## **Observations on the Pucamayo Au-Cu prospect, Ica Department, Peru**



Elongate fragmental body of sub-angular residual quartz clasts, some cut by veinlets after initial alteration and prior to brecciation (inset); the deposit reports up to 1.7 g/t Au and ≤400 g/t Ag. To north from ~4060 m elevation; the stream 50-100 m higher in elevation exposes Au-Cu-bearing stockwork veinlets with ≤1.2 g/t Au

Report for:

# Condor Resources, Inc.

July, 2017

Prepared by:

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#### **Summary and recommendations**

The Pucamayo prospect is large, nearly 5 km from the polymetallic veins in the NW with artisanal mining, through the area of stockwork veins plus elongate fragmental body, to the SE, across an area of residual quartz and quartz-alunite (plus granular silica). The elongate fragmental body contains clasts of residual quartz and quartz-alunite that report up to >1 g/t Au in chip samples, and high Ag (up to 100-400 g/t Ag and locally 0.1-0.2% As but low base metal contents; Mo is anomalous, up to 190 ppm, as is Te, up to 130 ppm). The SE area mostly reports  $\leq$ 32 ppb Au at higher elevations of ~4100 m, down to ~3800 m where outcrops are exposed in an incised valley; an exception is up to 220 ppb Au in a fragmental zone at ~3925 m elevation on the southern slope. The central lithocap of Pucamayo with quartz-alunite (and the supergene equivalent, granular silica) is nearly 2 km<sup>2</sup> in area, as it is likely continuous under cover to the NW where small bodies outcrop near the elongate fragmental body that reports >1 g/t Au. The silica-clay alteration halo is much larger.

An additional important feature of Pucamayo is the outcrop on the NW margin of the lithocap of stockwork quartz veinlets with pyrite plus minor disseminated Cu sulfides. The stockwork veins, locally returning >1 g/t Au, are exposed along a stream at ~4100 to ~4175 m elevation for at least 300 m, and correspond to the location of a >20 mV/V chargeability anomaly at 200 m depth. These veins may be associated with an intrusion, as lithic clasts of the tuffs are not present. The quartz  $\pm$  pyrite stockwork veinlets are associated with white mica alteration and samples contain up to >1 g/t Au with up to 56 g/t Ag and ~400 ppm Cu plus 0.1% base metals. If this outcrop represents the top of a porphyry deposit, its level is inconsistent with the lithocap to the SE, as the top of stockwork veins in a porphyry deposit is typically 500 to 1000 m below the top of a lithocap. If the two zones are related, a fault would be necessary to uplift the stockwork vein zone to the level of the lithocap. Alternately, the stockwork veins may be associated with an intrusive system that is older than the lithocap, with uplift and erosion exposing the veins prior to formation of the lithocap, the latter related to a deeper intrusion.

Polymetallic veins (galena-sphalerite  $\pm$ chalcopyrite with Ag), such as those on the far NW margin at ~4100 elevation, as well as reported to the south at lower elevation, are common on margins of residual quartz and quartz-alunite lithocaps like Pucamayo, particularly where these have evidence of intrusion centers, such as porphyry deposits. Although apparently limited in potential, their location helps to define the margin of intrusive centers and advanced argillic zones.

The main lithocap, including outcrops of residual quartz, are weakly anomalous at  $\leq$ 32 ppb Au (one breccia returned 57 ppb Au), although over half of the samples collected to date at >4125 m to below 3800 m elevation report <10 ppb Au (many below detection). The exception of several samples with  $\leq$ 220 ppb Au is associated with the fragmental body to the south, and it shares some features with the elongate fragmental body containing up to >1 g/t Au, over 100 m higher in elevation on the western lithocap margin, albeit the lower elevation body has lower but still anomalous grades.

The most promising feature of the prospect is the elongate fragmental body at an elevation of ~4050 to 4075 m, south of the stockwork veinslets. The sub-angular clasts of residual quartz and quartz-alunite are cut locally by fine quartz veinlets, and these post-leaching and alteration veinlets may be related to the significant anomaly, with a large proportion of the samples reporting 0.1-0.5 g/t Au, up to ~1.2 g/t. If the mineralization is due to a portion of the clasts that have been diluted with barren rock, the results are promising that the source lithology (horizon?) of the clasts may be moderately mineralized. Of the clasts observed with veinlets, they also contain fine pyrite, indicating that the mineralized source is likely sulfide bearing.

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The large size of the central portion of the lithocap, combined with evidence for gold mineralization in clasts of residual quartz contained in fragmental bodies of breccia, means that there are clear targets to test for *in situ* mineralization below the barren portion of the lithocap, apparently to ~3900 m elevation (at least in the southern area). An analogy may be the discovery in 2004 in southern Ecuador of the Loma Larga (Quimsacocha) lithocap and feeder zone-hosted high-sulfidation deposit, with top at ~150 m depth, below a poorly mineralized upper portion of residual quartz lithocap.

