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The following file is part of the Cambior Exploration USA Inc. records

Alpine Exploration Group

3113 East Table Mountain Road, Tucson, Arizona 85718

Phone USA 520 577 9494, Fax USA 520 577 9479 ***Geologic mapping and map analysis***

1996/06/11

Attn: Randy Moore, Exploration Manager
Cambior USA, Inc
230 South Rock Blvd, Suite 23
Reno, Nevada 89502-2345

Dear Randy;

I am pleased to enclose a copy of my report on the DA group of Claims. I sincerely hope it can fit into your exploration program.

I have taken the liberty of enclosing information on Alpine Exploration, just to let you know how I am paying the bills.

Let me know if I can provide you with any more information on the property or if you would like to visit it some time when you are in Tucson.

Best regards,

Henry Truebe

Alpine Exploration Group

3113 East Table Mountain Road, Tucson, Arizona 85718
Phone USA 520 577 9494, Fax USA 520 577 9479 ***Geologic mapping and map analysis***

- **Background work**
  - Remote sensing data sales
  - On-line searches and previews of satellite imagery
  - Custom image-processing of remote sensing and other data

- **Regional work** (1:1,000,000 to 1:50,000)
  - Same-scale compilations of existing maps and remote sensing information
  - Image processing for alteration enhancement
  - Re-interpretation and improvement of existing maps
  - Map analysis for the generation of regional exploration targets

- **Project support** (1:50,000 to 1:500)
  - Aerial photo enhancement and interpretation
  - Ground-truth evaluations of any maps
  - Conventional and digital, surface or underground mapping
  - Geochemical sampling and mapping, drill hole logging, etc.
  - 3-D topographic and deposit modeling
  - Visualization of geochemical and other data in map format

- **Professional qualifications**
  - Seventeen years experience in exploration geology and computer applications
  - Strong background in conventional exploration methods and remote sensing
  - Language ability - German, Tongan, and Spanish
  - Registered professional geologist, Arizona
  - EOSAT sales representative

- **Academic experience**
  - Dept of Mining Engineering, Colorado School of Mines
    - Engineer of Mines (1964)
    - MSc Mining (1968)
  - Dept of Geosciences, University of Arizona
    - MSc Economic Geology (1982)
  - Dept of Mining & Geological Engineering, University of Arizona
    - PhD with minor in Remote Sensing (1991)

- **Costs**
  - Flexible rates for professional or technical, short-term or long-term work
  - Proposals, presentations and site tours on request

- **Contact**
  - Henry Truebe, exploration geologist

report on the

DA Claims

Crozier Peak Quadrangle

Pinal County, Arizona

Henry A Truebe
Alpine Exploration Group
phone USA 520 577 9494
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1996/06/10

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Summary

The Alpine Exploration Group began exploration in southeast Arizona in 1992. Map analysis (geographic information system) had shown an area in Pinal county to be geologically favorable for porphyry copper deposits and to be politically favorable for mining. Follow-up field work in the northeastern part of the Crozier Peak quadrangle disclosed large areas of fractured rocks, alteration (silicification, argillic, phyllic and K-stable) and widespread red, hematite staining - typical characteristics of porphyry copper systems. The DA claim group was staked to cover the area of altered rocks. The claims were originally promoted as a faulted and rotated porphyry copper target but continued geologic and geochemical work indicated that this concept was wrong. Results of geochemical sampling indicated that rocks within the claims contained ore-grade Gold mineralization.

Large sized stream sediment samples were taken in order to block out a source for the Gold. It was determined that a strong anomaly originated in a northeast-trending zone of parallel and stockwork fracturing that could be traced over a length of 1,000 meters. Geologic interpretations indicate that there is a mid-Tertiary precious metal deposit on the property. Continuing work on the claims consists of geologic mapping, sampling and maintenance the ownership of the property.

Work to date has been of a reconnaissance nature. More work is needed to confirm the size and grade potential of the deposit. Some of the anticipated tasks are detailed geologic mapping and soil sampling on a grid pattern. An age-date on a rhyodacite intrusion on the claims would confirm that this is a mid-Tertiary system. A favorable outcome from this, surface work should suggest several drill targets, the testing of which will lead to an accurate evaluation of the property.

Conclusions

Geologic work and sampling on the DA claims has indicated the presence of a mid-Tertiary, precious-metal, hydrothermal system. Geochemical analyses show that the property should be considered a Gold target and small outcrops of ore-grade material within a larger area of altered rocks indicate that the property has potential to contain an economically valuable deposit.

Significant mid-Tertiary Gold deposits in Arizona include the Vulture , Martinez or Congress, Oatman, Copperstone, Mammoth, and Moon Mountains deposits. These deposits have produced 10 metric tonnes (321,500 Tr oz) or more of Gold. It is not unreasonable to consider a target of this size in the tectonic setting of the DA claims.

The DA hydrothermal system is located on an inadequately mapped, discontinuous, northeast trending structural trend with 12 kilometers of offset. Mineral deposits within the alteration area on the claims are zoned from distal, epithermal comb Quartz veins and Calcite bodies, through Mn oxide veins, into a core of silicified rocks containing fracture and stockwork controlled Hematite and Quartz veins and veinlets. Rock chip samples from property are as high as 5.100 parts per million and average 0.553 ppm Gold. The altered rocks at the DA claims cover an area approximately 1,500 by 300 meters - large enough to contain at least 12, 10-tonne Gold deposits.

The prospect is located within 2 hours' drive from Tucson, in the valley of the Gila river. The large Ray (copper) mine complex is 20 km north of the claims and the Hayden smelter is 12.5 km east of the claims. The local economy depends heavily on mining and local people can be expected to have a positive attitude toward mineral exploration and development.

Outcropping orebodies are no longer found in the continental United States and the success rate for blind exploration is low, but I believe the DA claims have greater potential than many prospects. The opportunity to find a $100,000,000 Gold deposit cannot be ignored.

Introduction

The DA (pronounced "D"-"A") claims cover an area suspected to contain a moderate-sized mid-tertiary Gold deposit. The claim group is a block of 13 lode and 3 placer mining claims located 7.8 miles (12.5 km) due west of Winkleman Arizona at the north end of the Tortilla mountain range (in the Crozier Peak 7.5' quadrangle) in central Pinal County, Arizona (Figure 1a).

Relief in the area is 350 feet (107 meters), and elevations range from 2,800 to 3,150 feet (855 to 962 meters). The area is at the boundary of the Transition Zone and the Basin and Range; the mountains are low and southwest of the wide valley of the Gila river. Vegetation is that of the Upper Sonoran Life zone, Palo Verde, Jojoba, Cholla (occasionally in small forests) and Saguaro are common on the hillsides; Mesquite, some quite large, dominate the washes (Figure 2).

The area covered by the DA claims was discovered through a combination of map analysis and field investigations. Map analysis, with the somewhat naive objective of discovering a new porphyry copper district, allowed the selection of areas with geology, geochemistry, and geophysics that closely matched the characteristics of known porphyry copper districts of east half of the Tucson 1° x 2° quadrangle. Map analysis was also used to defined areas that were sufficiently distant from population centers and transportation corridors to minimize political opposition to a new mine (Truebe, 1994).

Mid Tertiary Gold deposits Gold production in Arizona comes from two sources - byproduct Gold from porphyry copper deposits and Gold from mid-Tertiary poly-metallic and precious-metal deposits. Significant mid-Tertiary deposits include the Vulture (11 tonnes Gold), Martinez or Congress (13 tonnes Gold), Oatman (61 tonnes Gold), Copperstone (16? tonnes Gold), Mammoth (11 tonnes Gold), Moon Mountains (12 tonnes Gold) and Yarnell (> 9 tonnes Gold) deposits (Keith, and all, 1983; Page, and all, 1994; Spencer, and all, 1988; and Wilkins, 1984). The deposits are commonly associated with mid-Tertiary volcanic rocks and may be hosted in Tertiary or pre-Tertiary rocks such as Precambrian granite (Spencer and Welty, 1989).

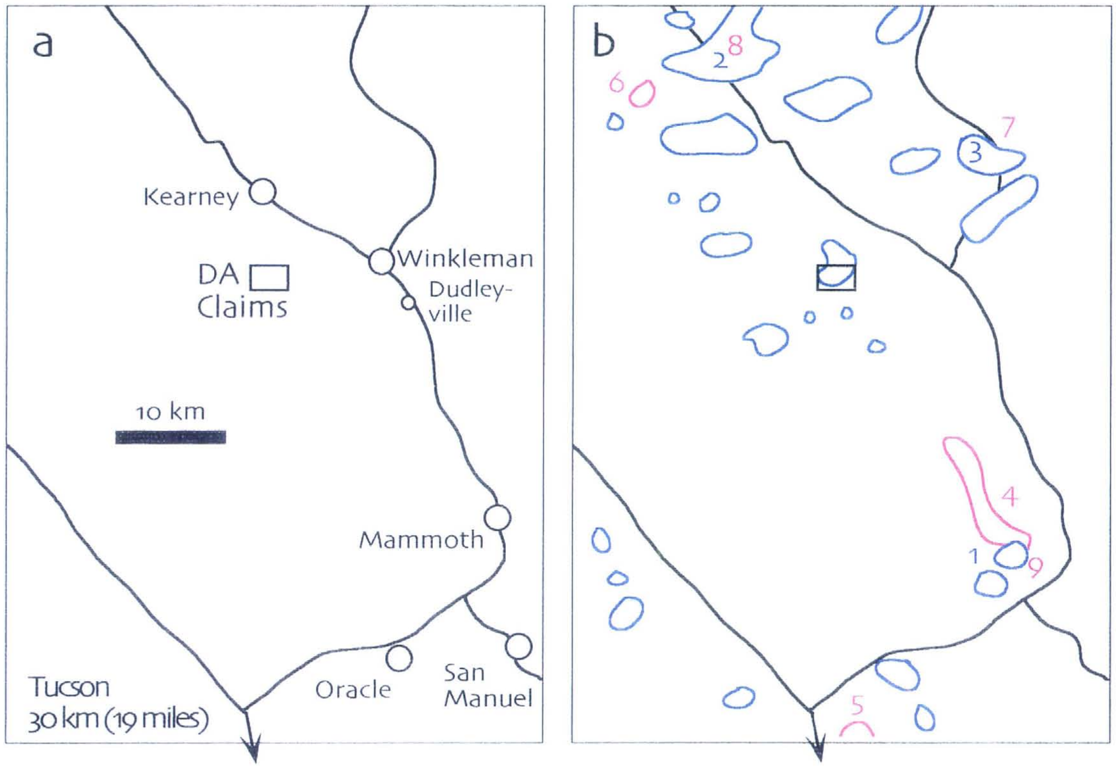

Figure 1a. Location of the DA claim group in southeast Arizona, scale 1:800,000.

Figure 1b. Location of copper producing districts indicated in blue, including (1) San Manuel - Kalamazoo , (2) Ray and (3) Christmas. Gold producing districts shown in red include (4) Mammoth, (5) Cañada del Oro and (6) Wooley. Districts with more than one tonne by-product gold production numbered in red include (7) Christmas, (8) Mineral Creek (Ray) and (9) San Manuel. After Kieth. et al, 1983.

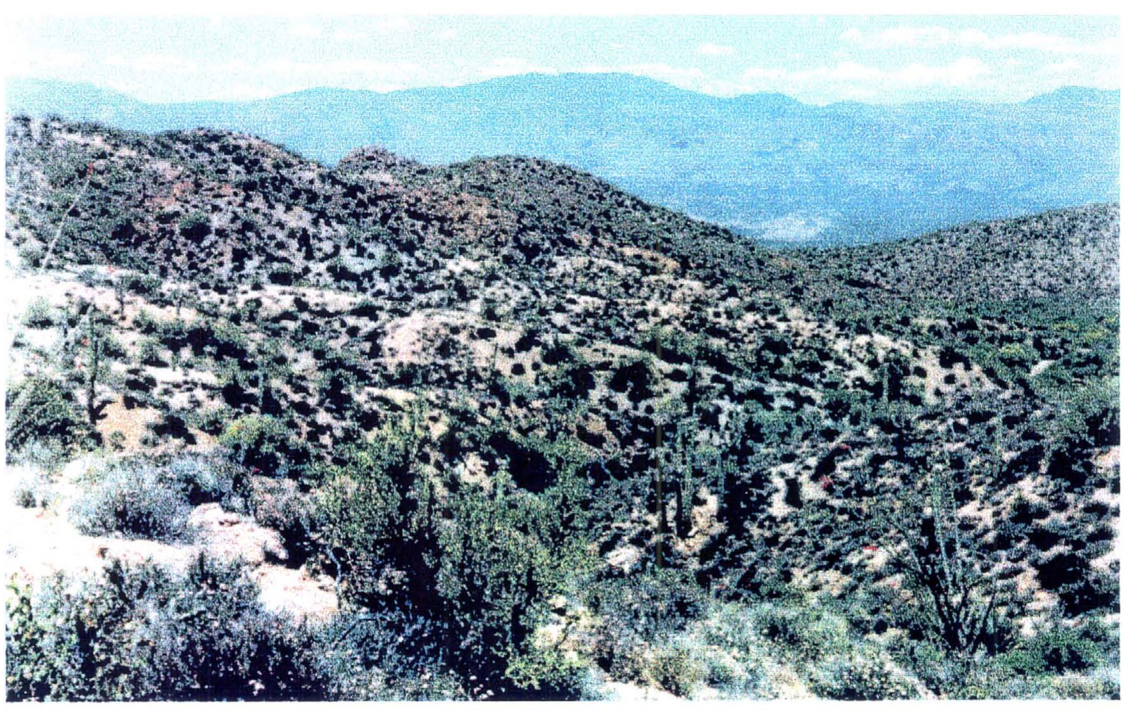

Figure 2. View northeast across the DA claim group. Gila river valley and Dripping Springs mountains in the distance. All rocks in the left and center foreground are highly fractured.

