fault located 29 metres to the South of Shaft #415 vertically drops the Verde Vein 5 metres and to the west.

The Commission recommended the following work program on the Verde Vein:

South Verde Region:

1. Develop the fronts of the Verde Vein to the South on Mine Levels +72m, +60m, +30m, 0m and Level -30m from Shaft #1 (South Shaft) for 150 metres with the objective of cutting the remnant mineralization.
2. Develop the North Front from Shaft #225 at level -90m for 410 meters and develop several exploration shafts every 30 metres to define the Verde Vein and define the ore in this region by using the internal access Shaft #75.

North Verde Region:

1. Develop a front along strike in the North direction between the internal Shaft #1270 and Shaft #100 on Level 90m to the deepest development.
2. From the development above, develop several exploration shafts every 30 metres to provide access between Levels -60m and Level -90m.
3. Continue to develop the deeper levels in Shaft #2 on Level -160m until Level -140m. Once the miners hit Level -140m develop the fronts along Verde Vein every 50 metres in a North and South direction.
4. Develop the Shafts #1980, Shaft #2 and Shaft #195 until Level -140m then open fronts in both the North and South directions.

White Vein (Veta Blanca) as translated

This vein is part of one of the vein-splits in the hanging-wall of the Verde Vein. The Verde and Blanca veins merge back together on Levels +72m at 77.0 metres to the North of the El Oro boundary. Veta Blanca can also be observed on Level +36m at 8 metres from the internal Shaft #165, finally the intersection of both veins can be observed on Level 0m at 58.0 metres to the south of the Internal Shaft #165. The intersection of the Verde and Blanca veins to the Southwest, is in the same dip direction as the main veins. The Blanca Vein has a maximum width of 9 metres on Level +120m and a minimum width of 1.0 metre with an azimuth 190 to 198° dipping between 65° to 85° to the SW.

The Blanca Vein is comprised of bands of white quartz with very fine bands of yellow quartz and pervasive limonite with calcite crystals that in-fill open spaces. Typically, quartz predominates over calcite, however where calcite is dominant, the vein is a milky white color. The quartz-calcite veins typically are alternating white, yellow and red bands.

The Blanca vein is a gold-argentiferous vein structure comprised of micron-sized gold with related iron oxides. The silver values occur as silver sulfides ( $\text{Ag}_2\text{S}$ ), and locally as native silver in sheets, and along fractures most common on Level +120m just below the post mineral andesite cap. Gold values occur as micron-sized particles with iron oxides.

Historic developments mined most of the known contained ore in the Blanca and Verde veins. Future exploration and exploitation development work is limited to the south of Internal Shaft #165.

The Commission recommended the following work program on the Blanca Vein:

1. Develop the North Front between internal shaft #250 and #90 at Level +36m and connect this front with the old development that was mining the ore from this vein.
2. Develop an internal exploration between internal shafts #250 and #395 on levels +36m and +72m.
3. Develop Veta Blanca 300 metres with a south front from Level 0m (the Dos Estrellas Adit).
4. Develop the previous subsection with several exploration shafts every 30 metres at the deepest of level +36m.

#### Veta Colorada (Perdida Vein) as translated

Veta Colorada lies in the hanging-wall between the Verde and Nueva Veins in the last 30 metres to the West, South from Fault A and North from Fault B. The vein strikes  $164/76^\circ$  SW with an average width of 2.2 metres. Near the contact with the overlying post mineral andesite cap, the dip of the vein is steep to near vertical.

The vein texture is similar to that at Verde with bands of sugary quartz alternating with compact quartz and red iron oxides. The vein is auriferous and far less argentiferous with gold grades between 40 to 50 grams per tonne gold near the upper apical portions of the vein near the post mineral andesite. At depth, the gold grades decrease significantly to 12 to 15 grams per tonne gold.

The Commission recommends the following work program on Veta Colorada:

#### South Colorada Vein Region:

1. Develop the front for 100 metres at the South from cross cut #255 on Level +36m along the vein. Develop internal exploration shafts at Levels +36m and +72m spaced every 30 metres.

2. Develop an exploration front from cross cut #75 at Level 0m along the vein for a distance of 200 metres and make exploration shafts every 30 metres to the deepest Level at +36m.

#### North Fault Region:

1. Develop the North front for 60 metres from crosscut #282 and connect to the front South of cross cut #450 at Level 0m.
2. Develop the South front for 32 metres from crosscut #282 and connect to the front North of the Colorado Vein north of the fault.
3. Develop the front South from crosscut # 345 to the front of crosscut #140 on Level -30m.
4. Develop the front at the South from crosscut #440 along the vein until it hits Fault A at Level -30m.

#### Nueva Vein (New Vein) as translated

The Nueva Vein is located 90 metres to the West of Veta Verde and trends 178° Az and a dips between 60° to 70° to the SW. In the South Fault region, the Veta Verde and Veta Nueva are sub-parallel and have an average width of 2.0 metres with a minimum width of 0.30 metres. Several veins up to 1.0 metre in width occur in the hanging-wall and footwall of the Nueva Vein.

The Nueva vein is comprised of mainly calcite with lesser quartz crystals. The calcite crystals are white in color and occasionally shell fragments can be seen in a vein breccia texture. On Level -60m, the vein has a distinct breccia texture along the South from shaft #75. In other sections along the vein, the vein texture is finely banded quartz. The ore is more argentiferous with a high silver sulfide content and less gold. The primary mineralogy of the vein is pyrite, trace of gold, marcasite, stephanite, pyrargyrite and chalcopyrite.. Secondary minerals include: native gold, argentite, and native silver that occurs as fracture-filling and veinlets. Chalcopyrite was much higher on the lower mine levels. As part of the leaching process of the chalcopyrite, malachite was also common.

The Nueva Vein was exploited by the Dos Estrellas Company on several levels due to the high silver grades on Level +120m to the deepest level on Level -170m for a distance of 700 metres along the NW-SE strike. The miners found rich ore shoots on the Nueva Vein, in particular #27 and #186 with recorded grades of 20 kg or 20,000 grams per tonne gold and 280 kg or 280,000 grams per tonne.

*The first ore shoot* measured 90 metres in length and 75 metres in height along the vein from the Azul Fault to the Southeast and 15 metres above the general access adit at Dos Estrellas, to the lowest level at -60m. The Nueva Vein was cut by Fault B and the continuation of this ore shoot was along the NW strike between Levels -30m and -60m, having been displaced in a normal sense, down-to-the-north for a distance of 90 metres.

The second ore shoot known as the 186<sup>th</sup> orebody (“Ciento Ochenta y Seis”) had high gold and silver values with an average width of 2.0 metres and could be followed for 100 metres along the vein strike between Level’s +30m and +60m.

The Nueva Vein was the first vein of importance to be cut at 660 meters from the entrance in the west by the ENE trending (063° Az) Dos Estrellas Adit. The miners continued to work in the hanging-wall of the fault and did not intersect the vein. Another important high grade zone was found at the Northwest and Southeast extensions of the Nueva Vein that contributed to paying for further mine development. This vein was exploited over the entire strike leaving minor remnants and back-fill material of lower grade.

At the deepest level on the Nueva Vein, the vein width and gold and silver grades decreased such that the southern extension of the mine had its deepest level at -90m and at the North extension the deepest level was at -140m. After those levels the grades were uneconomic in 1937.

The best potential lies on the northern strike extension of the vein because the old miner’s did not explore the West side to determine if the same structures were present.

The Commission recommended the following work program on the Nueva Vein:

1. Develop a front at the South of Shaft #211 to intersect crosscut #370W for a distance of 90 metres at Level 0m to define the potential location of the Nueva Vein south of Fault No.1.
2. Develop exploration crosscuts between Level’s 0m and +72m, using fronts from crosscut #282 to the North at Level -30m and develop the front from crosscut #480 on Level -30m at the South and from crosscut #162 to the South on Level -72m to see if that crosscut intersects the Nueva Vein.
3. Develop internal shafts on Levels 0m, -30m, and -72m to define the potential intersection of the vein.
4. Develop the Vein along the North and South directions at Level -30m to connect to the south front with internal shaft #745 and develop the front north vertically from internal shaft #470 on Level -60m.
5. Based on the previous subsection (4), make several exploration internal shafts at levels -30m to Levels 60m and 0m.
6. Develop the actual front from crosscut #320 to the West at Level 0m with the objective of intersecting the Nueva Vein and then explore the vein at along strike.
7. Select the best locations and develop crosscuts at the hanging-wall and footwall directions at the lower and upper levels to find the vein or the trace of the vein.
8. Develop the North Front for a distance of 55 metres from internal shaft #109 on Level -120m
9. Develop the North front for 150 metres from internal shaft #780 to the Northwest on Level -90m.
10. Develop the internal shaft #109 to the North at level -140m for a distance of 70 metres.
11. Based on the intersection where shaft #109 between the Nueva Vein and the El Salto Vein it is critical to define the intersection from Veta Del Salto to Veta Nueva at deeper levels.

Veta Del Salto (as translated)

This Vein is located at 170 meters to the West of the Verde vein; trends 166° Az and dips 80° SW; with a vein width of 0.8 to 2.0 metres. Veta Del Salto has similar characteristics as Veta Colorada although Veta Del Salto has lower gold grades.

This vein is well known to the South of Fault #1 and Fault South (“Sur”) or Fault B however, the vein is unknown to the North of the Fault #1. The vein has been reviewed on the Dos Estrellas Adit Level 0m however; no work had been done by 1937 on the upper or lower levels.

South of the Faults:

1. Develop a vertical shaft for 230m of development between Levels -30m to -60m from Level 0 (the main adit called Dos Estrellas).
2. Based on Section above, develop a vertical shaft from Level 0 to -30m and from Level -30m to -60m.

North of the Faults:

1. Develop fronts to the North on Levels -72m, -36m, -30m and -60m and develop the levels between them with the necessary internal shafts to prepare for exploration.

There are many intermediate veins between the Negra Vein, Nolan Vein, Somera Vein, Amarilla Veins, E, C, A, B, Amparo Vein, Colorada Vein, Nueva Vein and the El Salto Vein. Several of the intermediate veins have widths of 0.1 to 0.8 metres with the same azimuth as the main veins and dip between 50 to 60° SW. These intermediate veins require further exploration.

In 1937, the Commission recommended the immediate execution of the exploration work programs as they estimated the potential remnant mineralization with a high degree of confidence on the veins between San Rafael and Verde for a total of up to 922,916 Tonnes that could be exploited for a period of up to 6 years. The Cooperativa has more reserves that could extend the mine life by blending higher grades with lower grades for an average grade of 2.63 grams per tonne gold and 73 grams per tonne silver. In addition, a further historical conceptual estimate determined potential mineralization totaling 4,494,560 tonnes grading 2,065 grams per tonne gold and 71.83 grams per tonne silver and backfill material totaling 4,389,943 tonnes grading of 1,645 grams per tonne gold and 51.86 grams per tonne silver could be mined (*Antúnez E. et. al. 1937*).

*The author is not treating the above historical conceptual estimate as current mineral resources or mineral reserves. This estimation is conceptual in nature and should not be relied upon as insufficient drilling has been done to define an inferred mineral resource using CIM resource categories (CIM, Nov 2010). A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves, and the Company is not treating the historical estimate as current mineral resources or mineral reserves.*

*Based on the above facts, the Commission made the following suggestions to Compañía Minera Dos Estrellas to extend the mine life for the benefit of their company, the local community of El Oro and for the country of Mexico as follows:*

A. El Oro Mining & Railway Company suspended mining activity at San Rafael prematurely when they had the capacity to produce up to 1,000 tonnes per day however, they chose to sell their equipment and stop operations.

B. The claims of Dos Estrellas host a considerable amount of lower grade mineralization from back-fill, remnant vein mineralization and pillars and this mineralization could be exploited using a more efficient process. The remaining mineralization however, may not be of sufficient grade to install the plant and facilities. The Dos Estrellas Company could develop and exploit the potential remnant mineralization because the company has excellent equipment, laboratories, underground railway and transportation systems and electrical installation to provide effective communication between the underground developments at the Dos Estrellas Adit with the rest of the area.

The commission insisted that the lower grade vein material (10 to 15 grams per tonne gold range) must not be left behind because it was part of Mexico's National Resources. For these reasons they recommended that they draft an agreement for reconciliation between El Oro Mining & Railway Co. and the Dos Estrellas Company, in favor of Dos Estrellas Company to exploit the lower grade remnant mineralization.

The following recommendations apply to the lower parts of the San Rafael vein to define further down-dip mineralization. The deeper vein exploration can be very expensive due to unstable ground conditions resulting in movements SW from Shaft #8, post-development, displacing the quartz vein after a period of only several months, further deforming the structure. This is why diamond drilling was less desirable and conventional underground mining was favored. Geophysical surveys should be considered including a seismographic instrument that reflects plastic characteristics of each rock type such that rock types at depth could be determined.

#### Conclusions:

1. The work that validates the actual grades on the veins was never done during production by the Cooperative as they were concentrating on small developments looking for higher grades to economically support their activities.
2. The actual developments have gaps that could be further explored.
3. The exploration program that the Commission suggested as defined above is based on the detailed Mining-Geological studies and the sample analyses completed by the Commission during their review.
4. The proposed exploration work recommended for this mine includes developments along strike of the vein and following the down-dip potential of the structure in better mineralized areas.
5. Based on limited mineralization at depth and the geological genetics and parameters of these types of veins; and the observations of the local structures having poor grades

- at depth, the Commission recommends exploring to a maximum depth of 140 metres below Level 0m (Dos Estrellas Adit).
6. Based on the lenticular shape of the San Rafael and Verde veins and the faults in the El Oro District, exploration to the North and South should be limited.
  7. This Commission suggests that the present exploration program defining lower grades is very important for the future mine life that could extend the economic development of the region

## 6.5 HISTORIC PRODUCTION

### 6.5.1 Production History at El Oro Mining District (1920-1926)

The following discussion is modified after a summary report on the Historic Production El Oro Mining Districts by Norman E. Dausinger, Jr in 1979 (*Dausinger, 1979*).

Table's 6.14 to 6.18 include production summaries from the Copper and Mines Handbook Years 1920-1926. During these more productive years in this area, the El Oro Mining & Railway Co. ("El Oro Mine") operated on the southern part of the San Rafael vein; Esperanza Mines Ltd. ("Esperanza Mine") mined the central portion of the San Rafael vein; and Mexico Mines of El Oro Ltd. ("Mexico Mine") worked on the northern extension of the San Rafael vein.

Cia Minera "Las Dos Estrellas" S.A. operations were confined to La Veta Verde (also called the Dos Estrellas vein), the second most mineralized structure in the district.

The tables below suggest that production from the San Rafael vein was nearly 10,000,000 tons of ore and production from the La Veta Verde was nearly 7,000,000 tons during 1920-1926.

### 6.5.2 El Oro Mining & Railway, Esperanza Mines and Mexico Mines

The ore mined by El Oro Mining & Railway Co. and Esperanza Mines Ltd. were similar in grade, in the order of 0.30 ounces per ton gold and 1.5 to 3.0 ounces per ton silver or 8.5 grams per tonne gold and between 42.52 to 85.05 grams per tonne silver.

The table below depicts the total known production from the El Oro Mining and Railway at 4,558,739 tons milled at an average grade of 0.30 ounces per ton gold.

Table 6.14: El Oro Mining & Railway Co. Production Summary (1909-1925)

<b>El Oro Mining and Railway Co. (source: Mines Handbook 1920-1927)</b>				
Historic properties : San Antonio, San Rafael, Trianon, Diamante, Ofir and Carmen No. 2 Claims				
Orebodies varied in width from 10 to 60 feet (3.05 to 18.9 metres); currently owned by Luismin/JV Candente				
Year	Tons Milled	USD\$/Ton	oz. Au/Ton EQ	Reserves-Tons
1909	285,181	\$8.56	0.414	
1910	316,138	\$8.10	0.269	
1911	360,294	\$6.63	0.321	
1912	387,157	\$5.57	0.269	301,934
				(Total value \$9.26/Ton)
1913	433,708	\$5.04	0.244	448,053
				(\$8.11 Au/Ton and 3 oz Ag)
1914				
1915	Idle			
1916				

1917				
1918	30000 tons/m			
1919	308,665	\$8.07	0.39	333,135
1920	368,538	\$8.77	0.424	293,779
1921	383,043	\$7.63	0.369	282,124
				(\$7.96 Au/Ton and 2.1 oz Ag)
1922	401,840	\$5.48	0.265	339,687
				(\$5.23 Au/Ton and 1.73 oz Ag)
1923	399,820	\$4.88	0.236	330,000
				(\$4.44 Au/Ton and 1.69 oz Ag)
1924	447,060	\$4.20	0.203	
1925	447,290	\$4.04	0.195	
<b>TOTAL</b>	<b>4,558,739</b>	<b>Avg Grade</b>	<b>0.30</b>	

Table 6.15 below depicts the total production of 2,089,827 tons at an average grade of 0.387 ounces gold per ton from the Esperanza Ltd. Mine from 1911 to 1921. The recoveries reported in 1918 from the Esperanza Mine were 86.43 % for gold and 68.25 % for silver. Through 1918, total output was \$78,003.993 (Mexican Gold Currency) from 2,826,041 tons of ore. Total production through 1921 was 3,525,864 tons of ore. In the year 1922, a new mill was installed to mine 1,000,000 tons of low grade ores and stope fills. This project proved to be uneconomic given the price of gold and silver at this time.

The Esperanza Mine had 15 mine levels and on the 10<sup>th</sup> intermediate level nine veins were defined during the underground sample control program. One of the highest grade veins, in the hanging-wall of the main San Rafael vein, was called differing names depending on the vein segment: in the north, the vein was called “Veta Sulfuros”; in the central and south segments it was called “Veta San Carlos”. The vein was narrow (8-20cm); very high in total sulphide (mostly pyrite); and was extremely gold-rich paying for mining costs over several months. The footwall in the central mine is the pre-mineral andesite sill (“andesita antigua”). The sill occurs on both the footwall and the hanging-wall sides of the San Rafael vein. There are at least 3 stacked easterly-trending andesite sill horizons similar to those mapped in the underground at the Verde and Borda targets to the west. In addition, andesite sills and irregular intrusions have been mapped on surface elsewhere on the property. The easterly trending Esperanza Fault dips steeply north and has resulted in a dextral offset on a pre-mineral andesite sill.

Some of the better grades in the Esperanza Mine were from the Sulphide Vein (“Veta Sulfuros”) near the northern boundary with the Mexico Mine north of the No. 2 Fault where a vein segment measures several hundred metres and had mining widths of between 50-150 feet (15-46 metres).

Table 6.15: Esperanza Ltd. Production Summary (1911-1921)

<b>Esperanza Mines Ltd. (source: Mines Handbook 1920-1927)</b>				
Historic veins San Rafael, Esperanza, San Carlos, Descubridora(bonanza silver grades)				
Orebodies varied from 2 to 100 feet (0.61 to 30.5 m) in width; currently owned by Luismin/JV Candente				
Year	Tons Milled	Value/Ton	oz. Au/Ton EQ	Reserves-Tons
1911	272,235	\$6.17	0.299	
1912	229,076	\$7.31	0.354	
1913	207,281			
1914	143,670	\$8.21	0.397	
1915	22,684			156,000
1916	113,921	\$6.67	0.323	111,723
1917	200,548	\$10.00	0.484	65,368
1918	200,589	\$9.88	0.478	35,131
1919	308,665	\$8.07	0.39	333,135
1920	273,120			
1921	159,445			
<b>TOTAL</b>	<b>2,089,827</b>	<b>Avg. Grade</b>	<b>0.387</b>	

Table 6.16 below depicts total production of 1,522,606 tons of ore from the Mexico Mine. The Mexico Mine operation, on the northern strike extent of the San Rafael vein, was a more selective mining operation with higher ore grades averaging 0.521 ounce gold (14.2 grams per tonne gold) and 8.0 ounces silver per ton (226.8 grams per tonne silver).

Table 6.16: Mexico Mines El Oro Ltd. Production Summary (1907-1924)

<b>Mexico Mines El Oro Ltd. (source: Mines Handbook 1920-1927)</b>				
Historic vein property names: Mexico, Nolan, Amistad Mines (currently owned by Luismin/JV Candente)				
Year	Tons Milled	USD\$Value/Ton	oz. Au/Ton EQ	Reserves-Tons
1907-08	62,394	\$12.90	0.624	
1908-09	101,105	\$12.40	0.600	
1909-10	136,372	\$10.20	0.493	
1910-11	136,408	\$11.20	0.542	
1911-12	142,884	\$10.80	0.522	
1912-13	158,395	\$10.50	0.508	
1913-14	Idle			
1914-15	30,825			505,300
				(\$10.4 Au/Ton and 6.4 oz Ag)
1915-16	84,030			457,100
				(\$11.89 Au/Ton and 8.0 oz Ag)
1917-18	121,793			416,200
1918-19	130,665			379,000
1920	138,710	\$10.34	0.500	350,100
		7.0 oz Ag		(\$10.02 Au/Ton, 8.82 oz Ag)

1921	125,185	\$11.39 Au	0.551	311,430
		7.8 oz Ag		(\$11.23 Au/Ton and 9.83 oz Ag)
1922	153,840	\$9.06 Au	0.438	274,655
		(6.7 oz Ag)		(\$10.97 Au/Ton and 10.06 oz Ag)
1923				292,655
				(\$10.90 Au/Ton and 10.18 oz Ag)
1924				255,723
				(\$10.60 Au/Ton and 9.39 oz Ag)
<b>TOTAL</b>	<b>1,522,606</b>	<b>Avg. Grade</b>	<b>0.521</b>	

### 6.5.3 Minera Las Dos Estrellas Production 1916 to 1924 (as translated)

The main vein that was worked by the Minera Los Dos Estrellas, S.A. Company was the Verde Vein with an average mining width of 12 metres. Total production to the end of 1923 was 6,350,847 tonnes. The grades reported in 1923 estimate were 5 grams gold per tonne and 115 grams silver per tonne, considered to be marginal, yielding a profit at that time of USD \$0.40 per tonne. Eventually Minera Los Dos Estrellas, S.A. Company merged with El Oro Mining and Railway Co, Esperanza Ltd., and Mexico Mines of El Oro Ltd.

A brief history is as follows:

1. In 1898 the Dos Estrellas adit was started with the objective of cutting veins similar to the San Rafael from W to E. When the Cooperative took control of the mines, several crosscuts, fronts and exploration work were developed on several levels. The Cedros and Dos Estrellas Adits cut all of the veins and connected Level 0m with the same level on the Eastern side of Somera Hill.
2. The most important and deepest workings at this time was on Level -150m at Tiro #5 that crosscut Veta Verde and related veins to the east, collectively known as Vetas del Grupo Veta Verde including the small Ocotal vein at the eastern extreme of this crosscut. The Company also did an Internal shaft on Level -150 m called Tiro-Mil that extended to Level -450m however the Verde vein on this level was sugary quartz with pyrite lacking recoverable gold grades. At the southern side of Veta Verde the Cooperative developed Shaft Tres (Shaft 3) which extended from the deepest level -60m. From Shaft Tres they did cross-cuts to the East and West defining smaller veinlets without successfully intersecting wider veins.
3. From 1907 to 1920, the production from Dos Estrellas reached an annual average of 6 tonnes during these years. The output from the mines at El Oro was more productive due to the bonanza grades being mined in 1912 at the Esperanza Mine with a head grade of 40 grams per tonne gold.
4. From 1920-1923, the Aurora Shaft was developed by the El Oro Mining beside the El Oro River looking for the extensions of Veta Calera, Veta Ocotal, Veta Chihuahua and Veta Colorada. They also did a crosscut face to the W and at the same time they did another crosscut face to the E looking for other quartz veins below the San Nicolas Hill. This development was unsuccessful. El Oro mining did some exploration drilling but there is no evidence of such work or results.

5. In 1923, two shafts Tiro Modelo and Tiro Reforma were completed for Campania Minera Buen Despacho with hopes of intersecting the northern extensions of the San Rafael and Descubridora veins. The deepest shaft was 150 metres, the same depth as Dos Estrellas. Work was suspended due to lack of funding.
6. In 1923, the Sirio Shaft was developed with an objective of cutting the San Rafael vein. They cut the vein but the vein was a horse-tail structural zone with lower gold grades.

Table 6.17 below depicts production during 1916 to 1924 where the ore was milled by Dos Estrellas from the Verde vein averaging 0.7 ounces gold per ton (19.8 grams gold per tonne).

Table 6.17: Cia Minera Las Dos Estrellas Production Summary (1916-1924)

<b>Cia Minera Las Dos Estrellas (source: Mines Handbook 1920-1927)</b>				
Historic Properties: Mexico, Nolan, Amistad Mines (currently owned by Luismin/JV Candente)				
<b>Year</b>	<b>Tonnes Milled</b>	<b>USD\$ Value/Ton</b>	<b>oz. Au EQ/Ton</b>	<b>Reserves-Tons</b>
1916	164,610	\$14.65	0.709	807,079
1917	266,658	\$18.44	0.892	297,384
1918	344,859	\$22.38	1.083	820,819
1920	361,878	\$17.73	0.858	829,199
1921	413,016	\$13.07	0.632	730,705
1921	413,016	\$13.07	0.632	730,705
1922	477,172	\$12.02	0.582	991,092
1923	531,559	\$10.77	0.521	1,234,651
1924	521,488	\$9.50	0.46	1,446,231
<b>TOTAL</b>	<b>3,447,060</b>		<b>0.715 oz Au</b>	

The compilation in Table 6.18 below covers a 17 month period at Dos Estrellas totalling 48,866 tonnes of fill and indicates an average grade of about 5 grams per tonne gold and 54 grams per tonne silver. Table 6.18 below was extracted from the monthly production reports, Cooperativa Minera Los Dos Estrellas”, Appendix B, during July 1958 through November 1959. Assuming that there was no selective extraction from the San Rafael stope fills, which seems unlikely, the compilation suggests that the grade of the stope-fills could approach 5 grams per tonne gold and 54 grams per tonne silver.

During the years between 1938 and 1958 the workers operated autonomously with limited production data.

#### 6.5.4 Cooperativa Las Dos Estrellas Production 1937 to 1959 (as translated)

The following summary was translated from production summary reports. In 1937, total production was divided between production from the Dos Estrellas claim (e.g. Verde and nearby veins) totalling 46% and production from the Esperanza Mine and the Mexico Mine totalling 69% by mining remnant mineralization from old stopes (*Muñoz P., et. al., 1959*).

1. On May 27, 1937 the tailings dam failed to the north of the mill near the Talpujahua River destroying part of the town of Talpujahua including fatalities. In addition, the grades at the mines were lower than expected.
2. In 1937, when the gold price was USD\$34.75/oz Au, a total of 413.11 tonnes of ore was produced by Dos Estrellas Mine with a value of USD\$9.97 per tonne resulting in a loss at the mine.
3. In 1937, when the gold price was USD\$34.75/oz Au, 204.86 tonnes of ore was taken from the Esperanza Mine and the Mexico Mine with a value of USD\$9.95 per tonne.
4. In 1937, the mill extracted 76% gold and 68% silver from grades averaging 2.0 grams per tonne gold and 41.53 grams per tonne silver.
5. In 1937, the bullion production for the year was 827 mixed bars containing: 793.9 kg gold and 18,215.4 kg of silver from the Dos Estrellas Mines and 430.2 kg of gold and 6175.9 kg of silver from the Esperanza and Mexico Mines.
6. In 1951, the exploration by the Cooperative found areas with well mineralized veins with good grades however this bonanza period ended in mid-1951 when the Cooperative started to see losses due to the gold price.
7. In October 1952, the rehabilitation of the mineralized areas started. The company acquired new drill rigs that averaged 300 metres per month. The exploration work that was executed once the Tax Government Office financial presented the Cooperative with \$3,000,000 pesos in 1952 with very little success with the exception of the North portion of Veta Nueva that produced good grades until the Cooperative exploited the entire vein.

#### Conceptual Tonnage and Grade Estimation in 1937

The remnant mineralization in the Dos Estrellas Verde mines is comprised of inconsistent grades in back-fill, remnant pillars, and lower grade insitu vein material including a historical estimate of 492 dry weight metric tonnes grading 2.6 grams per tonne gold and 68 grams per tonne silver. The Esperanza and Mexico Mines gave tonnages of 544.8 dry weight metric tonnes grading 2.75 grams per tonne gold and 44 grams per tonne silver.

*The author is not treating the above historical conceptual estimate as current mineral resources or mineral reserves. This estimation is conceptual in nature and should not be relied upon as insufficient drilling has been done to define an inferred mineral resource using CIM resource categories (CIM, Nov 2010). A qualified person has not done sufficient work to classify the historical estimate as current inferred mineral resources or mineral reserves, and the Company is not treating the historical estimate as current mineral resources or mineral reserves.*

<b>Vein Name</b>	<b>Tonnes Lev +72m</b>	<b>Tonnes Lev +36m</b>	<b>Tonnes Lev 0m</b>	<b>Tonnes Lev -30m</b>	<b>Tonnes Lev -60m</b>	<b>Tonnes Lev -90m</b>	<b>Tonnes Lev -120m</b>	<b>TOTAL TONNES</b>
Del Salto		5,006						5,006
Nueva				3,471	4,218	5,179	430	13,298
Colorada	5,667	40,625	14,982	11,015				72,289
Verde	574	18,050	72,251	90,426	54,515	10,609		246,425
Amparo		12,497	87					12,584
Veta A	3,419							3,419
H. Alto D		81						81
Veta D	11,470	10,669	3,565					25,704
H. Alto E		7,149						7,149
Veta E		9,657	1,135		1,107			11,899
Veta F		641	5,643					6,284
Amarilla			11,005			2,290		13,295
<b>TOTAL</b>	<b>21130</b>	<b>104,375</b>	<b>108,668</b>	<b>104,912</b>	<b>59,840</b>	<b>18,078</b>	<b>430</b>	<b>417,433</b>

In 1937, a total of 417,433 Tonnes were mined from the Dos Estrellas Mines accessed via the Dos Estrellas adit that tunnelled under the post mineral andesite cap.

<b>Vein Name</b>	<b>Tonnes Lev 0m</b>	<b>Tonnes Lev -45m</b>	<b>Tonnes Lev -60m</b>	<b>Tonnes Lev -75m</b>	<b>Tonnes Lev -100m</b>	<b>Tonnes Dump</b>	<b>TOTAL TONNES</b>
San Rafael	5,846	85,554		29,702	18,432	10,779	150,313
Hilo Alto San Rafael		3,529		11,197			14,726
Veta A		5,653		3,299			8,952
Veta Gris		5,204					5,204
Veta Negra		14,070		1,129			15,199
Veta Nolan			4,498		5,964		10,462
<b>TOTAL</b>	<b>5846</b>	<b>114,010</b>	<b>4,498</b>	<b>45,327</b>	<b>24,396</b>	<b>10,779</b>	<b>204,856</b>

In 1937, a total of 204,856 Tonnes was mined from the Esperanza-Mexico Mines accessed by surface and underground shafts and adits underneath the post mineral volcanic cover (Table 6.19)

<b>Dos Estrellas</b>	<b>Tonnes</b>	<b>Gold g/t</b>	<b>Silver g/t</b>
Veta Del Salto	4,472	2.51	49.02
Veta Nueva	11,338	2.84	82.71
H.E. Nueva	978	3.39	107.21
Veta Colorada	71,044	2.75	36.84
V.W. Verde	110	1.77	78.00
Veta Verde	247,190	2.02	70.24
H.W. Veta Amparo	4,726	5.64	69.94
Veta Amparo	3,507	1.75	31.51
H.E. Veta Amparo	1,578	5.40	83.59
H.W. Veta A	749	6.35	85.00
Veta A	3,638	3.16	51.78
Veta B	319	2.25	54.00
Veta D	25,170	4.79	86.34
Veta E-Hilo del W	1,170	3.64	141.00
Veta E	12,812	3.50	87.97
Veta E-Hilo del E	5,419	3.45	103.21
Veta F	5,310	2.25	34.82
Veta Amarilla	12,706	3.37	28.51
Veta Limpias	875	3.24	58.55
<b>TOTAL</b>	<b>413,111</b>	<b>2.53</b>	<b>64.67</b>

In 1937 Cooperative Dos Estrellas recovered 413,111 tonnes grading 2.53 grams per tonne gold and 64.67 grams per tonne silver from the Dos Estrellas Mines (Table 6.20) and 204,856 tonnes grading 2.77 grams per tonne gold and 44.82 grams per tonne silver from the Esperanza-Mexico Mines (Table 6.21).

<b>Esperanza-Mexico</b>	<b>Tonnes</b>	<b>Gold g/t</b>	<b>Silver g/t</b>
Veta Nolan	7,160	4.78	46.27
H.W. Nolan	11,381	3.46	41.64
Veta Negra	15,199	4.35	74.95
Veta Gris	5,204	1.37	21.31
Veta A	8,952	2.47	51.07
H.W. Veta San Rafael	14,726	2.58	58.54
San Rafael	128,154	2.55	41.07
Limpias	3,302	3.14	46.36
Dump Material	10,778	2.94	44.63
<b>TOTAL</b>	<b>204,856</b>	<b>2.77</b>	<b>44.82</b>

<b>Dos Estrellas</b>	<b>Tonnes</b>	<b>Gold g/t</b>	<b>Silver g/t</b>
Veta del Salto	9,500	2.4	46.0
Nueva	25,060	3.0	86.0
H.E. Nueva	61,800	2.8	40.0
Colorada	293,500	2.2	72.0
Veta Blanca	1,500	4.0	80.0
Veta Amparo	6,100	4.2	76.0
Veta A	24,000	3.3	55.0
Veta B	15,700	2.2	54.0
Veta D	11,400	4.9	81.0
H.W. Veta E	9,200	3.6	141.0
Veta E	10,500	3.5	100.0
H.E. Veta E	4,000	3.9	116.0
Amarilla	20,400	3.5	31.0
<b>TOTAL</b>	<b>492,660</b>	<b>2.6</b>	<b>68.0</b>

In 1938, a total of an estimated 492,660 Tonnes grading 2.6 grams per tonnes gold (grade underestimated) and 68.0 grams per tonnes silver remained unmined at the Dos Estrellas Mines (Table 6.22).

<b>Esperanza-Mexico</b>	<b>Tonnes</b>	<b>Gold g/t</b>	<b>Silver g/t</b>
Veta Nolan	4,800	3.8	43.0
Veta Negra	40,000	3.5	61.0
San Rafael	500,000	2.7	42.00
<b>TOTAL</b>	<b>544,800</b>	<b>2.8</b>	<b>44.00</b>

In 1938, a total of 544,800 Tonnes grading 2.8 grams per tonnes gold and 44.0 grams per tonnes silver remained unmined at the Esperanza-Mexico Mines (Table 6.23).

Table 6.24: Cooperativa Minera Las Dos Estrellas Production History (July 1958-November 1959)

<b>Cooperativa Minera Las Dos Estrellas (source: Mines Handbook 1920-1927)</b>					
July 1958 through to November 1959 (extracted from San Rafael)					
<b>Year</b>	<b>Prod'n month (metric tonnes)</b>	<b>Au oz</b>	<b>Ag oz</b>	<b>Au (gram/tonne)</b>	<b>Ag (gram/tonne)</b>
Jul-58	3,307	5.9	45.1	19511.3	149145.7
Aug-58	3,278	5.8	52.7	19012.4	172750.6
Sep-58	2,588	4.7	39.5	12163.6	102226.0
Oct-58	2,577	5.5	60.2	14173.5	155135.4
Nov-58	2,595	4.5	45.1	11677.5	117034.5
Dec-58	3,296	4.5	51.9	14832.0	171062.4
Jan-59	3,104	5.3	48.6	16451.2	150854.4
Feb-59	2,508	4.9	48.9	12289.2	122641.2
Mar-59	2,173	5.7	61.0	12386.1	132553.0
Apr-59	2,762	5.6	54.4	15467.2	150252.8
May-59	2,626	5.3	54.3	13917.8	142591.8
Jun-59	2,718	5.1	46.4	13,861.8	126115.2
Jul-59	3,238	4.3	71.1	13923.4	230221.8
Aug-59	3,240	4.0	55.4	12960.0	179496.0
Sep-59	2,713	3.8	71.1	10309.4	192894.3
Oct-59	3,436	3.7	50.5	12713.2	173518.0
Nov-59	2,707	4.4	62.6	11910.8	169458.2
<b>TOTAL</b>	<b>48,866</b>			<b>237560.4 at 4.86 gram/tonne)</b>	<b>2,637,951.3 at 53.98 gram/tonne)</b>

Table 6.25: Summary of Historic Mineral Extraction and Production on the San Rafael Vein

<b>Company</b>	<b>Mineral Extracted (1907-1925) TM</b>	<b>Average Au(grams)</b>	<b>Production (tonnes)</b>
El Oro Mining	4,550.73	9.34	42,578,575.56
Esperanza	1,160.04	12.05	13,978,469.95
Mexico Mines	1,155.29	16.2	18,715,746.80
<b>TOTAL</b>	<b>6,866.07</b>	<b>10.95</b>	<b>75,272,792.11</b>

Source: Copper and Mines Handbook 1920-1927

#### A Summary of a Review of the Dos Estrellas and Esperanza-Mexico Mines in 1959 (a translation)

The historic work at the Dos Estrellas Mines and Esperanza-Mexico Mines is summarized in a report called “Informe de Las Condiociones Economicas de la Cooperativa Mineras Las Dos Estrellas en El Oro y Tlalpujahuá” (Muñoz P. et. al, 1959). The Dos Estrellas Mines presented a conceptual estimation of remnant mineralization of 89,130 tonnes of high confidence material grading an average of 6.0 grams per tonne gold and 188.0 grams per tonne silver and lower confidence material totaling 145,980 tonnes

grading 5.7 grams per tonne gold and 98.00 grams per tonne silver. In 1959, the Esperanza-Mexico Mines was the new focus (Table 6.24) and the San Juan adit was reopened and the Providencia shaft as well as the old Skip Shaft and North Shafts were reconditioned. At this time grades being mined averaged 5.5 grams per tonne gold and 60 grams per tonne silver at a 1959 gold price of USD\$34.95/oz gold proving to be at the limit of economic viability. In 1959, the Negra Vein located on Levels -75m and -100m remained un-exploited with a mineable vein strike length of 300 metres, grading up to 40 grams per tonne gold.

Other assets mentioned in this summary included the Mexico Mine tailings reporting a conceptual estimate of up to 1.0 million tonnes grading 2.75 gram per tonne gold and 75.00 grams per tonne silver. The Mexico Mine tailings are summarized in detail in Sections 6.4.2, 6.4.3 and 6.6.5 of this report.

*The author is not treating the above historical conceptual estimates as current mineral resources or mineral reserves. These estimations are conceptual in nature and should not be relied upon as insufficient drilling has been done to define an inferred mineral resource using CIM resource categories (CIM, Nov 2010). A qualified person has not done sufficient work to classify the historical estimate as current inferred mineral resources or mineral reserves, and the Company is not treating the historical estimate as current mineral resources or mineral reserves.*

In the Tlalpujahua District to the east of El Oro the following veins were being mined: Eureka or Trigueros, Del Peso, Luz de Borda and related branches, Coronas, San Sebastian, San Juan, Comanja, El Capulin, Manduermes, La Lucha, Temascales, Los Ocotes, El Cuernito, Tejocotes, Dolores and El Carmen.

For a period of 23 years the Cooperativa de Las Dos Estrellas (“the Cooperative”) was unofficially working on developing the Dos Estrellas Mines with continued unrecorded production. The workers obtained the property in 1937 after the tailings dam failure, and numerous strikes due to back wages and a demand for an increase in wages. At that time, the Dos Estrellas Properties were valued at 5 million pesos and were given to the workers. From 1939 to 1947, the workers operated in poor mining conditions with limited success. The average production from 1947 to 1951 was 51 kilograms of gold and 620 kilograms of silver. In 1951, the Cooperative retained the Federal Government’s assistance to facilitate and direct the mining at the Dos Estrellas Properties. In 1952, the government approved a grant for MXN\$3,000,000 pesos to the Cooperative to rehabilitate some of the 35,000 metres of underground developments. The Cooperative lasted another 8 months, however the grades of 3.5 grams per tonne gold and 120 grams per tonne silver proved to be unprofitable using a 1952 gold price of USD\$34.60 per ounce of gold.

## **6.6 HISTORIC MINERAL PROCESSING AND METALLURGICAL TESTWORK**

### **6.6.1 Historic Test work**

Preliminary metallurgical test work was performed on three samples collected from insitu and stope-fill material derived from the San Rafael vein system by Mountain States Research and Development (“Mountain States”) in 1980 (*Mountain States, 1980*). The metallurgical test work included cyanide leaching and flotation to recover gold and silver. The results of the test work are summarized below in Sections 6.6.2, 6.6.3 and 6.6.4 and in Table 6.26.