### Recommendations

- In the elongate fragmental zone (6800 N, 8500 E), selectively sample silicic clasts with fine veinlets vs massive silicic with no veinlets, as well as matrix; analyze to determine gold distribution and geochemical signatures, and to determine if the gold anomalies are present in pre-brecciation residual quartz. Do the same for the new breccia zone to the south if clasts contain pre-brecciation veinlets. Conduct petrographic analysis on any mineralized clasts to determine the lithology, i.e., the location in the stratigraphic column from which the samples were mineralized
- Determine the stratigraphic section outside the area of alteration, to help correlate with lithologic variation within the main prospect area
- Channel sample by saw (10 cm wide, >5 cm deep, below surface oxidation) the area of stockwork veinlets; orient channels to NE-SW, every 20 m in stream bed, and also some long channels parallel to the stream NW-SE (measure and plot channel orientation with geochemical results). Collect unoxidized samples and submit for petrographic analysis to determine lithology and alteration plus sulfide mineralogy
- Construct pseudo sections (no vertical exaggeration) from 1) stockwork zone to granular quartz (quartz-alunite-pyrite) outcrops and down to southern fragmental zone, west of road, 2) residual quartz with vuggy texture (just east of road), granular quartz and quartz-alunite across valley east and up to opal horizon, and 3) vuggy quartz through granular quartz down to fragmental in the south (new breccia zone). On the first set of sections place lithologies and correlate between outcrops, and another layer include alteration
- Process the magnetic image and reduce to pole; correlate lineations with mapped features (e.g., do magnetic lows correspond to altered halos of structures?)
- Define orientations of fragmental zones, particularly the elongate body centered on 6800 N and 8500 E, first with trenching and then with shallow drilling. Assess the major structural controls over the prospect, i.e., lineations as well as linear distribution of alteration (e.g., residual quartz cores to quartz-alunite halos), etc.
- Drill test the roots of the elongate fragmental body, initially to at least 3800 m elevation with steep (but not vertical) holes, e.g., at ~70-75° from horizontal, designed to intersect the deep roots as well as any mineralized lithocap horizons. Determine lithologies of core, and also analyze alteration mineralogy (with SWIR), to help define vectors to mineralized feeder zones
- If testing the source of the elongate fragmental body is successful, determine the most likely controls (structural feeder vs lithologic horizon) on mineralization before stepping out and assessing a larger area for lithocap-hosted high-sulfidation style mineralization, recognizing that the better grades will lie in structural feeders
- Test the stockwork veinlet area, with holes drilled at right angles to the major (NW-SE?) structural orientation, with initially at least 300 m-long holes within the chargeability high

#### Introduction

Mr. Lyle Davis, President and CEO of Condor Resources, Inc., requested the author to examine the Pucamayo property, located in the Department of Ica, at ~3800 to 4200 m elevation, and to comment on its potential for further exploration. The author was accompanied in the field for one day by Ever Marquez, VP Exploration, followed by a day in the office examining hand samples and project data. Marquez is thanked for observations and comments that have contributed to this report.

#### **Observations**

The Pucamayo prospect is hosted by Mio-Pliocene andesite lava flows with post-mineral andesite lava cover. Within the central portion of the prospect there are a variety of variably altered tuffs, from crystal rich to lithic rich, with some being welded as evidence by the presence of fiamme. The pre-mineral andesites are propylitic altered, and extend from an area of polymetallic epithermal veins in the NW being mined on a small scale to the main prospect (Fig. 1). The prospect is here divided into two parts, NW and SE, for the purpose of this report. In the NW area, ~1-1.5 km SE of the (intermediate sulfidation) Ag-Pb-Zn veins, is a NW to SE stream that exposes least 200 m of stockwork veins in host rock that lacks a tuffaceous texture. Geologists of Condor Resources have interpreted this rock to be an intrusion, with feldspar and hornblende phenocrysts. About 500 m to the SSE is an elongate outcrop of fragmental material that consists mostly of residual quartz and quartz-alunite. Further east and southeast (the SE area) the rocks are dominated by tuffs altered to quartz-alunite (and related granular silica), with local outcrops of residual quartz, locally with a vuggy texture. This whole area is >3 km NW to SE, with elevation decreasing to the SE.