Nearby deposits The largest known mineral deposits in the vicinity of the DA claims are the huge, Ray Mine Complex, 20 km (12.43 miles) to the north-northwest, the Old Ripsey (copper) and Florence (Silver-lead) deposits at Ripsey Hill, 7.0 km (4.3 miles) to the west-northwest, and the Copper Hill breccia pipe, 3.5 km (2.2 miles) to the southeast. Drilling has been done at both Ripsey Hill (BHP Minerals in 1993) and Copper Hill (Conoco in ?).

More germane to the DA prospect is the Gold production in nearby districts (Figure 1b and Table 1). The largest quantity of Gold is a by-product from the production of copper from San Manuel but production from the mid-Tertiary Mammoth vein system is eleven metric tons.

Table 1. Gold producing districts, part of Pinal county, Arizona. Numbers in parentheses refer to figure 1b.

Name	Ounces	Tonnes
Banner	10,600	0.32
Burney	100	
Cañada del Oro (5)	not reported	
Christmas (7)	47,000	1.46
Copper Butte	100	
Cottonwood	200	
Dripping Springs	3,200	0.09
El Capitan	10	
Grand Prize	200	
Kalamazoo	not reported	
Little Hills	300	
Mammoth (4)	349,000	10.85
Mineral Creek (Ray) (8)	57,900	1.80
Ripsey	2,000	0.06
Riverside	300	
Saddle Mountain	1,000	0.03
San Manuel (9)	486,000	15.11
Wooley (6)	10	

Silver production in these districts ignored in table 1.

In the immediate neighborhood of the DA claims are the Gold Berg (Gold ?) prospect, 1,700 meters to the northeast, and the Copper Kettle (base metal) prospect, 700 meters to the southwest.

Tectonic Setting This portion of Arizona has been influenced by events at the margin of the North American continent, and to a lesser degree by events at the margin of the Meso American continent. Archean batholithic intrusions form the foundation of the area. Erosion in the Proterozoic formed a platform upon which clastic sediments were deposited. At the same time Diabase sills were intruded sub-parallel to the Proterozoic erosion surface. Paleozoic and Mesozoic sedimentary rocks are absent but tabular bodies of equigranular diorite were emplaced in the Cretaceous. These intrusions presaged major tectonic events to follow. (Dickinson, 1989)

The first of these is the Laramide orogeny which left little evidence in the immediate vicinity. Mid-Tertiary extensional tectonics left a much greater mark on the area, with evidence of detachment faulting followed by rotation and high-angle faulting. There are 12 kilometers of left-lateral offset in Proterozoic sedimentary rocks across the north end of the Tortilla mountains. Late Cenozoic block faulting along northwest trending faults opened deep sedimentary basins and continued faulting tilted the sedimentary rocks that filled the basins. (Dickinson, 1989)

Geologic History Maps of the DA area are either medium scale and old (Krieger, 1974) or small scale and general (Dickinson, WR, 1992). Krieger's map was prepared in the era before detachment faulting was recognized, but provides an accurate picture of the distribution of rocks in the area (Figure 3); Dickinson's (1992) map provides a more current picture of the structural geology. Both maps provide only a hint of the real structural complexity of the property. High- and low-angle faulting in an extensional environment, concurrent sedimentation, and alteration and mineralization, result in complex structural and lithologic relationships. Field evidence gathered on the claims (Figure 4) provides a local history that is shown in Table 2.

Access Primary access to the DA claim area is accomplished by driving northward along the west side of the San Pedro river after crossing the river at Dudleyville. The east side of the claim block can be reached from the river valley by using the 4 wheel drive road to the Gold Berg prospect. The west side of the claim block can be reached by driving up Indian Camp wash (see Appendix B for detailed road logs).

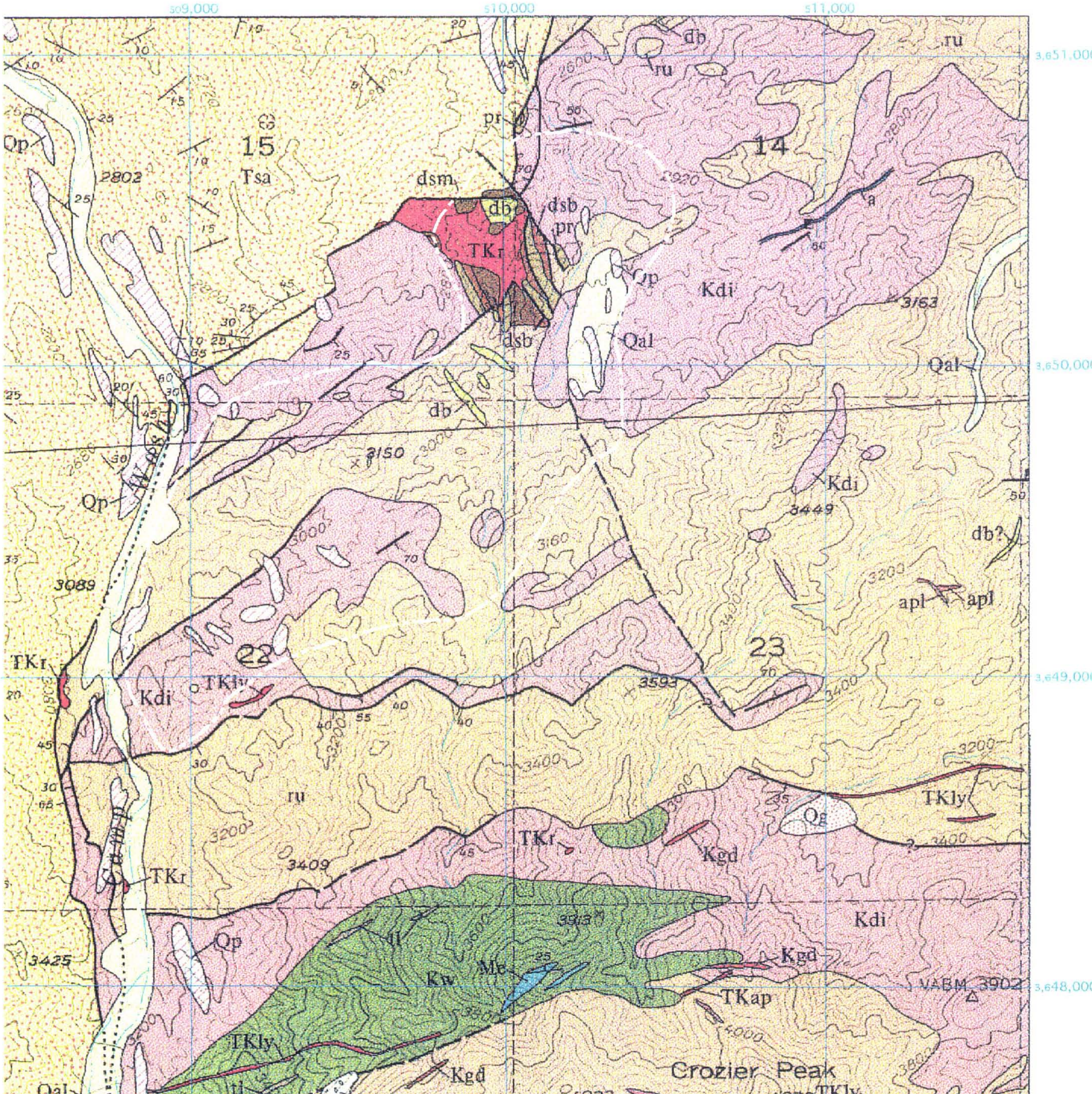

Figure 3. Geologic map from Krieger, 1974. Scale reduced to 1:20,000.

Legend

Geologic map scanned from Krieger, MH, 1974, Geologic map of the **Crozier Peak Quadrangle**, Pinal County, Arizona; U.S.G.S. Map, Geologic Quadrangle GQ-1107, 1:24,000.

Please see original map for details.

Limit of HT mapping shown by white dashed line

DA Project — 6 June 1996

Crozier Peak 7.7' Quadrangle, Arizona

Published geologic mapping

Scale = 1:20,000

200 0 200 400 600 800 meters

500 0 1,000 2,500 feet

Henry Truebe — Alpine Exploration Group

3113 East Table Mountain Road, Tucson, Arizona

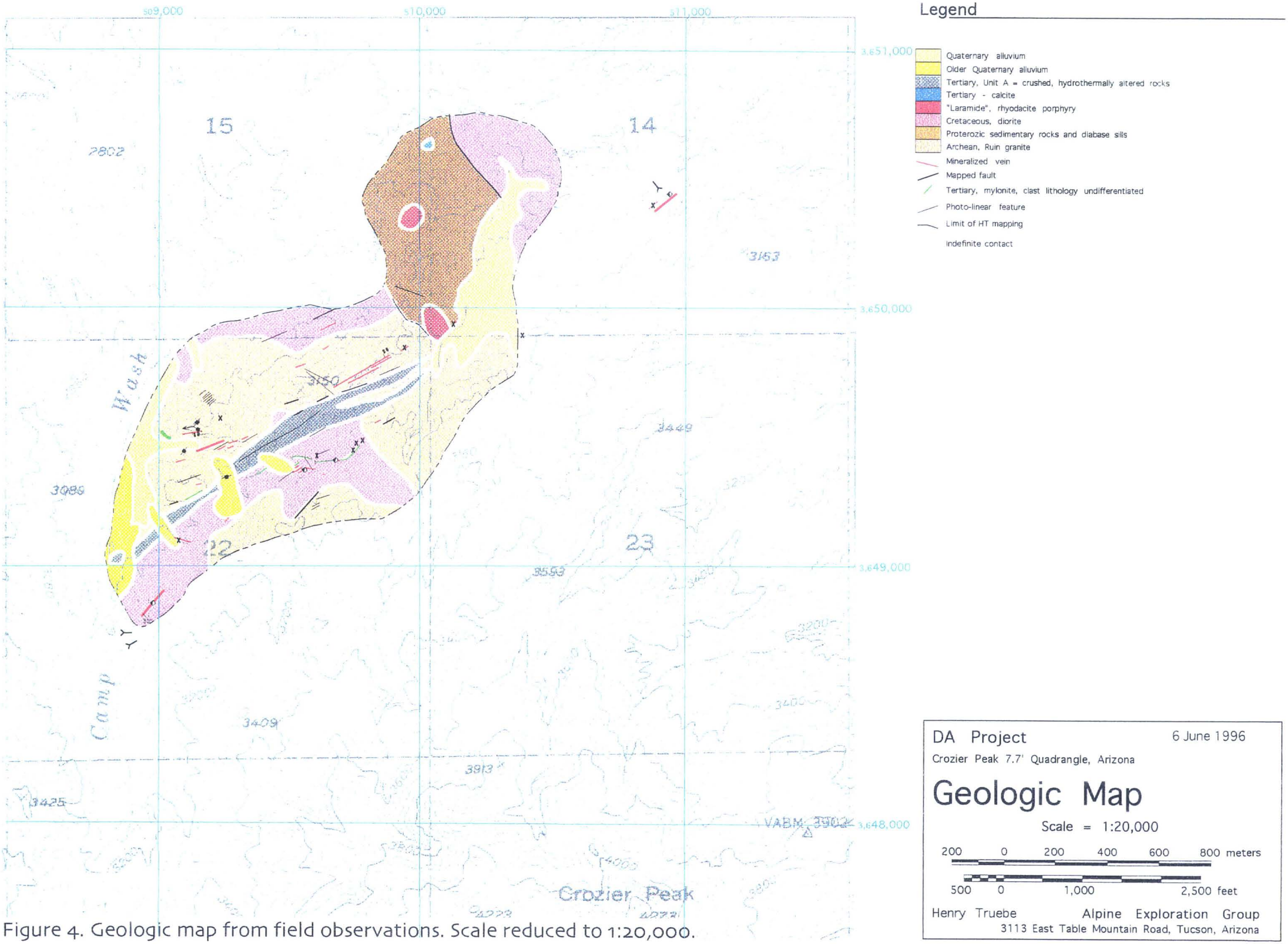

Figure 4. Geologic map from field observations. Scale reduced to 1:20,000.

Table 2. Geologic history of the DA claim area.

Age	Process	Product	Map unit (Figure 4)
Quaternary	Erosion-deposition	Sand and gravel	Alluvium
Quaternary	Erosion-deposition	Sand and gravel	Older alluvium
Oligocene-Miocene	Erosion-deposition	Sedimentary rocks	Cloudburst formation
Oligocene-Miocene	NW - Faulting	Basin and Range tectonics	
	Hydrothermal	Calcite veins and plug	Calcite
	Hydrothermal	Phyllic alteration of granite, etc	Unit A
	NE - Faulting	Crushing of granite, etc	Unit A
	Hydrothermal	Crustiform quartz veins	
	Hydrothermal	Manganese veins	Mineralized vein
	Hydrothermal	Stockwork - hematite,quartz, sulfides, Gold	Mineralized vein
	NE - Faulting	stockwork preparation	
?	Faulting	widespread fracturing	
Oligocene-Miocene	Faulting	Mylonite (mid-Tertiary extension)	Mylonite
Oligocene-Miocene	Faulting	"tight" brecciation (mid-Tertiary extension)	
Laramide ?	Intrusion	Rhyodacite porphyry	Rhyodacite porphyry
upper Cretaceous	Intrusion	semi-tabular diorite bodies	diorite
pre-diorite	Brecciation	widespread fracturing	not mapped
Proterozoic	Intrusion	Diabase sills	Sed rocks and Diabase sills
Proterozoic	Erosion-deposition	Sedimentary rocks (Apache grp)	Sed rocks and Diabase sills
Middle Proterozoic	Intrusion	Ruin granite	Ruin granite

Acknowledgements I would like to acknowledge the contributions made to this project by consulting and company geologists who visited the area as a porphyry copper submittal. It was though their investigations that I have learned much of what I know about the property. And, while some of the results of their work is incorporated here, the responsibility for any interpretation is entirely mine.