Before 1907, the gold ores in the El Oro District had very poor recoveries. Without the use of a cyanidation process the gold ores were deemed unprofitable. In 1907 production was started on the San Rafael vein with the completion of a 100-stamp cyanide mill. The lowest grade ore profitably exploited during the early 1900's graded 0.25 oz gold per ton and 2-3 oz silver per ton. In 1920, a 120-stamp cyanide mill was built. From 1925 to 1937 higher grade backfill, pillars and intermediate veins were mined and a new crushing and processing plant was built to process the ore.

#### **6.6.2 San Rafael Vein - Insitu Material**

The In-situ material head grade assayed 7.75 grams per tonne gold and 40.80 grams per tonne silver.

Standard cyanidation and flotation rougher tests were undertaken on the sample material. Sample preparation for the cyanidation tests included comminution to a grind of 80% minus 200 mesh (P80 of 74um) while the flotation tests were ground slightly finer to a grind of 85% minus 200 mesh.

The 24 hour bottle roll cyanide leach tests achieved extractions of 96% gold and 85% silver, while the flotation tests achieved rougher recoveries of 87% gold and 58% silver.

#### **6.6.3 San Rafael Vein - San Juan - Carmen Stope Fill Material**

The stope-fill material head grade assayed at 3.02 grams per tonne gold and 28.80 grams per tonne silver.

Similar to the in-situ material, standard cyanidation and flotation rougher tests were undertaken on the stope-fill material as well. Sample preparation for the cyanidation tests included comminution to a P80 of 74um, or to a grind of 80% minus 200 mesh size; while the flotation tests were ground slightly finer to a grind of 85% minus 200 mesh size.

The 24 hour bottle roll cyanide leach tests achieved extractions of 91% for gold and 56% for silver for silver respectively while the flotation tests achieved rougher recoveries of 80% and 43% for gold and silver respectively.

#### **6.6.4 San Rafael Vein Stope Fill - Cortaduras Core Sample Blend**

The Cortaduras Sample head grade assayed 10.00 grams per tonne gold and 113.00 grams per tonne silver.

Standard cyanidation and flotation rougher tests were undertaken on the stope-fill material as well. The sample preparation of the Cortaduras material included comminution to a grind of 50% minus 200 mesh size.

In this case, the bottle roll cyanide leach tests were undertaken for 48 hours and achieved extractions of 94% for gold and 46% for silver, while the flotation tests achieved rougher recoveries of 94% for gold and 85% for silver.

Table 6.26: Metallurgical Test work Results from San Rafael Vein

Sample Location	Head Grade		Cyanidation Recoveries		Rougher Flotation Recoveries	
	Gold (g/t)	Silver (g/t)	Gold (%)	Silver (%)	Gold (%)	Silver (%)
San Rafael Vein - In-situ	7.75	40.8	96	85	87	58
San Juan –Carmen Stope Fill	3.02	28.8	91	56	80	43
San Rafael Vein– Cortaduras	10.0	113.0	94	46	94	85

The test work results indicate that a standard cyanidation process utilizing typical industry practice would achieve satisfactory gold recoveries. Silver recoveries are significantly lower. A standard flotation process may also achieve satisfactory gold recoveries however, as with the leaching tests, the silver recoveries are significantly lower than the gold recoveries. It is recommended that additional optimization test work and flow sheet development should be undertaken in an effort to improve the silver recoveries.

The Mountain States test work was performed on a limited number of samples and therefore the results cannot be considered as representative for the entire El Oro deposit. A much larger suite of well represented sample material considered for mining would be required to achieve a higher level of confidence in expected gold and silver recoveries.

The historical processing of the El Oro ores successfully utilized cyanide leaching of ground ores for gold and silver extraction and the Mountain States test work indicates that cyanide leaching would be an appropriate processing technology for the El Oro ore.

### 6.6.5 Mexico Mine Tailings Test Work

Many different metallurgical facilities have completed comprehensive test work studies on the Mexico Mine tailings between 1951 and 1990 in an attempt to identify the most effective tailings treatments to achieve the highest overall metal recoveries at the lowest costs.

#### 1951: Mining Development Commission (as translated)

A series of 1951 test work results on the Mexico Mine tailings is summarized in a report called, “*Sinopsis Titulada: El Tratamiento de los Jales del Tiro Mexico en El Oro Estado de México, Comision de Fomento Minero*” (Villafaña., M., 1951). Two processing and recovery tests were completed.

Test 1: the first test was performed, after cyanidation and calcination, and included a grind of 96% to minus 325 mesh size getting positive recoveries including 70% for gold and 71% for silver.

Test 2: the second, lower cost test was performed, prior to cyanidation and calcination, and included 20 minutes at 600 °C of roasting followed by further treatment by cyanidation without re-agitation yielding good recoveries of 70% for gold and poor recoveries of 20% for silver. Although the results were metallurgically good, the distribution of potential pollutants into the environment (e.g. arsenic or mercury) deemed the treatment as inadequate.

1959: Compilation of Various Labs Test work (as translated)

The following discussion is extracted from a 1959 report called "*Informe de las Condiciones Economicas de la Cooperativa Minera Las Dos Estrellas en El Oro y Tlalpujahuá*" (Muñoz, P., 1959). La Cooperativa Las Dos Estrellas ("the Cooperative") conducted a series of a series of tailings treatment tests with varying gold and silver recoveries including 49 to 81% for gold and 22 to 41 % for silver (Table 6.4). The treatments were as follows:

- A. Leaching of tailings with thiosulphate without grinding and without heat treatment. In this method the recoveries of gold and silver were very close to zero.
- B. Treatment of the tailings by Cyanidation with and without milling. The recoveries were also negligible.
- C. Treatment of the tailings by Cyanidation prior to roasting. Gold recoveries were as high as 75 % and the silver recovery was 22 %. This test was performed without grinding.
- D. Treatment of the tailings by Cyanidation prior to roasting and grinding to a minus 200 mesh size. Gold recoveries were as high as 80% for gold and 30% for silver.
- E. Flotation tests with grinding of 80% to a minus 325 mesh size. Concentrates were obtained grading 25 grams of gold and 1,200 grams of silver with poor recoveries of 27% for gold and 48% for silver.
- F. Flotation tests with grinding of 93% to minus 325 mesh size.

1981: Tucson Arizona Lab and Tayoltita Lab Comparison (as translated)

In 1981, Luismin acquired a majority interest in the El Oro Property in a JV with Minera Mexico Michoacán ("MMM") and drilled 18 verification holes in the tailings area and conducted metallurgical test work simultaneously at two different labs. The results from a metallurgical lab in Tucson, Arizona and the lab at the Tayoltita mine site produced variable metal recoveries using the exact same analytical technique for tailings treatment (Table 6.27).

In a report titled "*Pruebas Metalurgicas de MMM Lab, Tucson Arizona y Lab, Tayoltita, 1981*" (Kerley, 1981), Kerley reported the results from four cyanide leaching and agitation tests for the same sample composition and same volumes to compare the reliability and accuracy of the results. The treatment was as follows: 300 grams of ore was milled for 6 minutes in 240 litres of water + 150 ml of thio # 3 + 60 ml of NH<sub>4</sub>OH + 24 grams of OS<sub>4</sub>Cu.5H<sub>2</sub>O + 10 grams of (NH<sub>4</sub>)<sub>2</sub>SO<sub>3</sub> + 130 ml H<sub>2</sub>O using a working temp of 49° C and a pH of 9.6 for a total of 1 to 3 hours of agitation. The amount of gold and silver dissolved into solution using cyanide and the stirring process by agitation resulted in very low recoveries including 35 % for gold and 37 % for silver. The pulps were washed in copper sulphate solution and ammonia and then dried and weighed.

Table 6.27: 1981 Lab Comparison tailings treatments of the Mexico Tailings

Test No.	Tucson Lab (Gold Rec %)	Tayoltita Lab (Gold Rec %)	Tucson Lab (Silver Rec %)	Tayoltita Lab (Silver Rec %)
Test 1	25	30	37.6	68.5
Test 2	25	30	36.3	68.5
Test 3	60	20	27.5	51.1
Test 4	NR	NR	20	61.1

1982: Heap Leach Test Work (as translated)

In a report called, "*Pruebas Metalúrgicas, CIA. Minera Real de Asientos y Anexas, 1982*", (Cabrera, 1982) tailings heap leach test work characteristics are summarized.

Test 1: The first test was completed on the tailings material in its original form through an agglomeration treatment with lime and cement. The test recoveries were low including 50% for gold and 20% for silver.

Test 2: The tailings material was agglomerated into columns with 10 lbs. lime + 10 lbs. cement + 6 lbs. per ton of sodium cyanide. The test results were encouraging with better recoveries of 55% for gold and 52% for silver. The test results were questioned and follow up checks were recommended however the check results were not available.

1989: The Metallurgical Institute of San Luis Potosi (as translated)

Luismin conducted a further 22 verification drill holes over the tailings deposit and reviewed concentration - treatment scenarios that were summarized in a report by "*Universidad Autónoma de San Luis Potosí, Instituto de Metalurgia, San Luis Potosi*" by Marco A. Zapata Velazquez in May 30, 1989.

This metallurgical test work reviewed various concentration and treatment methods. The best method for the highest recoveries was by "agitation cyanidation" and "cyanidation" using the smaller mesh sizes. The best treatment was by direct cyanidation on a minus 325 mesh size with reported recoveries of up to 75% for gold and 82.41% for silver (Table 6.28).

Conclusions of the study:

1. The most profitable process to achieve the best metal recoveries from the tailings sample provided was by "Direct Cyanidation by Agitation".
2. It was not very advantageous to further grind or roast the ore.
3. The coarser fractions were lower grade and interfered with the cyanidation process. It was recommended to classify the material to an equivalent size fraction to 100 mesh size and conduct cyanidation before that size fraction.
4. It is important to disaggregate the clumps/conglomerates that affected the cyanidation process.
5. Disaggregation of the clumps/conglomerates could be done by conditioning the material for a 24 hour period and then proceed to the material classification to completely disaggregate the clumps.
6. The tailings material could be processed as described above with potential economic benefits.

Recommendations were to send the samples to a reliable metallurgical test lab with expertise in metallurgy. The follow up test work should include cyaniding on bottle tests and cyaniding on column tests using detailed classifications of plus +100 mesh screen sizes and doing the experimentation with the minus -100 mesh screen sizes.

*These results will be used in an on-going evaluation of the technical and economic viability of a future tailings reclamation and reprocessing operation. Further metallurgical test work is required by Candente Gold Corp. to establish whether or not the tailings have economic value using current operational costs and metal prices. If the results suggest that reclamation and reprocessing of the tailings is technically feasible and economically viable then Candente Gold Corp would commit to raising the capital to finance the processing of the tailings and build new infrastructure required for the tailings clean-up and reclamation operation.*

A summary of the various metallurgical test work programs and results can be found in Table 6.28 below.

Table 6.28: Summary of the Historic Metallurgical Test Results from 1951 to 1990

Year	Company	Process	Regrind	Recovery		Recommendation	Comments
				% Au	% Ag		
1951	Mining Development Commission	Flotation	96% -325 mesh	70.0	71.0	Yes	Long float times and resultant coal dust
		Cyanidation After Calcination	No	70.0	20.0	Yes	Short periods of calcination (20 min) to 600 °C and elimination of carbonaceous material
1959	Mining Cooperative Two-Stars	Cyanidation After Calcination	No	75.0	22.0	Yes	No regrind and values similar to 1951 results
		Cyanidation After Calcination	-200 mesh	81.0	30.0	Yes	Grinding to -200 mesh with an increase recoveries
		Flotation	80 % to -325 mesh	27.0	48.0	No	Low recoveries in comparison with the 1951 test work
93 % to -325 mesh	49.0		41.0	No			
1982	CIA.Minera Real Asientos y Anexas S.A. For Minera Mexico Michoacan	Heap Leaching	No	20.0	41.33	No	10 days of leaching required
			Yes	20.0	53.33	No	8 days of leaching and grinding for 8 minutes
		Heap Leaching after Roasting	No	40.0	58.7	No	Roasting chloridizing to 700 °C for 30 minutes, 7 days of leaching, initial conditions
			No	50.0	66.66	No	Roasting chloridizing to 700 °C for 30 minutes, 7 days of leaching, varying initial conditions, (intermediate).
			No	50.0	70.67	No	Roasting chloridizing to 700 °C for 30 minutes, 7 days of leaching, varying intermediate terms, (final).
1989	Institute of Metallurgy of SLP	Flotation	No	13.5	13.6	No	Size of very fine material, carbonaceous material and surface partially oxidized
		Direct cyanidation	No	50	47.82	No	There are conglomerates of material, low recoveries.
		Direct cyanidation	-325 mesh	75	82.41	Yes	Greater expenditure of reagents (cyanide and Cal).
		Cyanidation After Roasting	No	75	55.44	Yes	Roasting at 800 °C for 20 minutes.

Minera Mexico Michoacán also completed a detailed mineralogy characterization of the tailings material as summarized in Table 6.29 below.

The mineralogical results included quartz fragments that may have produced non-representative results so it is anticipated that the tailings material requires grinding to a minus -400 mesh size in order to liberate and recover the contained metals.

Table 6.29: Summary Table of the Detailed Mineralogical Characterization

Mineral species	Formula	Relative proportion	Particle size(microns)	Avg. size (microns)	No. of Part
Fribergite	(Cu, Ag, Fe) Sb <sub>2</sub> S <sub>3</sub> )	51.87	1 to 6	3.5	8
Aguilerite	Ag <sub>2</sub> (S, Se)	33.86	0.4 to 3	1.4	29
Argentite	Ag <sub>2</sub> S	12.53	2 to 4	3	3
Native Silver	Ag	1.74	2		
Native Gold	Au		2 to 10		

## 6.7 HISTORIC DISTRICT TARGET REVIEW

### 6.7.1 Historic El Oro District Exploration Targets

The El Oro District ores are blind high grade gold-dominated veins covered by Tertiary syn-mineral tuffs/ignimbrite and post mineral andesite ranging in thickness from 75 to 350 metres. The ores were poorly adapted to treatment by the Patio Process resulting in the bulk of the ores deemed as unprofitable during peak production years from 1915 to 1925 when gold prices ranged between USD\$18.99 to USD\$20.64 per ounce until the cyanide treatment was adapted.

Some of the more important producers from the San Rafael vein in the early 1900's were three well known historic mining companies (Figure 6.22) including: Mina El Oro Mining & Railway Co. ("El Oro Mine"); Mina Esperanza ("Esperanza Mine"); Mina Mexico ("Mexico Mine"); and from the Verde Vein in the Dos Estrellas mine. In addition, smaller but productive veins included the San Patricio vein (also called the Somera Vein) which lies 609.6m (2000 feet) west of San Rafael, and the Descubridora vein which lies 304.8m (1000 feet) to the east of San Rafael vein amongst many others.

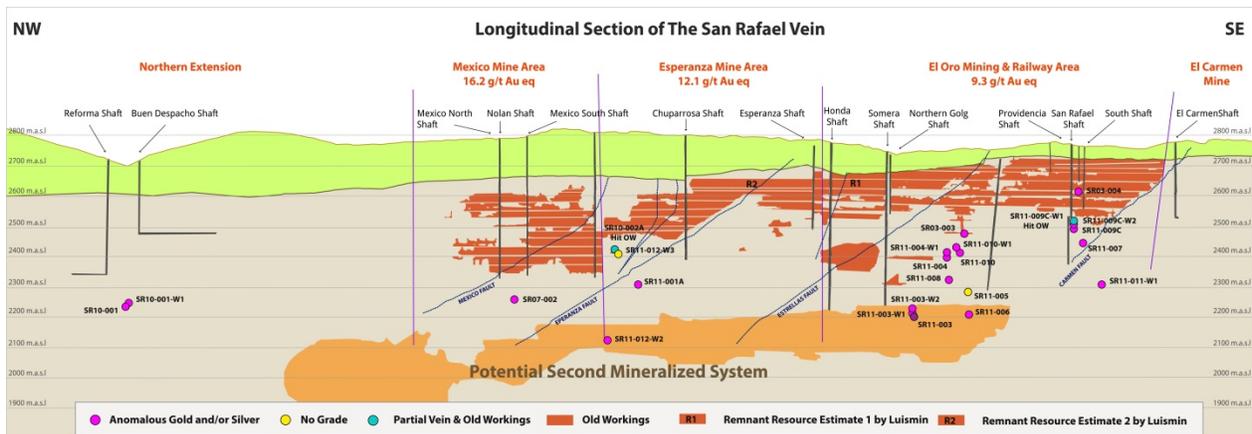


Figure 6.22 San Rafael Schematic Long Section (projected locations of workings, shafts, faults, drill holes)

Evidence of past production in the form of 100's of kilometres of underground workings, dump sites, pits, shafts and adits are evidence of informal and formal production on the property. In total, there are 115 known shafts varying in depths of 250 to 575 metres, and 44 adits of varying lengths. To the author's knowledge only 3 of the 115 shafts were accessible in the 1950's including: Tiro San Patricio (429 m deep), Tiro Somera (568 m deep) and the Tiro Providencia (400 m deep) shaft that accesses the San Juan Adit and the levels below.

To the west of the Verde Vein and to the east of the San Rafael veins there are numerous independent veins with steep westerly dips. In 1912, production was worth USD\$10.0 million chiefly from the San

Rafael vein at El Oro Mining & Railway, Esperanza and Mexico Mines as well as from the Verde lode at Dos Estrellas.

The first veins discovered in the late 1800's were the Descubridora and Mondragones veins, which encouraged the miners to search for more veins near to surface under the post mineral andesite cover which resulted in the 1899 discovery of the San Rafael vein under 200 metres of post mineral andesite cover. The San Rafael and Descubridora veins (Figure 6.23) were the most interesting for beneficiation with large quantities of the minerals easily removed by a treatment by amalgam followed by the 1907 installation of a cyanide circuit.

### The Main San Rafael Vein

According to Flores 1920, the San Rafael vein was developed along a 3.3 kilometre long strike length in more than 80 kilometres of underground development. The mining of the San Rafael vein was continually hindered by water problems due to a perched water table below the post mineral andesite cap and was mined with the square set method of stoping to mine the abundant soft and friable wider stopes. The more important mine access shafts from north to south are: Mexico, Nolan, Providencia, El Carmen and Sirio. The El Carmen Mine was exploited over 7 levels to a depth of close to 300 metres. The vein splits into two 5 metre - wide veins that are 66 metres apart. To the north, the vein merges back into a single large vein that is 15 metres in width, strikes N30W and dips moderately at 65<sup>0</sup> to the SW.

Numerous parallel veins of less than two metres in width exist in the areas surrounding and between the San Rafael and Veta Verde veins. Fourteen of these gold - silver veins are documented on historic mine plans between Veta Verde and San Rafael with exploitation limited to levels above the two drainage adits at Dos Estrellas and El Cedros. The water table was continually a hindrance.

The detailed names and depths of the major shafts totaling 6.1 km can be found in Table 6.25 below. To the authors knowledge the Somera and the Hondo Shafts were the deepest shafts with depths of 575 metres.

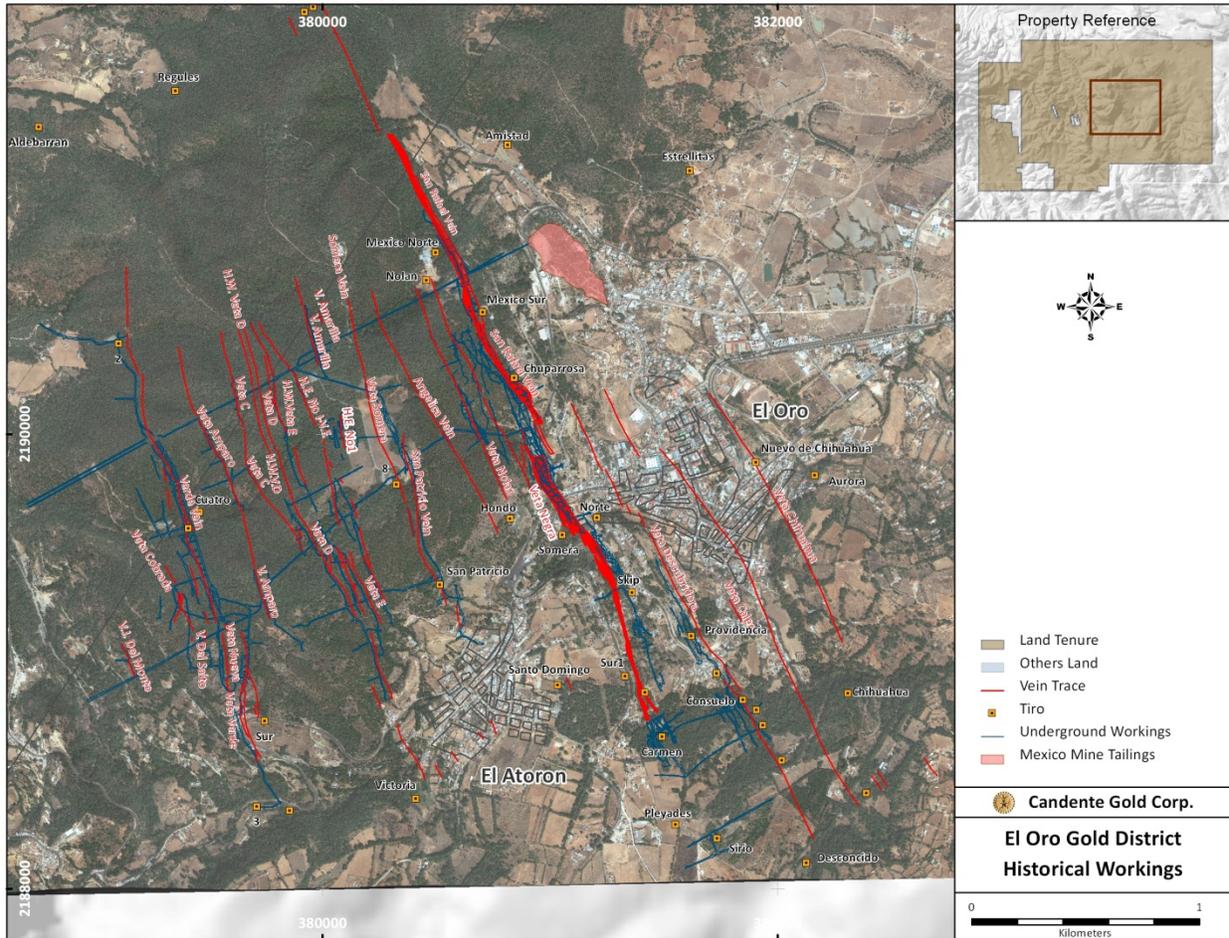


Figure 6.23: Location of Workings and Major Veins in the El Oro district (source: Flores, 1920)

The southern portion of the San Rafael vein (El Oro Mining & Railway Ltd. Mine) has the best historic data including 2700 two-metre level plans with results from sample control. The San Rafael vein was mined for over 3.3 km strike length and was explored to a vertical depth of approximately 400 metres below surface with approximately 250 metres of vertical vein development. The vein was completely blind, covered by hundreds of metres of post-mineral Tertiary andesite flows and tuffs.

The San Rafael vein is reported to have produced in excess of five million gold equivalent ounces over 45 years from 11.9 million tonnes of ore with an average production grade of 10.8 grams per tonne gold and 115.0 grams per tonne silver over an average mining width of 10 metres. The San Rafael vein mineralization style and grade changes frequently along-strike and down-dip. In the top part of the vein (from surface to Level 6) gold and silver-rich ore, which varied in thickness from 10 to 70 metres, occurred in the foot-wall portion of the vein in the shales. In the central part of the vein (Level's 5 and 6) the entire vein was well mineralized. From Level 6 and below, the ore occurs in the hanging-wall portion

of the vein. Mineralization was reported to be mostly continuous in the top 200 metres of vein below the contact with overlying post-mineral volcanics. It was also reported that at branches and junctions of the vein, there was no increase in the gold and silver content. In several places, the San Rafael vein is down-dropped to the north along easterly-trending faults in relation to a neighbouring southern block. In the Esperanza mine (on the San Rafael vein) vertical displacement was over 300 metres. The easterly faults that down drop the vein system in a step-like fashion to the north have resulted in the southern El Oro Mining & Railway section being non-conformably overlain by post mineral andesitic volcanics in the south. In the north, the veins targets near the Buen Despacho are covered by 100 metres of pre-mineral tuffs overlying the main vein system suggesting an uplifted block in this area.

Table 6.30: El Oro District Shafts and Low Angle Fault Locations (source: Flores, 1920)

San Rafael Shafts/Fault Locations NW to SE	Depth(m)
Reforma Shaft (tiro)	385
Buen Despacho Shaft (tiro)	225
Mexico Norte Shaft (tiro)	525
Tiro Nolan Shaft	520
Adit El Cedro: Nolan and Mex South Shaft	
Mexico South Shaft (tiro)	500
<b>Mexico fault-dips NW</b>	
Chuparrosa Shaft (tiro)	450
Dos Estrellas Adit (socavon)	
<b>Esperanza fault-dips NW</b>	
Esperanza Shaft (tiro)	290
Hondo Shaft (tiro)	575
Somera Shaft (tiro)	575
Norte de El Oro Shaft (tiro)	210
<b>Estrellas fault-dips NW</b>	
Skip Shaft (tiro)	460
San Antonio Level (nivel)	400
Providencia Shaft (tiro)	400
San Rafael Shaft (tiro)	120
El Carmen Shaft (tiro)	260
<b>El Carmen Fault-dips NW</b>	
El Sirio Shaft (tiro)	260
<b>Del Rio Fault-dips NW</b>	
<b>TOTAL METRES</b>	<b>6155</b>

Note: falla = fault and tiro = shaft and socavon = adit

### The San Rafael Vein at the El Oro Mining & Railway Mine

The main San Rafael, San Patricio No. 1, San Patricio No. 2 and Somera veins at the El Oro Mining & Railway Mine have been exploited from the apex at the San Antonio Mine to a depth of 633 metres depth on 14 mine levels including: San Antonio, San Rafael, San Juan, 86 foot (26.2m), 186 foot (56.7m), 286 foot (87.2m), 386 foot (117.7m), 486 foot (148.1m), 550 foot (167.6m), 650 foot (198.1m), 786 foot (239.6m), 1000 foot (304.8m), 1150 foot (350.5m) and 1600 foot (487.7m). These are the mine levels



San Rafael Vein at the Esperanza Mine

The San Rafael vein was the widest and richest in the Esperanza Mine (Figure 6.25) with a vein/vein breccia thickness to a maximum of 70 metres with the best ore along the hanging wall and footwall of a much wider and less mineralized vein. The mine has seventeen 100 foot-spaced levels (except for the 75 foot named Levels 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup>). The lowest level in the mine is Level 15 which reaches a depth of 564 metres. The pre-mineral andesite sills in this mine are from 60 to 100 metres in thickness. At the 108 metre depth the San Rafael is the highest grade due to a vein split/horsetail structural. At 150 metres into the footwall of the San Rafael, the Descubridora vein was intersected. The high grade Poniente vein was found 95 metres horizontally to the west in the hanging-wall of the San Rafael. Heading west on Level 3 for 170 metres a 20 metre wide N75E trending soft friable fault was intersected that horizontally offset the vein for a distance of 32 metres to the northeast.

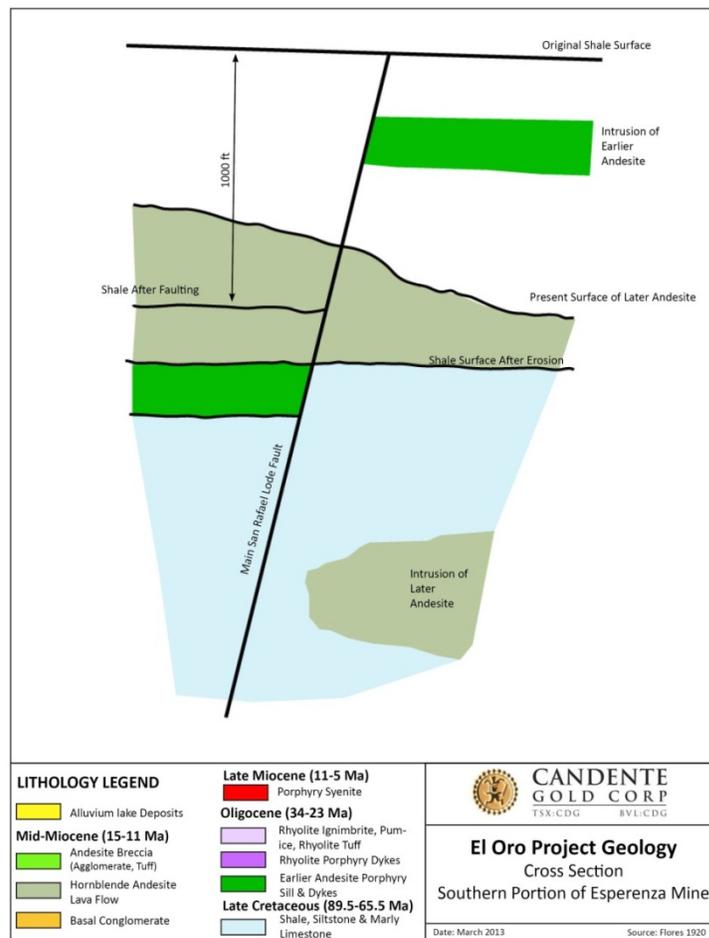


Figure 6.25: San Rafael Vein Esperanza Mine Geology

### San Rafael Vein at the Mexico Mine

The northern strike extent of the San Rafael vein was explored and exploited by the Mexico and Nolan Mines. The better grades started at Level 4 in the Mexico shaft having produced average grades of 19 grams per tonne gold and 240 grams per tonne silver. The vein width varies from 4 to 21 metres, trends N30W and dips 60° SW and is crosscut, in its hanging-wall, by the 5 metre wide Poniente vein that graded up to 80 grams per tonne gold and 800 grams per tonne silver. The vein grades decreased down to the 8<sup>th</sup> level to 30 grams per tonne gold and 140 grams per tonne silver. The Mexico Mine, in general, was higher in silver grades than the mines to the south. The San Rafael vein in this mine trends N25E and dips to the SW from 55 to 66° and has an average width of 21 metres and was mined to a depth of 513 metres in the Nolan Mine. The vein was described during an underground visit by Wisser in the 1920's as a quartz-cemented breccia comprised of altered wall rock shale fragments, earlier breccia fragments and early banded and mineralized vein material in parallel vein walls comprised of crustiform-colloform banded and locally bladed quartz after calcite as the hydrothermal cement. Locally the quartz breccia has crustiform banding around the outer rims of the fragments as well as in coarse drusy quartz-filled cavities. Adularia is locally present. According to early miners, the axis of the wider mineralized bodies (faults) mined historically were *sub-horizontal and easterly in trend* within the shale, just above the upper contact with the andesite porphyry sill in the footwall of the San Rafael vein. Syn-mineralization faulting resumed and the development of numerous feather tension veins and branches were developed at acute angles to the main San Rafael vein in the hanging wall contributing to the wide mining widths at certain elevations within this mine (Figure 6.26).

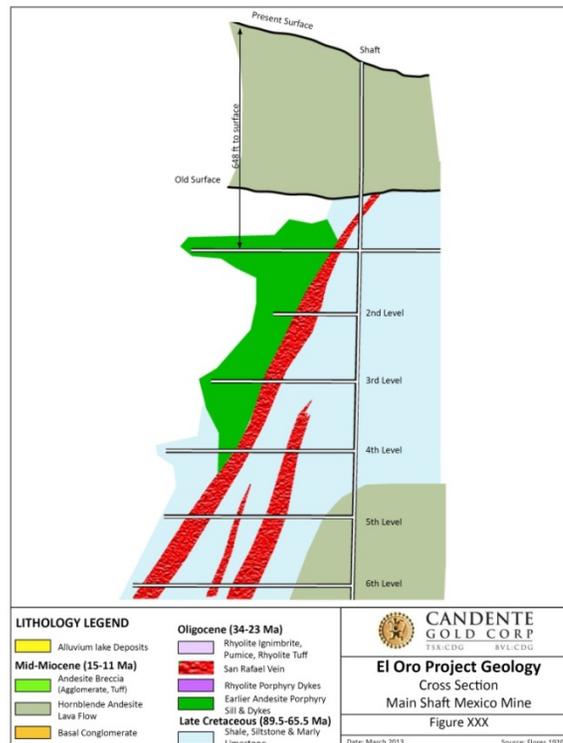


Figure 6.26: San Rafael Vein Mexico Mine Geology

The San Rafael vein is wider in the shale just above the andesite sill in the footwall shales and in the hanging-wall shales just above the andesite sill (Figure 6.26). The best area of structural preparation was along the contact between the incompetent shale and the competent andesite sills where extensive feather or tensional joints were formed in the hanging wall of the main vein near to the Esperanza Fault. During uplift and lateral extension, the competent sill cracked into several master parallel veins including Descubridora, and Calera in the footwall and the Chihuahua Vein in the hanging wall of the San Rafael vein. The less competent shale slipped and stretched into minute tight fractures where vein development was narrower.

### The Descubridora Vein (Bonanza Silver)

The Descubridora vein was the first vein to be worked in the El Oro district. The original gold-silver ore at Descubridora was found in 1787 by a group of prospectors. They first initiated work on the vein followed by work on the Mondragones Vein between the Calera and Chihuahua veins. In 1847, the Descubridora Mine sold their properties to English miners named “Company of Restorative Miners of El Oro” who rehabilitated 10 shafts in the area for future exploitation and set up a finance company for beneficiation by the patio process with at least 150 arrastras.

The Descubridora vein lies 150 metres to the east of the San Rafael (Figure 6.23); has an average strike of NW-SE and varies in dip from 45 and 80° to the southwest with a width from 0.30 metres on Level 30 to a maximum of 2.25 metres in Tiro Providencia. The vein is sub-parallel to; and in the footwall of the San Rafael vein; is silver-rich with bonanza grades over narrow widths reaching >5366 grams per tonne silver. The vein matrix is heterogeneous and is comprised of milky well defined quartz, while in other places the matrix is quartz-calcite and has abundant earthy clay. In general, when the vein is dominated by quartz, the gold and silver values are lower and when dominated by calcite the veins are rich in gold and silver. Locally the vein is dominated by fault gouge clays where the gold grades tended to decrease (Table 6.31).

Table 6.31: Summary of Descubridora Mine Grades

Block No.	Reserves Description	Width (m)	Au (g/t)	Ag (g/t)
1	Block below Descubridora veins in opposite N.N. Level 50	0.8	1.0	75
2	Descubridora vein P. 5N. Ten metres below Level 50	1.6	24.0	2785
3	Descubridora shaft 1N two metres below Level 50	0.7	5.0	389
4	Descubridora, an alcove opposite South, 2.5m below Level 50	0.9	6.0	1228
5	Descubridora, an alcove in north ventilation shaft of Level 60	1.2	46.0	2174
6	Footwall veinlet below Descubridora, ceiling of Level 60	0.4	36.0	5366
7	Descubridora vein in Plan 1.S. of Level 60	0.4	16.0	2584
8	Descubridora opposite North Level 30, when start filling	0.7	0.5	36
9	Descubridora Level -30 ventilation shaft N.I.	0.4	2.0	416
10	Descubridora Level 30 cruise west	0.3	1.5	47
11	Descubridora Level Jorge de El Oro Mining opposite south	0.3	1.0	45

The Descubridora mineralization is comprised of native gold and silver and varying sulphides including: pyrite, argentiferous galena, argentite, stephanite, pyrargyrite, proustite that are irregularly distributed throughout the vein. The vein character varies from irregular to simple in highly variable structures with a maximum thickness of 2.25 metres, and was defined in variably sized bands. Where the veins were narrow, the mining proved to be difficult.

The areas of precious metal enrichment at Descubridora occurred in weathered, sulphide-rich voids in proximity to cross faults and larger silica breccias (faults). Native gold and silver was rare along the actual banded contact of the vein and the shales. The north workings averaged 175 metres along strike, where the vein varied in thickness from 0.20 to 0.30 metres with mineable widths to as high as 1.60 metres. The 36.0 metre long south workings were marginally developed due to badly faulted ground at the Del Rio Fault (Figure 6.27).

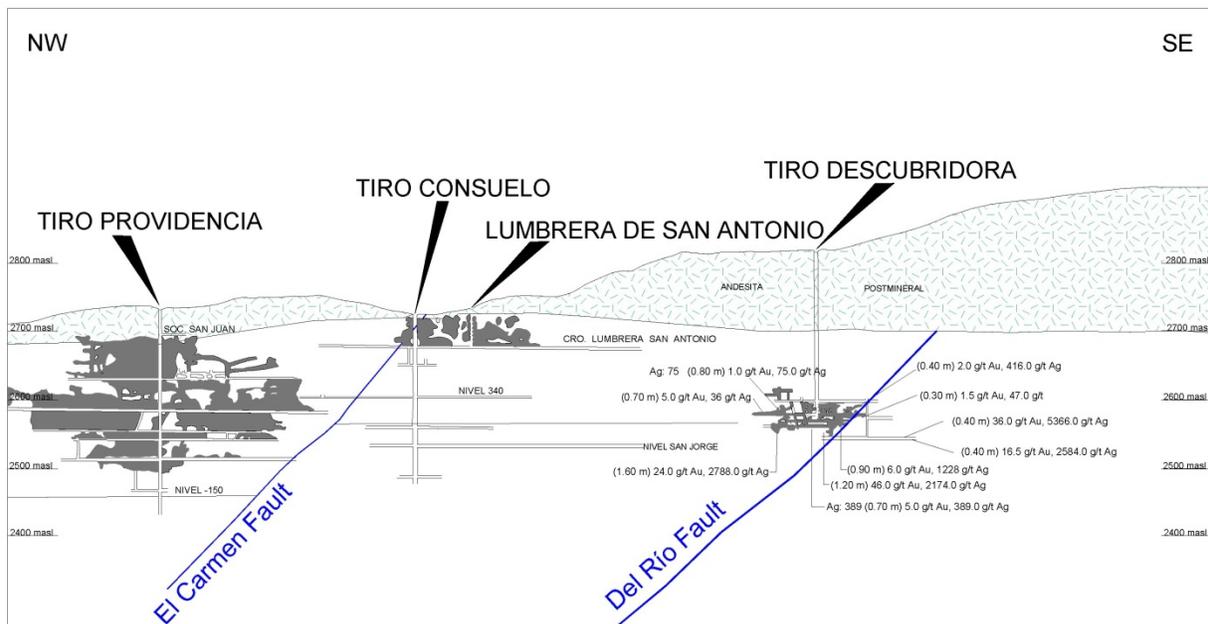


Figure 6.27: Descubridora Mine and El Oro Mines & Railway

### The Calera Vein

The Calera Vein trends 140 to 120° Az and dips from 60 to 70° to the southwest with a width of 0.50 to 0.70 metres. The matrix of the vein is quartz with clays especially near the surface. The mineralization is dominated by native gold and silver with multiple types of mixed sulphides.

### The Mondragones Vein

The Mondragones Vein was discovered in 1788, and is located at the southwest end of the El Carmen Adit between the Chihuahua and Calera Veins. The vein was exploited by the El Oro Mining & Railway Co. Claim block.

This vein trends 150 to 156<sup>0</sup> azimuth and a dips 75<sup>0</sup> to the southwest with a width of 0.20 to 0.50 metres. The best mineralization was found at surface in a weathered zone where the post mineral andesite cap is weathered and eroded resulting in supergene weathering and enrichment in the exposed vein. Similar to the Verde, the vein is comprised of dominantly quartz and calcite where the gold grades decrease and mostly calcite where the gold grades increase. The silver grades increase in the quartz-dominant veins where disseminate sulphides are abundant.

### The Chihuahua Vein

The Chihuahua Vein lies within host rock shales and metamorphosed andesite sills and trends an average direction of 150Az and has a dip of 60<sup>0</sup> to the southwest with a variable thickness of between 0.60 to 2.0 metres. The quartz is compact, crystalline, and milky with cellular limonite after sulphides. The mineralization is native gold and native silver with disseminate sulphides. Similar to the Mondragones vein, the better grades occurred near surface where precious metal enrichment occurred where the vein was exposed at surface.

### The Sirio Vein

The Sirio vein was found adjacent to the Descubridora vein. The Esperanza Mining Company produced a vertical shaft situated between San Rafael and the hanging-wall of the Sirio vein. This access shaft was collared in bad ground where the workings headed east and west and cut the veins in badly faulted ground. The last reference point in the workings was the lower andesite layer (sill) between at depth of between 90-110 metres.

### The Negra Vein

The Negra vein located in the hanging wall of the San Rafael vein, was strongly sulphidic and pyrite-dominant (5 to 7% pyrite). The vein was narrow and extremely gold-rich and was bisected by a series of NNE to ENE cross faults that cut the dominantly NNW trending vein. The historic research suggested a series of very large stopes; some of them were larger than 30 metres in width, on the sulphidic gold-rich Negra vein between the Negra and San Rafael veins. All of these veins lie within a series of lenticular, stacked and imbricated structures resulting in a series of “vein lenses” bound between one or more thinly faulted shale seams. The gold-rich Negra vein on the San Rafael-El Oro Mining & Railway Co., vein segment lies at depth in Zone 3 (Figure 9.6) between N550 foot (167.64 metres) and N1450 foot (441.96 metres) on cross sections A to G for Veta Negra (“black vein”). The sample control data from 1905-1925 is part of the 3D grade model discussed in Section 9.3 of this report.