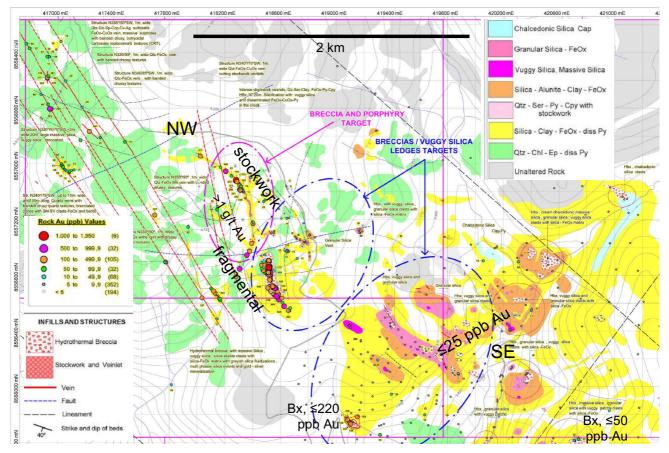


Fig. 1. NW and SE zones of Pucamayo. Outcrops of porphyry stockwork veins and fragmental silicic report up to >1 g/t Au, whereas quartz-alunite-(pyrite) to SE contain  $\leq$ 25 ppb Au, except in breccias (up to 50-220 ppb).

#### Porphyry, fragmental and veins, NW zone

The focus on the field examination was in the NW zone (Fig. 2), particularly in the stream that exposes stockwork quartz veinlets (Fig. 3). Previous chip channel samples of the stockwork veinlets returned several assays of >0.1 g/t Au, with values up to 0.8 and 1.7 g/t Au (57/47 g/t Ag, 420/440 ppm Cu, 1300/1170 ppm Pb+Zn, up to 210 ppm As, 19 ppm Sb, 43 ppm Te and 65 ppm Mo; samples 10730, 10731). The stockwork veinlets (Fig. 3b-e) are typically straight, dominated by quartz with variable pyrite, on the centerline or margins; there are faint alteration halos (Fig. 3e). An induced polarization (IP) survey (six lines at 200 m spacing) over the stockwork veins indicates the presence of an oval zone of high chargeability (>20 mV/V), ~300 m N-S x ~200 m wide at 200 m depth, consistent with the sulfides observed disseminated and in veinlets (Fig. 3).

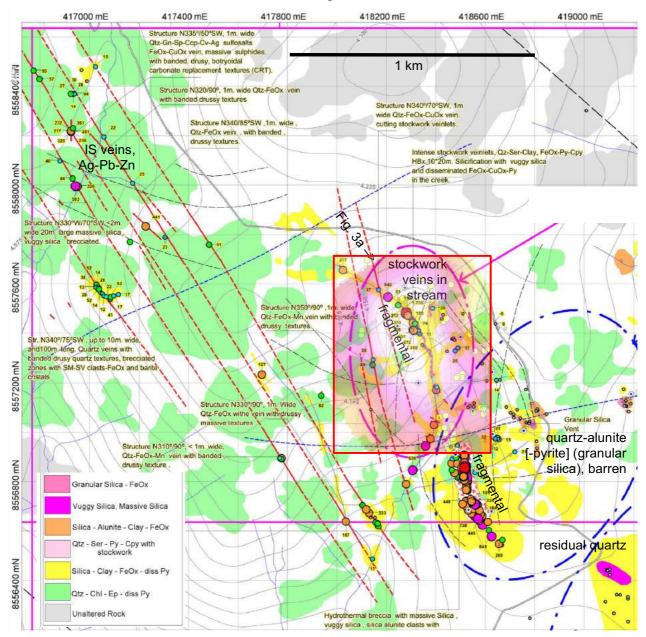


Fig. 2. NW portion of Pucamayo property, showing areas of surface mineralization; fragmental zone at ~4050-4075 m elevation, and ~500+ m NNW, stockwork veins exposed in stream at ~4125-4175 m, with adjacent breccia outcrop west of the stream. Polymetallic veins (Ag-Pb-Zn) are being mined on a small scale ~1-1.5 km NW of the stockwork veins at ~4100 m elev. Barren quartz-alunite-pyrite (oxidized to granular quartz) outcrops below ~4130 m elev to the SE (continuous with similar alteration further SE). Results of IP chargeability survey (six NE-SW lines spaced 200 m, in red box) faded over the stockwork zone, highlighting an area ~300 x ~200 m of >20 mV/V at 200 m depth. Numbers on samples (legend in Fig. 1) are in ppb Au. Grids are 200 x 200 m.

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South of the stockwork zone, ~500 m (Fig. 2) there is an elongate fragmental zone (Fig. 4a, b) between 4050 and 4080 m elevation which consists largely of clasts of residual quartz, silicic 2-3, angular to sub-angular and clast supported (Fig. 4c, d), with a matrix of crystalline alunite and dickite. The grade of the most chip channel samples (Fig. 2) is >0.1 g/t, with several >0.5 g/t up to 1.18 g/t. This breccia zone may dip into the slope, to the east, and indicates an event that introduced gold to the residual quartz. Some of the clasts are residual quartz only (white quartz, Fig. 4e, left), whereas others have been cut by dark quartz veinlets (Fig. 4f, g) that were likely related to the introduction of gold. By contrast, at elevations of >4100 m (Fig. 4h), quartz-alunite and, higher on the slope (Fig. 4b), granular silica contain <10 to 32 ppb Au.