Miscellany The dimensions used in the report are SI (Systéme International d' Units); common US units will show metric conversions but metric units will be left unconverted.

It is difficult to refer to locations on the property without some system of reference. Most conveniently names such as Indian Camp Wash, Copper Kettle Prospect, Gold Berg prospect, etc will be used when they exist. Otherwise locations will be references using UTM coordinates, for example 10,000 east, 50,400 north.

The name "DA" is from a generic claim naming procedure I use to keep track of claims using a maximum of 3 characters. The "D" describes the forth (A, B, C, etc.) anomaly on the quadrangle. The "A" is the first vowel in the alphabet used for the first block of 26 claims on the anomaly; "E" would be used for the second block, etc. The third letter of the claim name is A, B, C, etc. to allow for naming the claims without giving a casual observer a clue to the size of the claim block as, for example, the claim name "Gold Bug 246" would. The result is a 3-letter word or pseudo-word for each claim - DAA, DAB, DAC, DAD, etc. which is both convenient and cryptic.

Lithology

Exposed rocks range in age from Proterozoic to Recent, with wide intervals of non-deposition and/or erosion. The units described below are the units shown on Figure 4; the lithologic symbols in parenthesis are are the labels used by Krieger (1974) and shown in Figure 3. Descriptions are based on Krieger supplemented by field observations in the immediate vicinity of the claims.

Archean, Ruin granite (ru) Very widespread in this part of Arizona, the granite is coarse grained pinkish gray to yellowish gray. It contains large (2-4 cm) Orthoclase, smaller Plagioclase, and conspicuous Biotite phenocrysts. Small bodies of aplite occur throughout out the larger mass of granite. The granite is highly fractured throughout the claim block but the aplite is less fractured.

Precambrian sedimentary rocks (pr, dsb, dsm, and db) These rocks include the Upper Pioneer (pr) dark red to purple fine-grained sandstone, the Barnes (dsb) conglomerate and Arkose (dsm) members of the Dripping Springs Quartzite and Diabase (db) sills. These units are lumped and mapped as Proterozoic Apache Group and Troy Quartzite and shown as "Yo" by Dickinson (1992). The rocks are highly faulted and scrambled near 10,100 east, 50,200 north, an area termed "breccia basin", and are mapped as one unit (Figure 4). Weathering of the contained Diabase here results in a conspicuous stain of earthy red hematite.

Cretaceous diorite (Kdi) An equigranular (1-2 mm) salt-and-pepper textured rock containing Plagioclase, pyroxene group minerals, Hornblende, Biotite, Magnetite and some quartz and Orthoclase. It has been dated at 65 ± 2.0 MY (Krieger, 1974). The diorite may be as fractured as the Ruin granite but it weathers to rounded hills and any internal fracturing is obscured.

"Laramide" rhyodacite porphyry (TKr) A small body of rhyodacite porphyry intruded the Precambrian sedimentary rocks and Ruin granite at 10,000 east, 50,000 to 50,400 north. Field observations indicate that it is not as extensive and extends further south than shown by Krieger (1974)(Figure 3). The rhyodacite porphyry is flooded with silica and has the appearance of an hypabyssal intrusion. If it can be shown that the rhyodacite was emplaced as part of the mid-Tertiary orogeny (Damon, 1989) the DA claim area would fit the mid-Tertiary deposit model perfectly.

Tertiary(?) hydrothermal(?) calcite (not mapped by Krieger) Again, amid the shattered Precambrian sedimentary rocks is a small body of coarsely crystalline Calcite about 20 meters in diameter. It could be metamorphosed Paleozoic limestone, but since similar appearing Calcite fills a nearby fault zone I believe it is of hydrothermal origin. Its position suggests it is in the distal portion of a hydrothermal system centered to the southwest.

Tertiary Unit A (not mapped by Krieger) A puzzling rock unit has been shown as Unit A on figure 5. The rock is crumbly, granular and composed of quartz grains in a matrix of sericite and clay. Small aplitic dikes in what was Ruin granite are relatively unaltered and unbroken. The rock has a sharp contact on the northwest side but grades into fractured diorite on the southeast side. Fractures in the diorite are filled with white (carbonate?) material, possibly caliche. Unit A extends approximately 1,500 meters in a southwest - northeast direction suggesting it is simply comminuted rock associated with a fault zone. But competent, fractured granite is exposed below the crushed rock near 9,400 east, 49,500 north so it appears that the effects are limited in the vertical dimension. I believe Unit A is a structurally controlled zone of alteration.

I have recently learned (Yanez, 1996) that this material resembles the ore at the Grand Prize Mine, 14 km south-southwest of the DA claims. A stope map of the mine shows grades as high as 5 ounces per ton (171 grams per tonne).

Tertiary sedimentary rocks (Tsa) Non Granitic alluvial deposits are mapped by Krieger as San Manuel formation. A more recent map by Dickinson (1992) shows the unit as the Cloudburst formation of the San Pedro trough.

Quaternary, older alluvium (Qp) Perched patches of alluvium that are older and coarser grained than Quaternary alluvium in washes have been mapped as older alluvium where they obscure underlying rocks.

Quaternary alluvium (Qal) Sand and gravel in the active parts of washes is mapped as Quaternary alluvium.

Other units (not mapped by Krieger) Other units shown on figure 4 deserve some description. The mineralized veins are simply faults and fractures filled with hydrothermal mineral deposits. A white, planar feature near 9,800 east, 49,400 north was first mapped as a Quartz vein. On closer examination the "vein" seemed to be a rhyolite dike. Finally, the texture of the "dike", with included cataclastic fragments, and the presence of breccias on one side of the "dike" indicated that the rocks are mylonites. They are shown on figure 4 as Tertiary mylonite. The appearance of the mylonite is effected by its protolith; Ruin granite produces a mylonite that resembles rhyolite and the diorite produces a mylonite that could be mistaken for Andesite. Some of the dikes shown on Krieger's (1974) map could be mylonites. An "aplite", at the Gold Berg shaft, 11,000 east, 50,500 north, is suspicious.

Structural geology

It is obvious from even a short visit to the field that the rocks in the vicinity of the claim block have been through a tremendous amount of structural activity. The lack of good marker horizons make it impossible to quantify but rocks have been broken and deformed at all scales.

The earliest deformation occurred in the late Proterozoic, after the emplacement of Diabase sills within the Ruin granite. It is generally thought that the sills were emplaced parallel to the sub-horizontal paleo surface at a depth of a few hundred meters. The sills are presently dipping steeply to the east, a net sum of all the movement since the Precambrian.

Laramide activity probably effected rocks in the area but evidence has been obscured by mid-Tertiary events including detachment faulting and northwest extension. Remnants of mylonite and healed (closed) breccias in the hanging wall indicate at least one detachment fault in the claim area. The mylonite, which probably formed along a surface that dipped (northwest ?) at a low angle is now fragmented and overturned so that it now dips steeply east and overlies its hanging wall breccia.

Detachment related deformation of the Ruin granite may be seen on the hand-specimen scale. As the feldspar crystals are crushed by faulting the normally coarse grained granite is converted to an equigranular rock with large circular quartz spots [This rock may be the protolith for Unit A, described above]. Further deformation smears the quartz and fuses the feldspars to make a banded or gneissic rock. Examples of all these variations can be found in the claim area but were not mapped.

The most important faults in the claim block trend southwest - northeast and they dip almost vertically. Tertiary rocks to the northwest imply that motion on all these faults is down to the northwest. Not only are the faults common in the map area but they also controlled mineralization.

A northwest - southeast trending normal fault, at 10,200 east, 50,600 north dips west at about 70°; slickensides show that motion was nearly vertical and down to the west. The fault is most likely a result of late Cenozoic, Basin and Range extension. The presence of a large amount of calcite on the fault surface is problematic since it implies the fault predates the mid-Tertiary mineralization or that the mineralization coincides with Basin and Range extension in the late-Tertiary.

Not shown by either Krieger or myself is the extensive amount of fracturing throughout the claim block. Rocks are especially fractured in "breccia basin", 10,100 east, 50,200 north, and become more competent to the west. The fractured rocks are angular and do not contain a significant amount of matrix suggesting that the brecciation is of tectonic, rather than hydrothermal, origin. While it would appear that most of the fracturing is post-mineral there are short, highly altered, vein segments that occur throughout the fractured rocks. Ruin granite inclusions in the border zone of the diorite intrusion at 10,175 east, 50,150 north indicate at that least some fracturing of the Ruin granite occurred before or during the intrusion of the Cretaceous diorite.

This body of evidence suggests that the fracturing predates the mineralization, that the fracturing event did not cause significant rotation of rock blocks, that the fractured rocks form a "carapace", or fractured shell, on mineralization and/or intrusion related brecciation occurred at the time the diorite was emplaced.

Geochemistry

The geochemical character of the property was determined using stream sediment and rock chip samples. Large samples (≈5 kilograms) of stream sediments were collected using a 5-meter spacing of small samples (≈ 200 grams) across and along dry washes. The stream sediments were fire assayed for Gold and Silver using a two assay-ton charge of the 60 mesh fraction in order to reduce any nugget effects. Arsenic was determined using ICP or AA.

An effort was made to isolate the stream sediment geochemistry of linked basins by computing their "productivities". This method uses drainage area to estimate the metal content of a basin. Using the metal content it is possible to remove the influence of upstream. Other than giving a very rough estimate of the Gold content of the DA hydrothermal system (9 tonnes), efforts to compute basin adjusted analyses were not very successful. Results of calculations forced the adjusted geochem analyses into unrealistic, even negative values. All geochemical results plotted in Figures 5, 6, and 7 are values as obtained from the lab.

As can be expected at any Gold prospect, nugget effects were present. Despite careful sampling, stream sediment samples from the two sites at which replicate samples were taken showed a change from 0.530 to 0.012 ppm (- 98%) and from 0.048 to 0.840 ppm (+1,650 %) respectively. The fact that a few flakes of Gold could be panned from sediments at the first site indicates the anomalies are real but difficult to quantify.

The idea of using Silver and/or Arsenic analyses to statistically estimate Gold content was considered but has not been tried. A comparative glance at figures 5, 6, and 7 suggests little correlation between the elements. In fact a good case could be made for a negative correlation between Gold and Silver in stream sediments since the highest Gold seems to be in a Silver low.

Rock chip samples from the property were taken less systematically than the stream sediment samples by several different geologists at various times. Analyses of the rock chip samples included a wide variety of elements to geochemical standards of accuracy, at best these provide order-of-magnitude estimates of the actual values. The results geochemical analyses for Gold, Silver and Arsenic are tabulated in Appendix A and plotted in figures 5, 6, and 7 respectively. Statistical summaries for all elements are tabulated below (Table 3). A few facts emerge from the table.

First, the Silver/Gold ratio for the median values of the samples is 1.40/0.46 or about 3:1. In monetary terms, given Gold at $390 and Silver at $5.50 per ounce, the ratio is about 216:1. While the quantity of Silver in the rock exceeds that of Gold, in terms of monetary value the DA claims are definitely a Gold prospect.

Second, the median values for rock chip samples for Gold and Silver are roughly four times higher than stream sediments, this could be interpreted to suggest that 75% of the drainage basin is crustal average, diluting the sample, and that 25% of the basin is mineralized. This idea falls apart for Arsenic which is twice as high in stream sediments as in the rock chips; obviously the motion of elements in the erosion cycle is complex.

Third, the relative abundance of various elements allows the geochemical characterization of the system. Au, Ag and Te are present at more than ten times crustal abundance (based on median values). Sb, Bi, and Co are present at four or more times crustal abundance. Cu, Mo, Pb, Zn, Se, and Cd are slightly enriched. As, Hg, Ni, Ba, Tl, and W are present at or below crustal abundance (crustal abundance figures from Rose, Hawkes, and Webb, 1979).

This geochemical signature does not fit that of any epithermal precious metal deposit models which are typically enriched in Gold, Silver, Arsenic, Antimony and Mercury. A closer match can be made for the Gold in flat faults deposit type. Perhaps the closest match is that of a poly-metallic vein, but even poly-metallic veins are high in As and Ba. (Cox and Singer, 1987).