### The Buen Despacho-North San Rafael Vein

The Buen Despacho target (Figure 6.28) lies at the furthest northern strike extent of the San Rafael vein system. The area is covered by an andesite breccia overlying andesite porphyry volcanics. The quartz vein

follows a N30W vein fault that is bisected by multiple N75E cross faults that have sinistrally-offset the quartz vein and potentially up-thrown a portion of the target.

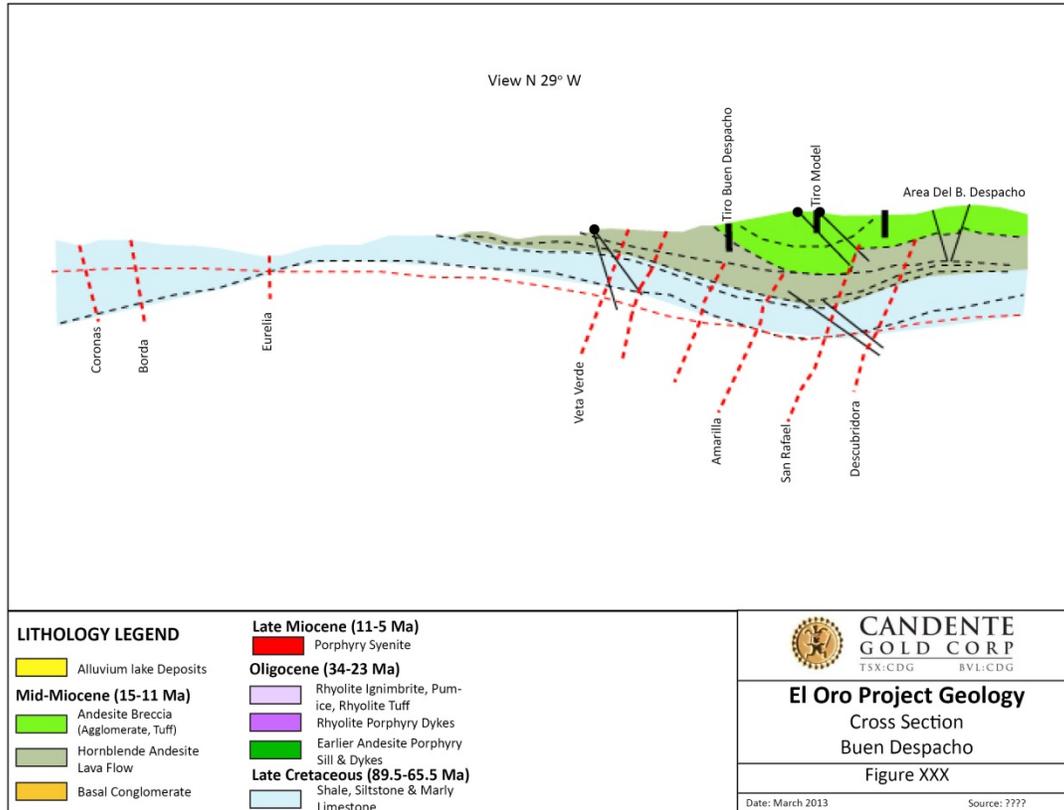


Figure 6.28: Buen Despacho Cross Section Geology

The Verde, Jesús del Monte, El Salto, Nueva, Colorada, Blanco, Amparo, Somera; and the A, C, D and E veins

The Verde and the Nueva veins were discovered by Fournier in 1902 using the same concept as for the discovery of the blind San Rafael vein by tunnelling easterly under the post mineral volcanics, along the Dos Estrellas Adit, perpendicular to the NNW district vein trends, for a distance of 1.0 km . Fortunately, the adit cross cut the Verde Vein at the richest part of the vein. A summary of the production tonnes and grades from the Dos Estrellas Mines is located in the Historic Production Section 6.5 of this report. Large amounts of water along the hanging-wall side of the vein walls and vein faults and along the sub-horizontal contact between the post mineral andesite cap and the underlying shales continually hindered effective mining activities in this area.

Based on historical mine data, the Verde and nearby veins produced in excess of three million gold equivalent ounces from 6.3 Mt of ore with an average production grade of 12.0 grams per tonne gold and 160 grams per tonne silver over an average width of 5 to 10 metres. Several other sub-parallel and branching veins were also mined. The Verde vein is hosted in sediment and locally in andesitic volcanics. Production occurred over a vertical depth of up to 260 metres and over a strike length of approximately 1.8 to 2.5 kilometres. The San Rafael Vein is located 1.5 kilometres to the ENE of the main Verde vein.

The most productive Verde vein segment mined measured 700 metres in length, and varied in width from less than 10 up to 30 metres. The vein continues to the south from the Dos Estrellas adit for a distance of 500 metres. Drill hole M-71-1 targeted the southern strike extension of the Verde vein. The Verde vein continues to the north for a distance of 1700 metres from the Dos Estrellas adit and remains a strong exploration target in this area due to very little drilling.

The main Verde vein and related vein segments is sinistrally and vertically offset by a set of 18 sub-parallel east-west trending faults (Dos Estrellas Faults) centered on the eastern end of the ENE trending Dos Estrellas adit (Figure 6.29). The Verde vein has been the focus of extensive underground workings over the years with 100's of kilometres of development on multiple mine levels. The Dos Estrellas adit branches to the right into the Oyamel adit at 450 metres east of the main Veta Verde. This access adit remains inaccessible at this time due to severe caving of the friable shale host rock. Several sub-parallel veins occur to the east-northeast and in the foot-wall of the main Veta Verde vein: Veta Amparo is 200 metres east; Veta A is 280 metres east; Veta B is 280 metres east; Veta C is 410 metres east; Veta D is 490 metres east and Veta E is greater than 600 metres east of the main Verde Vein. Two shafts access the northern end of Verde including the Tiro Cuatro, Tiro Cinco as well as several known shafts that access the central and southern ends of the vein system including: Tiro Sur, Tiro #3 and Tiro Nuevo de la Union. The Verde hanging-wall veins include: Colorada, Jesús del Monte, El Salto, Nueva and the Blanca veins.

Candente's 2007 Drill holes (VV-07-01, VV-07-02 and VV-07-03) targeted the northern strike extent of the Verde vein and related veins. The results are summarized in Section 9 of this report.

The Jesús Del Monte vein was the first vein to be intersected heading east along the Dos Estrellas adit at a distance of 579 metres followed by the *El Salto Vein*. The silver-rich and calcitic *Nueva Vein* was intersected at 660 metres to the east, followed by the quartz-dominant and argentiferous Bonanza vein called *Veta No. 27* and finally further east the massive gold and silver-rich *Verde Vein* was intersected. The Verde vein character was very different from the argentiferous Nueva vein as Verde was much larger in width and extremely gold-rich and could be extracted effectively by cyanidation. The Verde vein was intermittently exploited over a distance of approximately 1800 metres along strike to a depth of 460 metres by mine levels: +160, +120, +100, +90, +72, +36, Level 0 (Socavon de Las Dos Estrellas). In the upper mine levels (+160, +120, +120, +72) the Verde vein trends N25W and dips 50 to 65° to the southwest. At depth on Level +72, the Verde vein changed in width from 33 metres becoming narrower to a few metres or centimetres where it horsetails near to the shale host rock.

### Zona Oriente

The Oriente area lies to the east-northeast of the historic San Rafael Vein. The target area is covered by younger post-mineral Tertiary volcanics. Seven structural windows of Cretaceous shales and older volcanics have been found within these younger post-mineral volcanics. Five known structural windows are altered and cut by thin (1-3 cm) quartz-calcite veins and related stockwork. The veins consist of

varying amounts of quartz, chalcedony, and calcite which exhibit banding, brecciation and drusy crystal texture; all typical of the gold-silver bearing El Oro veins (Pryor, 2011). One of these windows has exposed the *Andrea Vein* that is a 0.5 to 1.0 metre wide quartz-carbonate vein, in the northern part of the Oriente area. Assay results from surface samples did not report anomalous results for gold or silver. A great deal of geophysics was done in this area and Candente drilled several holes with poor results as summarized in Section 6.3 of this report.

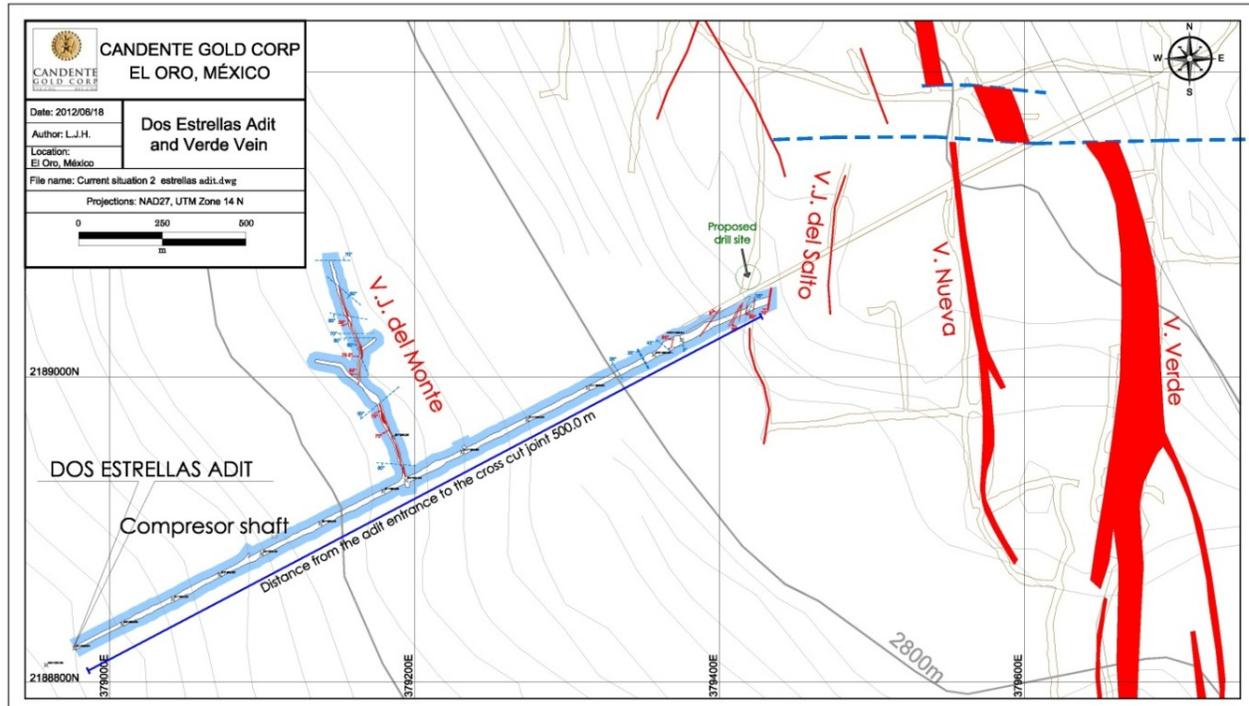


Figure 6.29: Dos Estrellas adit showing location of Verde, Nueva, Jesús Del Salto and Jesús Del Monte Veins

### The Blanca Vein

The Blanca vein lies in the foot-wall to the east of the Verde vein; is between 5 and 25 metres in width; and trends between N10W to N25W. The vein lies in contact with a hornblende andesite sill on Level +160. The Blanca vein is white to canary yellow with abundant calcite and graded between 16 to 18 grams per tonne gold and 160 to 180 grams per tonne silver. The NW extension is truncated by a fault that trends N70E and dips 80° to the NW. On the level below Level +120, the Verde and Blanca veins are separated by 65 metres and were exploited for a distance of 300 metres on this level. The Verde, Blanca and related veins are bisected by a series of eighteen N70E to N80E cross faults that are interpreted to be both pre- and post-mineral and both normal and reverse in nature. Two of the larger faults can be seen in Figure 6.29 above.



### *Borda Vein Target*

The Borda vein system is a silver rich Ag-Au epithermal vein target. Surface exposures and historic underground mining data indicate that the vein system extends 1.5 km along strike, and down-dip for at least 160 metres. The historically exploited ore zones were narrow, ranging in width from 0.70 to 2.0 metres, with occasional blowouts up to 12 metres in width. Historical production data for the Borda vein is only general in nature, and Flores (1920) reported grades of 1-5 grams per tonne gold and 100–760 grams per tonne silver. Total production from the Borda vein system was probably less than 300,000 tonnes (Grey, 2003)

The mines on this vein were constantly battling dewatering challenges. The Borda Vein was also worked via open pit methods but much less extensively than the Coronas vein. The Borda workings had very limited cross cuts and the miners were following the vein and typically missed ore beyond faults along the strike extension of the vein, outside the known bonanzas. In 2003, Grey suggested that exploration targets on the Borda vein system include:

- Zones of parallel mineralized structures
- Zones of disseminated mineralization in altered wall-rock to the main vein
- Gold-rich shoots or portions of the vein

On top of Cerro San Francisco (Tiro San Francisco) mapping demonstrated the existence of mineralized structures parallel to the main Borda vein in structural zones ranging from between 20 to 40m in width. Sampling demonstrated anomalous gold enrichment in wall-rock to the main mineralized structures.

The mineralized vertical interval of the Borda vein reaches the surface at a maximum elevation of 2685m asl on Cerro San Francisco and is exposed in mine workings at elevations to as deep as 2480m asl. Vein width and grade does not change appreciably over this 195m interval (Grey 2003). There is no evidence to suggest that deeper portions of the vein will be wider or higher grade than those historically mined.

According to a detailed field review by Grey, 2003, there is the potential to develop ore zones similar to those historically mined as follows:

1. In the Tiro Santa Cruz area, where historic mine maps show exploitation of an ore zone terminated against the lowest production level at 80m below surface. However mineralized widths are approximately 1.0m and reported grades are 2.3 grams per tonne gold and 229 grams per tonne silver.
2. In the Tiro Quebradillas area, where exploitation of a relatively high-grade ore shoot terminates at the lowest production level, with no apparent decrease in grade. The reported mining width however, is no more than 1.5m and reported grades were 1.6 grams per tonne gold and 322 grams per tonne silver.

The bedrock geology at Borda is comprised of metamorphosed fine grained sediments intruded by a plagioclase phyric andesite subvolcanic body. The metamorphosed sedimentary strata, known as “pizarras” include true phyllites, as well as siltstones and sandstones. At lower elevations, on the western and southern flanks of Cerro San Francisco (Figure 6.31), a plagioclase phyric andesite unit occurs. The andesite unit also called the “andesita antigua” is truncated against the Borda vein structure. Similar rocks were described by Flores (1920) as hosting the Borda vein at a depth of 180m depth below surface in the Pinto mine. These same andesite sills occur throughout the San Rafael and Verde veins and control,

through rheological contrasts, wider vein emplacement due to better dilation near the competent sill contacts.

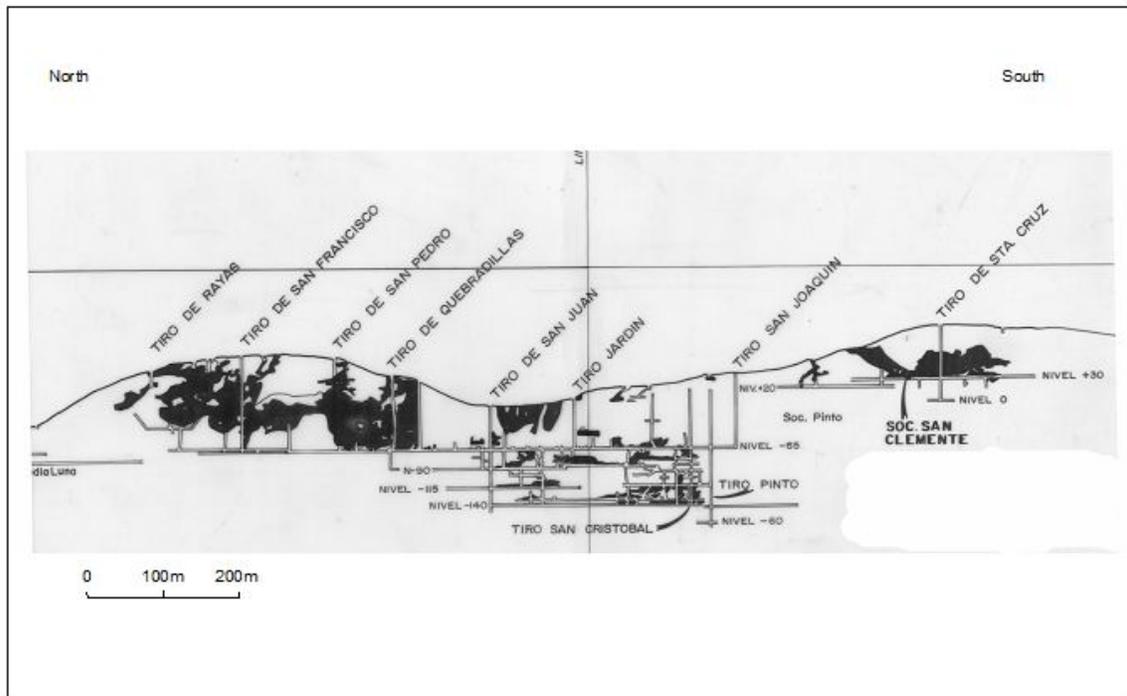


Figure 6.31: Longitudinal Section of the Borda Vein

The Santa Cruz and Quebradillas targets can only be further evaluated by drill testing.

The Coronas and Luz de Borda vein systems lie along strike with differing exposures of the same vein system. The Coronas and Luz de Borda vein systems were both mined at depth but lacked encouraging surface results. The existence of these veins was known by records of underground development and exploitation. The underground workings were not accessible during the Grey, 2003 review due to collapsed walls. The Borda vein system is exposed at surface in what appears to be an uplifted and exposed fault block.

### *Coronas Vein Target*

The Coronas Vein was originally worked via open pit methods along a strike length of nearly 1.6 km (1.0 mile) down to shallow drainage tunnels (adits) below which water became a problem. The ore at Coronas was of very high grade, exposed on surface and easy to mine and recover via the Patio Process. The Coronas workings have very limited crosscuts and the miners typically missed ore beyond easterly faults along the strike extensions of the vein outside known bonanza vein segments. Good potential exists beyond easterly trending faults.

The Coronas vein has a total strike length of 2.0 kilometres and is hosted within meta-sediments and meta-volcanics. Locally this vein was mined to an approximate depth of 200 metres with an average mining width of 1 to 2 metres. The Coronas vein, similar to the Borda vein, is silver-rich with gold credits (Table 6.32).

Table 6.32: Significant Results from La Mina San Andres at the Coronas Vein Target

Level	Longitudinal Million Metric Tonnes	Width(m)	Gold(grams per tonne)	Silver(grams per tonne)
-80	10	1.15	0.75	209
-90	82	1.1	1.05	162
-100	19	1.2	0.78	198
-165	90	1.35	0.46	46
-165	28	0.95	2.25	600
-165	22	1	0.18	47
-165	16	0.97	0.83	752

(source- Minera Mexico Michoacán, S.A. de C.V. Proyecto El Oro-Tlalpujahuá-Reporte Correspondiente al Mes de Mayo de 1989)

*Veta Coronas-Socavon El Chino:* This adit is located a few metres to the northwest of the main plant location and is 140 metres in length and followed the strike of the Coronas Vein. The first 27 metres was rehabilitated during the Grey 2003 field work. The entire adit was mapped and channel sampled every 4.0 metres along the structure that trends N5W and dips to the northeast. In 1989, Luismin took a total of 73 rock samples numbered 17001-17073. To the north of the Veta Coronas, a stream hosts the possible trace of the Veta Coronas where 3 samples were taken (#17074-17076). The results from this sampling included: 0.1 to 1.5 grams per tonne Au, 19 to 143 grams per tonne Ag and 1000 to 2161ppb Hg.

#### *Cortaduras Open Pit Target*

The Cortaduras (Figure 6.32) Target lies in the Tlalpujahuá Mining District and is hosted in altered Cretaceous meta-sediments in fault contact with pre-mineral tuffs. Within the meta-sediments, on the south side of an E-W fault, an extensive zone of quartz-sulphide stockwork to sheeted veins and veinlets is well developed.

The Cortaduras Target is characterized by an extensive quartz-sulphide stockwork zone along an 800 metres strike length and an estimated width of 250 metres. Previous trenching and drilling confirm the area has good potential for gold and silver-bearing open pit stockwork/structures.

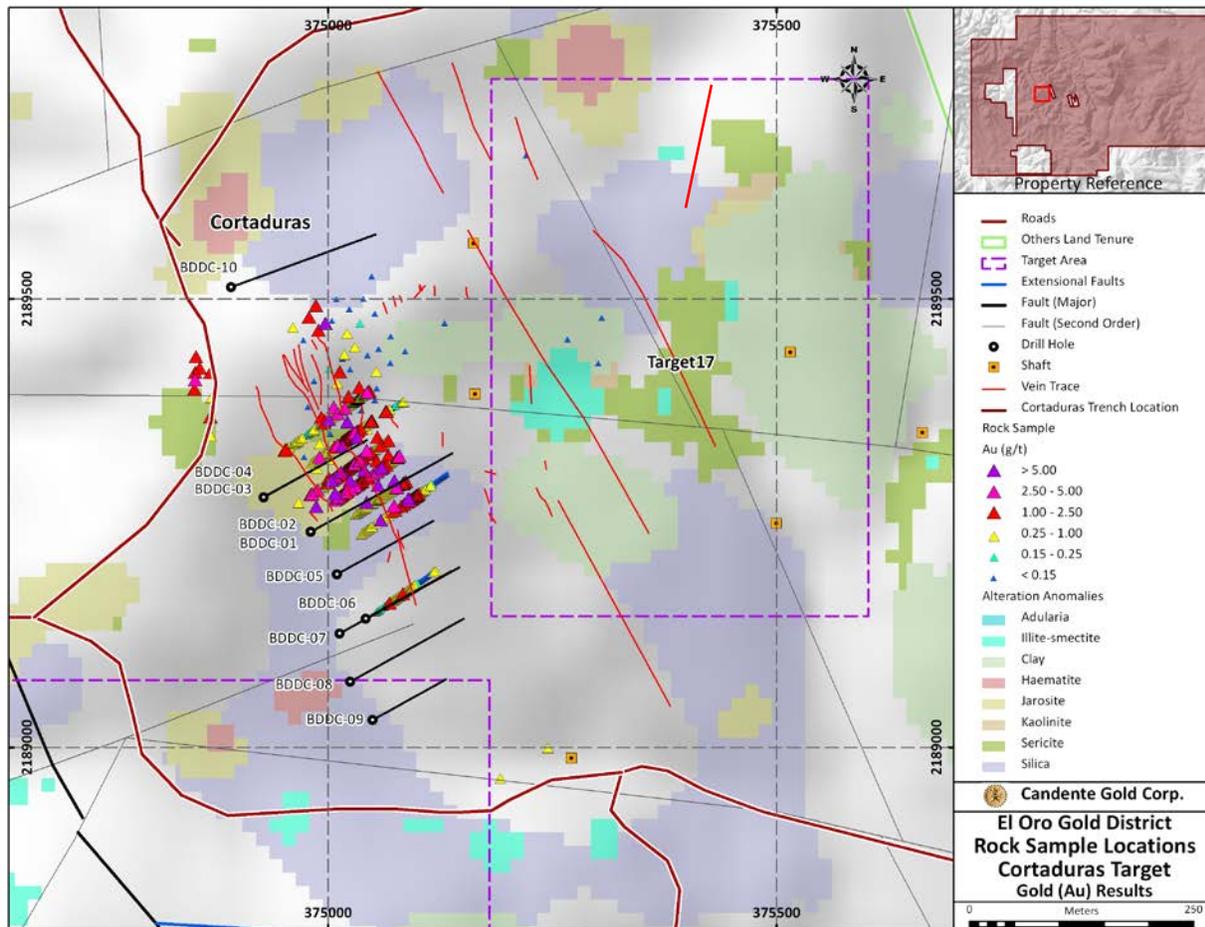


Figure 6.32: Cortaduras and Target 17 Surface Compilation

In 1988, Luismin conducted a short ten collar drill program (Holes BDDC-001 to BDDC-010) totaling 1,926 metres to test the excellent gold results from surface trenches (TRCO-001 to TRCO-007). The drill holes reported gold and silver values including BDDC-001 returned 0.23 grams per tonne gold and 200 grams per tonne silver over 13.45 metres. A highlight of results can be found in Table 6.33.

BDDC-006 intersected 1.3m (from 57.6-58.9 m) grading 15.0 grams per tonne Au and 250 grams per tonne Ag (including 0.45m of 20.1 grams per tonne Au and 350.0 grams per tonne Ag from 58.1 to 58.9m). From a down hole depth of 99.4 to 99.80 metres, the Carmen de Virgenes Vein was intersected in the form of a vein breccia with shale fragments. From 99.80 to 100.80m a vein fault was intersected characterized by milky white to translucent quartz and irregular smoky quartz with disseminate pyrite. Highlights of the drill results are summarized in Table 6.34.

Based on the trench and drill results Luismin calculated the potential metric tons 168,813 metric tons in 5.15 metres grading 0.96 grams per tonne Au and 212 grams per tonne Ag accessed by Tiro Del Carmen and Tiro Del Aire (*Monsivais Gamez Jorge. et. al, 1989*).

Table 6.33: Cortaduras 1989 Luismin Drill Results

Hole ID	Az	Dip	From(m)	To(m)	Interval(m)	Au (g/t)	Ag(g/t)	EOH(m)
BDDC-1	61	-20	83.95	97.40	13.45	0.23	200	192.15
BDDC-2	61	-45	61.05	62.40	1.35	0.12	54	210.20
BDDC-2	61	-45	130.00	132.20	2.20	0.00	19	210.20
BDDC-3	61	-30	68.25	68.39	0.14	3.50	27	150.05
BDDC-3	61	-30	137.85	139.30	1.45	0.00	5	150.05
BDDC-4	61	-55	66.40	66.80	0.40	0.30	35	229.40
BDDC-4	61	-55	87.24	87.61	0.37	0.00	3	229.40
BDDC-4	61	-55	143.10	146.00	2.90	0.10	8	229.40
BDDC-4	61	-55	148.85	151.00	2.15	0.00	20	229.40
BDDC-5	61	-30	72.05	76.25	4.20	0.30	231	142.20
BDDC-6	61	-50	57.60	58.90	1.30	3.70	345	169.00
BDDC-6	61	-50	97.20	99.80	2.60	0.02	232	169.00
BDDC-7	61	-45	117.35	117.85	0.50	0.00	2	215.60
BDDC-7	61	-45	169.00	175.80	6.80	0.08	6	215.60
BDDC-8	61	-48	39.20	40.95	1.75	0.10	15	216.50
BDDC-8	61	-48	43.85	49.70	5.85	0.15	44.00	216.50
BDDC-8	61	-48	92.30	94.35	2.05	0.00	0.40	216.50
BDDC-9	61	-55	52.65	53.70	1.05	2.90	3.00	162.50
BDDC-9	61	-55	121.45	122.05	0.60	1.10	14.00	162.50
BDDC10	70	-44	154.32	160.20	5.88	0.13	196.00	238.40

In 2007 Candente resampled the Luismin trenches (TRCO-001 to TRCO-007) and Candente's surface gold and silver results were significantly higher than the Luismin results from their 1988 sampling program (Table 6.34).

Table 6.34: Candente's 2007 Cortaduras Trench Resampling

Trench ID	From(m)	To(m)	Interval(m)	Au ppm	Ag ppm
TRCO-001	0	121.5	121.5	0.61	23.2
TRCO-002	0	85.5	85.5	0.96	21.6
TRCO-002B	0	24.0	24.0	0.47	32.7
TRCO-003	0	108.0	108.0	1.50	24.93
TRCO-004	0	89.0	89.0	1.72	25.33
TRCO-005	0	69.5	69.5	0.64	13.32
TRCO-006	0	118.0	118.0	0.64	18.07
TRCO-007	0	82.0	82.0	0.33	9.09

### *Cuatro Pilares Mine Target*

The Cuatro Pilares lies to the immediate south of the Cortaduras target along the same NNW/N-S trending vein swarm. Cuatro Pilares lies on the south side of a WNW-ESE trending fault that has down-dropped the block to the south, unlike the down-to-north cross fault that offsets Cortaduras to the north. A small amount of historic production has occurred in the south from several smaller mines called Tres and Cuatro Pilares and from the Santa Gertrudis Shaft. The Cuatro Pilares Mine has had reported production of 38,000 tonnes grading 3.92 grams per tonne gold and >147.00 grams per tonne silver (*Monsivais Gamez Jorge et. al, 1989*).

Historic underground workings mined several parallel veins that were bisected by easterly trending low angle cross faults that sinistrally offset the vein in the underground workings most obvious on Level 0. Detailed geological cross sections define the workings on at least 5 levels (Level's 0, -15, -40 and -70). A major easterly trending low angle fault bisects the workings and dips to the south as the fault climbs up section from the south to north workings. A second low angle fault bisects the workings at 80N. The adit that is accessed from Tiro (shaft) Cuatro Pilares was sampled in detail. Numerous veins and veinlets were sampled with results ranging from 0.20-4.10 grams per tonne gold and 27-133 grams per tonne silver. The higher gold's had higher silver's (2.80 grams per tonne gold with 133 grams per tonne silver and 4.10 grams per tonne gold and 133 grams per tonne silver).

### *Zapateros Target*

The Zapateros target lies along Arroyo Santa Maria to the south of Cuatro Pilares. Historic surface rock sample returned high in mercury ranging between 250-948ppb Hg. Several veins and veinlets vary from NNW dipping steeply east 80-85<sup>0</sup> to the NE as well WNW-ESE dipping steeply to the NW between 45-50<sup>0</sup>. The ENE trending Santa Maria drainage is bisected by a major E-W fault, the south side is underlain by shales and the north side is underlain by andesite tuffs. This fault has had a down-to-north sense of movement similar to a target to the northeast of Cortaduras.

### *Pomoca Target*

The Pomoca target (Figure 6.33) is located to the northwest of the Talpujahua District. In 1988/1989 San Luis drilled several diamond drill holes to delineate a potential silver ore. The silver bearing veins are hosted in metavolcanic rocks of Jurassic age. In 1988 Minera Mexico Michoacán calculated an estimation of 519,732 metric tons (tonnes) grading 0.23 grams per tonne Au and 187 grams per tonne Ag (*Monsivais J.G. et. al., 1988*).

Table 6.35: Minera Mexico Michoacán 's 1988 Pomoca Estimate

Calculation	Metric Tons	Au grams per tonne	Ag grams per tonne
Indicated (DDH)	185,413	0.2	383
Marginal (DDH)	334,319	0.24	115
TOTAL	519,732	0.23	187

In 1990 Luismin calculated an estimate of 354,975 metric tonnes grading 0.25 grams per tonne Au and 114 grams per tonne Ag (Table 6.36).

Table 6.36: Luismin 1990 Estimate on the Pomoca Target

New DH CCM ID	Block ID	Width(m)	Au gpt	Ag gpt	Metric Tons	Length(m)	Height(m)	Width(m)	S.G.	Metric tonnes	Au gpt	Ag gpt
BDDP-1	Block 1PM	2.1	0.2	115	47,628	100	84	2.1	2.7	47,628	0.20	115
BDDP-2	Block 2PM	1.7	0.2	127	38,556	100	84	1.7	2.7	38,556	0.20	127
BDDP-3	Block 3PM	0.7	1	97	20,790	110	100	0.7	2.7	20,790	1.00	97
BDDP-4	Block 4PM	1.85	0.12	113	36,464	100	73	1.85	2.7	36,464	0.12	113
BDDP-5	Block 5PM	2.6	0.12	126	66,032	107.5	87.5	2.6	2.7	66,032	0.12	126
BDDP-6	Block 6PM	0.9	0.43	105	20,655	85	100	0.9	2.7	20,655	0.43	105
BDDP-7	Block 7PM					85	100	0.9	2.7	86,063	0.26	109
BDDP-8	Block 8PM					100	84.5	1.7	2.7	38,787	0.24	108
<b>TOTAL</b>										<b>354,975</b>	<b>0.25</b>	<b>114</b>

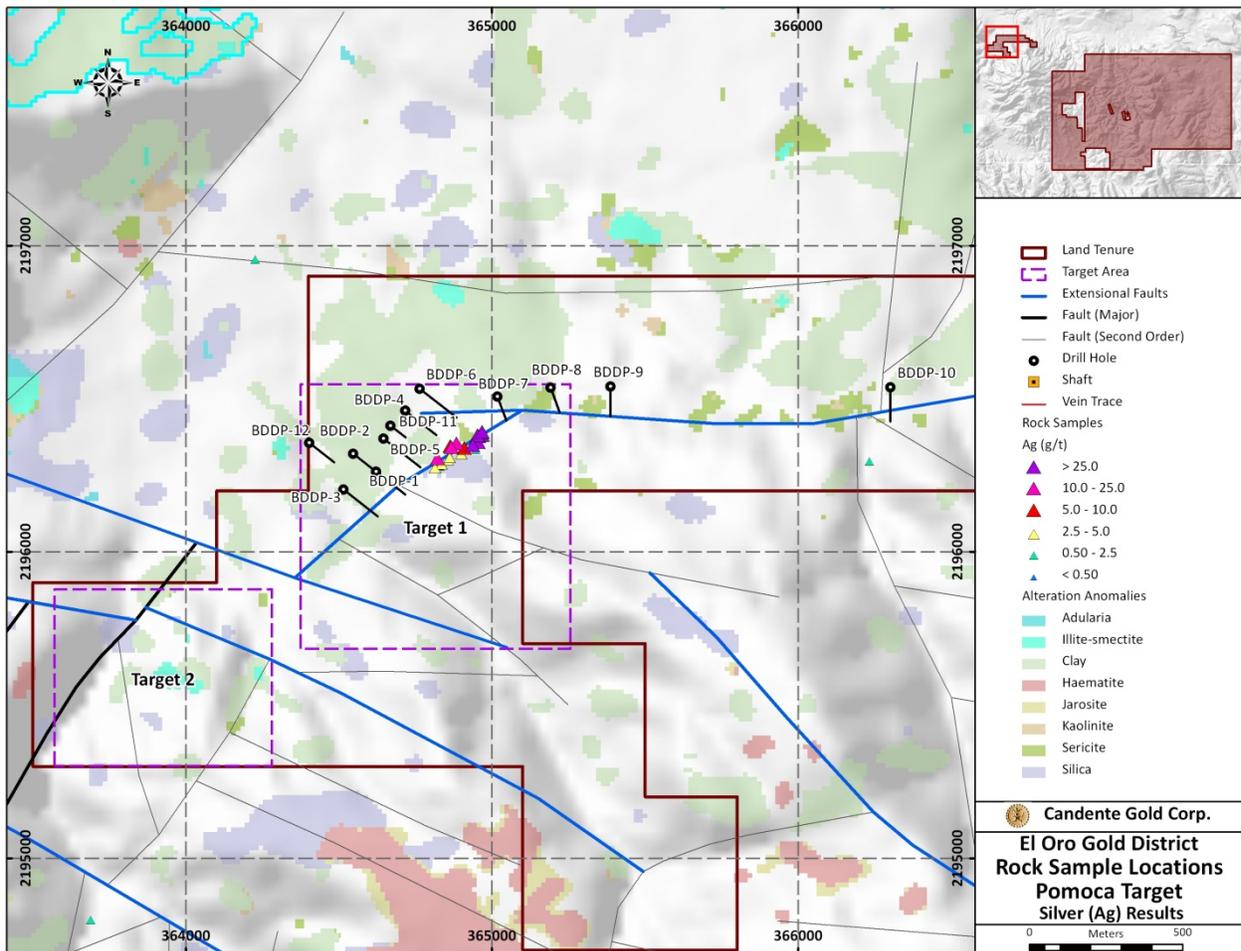


Figure 6.33: Pomoca Vein System Compilation (drilling, alteration, faults and silver)

### *San Francisco de Los Reyes Target*

San Francisco de Los Reyes has the potential for a possible bulk tonnage target. The project area comprises meta-sediments and meta-volcanic rocks that are host to stockwork quartz veinlets. Previous drilling (four drill holes for a total of 577.50 m) by Luismin/Hillsborough in 1993 reported: BDDSF93-03 returned 1.29m of 3.62 grams per tonne gold and 115.00 grams per tonne silver; and BBDSF93-04 returned 1.29m of 8.90 grams per tonne gold. The bulk tonnage potential is on the upper part of this area hosted by volcanoclastic rocks and covers an area measuring 800 metres long by 600 metres wide. Surface samples returned values up to 2.70 grams per tonne gold.

### *Syenite Target*

This area had been a major focus by Teck exploration history in the area. The area is characterized by a large “syenite” intrusion coupled with silicified limestone along a major NNW fault (Figure 6.34). The area is a strong antimony anomaly with significant gold values. Several surface samples over a wide area returned 0.66 to 7.02 grams per tonne gold, anomalous in antimony and arsenic with very low silver values (Table 6.37). Several holes have been drilled in this area with poor results. This target has not been adequately explored. Geological/structural mapping and sampling is recommended to develop this target area as discussed in the recommendations section of this report-under target follow-up.

Table 6.37: Syenite Target Surface Rock Highlights

Sample ID	Au g/t	Ag g/t	Sb ppm	Hg ppb	As ppm
4319	2.38	0.40	12	130	28
3300	3.24	4.40	32	250	210
4326	2.44	0.80	18	140	66
3299	1.03	0.60	52	90	54
3332	7.02	0.60	100	210	296
3356	5.38	0.60	34	320	532
3362	1.92	0.40	64	310	262
2504	2.36	1.20	130	400	192

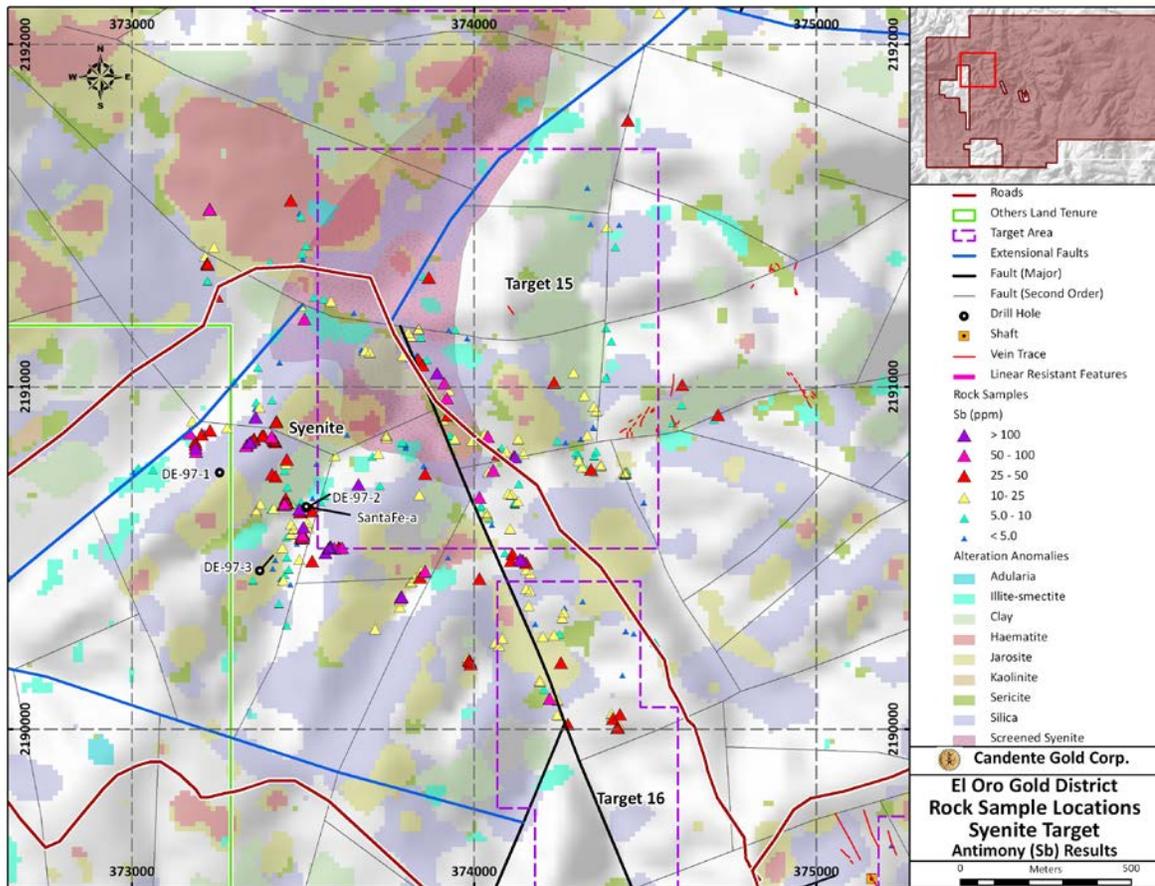


Figure 6.34: Syenite Compilation (drilling, ASTER/faults and antimony)

There are many more exploration targets within the property boundaries that are too abundant to discuss in the context of this report. The reader is referred to a detailed Technical PowerPoint May 2013 created by the author defining top priority targets in more detail.