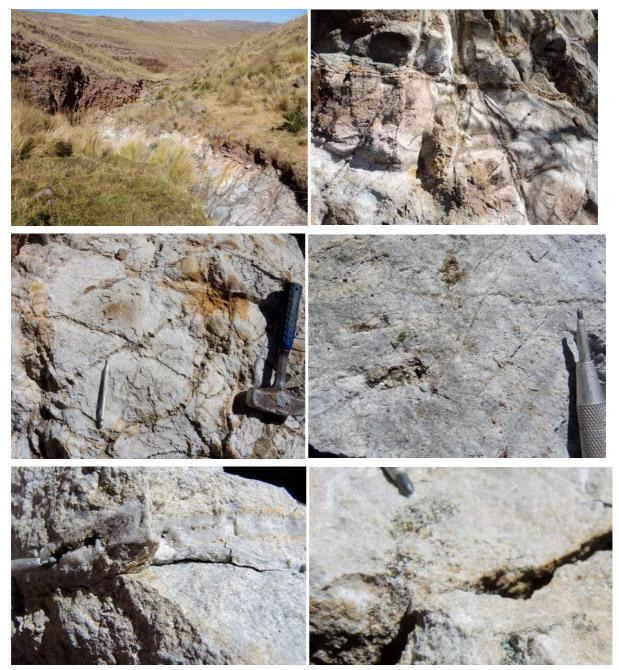


Fig. 3. (left to right, top to bottom) a) View (~4125 m elev) to SE, stream exposure of stockwork veins (Fig. 2) to other side of valley ~800 m distant, cliff outcrops on horizon of quartz-alunite (and granular silica). b-d) Stockwork quartz-pyrite veinlets (<1 mm to ~1 cm wide, typically with centerline trace and pyrite along centerline) in coherent phenocrystic rock. e) Centerline quartz veinlet with alteration halo (right side). f) Disseminated chalcopyrite with pyrite (at pointer) and (at lower right) chalcopyrite plus covellite. Weak silicification (scratch marks, upper right) with white mica and pyrite.

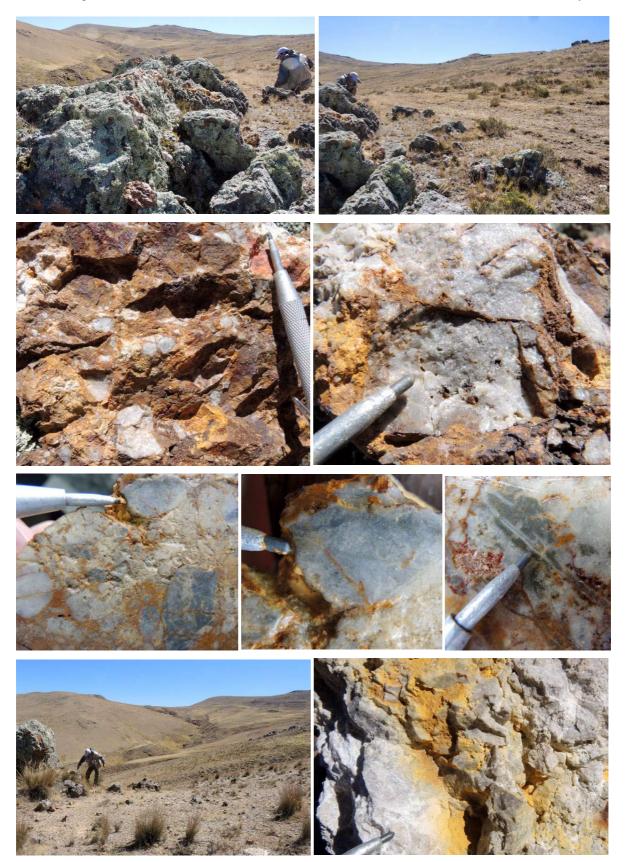


Fig. 4. a) Fragmental outcrop at ~4060 m elevation, looking north ~500 m to stream with stockwork veinlets (Fig. 3). b) Northeast from fragmental outcrop to quartz-alunite and granular silica (right) outcrops on horizon, at ~4100 and 4125 m elevation, respectively. c, d) Clasts of residual quartz, silicic 2-3, incipient vuggy texture (pointer, d), clast supported, with matrix of dickite (pointer, c). e) Polymictic silicic clasts, both residual quartz (left) and others cut by subsequent veinlets (pointer). f, g) Post-residual quartz veinlets (likely the gold event, pointer). h) Quartz-alunite outcrop, ~4100 m elevation, NW to stream with stockwork veinlets (Fig. 3). i) Granular silica 1 outcrop on road (~4125 m), supergene oxidation product of quartz-alunite-pyrite, <10 ppb Au.