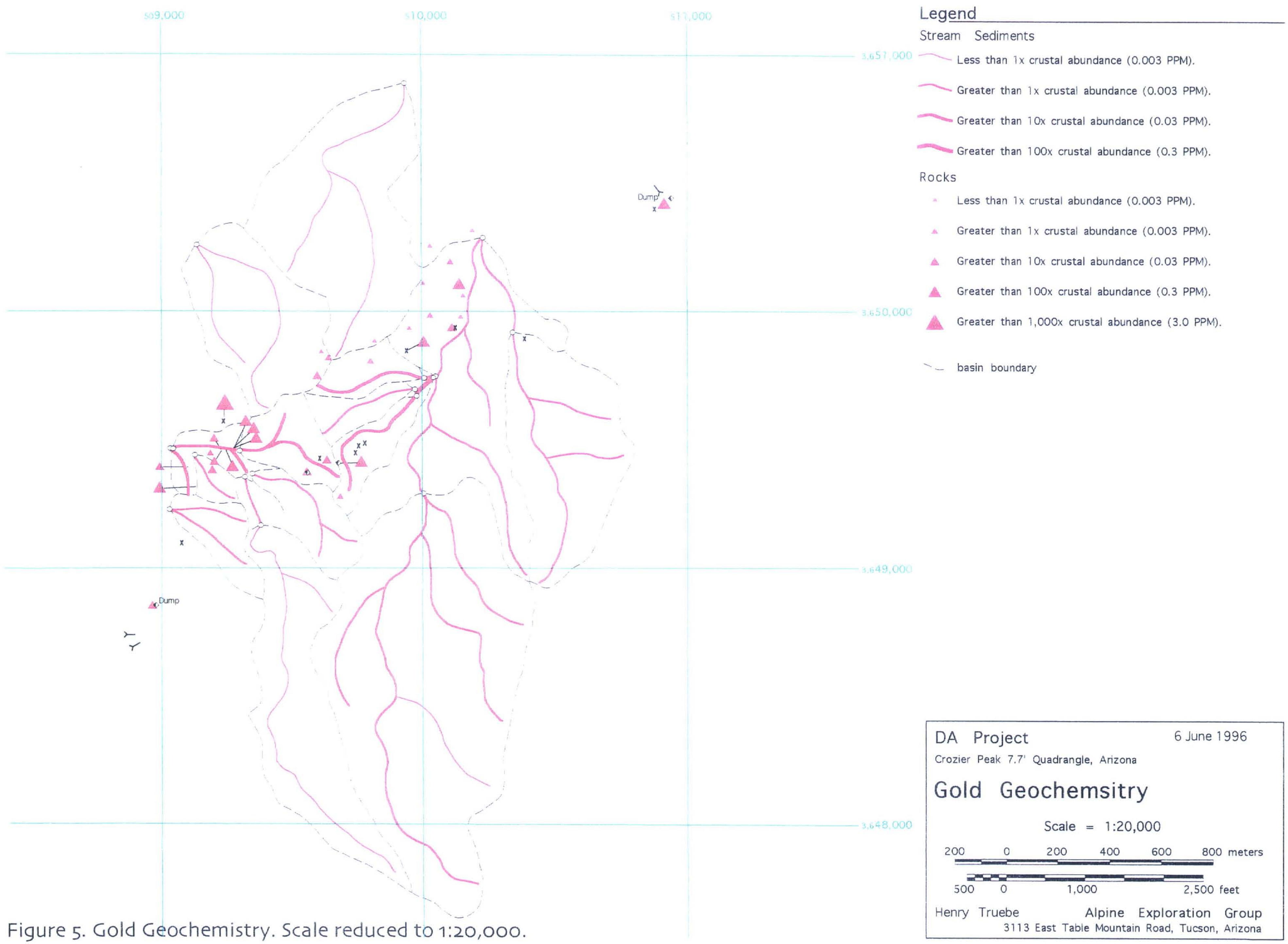

Figure 5. Gold Geochemistry. Scale reduced to 1:20,000.

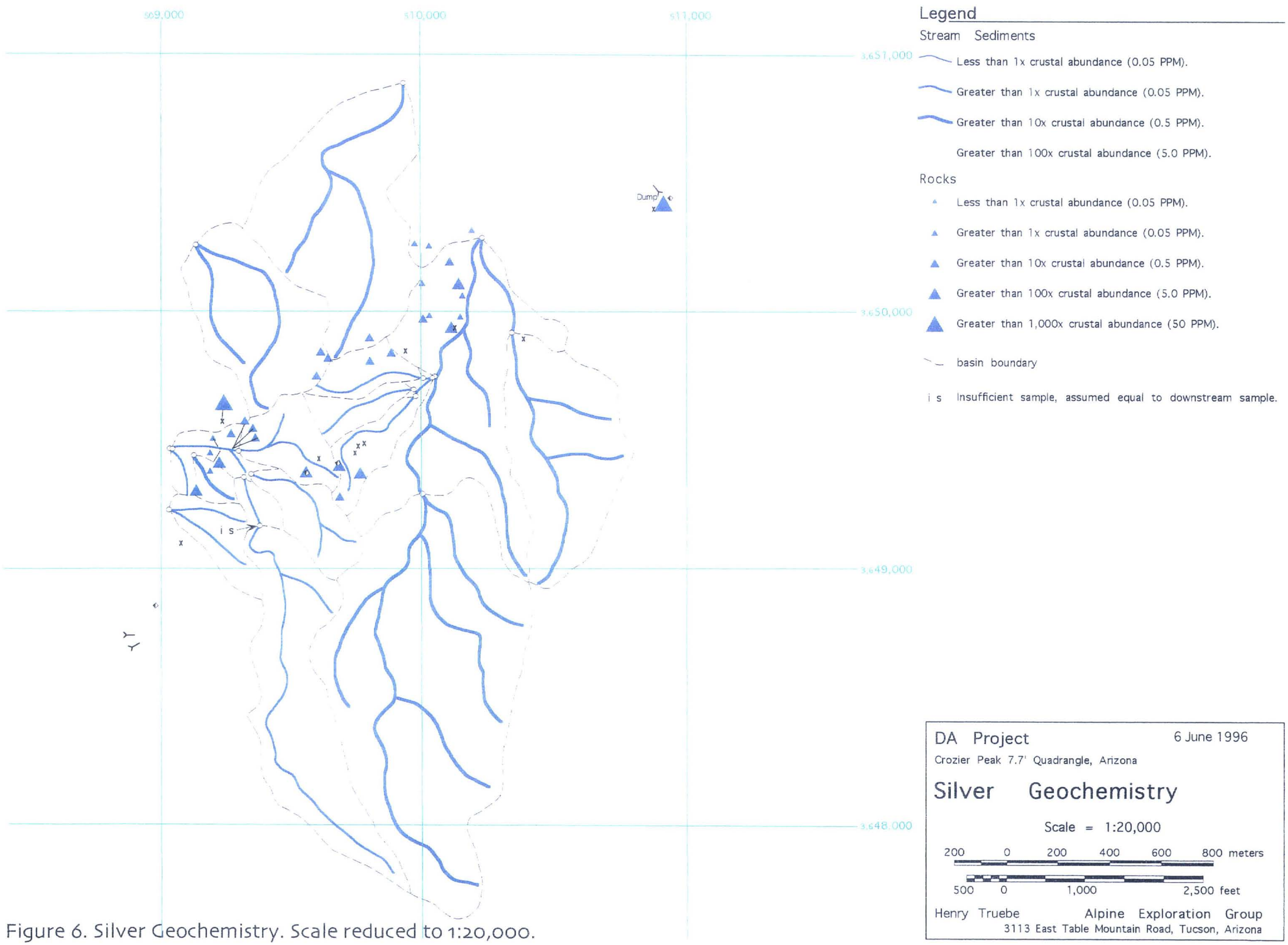

Figure 6. Silver Geochemistry. Scale reduced to 1:20,000.

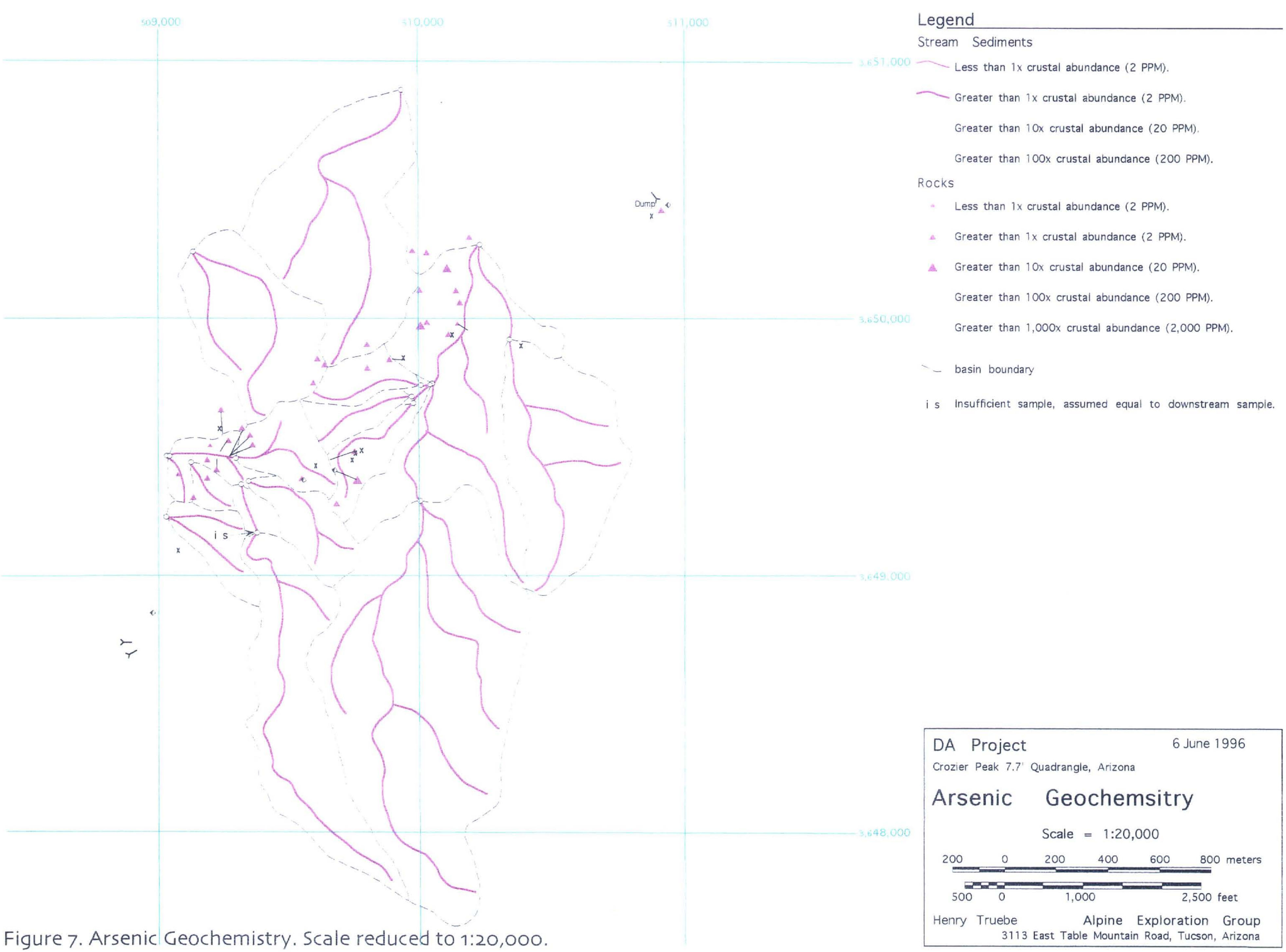

Figure 7. Arsenic Geochemistry. Scale reduced to 1:20,000.

Table 3. Statistical summary of geochemical sampling. SS column heading for stream sediments; RC column heading for rock chip samples for Ag, Au, and As. All other elements are rock chip samples.

	Ag ppm		Au ppm		As ppm	
	SS	RC	SS	RC	SS	RC
Count	17	33	18	33	17	33
Min	0.05	0.05	0.001	0.001	2.4	0.6
Max	2.20	200.00	0.840	5.100	6.0	65.0
Mean	0.60	13.30	0.091	0.553	3.5	7.6
Median	0.30	1.40	0.012	0.046	3.4	2.0
Crustal Ave (ca)	0.05	0.05	0.003	0.003	2.0	2.0
max/ca	44	4,000	840	1,700	3	32
mean/ca	11	266	30	184	2	4
median/ca	6	28	4	15	2	1

	Cu ppm	Mo ppm	Pb ppm	Zn ppm	Hg ppm	Sb ppm
Count	18	18	18	18	13	18
Min	1	1	8	16	20	0.1
Max	17,000	160	600	3,750	4,800	115.0
Mean	1,237	23	123	470	426	9.4
Median	32	4	50	80	50	0.8
Crustal Ave (ca)	12	1.5	18	51	40	0.2
max/ca	1,417	107	33	74	120	575
mean/ca	103	15	7	9	11	47
median/ca	3	3	3	2	1	4

	Bi ppm	Co ppm	Ni ppm	Ba ppm	Te ppm	Se ppm
Count	18	11	11	6	11	11
Min	0.3	1	1	30	0.05	0.05
Max	140.0	28	18	32,000	34.00	2.6
Mean	16.1	8	7	5,745	3.69	0.65
Median	1.1	4	6	500	0.50	0.4
Crustal Ave (ca)	0.3	1	4.5	840	0.002	0.14
max/ca	467	28	4	38	18,889	19
mean/ca	54	8	2	7	2,050	5
median/ca	4	4	1	1	278	3

	Cd ppm	Tl ppm	W ppm
Count	5	5	5
Min	0.1	0.25	1
Max	4.5	0.25	1
Mean	1.1	0.25	1
Median	0.3	0.25	1
Crustal Ave (ca)	0.1	3.5	1.5
max/ca	45	0	1
mean/ca	11	0	1
median/ca	3	0	1

Alteration and mineral deposits

Alteration in and near the claim block was mapped in a reconnaissance fashion (Figure 8). Spatial relationships of alteration and mineral deposits provide an interpretation of mineral zoning and suggest two hydrothermal systems in the map area. One is a southwest-northeast trending epithermal system approximately 1,500 meters long and 500 meters wide on the DA property. A second, parallel system begins at the Copper Kettle prospect and may overlap the DA system at its southern margin. The Gold Berg prospect is tentatively linked to the DA system because it contains significantly more Gold than the Copper Kettle vein.

The reconnaissance mapping suggests a core of silicification in the DA system (outlined on figure 8), surrounded by clay and/or sericite. Sericite seems to be more abundant at the northeastern end of the alteration area, particularly in the highly fractured Precambrian sedimentary rocks of breccia basin. The most distal alteration is Epidote and/or chlorite group minerals in rock and on fractures in the diorite.

A few flakes of Gold were found in panned concentrates from the wash at 9,050 east, 49,200 north. Magnetite, Ilmentite (?), limonite after Pyrite, Barite, and transparent prismatic crystals of Monazite or Zircon made up the heavy mineral fraction. As a general observation, the highest Gold analyses seem to be associated with Quartz veins and stockworks containing finely divided, maroon, specular Hematite. Ruin granite that has been altered to a pale greenish clay/sericite may also be an important host rock characteristic.