## 7. GEOLOGICAL SETTING AND MINERALIZATION

### 7.1 REGIONAL LITHOLOGY AND TECTONICS

The El Oro Property lies within the central Trans Mexican Volcanic Belt (TMVB), a 1000 km long, and 80 and 230 km wide volcanic arc that was formed in response to subduction along the Acapulco Trench since middle Miocene (*Ferrari, et. al., 1994b, 1999*).

The belt can be subdivided into a western, central and eastern sector (Figure 7.1 below). The TMVB (host to the El Oro-Tlalpujahua district) is comprised of 8000 volcanic structures, a few exposed intrusive bodies that extend from the Mexican Pacific coast in the west to the coast at the Gulf of Mexico in the east. The TMVB was developed in middle Miocene to late Miocene, as a result of a progressive counterclockwise rotation of the magmatic arc of the Sierra Madre Occidental (*Ferrari et. al., 1999*). The El Oro property lies in the eastern part of the Central Sector of the TMVB.

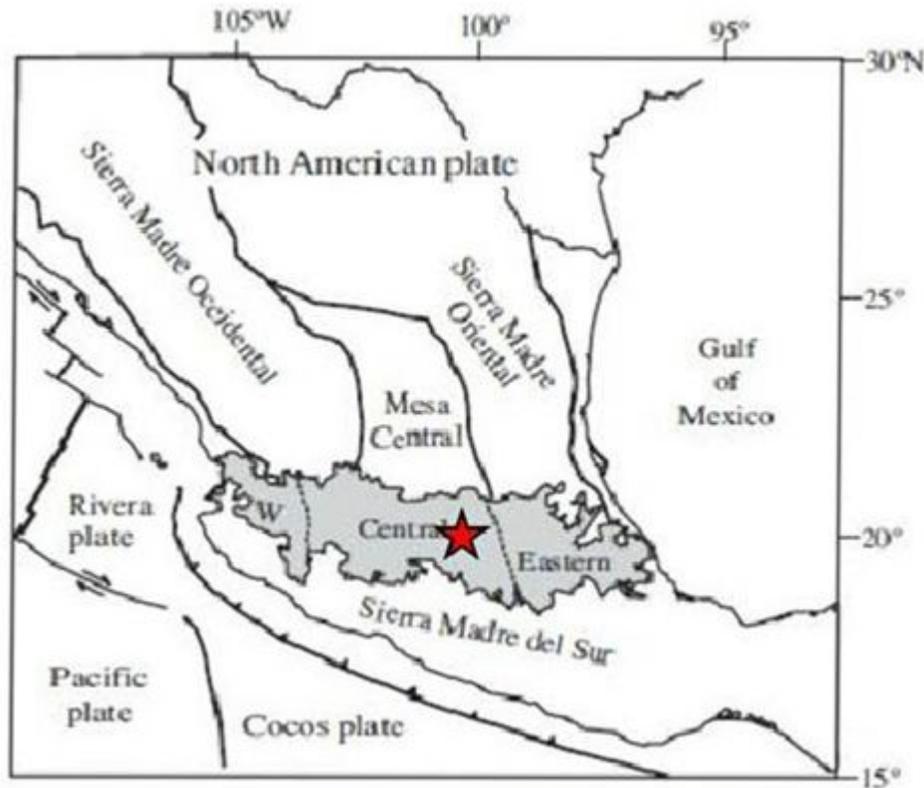


Figure 7.1: El Oro Property (red star) in the Trans Mexican Volcanic Belt (TMVB in gray) as sourced from Ferrari, 2012

Ferrari, 2012 suggests that a mid to late Miocene re-orientation of the TMVB arc was accompanied by a change in the composition of volcanic products from predominantly silicic ignimbrite transitioning to andesite to basaltic lava with the evolution of the arc. This Miocene reorganization of the subduction system was followed by cessation of subduction off the Baja of California and the eastward motion of the Caribbean-Farallon-North America triple junction along the southeast margin of Mexico. Ferrari's 2012 data supports an Early to Middle Miocene age for the initiation of sub-horizontal subduction in southern Mexico and confirms that the locus of Trans Mexican Volcanic Belt was primarily controlled by the geometry of the plate boundaries and the structure of the subducting slab (*Ferrari, L. et. al., Geosphere, Dec 1, 2012, v.8, p. 1505-1526*).

The TMVB consists of Quaternary, Pliocene and Miocene volcanic sequences that lie oblique to most of the dominant Mexican geologic provinces and are represented by flows and tuffs of mainly andesitic composition with minor dacitic and rhyolitic compositions. In detail, the belt is comprised of: Quaternary volcanoclastic and debris avalanches and products of silicic volcanism (< 1.8 Ma); Late Pliocene-Quaternary mafic to intermediate volcanism (< 3 Ma); Pliocene silicic volcanism (< 5-1.8 Ma); Mafic to intermediate volcanism (< 6-3 Ma), Late Miocene silicic volcanism (< 7.5-5 Ma), Late Miocene mafic volcanism (< 11-5 Ma) and Miocene andesitic arc (<19-10 Ma) as summarized after Ferrari, 1999.

A distinct relationship exists between the TMVB and some of the major Miocene-Quaternary fault systems. The area around El Oro-Tlalpujahua is dominated by east-striking north-dipping faults and north-northwest striking west dipping faults that extend from El Oro towards the city of Queretaro.

The Regional Tectonic History (from youngest to oldest) as summarized after *Ferrari (1999)*.

- Michoacán-Guanajuato Volcanic Field (“MGVF”): In the last one million years, widespread volcanism, covered an area of 40,000 km<sup>2</sup> marked by at least 1000 volcanic centers including 400 medium sized shield volcanoes (*Hasenaka, 1994*) resulted in the burying of evidence of all pre-Pliocene faulting over large areas in the central and western sectors of the Trans Mexican Volcanic Belt. The El Oro project is located in the central-east TMVB and post-mineral andesite lava covers the El Oro mineralization.
- WNW-ESE to WSW-ENE normal faults: The most conspicuous tectonic structures recognized in the central part of the TMVB (included are roughly arc-parallel normal faults that have been active during the Quaternary into present day (*Suter et al., 2001*).
- NE-SW trending Tenochtitlan fault system: Is dominant in the central part of the TMVB, east of the MGVF (*De Cserna et al., 1988*). South of the MGVF, NE-SW striking lineaments are observed in pre-Miocene rocks.
- Twenty-six cinder cones: at least twenty-six cinder cones, aligned along WNW-ESE and WSW-ENE (N30E) trending normal faults cut Pliocene rocks revealing that the ascent of andesite dykes feeding these Quaternary eruptive centers; a result of northeast-oriented subduction.
- Left-lateral component related to normal faulting: compiled slip data indicating roughly N-S and NNW-SSE extension (*Suter et al., 1995*).
- Left lateral WSW-ENE normal faults: North of the volcanic field the WSW-ENE trending normal faults are parallel to the alignment of the cinder cones and have a left-lateral component that affects late Miocene basalts. *Ferrari, et. al. (2000b)* interpreted this to mean that these faults had begun their activity during the final stages of the mafic volcanic episode at around 8 Ma.
- Pliocene to Quaternary volcanism: Just west of Queretaro City, Pliocene-Quaternary volcanism of the Trans Mexican Volcanic Belt is emplaced over a wide basin that is bound to the north by the Bajío normal fault and to the south by the Morelia - Acambay fault system.

- Late Oligocene (27 Ma) El Oro gold-silver mineralization: According to *Albinson in 2001*, one of the El Oro gold-silver mineralization events age dates at 27 Ma. Similarly aged rhyolite to dacite quartz porphyry dykes are spatially related to gold-silver mineralization.
- Early Oligocene (30 Ma) aplite dykes and milky barren quartz veins: Aplite dykes and barren milky quartz veins were deposited first. Many of these highly fractured and brittle “quartz” veins provided excellent host rock for incoming hydrothermal fluids.
- Bajío normal fault: The northwest trending, southwest dipping Bajío normal fault has a strike distance of more than 70 km and a minimum vertical displacement of 2 km.
- Morelia-Acambay Fault System (“MAFS”): This fault is made up of E-W and NNE-SSW trending normal faults. The fault system has a strike distance of more than 100 km. The MAFS appeared during the early Miocene (23-14 Ma) although the north-south oriented structures are older and have been related to the tectonics inherited from the “Basin and Range” system (Oligocene), but were reactivated by the east-west faults system described above. The El Oro-Tlalpujahua district lies just south of this fault system. The Morelia-Acambay fault system (MAFS) is comprised of a series of normal faults dominating along directions E-W, ENE-WSW and NE-SW. Both the northwesterly trending Bajío normal fault and the easterly trending left lateral Morelia-Acambay faults were active during the Eocene (56-34 Ma) to the Oligocene (34-23 Ma). The fault system extends for a distance of greater than 100 km from northwest of Morelia in Michoacán to east of Acambay, in the State of Mexico (Estado de México). The fault has a normal displacement and a left-lateral component. In addition the MAFS is associated to different oblique structures with “*en echelon*” geometry which corresponds to trans-tensive tectonic activity in the center of the TMVB. (Note: The El Oro-Tlalpujahua vein distribution and geometry lies in a similar en echelon geometry).

## 7.2 LOCAL PROPERTY GEOLOGY

The El Oro-Tlalpujahua district (“collectively the El Oro property”) lies along the far north-western border of the state of Mexico with the north-eastern border of the state of Michoacán. The states of Mexico and Michoacán are underlain chiefly by folded and faulted Cretaceous sedimentary and Tertiary volcanic rocks, including large areas of extrusive post mineral andesite lava, that hides earlier precious metal mineralization as well as older subvolcanic andesite sills and dykes that are cut by mineralization (Table 7.1).

The oldest exposed formation in the eastern El Oro District consists of dark fissile shale with limey horizons exposed in the Arroyo de El Oro near the Descubridora Shaft. In this area, the older shale occurs as an isolated structural window in an extensive field of younger Tertiary volcanic rocks (Figure 7.2). In the western Tlalpujahua District, massive limestone resembling Middle Cretaceous limestone (*Foshag, 1942*) rests on shale in an angular unconformity. Unconformably overlying the shale is a series of sub-horizontal flows, historically called the “Augite Andesite Formation” or more recently Pyroxene Andesite Flow (Table 7.1). Similar looking rocks intrude the shale as a flat sheet (or a sill) up to 183 metres (600 feet) in thickness, in the area of the San Rafael Vein.

According to Ferrari (1999), the TVMB belt has had several periods of episodic magmatic activity with peaks at 30 Ma (early Oligocene), 23 Ma (early Miocene), 10 Ma (late Miocene) and 5 Ma (early Pliocene). The Cretaceous basement at the El Oro-Tlalpujahua mining districts are locally intruded by post-mineral andesite dikes, as well as pre-to syn-mineral rhyolite to dacite quartz eye porphyry, quartz

diorite porphyry, and syenite porphyry dykes, some of which are spatially and possibly genetically related to known mineralization events. Quartz porphyry dykes are known to intrude the Cretaceous shale and follow the same north-westerly trend of the major veins (*Flores, 1920*). The Coronas vein lies in the hanging wall of such a dyke and a quartz porphyry dyke locally accompanies, in places, the Verde Vein, the second best gold producer in the district.

The El Oro and Tlalpujahua mining districts are underlain by broadly folded and variably faulted weak to moderately metamorphosed Cretaceous sediments comprised of friable shale, sandstone and variably calcareous siltstone dipping at low angles, either to the south or to the north depending on local folding and faulting. These rocks are in turn, intruded by pre- and post-mineralization andesite porphyry sills and irregular intrusive bodies discussed above as well as post-mineralization Quaternary (?) andesite dykes.

The principal ore deposits are related to early- to mid-Tertiary period of volcanism and related magmatic events. One of the El Oro gold and silver vein mineralization events dated at 27 Ma by Albinson (2001), is spatially and possibly temporally related to aplite, barren milky quartz, rhyolite porphyry at San Rafael. Andesite porphyry sills at San Rafael, Descubridora and Verde spatially control mineralization through competency contrasts. Mineralization at the San Rafael and Verde veins is capped by unconformity-related and variably mineralized rhyolite ignimbrite.

In the Tlalpujahua district, mineralization is spatially and possibly genetically related to quartz- eye porphyry dyke and related quartz veins and stockwork (e.g. Coronas, Cortaduras) and spatially cuts earlier andesite sills (e.g. Pomoca) and syenite intrusions (e.g. Syenite Target). In both mining districts, the three igneous rocks that appear to be spatially and locally genetically related to mineralization include: the older subvolcanic andesite sills; the rhyolite porphyry dykes (quartz porphyry dykes); earlier aplite; and the wider and barren quartz veins having provided a competent structural host rock.

Historically, the most productive gold-rich orebodies lie in the El Oro district and wholly within the shales, although valuable orebodies are known to occur in or near the subvolcanic andesite sills (e.g. San Rafael and Pomoca). The veins in the east are covered by post-mineral Tertiary post-mineral pyroxene andesite lava, whilst the Tlalpujahua area in the west, is devoid of any post-mineral volcanic cover with mineralization exposed in surface outcrops and historically mined by open pit methods.

The fractures hosting the mineralized veins that cut the argillaceous shales in both mining districts do not, in general, pass into the post mineral andesite cap rocks. These fractures are a structural system that trends N30°W with an inclination to the northeast in the Tlalpujahua district and to the southwest in the El Oro mining district. A major north-south fault (graben) is interpreted along the Tlalpujahua Valley clearly separating the two mining districts. This fault is interpreted to be a normal fault with east side down having preserved rhyolite ignimbrite blanket on the eastern and down-dropped side of the fault (e.g. Somera Tuff). The west side of the fault has been up-thrown and most of the late-mineral and post-mineral volcanic rocks have been eroded off exposing silver and gold mineralization at surface and pre-mineral andesite subvolcanic at surface in the Tlalpujahua district (Figure 7.2).

In the Tlalpujahua area, the Cretaceous sediments and older pre-mineral subvolcanic dykes and sills are cut by veins and related stockwork are exposed on surface. In the El Oro District, the same Cretaceous sediments and subvolcanic rocks are buried by a post mineral andesite cap ranging in thickness from 75 to 400 metres. The bonanza San Rafael, Negra and Verde veins were completely hidden by this elusive post mineral volcanic cover.

Table 7.1: El Oro-Tlalpujahua District Lithology

<b>LITHOLOGIC LEGEND</b>
<b>Quaternary to recent (&lt; 1.8 Ma)</b>
Recent deposit
Red conglomerate
<b>Late Pliocene to Quaternary (1.8-2.5 Ma)</b>
Andesite dyke
<b>Pliocene (5-2.5 Ma)</b>
Dacite-rhy welded tuff pumice flow
Pyroxene basaltic-andesite lava flow
dacite to rhyolite ignimbrite
dacite-rhyolite porphyry
<b>Late Miocene (11-5 Ma)</b>
Syenite-latitude porphyry
Basalt and basalt breccia flow
<b>Mid Miocene (15-11 Ma)</b>
Andesite breccia
Hornblende andesite intrusion
Pyroxene andesite flow
<b>Early Miocene (23-15 Ma)</b>
Rhyolite ignimbrite
Rhyolite porphyry dykes
<b>Oligocene (34-23 Ma)</b>
Rhyolite ignimbrite
<b>Age of El Oro Mineralization (27 Ma)*</b>
Gold-silver bearing quartz veins
Rhyolite porphyry dykes
Aplite dykes and milky quartz veins
Andesite lava flow
Andesite porphyry sill/dyke
Diorite or diabase
<b>Late Cretaceous (89.5-65.5 Ma)</b>
Limestone
Shales and marly limestones

\*source: Albinson et. al., 2001

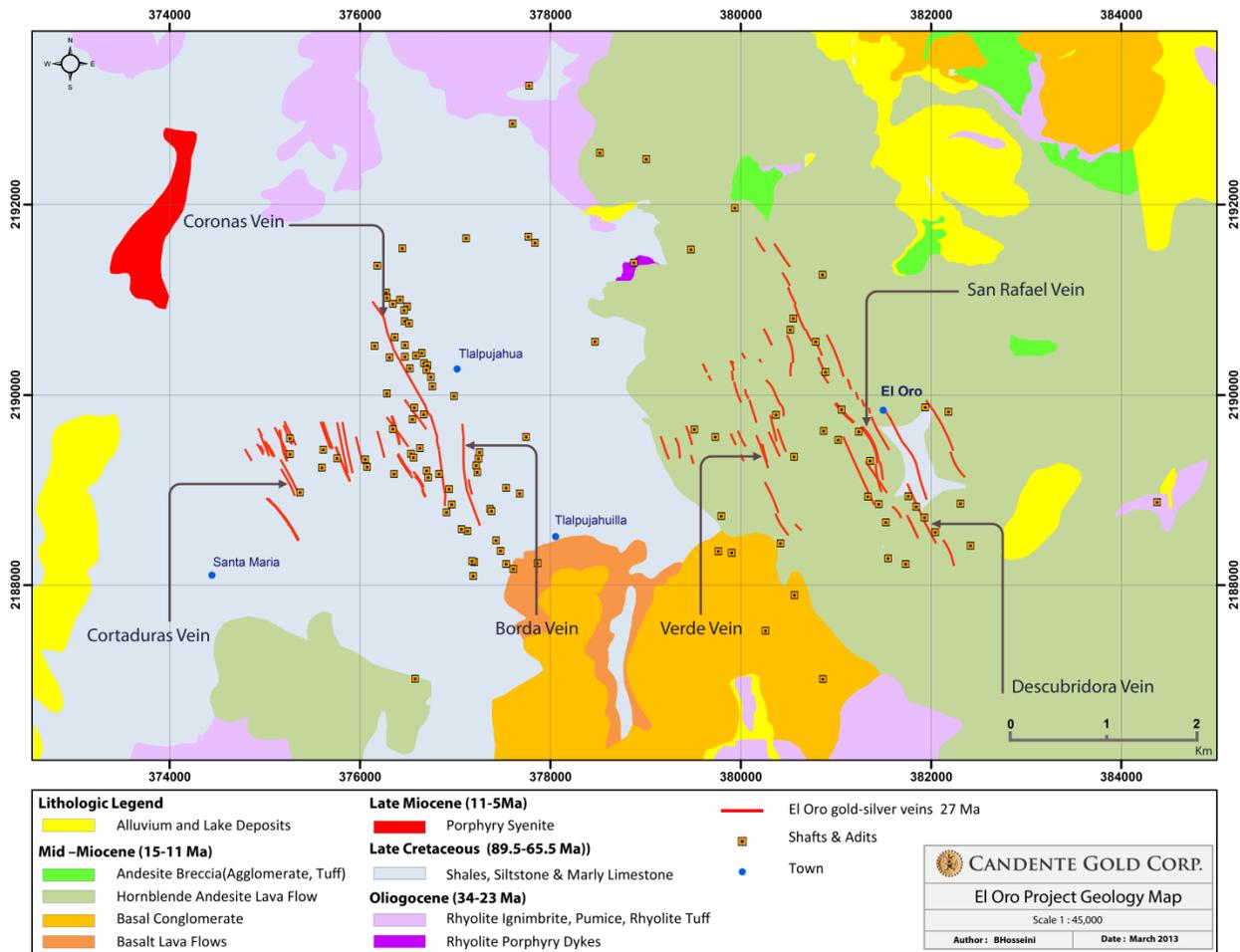


Figure 7.2: El Oro-Tlalpujahua Mining District Lithology

### El Oro Mining District

While most of the El Oro District lies in the State of Mexico, its north-western and south-western portions extend into the adjoining state of Michoacán. The El Oro Mining District was attracting a great deal of attention during 1905. A new orebody in the Esperanza Mine as well as Dos Estrellas was also making its mark in Mexico during this time.

The rocks in the El Oro district are more intensely folded and faulted with limited surface exposure in fault-induced structural windows in the Cretaceous sediments and subvolcanic rocks surrounding the mines of the Mina Consuelo, Chihuahua, and Descubridora and along part of the El Oro River where bedding inclinations are steep to vertical unlike the shallow dips of the Cretaceous sediments (shales) in the nearby San Juan adit as well as in the Tlalpujahua district.

Many of the early aplite dykes, milky quartz veins and related fractures that are sub-parallel to the N30W vein trend show signs of multiple mineralization events, at times perpendicular to the trend of the vein system. Many of the faults that cut the sedimentary package have dislocated and offset many of the veins of the district, many in a right lateral or dextral sense. Some of the faults post-date the mineralization and the post-mineral andesite cap and locally displace the cap vertically.

### Tlalpujahua Mining District

In the Tlalpujahua mining district the overall general direction of the argillaceous shales trends NW-SE and NE-SW forming series broad open anticlinal and synclinal folds. The most common axis of the folds is N29W, an orientation most common for many of the quartz veins in both districts. Many of the veins in this district dip steeply to the northeast, although local variations exist near cross-faults where the veins dip steeply to the southwest. The outer flanks of the folds at Tlalpujahua trend NE-SW and are argillaceous shales that are soft and easily weathered and tend to form recessive valleys trending between 15° and 45° azimuth. According to Flores (1920), some of the more prominent anticlines and synclines are as follows:

- an anticline can be found between the Cerro del Gallo (near Veta Borda) , the hills of del Carmen and Villa Santa Rosa;
- a synclinal fold lies between the hills of Coloa of San Francisco and the hill of Trigueros;
- an anticline lies between the Cerro Ojuelos of San Francisco and Coloa;
- a syncline lies between the Cerro del Gallo and the hills of Chapultepec and the hills of the National (east of Zapateros) and finally; west of San Francisco de Los Reyes
- an anticline that is less well defined lies between the Cerro de Trigueros and the western flank of Cerro Somera, in the portion between the Tiro (shaft) del Carmen and the road north of Tiro Norte of Dos Estrellas.

Flores (1920) suggested that limestone was economically mined in the past in the District of Tlalpujahua, and occurred on top of Cerro del Gallo as a near horizontal limestone bed discordant with the underlying shales with massive cavities connected to the surface that provided a natural ventilation system to some of the mines in the immediate area. This calcareous shale/limestone formation is gray or bluish black, lacks fossils, trends between 28° and 55° NW and dips to the SW between 20° and 45. These limestone beds were intersected by Socavon de Lucha in the Lucha Mine as well as the Socavon San Pedro located on the northern flank of the Loma del Arenal (Hill of Sand).

## **7.3 STRUCTURE**

### Deformation Events

The El Oro-Tlalpujahua districts have endured several deformational events including: pre-mineral, syn-mineral and post-mineral. The earlier deformation event is reflected in the structure of the host rock shales. In the western part of the El Oro Property at Tlalpujahua, the beds are folded into gentle anticlines and synclines. Less is known about the structure to the east at El Oro, where a post mineral hornblende andesite cap hides the underlying shale and veins. In the El Oro area, the shales outcrop in small structural windows, one around the Descubridora shaft (Figure 7.2). At the Descubridora shaft, the shale beds are

near vertical. The host shale/siltstone unit is extensively exposed in the San Rafael and related mine workings, west of the structural window described above.

Historic mapping in the San Juan adit by Lindgren, 1913, in an unpublished report suggests that the shale in the San Rafael vein workings examined in 1913 are for the most part flat lying. Recent mapping in the San Juan adit by the author, suggests that the shales are sub-horizontal to shallow dipping depending on nearby folds, syn-mineral vein (faults), post-mineral faults and dykes. The shales at the Descubridora structural window are vertical. The veins, in the underground workings follow axial planes, perpendicular to the fold axes. Many of the mineralized veins are terminated at depth by horizontal faults or are offset in both a left lateral (sinistral) and right lateral (dextral) sense.

### Circular and Domal Features

A series of nested circular features, some several kilometres in diameters, are aligned along a WNW-ESE fabric and along a NNE fabric (Figure 7.3). These circular and domal features are thought to represent volcanic domes and related subvolcanic intrusions, similar to the andesite porphyry sills that are present at depth at many of the mines (e.g. Esperanza Mine). The Pomoca mineralization is located along an older, ENE-trending andesite porphyry dyke that exploits a collapse or ring fracture feature along the north contact of one of these domes. Andesite dykes and sills are present on surface and in mine workings at Coronas, Borda, Cuatro Pilares, Buen Despacho, Oriente and Zapateros to name a few. At the North San Rafael-Buen Despacho target, there are several larger half-circular and domal features measuring 1 to 3 km to the south of known veins. These may represent subvolcanic intrusions related to the doming event (Figure 7.3).

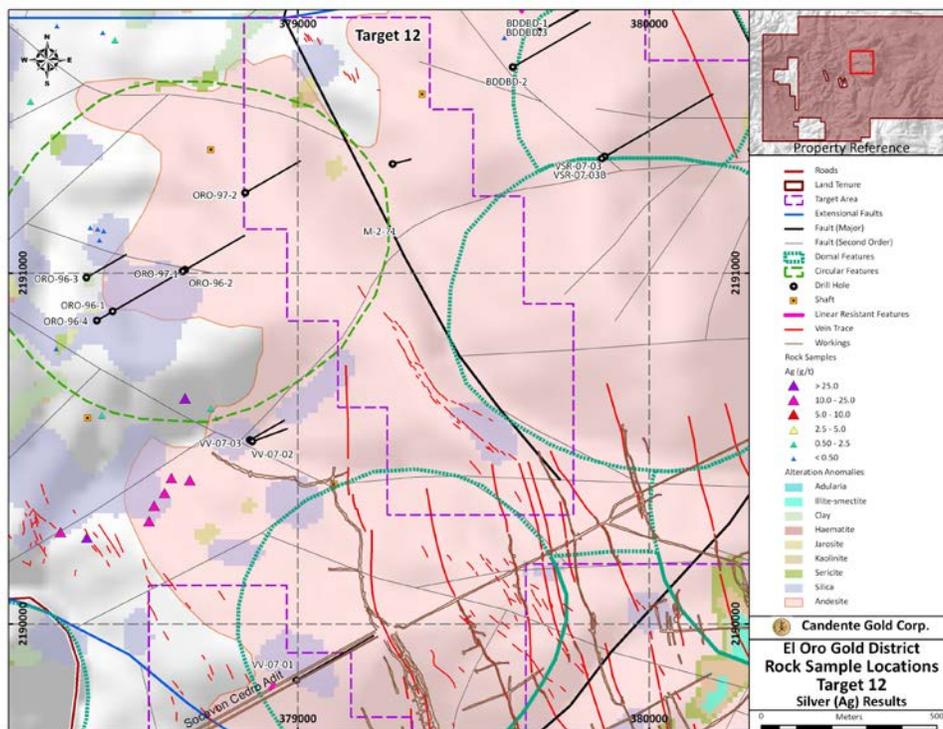


Figure 7.3: Circular and Domal Features on the El Oro Project (North San Rafael)

### Hornblende Andesite Porphyry Sills

A thick andesite sill measuring approximately 200 metres in thickness (approx. 600 feet) and is referred to in the historic literature as the older andesite (“andesita antigua”), the earlier andesite (“andesita anterior”) or quartz diorite (“diorita de cuarzo”) sill by Lindgren (1913) and most recently as the andesite hornblende > pyroxene porphyry sill by Candente. This sill pre-dates the San Rafael and related mineralization and locally focuses higher grades through rheological contrasts, through structural preparation via faulting. The sill is locally down-dropped, north side down, along re-activated easterly trending faults that according to Flores (1920) may have controlled higher gold grades at the Mexico Mine as well as the Esperanza Mine.

The pre-mineralization competent andesite sill(s) were offset and displaced, creating a wide mass of massive andesite porphyry, along the footwall but also along the hanging-wall of the San Rafael fault to a depth of 500 metres. When the wall of the San Rafael vein is in andesite porphyry the veins tend to be small or are split, generally dying out below the hanging-wall segment of the sill. The vein also pinches out upward, in most places not far above the sill

### Vein Faults and Structural Preparation

Vein formation took place after the development of faults and related fractures. No real rotation of fault blocks on the hanging-wall or footwall of the San Rafael vein fault is suspected. The cessation of faulting seems to have been partly due to the sealing of the faults by barren quartz-calcite vein material. This material is often barren, and provided a structural host for later precious metal mineralization which is typically along the hanging-wall or footwall contacts of the main vein or within silica breccias that transect the vein. Rhyolite porphyry dykes are also mentioned in earlier reports that are spatially related to precious metal mineralization in the area.

Vein faults are evident, for the most part, in the friable shale host rock, which are intensely shattered along most of the faults. Early mineralizing hydrothermal solutions silicified the shale fragments and syn-brecciation further cemented them together with fine grained chalcedonic quartz. The resulting tabular silicic body, sub-parallel to the NNW vein faults was more competent and stronger than the shale wall rock and further faulting was prevented by the hydrothermally sealed faults.

Further structural preparation and brecciation took place along the San Rafael Vein System, Flores 1920 suggested longitudinal tension fissures on the flanks of the anticlinal dome. The rise and expansion continued even after mineralization, with further movement along the footwall blocks of eastward-trending faults that are transverse to the NNW strike of the earlier quartz veins. It has been pointed out that on the east flank of the arch these blocks moved up and to the east; on the west flank, they moved up and to the west.

### Easterly Trending Faults

A series of easterly-trending transverse faults bisect the N29W veins in the El Oro district. According to some of the old reports by Flores (1920), these faults were critical to localizing the higher grades in the Esperanza Mine on the San Rafael vein as well as in the Verde vein to the west. This fact alone suggests that the eastward-trending fractures were present at the time of mineralization and helped to localize the ore. The San Rafael vein and related breccias at the Esperanza Mine is 70 metres wide near the Esperanza Fault. The Veta Verde vein to the west, attains its greatest width of close to 50 metres where crossed by

the same eastward trending faults. At least 18 sub-parallel N80E cross faults bisect the Verde and related veins.

The friable, thinly-bedded shale, could never sustain an opening 70 metres across so most of the According to Flores 1920, the wider stoped areas were dominated by quartz-carbonate cemented, hydrothermal breccias that repeatedly re-brecciated older breccias. The San Rafael vein grew by superimposition of younger hydrothermal cement infilling vein centers and a re-brecciation of earlier hydrothermal cement.

#### *Structural Preparation via Folding*

As the anticlinal domal features expanded, the principal direction of extension was normal to its axis and normal to the walls of the longitudinal vein fractures/vein faults (N29W). The easterly-north-easterly trending cross faults lay parallel to the direction of extension. This mechanism might account for the abnormally wide mining widths (up to 70 metres) of the San Rafael vein near the Esperanza Fault, which later became the focus for post mineral faulting.

#### *Post Mineral Hornblende Andesite Capping at El Oro*

One of the final deformation events is reflected chiefly in the fracture pattern and in the attitudes of the post mineral hornblende andesite flows that cap the El Oro district. Figure 7.4 shows the projected veins in red under the post mineral andesite cap in the east. According to Flores (1920), this unit provided a strong and stable rock formation for most of the historic shaft development. In addition, the earlier andesite sills provided strong, competent bodies for increased stability in pillars amongst the generally unstable shale host rock in the underground workings.

The fracture pattern in this cap unit, suggests a broad anticline with major fractures forming parallel-to the north-northwestward trending vein systems with the western fractures dipping eastward and the eastern fractures dipping westward. Structural contours drawn at the base of the andesite-shale contact suggested an up-folded, wide anticline and/or an elongate dome trending north-northwestward in the eastern El Oro District (Figure 7.4). A similar andesite domal feature occurs to the west, just south of the Pomoca gold-silver target where mineralization is hosted within earlier andesite volcanics sills.

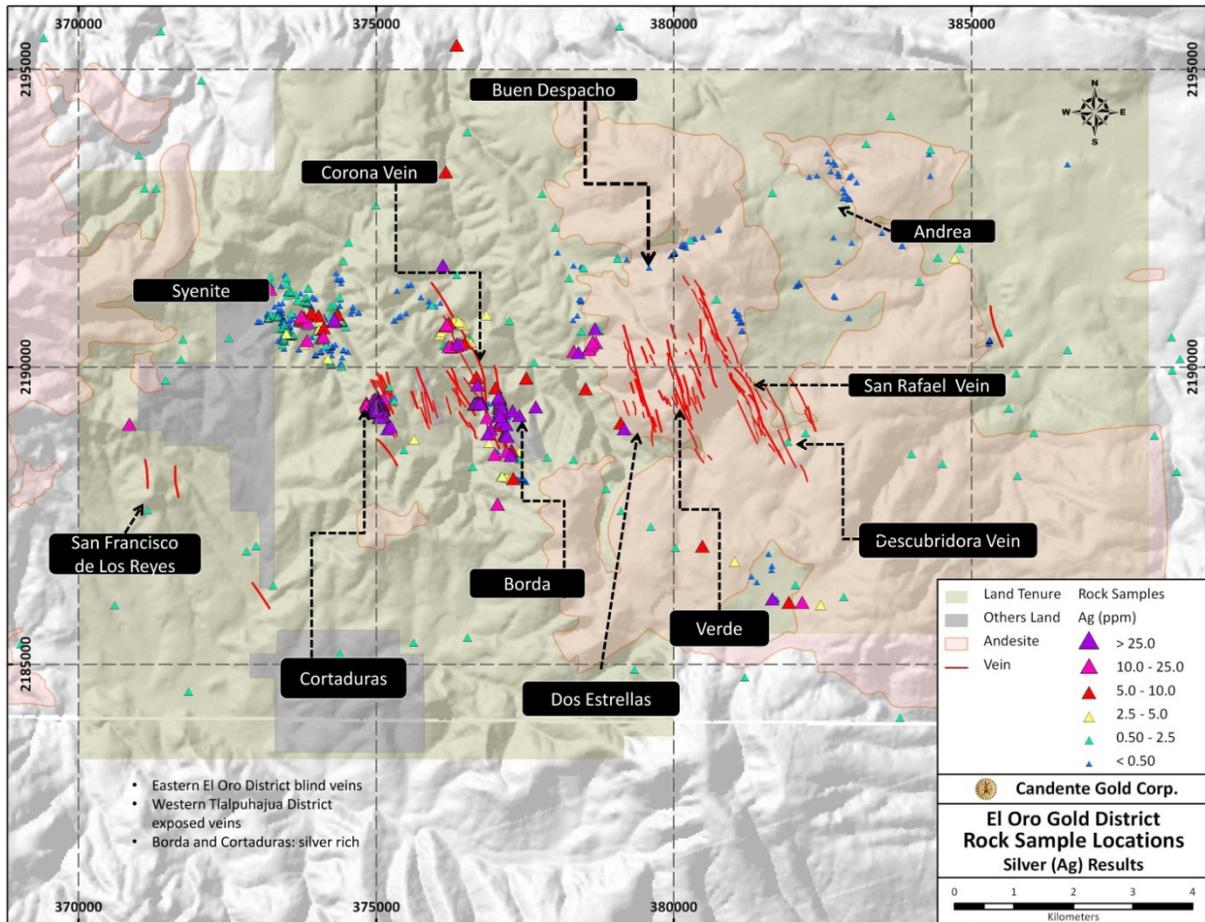


Figure 7.4: Location of Post Mineral Andesite Cap in rose (silver results)

## 7.4 MINERALIZATION

The El Oro - Tlalpujahua mining district is known for gold and silver mineralization hosted in low sulphidation, epithermal quartz-adularia-calcite veins. The best precious metal mineralization in the district is associated with massive saccharoidal, crystalline quartz and to a lesser extent with calcite. Bladed textures (quartz after calcite) and drusy quartz filled vugs are common, as well as banded colloform textures. In general, the ore is sulphide poor with sulphide content rarely exceeding 1% total sulphides. According to Flores (1920) sulphides are mostly pyrite accompanied with lesser amounts of galena, sphalerite and chalcopryrite with trace amounts of argentite, proustite, native silver and native gold. Gold is very finely disseminated and rarely visible. In Candente's 2011 drill core, trace amounts of finely disseminate silver sulphides including argentite, reddish sphalerite and minor galena are present.

Descriptions of vein textures and fluid inclusion petrography completed for Candente Gold Corp. on 16 samples from the 2007 drill core from "mineralized vein intercepts" below the lowest level of historic

mining indicates that the 75% of the samples came from above or at the boiling level in the epithermal system. In a classic, low-sulphidation epithermal model precious metal deposition occurs above the boiling level. The results of the textural study indicates that many of the samples from El Oro had characteristics of either the Chalcidonic Superzone or the Crustiform-Colloform Superzone using Morrison's (1990) textural model. In Morrison's textural model the precious metal interval in low-sulphidation epithermal systems is located at the essentially corresponds to the "Crustiform-Colloform Superzone" ("CCSZ") and the boiling level is approximately at the base of this Superzone. A more detailed fluid inclusion study has recently been completed on 30 carefully selected surface rock samples and drill core samples taken from varying depths. The results of the Moncada, April 2013 (Moncada, 2013) study are discussed in Section 9.6 of this report.

Historically, the most productive veins in the El Oro and Tlalpujahua mining districts were from the San Rafael and Verde veins and associated off-shoots, branches, and parallel veins. These two vein systems do not crop out on surface, as they are covered by a syn-mineral rhyodacitic ignimbrite, followed by a post-mineral andesite cap that masks underlying mineralization. The San Rafael vein was discovered by an exploration cross-cut driven westwards from the out-cropping Descubridora vein. The Verde vein was discovered by another blind exploration cross-cut (Dos Estrellas) driven eastwards from the town of Tlalpujahua (Figure 7.2). Many other veins in the El Oro area were discovered through similar blind exploration cross-cuts.

The veins are hosted within black argillaceous shales and less commonly in andesite sub-volcanics. Veins and related breccias are usually steeply dipping and vary in thickness from less than 1 to over 70 metres in width, and can be traced continuously for over a 3.3 km along strike. Most of the known veins in the eastern El Oro District strike NW-SE with dip steeply 65-80° to the west (e.g. the San Rafael and Veta Verde veins). In sharp contrast, the veins and stockwork zones located in the western part of the Property, in the Tlalpujahua area (e.g. Coronas and Borda veins) strike NW-SE and dip steeply to the east, although local variations occur. The variable dips of the veins can be related to local folding (fracturing, axial cleavage, and related structures) within the Cretaceous meta-sediments.

### Oxidation

Flores 1920 reported oxidation levels reaching depths of up to 400 metres on the San Rafael vein, however at the Verde, Coronas and Borda the oxidation levels were much shallower. From historic production reports, the ratio of gold to silver varies from 1 to 6.5 in the oxidized ore and from 1 to 15 in the sulphidic ore. In the San Rafael vein the ratio of silver to gold increases with depth as well as with a transition from the foot-wall of the vein to the hanging-wall. The average assay value in the upper level of the San Rafael vein was reported at 10.88 grams per tonne (0.38 oz) for gold and 155.5 grams per tonne (5 oz) for silver, with maximum reported values reaching up to 466 grams per tonne (16.44 oz) of gold and 6,221 grams per tonne (219.4 oz) of silver. Several veins including Negra Vein (branching from San Rafael) and the Nueva vein (branching from the Verde vein) had higher grades than the main veins.

Unlike Flores (1920) who believed that higher grade gold and silver were enhanced at easterly trending transverse faults, Rickard (1906), Hindry (1909), Allan et al (1915), & Seraphim (1971) believed that faults cross cutting the veins should be interpreted as post mineral only and that there was no apparent relation between ore grade and faulting.

### Petrology of the Veins

Ore-logging and limited petrography reveals very similar mineralogy and paragenesis for both the San Rafael and the Verde veins. The main ore minerals occurring in these veins are sphalerite, galena, polybasite (a sulphosalt with silver, copper, arsenic, antimony) and acanthite-argentite (silver sulphides), and proustite (a sulfosalt mineral consisting of silver sulf-arsenide,  $\text{Ag}_3\text{AsS}_3$ ); the main gangue sulfide and non-sulfide minerals are pyrite, arsenopyrite, quartz and calcite.

### **San Rafael Vein System**

Historically, the San Rafael vein produced over 4 million ounces of gold and 44 million ounces of silver, from 11.9 million tonnes of ore mined between 1896 and 1927, over an average of 200 metres vertically. The average assay value in the upper level of the San Rafael vein was reported at 10.88 grams per tonne (0.38 oz) for gold and 155.5 grams per tonne (5 oz) for silver, with maximum reported values reaching up to 466 grams per tonne (16.44 oz) of gold and 6,221 grams per tonne (219.4 oz) of silver.