#### Residual quartz and quartz-alunite; SE zone

Starting at the outcrops of quartz-alunite (with some residual quartz) at ~4100 m elevation on the eastern edge of the NW zone (Fig. 2), the hypogene advanced argillic alteration extends over 2 km to the east (through a valley at ~3950 m elevation and back up to ~4100 m; Fig. 6) and ~3 km to the SE, again through a valley down to ~3800 m elevation and back up to ~4200 m (Fig. 5). A horizon of opaline silica replacement is reported at ~4050 m elevation on the eastern margin (Fig. 7); this low-temperature silica may have formed below a steam-heated zone at the paleo groundwater table. The largest patch of residual quartz mapped (Fig. 5), at ~4075 m elevation, has <10 ppb Au (Fig. 8). Samples of quartz-alunite (and its supergene-oxidized equivalent, granular silica) mostly report <10 ppb Au, even the areas that are dominated by residual quartz, with scattered samples returning 10 to 32 ppb Au. Locally breccias with residual and granular silica at ~4075 m (Fig. 5) report < 510 ppm Mo and <45 ppm Te despite <5 ppb Au.

Exceptions are fragmental zones at ~4050 m elevation in the SE (Fig. 5; 14-57 ppb Au) and on the south margin at ~3925 m, the latter ~700 m south and ~150 m lower in elevation than the upper level (Fig. 9); brecciated silicic and quartz-alunite clasts contain  $\leq$  220 ppb Au (Fig. 10).

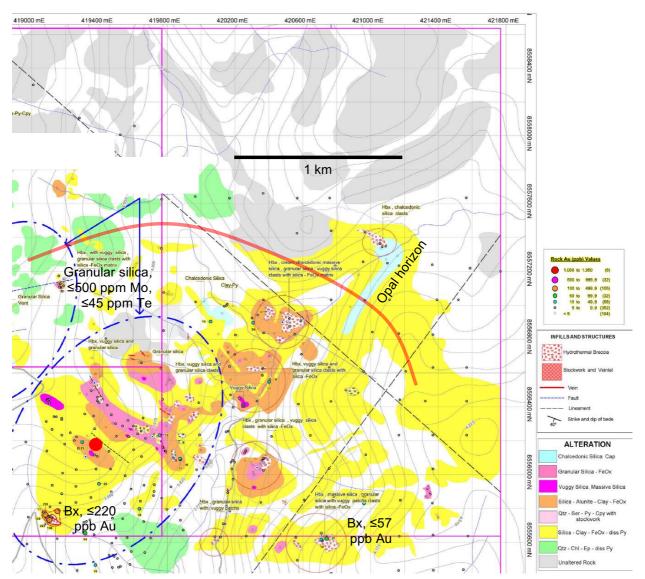


Fig. 5. SE portion of Pucamayo area, showing the large outcrop of advanced argillic alteration; quartz-alunite-[pyrite], oxidized equivalent being granular silica (light purple), small area of silicic with vuggy texture (dark purple, to west), all  $\leq$ 25 ppb Au. Exceptions are two fragmental bodies to south, with  $\leq$ 220 ppb and  $\leq$ 50 ppb Au. Arc of view in Fig. 6 is shown with red curve, photograph taken from red dot. Opal horizon (light blue, in NE) at ~4050 m elevation may be low-temperature silicification at the paleo groundwater table, at the steam-heated base.

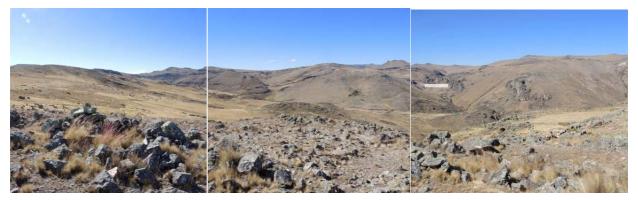


Fig. 6. North to NE to east panorama over much of the SE portion of Pucamayo, showing resistant outcrops of silicic 2 (quartz-alunite and granular silica,  $\leq$ 25 ppb Au). Opaline horizon in right distance near area of dam construction (white line), ~4050 m elev (photograph from area of quartz-alunite, silicic 2+, ~4050 m elev).



Fig. 7. Opaline horizon reported near area of dam construction (white line), ~4050 m elevation; possibly base of steam-heated alteration at the paleo groundwater table (perhaps on the outer slopes of a volcanic edifice?).



Fig. 8. Residual quartz with vuggy texture at ~4075 m elevation (<10 ppb Au), central area (Fig. 5, largest purple patch).



Fig. 9. View from quartz-alunite with  $\leq$ 25 ppb Au at  $\sim$ 4050 m elev, south to Viscay and Mercedes. Fragmental zone with  $\leq$ 220 ppb Au is  $\sim$ 600 m SSW at  $\sim$ 3925 m elevation. Polymetallic veins mined at lower elevations.