Sulfides, mainly Pyrite, are not abundant in the DA system and the dot density shown on Figure 6 may reflect mapping detail as much as actual concentrations in rock. In areas of most intense mineralization cubes of Pyrite less than 1 mm in size are scattered in silica flooded, brecciated veins; at 9,950 east, 49,900 north a 10 cm vein of opalescent Quartz contains tiny grains of Galena.

Iron oxides occur throughout the claim block as earthy, red and specular Hematite, Magnetite and limonite. As mentioned earlier earthy, red Hematite is a weathering product developed from the Precambrian Diabase. It is widespread, filling fractures and coating the fractured Precambrian sedimentary rocks near 10,000 east, 50,300 north. Very finely divided specular Hematite is

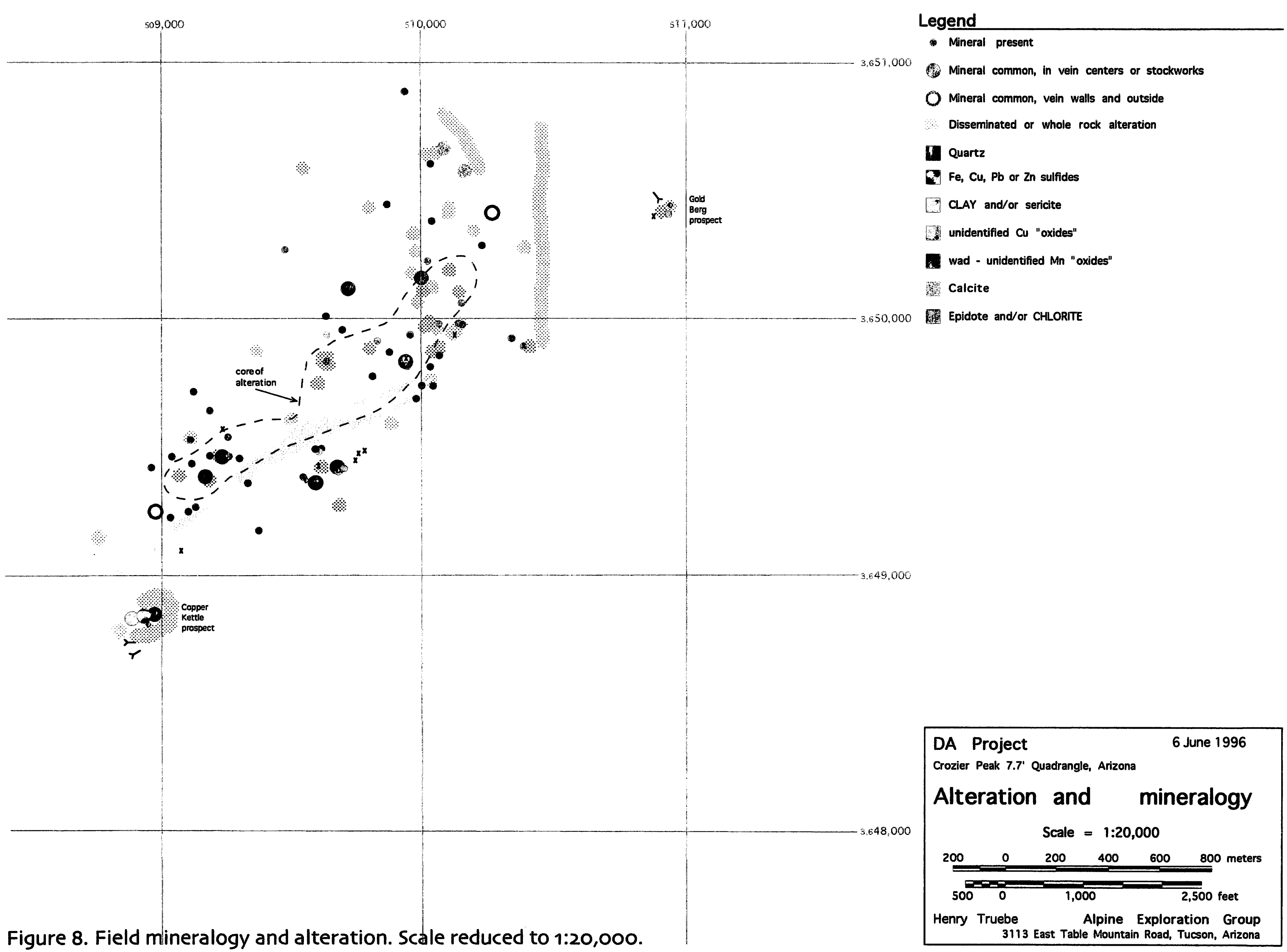

Figure 8. Field mineralogy and alteration. Scale reduced to 1:20,000.

associated with Quartz, particularly in areas of stockwork development. Clots of Magnetite less than 0.5 cm in diameter can be found in Ruin granite outside of the altered area. Where the granite has been bleached by alteration, the Magnetite has been destroyed and the granite is stained by limonite. Small pits filled with limonite in the altered rock suggest Magnetite in the granite was converted to Pyrite by the alteration event.

Green Copper oxide minerals are easily recognized in the field and provide a qualitative estimate of Copper in the rocks. While trace amounts of copper can be found throughout the map area the concentrations are greatest in faults/veins in the diorite. Copper is most abundant at the Copper Kettle prospect, the only place where Chalcopyrite was observed.

Unidentified Manganese "oxide" minerals occur in short veins outside the areas of Quartz veins and silicification. Usually much smaller, the veins can be as long as 15 meters and up to 20 cm wide. I believe their distribution indicates that they are part of a larger hydrothermal system.

Similarly, the distribution and morphology of Quartz indicates zoning in a larger hydrothermal system. At the center of the system Quartz occurs as filling in breccia veins, as stockwork and flooding wall rock. Occasional vugs contain colorless crystals less than 1 mm in size. Peripheral to the system at its northeast and southwest ends (open blue circles on Figure 6) white Quartz occurs as comb crystals up to 2 cm in length. The crystals line the walls of epithermal veins that are sometimes filled with Calcite and Manganese oxides.

Large deposits of Calcite are most distal and have been found only at the northeast end of the DA system. At 10,050 east, 50,750 north a (pipe like ?) body of coarse grained, gray calcite (intrudes ?) the fractured sedimentary rocks. The calcite was deposited after minute, colorless crystals of Quartz. Whether this is metamorphosed sedimentary rock or a hydrothermal deposit can be debated. The occurrence of a few centimeters of crystalline Calcite on/in a fault nearby seems to indicate the Calcite is hydrothermal.

Barite was noted at several prospects in the area and in panned concentrates described above, but it was not systematically mapped. Geochemical analyses show as much as 32,000 ppm (3.2%) Ba but the median value for all rock chip samples is 500 ppm.

The Copper Kettle and Gold Berg prospects are different from the DA system and deserve mention. The Copper Kettle opens a white, Quartz vein that strikes northeast and dips southeast at about 40 degrees. The vein is thin and contains angular Chalcopyrite crystals 1/2 cm in size, smaller crystals of Galena and late, pale pink Barite. One sample of high-grade ore from the vein contained 0.140 ppm Gold. Copper oxide minerals are conspicuous.

An oxidized, high-grade sample from the Gold Berg ("Gold Mountain" in German) prospect contained 2.400 ppm Gold. The mineralized structure here is less well defined but seems to dip steeply to the southeast. Abundant limonite as well as visible Copper oxide minerals can be found in the ore zone.

Land status

One of the benefits of grassroots exploration is that land status is generally uncomplicated by existing claims. The nearest other claims in the vicinity of the DA group cover the Copper Kettle (Plata group) and Gold Berg (Gold Berg group) prospects (Figure 9). These claims were being maintained by Messrs. Himebaugh, Korweniowski, and Ong of Mammoth, Arizona but the current status of the claims is unknown.

The DA property has evidence of at least three generations of prior claims, but all were in-active by the time I began working in the area. Early claims are marked by stone cairns, a later prospector painted his cairns a striking Chrysocolla blue. The third generation of claims was marked by wooden 2 x 2's in clusters of five posts; in the early 1980's discovery monuments could be located at claim corners. The DA claims are marked with 1 1/2 inch (4 cm) diameter, white PVC pipe anchored on short sections of steel, reinforcing rod. Location certificates are inserted in the pipes at the site of the "discovery" monument. The layout of the DA claim group is shown in Figure 9.

Mineral rights in the area are held by the Federal Government and the State of Arizona. Surface administration is done by the BLM in sections 15,21, and 22 while the State of Arizona administers the surface in sections 14,16, and 23. Minerals are administered by the Federal Government in sections 14, 15, 21 and 22 and by the State of Arizona in sections 16 and 23. It should be noted that mineral rights in section 23 may be leased from the State of Arizona but I do not believe much, if any, of the DA mineralization extends into section 23.

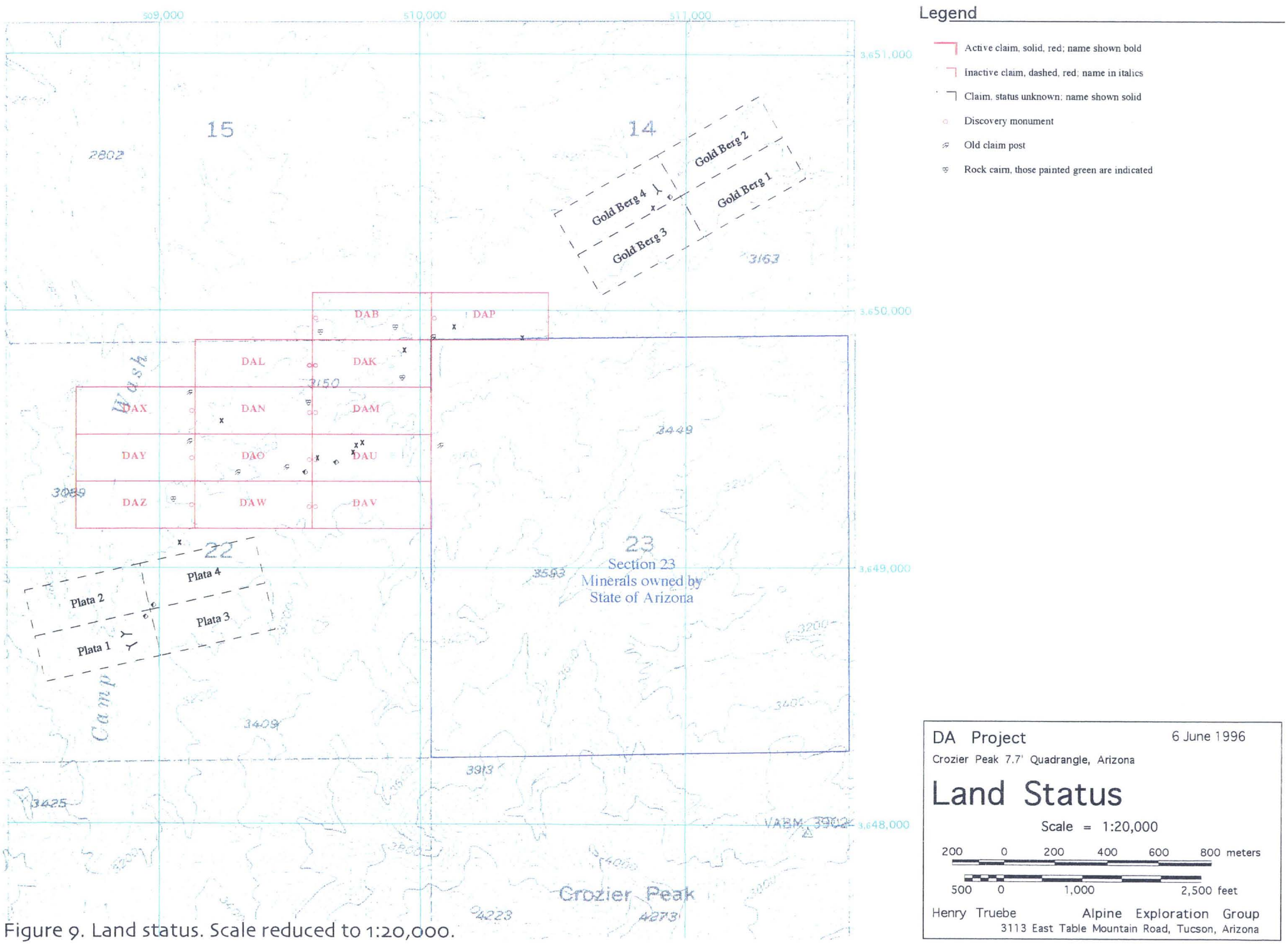

Figure 9. Land status. Scale reduced to 1:20,000.

Economic Geology

For purposes of discussion a target size of 10 tonnes of Gold will be used in the following paragraphs. There is some justification for a target of this magnitude in the results of productivity calculations mentioned above and in the fact that mid-Tertiary deposits can be expected to reach this size or larger.

A 10 million tonne deposit would be needed to contain 10 tonnes of Gold given a minimum grade of 1 gram per tonne (1 ppm or 0.03 Troy ounces per ton). The estimated ore density is 2.72 tonnes/cubic meter (2/3 granite and 1/3 diorite) and this deposit would occupy a volume of 3,700,000 cubic meters. The volume of altered rock on the claim block (estimated to a depth of 100 meters) is 45,000,000 cubic meters - more than 12 times the volume of the hypothetical deposit. There is space for the deposit even at a low grade, but mid-Tertiary Gold deposits commonly grade considerably higher than 1 ppm. If the grade reached 4 ppm the required volume would be quartered.

The task at this time is to test the alteration zone by continued geologic mapping and sampling and to define the best possible drill targets. Only hints of ore-grade mineralization now exist at the surface. Ultimately it will require drilling to find an economically viable Gold deposit on the DA claims.