The San Rafael mines are situated on the slopes of a ridge that rise 200 metres (600 feet) above the valley floor, through which the old line of the Mexican National Railway used to travel. The Mexico, Esperanza and El Oro Mines & Railway (Figure 6.2) are located on the eastern side of the slope and on the slope to the west the Dos Estrellas adit entrance occurs. The first three mines mentioned, follow a series of veins that dip steeply into the mountain to the west, the largest vein is the San Rafael Vein. The Dos Estrellas Mine (including Veta Verde and others) also dip to the west. The bush covered summits of the ridge consists of post mineral andesite lava, while the mine workings are mainly within friable shales. The probable Miocene-Pliocene andesite capping is several hundred metres thick and is spread over the underlying Late Cretaceous shale, that hosts numerous gold and silver-bearing quartz lodes in the form of through-going veins, breccias, recemented breccias and tension or feather veins. The andesite “cap rock” forms part of an extensive extrusion of volcanic lava, the main vent of which is unknown at this time but is suspected as being towards the southeast. The andesite cap is embedded with multiple nested circular/domal features suggesting on-going magmatic activity throughout the region. Several of the mine workings are intruded by pre-mineral hornblende andesite subvolcanic in the form of stacked sills and irregular intrusive bodies.

Mineralization was reported to be mostly continuous in the top 200 metres of vein below the contact with overlying younger post-mineral volcanics. It was also reported that at increased structural complexity like at divergences, junctions, vein splits and lithologic contact zones) there was an increase in the gold and silver content. In several places, the San Rafael vein is down dropped along easterly-trending normal faults with the northern block down dropped in relation to the neighboring southern block.

In the Esperanza mine (part of the San Rafael vein) vertical displacement amounts to over 300 metres. This series of east west trending faults down drops the vein system in a step-like fashion to the north, thus in the southern El Oro Mine section the vein is crosscut and overlain by post mineral andesitic volcanics whereas to the north, in the Buen Despacho section there is approximately 100 metres of pre-mineral tuffs overlying the main vein system.

### Mexico Mine (North San Rafael Vein)

The shale in the Mexico Mine (Figure 6.26) is thinly laminated, black and variably calcareous and contains minor limestone lenses. The Mexico Mine shaft tunnelled into the andesite cap rock for nearly

600 feet and then penetrated the shale at deeper elevations. The andesite cap rock provided a solid and stable host rock for shafts and adit development.

It has been well documented that the San Rafael vein mineralization changes character (metal ratios, mineralogy) along its vertical extent. In the top portion of the vein (from the surface to level 6) gold and silver-rich ore occurs within the foot-wall portion of the vein which varies in thickness from 10 to 70 metres. In the central part of the vein (from levels 5 and 6) the entire vein is mineralized. From level 6 down, the ore occurs in the hanging-wall portion of the vein.

#### Esperanza Mine (Central San Rafael Vein)

The Esperanza Mine (Figure 6.25) was described as a big fault-rich orebody by Flores in 1920 during a mine visit. In the Mexico and the El Oro Mines described above the geology characteristics are not particularly complicated however, the ground at the Esperanza Mine is very complicated.

The San Rafael vein lode follows a major *Vein Fault*. Both the vein and cap rock were laterally displaced in the Esperanza Mine resulting in movement transverse to the lode that continued after the post mineral andesite cap event. The San Rafael vein fault had several dislocation events including: 103 metres of displacement that occurred before the cap-rock was deposited and approximately 50 metres after the cap rock was deposited.

In the mine the lateral displacement of the San Rafael lode was 40 metres to the right. At the south shaft the cap is 87 metres thick; near the north shaft the cap is 137 metres thick over a distance of 488 metres (1600 feet).

South of the fault the lode is entirely in shale all the way down to the fifth level; just below the 5<sup>th</sup> level, the andesite sill occurs on the footwall and shale on the hanging wall. North of the fault, the first level penetrates the younger andesite cap rock, while the second level has the shale on the footwall and the older andesite on the hanging wall. The third and fourth levels repeat conditions observed on the second with shale on the footwall and the older andesite on the hanging wall. At the fifth level, still north of the fault. There is a change; at about 30 metres (100 feet) in the footwall, the newer andesite (which is the cap-rock) appears at a point 152 metres (500 feet) north of the fault and thence to the boundary of the Mexico Mine. At the sixth level the older andesite is seen in the footwall south of the fault and looks like the top of an intrusion; north of the fault, shale appears on both the hanging wall and footwall, that is to say, we have conditions which exist south of the fault 152 metres (500 feet) overhead-this being the measure of the dislocation. On the seventh level, the older andesite appears along the foot-wall up to the fault, shale showing in the hanging wall. North of the fault, the lode is in shale as regards both walls, with the newer andesite in the footwall country (150 feet east of the lode) near the Mexico boundary. At this same level (the seventh), the newer andesite (or cap porphyry) occurs in the form of an east-west dike, 46.6 metres (153 feet) thick, at a point 252 metres (825 feet) west of the vein lode.

#### El Oro Mine (South San Rafael Vein)

In the El Oro Mining & Railway (Figure 6.24) the veins constitute one big lode channel with portions of country rock between them, that is, the distinction between what is ore and what is worthless quartz is purely economic, based on assays, and not upon geological and structural distinctions.

The southern portion of the San Rafael vein (previously owned by El Oro Mining Ltd.) has the best historical database. The San Rafael vein was mined for over a 3.3 kilometres strike length and was

explored to a vertical depth of approximately 400 metres below surface with approximately 250 metres of vertical vein development. The vein is blind and is covered by less than 100 metres to locally greater than 300 metres of post mineral Tertiary andesite flows and tuffs. The San Rafael vein is reported to have produced in excess of five million gold equivalent ounces over 45 years from 11.9 million tonnes of ore with an average production grade of 10.8 grams per tonne gold and 115 grams per tonne silver over an average mining width of 10 metres.

According to a recent translation of Flores (1920):

*“At first the Branch Vein, one member of the vein system, was found to be rich enough to exploit; then a smaller streak on the hanging wall of the big Main San Rafael Vein was worked and finally the foot-wall portion of the San Rafael vein was stope-mined, to be followed by the exploitation of various subordinate members of the series, as they were determined to be rich enough in gold and silver to more than defray the costs of mining and milling. A typical cross section of the lode channel shows sundry branch veins, then the footwall orebody of 108 metres (355 feet), then streaks up to 1 metres (3 feet) wide between the footwall ore and that of the hanging wall which is 12 metres (40 feet) wide; finally, beyond these there is the Branch Vein which is 1.5 to 5.5 metres (5 to 18 feet) wide.*

*At the northern end of the El Oro Mine the orebodies of the footwall and hanging wall are separate in two branches of the vein as a vein split; they come together in a distance of 213 metres (700 feet) and form one width of 24.4 metres (80 feet), which is maintained nearly to the south end of the shoot, in the vicinity of the incline shaft.*

*The ore on the hanging wall is fairly uniform in value across its full width; but the ore in the footwall is best on the hanging wall side; even after the individuality of the streaks is maintained. When the bands of the rich ore in this mine terminate, they do so first by narrowing, and then by splitting or fanning out of the mass of quartz that contains them. Divergent streaks connect the various orebodies, and some of them are rich enough to be stope-mined. The whole lode channel is interrupted at intervals by a succession of faults dipping 65 to 70° to the north; except the southernmost streak or diagonal break, which dips 35° to the north.”*

Water was first encountered at the El Oro Mine at a depth of between 131 metres (430 feet) below the post mineral andesite cap. Maximum water was encountered at a depth of 366 metres (1200 feet). The Somera Shaft began to show a heavy water inflow at between 240 to 305 metres (786 and 1000 feet) especially from a 274 metres (900 foot) depth; the water entered along stringers on the hanging wall side of the lode. At a depth of 305 metres (1,000 feet) depth, the crosscut 90 feet long to the lode cut more water along other veins, so that when the lode was finally struck there was no great addition to the water inflow. The water in the workings on the main lode (San Rafael) remained at the 786 foot level until the lode itself was cut at 1,000 feet. The clay rich faults appear to be impervious and serve as barriers; each block has to be drained separately. At the end of the rainy season, surface water seeps into the mine, but only in the northern workings, where it seeps down the large stopes on the San Rafael lode made by the Esperanza and El Oro Mines. The rainfall apparently does not affect the inflow of water in the deep workings, the mine-waters (except in the case above noted) has no direct connection with the surface.

## 8. DEPOSIT TYPES

### 8.1 EPITHERMAL VEIN DEPOSITS

The El Oro - Tlalpujahuá mining district is classified as a low-sulphidation epithermal gold-silver vein system. A capsule description of this type of deposit is presented below as extracted from “Selected British Columbia Mineral Deposit Profiles” by A. Panteleyev, Volume 2; Lefebvre, D.V. Hoy T., Editors, B.C. Ministry of Energy, Mines and Petroleum Resources (*Panteleyev, A. et. al., 1990*).

*“Deposits of this type consist of quartz veins, stockwork and breccias carrying native gold as well as electrum, argentite, pyrite, sphalerite, galena, chalcopyrite and tetrahedrite. The ore commonly exhibits open space filling, layering, crustification, comb structure, colloform banding and brecciation. The ore is associated with volcanic related hydrothermal systems. Ore zones are typically localized in upward-flaring structures and structurally controlled conduits. Different size veins and stockwork are common. High grade ores are commonly found in dilatational zones in faults at flexures, splays and sigmoid loops. The calculated average size and grade for the 41 deposits of this type is 0.77 Mt with 7.5 grams per tonne gold and 110 grams per tonne silver.”*

Using Panteleyev’s classification of the average grade for the 41 deposits of this type as being 0.77 Mt with 7.4 grams per tonne gold and 110 grams per tonne silver, the El Oro Property has *multiple low sulphidation vein deposits* within its property boundary. Low-sulphidation epithermal veins in Mexico typically develop a sub-horizontal ore horizon about 300 m to 600 m in vertical extent where the bonanza grade ore shoots have been deposited due to boiling of the hydrothermal fluids. Silica deposition may seal the system causing a lowering of the boiling depth and the development of a multi-level stacked system. It is not uncommon to encounter barren zones between mineralized ore shoots both vertically and horizontally. This is a common theme at the El Oro Property where barren zones vertically separate horizontal zones that are controlled by faults and vein breccias developed transverse or ENE to the NNW strike of the vein systems in the district.

According to Sillitoe, there are a wide variety of epithermal precious metal deposit types throughout the world, one of which includes Low Sulphidation (“LS”) Adularia - Sericite type that can be further divided into three subtypes: sulphide-poor associated with subalkalic rhyolitic rocks; sulphide-poor associated with alkalic rocks; and sulphide (and base metal) - rich associated with andesitic to rhyodacitic rocks. The El Oro Property mineralization is the Low Sulphidation Adularia-Sericite type. One of the principal factors influencing mineability, is determined largely by structurally, lithologically and hydrothermally-induced permeability. Effective fluid conduits may be provided by high- and low-angle faults, in hydrothermally brecciated and/or leached rocks in addition to lithologic variations (*Sillitoe, 1993*).

Hydrothermal fluids ascend from a heat source along distinct fracture zones to form vein type precious metal deposits or through permeable lithologies to form disseminated precious metal deposits. As fluids rise, the boiling level is reached, at which point precious metals precipitate out as depicted in Figure 8.1 below.

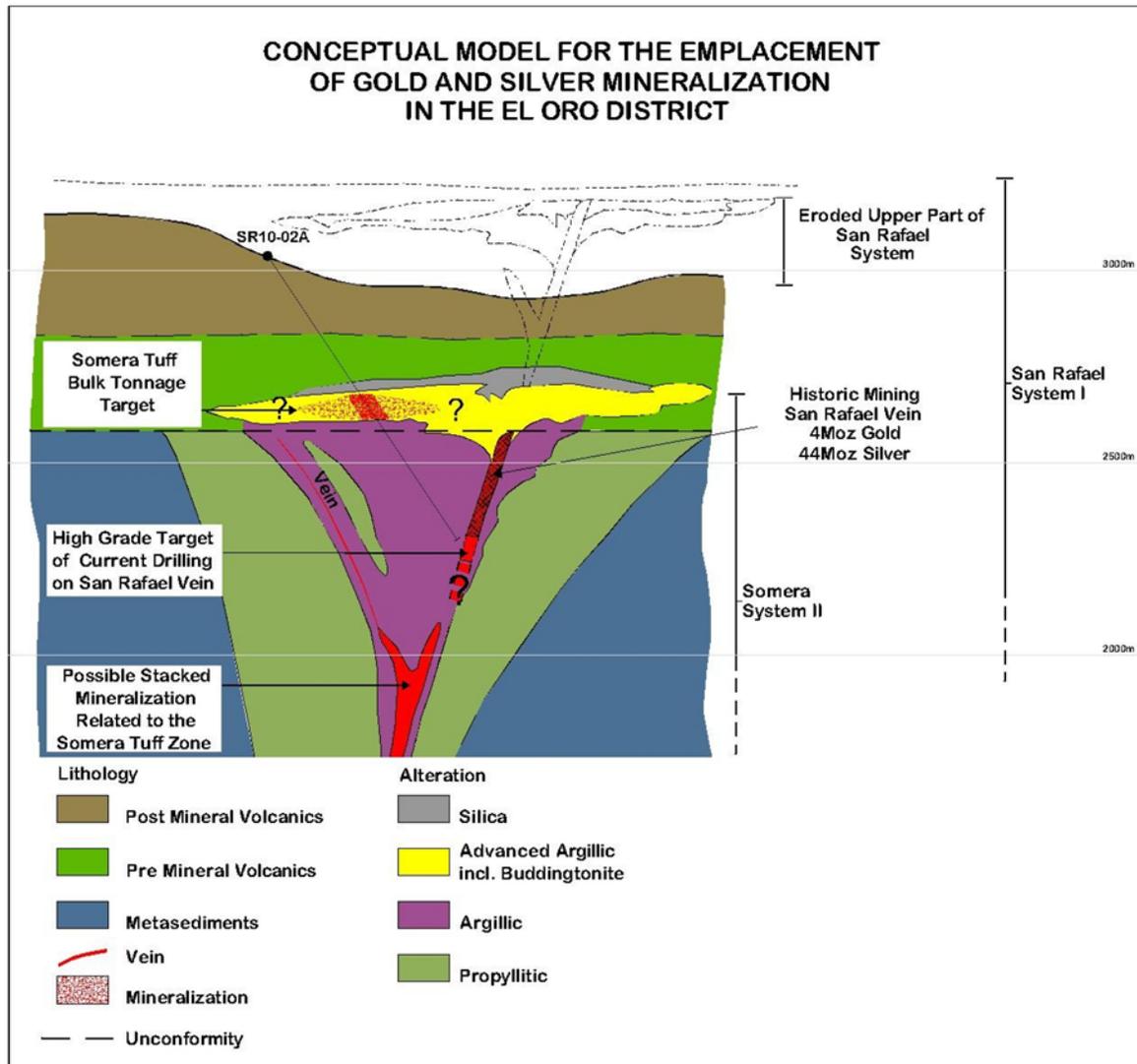


Figure 8.1: Idealized Section of the Multiple Boiling Zones Model Developed at El Oro

The spatial association of Tertiary volcanic rocks, advanced argillic (+buddingtonite) and epithermal veins is a common theme throughout the precious metal districts in Mexico and in similar environments elsewhere in the world. Steam heated advanced argillic (acid sulphate) occurs in the Somera tuff above the mineralized gold-silver bearing San Rafael low sulphidation epithermal veins and gold and silver mineralized.

## 9. EXPLORATION

### 9.1 INTRODUCTION

#### Historic Exploration by Candente

A summary of exploration from 2007 to 2011 can be found in Technical Reports as referenced in this report. The exploration described in this Section pertains to work completed *before the effective date of June 20<sup>th</sup>, 2012 (Caira et. al., 2012 and Pryor 2011)*.

Year 2007: Candente Gold completed a program of surface soil sampling and NSAMT (Natural Source Audio Magnetic Telluric) geophysics across the area known as the Oriente Zone (Zona Oriente) to outline areas of further mineralized quartz and related breccias lying to the east of the historic underground Mexico, Esperanza and El Oro Mines on the San Rafael Vein. A total of 28 line kilometres of NSAMT geophysics as well as the collection of 570 soil, 13 silt and 82 rock samples were completed during that period. The results of this work are summarized in Section 6.3.5 of this report.

Year 2010: The 2010 Candente Gold Corp exploration program included six core holes totaling 3,336 metres within the Zona Oriente “(Orient Zone”) located to the east of the historic El Oro mining district as well as two holes into the San Rafael Vein Target with a focus on the Espernaza and Buen Despacho sections of the vein totaling 2,266.75 metres. In addition, the underground rehabilitation of the San Juan adit enabled drilling of the San Rafael vein footwall zone as well as easier drill access of the Calera and Descubridora structures totaling 2,048.60m. The 2010 underground and surface drilling and sampling program defined high grades of gold and silver in vein remnants. Two samples collected 55 metres vertically apart returned grades of 14.92 grams per tonne gold and 117.0 grams per tonne silver over 2.1 metres and 14.64 grams per tonne gold and 54.50 grams per tonne silver over 2.5 metres. Select 2010 drill intercepts included 30.5 metres of 1.52 grams per tonne gold and 32.9 grams per tonne silver from a 25.00 metres depth; 15.5 metres of 1.33 grams per tonne Au and 55.18 grams per tonne silver from a 69.0 metres depth (including 6.5 metres of 2.82 grams per tonne gold and 96.08 grams per tonne silver, *Candente Gold Corp, NR008 dated September 14, 2010*). The drilling of the Veta Oriente target, located 1500 metres east of the San Rafael target intersected several narrow weakly mineralized structures with insufficient gold and silver mineralization to warrant additional exploration work.

In addition, the 2010 program discovered a potential bulk mineable target that is unconformity-related along the Somera Tuff and the underlying sedimentary rocks that host the San Rafael vein system that returned 54.7 metres of 1.17 grams per tonne gold and 5.02 grams per tonne silver coincident with an advanced argillic alteration signature of buddingtonite, illite and smectite clays. A total of 520 metres of underground workings from the southern portion of the San Rafael vein system was rehabilitated. During this work program 160 rock samples from exposed vein sidewall material and mineralized backfill were sampled. The backfill material returned an average of 4.72 grams per tonne gold and 53.49 grams per tonne silver (*Candente Gold Corp, NR010 dated February 9, 2011*).

Year’s 2011 to 2012: In 2011, Candente Gold Corp. completed a 10,117.97 metres drill program in 28 core holes. A total of 8 of the 28 holes were lost due to difficult ground conditions. The drill program was based on Placer Dome’s “A” Blocks that were created in 2003 using the underground sampling control from El Oro Mining and from the creation of a grade model in Vulcan along the trace of the San Rafael Vein. Four zones along San Rafael Vein were targeted from south to north including: Providencia Shaft Zone; Norte Shaft Zone; Mexico Esperanza Zone; and the Buen Despacho Zone.

A total of 18 of the 28 holes drilled (8 holes were lost in bad ground) intersected anomalous gold and silver mineralization. At the Tiro Providencia Zone, silver mineralization predominates over gold suggesting a differing paleo-level of exposure. The most attractive gold target to date is the Mexico Esperanza Zone under the Somera Tuff Hill, where the San Rafael Vein hosts high gold values to a vertical depth of over 500 metres.

The underground rehabilitation of the Dos Estrellas Adit was also completed to facilitate the underground sampling and drilling of the San Rafael hanging wall zones including: Jesús del Monte Vein; Veta del Salto; and Veta Verde. In addition, detailing mapping and sampling was carried out at the Corona North, and the Borda - Corona Zones to generate future drill targets.

### **Recent Exploration by Candente**

The exploration described in this Section pertains to an update of work completed *after the effective dates of June 20<sup>th</sup>, 2012 (Caira et. al., 2012) and June 15<sup>th</sup>, 2013(Caira, 2013).*

In the third quarter of 2012 and the first quarter of 2013, Candente initiated an exploration program starting with a full compilation of the voluminous historic information. The results are summarized below in Section 9.2 of this report.

In February 2013, a detailed structural and ASTER/Structural Landsat interpretation was completed. This work defined 31 new alteration/structural exploration targets. The results are summarized below in Section 9.5 of this report.

In April 2013, a Fluid Inclusion Study was completed on 30 samples collected from surface outcrops, underground workings and drill core on the San Rafael, Verde, Borda, Coronas and the Jesús Del Monte vein targets. The results are summarized below in Section 9.6 of this report.

In the mid-June 2013, the Company signed an agreement with the municipality of El Oro de Hidalgo, Mexico (“the Agreement”) that provides the Company with exploration and processing rights to the tailings deposits (“the deposits”). The results are summarized below in Sections 6.4 and 6.6 of this report.

In late-June 2013, Candente completed a Simple Gold and Silver 3D Grade Block Model on the 1.2 km long San Rafael-El Oro Mining & Railway vein segment of the 3.3 km long San Rafael vein zone to gain an understanding of mineralization controls on the San Rafael vein that could be applied to the mining district as a whole. The results are summarized in Section 9.3a of this report.

In November 2013, Candente completed a geostatistical analysis on the San Rafael Grade Block Model. The results are summarized in Section 9.3b of this report.

## **9.2 COMPILATION OF HISTORIC DATA**

In the last quarter of 2012 Candente started reviewing an extensive library including detailed grade control data, detailed mapping and sampling as well as comprehensive reports written in Spanish during numerous underground tours by consulting geologists in the 1920’s when the mines were active. Many reports were translated and summarized. Much of the data was captured digitally, although not complete. The process proved to be useful in defining higher grade controls in the mines. Two databases were

created and validated including a SURFACE ROCK DATABASE and a DRILLHOLE DATABASE. The output from this work is summarized below in surface gold and silver results.

The following data was translated and were, in part, digitally captured:

- Production reports from the mines
- Metallurgical test work reports
- Geological mapping and sampling reports
- Original maps dating back to 1891
- 914 two metres level plans dating back to 1920
- Underground working notes

A detailed manifest of all reports and maps is located in the Candente El Oro Office in Mexico. Gold and silver surface geochemistry output from that compilation process is found in Figure's 9.1 and 9.2 below.

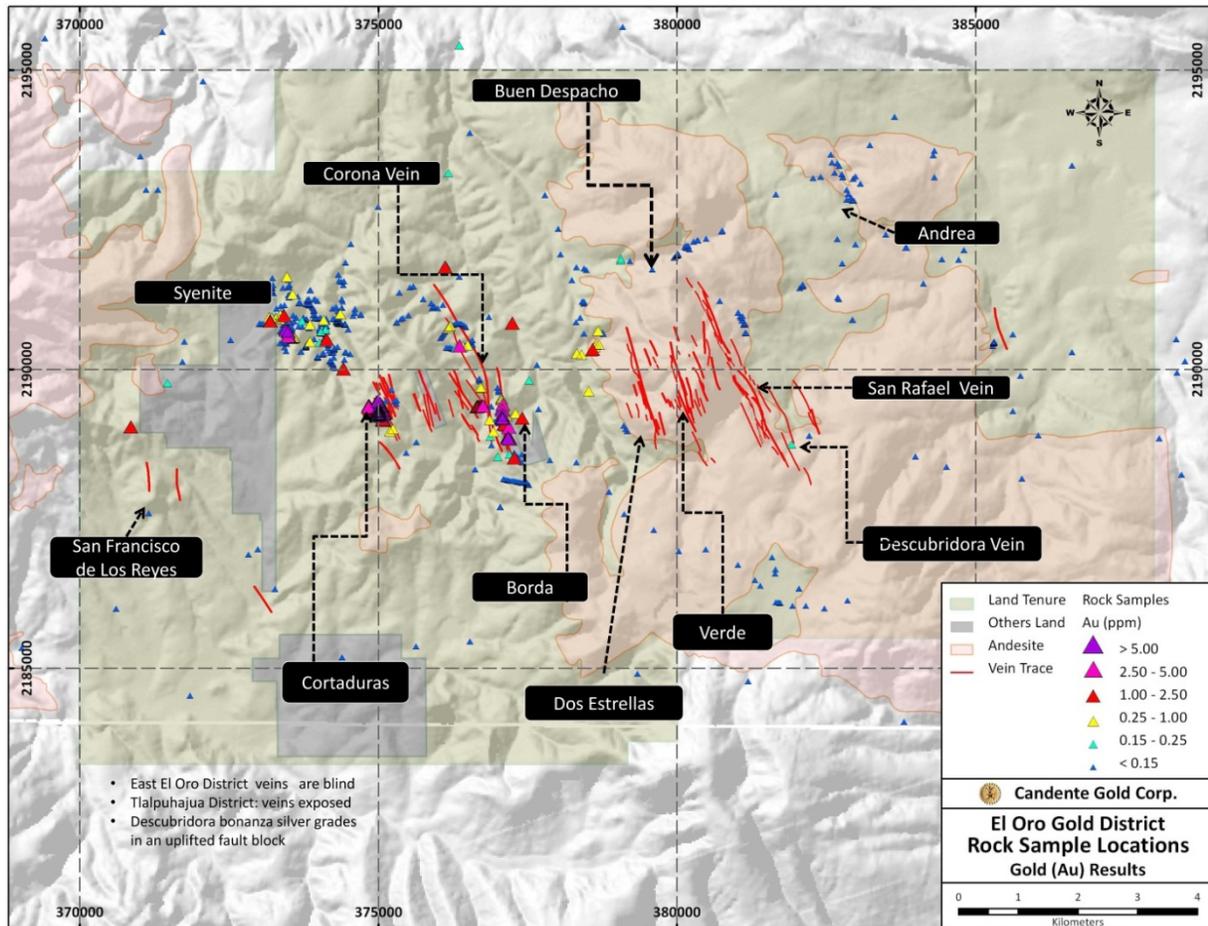


Figure 9.1: Surface Gold Results on the El Oro Property

In Figure 9.1 the surface rock (gold) results suggest a lack of surface gold values in the east. This is due to the masking of mineralization by the post mineral volcanic cap and highlights the stronger values exposed on surface in the Talpujahua District to the west. The image also highlights the NNW trending post mineral andesite cap (in beige) in the east. The targets in the west including: Borda, Coronas, Cortaduras, San Francisco de Los Reyes and Syenite are near surface targets with strongly anomalous gold values from surface rocks as high as 11.2 grams per tonne Au at Cortaduras.

Similarly in Figure 9.2 below, the western Talpujahua targets including: Borda, Coronas and Cortaduras targets show highly elevated surface rock results for silver with many samples higher than 250 grams per tonne Ag and to a maximum value of 760 grams per tonne Ag at Borda.

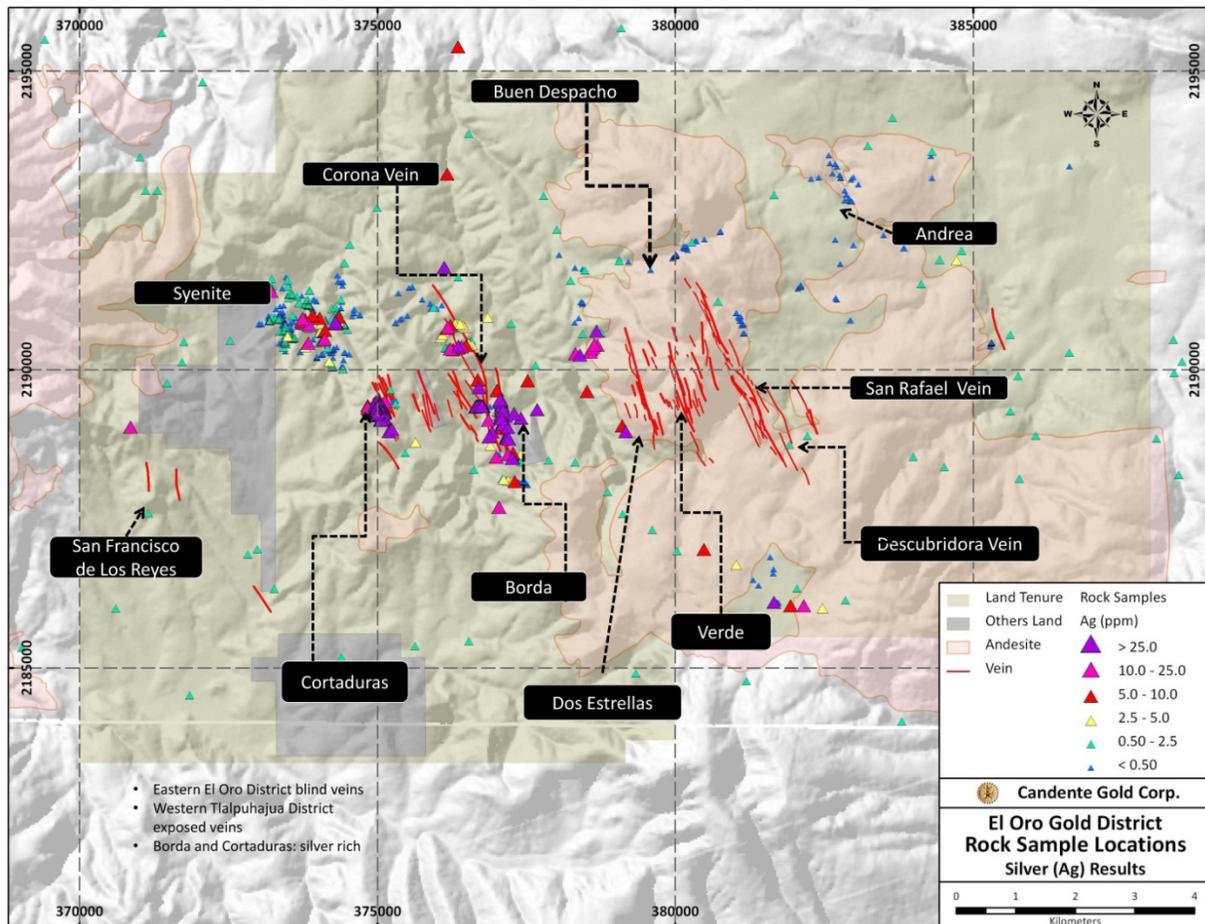


Figure 9.2: Surface Silver Results on the El Oro Property

### 9.3a SIMPLE GRADE BLOCK MODEL CREATION

In the last quarter of 2012 Candente started the development of an integrated 3D grade model of the San Rafael-El Oro Mines & Railway vein segment extending from Hondo Shaft in the north to El Carmen shaft in the south. The model integrates known historic workings; approximately 914- two meter sample control level plans; drill hole assays and major ENE and NNE cross faults. Many of the historic holes did not have down-hole survey data so the true wander on the hole is not known with confidence. Gold and silver data was captured in the original (circa 1920-1925) metal values in Au USD\$ ton (using 1915 mines handbook published metal prices of USD\$20/oz Au and silver in oz/Ton (metric) at USD\$0.56/oz Ag) by Black Mountain Mapping Services (*Black Mountain, 2013*).

The historic grade control samples were digitized and transferred into a 3D database in Vulcan Software. This database contains 201,109 samples with gold and silver values that lie along a 1.2 km strike length and along a 500 meter dip length. The exact nature of the sampling is not known, however it is assumed to be grab samples from blasted muck piles within the cut and fill mined areas. Each sample location was recorded with 3 separate numbers: sample length or round length; a gold assay (reported in \$Au/Ton); and a silver assay reported in oz/Ton. Gold and silver values were then converted to Au ppm and Ag ppm.

The average spacing between the sample levels is 2.0 meters, while the average sample spacing on each of the levels is roughly 1.0 meter. The source of the elevation control is unknown, as each level was entered on even-2 meter intervals with each digitized level apparently at a single elevation, which is unlikely, in reality, but there was no other elevation information available. Blocks were created measuring 5 x 5 x 5 metres and were calculated using a short spherical search with a 4 metres radius. Lynn Canal Geological Services conducted the Simple Grade Block Model described below (*Lynn Canal, 2013*).

#### Model Assumptions

*Assumption 1:* A specific gravity of 1.8 was used in this estimate.

*Assumption 2:* If a block was sampled then the area around the sample was mined. This assumption resulted in an overestimation of the sampled and hence mined out volume).

*Assumption 3:* Historic cut off grades were <8 grams per tonne gold and <120 grams per tonne silver

The distribution of the pre-mineral andesite sills inter-bedded with the friable/faulted shales/tuffs historically known to control higher grades due to rheological contrasts near cross-faults. The centers of the sills are typically barren forming pillars and were historically preferred shaft collar locations. Sulphide-rich veins like Negra and Nueva occurred in the west hanging-walls of the San Rafael and Verde veins, respectively. Fault offsets are generally down-to-the-north; however the Estrellas Fault was identified as having a reverse sense of movement similar to the 18 easterly faults at the Verde target to the west.

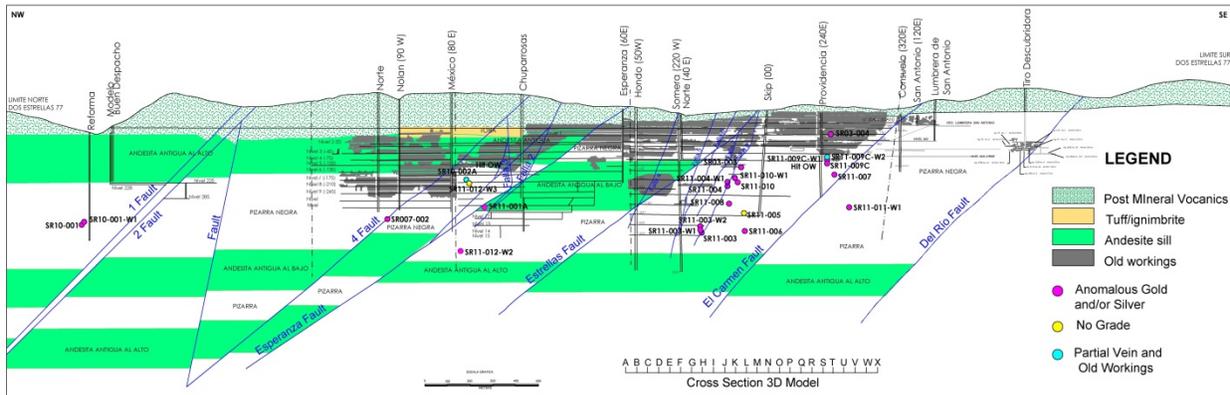
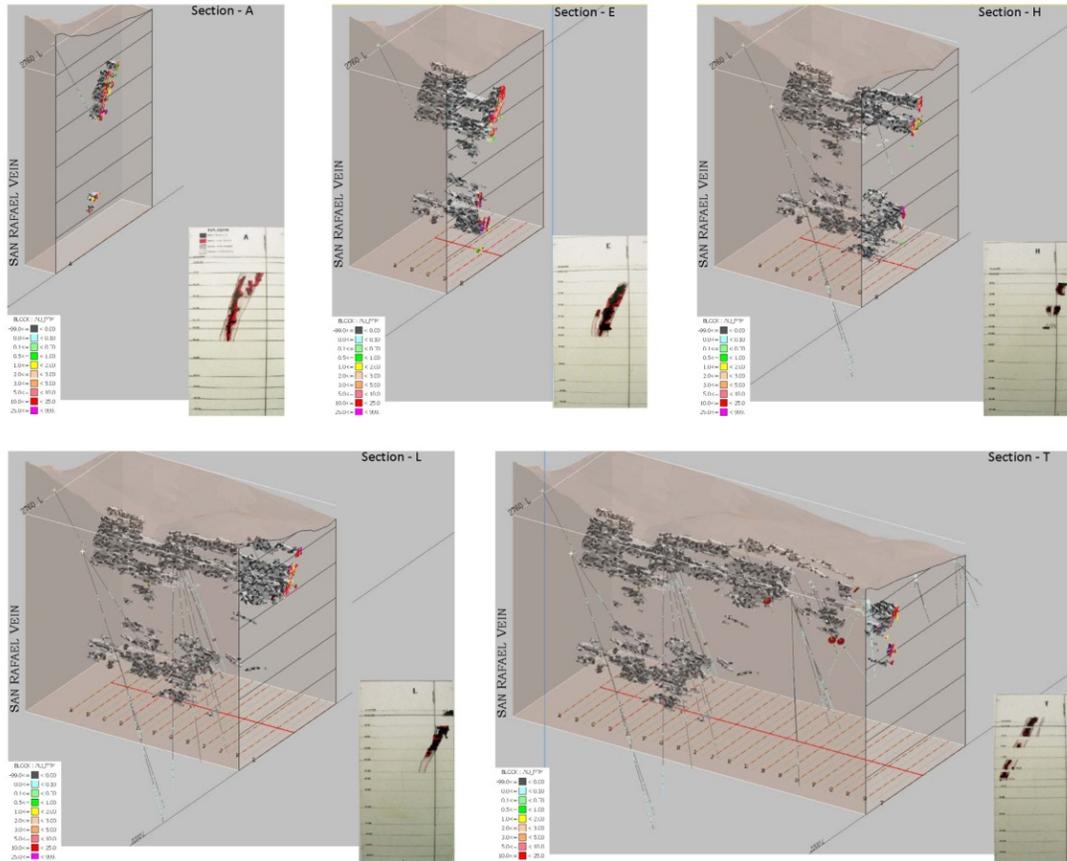


Figure 9.3: Schematic Long Section showing the location of the cross sections in 3D Model

The simple grade block model defined a rough estimate of 4,500,000 to 5,000,000 tonnes grading from 8.0 to 10.0 grams per tonne gold and from 60 to 65 grams per tonne silver that was historically mined from the vein modeled. This estimate is based on digitized historic sample data from the historic level plans. This represents 40% of known workings on the San Rafael vein system. *The mined-out tonnes and grades might be over- or under-estimated due to a lack of detailed production records.*

Candente Gold's main objective going forward is to determine a reasonable estimate of the tonnes and grades of the potential remnant mineralization by determining vein geometries, vein modeling, and an accurate determination of mined-out volumes via a review of available production records and, drill testing of stope limits. The digitized sample data allows a geostatistical study which can be used to come up with parameters for doing an estimate using drill data in areas adjacent to where mining has occurred. The 3D Grade Block Model is considered work in progress.

### San Rafael Sampled Gold Grade Coloured Blocks on Section



modeled to gain insight into higher grade controls.. The andesite sills should be digitized and the production records of mined out tons and grades should be compared with the modeled tons and grades.

The mining history of the area has suggested that the higher grades and easily accessible mineralization was mined-out first, and whatever mineralization was left behind, was very likely of lower grade and uneconomic at the time but could well be economic at current consensus long term metal prices. Drilling adjacent to and below old workings by drill testing both laterally and vertically from existing stopes would be the most effective method to assess the potential for additional mineralization.

### San Rafael Sampled Silver Grade Coloured Blocks on Section

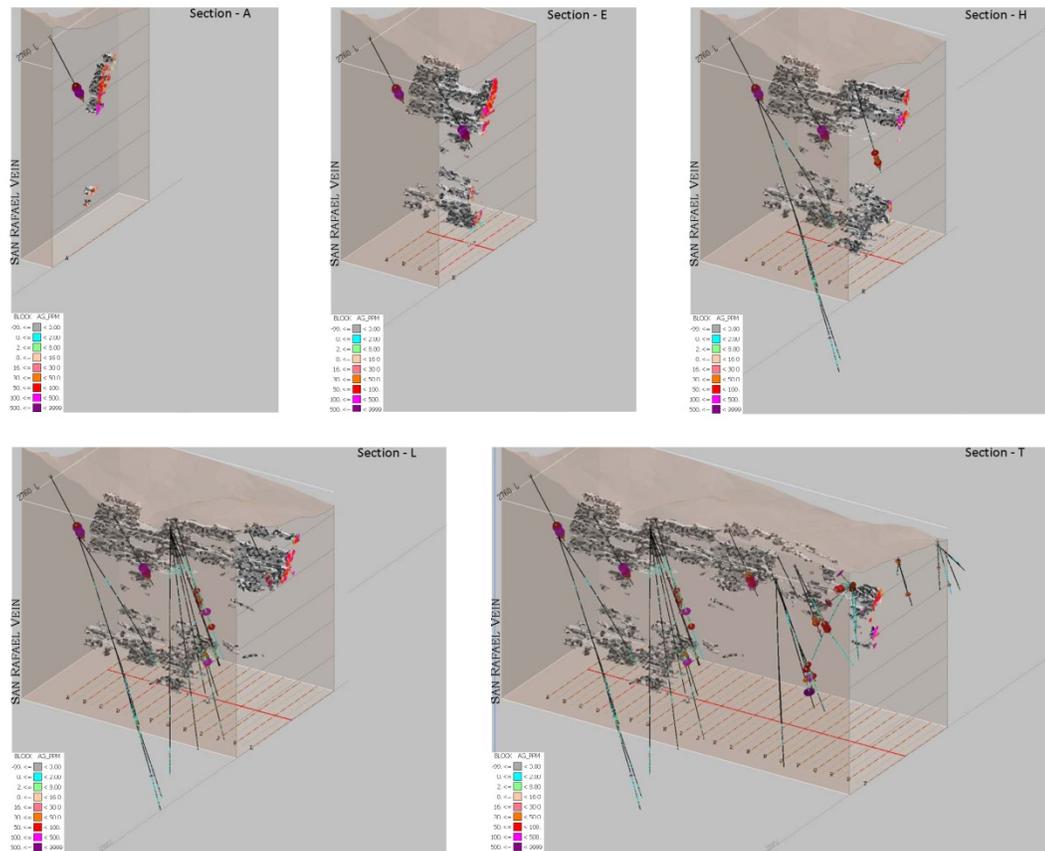


Figure 9.5: 3D Model with Blocks and Drill Holes Colored by Silver Grade (Section's A, E, H, L and T)

### 9.3b BLOCK MODEL GEOSTATISTICS

The San Rafael-El Oro model database was separated into 4 zones: Zone 1, Zone 2, Zone 3 and Zone 4 (Figure 9.6) to allow for some distinction between regions, based solely on elevation and northing. The objective of the geostatistical analysis was to define meaningful grade controls for the San Rafael vein modeled that could be applied to the remainder of the 2.1 km strike length and to the rest of the mining district hosting 57 known veins. It would be best to base such subdivisions on known geologic boundaries, however a compilation of geologic data has yet to be *compiled so simple divisions were based solely on elevation and northing*.