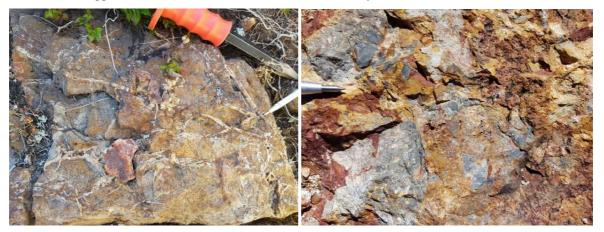


Fig. 10. Fragmental zone at base of southern slope (Fig. 9),  $\sim$ 3925 m elev, with  $\leq$ 220 ppb Au. a) Crackle breccia with open-space quartz fill. b) Sub-angular silicic clasts, some with sulfides preserved; Fe oxide matrix. Photographs: E. Marquez.

The polymetallic veins on the NW margin of the map (Fig. 1) typically consist of coarse quartz with abundant galena and sphalerite (Fig. 11); the veins also report silver, which supports the artisanal mining. Grab samples of the veins, as well as 1-m channel samples, return up to 29% Pb along with variable Cu and Zn, up to 1.5% and 21% respectively (but mostly much less than Pb), and mainly low values of As (<500 ppm but locally up to a few tenths %). Silver is up to 550 g/t, whereas gold is low, typically <0.9 g/t. Quartz veins that outcrop ~4 km further west return up to 2-4 g/t Au with lower base metal contents.

Although the measured orientations of quartz veins are typically ~NW-SE, magnetic low anomalies (due to alteration halos to veins?) are variable, from E-W to NW-SE (Fig. 12). Lineations in the residual magnetic anomalies to the SE, associated with the area of stockwork veinlets, are oriented E-W.



Fig. 11. Polymetallic (Ag-Pb-Zn) quartz vein from small-scale mine ~1.5 km NW of stockwork veins (Fig. 2).

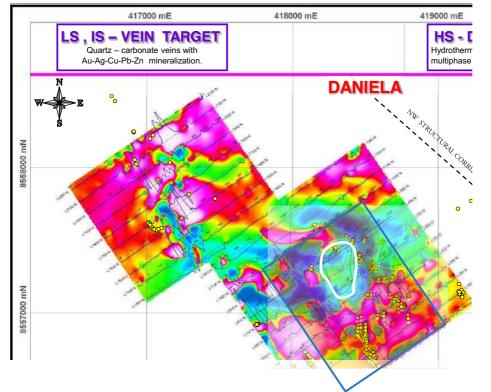


Fig. 12. Residual magnetic field, with IP chargeability (at 200 m depth) overlain (blue box). The >20 mV/V zone (white line, which lies over the area of stockwork veinlets; Fig. 2) corresponds to an area of demagnetization with an E-W linearity. NW portion of magnetic survey covers the area of polymetallic veins (Fig. 11).

#### **Discussion and conclusions**

The Pucamayo prospect is large, nearly 5 km from the polymetallic veins in the NW with artisanal mining, through the area of stockwork veins plus elongate fragmental body, to the SE, across an area of residual quartz and quartz-alunite (plus granular silica). The elongate fragmental body contains clasts of residual quartz and quartz-alunite that report up to >1 g/t Au in chip samples, and high Ag (up to 100-400 g/t Ag and locally 0.1-0.2% As but low base metal contents; Mo is anomalous, up to 190 ppm, as is Te, up to 130 ppm). The SE area mostly reports  $\leq$ 32 ppb Au at higher elevations of ~4100 m, down to ~3800 m where outcrops are exposed in an incised valley; an exception is up to 220 ppb Au in a fragmental zone at ~3925 m elevation on the southern slope. The central lithocap of Pucamayo with quartz-alunite (and the supergene equivalent, granular silica) is nearly 2 km<sup>2</sup> in area, as it is likely continuous under cover to the NW where small bodies outcrop near the elongate fragmental body that reports >1 g/t Au. The silica-clay alteration halo is much larger.

An additional important feature of Pucamayo is the outcrop on the NW margin of the lithocap of stockwork quartz veinlets with pyrite plus minor disseminated Cu sulfides. The stockwork veins, locally returning >1 g/t Au, are exposed along a stream at ~4100 to ~4175 m elevation for at least 300 m, and correspond to the location of a >20 mV/V chargeability anomaly at 200 m depth. These veins may be associated with an intrusion, as lithic clasts of the tuffs are not present. The quartz  $\pm$  pyrite stockwork veinlets are associated with white mica alteration and samples contain up to >1 g/t Au with up to 56 g/t Ag and ~400 ppm Cu plus 0.1% base metals. If this outcrop represents the top of a porphyry deposit, its level is inconsistent with the lithocap to the SE, as the top of stockwork veins in a porphyry deposit is typically 500 to 1000 m below the top of a lithocap. If the two zones are related, a fault would be necessary to uplift the stockwork vein zone to the level of the lithocap. Alternately, the stockwork veins may be associated with an intrusive system that is older than the lithocap, with uplift and erosion exposing the veins prior to formation of the lithocap, the latter related to a deeper intrusion.