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Appendix A - Geochemistry

Seq	Type	#	Ag ppm	x crustal 0.05 ppm	Au ppm	x crustal 0.003 ppm	As ppm	x crustal x 2 ppm
1	SS	1850			0.001	0		
2	SS	1851	0.8	16	0.530	177	2.8	1
3	SS	1852	1.0	20	0.001	0	3.4	2
4	SS	1853	0.9	18	0.001	0	4.8	2
5	SS	1854	1.0	20	0.012	4	3.6	2
6	SS	1855	1.0	20	0.010	3	3.0	2
7	SS	1856	2.2	44	0.002	1	3.4	2
8	SS	1857	0.6	12	0.048	16	2.8	1
9		1858			0.046	15		
10		1859			0.870	290		
11		1860	0.0	1	0.001	0	1.0	1
12		1861	0.0	1	0.001	0	1.2	1
13		1862			0.002	1		
14		1863			1.700	567		
15		1866			0.140	47		
16	SS	1867	0.0	1	0.840	280	3.4	2
17	SS	1868	0.0	1	0.055	18	4.2	2
18	SS	1869	0.0	1	0.010	3	3.4	2
19	SS	1870	0.0	1	0.030	10	3.6	2
20	SS	1871	0.0	1	0.008	3	2.6	1
21	SS	1872	0.1	2	0.014	5	3.6	2
22	SS	1873	0.0	1	0.038	13	2.4	1
23	SS	1874	0.3	6	0.002	1	6.0	3
24	SS	1875	1.1	22	0.020	7	3.8	2
25	SS	1876	0.1	2	0.012	4	3.0	2
26		1981	1.4	28	0.045	15	2.2	1
27		1982	1.4	28	0.003	1	3.4	2
28		1983	31.0	620	0.450	150	1.6	1
29		1984	4.4	88	0.003	1	65.0	33
30		1985	0.4	8	0.003	1	2.2	1
31		1986	0.3	6	0.003	1	2.2	1
32		1987	0.4	8	0.080	27	2.0	1
33		1988	0.6	12	0.010	3	2.0	1
34		1989	26.0	520	2.220	740	28.0	14
35		1990	2.0	40	0.002	1	4.0	2
36		1991	0.1	2	0.002	1	2.0	1
37		1992	0.1	2	0.002	1	2.0	1
38		1993	0.1	2	0.002	1	4.0	2
39		1994	0.2	4			5.5	3
40		1995	0.9	18			65.0	33
41		1996	1.1	22			1.4	1
42		1997	8.5	170			5.5	3
43		1998	1.4	28			6.0	3
44		2005	5.0	100	0.110	37	3.0	2
45		2006	1.4	28	0.002	1	10.0	5
46		2007	41.0	820	0.080	27	2.8	1
47		2008	200.0	4,000	5.100	1,700	1.6	1
48		2011	14.0	280	0.690	230	4.6	2
49		2012	2.0	40	0.260	87	0.6	0
50		2013	9.0	180	0.270	90	1.8	1
51		2014	0.4	8	0.036	12	0.6	0
52		2015	74.0	1,480	2.300	767	9.5	5
53		5014	3.4	68	1.400	467	1.2	1
54		5015	3.2	64	1.000	333	1.2	1
55		5016	3.5	70	1.400	467	1.4	1
56		5017	1.6	32	0.025	8	8.0	4

Appendix B - Road log and access

Access to DA claim group via the northern approach

(revised 93/05/18)

Mile

- -.- Drive to Dudleyville (Baptist Church exit onto Dudleyville Road)
- 0.0 Junction of Dudleyville Road and Sam Pedro Road, turn onto San Pedro Road
- 0.7 San Pedro Road crosses San Pedro River
- 0.8 San Pedro Road joins Camino Rio, turn right (northwest)
- 6.1 Road from Winkleman joins Camino Rio from right
- 8.3 Bear right onto river bottom road, main road turns left to quarry for Hayden smelter flux
- 12.1 Gate

- 12.3 Turn left (southeast) into wash to reach east side of claim block, or continue to 12.8 (below) to reach west side of claim
- 13.2 Turn right out of wash follow 4WD road on Tertiary sedimentary rocks
- 15.0 Turn right (south), leave road and drive up wash
- 15.3 Stop, you should be near the common corner of sections 14,15,22, and 23, T5S, R14E = SE DAB, NE DAK, and SW DAP. The un-surveyed section/claim corner is estimated to be on a small rise, 50 feet west of the wash.

(alternatively, to reach west side of claim block)

- 12.8 White roofed house appears in distance, turn left (south) into Indian Camp wash.
- 21.5 Take left fork, road immediately enters a three-way fork (right = road marked by blue and white Asarco sign, straight = ranch road up wash, and left = rough (drill ?) road to the east), turn left
- 21.6 Road enters east-trending wash on west edge of DA claim group, drive as far as you care to and park.

Access to DA claim group via the southern approach, alternative 1
(revised 93/05/18)

Mile

-.- Drive toward Oracle (Fig 1, Truebe (1993a, b)), approach from west

-.- Turn north on Willow Springs Ranch road, turn-off is about 5 miles west of Oracle

-.- Drive north (about 19 miles) to Freeman road (road links the Pinal Pioneer Parkway (US 89) with Dudleyville)

-.- Turn right (east) and drive 1.6 miles to Hayden Ranch Road

0.0 Turn left (north) on Hayden Ranch Road

0.4 Pass ranch on right

1.5 Fork, bear right

2.4 Pass under power lines, power lines now west of road

2.6 Fork, bear left

3.2 Pass under power lines, power lines now east of road

-.- You are now on the Crozier Peak 7.5' quad. Note the quad was mapped in 1949 and the road net is quite out-of-date.

4.2 Turn right onto pipe-line (running east-west) road (presently adjacent to pipe line). (Note: mileages are along the pipe-line road <u>not</u> the pipe-line, the road being the most easily traveled route)

4.3 Pass under power line

4.6 Road joins pipe line from right, stay on pipe-line road

4.7 El Paso Natural Gas gate

4.8 Cross Old Florence Road, stay on pipe-line road

5.2 Cross upper branch of Eagle Wash

5.7 Road from Tony Lopez Ranch joins pipe-line road from left, stay on pipe-line road. You are near the "D)" in (UNDERGROUND) as shown on the topographic quad.

6.1 El Paso Natural Gas gate

6.3 Turn left (northwest) onto a second pipe-line (running north-south) road.

7.1 Road joins pipe line

7.5 Fork, road leaves pipe line?, bear left

7.7 "balanced rocks", Ruin granite outcrops at hilltop on left

8.1 Road joins pipe line

8.5 El Paso gate

8.6 Section corner on left of road (side center ?, S4 | S3, T5S, R14E)

8.8 Road to Eagle Wash on left, stay on pipe-line road.

10.0 El Paso gate
10.2 Turn right, leave pipe-line road and drive in wash
10.4 4WD road joins from right, stay in wash
10.6 Galvanized stock tank
11.5 Adits into hillside associated with Asarco prospect behind the hill from here
11.6 Fence, coral, abandoned truck and bulldozer on right skyline
11.9 Turn hard right, road immediately enters a three-way fork (right = road marked by blue and white Asarco sign, straight = ranch road up wash, and left = rough (drill ?) road to the east), turn left
12.0 Road enters east-trending wash on west edge of DA claim group, drive as far as you care to and park.

Access to DA claim group via the southern approach, alternative 2
(more interesting drive than alternative 1)
(revised 93/05/18)
Mile
-.- Drive toward Oracle (Fig 1, Truebe (1993a, b)), approach from west
-.- Turn north on Willow Springs Ranch road, turn-off is about 5 miles west of Oracle
-.- Drive north (about 19 miles) to Freeman road (road links the Pinal Pioneer Parkway (US 89) with Dudleyville)
-.- Turn right (east) and drive 1.6 miles to Hayden Ranch Road
0.0 Turn left (north) on Hayden Ranch Road
0.4 Pass ranch on right
1.5 Fork, bear right
2.4 Pass under power lines, power lines now west of road
2.6 Fork, bear left
3.2 Pass under power lines, power lines now east of road
-.- You are now on the Crozier Peak 7.5' quad. Note the quad was mapped in 1949 and the road net is quite out-of-date.
4.8 Road joins from the right
4.8 Immediately after, road forks, bear right
4.8? Gate?
5.0 Pass under power line
5.4 Gate
6.4 Enter Eagle wash immediately north of Tony Lopez Ranch, turn left

(north)

7.8 Gate (apparently fence crosses the center of section 33, T5S, R14E

8.5 Prominent tower of Tertiary sedimentary rocks, about 10 m high, in wash

8.6 Turn right (southeast), into narrow canyon in Tertiary sedimentary rocks (trust me!). Follow the main channel of the wash. The road may require some filling in places.

(Road hopelessly washed out 93/04/30, may recover with a few rains)

9.6 Gate across wash (east side of section 33 ?)

9.9 Turn left, out of wash, onto rough 4WD road

10.4 Enter El Paso Natural Gas pipe-line road, follow road to left (Note: mileages are along the pipe-line road, not the pipe-line, the road being the most easily traveled route)

10.7 Enter Indian Camp Wash

11.6 El Paso gate

11.9 Turn right, along wash

12.0 4WD road joins from right, stay in wash

12.3 Galvanized stock tank

13.1 Adits into hillside associated with Asarco prospect behind the hill from here

13.2 Fence, coral, abandoned truck and bulldozer on right skyline

13.6 Turn hard right, road immediately enters a three-way fork (right = road marked by blue and white Asarco sign, straight = ranch road up wash, and left = rough (drill ?) road to the east), turn left

13.7 Road enters east-trending wash on west edge of DA claim group, drive as far as you care to and park.

Alpine Exploration Group

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Mapping and Map Analysis

Summer 1993 Newsletter

Services

The improvement of existing geologic maps using Landsat data and aerial photography remains the main-stay of Alpine Exploration's business. Projects in Chile, Argentina and elsewhere have demonstrated the effectiveness of the mapping and image-processing techniques.

Map analysis (GIS) is being utilized in-house to generate grass-roots targets in areas with no former mineral production. A modest field follow-up program lead to the staking of a block of 20 claims, the DA group, in south-central Arizona.

Properties

Geological and geochemical work on the DA claim block has refined the target to an epithermal precious metal system associated with mid-Tertiary tectonism. Stream sediment samples (< 80 mesh) are as high as (1.301 ppm Au) and gold has been panned from one drainage. A geochemically defensible resource of ten tonnes of gold (300,000 Troy ounces) can be inferred.

Contact

For more information on services or properties, please contact me at your earliest convenience.

Sincerely,

Henry Truebe

Nick. The latest on the claims, access is now easy! Best regards Henry

Alpine Exploration Group

3113 East Table Mountain Road, Tucson, Arizona 85718 USA

Phone (602) 577-2068, Fax (602) 299-0887

Mapping and Map Analysis

Office work

- Aerial photo and satellite image procurement, enhancement and interpretation
- Improvement of any existing maps with remote sensing
- Exploration target generation by map analysis
- Visualization of geologic information

Field work

- Target follow-up and ground truth evaluation
- Conventional and digital, surface or underground geologic mapping
- Claim staking and geochemical sampling

Professional experience

- Fifteen years experience in exploration geology and computer applications
- Strong background in conventional exploration methods
- Language ability - German, Tongan, some Spanish
- Registered professional geologist, Arizona

Academic experience

- EM 1964, and MSc 1968 - Department of Mining Engineering, Colorado School of Mines
- MSc 1982, and PhD 1991 - University of Arizona
- Publication, teaching, and communications skills

Tools and Resources

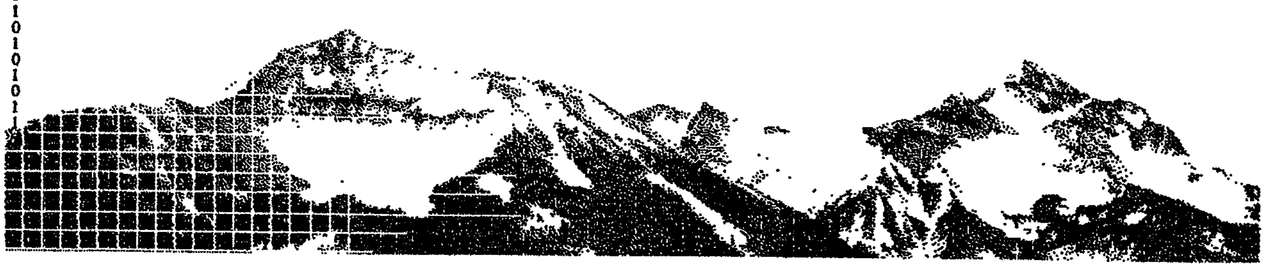
- Complete equipment for geologic mapping and sampling
- Macintosh and MS DOS computer capability, color scanner and printer
- Software for vector or raster mapping, map analysis, and image processing
- Access to the University of Arizona map library, CIMRI, etc.

Costs

- Separate rates for professional work and for technical work
- Proposals on request

Contact

Henry Truebe, PhD, Exploration geologist



Alpine Exploration Group

3113 East Table Mountain Road, Tucson, Arizona 85718 USA

Phone (602) 577-2068, Fax (602) 299-0887 ***Mapping and Map Analysis***

February 5, 1993

Attn: Mr Randy Moore, Exploration Manager
Cambior USA, Inc
230 South Rock Blvd, Suite 23
Reno, Nevada USA 89502-2345

Dear Mr Randy,

On Tuesday I was able to get in to the DA claims via a southern approach, the trip requires 2 to 3 hours from Tucson, depending on road conditions. In the interest of expediting your evaluation of the claims I suggest you or Nick Barr simply visit the area at your convenience. If you prefer that I be present, please give me a call a couple of days before your scheduled visit.