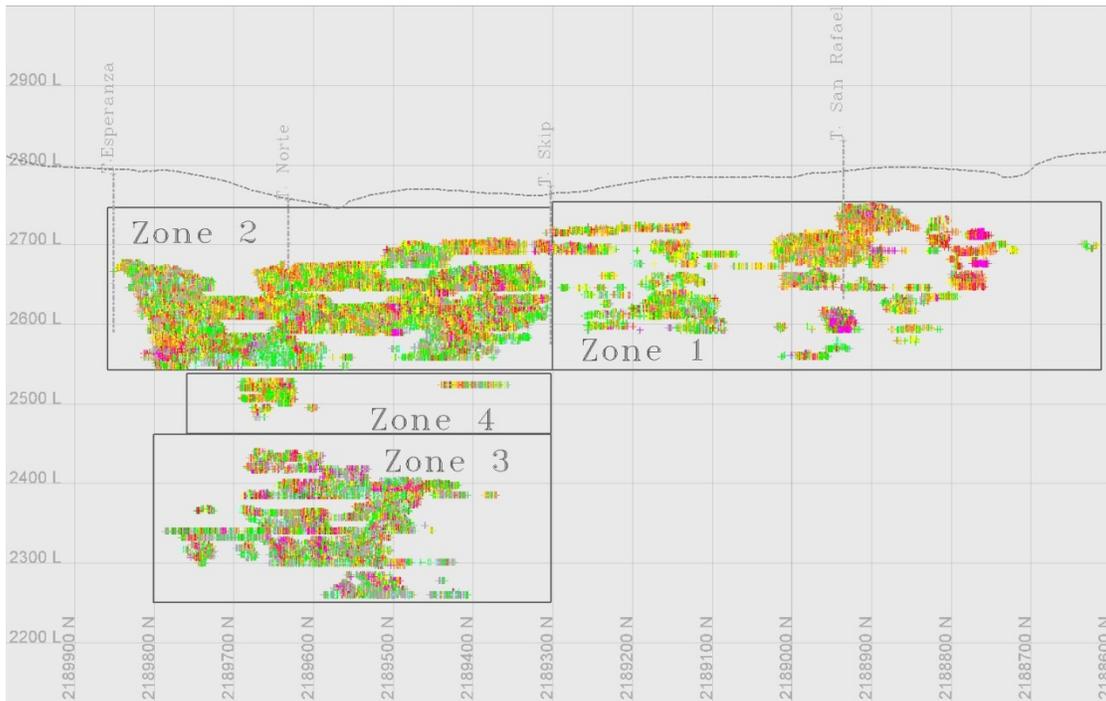


Figure 9.6: Geostatistics Zone Definition

Univariate histogram and log normal probability plots were performed on each of the 4 Zones for gold (g/t) and for silver (g/t) as summarized below:

- Zone 1 (Figure 9.7) covers the southern strike extent of the data captured between elevations 2550 and 2750m asl; has 24,001 samples with an average grade of 11.5 g/t gold and 66.17 g/t silver; a maximum grade of 1264 g/t gold and 4535 g/t silver; and a minimum grade of 0.17 g/t gold and 3.42 g/t silver.
- Zone 2 (Figure 9.8) covers the northern strike extent of the data captured between elevations 2550 and 2750m as; has 112,471 samples with an average grade of 9.45 g/t gold and 84.18 g/t silver; a maximum grade of 2962 g/t gold and 29,760 g/t silver; and a minimum grade of 0.07 g/t gold and 1.37 g/t silver.

- Zone 3 (Figure 9.9) lies at depth beneath Zone 4 between elevations 2250 and 2450m asl; has 25,738 samples with an average grade of 23.61 g/t gold and 82.31 g/t silver; a maximum grade of 9036 g/t gold and 15,641 g/t silver; and a minimum grade of 1.37 g/t gold and 3.43 g/t silver.
- Zone 4 (Figure 9.10) lies between Zone's 23; has an average grade of 10.80 g/t gold and 101.85 g/t silver; a maximum grade of 393 g/t gold and 8927 g/t silver; and a minimum grade of 0.17 g/t gold and 3.43 g/t silver.

Gold	Z1	Z2	Z3	Z4
Samples	24,001	117,391	25,738	1,412
Average	11.50	9.45	23.61	10.80
Variance	537	396	13703	351
Coef/Variance	2.02	2.11	4.96	1.73
Gmean	6.157	5.159	4.925	5.832
Min	0.17	0.07	0.17	0.17
Q1	2.91	2.57	1.37	2.74
Med	6.34	5.66	4.29	6.34
Q3	12.69	10.97	15.60	12.00
Max	1274	2962	9036	393

Silver	Z1	Z2	Z3	Z4
Samples	21,098	112,471	19,906	1,404
Average	66.17	84.18	82.31	101.75
Variance	7,898	25,401	128,317	86,641
Coef/Variance	1.34	1.89	4.35	2.89
Gmean	47.75	58.38	28.54	60.86
Min	3.42	1.37	3.43	3.43
Q1	30.86	34.29	13.71	37.71
Med	44.57	54.86	24.00	65.14
Q3	72.00	92.57	54.87	106.29
Max	4535	29760	15641	8927

Model Zone	Nugget to sill ratio	Nugget	Sill Differential	Major Range(m)	Semi-Range(m)	Minor Range(m)	Zrot <sup>0</sup>	Yrot <sup>0</sup>	Xrot <sup>0</sup>
Zone 1	76.9%	0.400	0.120	8.6	3.6	4.3	150	0	0
Zone 2	75.8%	0.420	0.134	12.0	6.5	6.0	150	0	0
Zone 3	73.9%	0.666	0.235	20.0	11.0	5.0	150	0	0
Zone 4	57.3%	0.357	0.266	30.0	14.0	8.0	150	0	0

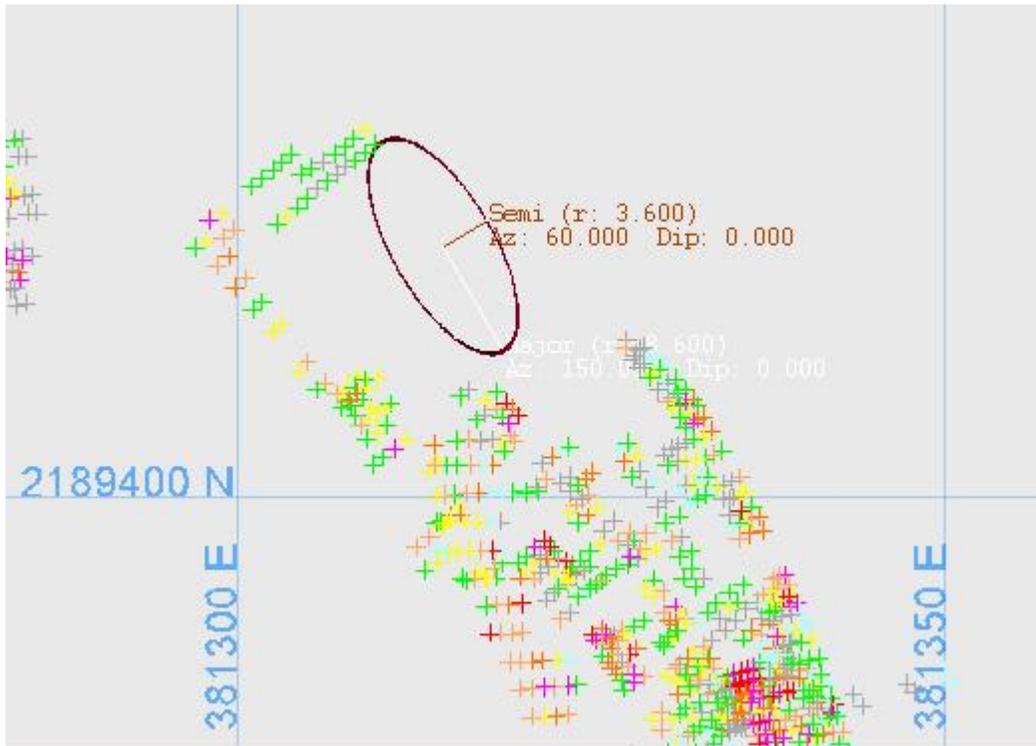


Figure 9.7: Zone 1-Potential Search Ellipse Based on Geostatistics (semi at 060Az, r=3.6m, Dip 0)

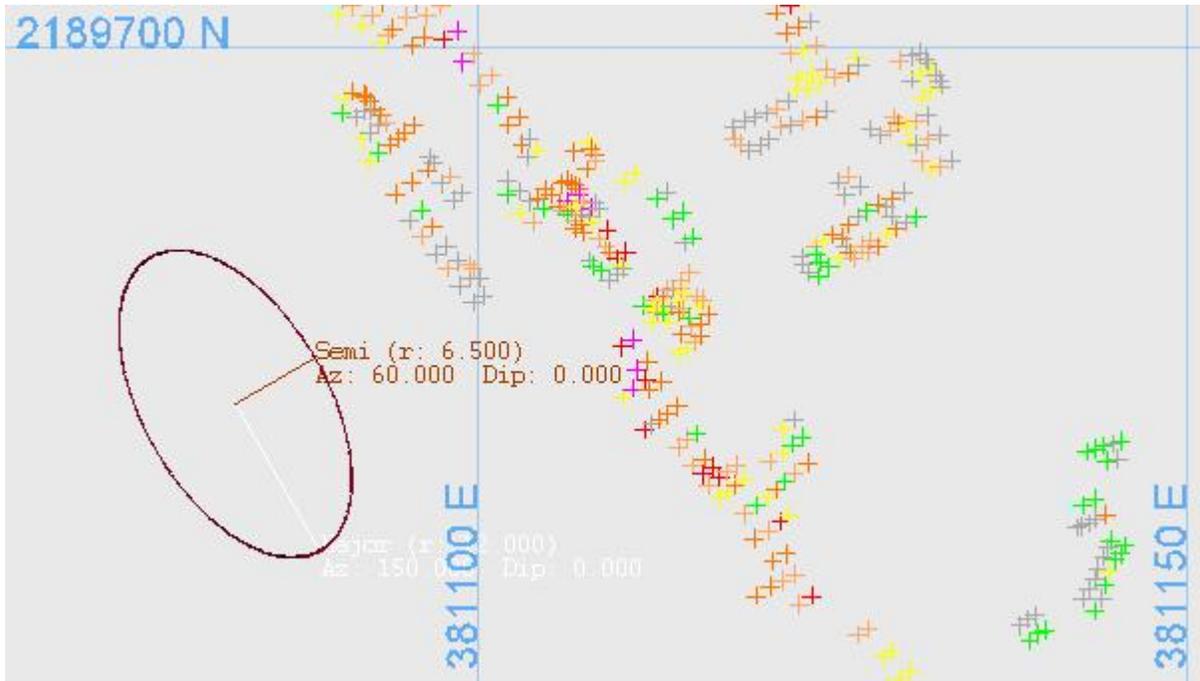


Figure 9.8: Zone 2 Potential Search Ellipse Based on Geostatistics (semi at 060Az, r = 6.5m, Dip 0)

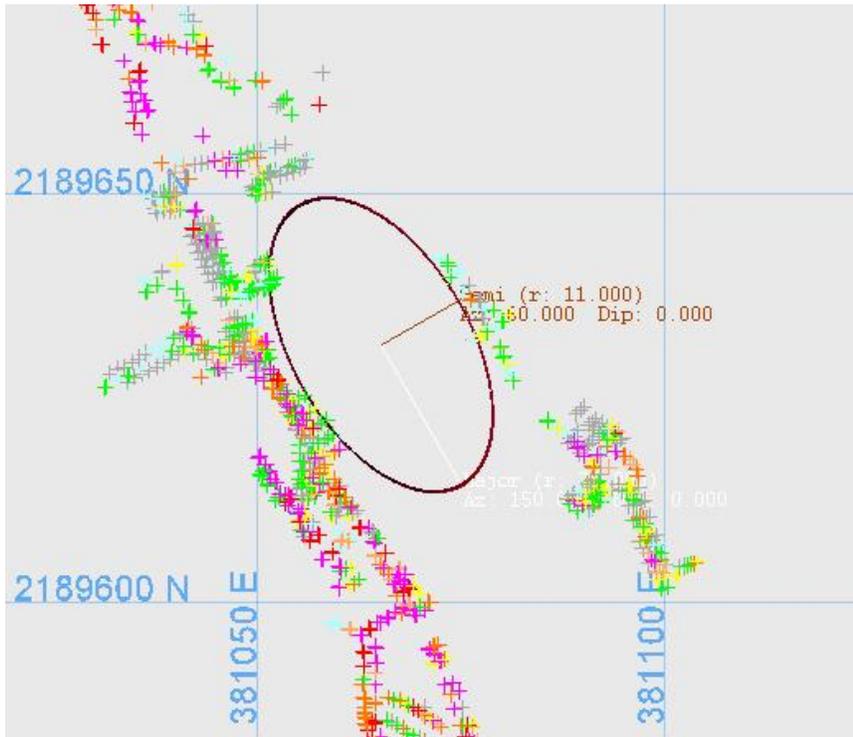


Figure 9.9: Zone 3-Potential Search Ellipse Based on Geostatistics (semi at 060Az, r = 11.0 m, Dip 0)

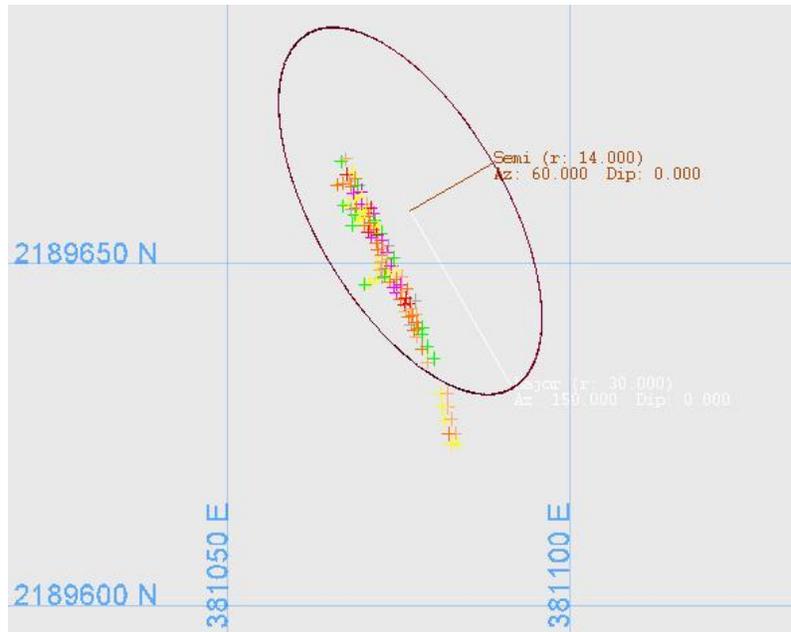


Figure 9.10: Zone 4-Potential Search Ellipse Based on Geostatistics (semi at 060Az,  $r = 14.0$  m, Dip 0)

On-going work includes: definition of subdivisions within each of the 4 Zones based on geologic boundaries; vein boundaries; mineralization boundaries; and definition of vein and mineralization geometries adjusted for faults. The goal of the model is to define the location of potential remnant mineralization laterally and below the old workings.

It is important to mention that from 1925 to 1937, all of the mines were acquired by Cia Minera Las Dos Estrellas, S.A. Higher grade backfill, pillars and intermediate veins of unknown locations, quantities and grades were mined at this time from the San Rafael and Verde Veins. A new crushing and processing plant was built to process this ore however in 1937, poor economic conditions coupled with the tragic failure of the main tailings impoundment facility forced Las Dos Estrellas to close its operations.

In 1937 to 1959, Minera Dos Estrellas turned the mines over to the mine workers as debt payment from the failure in 1937. La Cooperativa Las Dos Estrellas en el Oro y Tlalpujahuá (“The Cooperative”) was formed and continued operating the mines predominantly as a salvage operation coming from stope fills in the San Rafael and Verde Veins with the mining of backfill and exploitation of in-situ higher grade pillars however the mining operations were uneconomic and resulted in the closure of the mines in 1959.

### 9.4 SAN RAFAEL REMNANT MINERALIZATION

Historic drill campaigns along the strike length of the San Rafael vein successfully intersected remnant gold-silver mineralization. Some of the drill result highlights include: SR-93-01 (1.50m of 15.10 grams per tonne gold and 91 grams per tonne silver); SR-93-02 (11.5m of 10.10 grams per tonne gold and 121.5 grams per tonne silver) that include 3.5m of 23.2 grams per tonne gold and 224 grams per tonne silver (Figure 9.11 and 9.12).

The post mineral andesite cover in these drill holes varied between 50 to 175m. Several structural windows have exposed underlying shales and mineralization near Descubridora and Oriente. Many of these holes had poor recoveries ranging from 30 to 65%.

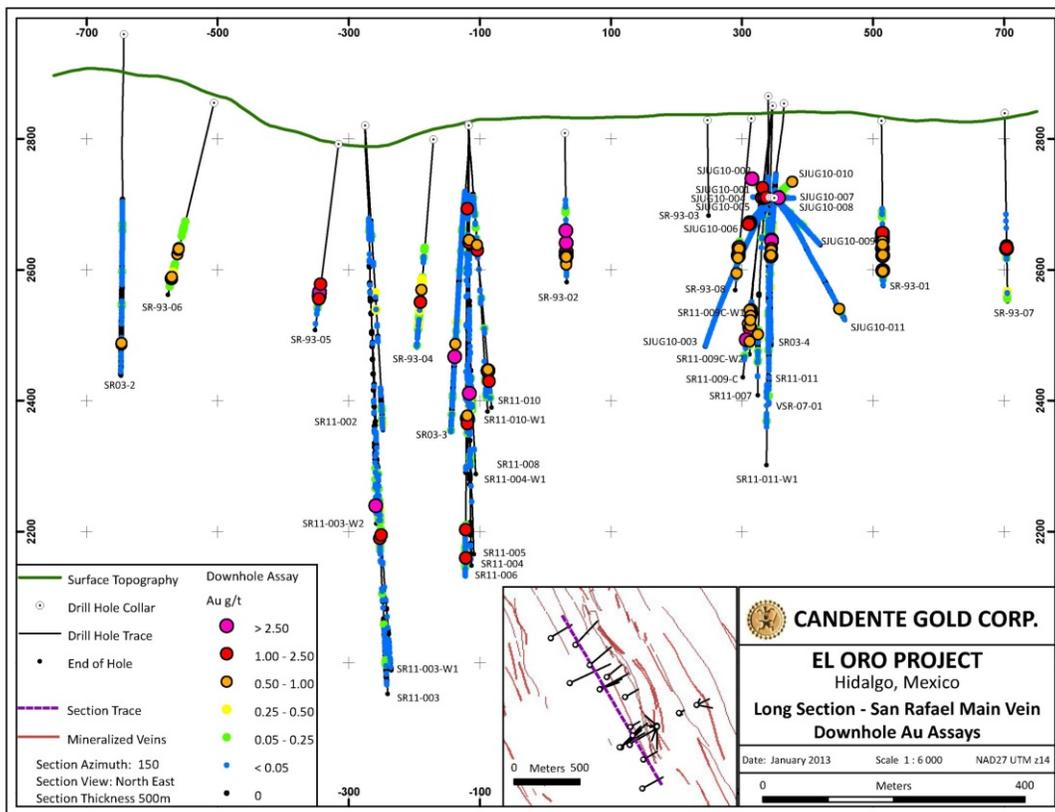


Figure 9.11: San Rafael Longitudinal Section (Gold Results)

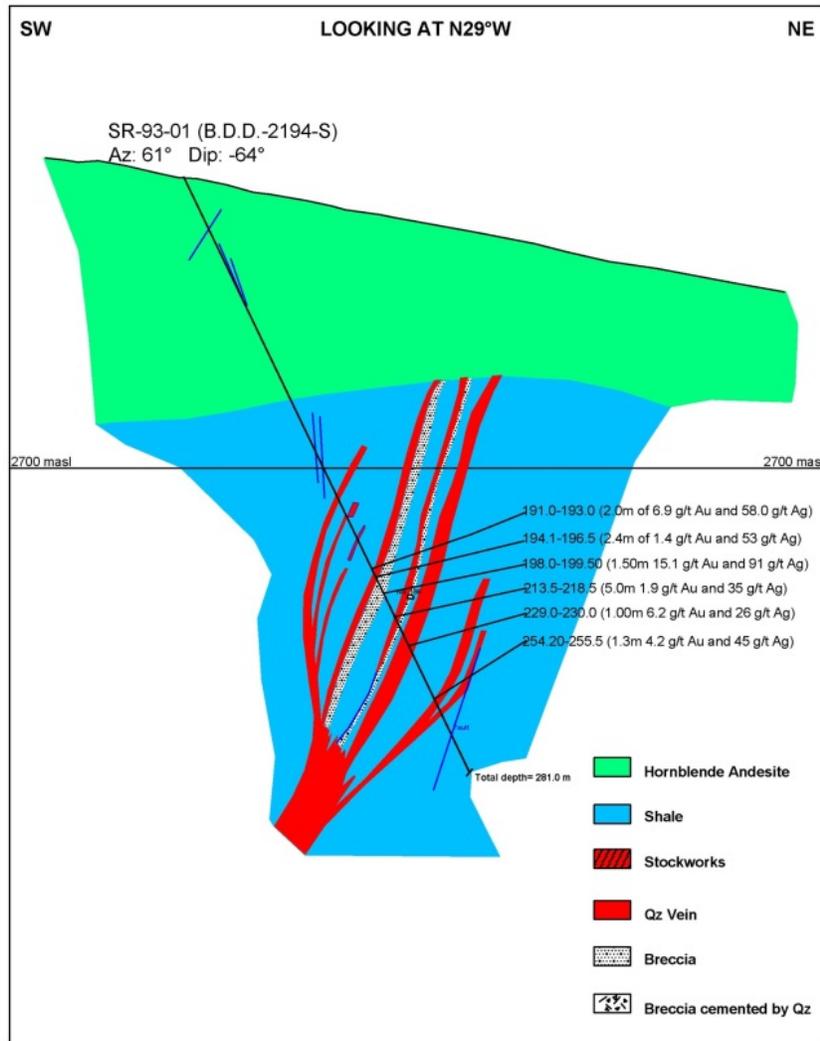


Figure 9.12: Cross Section on the Southern Horse-tailed San Rafael Vein

## 9.5 ASTER/STRUCTURAL INTERPRETATION

In February of 2013, the results of a detailed ASTER/structural survey and interpretation were received from Murphy Geological Services (*Murphy F., 2013*). ASTER, Landsat ETM + imagery were acquired over a 40 km (E-W) by 45 km (N-S) area centered on the El Oro Property. The property was interpreted at a scale up to 1:25,000 in order to determine the structural framework, analyze alteration patterns and generate exploration targets. A 9 km (E-W) by 4 km (N-S) GeoEye-1 image was acquired and interpreted for the historical mining district. A summary of the results are presented below.

### Veins and Linear Resistant Features

- A number of linear resistant features were identified across the study area; many of these are potential silicified zones, felsic dykes or broad veins that require ground follow-up.
- Those identified range in length from 0.0-0.80 km and some have several parallel resistant features
- Vein segments identified on the GoeEye-1 imagery ranged in length from 8-140 metres
- Most features trend 130 to 170<sup>0</sup> as well as NNE-SSW and ENE-E-W

### Domal and Circular Features

- Many domal and circular features measuring between 0.4 to 3.2 km were identified across the regional study area
- Some circular features are eroded stratovolcanoes southeast of San Rafael
- Most of the domal features are considered related to magmatic/volcanic activity
- The El Oro property is bisected by domal features forming a roughly N-S axis over the San Rafael vein area where there is doming and a thickening of post mineral andesite cover

### Alteration

- The ASTER (“advanced space-borne thermal emission and reflection radiometry”) generated significant alteration anomalies in the western Tlalpujahua region where the post mineral andesite cap is missing.
- Many smaller anomalies of illite/smectite and silica/sericite were identified as well as hematite iron oxides and jarosite from the Landsat ETM + data
- The Candente team and author followed up Target 17 as identified by Murphy as moderate intensity smectite/illite; a new vein was discovered in an extensive halo of robin’s egg blue smectite with classic low sulphidation epithermal textured quartz
- Many more similar strength targets require ground-validation

### Kinematics

- Northern and Central Mexico were affected by ENE-WSW compression associated with the Laramide Orogeny during the Cretaceous-Eocene resulting in extension along an NNW-SSE direction
- During the Oligocene there was a realignment of the regional stress regime related to cessation of subduction and the formation of the transform margin along the North American continental margin.
- Many of the low sulphidation epithermal veins were formed during this realignment; Albinson 2001, suggested an age date for the El Oro mineralization as 27Ma (Oligocene)
- Most of the WNW/E-W and NE-ENE trending structures are considered to be post-mineral; any preexisting structure in these orientations would have been susceptible to extensional/transensional reactivation during N-S/NNW extension

### Exploration Targets

Thirty-one exploration targets have been identified based on a number of criteria as defined in Table 9.4 below.

Table 9.4: Exploration Target Criteria

<i>Exploration target criteria</i>
Presence of major faults
Major fault intersections
Releasing bends associated with inflections along major faults
Branching or splays along major faults
Presence of veins or linear resistant features
Proximity to intrusions
Presence of ASTER and Landsat ETM+ derived alteration anomalies
Presence of known veins and mineralization

A detailed summary of the 31 ASTER/structural exploration targets defined by Murphy can be found in Table 9.5 below. The top highest priority targets are described briefly below.

Target 11: NNW-SSE fault in Pliocene tuffs; domal features; 080 down-to north fault; target at deeper level north

Target 12: NNW-SSE fault in Pliocene tuffs; north Verde; nearby domal features; NNW-SSE linear resistant veins

Target 13: NNW-SSE fault with 170° Az strike swing; vein buried under post mineral tuffs; domal features to west

Target 14: NNW-SSE fault; on Coronas Vein; N-S vein fault swing; WNW-ESE down-to-north fault; target deep

Target 19: Borda; N-S to 170° Az veins on Geo-Eye 1; NNW-SSE in south then swing to N-S = dilation = minz

Target 21: NNW-SSE veins; overlapping domal features; veins between San Rafael and Verde

Target 22: South extension of San Rafael; 170° Az fault NNW-SSE inflection; to north in Target 13; NNE/NE fault

Target 23: South San Rafael; vein fault splits to NNW-SSE and 170° /N-S; horse-tailed vein

Target 27: North San Francisco de Los Reyes; Eocene syenite; domal feature; NE-SW northwest throw

Table 9.5: Exploration Targets Generated from the ASTER/Structural Review

Table 1		Exploration Targets for El Oro project area																	
Target No.	Alteration								Major faults						Proximal to intrusions	Proximal to domal/circular features	Proximal to veins and minzn	Priority	
	Adularia	Clay	Hemimorphite	Illite-smect	Jarosite	Kaolinite	Sericite	Silica	N-S/NNW major faults	NNE-SSW major faults	WNW/E-W major faults	NE/ENE major faults	NW-SE major faults	Major fault intersection or splay					Major fault inflection
1	■		■			■	■	■			□	□		□		□		□	2
2	■		■			■	■	■		□	□			□		□			3
3	■	■	■	■		■	■	■	□	□				□	□				2
4	■								□	□				□	□		□		2
5	■	■							□			□					□		3
6	■	■	■	■		■	■	■			□					□			3
7		■			■		■	■	□								□		2
8	■																□		2
9	■	■	■	■		■	■	■	□	□	□	□		□	□		□		2
10	■	■	■	■		■	■	■	□		□			□	□				2
11									□			□		□	□		□	□	1
12						■	■	■	□								□	□	1
13	■				■		■	■	□	□	□			□	□		□	□	1
14	■	■	■	■		■	■	■	□		□			□	□			□	1
15	■	■	■	■		■	■	■	□		□			□		□	□	□	2
16	■	■	■	■		■	■	■	□	□	□			□					3
17	■	■	■	■		■	■	■										□	2
18	■					■	■	■		□								□	2
19	■																	□	1
20										□	□	□	□	□	□		□	□	2
21	■									□							□	□	1
22						■	■	■	□	□				□			□	□	1
23			■	■		■	■	■	□	□	□			□	□		□	□	1
24	■	■	■	■		■	■	■	□		□			□	□				2
25																		□	3
26										□	□	□	□	□	□		□	□	2
27	■	■	■	■		■	■	■	□			□	□	□	□	□	□	□	1
28	■	■	■	■		■	■	■	□		□			□	□	□	□		2
29	■	■	■	■		■	■	■		□		□			□				3
30	■					■	■	■		□					□		□		3
31	■					■	■	■		□		□		□			□		2

■ Low intensity anomaly  
 ■ Medium intensity anomaly  
 ■ High intensity anomaly

### 9.6 FLUID INCLUSION STUDY

In late 2012 several samples were collected from underground workings, drill core and surface outcrops from the El Oro Project by Daniel Moncada (*Moncada D., 2013*). A total of 30 samples were collected and analyzed by Moncada in the first quarter of 2013. Fluid inclusion assemblages consisting of coexisting liquid and vapor rich inclusions with a broad range of liquid-to-vapors, as well as textural evidence of boiling was observed at the northern and southern strike extents of the San Rafael vein. Samples located in the deepest part of the vein between Tiro Mexico and Tiro Chuparrosa show only textural evidence of boiling. Samples from Veta Borda, Coronas, Verde, Nueva and Jesus Del Monte show fluid inclusion and textural evidence of boiling (Figure 9.13, Figures 9.14a and Figure 9.14b).

The results of a 30 sample fluid study confirmed the following:

- Silica, calcite textures= evidence of boiling

- Illite in some inclusions = acid fluids
- Two fluid types (liquid-rich and vapor rich)
- Gold with jigsaw breccia (93% of the samples)
- Deepest part of the San Rafael vein showed no evidence of boiling and had the highest silvers (Figure 9.9b)
- Borda, Coronas, Verde and Monte veins = evidence of boiling from fluid inclusions and vein textures
- Temperature range between 202-358 °C
- Salinities range between 0.80-3.5 wt. % (NaCl); 50% of El Oro samples had between 2-3wt.% (NaCl)

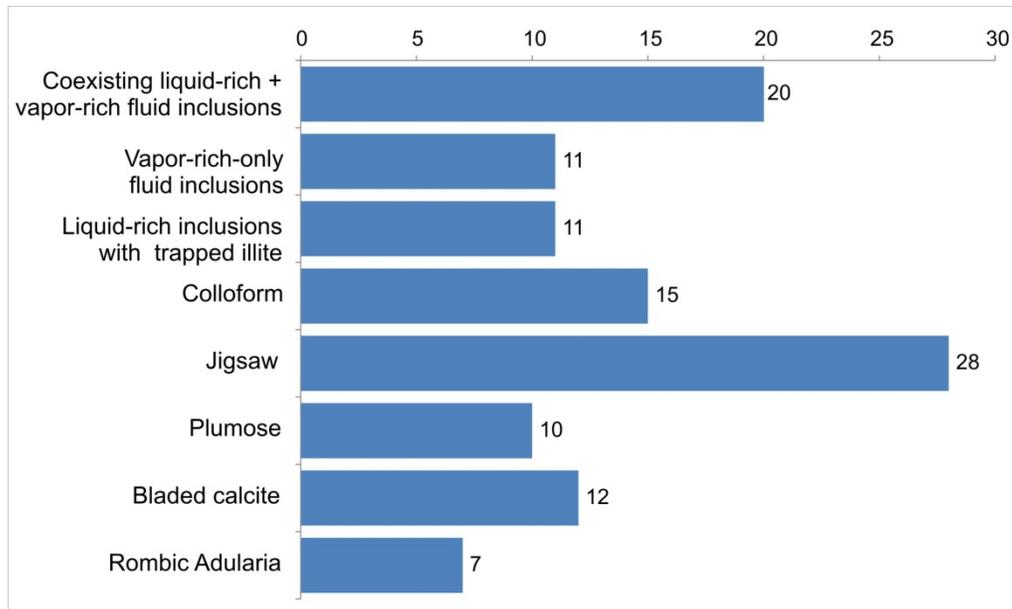


Figure 9.13: Fluid Inclusion Mineralization Vein Textures (Moncada, 2013)



## 9.7 EXPLORATION TARGET AREAS

Several targets remain under-explored on the El Oro Property with very little surface work and limited to no drilling. Poor geochemistry, down-to-north fault offsets, buried veins, poor core recoveries and inconsistent exploration over the years has hampered definition of these vein targets. Often times mining was done before exploration/mapping/sampling resulting in termination of workings, where veins terminate against faults or offsets either laterally or vertically, vein dislocations that were not clearly understood. Careful consideration to vein trends; vein dip variations; productive and unproductive vein mineralogy and structure is required.

The following targets are considered priority El Oro property exploration targets (Figure 9.15).

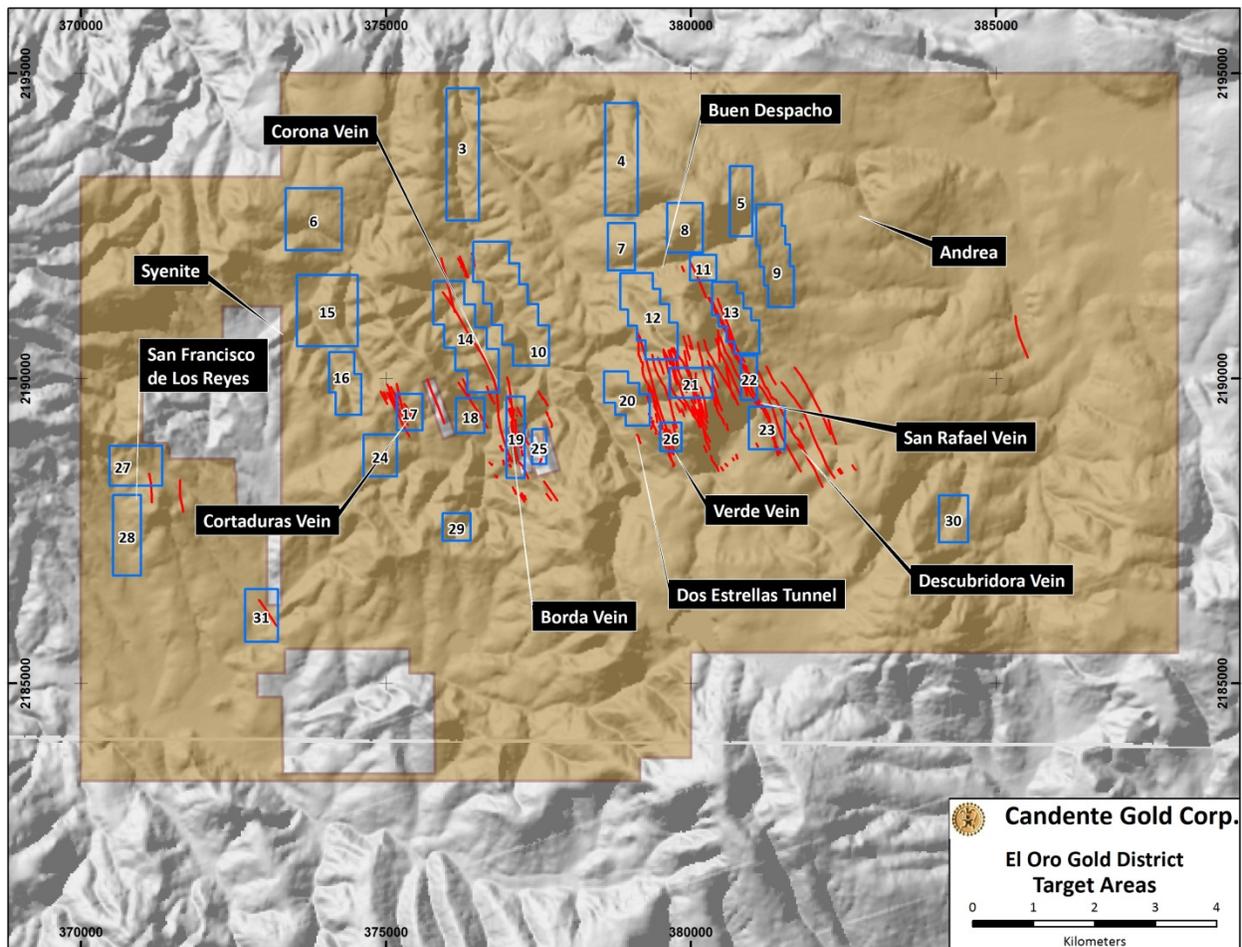


Figure 9.15: Distribution of Main Vein Targets and New Exploration Targets at El Oro

### 9.7.1 Borda (Target 19)

The Borda Vein zone is comprised of two main veins: the Borda Vein and Vein 31. Both of these veins remain valid exploration targets that have known remnant mineralization that is being mined today by the locals. The northern and southern strike extents warrant further exploration. Socavon Santa Isabel accesses the Borda Vein and Vein 31 to the east. The north half of Target 19 (Figure 9.16) covers the northern strike extension of the Borda and Vein 31 as described below.

The Borda vein is a silver-dominant Ag-Au epithermal vein. Surface exposures and historic underground mine data indicates that the system extends for a strike length of up to 1.7 km with a down-dip extent of 240 metres. The historically exploited ore zones were narrow, ranging in width from 0.70 to 2.0 metres, with occasional blow-outs up to 12 metres in width. According to Flores in 1921 historical production data from the Borda vein was only general in nature with reported grades of 1 to 15 grams per tonne gold and 100 to 760 grams per tonne silver.

The Borda vein has a strike that varies from 000<sup>0</sup>Az to 005<sup>0</sup>Az and dips that vary from 70 to 86E in the south changing to 65W in the northern part of the vein. The vein is accessed at the southern end of Socavon Santa Isabel. The main vein was lost at a 065<sup>0</sup> Az fault north of 218900N however evidence for the vein is seen on surface along the 1.7km strike length. The southern end of the Santa Isabel adit is by a silica-pyrite-clay-limonite altered hornblende andesite subvolcanic intrusion for several tens of metres. The grades near to the subvolcanic andesite body are gold-rich as high as 23.56 g/t Au near the northern contact and 4.84 g/t Au near the southern contact. Dominant faults in the Santa Isabel adit that follows Veta Borda include: 240/70NW and 348/80NE. Surface float and grab samples taken by Candente returned as high as 8.73 grams per tonne Au and 995 grams per tonne Ag.

The silver to gold ratio at Borda is 100: 1 as calculated during a 1920 underground review by Flores.. Mined grades were in the range of greater than 12 grams per tonne Au and 150 grams per tonne Ag.

The vein undergoes several N-S strike swings where it appears to be silver-rich. ASTER defined alteration on surface is clay, sericite and kaolinite. West of the target is a gold and silver bearing E-W silica zone near a major NNE fault split. In addition, eleven known veins lie in the main Borda hanging - wall to the east and a detailed Terraspec survey by Candente in this area produced buddingtonite on surface along several N-S drainages to the east of known workings.

#### Vein 31 (Veta 31)

Veta 31 is a vein that sub-parallel Veta Borda and lies 12 metres to the east of the Borda vein as accessed by Socavon Santa Isabel. Veta 31 has a strike that varies from 180 to 200Az and a dip of 74NW. The vein undergoes several strike swings to 040Az/80SE. Similar to the San Rafael and Verde Veins the best mineralization along the veins occurs where the vein undergoes strike swings, a scenario that favors dilation and resultant mineralization elsewhere in the district.

In 1979, *Consejo de Recursos Minerales* mapped and sampled the remnant mineralization in the Santa Isabel adit and Vein 31 to the east. Some of the better gold grades sampled during the 1979 of the remnant mineralization ranged between 4.84 -74.69 grams per tonne gold Au and up to 65 grams per tonne silver from sheared, pyritic shale wall rock. The gold to silver ratios were much higher nearing 1:1 in the pyritic wall rock when compared to the main veins and were likely from an earlier mineralization event. The claims outlined in green on Figure 9.16 below are presently owned by competitors. Candente

recently took samples numbered #6293 and #6294 from mineralization presently being mined by competitors however; the results were not available at the time of the report. The samples were of milky white massive quartz, locally bladed calcite and bladed quartz after calcite with disseminated silver sulphides as well as massive quartz-pyrite-marcasite breccia. Faults that bisect the vein are 211/65 NW and 240/70NW and 160/68SW.