Polymetallic veins (galena-sphalerite  $\pm$ chalcopyrite with Ag), such as those on the far NW margin at ~4100 elevation, as well as reported to the south at lower elevation, are common on margins of residual quartz and quartz-alunite lithocaps like Pucamayo, particularly where these have evidence of intrusion centers, such as porphyry deposits. Although apparently limited in potential, their location helps to define the margin of intrusive centers and advanced argillic zones.

The main lithocap, including outcrops of residual quartz, are weakly anomalous at  $\leq$ 32 ppb Au (one breccia returned 57 ppb Au), although over half of the samples collected to date at >4125 m to below 3800 m elevation report <10 ppb Au (many below detection). The exception of several samples with  $\leq$ 220 ppb Au is associated with the fragmental body to the south, and it shares some features with the elongate fragmental body containing up to >1 g/t Au, over 100 m higher in elevation on the western lithocap margin, albeit the lower elevation body has lower but still anomalous grades.

The most promising feature of the prospect is the elongate fragmental body south of the stockwork veins at an elevation of ~4050 to 4075 m. The sub-angular clasts of residual quartz and quartz-alunite are cut locally by fine quartz veinlets, and these post-leaching and alteration veinlets may be related to the significant anomaly, with a large proportion of the samples reporting 0.1-0.5 g/t Au, up to 1.2 g/t. If the mineralization is due to a portion of the clasts that have been diluted with barren rock, the results are promising that the source lithology (horizon?) of the clasts may be moderately mineralized. Of the clasts observed with veinlets, they also contain fine pyrite, indicating that the mineralized source is likely sulfide bearing.

The large size of the central portion of the lithocap, combined with evidence for gold mineralization in clasts of residual quartz contained in fragmental bodies of breccia, means that there are clear targets to test for in situ mineralization below the portion of the lithocap that is barren, apparently to ~3900 m elevation (at least in the southern area). An analogy may be the discovery in 2004 in southern Ecuador of the Loma Larga (Quimsacocha) lithocap and feeder zone-hosted high-sulfidation deposit, with top at ~150 m depth, below a poorly mineralized upper portion of residual quartz lithocap (Fig. 13a). The alteration mineralogy of pyrophyllite and dickite indicated proximity to the high-temperature (and high-grade) feeder structure (Fig. 13b). At Pucamayo, targeting feeder structures is one strategy to assess the potential of the deeper portion of the lithocap.

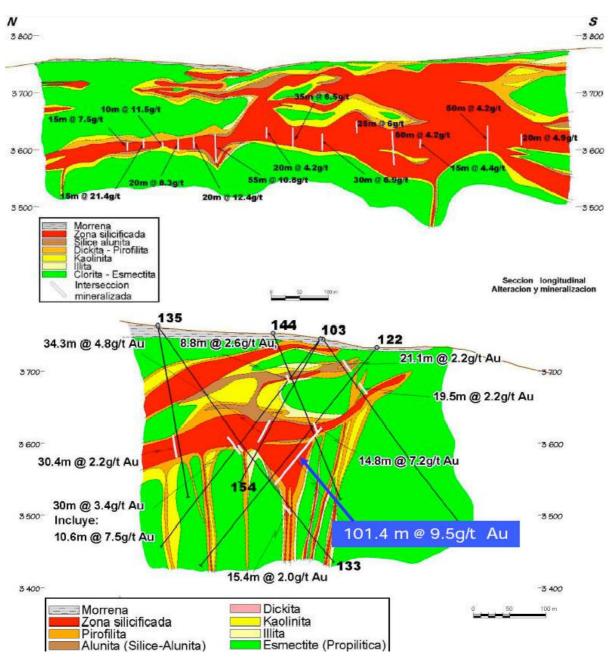


Fig. 13. a) North-south long section, Loma Larga, southern Ecuador (Quimsacocha discovered in 2004, now owned by INV Metals). 2.1 Moz at 6.5 g/t Au, high grades in structurally controlled feeders to lithocap horizon of residual quartz that follows a permeable lapilli tuff; upper tuff horizon is also altered to a silicic lithocap but was poorly mineralized. Early testing was with ~100 m deep holes, with poor results; discovery was made by IAMGold by drilling ~300 m-deep holes. b) NW-SE cross section, showing the alteration mineral zonation that helped to site the discovery hole, 122.