Enclosed with this letter, as a supplement to the report on the claims, are the following:

a) Three road logs describing three routes of access to the claims. I would recommend using either of the southern approaches since the northern approach is probably still closed as a result of Gila river flooding.
b) A supplemental map at a scale of 1:10,000 showing points of interest in the claim group, to be used to guide a field visit.
c) Notes to accompany the supplemental map.
d) A cross section showing known (solid colors) and inferred (stippled) interpretations of the mapped geology, after Krieger, 1974.
e) A cross section showing known (solid colors) and inferred (stippled) interpretations of field observations of alteration and mineralization.

In general, I believe the claims cover the rubble carapace of an intrusion, with brecciation increasing to the east. The rhyodacite plug invades the rubble, but since alteration is not concentric with the plug and I suspect a deeper, coarser-grained intrusion is responsible.

I would appreciate knowing how you feel about the potential of the claim group after you have had a chance to review your field observations.

Best regards,

Henry

Henry Truebe

REC - CAMBIOR USA
FEB 8 1993

Alpine Exploration Group

3113 East Table Mountain Road, Tucson, Arizona 85718 USA

Phone (602) 577-2068, Fax (602) 299-0887

Mapping and Map Analysis

December 9, 1992

Mr Randy Moore, Exploration Manager
Cambior USA, Inc
230 South Rock Blvd, Suite 23
Reno, Nevada USA 89502-2345

Dear Moore,

It was good to hear from you today, and good to hear Cambior is now in the copper business. I have enclosed a copy of my report on the DA claim group, I think you will find it interesting.

I am somewhat informal about a confidentiality agreement, simply to keep this from being bogged down in legal stuff. I trust that you will treat the information in a professional manner, and that Cambior will respect my mineral rights within the claim block and within the area of influence (2,000 feet) of the claims. Please initial below and return a copy of this letter to me if you agree.

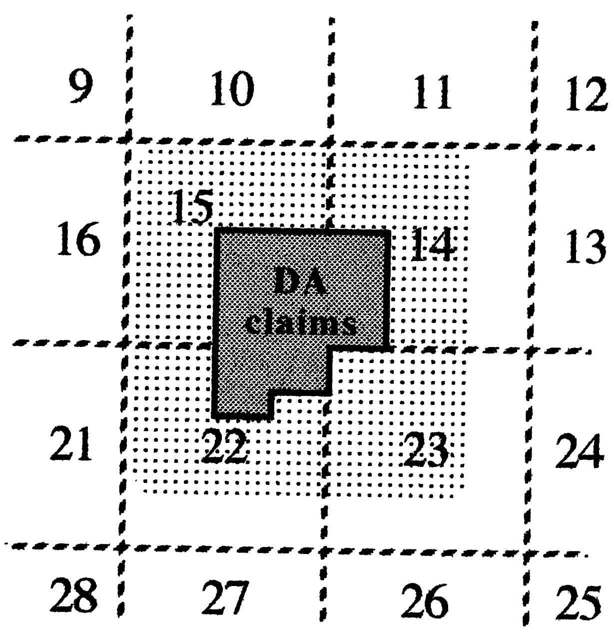
Looking forward to hearing from you.

Sincerely,

Henry Truebe

Agreed,

Randy Moore,
Cambior USA



Township 5 South, Range 14 East, Gila & Salt River Meridians, Arizona

REC - CAMBIOR USA
DEC 1 1 1992

Report on the

DA Claims

Crozier Peak Quadrangle

Pinal County, Arizona

Henry A. Truebe

Alpine Exploration Group
3113 East Table Mountain Road
Tucson, Arizona 85718
602-577-2068

November 1992

Report on the

DA Claims

Crozier Peak Quadrangle
Pinal County, Arizona

Summary

The DA claim group is a block of 20 lode-mining claims located in central Pinal County, Arizona. The claims have the right regional setting, the right geology, and the right price for a porphyry copper target.

The claims were located through a combination of map analysis and field investigations. Map analysis, with the objective of discovering a new porphyry copper district, allowed the selection of areas with geology, geophysics, and geochemistry that closely match the characteristics of known porphyry copper districts of the Tucson 1° x 2° quadrangle. Field investigations of these areas led to the examination of a Laramide-aged, porphyritic, intrusion of intermediate composition that was emplaced at a structural intersection. Rocks in the area are highly fractured over large areas and examples of propylitic, argillic, and phyllic alteration can be found as well as traces of copper mineralization. The claim group is in an area that has several large and world-class porphyry copper deposits, and the prospect is sufficiently far from the population centers of Tucson and Phoenix that there should be little political opposition to a new mine. Mineral rights in the area surrounding the claims are held by the Federal government and are open to staking, or by the State of Arizona and are available for leasing.

The claims are offered for a price of $9,000 per year, escalating 50% annually for 10 years, and a 5% NSR.

Regional Setting

The DA claim group (pronounced "D" "A") is 22 km (13.7 miles) south-southeast of the Ray mine and 16 km (9.9 miles) southwest of the Christmas mine; other important deposits in the vicinity include the Magma mine at Superior, the Banner district, the Inspiration and Globe-Miami mines near Globe, and the San Manual-Kalamazoo deposits (Figure 1). All of these deposits have had a considerable amount of past production and some have world-class reserves.

In order to limit the area of reconnaissance field work and to take advantage of all information available on the region, map analysis was done using techniques described in Truebe (1991). Experience has lead to some refinements in technique and a larger scale geologic map (Peterson et all, 1990) was used as a source of the lithologic data.

The research area was divided into 42,398 500-meter square grid cells. Fifteen different features (Table 1) were determined for each cell. These features were used to statistically weight the cells as to how closely they matched a training set of cells covering the known porphyry copper districts (Keith et al, 1983). The resulting map of weighted cells was sliced into 20 intervals, each representing 5% of the cells. The top 10% of the cells (4,200 cells) contained 88% of the cells in known districts. About 3,400 cells in the top 10% were outside of known districts and represented favorable exploration areas; a total area of about 850 square kilometers.

These 850 square kilometers were considered good areas for the application of conventional exploration techniques but the area of real potential was considerably smaller due to political constraints. Map analysis made it possible to buffer and eliminate areas within 3 km of primary roads, within 5 km of smaller communities, and within 50 km of Tucson, excluding areas that are out of sight (behind the Santa Catalina mountains) of the city. Also eliminated were areas within National Monuments, wilderness areas, military reservations, and federal, state, and bureau of reclamation withdrawals.

● Important porphyry copper deposit.

Figure 1. Location of the DA Claim group in south central Arizona.

Figure 2. General view of DA claims from the east. Laramide rhyodacite plug on right side of photo.

Areas with the maximum amount of federally owned minerals were given preference since it was felt, at the time, that federal minerals would be the least-expensive acquisition, but recently imposed, annual rentals on mining claims now make state leases a competitive alternative. Known mining districts were also eliminated as reconnaissance areas in order to avoid difficult land situations and because a primary objective of this work was to discover a new district.

Table 1. Variables used in map analysis of the east half of the Tucson 1° x 2° quadrangle, Arizona.

Variable	Comments
Geology	
LITH	Lithologic units (38) shown on Peterson et al, 1990
Ti SP	Distance from mapped Tertiary intrusive rocks
Tg SP	Distance from mapped Tertiary granitoid rocks
TKgm SP	Distance from mapped Laramide peraluminous granites
TKg SP	Distance from mapped Laramide granitoid rocks
Geophysics	
GRAV SL	Isostatic gravity sliced into 11 discrete intervals
MAGN SL	Aeromagnetism sliced into 15 discrete intervals
GR MA SUM SL	Scaled sum of gravity and magnetics sliced into 10 discrete intervals
GR MA DIF SL	Scaled difference of gravity and magnetics sliced into 10 discrete intervals
Geochemistry	
COPP WTD	Distance from known copper deposits
GoSi WTD	Distance from known gold or silver deposits
LeZi WTD	Distance from known lead or zinc deposits
MOLY WTD	Distance from known molybdenum deposits
TUNG WTD	Distance from known tungsten deposits
SULF WTD	Distance from known sulfide mineral deposits

After considering all the constraints several areas in the northwest part of the east half of the Tucson quadrangle were considered most favorable. Exploration was begun there by visiting areas that were mapped as having quartz-sericite or hematite bodies, areas of brecciation, and Laramide-aged intrusions. Examination of one area in the Crozier Peak 7.5' quadrangle (location D) revealed areas of widespread iron oxides and extensive fracturing near a Laramide intrusion (Figure 2). As a result the DA block of claims was staked (Figure 3).

Not considered in the map analysis, but certainly significant should the mine become reality, is the infrastructure of the San Pedro river valley. The claims are within 5 km of the Southern Pacific railroad tracks, the Gila river, and Arizona highway 177. A high-voltage transmission line is within 1 km of the claims. Asarco has a smelter at Hayden, 12 km east of the DA claims.

Geology

The DA claims cover an area in which a Laramide aged, intermediate-composition porphyritic intrusion was emplaced at the intersection of northeast trending left-lateral faulting and northwest trending normal faulting (Figure 4). Regionally, the Tortilla mountains, that extend south-southeast to north-northwest, are truncated here along a northeast trending line. Steeply east-dipping beds of pre-Cambrian sedimentary rocks are offset about 10 km in a left-lateral sense along the line, but Krieger (1974) does not show a single, major fault to account for the offset. There is a swarm of northeast trending Laramide dikes, along which some motion could have occurred, and there are a number of northeast trending faults mapped within the claim block. The northeast trending faults are intersected by north-northwest trending faults in the east side of the claim block; rock fragments in excess of 10 cm are seldom seen near the intersection. In general the fabric of fracturing in the west side of the block has a northeast trend and the fabric of the east side of the claims has a north-northwest trend.

The most widespread rock type within the claim block is a medium grained, Cretaceous diorite (Figures 4 and 5) mapped as small stocks trending irregularly east and northeast (Krieger, 1974). The diorite intrudes the middle Proterozoic, Ruin granite; a coarse grained rock with conspicuous K-feldspar megacrysts. The diorite, in turn, is intruded by a Laramide, rhyodacite porphyry plug. Small outcrops of pre-Cambrian sedimentary rocks are found near the plug, and in the vicinity of the intrusion the rocks are commonly brecciated, stained with hematite, and associated with what appear to be pebble dikes (Figure 1). Small intrusions of pre-Cambrian diabase intrude the sedimentary rocks, as well as the Ruin Granite in the vicinity of the plug (Krieger, 1974).

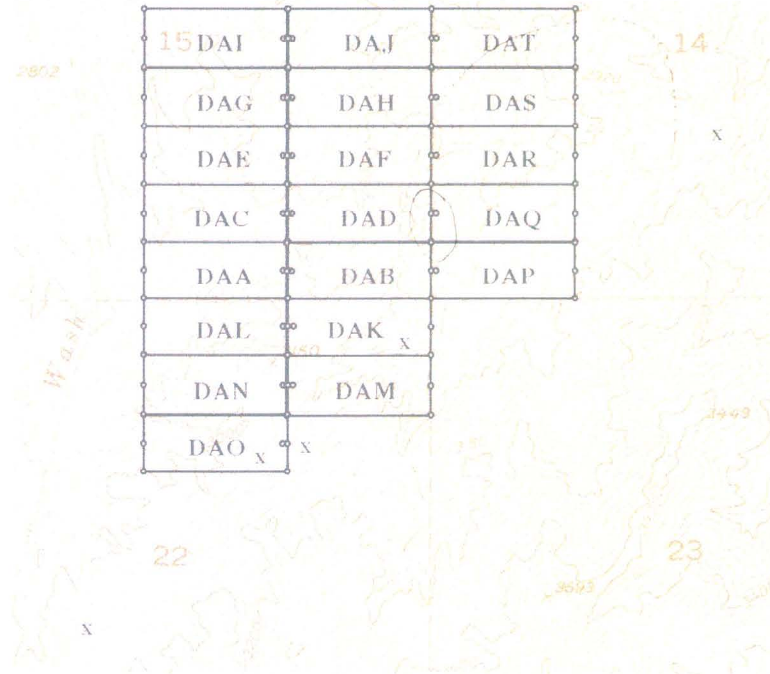


Figure 3. Configuration of the DA claim group, on base map from Crozier Peak 7.5' quadrangle, Arizona. Scale about 1:24,000. x = prospect mentioned in text.

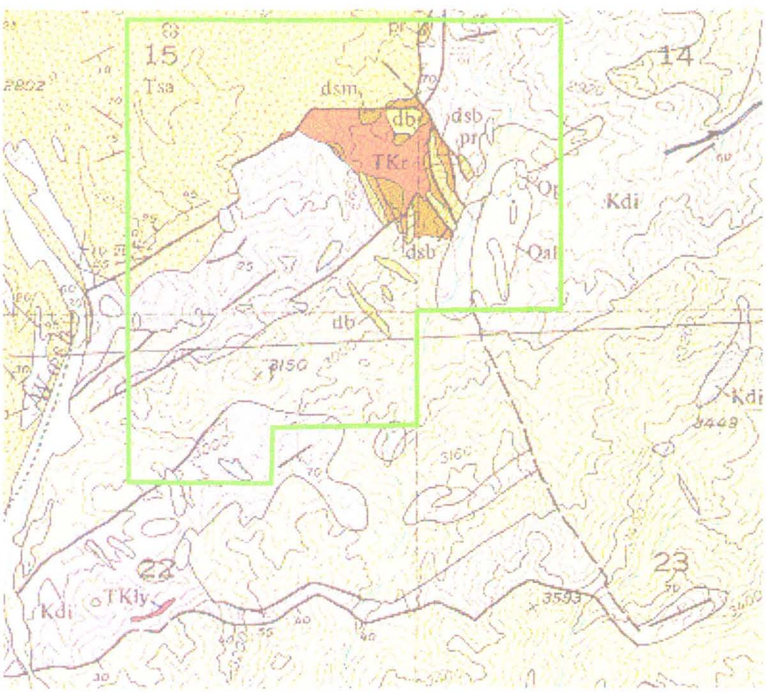
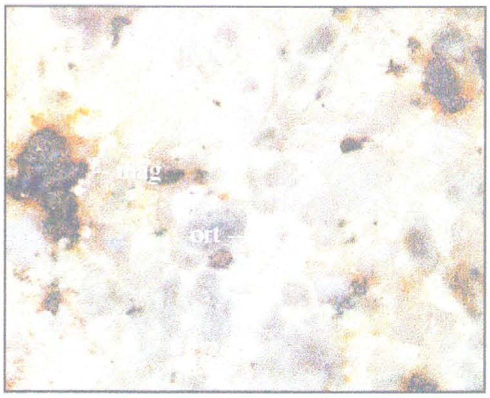


Figure 4. Geologic map of the vicinity of the DA claim group, from Krieger, 1974, scale about 1:24,000. Qal = Alluvium; Qp = Sand and gravel on pediment; San Manuel Formation: Tsa = non-granitic alluvial deposits; TKly = younger rhyodacite porphyry; TKr = rhyodacite porphyry; Kdi = diorite; db = diabase; Dripping Spring Quartzite: dsm = Arkose member, dsb = Barnes Conglomerate member; Pioneer Formation: pr = Upper Member; and ru = Ruin granite.