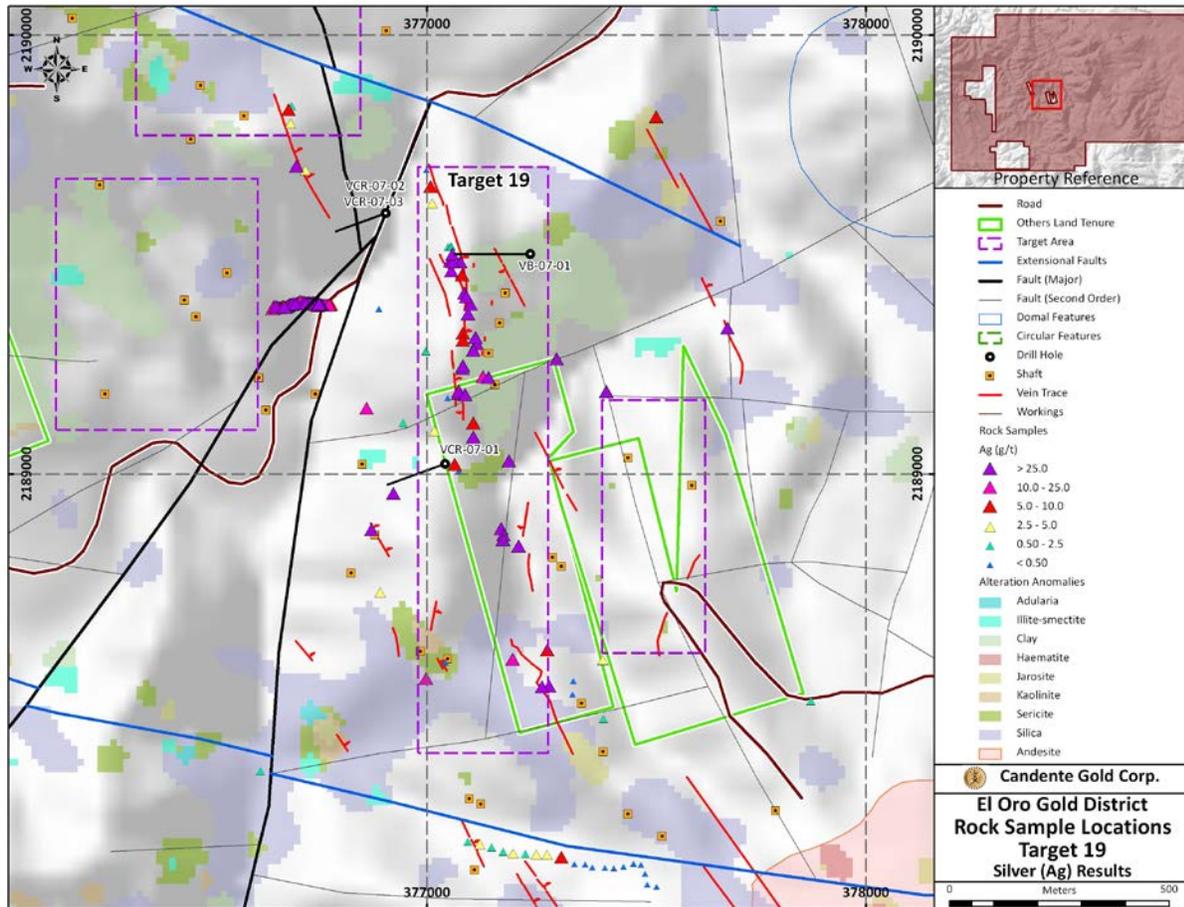


Figure 9.16: Borda -Target 19 Compilation (silver)

At least four drill holes have been drilled in this area by Candente with the best results from drill hole VCR-07-01 returning 1.3m of 1.3 grams per tonne Au and 401 grams per tonne Ag and hole VCR-07-02 returning 0.7 m of 0.26 grams per tonne Au and 283 grams per tonne Ag. The veins undergo strike swings and dip changes across faults so field checking drill hole orientation is critical in any future drill hole programs. Strike swings are more favorable targets due to enhanced dilation and resultant mineralization.

### 9.7.2 Coronas (Target 14)

The Coronas vein system is 3km in length and was mined historically via open pit methods due to the reported abundance of near surface silver rich ore. The main vein follows a NNW-SSE vein fault. Both the vein and the fault undergo a unique inflection to the south resulting in dilation, fluid flow and

resultant mineralization. The southern end is cross cut by a down-to-the north WNW-ESE trending fault. Mineralization at Coronas was encountered at deeper levels than at Borda. Second order ENE-WSW and WNW/E-W structures cross cut the Coronas Vein and may have resulted in a down-to-the-north vein throw. Small low intensity anomalies of illite-smectite, kaolinite and sericite anomalies also exist here. Surface samples collected in this area ranged from 1.70 to 8.73 grams per tonne gold and from 150 to 420 grams per tonne silver. Limited drilling has been done in this area with the best results from CR04-1 returning 2.9m of 0.55 grams per tonne Au and 134 grams per tonne Ag from a drill hole with poor recoveries.

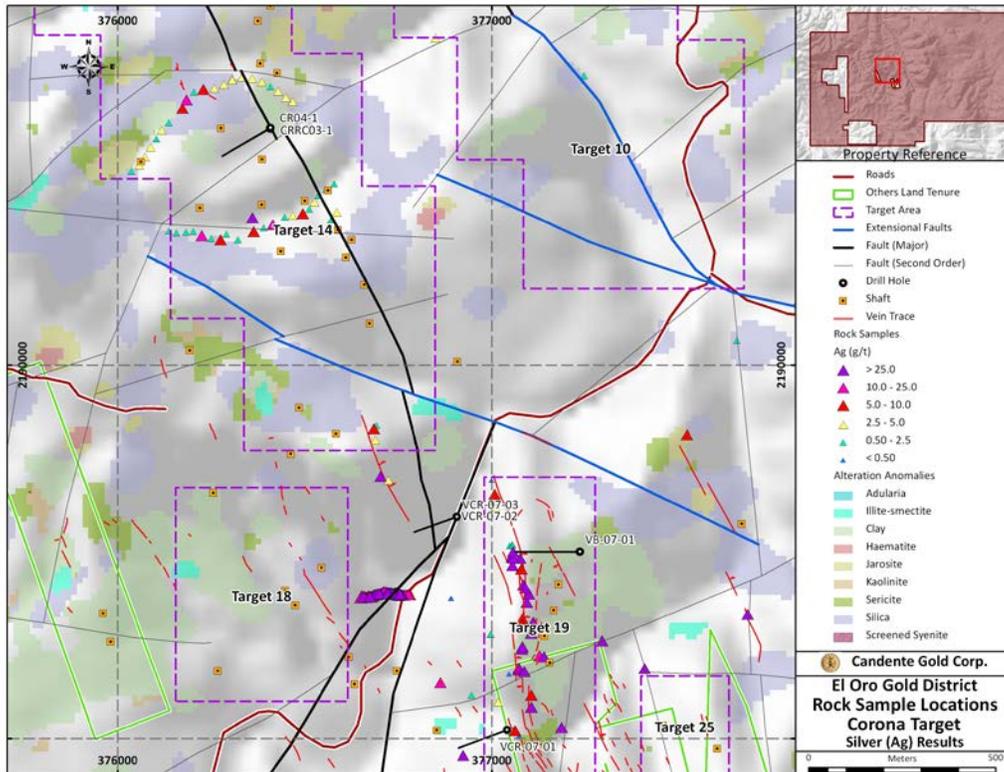


Figure 9.17: Coronas-Target 14 Compilation (silver)

### 9.7.3 Cortaduras and Target 17

The Cortaduras target has been the focus of exploration for many years as summarized in Section 6 of this report. The main gold-rich quartz-sulphide target lies near a down-to-the-north  $100^{\circ}$  Az E-W fault. The north side of the fault is illite-smectite altered tuffs and sheared Cretaceous shales on the south side of the fault. High intensity kaolinite and sericite anomalies and high intensity illite-smectite alteration (recently ground validated by Candente) is extensive in the northeast near Target 17. In June of 2013, in a

reconnaissance review of Target 17, Candente discovered a new 1.3 m wide vein that trends N10E (as shown in Figure 9.13) and dips steeply northwest. The vein has favorable low sulphidation vein textures.

At Cortaduras to the west, surface samples returned between 4.5 to 11.8 grams per tonne gold and elevated in mercury to 18,000 ppb. Historic trench highlights include TRCO-003 returning 108 metres of 1.5 grams per tonne Au and 25 grams per tonne Ag as summarized in Section 6 of this report.

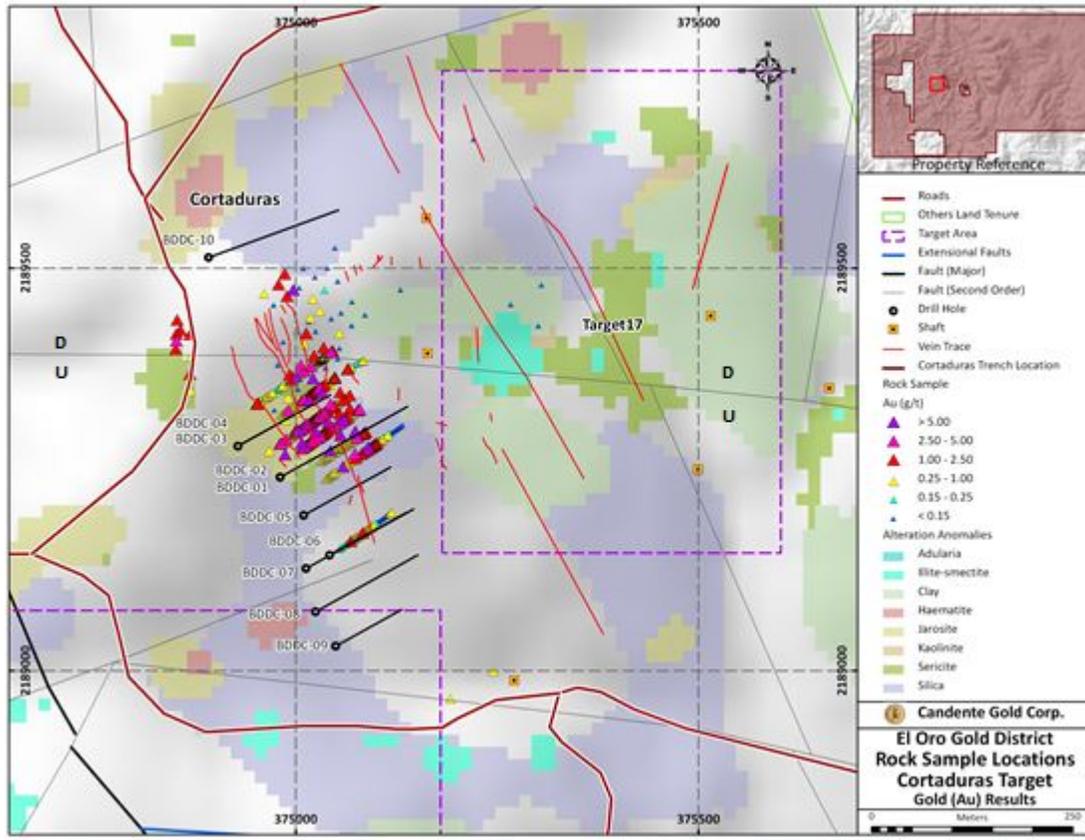


Figure 9.18: Cortaduras-Target 17 Compilation (showing gold)

Cortaduras is defined by a 500 metres long mineralized zone that is up to 200 metres in width. The 1988 Luismin drill program targeted mineralization under the surface trenches (Figure 9.13). Candente's 2007 Trench resampling program as summarized in Section 6 returned much higher gold grades than the historic Luismin 1989 trench results.

The 1988-1989 Luismin drill core should be resampled by Candente to assess the gold content in the historic drill core with modern analytical techniques. Gold analytical techniques may not have been as accurate or precise in the late 1980's by today's standards.

#### 9.7.4 Syenite (Target 15)

This target has been the focus of past exploration due elevated gold and antimony surface results. The main target is along the southern contact of shales with a syenite intrusion. The target is Au-Sb (Hg-As) with very low silver. Mineralization occurs along NNW-SSE faults in the form of silicified limestone and along NE-SW faults. Several newly defined short, linear features were identified on the GeoEye-1 imagery. The area has extensive alteration medium to high intensity clays along the eastern contact of the syenite and illite-smectite anomalies along NNW-SSE fault as well as bleached areas on the imagery.

Surface samples returned 1.0 to 7.02 grams per tonne gold with elevated antimony to 308 ppm, arsenic to 1760 ppm and mercury to 1520 ppb.

This target was described by Murphy, 2013 as follows:

- Contains the southern portion of an Eocene syenite porphyry
- Target is underlain by Cretaceous sediments along the southern and eastern flanks
- NNW-SSE and NE-SW trending major faults are present and have likely controlled emplacement of syenite porphyry
- The faulted margins of the intrusion is a valid target
- Numerous short strike length veins and linear resistant features predominate in the southeast of the target area on the GeoEye-1 imagery
- Medium to high intensity clay anomalies are present and are best developed in the sediments to the east of the intrusion
- Small low intensity hematite and medium intensity jarosite anomalies are also developed
- Low to high intensity silica anomalies are present and higher intensity zones correspond to bleached zones on the ASTER and Landsat ETM + imagery

The author has visited this site and can confirm extensive silicified limestone along the longer range NNW-SSE fault as well as quartz stockwork everywhere abundant coincident with bleached and veined shales.

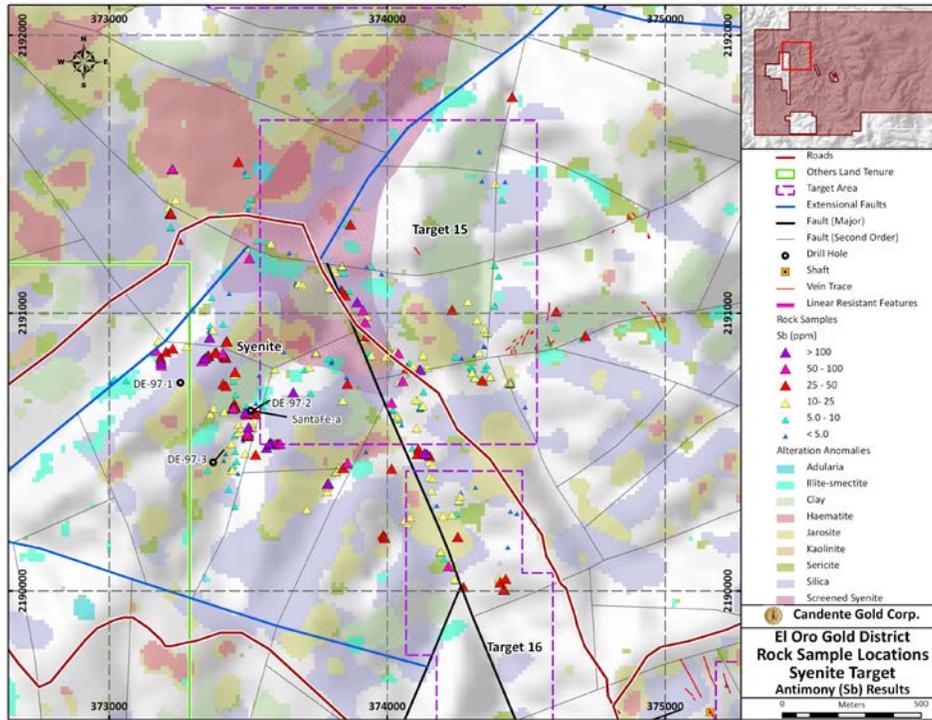


Figure 9.19: Syenite-Target 15 Compilation (antimony)

### 9.7.5 San Francisco de Los Reyes (Target 27)

San Francisco de Los Reyes is a potential bulk tonnage target. The project area comprises meta-sediments and meta-volcanic rocks that are host to quartz stockwork and veinlets. Previous drilling (4 drill holes for a total of 577.50 metres) by Luismin/Hillsborough (1993) reported interesting values including: BDDSF93-03 returning 3.62 grams per tonne gold and 115.00 grams per tonne silver over 1.29 metres and BDDSF93-04 returning 8.90 grams per tonne gold over 1.29 metres. The bulk tonnage potential is on the upper part of the target measuring 800 x 600 metres hosted by volcanoclastic rocks.

Target 27 was described by Murphy 2013 as having an Eocene syenite and related domal feature. A north-westward down-thrusting NE-SW major fault occurs at the northern tip of the syenite. A 170° trending known vein cross cuts the southern part of the intrusion. Low intensity adularia, kaolinite, sericite, hematite and jarosite anomalies are present along with low to medium intensity illite-smectite. A large low to high intensity silica anomaly is also developed. Many of the anomalies are NNE-SSW faults cutting the syenite.

### 9.7.6 North Rafael (Target 11)

This target area lies to the north, along strike of the San Rafael vein zone. Several holes have been drilled over the past in this area including: Holes BDDBD-1, BDDBD-2 and BDDBD-3. The best hole BDDBD-1 returned 139m of 26 grams per tonne silver. The main target is located along a NNW-SSE vein fault that is cut by a major ENE fault. Antimony anomalism follows the east-northeast fault. Domal features are located in the east and west of the Target. The San Rafael vein has a down-to-north throw on a  $080^{\circ}$  Az fault to the south so Target 11 should be encountered at a deeper level in the north.

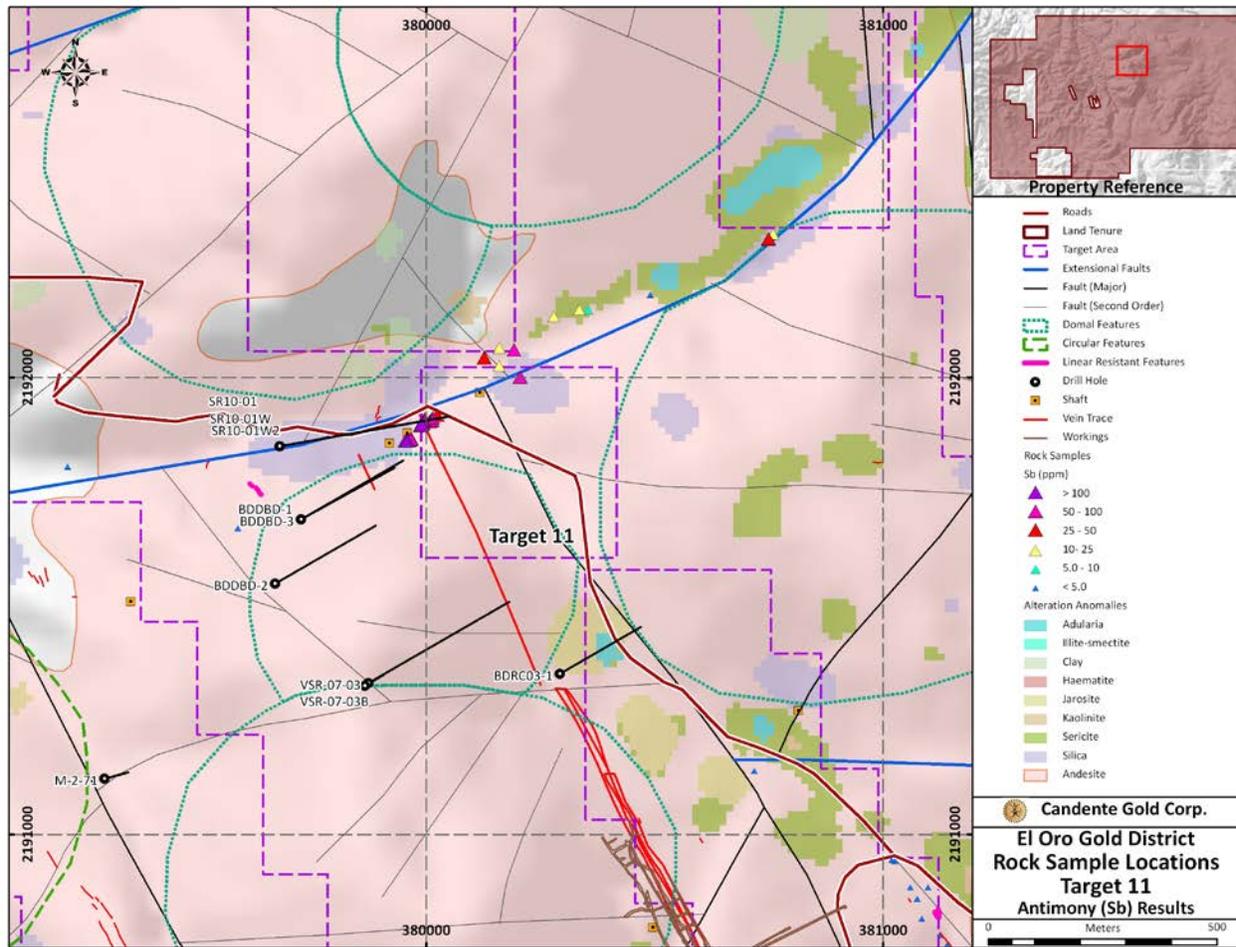


Figure 9.20: Buen Despacho Target 11 Compilation (antimony)

Target 11 is located along a NNW-SSE major fault along strike from San Rafael in Pliocene andesite tuffs. Domal features have been identified to the east and west of the fault. The main San Rafael vein to the south is cross-cut and down-thrown by a second order 080° fault. The mineralized interval in Target 11 should be encountered at a deeper level.

### 9.7.7 Oriente Quartz Feldspar Porphyry Target

This target is an extensive alteration zone comprised of ASTER-defined silica forming an E-W zone that straddles two E-W bounding faults. In a recent target visit by Candente in November 2013, outcrops of severely altered quartz feldspar porphyry forms a N-S trending zone that is characterized by quartz veins 143/65°SW and veinlets in a white to yellow clay (buddingtonite) alteration zone trending 008/90° with limonite along fractures and within vein selvages as well as trace cinnabar along dry fractures (080/65°SE). Goldcorp historically sampled this area and recovered highly anomalous mercury in grade samples from this area. This area is a high priority target for future Candente geological mapping.

This target lies within the apparently post mineral andesite covered Zona Oriente target area. This is obviously a structural window hosting altered and mineralized rhyolite quartz feldspar porphyry that is common in most of the mines with known gold-silver mineralization. These dykes are known to crosscut pre-mineral andesite porphyry and exploit major syn-mineral faults. Many of these intrusions were historically exploited for their gold and silver content. North - south structural zones are a common theme as far as favoured mineralization in particular when bound by E-W faults.

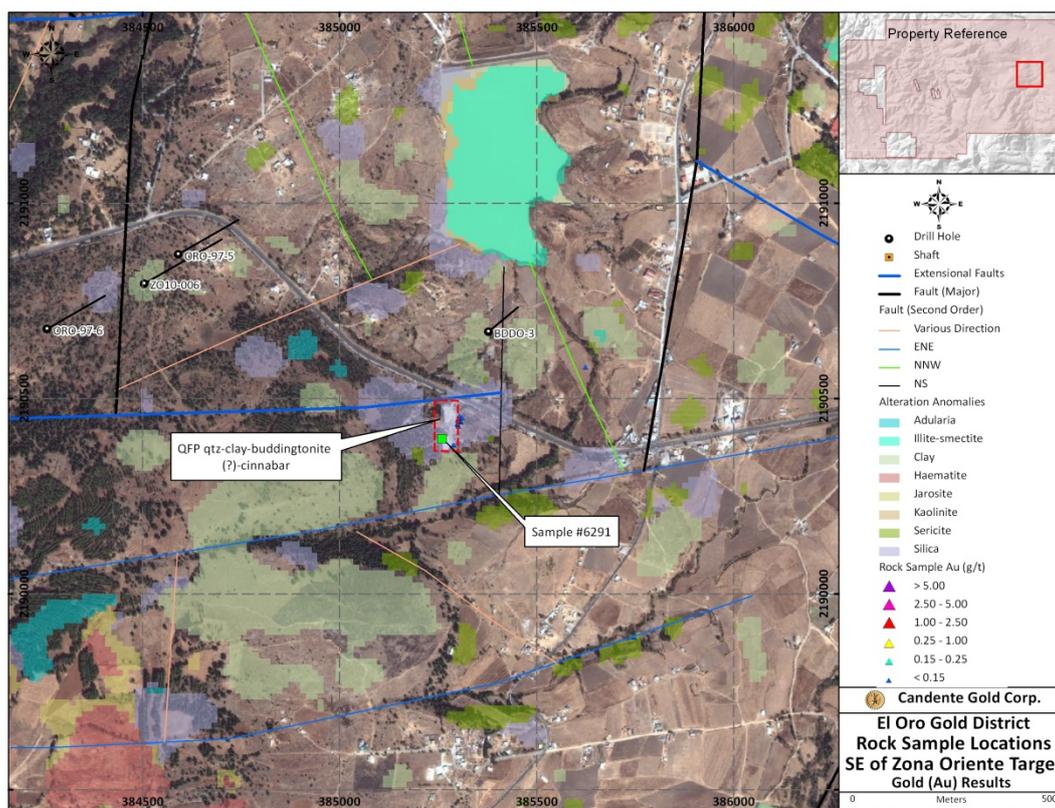


Figure 9.21: Oriente Quartz Feldspar Porphyry Compilation (drilling, ASTER/faults)

### 9.7.8 OTHER TARGET AREAS

South San Rafael Target: Historic drilling in 1993 along the trace of the San Rafael Vein to was very successful in defining further mineralization along strike.

Angelica and Nolan Vein Target: Drilling resulted in several narrow but high grade silver and gold intercepts lying in the hanging wall of the San Rafael vein: Angelica Vein (Veta Angelica) and Nolan Vein (Veta Nolan). The Angelica Vein lies 320 metres and the Nolan Vein lies 250 metres vertically above the San Rafael vein. The best results included 2.0 metres of 30.66 grams per tonne Au and 3.00 grams per tonne Ag from 444.5 metres depth on the Angelica Vein and 0.5 metres of 2.41 metres and 372.0grams per tonne Ag from 508.5 metres on the Nolan Vein (*Candente Gold Corp., NR017, dated May 3, 2011*).

Somera Tuff Target: The Somera Tuff Target was previously recognized as a potential bulk mineable target that is variably mineralized and was further assessed by a review of previous drill holes that were thought to have intersected this lithologic unit (including SR03-01/01A/01B/02; VSR07-02/03 and VV07-01). Where intersected the tuff varies in width from 34 to 87 metres in thickness (*Candente Gold Corp., NR017, dated May 3, 2011*). Exploration included diamond drilling of the potentially bulk mineable Somera Tuff unconformity-related target where hole SR10-02A intersected 75 metres of 0.96 grams per tonne Au (includes 16.73 grams per tonne gold over 1.4 metres and 6.86 grams per tonne gold over 4.6 metres. This target lies 200 metres laterally and above the San Rafael Vein system. Alteration at the tops of many of the vein apices is extensive in the eastern, blind portion of the Candente's El Oro Mining District.

Mexico-Esperanza Target: The Mexico-Esperanza Mine area is one of the strongest exploration targets within the San Rafael vein system due to the presence of vertical controls to mineralization, the highest grades of past production (12-16 grams per tonne ("grams per tonne") over an average vein width of 10 metres. In the 2011 Candente drill program, two high-grade intersections on the San Rafael were approximately 300 metres apart and 100 m below the deepest known old workings (SR11-001A from the current drill program and SR07-002 from the 2007 program). In addition, two other high-grade veins with minimal past production were intersected in the hanging wall above the San Rafael vein, and gold mineralization has also been discovered in the overlying pervasively altered Somera Tuff volcanic unit in this area.

Buen Despacho Target- a northern (lateral) extension to the San Rafael vein has been confirmed approximately 1,100 metres north of any known historic production. The significant silver mineralization from drill holes SR10-001 and SR10-001-W1 included 230 grams per tonne silver over 0.40 metres, 19 grams per tonne silver over 2.80 metres, and 54 grams per tonne silver over 1.00 metres intersected well below the old shallow exploration workings. In this area, the San Rafael vein appears to have been down-dropped by faulting north of the Mexico-Esperanza mining area. The old shafts and tunnels stopped approximately 90 metres above these new discoveries.

#### North (Norte) Shaft Target

In the North shaft zone, hole SR11-004-W1 intersected 315 grams per tonne silver over 1.15m and 5.75 grams per tonne gold and 14 grams per tonne silver over 0.65m. SR11-004 intersected 7.7 grams per tonne gold and 3.5 grams per tonne silver over 0.80m.

### Providencia Shaft Target

In the Providencia shaft silver dominates over gold, with most holes intersecting high-grade silver values. SR11-007 intersected 523.6 grams per tonne silver over 1.0 metres and SR11-009C intersected 176 grams per tonne silver over 0.30 metres. In 2003, just north of this block, Placer Dome intersected 10.18 grams per tonne gold and 48.75 grams per tonne silver over 2.50 metres in hole SR03-004.



*Linear ridges in El Oro VIII viewed to east on Google Earth*

Figure 9.22: Linear Features in El Oro VIII Viewed east on Google Earth

## 10. DRILLING

The reader is referred to past Technical NI 43-101 Reports by Caira, et. al., 2012 with an effective date of June 20<sup>th</sup>, 2012 for a detailed summary of drilling conducted on the El Oro Property during 2007, 2010 and 2011. Drilling was not done by Candente during the past 2012-2013 exploration year ending June 15<sup>th</sup>, 2013. The discussion below summarizes past drilling on the property.

The 2010 Candente Gold Corp exploration program included six core holes totaling 3,336 metres within the Zona Oriente “(Orient Zone)” located to the east of the historic El Oro mining district as well as two holes into the San Rafael Vein Target with a focus on the Espernaza and Buen Despacho sections of the vein totaling 2,266.75 metres. In addition, the underground rehabilitation of the San Juan adit enabled drilling of the San Rafael vein footwall zone as well as easier drill access of the Calera and Descubridora structures totaling 2,048.60m. The 2010 underground and surface drilling and sampling program defined high grades of gold and silver in vein remnants. Two samples collected 55 metres vertically apart returned grades of 14.92 grams per tonne gold and 117.0 grams per tonne silver over 2.1 metres and 14.64 grams per tonne gold and 54.50 grams per tonne silver over 2.5 metres. Select 2010 drill intercepts include 30.5 metres of 1.52 grams per tonne gold and 32.9 grams per tonne silver from a 25.00 metres depth; 15.5 metres of 1.33 grams per tonne Au and 55.18 grams per tonne silver from a 69.0 metres depth (including 6.5 metres of 2.82 grams per tonne gold and 96.08 grams per tonne

silver, *Candente Gold Corp, NR008 dated September 14, 2010*). The drilling of the Veta Oriente target, located 1500 metres east of the San Rafael target intersected several narrow weakly mineralized structures with poor results.

The 2010 program discovered a potential bulk mineable target that is unconformity-related along the Somera Tuff and the underlying sedimentary rocks that host the San Rafael vein and related system. Highlights include 54.7 metres of 1.17 grams per tonne gold and 5.02 grams per tonne silver coincident with an advanced argillic alteration signature of buddingtonite, illite and smectite clays. A total of 520 metres of underground workings from the southern portion of the San Rafael vein system was rehabilitated. During this work program 160 rock samples from exposed vein sidewall material and mineralized backfill were sampled. The backfill material returned an average of 4.72 grams per tonne gold and 53.49 grams per tonne silver (*Candente Gold Corp, NR010 dated February 9, 2011*).

In 2011, Candente Gold Corp. completed a 10,117.97 metres drill program in 28 core holes. A total of 8 of the 28 holes were lost due to difficult ground conditions. The drill program was based on Placer Dome's "A" Blocks that were created in 2003 using the underground sampling control from El Oro Mining and from the creation of a grade model in Vulcan along the trace of the San Rafael Vein. Four zones along San Rafael Vein were targeted from south to north including: Providencia Shaft Zone; Norte Shaft Zone; Mexico Esperanza Zone; and the Buen Despacho Zone.

A total of 18 of the 28 holes drilled (8 holes were lost in bad ground) intersected anomalous gold and silver mineralization. At the Tiro Providencia Zone, silver mineralization predominates over gold suggesting a differing paleo-level of exposure. The most attractive gold target to date is the Mexico Esperanza Zone under the Somera Tuff Hill, where the San Rafael Vein hosts high gold values to a vertical depth of over 500 metres.

A summary of the Candente Gold Corp. drilling highlights can be found in Table 10.1 below.

Table 10.1 Summary Table of Candente Drill Results to Date

Candente's San Rafael Vein-Drill Results Ending November 2011									
Hole ID	Length(m)	Intersection (m)	Other Intersections (m)	From (m)	To (m)	Width (m)	Au (g/t)	Ag (g/t)	
SR10-001	753.0	512.00 to 512.60		512.0	512.6	0.6	0.03	54.0	
SR10-001W1	260.0	501.80 to 502.40 m; 513.80 to 516.60		501.8	502.4	0.6	0.02	230.0	
				513.8	516.6	2.8	0.07	19.3	
SR10-001W2	272.0	543.93 To 544.45		No significant Results					
SR10-002	169.5	Hole deviation		Abandoned Hole					
SR10-002A	610.0	603.0 to 610.0 partial vein		Somera tuff	373.1	448	74.9	0.96	5.1
				Nolan Vein	413.9	418.5	4.6	6.85	17.6
				Negra Vein	503.3	503.9	0.6	18.14	137.0
				Lost in old workings	603.0	610	7	2.95	20.0
SR10-002-W1	206.0			Somera tuff	391.0	460.2	69.2	1.06	7.9
				Nolan Vein	508.5	509	0.5	2.41	372.0
		Lost hole before SR Vein		Lost Hole before San Rafael Vein					
SR10-003	430.0	Hole suspended		Hole suspended					
SR11-001	51.0	Hole deviation		Lost Hole					
SR11-001A	819.0			Nolan Vein	444.5	446.35	1.85	30.65	3.0
					699.30 to 702.30	699.3	702.3	3	13.69
SR11-001A-W1	45.5	Hole deviation		Abandoned Hole					
SR11-002	549.0	Lost hole in old workings		Lost Hole					
SR11-003	918.0	624.0 to 632.0		No significant Results					
SR11-003-W1	387.5	624.0 to 632.0		664.8	665.7	0.9	1.04	3.0	
SR11-003-W2	330.0	618.85 to 629.40		620.2	621.8	1.6	3.83	4.5	
SR11-004	707.1	446.25 to 461.10		431.5	432.3	0.8	7.7	3.5	
SR11-004-W	295.7	448.0 to 457.10		450.0	451.1	1.15	0.07	315.0	
SR11-005	663.4	505.60 to 516.75		No significant Results					
SR11-005-W1	1.0	Hole deviation		Abandoned Hole					
SR11-006	688.9	609.82 to 661.0		617.3	617.96	0.66	1.28	1.0	
				660.6	660.96	0.32	1.16	2.0	
SR11-007	418.6	377.90 to 427.0	Inter-vein parallel to drill	423.6	424.6	1	0.07	523.6	
SR11-008	536.5	465.0 to 474.50		465.5	466.12	0.65	5.75	14.0	
				473.8	474.6	0.82	2.06	7.0	
SR11-009	51.2	Hole deviation		Abandoned Hole					
SR11-009a	12.7	Hole deviation		Abandoned Hole					
SR11-009b	12.2	Hole deviation		Abandoned Hole					
SR11-009c	469.4	363.0 to 419.60 m	Intercept of vein parallel to drill hole	142.5	144.15	1.65	1.12	3.5	
				377.8	378.9	1.1	0.6	65.5	
				405.6	406	0.4	3.1	1.5	
				412.0	412.3	0.3	0.3	176.4	
SR11-009c-W1	155.9	361.50 to 364.70 m partial	Lost in old workings	363.7	364.7	1	1.78	84.0	
SR11-009c-W2	146.4	356.95 to 413.35		357.0	413.35	56.4	0.11	8.1	
SR11-10	460.0	399.01 to 415.96		399.0	415.96	16.95	0.33	1.5	
SR11-10-W1	345.6	439.65 to 445.45		439.7	445.45	5.8	0.0561	13.6	
SR11-11	417.6	Hole lost in a fault		Lost hole					
SR11-11-W1	372.7	472.96 to 485.40		473.0	485.4	12.44	0.029	1.5	
SR11-12	341.4	Hole lost in Somera Tuff	ST @317.19-341.40						
SR11-12-W1	40.0	Hole lost in Somera Tuff	ST @317.19-350.52						
SR11-009C-W2	164.4	Not targeted	356.95 to 413.35	367.2	371.2	4.05	0.78	17.8	
				367.95*	371.20*	3.3	0.83	19.2	
				389.7	390.14	0.5	3.7	15.0	
				411.5	414.2	2.7	0.26	23.9	
SR11-010	460.3	Not targeted		282.6	283.5	0.9	0.11	24.5	
				400.8	401.2	0.4	3.93	3.5	
				417.9	418.7	0.8	2.31	1.0	
SR11-010-W1	345.6	Not targeted		168.0	169.9	1.9	0.24	18.0	
				206.0	206.45	0.45	1.62	20.0	
			439.65 to 445.45	439.0	443.35	4.4	0.07	18.4	
				445.8	448.6	2.8	0.07	1.7	
SR11-011	417.6	Not targeted	No intersection	Hole lost- no samples no assays					
SR11-011-W1	372.7	Not targeted	472.96 to 485.40	No significant Results					
SR11-012	341.4	317.19 to 341.40	No intersection	Hole lost in Somera Tuff-no samples assayed					
SR11-012-W1	40.0		No intersection	Hole lost in Somera Tuff-no samples assayed					
SR11-012-W2	696.7	316.85 to 379.65		345.2	410.5	65.3	0.3	1.9	
				378.55*	410.50*	32	0.4	2.1	
				387.15*	400.20*	13.1	0.6	2.1	
				393.40*	400.20*	6.8	0.8	2.7	
			874.65 to 901.60	874.7	901.6	27	0.55	2.3	
						2.4	4.45	2.3	
				874.65*	876.25*	1.6	6.16	3.0	
				957.1	957.55	0.5	0.43	37.5	
SR11-012-W1	147.8		No intersection	No significant Results					

\* Included in the interval above

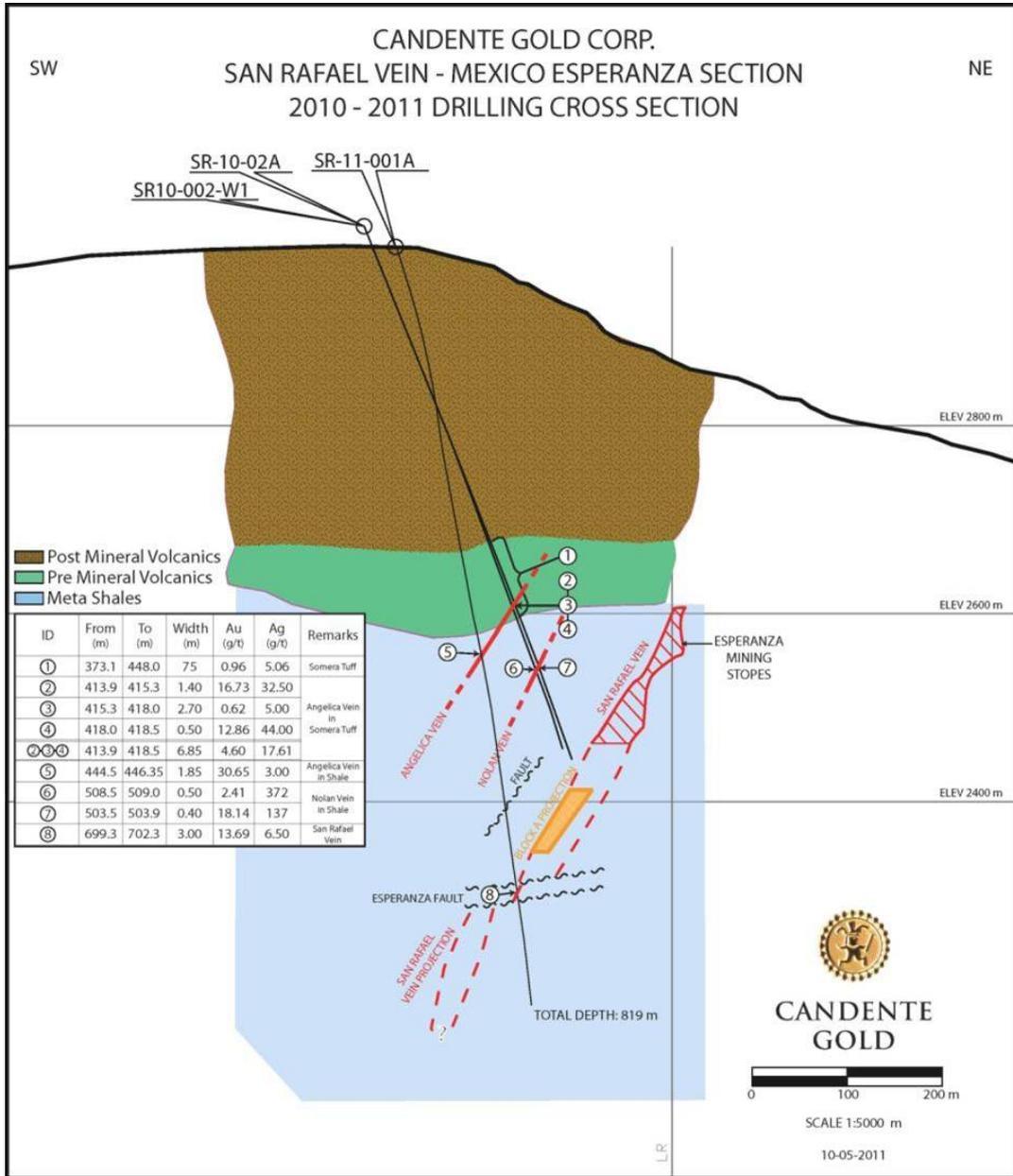


Figure 10.1-San Rafael Vein –Mexico Esperanza Section Showing 2010-2011 Drill Results

## 11. SAMPLE PREPARATION, ANALYSES AND SECURITY

All drill supervision, logging and sampling in the past 2007-2011 drill programs was conducted by Candente Gold personnel and geologists. Eng. Humberto Hernandez is the General Manager of Minera CCM, S.A. de C.V. (the Mexican subsidiary of Candente Gold Corp.) and is the manager of the El Oro Project exploration at present.