#### Recommendations

- In the elongate fragmental zone (6800 N, 8500 E), selectively sample silicic clasts with fine veinlets vs massive silicic with no veinlets, as well as matrix; analyze to determine gold distribution and geochemical signatures, and to determine if the gold anomalies are present in pre-brecciation residual quartz. Do the same for the new breccia zone to the south if clasts contain pre-brecciation veinlets. Conduct petrographic analysis on any mineralized clasts to determine the lithology, i.e., the location in the stratigraphic column from which the samples were mineralized
- Determine the stratigraphic section outside the area of alteration, to help correlate with lithologic variation within the main prospect area
- Channel sample by saw (10 cm wide, 5-10 cm deep, below surface oxidation) the area of stockwork veinlets; orient channels to NE-SW, every 20 m in stream bed, and also some long channels parallel to the stream NW-SE (measure and plot channel orientation with geochemical results). Collect unoxidized samples and submit for petrographic analysis to determine the lithology as well as alteration and sulfide mineralogy
- Construct pseudo sections (no vertical exaggeration) from 1) stockwork zone to granular quartz (quartz-alunite-pyrite) outcrops and down to southern fragmental zone, west of road, 2) residual quartz with vuggy texture (just east of road), granular quartz and quartz-alunite across valley east and up to opal horizon, and 3) vuggy quartz through granular quartz down to fragmental in the south (new breccia zone). On the first set of sections place lithologies and correlate between outcrops, and another layer include alteration
- Process the magnetic image and reduce to pole; correlate lineations with mapped features (e.g., do magnetic lows correspond to altered halos of structures?)
- Define orientations of fragmental zones, particularly the elongate body centered on 6800 N and 8500 E, first with trenching and then with shallow drilling. Assess the major structural controls over the prospect, i.e., lineations as well as linear distribution of alteration (e.g., residual quartz cores to quartz-alunite halos), etc.
- Drill test the roots of the elongate fragmental body, initially to at least 3800 m elevation with steep (but not vertical) holes, e.g., at ~70-75° from horizontal, designed to intersect the deep roots as well as any mineralized lithocap horizons. Determine lithologies of core, and also analyze alteration mineralogy (with SWIR), to help define vectors to mineralized feeder zones
- If testing the source of the elongate fragmental body is successful, determine the most likely controls (structural feeder vs lithologic horizon) on mineralization before stepping out and assessing a larger area for lithocap-hosted high-sulfidation style mineralization, recognizing that the better grades will lie in structural feeders
- Test the stockwork veinlet area, with holes drilled at right angles to the major (NW-SE?) structural orientation, with initially at least 300 m-long holes within the chargeability high

#### Qualifications

I, Jeffrey W. Hedenquist, of Ottawa, Canada, hearby certify that:

- I am President of Hedenquist Consulting, Inc., incorporated within the province of Ontario. I am an independent consulting geologist with an office at 160 George Street, Suite 2501, Ottawa, Ontario, K1N9M2, Canada; telephone 1-613-230-9191.
- I am a graduate of Macalester College, St. Paul, Minnesota, USA (B.A, Geology, 1975), The Johns Hopkins University, Baltimore, Maryland, USA (M.A., Geology, 1978), and the University of Auckland, Auckland, New Zealand (Ph.D, Geology, 1983); in addition, I have received degrees of Doctor *honoris causa* from the universities of Turku (2004) and Geneva (2014).
- International recognitions include the Kato Takeo Gold Medal (2011), Society of Resource Geology of Japan; the Duncan Derry Medal (2005), Geological Association of Canada; the William Smith Medal (2004), The Geological Society (London); and the Society of Economic Geologists' Silver Medal (2000) and Ralph W. Marsden Award (2013).
- I have practiced my profession as a geologist continuously since 1975, working as a researcher for the U.S. Geological Survey, the New Zealand Department of Scientific and Industrial Research Chemistry Division, and the Geological Survey of Japan until the end of 1998. I have published widely in international refereed journals on subjects related to epithermal and porphyry ore-deposit formation and active hydrothermal systems. I consulted to the mineral industry and various governments as a New Zealand government scientist from 1985 to 1989, and I have been an independent consultant since January, 1999.
- I am a Fellow of the Society of Economic Geologists and have served in executive officer positions, including President, 2010; I am also a member of the Society of Resource Geology of Japan and the Geochemical Society. I was Editor of the 100<sup>th</sup> Anniversary Publications of *Economic Geology* and am Associate Editor of the journal, as well as an editorial board member of *Resource Geology*; I have previously served as editorial board member of *Geology, Geothermics, Journal of Exploration Geochemistry, Geochemical Journal* and *Mineralium Deposita*.
- This report is based on information provided to me by Condor Resources, previous reports, and personal observations in the field.
- I have no direct or indirect interest in Condor Resources, in the properties described in this report, or in any other properties in the region.
- I hearby grant permission for the use of this report in its full and unedited form in a Statement of Material Facts or for similar purpose. Written permission must be obtained from me before publication or distribution of any excerpt or summary.

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