The past drilling by Candente on the El Oro property in the San Rafael Vein Zone was initially drilled using HQ diamond core from the collar, however, but due to poor ground conditions from friable and severely broken nature of the Somera Tuff Volcanic cover, larger diameter PQ size core was used for drilling the cover rocks. In addition, drill additives including a baroid and bentonite pellet additive mixture was utilized to enhance core recovery and to stabilize the drill allowing an easy reduction to HQ size core at depth.

Once the hole reached the pre-mineral sediments as well as good ground conditions, the core diameters was reduced to HQ and sampling was initiated in zones of favourable alteration/veining/mineralogy and silicification. In earlier programs, the entire pre-mineral and sediment package was sampled, but as the geology became better understood the sampling was reduced to the mineralized vein/alteration and wall rock zones.

In past programs, the drill core was selectively sampled, based on the existing knowledge of known and favourable mineralization and alteration. Sample intervals were not less than 25 cm and were no more than 4.0 metres in length, unless there was excessive core loss, due to faulting and/or old workings.

In past drill programs, the core was transported by truck from the drill sites to the main Candente Gold office base in the town of El Oro under the supervision of the project geologist. In the town of El Oro, drill core was core logged/photographed and marked by Candente Gold Corp. geologists and the drill core was cut using a rock saw by a Candente Gold-trained technician. Half of the core samples were submitted to the assay laboratory for analysis while the remainder was stored in core boxes for future reference at the secure core storage facility on site. Sample descriptions and core recoveries were completed before the core was cut.

Channel and grab samples of the sidewalls from coincident underground workings as well as collection of back- and stope-fill samples were collected under the supervision of Candente Gold geological staff. Samples were collected in 2 kg Tyvex cloth sample bags and were marked with a unique and sequential sample number and a coincident sample number ticket was inserted into each of the sample bags. The bags were then sealed at the point of sampling. Once the sample bags were sealed, the samples were transported to Candente Gold Corp's secure core sampling facility in the town of El Oro.

Core recovery was typically very good with overall core recovery exceeding 90%. Core recovery within the target quartz veins was acceptable and typically was >90% however, core recoveries at the contact of the volcanics and sediments was at times was significantly lower (typically <90% and as poor as 46% recovery).

The samples collected to date are considered representative of the zones sampled and no bias has been observed from assay results. Gold and silver grades hosted within quartz vein type deposits can be highly variable, and as a result large numbers of samples and assays will be required to confirm the potential tonnes and potential grades of the El Oro San Rafael Vein system.

There was no on-site sample preparation done except for core cutting. Half of each core sample was placed into a labeled sample bag and then sealed. Up to 6 sample bags (half core or rock chip samples (each sample type having a differing sample number sequence of letters/numbers) were then placed into larger 'rice bags' and marked and sealed with numbered security ties under Candente Gold geological supervision. The samples were collected from site by Inspectorate personnel and transported to their sample preparation facility at Durango, Mexico. The on-site drill core cutting was performed by Candente Gold employees. No other Candente Gold Corp. personnel were involved in any aspect of the sampling preparation.

All rock and core samples were shipped in batches to the Inspectorate Laboratory, an internationally recognized assay service provider. The Inspectorate Laboratory is a certified laboratory by the Standards Council of Canada Associated Laboratories. Sample preparation was done in Durango, Mexico and assay analyses were done in Reno, Nevada U.S.A. A sample list was included with each shipment, and the laboratory confirmed the sample list upon sample arrival at its destination.

The samples were dried, crushed and sieved, and pulps were shipped to Reno, Nevada. In Reno, the samples were analyzed using the following geochemical procedures:

- 4 acid digestion - previous work by Placer highlighted that due to the fineness of the gold there is at times silica encapsulation.
- 30 element ICP.
- Gold by Fire Assay Atomic Absorption (“AA”) 2AT - 50 g
- Gold by Fire Assay with Gravimetric finish for samples >10 grams per tonne gold
- Silver by Fire Assay with Gravimetric finish for samples > 100 grams per tonne silver
- Mercury by Cold Vapour AA.

## 12. DATA VERIFICATION

In past drill programs, Candente Gold Corp. applied quality control checks for core sample analyses. Standards were purchased at WCM Sales Ltd. 7729 Patterson Ave., Burnaby, B.C., CANADA V5J 3P4. Blank samples were prepared by Candente Gold Corp. on site in the town of El Oro. Three different STANDARDS of the “A series of standard pre-determined samples” were used in the 2011 drill program. In addition, BLANKS were used randomly in every batch of samples sent to laboratory. The analytical laboratory conducted internal quality control and quality assurance procedures including the insertion of blanks and duplicate assaying of every tenth sample.

Assay data received from the laboratory was closely monitored by the Senior Project Geologist and the author. Any concerns related to missing samples, ASSAY RESULTS, DUPLICATES, STANDARDS and BLANKS or analytical technique were immediately discussed and addressed by the laboratory. There were no batches of re-assayed samples. Examination of standards and blanks results demonstrated satisfactory accuracy of assaying.

Further checks were also carried out with the dispatch of all samples ending with 5 being duplicated and sent to ALS-Chemex laboratories for preparation in Guadalajara and analysis in Vancouver, Canada.

The data verification protocols are consistent with industry standard.

## 23. ADJACENT PROPERTIES

Candente Gold controls the entire El Oro - Tlalpujahua Mining districts apart from limited small internal claims of which two are under option to Oro Mining Ltd. and the other to a private Mexican owner.

Recently, *Exploraciones Mineras Parreñas (Peñoles)* have acquired a new concession named Santo Niño 1 in the south-western corner of the Candente Gold block of claims to the north of the San Francisco de Reyes area. Industrial Minera Mexico (IMMSA) has a claim block (Tlalpujahua) adjacent to and south of the Candente Gold Corp. block of ground (Figure 4.2).

Angangueo is located 25 kilometres southwest (“SSW”) of the El Oro - Tlalpujahua District. The entire Angangueo district is owned by Industrial Minera Mexico (IMMSA). Access to the mining area is via the paved road called Tlalpujahua- Angangueo - Maravatio, Michoacán. Since 1800 to 1940 several companies and small miners and prospectors have developed and produced gold and silver from the district.

The Angangueo Mine is comprised of mineralization hosted in igneous rocks including polymetallic veins that are irregular and lenticular in shape. The productive minerals include pyrrargyrite, proustite, argentiferous galena, sphalerite, chalcopyrite, tetrahedrite, pyrite, marcasite and arsenopyrite. The company called Grupo Mexico is planning on reactivating this district this year with an initial investment of 200 million dollars.

The Tizapa Mine is a Kuroko type deposit and is located 85 kilometres to the SW of the El Oro Property (Figure 23.1).

The La Guitarra gold-silver mine is located 105 kilometres from the El Oro Property and is comprised of low sulphidation epithermal quartz veins with gold and silver.

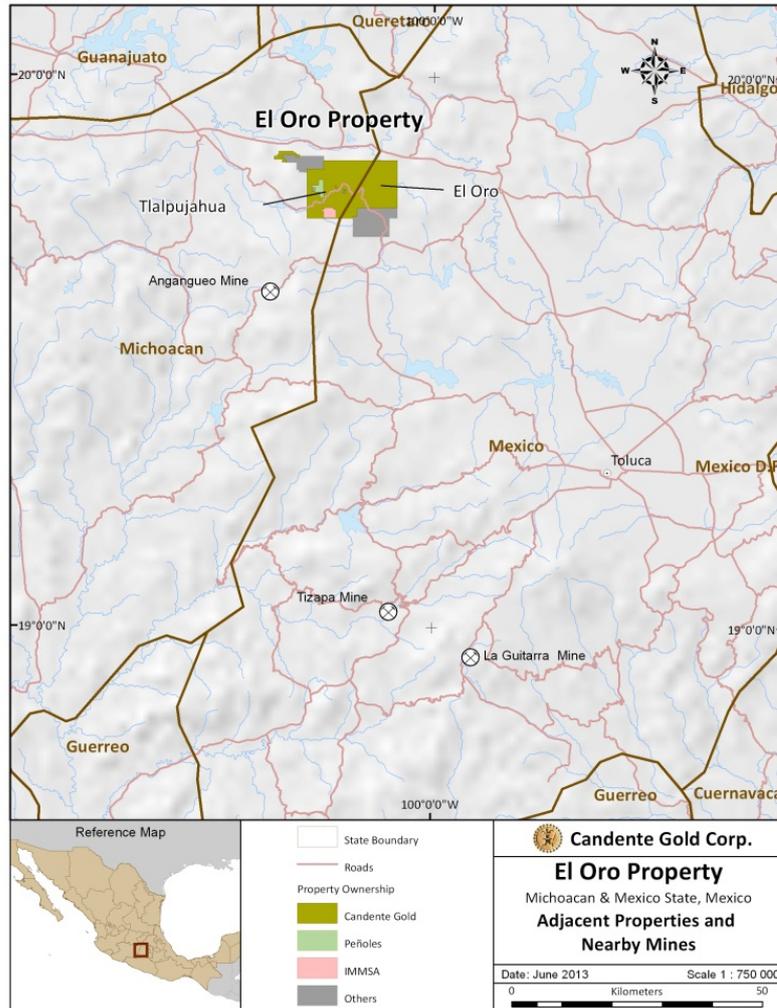


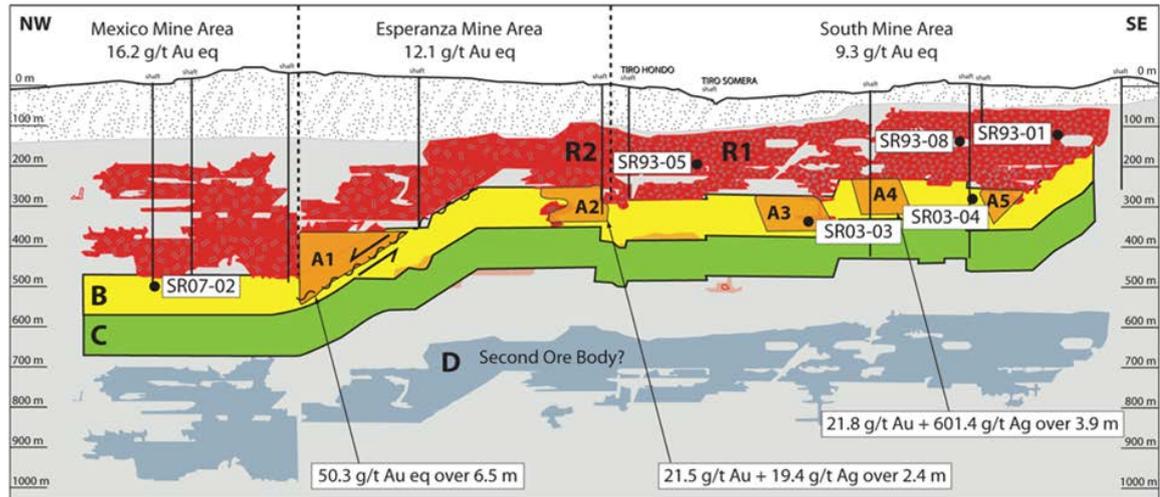
Figure 23.1: Adjacent Properties

## 24. OTHER RELEVANT DATA AND INFORMATION

Many of the underground workings of the El Oro Property are populated by bat colonies. This poses a health hazard of toxoplasmosis and protective measures are required by people entering the underground workings in these areas in particular, the Socavon El Cedro (adit).

## 25. INTERPRETATION AND CONCLUSIONS

In the late 19<sup>th</sup> and early 20<sup>th</sup> centuries the El Oro deposit was considered the most important gold-silver camp in Mexico with past production of over eight million gold equivalent ounces. Despite a long history of mining, this area still hosts significant gold and silver mineralization as well as the potential to find new mineralized veins and extensions of known veins.



	Gold oz	Silver oz	Gold eq oz	Gold Grade	Silver Grade
Past Production	4,000,000	44,000,000	5,000,000	11.8	127
R1 Remnant Resource Estimate 1 by Luismin	762,000	9,745,000	924,356	3.44	44
R2 Remnant Resource Estimate 2 by Luismin	938,000	28,260,000	1,572,000	3.44	44
A First Targets for 1M oz Au eq defined by Placer	866,000	9,000,000	1,000,000	11.8	127
B To 100m Below Old Workings (including A)	2,000,000	22,000,000	2,500,000	11.8	127
C To 200m Below Old Workings	2,000,000	22,000,000	2,500,000	11.8	127
D Second Ore Body? = Past Production	4,000,000	44,000,000	5,000,000	11.8	127

Confirmation of Grades by Drilling		
Drill holes: ●	Gold g/t	Width m
2007 Candente: SR07-02	9.27	2.90
2003 Placer Dome: SR03-04	9.73	2.50
	SR03-03	8.48 0.80
1993 Hillsborough: SR93-01	4.82	2.00
	SR93-05	2.10 1.16
	SR93-08	7.04 4.77

*The potential quantity and grade of this figure are conceptual in nature, as there has been insufficient exploration to define a mineral resource, and it is unknown if further exploration will result in the target being delineated as a mineral resource. Ref. NI 43-101 Section 2.3 (2)*

Figure 25.1: San Rafael Exploration Potential

Historic exploration programs confirmed the presence of significant remnant gold silver mineralization in 1993, 2010 and 2011 drill holes regardless of reported poor recoveries along the strike of the San Rafael Vein system. Several 1993 holes intersected close to 1.0 oz Au/ton and multi-oz per ton silver.

**Tailings Reclamation and Reprocessing** the removal, reprocessing and reclamation of the El Oro de Hidalgo municipality-owned 5.6 hectare tailings deposit remains a priority target for Candente. The historic tailing's deposit contains a significant amount of precious metal mineralization that lies within the El Oro town city limits.

**Geology and Mineralization:** The vein deposits of the El Oro and Tlalpujahua Districts (El Oro-Tlalpujahua) have produced gold and silver for more than 150 years. Mineralization in the El Oro District occurs in epithermal veins hosted by a Middle Jurassic to Cretaceous volcano-sedimentary sequence. Late Paleocene conglomerates and Eocene to Oligocene tuffs of

rhyodacite lie unconformably on top of the Cretaceous sediments and volcanics. Steam-heated acid sulphate alteration containing buddingtonite-kutnorite occurs in an Eocene tuff blanket above some of the apices of the mineralized veins. Extensive Miocene basaltic flows and dykes are the youngest igneous rocks in the district although smaller volume Oligocene rhyolite intrusions also occur in this area.

The spatial association of Tertiary volcanic rocks, felsic and intermediate intrusions, acid sulphate alteration and epithermal veins suggests a relationship between magmatism and hydrothermal activity in the district. Tertiary rhyodacitic quartz porphyry crosscut earlier andesite porphyry intrusions and both are common in close proximity to productive epithermal gold-silver veins in historic underground workings.

The El Oro-Tlalpujahu District has had extensive episodic hydrothermal activity driven by a strong spatial association with multiple pulses of small and shallow felsic to intermediate intrusions suggesting a genetic connection between magmatism and epithermal mineralization. In the districts silver-rich gold veins, gold-rich silver veins and silver-rich base metal veins are a common theme. At the Verde vein there is a noticeable increase in chalcopyrite with depth in the underground workings and base metal values increases at depth in drill holes on the San Rafael vein. The older gold-rich sulphidic veins are dominated by pyrite-marcasite with lesser tetrahedrite and silver-sulphides. The younger silver-rich veins consist of pyrargyrite with lesser acanthite, proustite, tetrahedrite, galena and sphalerite. Locally hematite-specularite-amethystine quartz veins are also present.

The gold and silver mineralization in the El Oro District is spatially and likely genetically related to the main episode of ignimbrite flare-up between 36 to 27Ma (Albinson 2001) in the Sierra Madre Occidental.

Fluid Inclusion Study: The 2013 fluid inclusion study by Moncada suggested classic low sulphidation textures in known precious metal-bearing veins and that further exploration potential lies at depth below known workings. The intense variety of quartz vein textures including multiple quartz bands in quartz veins is a clear indicator of the multiple boiling events coupled with the presence of buddingtonite deposition at higher levels. The homogenization temperatures and a marked variation in the % salinities in the fluid inclusion study support the theory that the El Oro mineralization is the result of multiple mineralizing events and the potential of a second system at depth.

ASTER/Structural Study: The 2013 ASTER/structural study completed in February 2013 by Murphy suggested the presence of at least 9 high priority exploration targets in a total of 31 medium to lower priority exploration targets were defined on the El Oro Property. The targets are based on criteria including the presence of major faults, intersections, branches or splays along major structures, releasing bends, proximity to intrusions, ASTER/Landsat ETM+ derived anomalies and known veins. The results suggest that there are five principal fault orientations recognized within the study area: WNW/E-W, NE/ENE, NNE-SSW, N-S/NNW and NW-SE. The structural framework of the district is dominated by WNW/E-W faults. The NE/ENE faults are also common. Both sets are most recently post mineral extensional faults and are mostly northward down-throwing. Post mineral down-to-the-north normal fault offsets, syn-post mineral reverse up-to-the-north fault offsets have been defined on easterly faults having offset strike extensions and dip extensions of known veins.

3D Grade Model: The Candente 2012 to 2013 exploration program included a 3D Grade Model of the San Rafael vein. The grade model at San Rafael focussed on defining higher grade controls from historic sample control data that could be projected both laterally and vertically

from known historic vein mineralization. Vein splits, low angle horizontal faults, sulphidic-rich veins and competency contrasts control higher grades. There are several 1993 drill intercepts with grades higher than 10 grams per tonne gold in the vicinity of the mined-out areas. These are narrow intercepts 3 to 4 metres in apparent width, located approximately 50 metres in the hanging-wall of the main San Rafael vein. There is another set of recent 1993 narrow drill intercepts greater than 10 grams per tonne gold located 660 metres NW of the main vein on trend. The drilling in this area is too sparse to define a resource at this time however, based on variography results; there is good potential to find more of the same grades to potentially define a resource in the near future. The image below (Figure 25.2) presents the historical sample control data for Au ppm histogram on 25,738 samples in Zone 3 on the San Rafael vein.

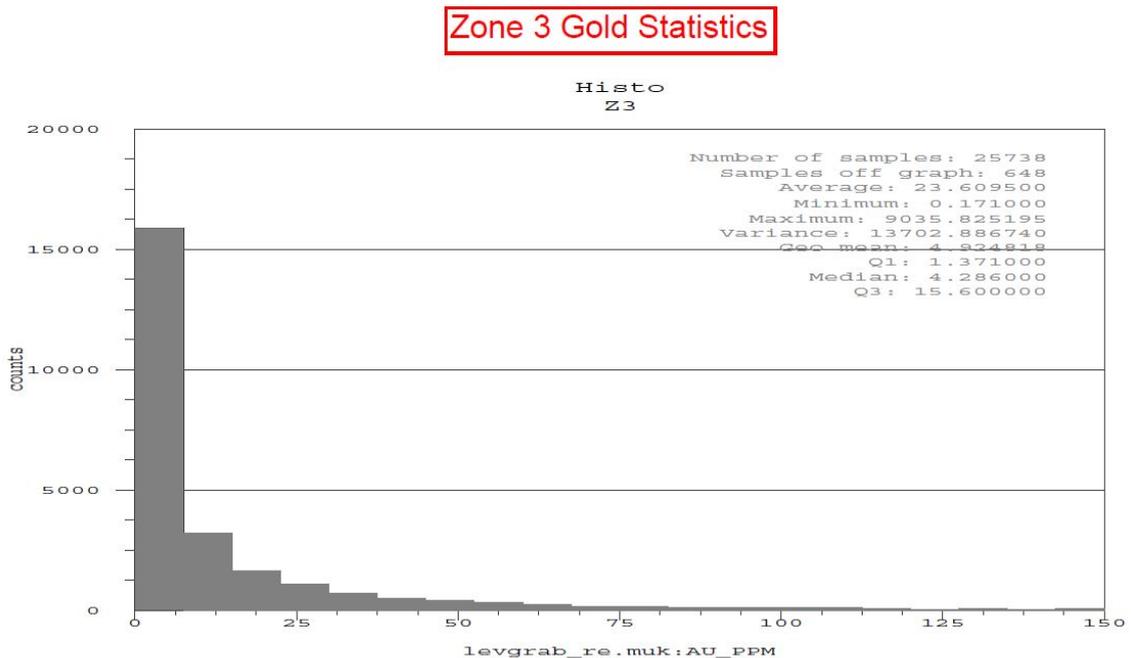


Figure 25.2: Zone 3-San Rafael Histogram (Au ppm)

**Compilation Known Shafts and Workings:** Many of the known shafts and adits are inaccessible at this time and water influx was a continual problem due to the sub-vertical nature of the vein faults. At present, the water table occurs <100 feet below the active Borda workings. Historically, water and badly faulted ground hampered effective mining in the districts. The compilation of historic reports and maps suggests that much of the historic mining by following veins was stopped at faults both along-strike and down-dip. In addition, very little modern exploration techniques have been utilized on the project to date outside of limited surface drilling (many holes reported poor recoveries), geophysics in very select areas and poorly target drill holes and essentially very little geological mapping.

**Metal Contents and Grade Controls:** Native gold and native silver was most common in the oxide, upper apices of the principal veins near the contact with the post mineral andesite cover. Lead and zinc increases at depth at San Rafael where Candente drilled deep holes in 2011 to define the down-dip extensions of the San Rafael vein and chalcopyrite increases at depth in the workings at the Verde and related veins. Some Kutnahorite-bearing veinlets have gold grades

up to 30 grams per tonne gold. Black silver sulphide-rich veins have bonanza silver grades between 1000 to 6500 grams per tonne silver. Gold mineralization at depth is dominated by pyrite-marcasite-gold seams in barren quartz-calcite veins. Silver mineralization at depth is dominated by pyrite-argentiferous galena, pyrargyrite, proustite, and stephanite. Historically bonanza silver and gold grades returning up to 6535 g/t Ag and up to 191 g/t Au respectively were selectively sampled from narrow 0.10cm veins on a much wider multi-branched vein system in a larger structural corridor. Calcite-rich portions of the veins were higher grade than quartz-rich portions at Descubridora. Easterly trending structural zones accounted for wider mining widths as wide as 70 metres at San Rafael. Horizontal low angle structural zones were favoured targets in the upper mine levels at San Rafael.

Buddingtonite: The Spatial association of Tertiary volcanic rocks, advanced argillic (+buddingtonite) and epithermal veins is a common theme throughout precious metal districts in Mexico and elsewhere in the world. Steam-heated advanced argillic (acid sulphate) alteration occurs in the Somera tuff above the mineralized gold-silver bearing San Rafael low sulphidation epithermal veins. The Quartz Feldspar Porphyry SE Oriente surface target consists of highly anomalous mercury, quartz vein/stockwork and buddingtonite alteration in a quartz feldspar porphyry intrusion exposed in a structural window below the post mineral andesite cover. These intrusions exploit major faults and typically occur in close proximity to known mineralization in underground workings.

At the Borda target, a detailed Terraspec Survey by Candente identified buddingtonite alteration on surface over a 1.2km<sup>2</sup> area in several NNW trending creek exposures in the hanging-wall along an NE trending zone east of known workings (Figure 25.3). The detailed mapping and sampling by Candente in the Borda - Coronas area and at Coronas Norte suggests that the extensive illite - smectite alteration zones cored by buddingtonite coincident with epithermal quartz vein occurrences are high priority exploration targets. The structural setting is dominated by pre-mineral transfer faults and N - S tensional faults and the E-W trending post mineral normal faults.

Variations on Vein Strikes and Dips: The veins in the easterly El Oro district dip steeply SW whereas the veins in the western Talpujahuá district dip steeply to the NE however, strikes and dips of individual vein segments can vary along strike and down-dip. Many historic holes were drilled parallel to vein dips as well as oblique to vein strikes. Vein dips can vary along-strike across faults such that certain vein segments bound between two easterly faults might differ in dip north-of and south-of that cross-fault. The N-S strike swings along a NNW-SSE vein zone on individual veins seem to be the focus of higher grades where dilation and fluid flow are favoured. The Candente 2011 surface drilling campaign along the San Rafael Vein system confirmed the down-dip extension of the mineralized vein by more than 500 metres vertically. In addition, metal contents suggested that base metals might be expected at deeper levels within the vein system and higher mercury levels at higher vein levels.

Easterly Cross-Faults: A series of easterly trending cross faults dip steeply to the north and have down-to-the-north vertical offsets however, several easterly faults at Verde and San Rafael have a reverse sense of movement. These faults have had pre-mineral, syn-mineral and post-mineral activity. Many historic drill holes were drilled parallel to this ENE trend. Both N-S and NNE-SSW fault/vein trends that are oblique to the well-known NNW-SSE vein faults throughout the district should be considered carefully as future exploration targets.

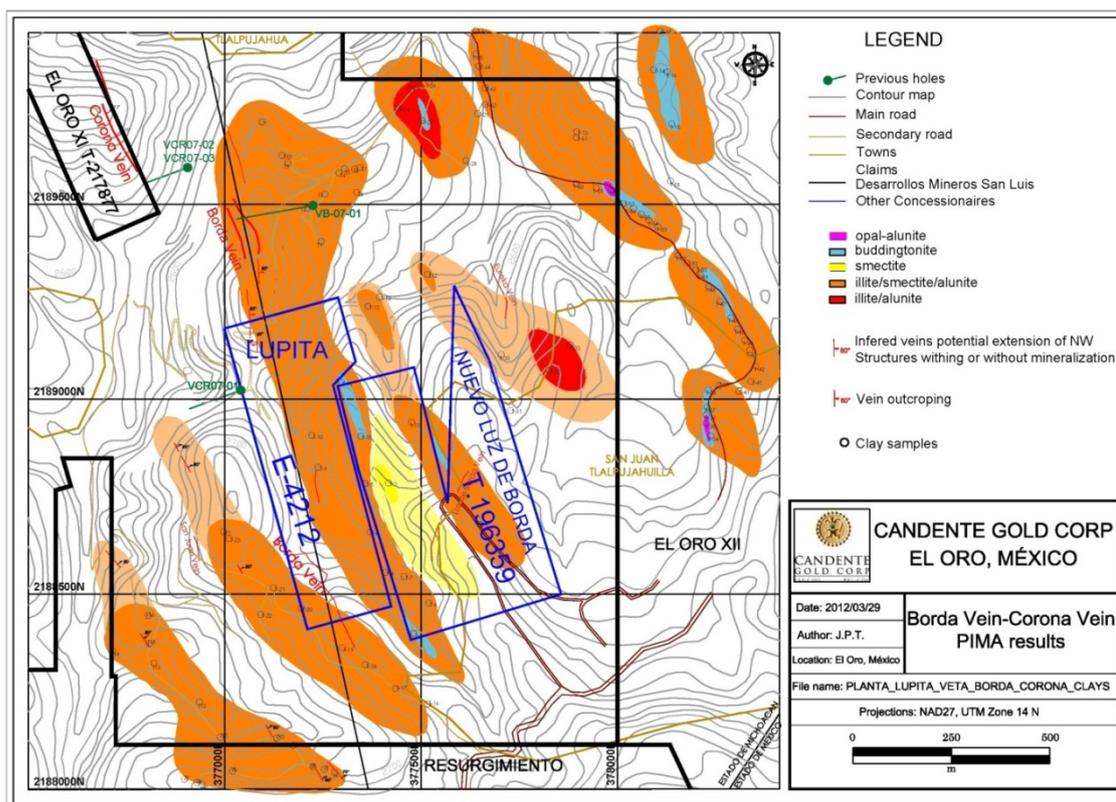


Figure 25.3: Borda Target-Buddingtonite Distribution

**Vein Characteristics:** The size, geometry, metal content and grades vary target to target. The targets geometry varies from vein, vein swarm, vein breccia, stockwork to disseminate. Quartz-adularia with colloform and crustiform banding and jigsaw breccia textures are the main focus. Pre-mineral (barren breccias), syn-mineral (disseminate mineralization in breccia matrix) and post-mineral breccias (mineralized vein clasts in a barren matrix) are common.

**Blind Unconformity Targets:** A lower grade bulk tonnage disseminated gold and silver target exists under the Somera Hill along the tuff/sediment unconformity near the upper apices of the principal San Rafael veins.

**Targets between the Verde and San Rafael Veins:** The Verde and the San Rafael veins were the two most productive gold-rich silver veins in the El Oro District and are separated by a distance of 2.0 kilometres. The region between the two veins hosts at least 14 known intermediate veins that are sub-parallel to the principal veins with widths varying from 1.0 to 2.5 metres to locally wider stockwork/breccia structural zones.

**Large Tonnage, Low Grade Disseminate and Stockwork Gold Targets on Surface:** Historic exploration work carried out throughout the El Oro and Tlalpujahua Mining Districts has highlighted surface target areas that to host disseminated/stockwork gold targets, and in some areas, gold mineralization has been exposed in road-cut or creek-cuts in surface outcrops. These large tonnage, low grade surface targets should be carefully considered given today's previous metal prices. At the time of exploitation, the district did not consider the potential for large tonnage and low grade disseminate gold exploitation. The mining operations focussed on the

mining of higher grade pillars using the mining technology of the time. The daily mining volume could be maintained because of the high grade vectors to the higher grade portions of the veins. The Cortaduras target is characterized by a gold-rich sulphidic, quartz stockwork mineralization exposed on surface over several hundred metres. This small open pit target returned surface trench samples over 108m grading 1.5 g/t Au and 89m of 1.72 g/t Au with grab samples as high as 11.83 g/t Au. Candente has resampled a select suite of core holes drilled in 1989 for re-analyses. The results were not available at the time of the report.

Historic mining from surface open pits was done on the Coronas and Borda vein targets in the past. Surface outcrops in the extreme south of the San Rafael vein extension in structural windows exposing Cretaceous shales under the post mineral andesite cover returned values of 1.0 to 6.0 grams per tonne gold. The area near the San Francisco de Los Reyes Shaft to the north of the San Rafael vein and the area to the extreme south, near the El Cruceros Shaft both cut the San Rafael vein. The Consuelo Shaft and related underground workings recovered bonanza silver and gold grades from footwall veins to the San Rafael on the Descubridora vein.

Scattered bodies of stockwork/disseminate gold are known to occur both above in the hanging-wall and below in the footwall of the principal and some of the intermediate veins and related branches. Known orebodies were mined along horizontal structural zones in the host rock shales and were described as disseminate orebodies.

Un-Tested Geophysical Targets: Many un-tested geophysical targets exist under the post mineral volcanic cover. Multiple NNE-NE trending targets and NNW-SSE trending resistivity targets remain un-tested.

The El Oro District: The El Oro District is dominated by domes, pyroclastic, volcanic and sedimentary rocks. The blind vein targets have various forms from vein swarms to vein breccias to disseminate with ore textures of fine banded, comb, crustiform and breccia textures. The alteration is chalcedony-adularia-illite-calcite-Kspar-chlorite assemblage. Known metals in the district are native gold and native silver, electrum, antimony and lead bearing silver sulfo-salts, pyrrargyrite (a silver antimony sulphide), ruby silver, galena, sphalerite, and chalcopyrite at depth. Base metal contents tend to be low <0.1 to 1.0% with lower salinities. The higher gold grades on the San Rafael vein were from the Sulphurous, Negra and San Carlos pyrite-rich veins.

The Tlalpujahu District: The Tlalpujahu district is dominated by domes, pyroclastic and sedimentary rocks. The exposed vein targets have vein-stockwork and breccia forms and are dominated by clay-sericite-carbonate alteration with much higher silver: gold ratios suggesting a deeper level of exposure. Metals include antimony-lead bearing silver sulfo-salts including pyrrargyrite, galena, sphalerite and chalcopyrite.

Remnant Mineralization: Candente continues to focus on known remnant mineralization in un-mined portions of known veins, pillars, back-fill and stope-fill material given today's metal prices. In 1993, eleven drill holes from surface defined remnant San Rafael mineralization along a 1.0 km strike length that returned a highlight of 11.0m of 10.10 g/t Au and 121.5 g/t Ag (includes: 3.5m of 23.20 g/t Au and 224.0 g/t Ag). The historic mining at the Descubridora vein and related stockwork zone was hampered by unstable ground conditions due to faulting.

Good quality geological mapping and being drill aggressive is critical to the future success on the El Oro Property.

San Rafael Underground Target: In order to access the remnant un-mined portions of the vein, including pillars, back-fill and stope-fill material rehabilitation of old workings or new workings

are required. In 1957, the Los Cedros adit was rehabilitated over the first 230 metres by the Michoacán Government. The Ocotal Shaft could at some point be rehabilitated to provide access to the NW extension of the San Rafael vein as well as the down-dip vein extensions of the Negra and the Ocotal veins. In addition, the rehabilitation of this shaft could provide a water source for further activities in the area. At some point systematic underground sampling along the NW and SE San Rafael and related vein extension is required if adequate access can be funded.

## 26. RECOMMENDATIONS

Proposed exploration programs include two proposed budgets that have been broken into several phases of exploration:

### Budget 1 (Table 26.1)

#### *Phase 1 (Budget 1):*

- The execution of a Tailings Assessment Exploration and Economic Study to include 100 m in four test holes, to validate the potential tonnes and potential grade of the tailings deposit reported in the historic sampling programs discussed in Section 6 of this report. In addition, the budget will include milling test work to determine particle size distribution and mineralogy followed by initial bottle roll test work.

#### *Phase 2 (Budget 1):*

- Given favorable results on Phase 1, Phase 2 should be completed for eight drill holes, sampling on 5 metres sample intervals followed by detailed sample analyses for a sample head grade analyses, detailed milling test work for particle characterization and mineralogy as well as detailed feasibility study including: Resource Study, Construction Cost Estimates, Operational Cost Estimates and Environmental and Permitting Cost Estimates.

Table 26.1: Budget 1 Candente's Budget Estimation for the Tailings Assessment Exploration and Economic Study

<b>Budget: 1 Estimation for Candente's Tailings Assessment</b>				
<b>PHASE I</b>				
<b>Costs in USD\$</b>	<b>Unit cost</b>	<b>Units</b>	<b>SUB-TOTAL</b>	<b>TOTAL</b>
<b>DRILLING</b>				
Drilling (100m in 4 holes)	120	100	\$12,000.00	
Drill mobilization and demobilization			\$5,000.00	\$17,000.00
Logistics			\$5,000.00	
Road building for access			\$10,000.00	
Helpers	50	7	\$350.00	
Geologist	300	10	\$3,000.00	\$18,350.00
<b>METALLURGICAL TESTWORK (4 holes, 30m depth, sampled at 5m intervals for 24 samples)</b>				
Sample Preparation and Analyses for Samples Head Grade	250	24	\$6,000.00	
Milling Test work (Determination of Particle Size)	100	48	\$4,800.00	
NC Bottle Roll Tests (including assays)	1000	48	\$48,000.00	\$58,800.00
<b>PHASE II</b>				
Drilling (200m in 8 holes)	120	200	\$24,000.00	
Drill mobilization and demobilization			\$5,000.00	\$29,000.00
Logistics			\$10,000.00	
Road building for access			\$10,000.00	
Helpers	50	14	\$700.00	
Geologist	300	25	\$7,500.00	\$28,200.00
<b>METALLURGICAL TESTWORK (8 holes, 30m depth, sampled at 5m intervals for 48 samples)</b>				
Sample Preparation and Analyses for Samples Head Grade	250	48	\$12,000.00	
Milling Test work (Determination of Particle Size)	100	96	\$9,600.00	
NC Bottle Roll Tests (including assays)	1000	96	\$96,000.00	\$117,600.00
<b>FEASIBILITY STUDIES</b>				
<b>Resource Studies</b>			\$50,000.00	
<b>Construction Costs</b>			\$50,000.00	
<b>Operation Cost Estimate</b>			\$50,000.00	
<b>Environmental Study and Permitting</b>			\$50,000.00	\$200,000.00
				<b>\$468,950.00</b>

Budget 2 (Table 26.2)

New Vein Discovery: In May of 2013 Candente discovered a new 1.3 m wide vein with favorable quartz breccia textures, trending N10E within the new ASTER-defined Target 17 in intensely illite-smectite altered volcanics on the north side of a down-to-north E-W fault. This indicates that the ASTER /structural interpretation may prove to be extremely useful in prioritizing further exploration in the extensive 17,959.5 hectares (179.595 km<sup>2</sup>) land package encompassing the El Oro Property.

This budget will cover “Detailed drill target definition of the Top 3 near surface priority targets” focusing on the near surface mineralization in the Tlalpujahua District.

*Phase 1 (Budget 2):*

- Detailed follow-up on the top 3 priority targets in preparation for drilling to include detailed mapping and sampling; resampling of historic Cortaduras core and analyses
- Ore shoot targeting for future surface drilling in areas with thin to no post mineral andesite cover with careful consideration of known post mineral E-W fault throws along vein targets.

*Phase 2 (Budget 2):*

- Drilling (2500m) of the top 3 near surface priority targets in the Tlalpujahua Mining District in the west where post mineral andesite has been eroded off.

*Phase 3 (Budget 2):*

Detailed Exploration target follow-up of remaining 31 priority surface targets and continued compilation and 3D model development:

- Detailed field validation of the top priority targets identified by the ASTER/structural interpretation and compilation process including the targets discussed in Section 9 of this report.
- Continuation of the 3D block model development with the completion of a geostatistical analysis to highlight higher grade controls at San Rafael that may apply to the district as a whole; vein geometry definition and vein modeling; stope-limit drill-testing; accurate mined-out volumes; and a calculation of the potential remnant mineralization
- In addition, the known faults should be modeled to assess potential throws on various vein segments along the trend of the vein.
- Lithology and alteration boundary definition by re-logging from existing core for standardization to incorporate into the 3D model. Detailed locations of andesite sill and tuff lithologies in the overall shale host rock package may aid in definition of rheological contrasts that may control wider and higher grades. In addition unique sedimentary horizons that may be more amenable to mineralization (coarser grained or more calcareous).

Table 26.2: Budget 2: Candente's Budget Estimation for the Follow-up of the Priority Exploration Targets

<b>Table 26.2 Proposed Exploration Budget</b>				
<b>Phase (I)</b>	<b>Drill Target Definition of Top 3 High Priority Near Surface Targets</b>	<b>Unit \$Cost/m</b>	<b>Units(m)</b>	<b>Subtotal CAD\$</b>
<b>1</b>	(Includes crew, transportation, fuel, support, geological evaluation and geological mapping, GIS)			\$50,000
<b>2</b>	(assays from target assessment and resampling of Cortaduras)			\$15,000
<b>3</b>	(food, accommodation)			\$10,000
<b>4</b>	(personnel and logistics)			\$10,000
<b>5</b>	(supervision)			\$20,000
<b>6</b>	(community, communications, professional fees, banking, rental)			\$10,000
<b>Sub-total Phase I</b>				<b>\$115,000</b>
<b>Phase (II)</b>	<b>Drilling Top 3 Targets</b>			
<b>1</b>	<b>Drilling 2,500 m</b>	350	2500	\$875,000
	(Includes drilling contract costs, mobilization, transportation, fuel, support, geological evaluations and geochemical assays)			
<b>2</b>	(assays)	50	2500	\$125,000
<b>3</b>	Infrastructure & Logistics			\$75,000
<b>4</b>	(geologist) + supervision	300	42	\$100,000
<b>Sub-total Phase II</b>				<b>\$1,175,000</b>
<b>Phase (III)</b>	<b>Exploration Target Follow-up(31 targets)</b>			
<b>1</b>	Field Evaluation Support	350	150	\$100,000
	( transportation, fuel, food, personnel, logistics, geological evaluations, GIS)			
<b>2</b>	Geologists + Assistant + Supervision	1000	150	\$150,000
	(Includes mapping and surface sampling etc.)			
<b>3</b>	Assays	1000	50	\$50,000
<b>Sub-total Phase III</b>				<b>\$300,000</b>

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