Most of the rocks in the claim block have been hydrothermally altered. Alteration in the diorite is manifested by the presence of epidote along fractures. Large areas of the Ruin granite are fractured, argillically altered, and display fracture-controlled limonite staining. Phyllic alteration occurs in small areas along northeast trending faults or fractures in the granite. Areas of red hematite staining occur in the eastern side of the claim block. Rugged outcrops of rocks that would otherwise erode smoothly suggest patchy silicification in the vicinity of the rhyodacite plug.

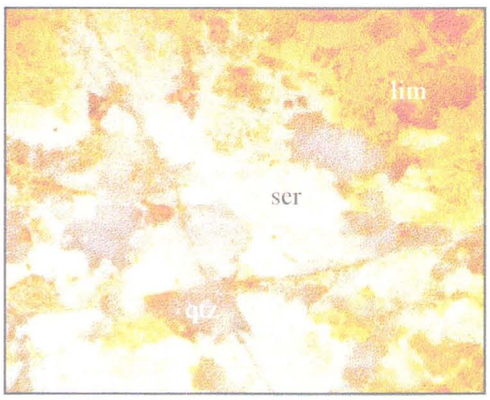
Copper mineralization associated with pyrite in a easterly trending fault is evident at a prospect, held by the Copper Kettle Mining Company (probably for Asarco), about 500 meters (1,640 feet) west-southwest of the claim block. A prospect 450 meters (1,470 feet) east of the claim block opens a northeast trending vein of manganese oxides and hematite; the claims are held by Messrs. Himebaugh, Korzeniowski, and Ong.

Evidence of mineralization within the claim block is limited. Northeast trending manganese oxide and hematite veins occur in the diorite near the common boundary of the DAB and DAD claims and elsewhere. Copper stains are evident at a prospect pit just off the east end of the DAO claim, at the pit on the south edge of the DAP claim, and probably elsewhere in the diorite. Coarse grained calcite, with minor manganese oxides, is found along the north-northwest trending faults at the east side of the claims. A 20 meter (65 foot) deep shaft on the DAO claim opens a quartz vein and the vein projects east to the pit mentioned above. The best evidence of mineralization can be found on the DAK claim where a prospect pit opens a body of breccia with a matrix of sericite. The breccia surrounds a northeast trending, northwest dipping, quartz vein with conspicuous hematite, and rare galena and malachite. Evidence of the vein can also be found in a wash about 50 meters (165 feet) south of the prospect.



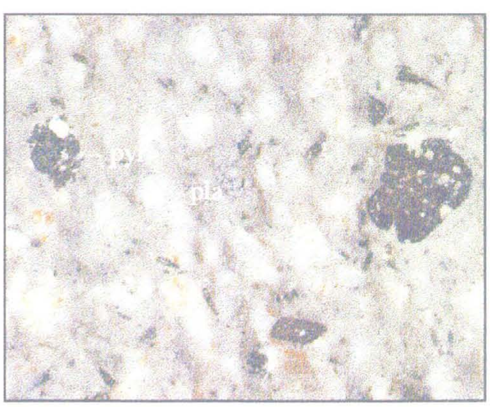
Sample 1809, 2x, Unaltered Ruin Granite (ru), DAM claim

Sample 1811, 2x, Pervasively altered Ruin Granite (ru), DAB claim

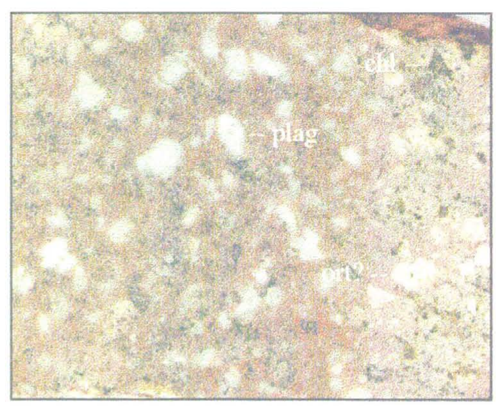


Sample 1815, 3x, Altered Ruin Granite (ru) from NE-trending zone, DAK claim

Sample 1813, 2x, Slightly altered diorite (Kdi), DAS claim



Sample 1812, 2x, Relatively unaltered rhyodacite in satellite intrusion, DAQ claim



Sample 1819, 2x, More altered rhyodacite from near center of intrusion, DAF claim

Figure 5. Natural color sections of important rock types, DA claim group. bpc = biotite ± "pyrobole" ± "chlorite", chl = "chlorite", lim = "limonite", mag = magnetite, ort = orthoclase, pla = plagioclase, pyr = pyroxene, qtz = quartz, qso = qtz ± ser ± ort, ser = "sericite".

Financial and Other Considerations

The claims are offered for an initial, annual cost of $9,000 escalating 50% annually for 10 years then fixed until production commences, and a 5% NSR after the start of production. Among the tasks I that believe would define the potential of the claims are a geochemical soil survey (Zn, Cu, and Mo), photo-geologic mapping, and drilling. I am offering these claims for acquisition since I cannot afford to do any more work on them without financial assistance.

The initial cost of the claims represents what I will have invested in them: 2 1/2 months worth of time (at $2,500 per month), $2,400 worth of recording fees and rent, and about $350 worth of travel expenses and supplies. I have not recorded the claims yet with the Bureau of Land Management for two reasons: 1) I prefer to maintain some secrecy about location of the claim group. and 2) I am attempting to delay a major expenditure as long as possible. I know there is considerable risk in exploring the claims and I am willing to share the risk insofar as no return on investment for the company will result in no NSR for me.

Other considerations may be included in the final agreement. First, I would like half of the above compensation for any property acquired within a mile of the claim block. Second, the company will assume responsibility for maintaining the claims, including assessment work and/or rent in lieu of assessment. Third, I would like to retain access to any information acquired about the claims. And, finally, I would like to tie monetary considerations to metal prices, again sharing risks and rewards with the company.

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Keith, SB, Gest, DE, DeWitt, E, Toll, NW, and Everson, BA, 1983, **Metallic mineral districts and production in Arizona**; Arizona Bureau of Geology and Mineral Technology Bull 194, 58 p.

Krieger, MH, 1974, **Crozier Peak Quadrangle, Arizona**; U.S. Geological Survey, Geologic Quadrangle Map GQ-1107, 1:24,000, with text, 11p.

Peterson (ed), JA, 1990, **Preliminary mineral resource assessment of the Tucson and Nogales 1° x 2° quadrangles, Arizona**; USGS Open-File Report 90-276, 129 p

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Supplement to

Report on the

DA Claims

Crozier Peak Quadrangle
Pinal County, Arizona

Henry A. Truebe

Alpine Exploration Group
3113 East Table Mountain Road
Tucson, Arizona 85718
602-577-2068

February 1993

Road Log

Access to DA claim group via the southern approach, alternative 1

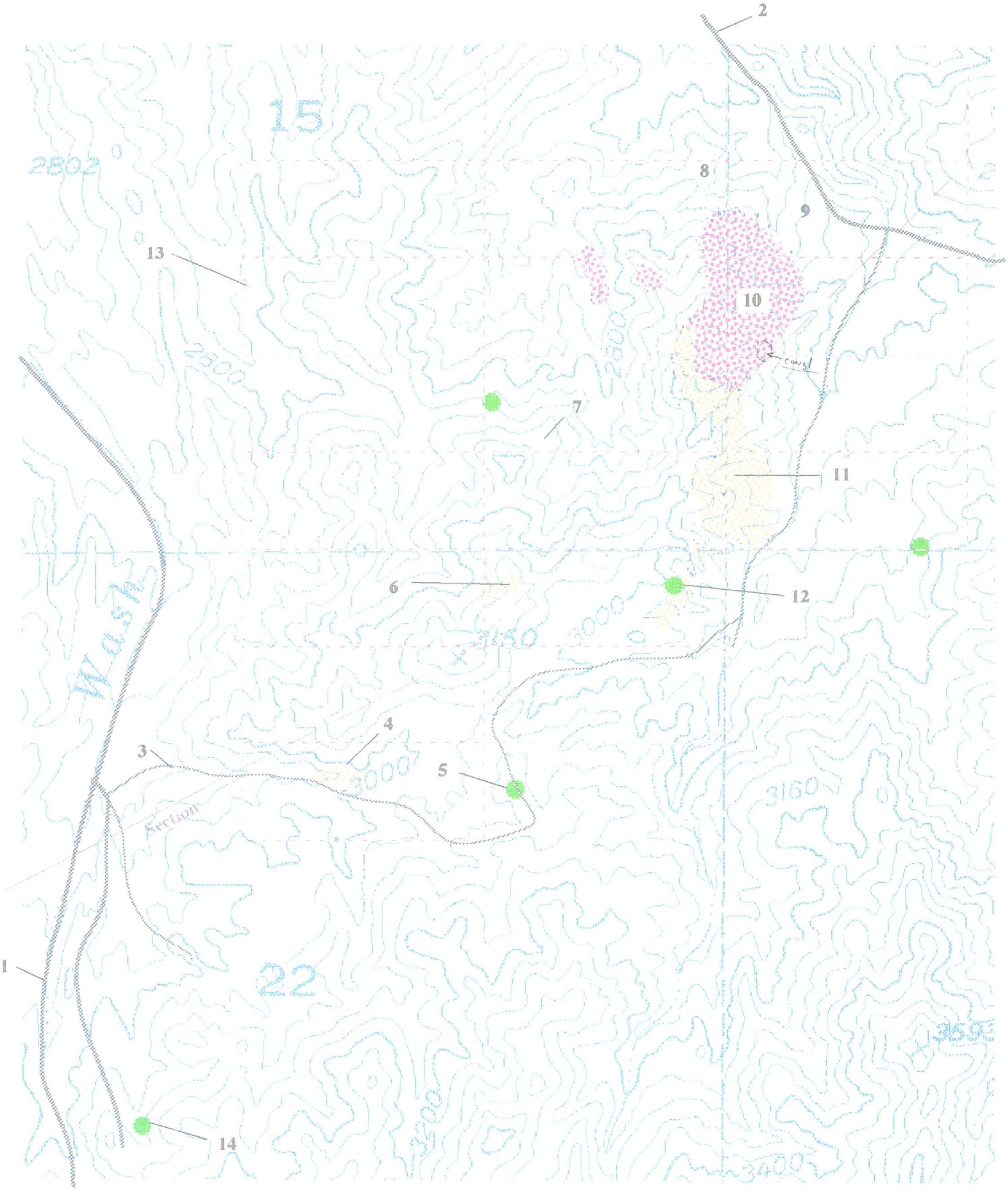
Mile	
-.-	Drive toward Oracle (Fig 1, Report on the DA claims), approach from west
-.-	Turn north on Willow Springs Ranch road, turn-off is about 5 miles west of Oracle
-.-	Drive north (about 19 miles) to Freeman road (road links the Pinal Pioneer Parkway (US 89) with Dudleyville)
-.-	Turn right (east) and drive 1.6 miles to Haydon Ranch Road
0.0	Turn left (north) on Haydon Ranch Road
0.4	Pass ranch on right
1.5	Fork, bear right
2.4	Pass under power lines, power lines now west of road
2.6	Fork, bear left
3.2	Pass under power lines, power lines now east of road
-.-	You are now on the **Crozier Peak 7.5' quad**. Note the quad was mapped in 1949 and the road net is quite out-of-date.
4.8	Road joins from the right
4.8	Immediately after, road forks, bear right
4.8?	Gate?
5.0	Pass under power line
5.4	Gate
6.4	Enter Eagle wash immediately north of Tony Lopez Ranch, turn left (north)
7.8	Gate (apparently fence crosses the center of section 33, T5S, R14E
8.5	Prominent tower of Tertiary sediments, about 10 m high, in wash
8.6	Turn right (southeast), into narrow canyon in Tertiary sediments (trust me!). Follow the main channel of the wash. The road may require some filling in places.
9.6	Gate across wash (east side of section 33 ?)
9.9	Turn left, out of wash, onto rough 4WD road (orange flagging marks road)
10.4	Enter El Paso Natural Gas pipe-line road (orange flagging at junction), follow road to left (Note: mileages are along the pipe-line road, not the pipe-line, the road being the most easily traveled route)
10.7	Enter Indian Camp Wash
11.6	El Paso gate
11.9	Turn right, along wash
12.0	4WD road joins from right, stay in wash
12.3	Galvanized stock tank
13.1	Adits into hillside associated with Asarco prospect behind the hill from here
13.2	Fence, coral, abandoned truck and bulldozer on right skyline
13.6	Turn hard right, road immediately enters a three-way fork (right = road marked by blue and white Asarco sign, straight = ranch road up wash, and left = rough (drill ?) road to the east), turn left
13.7	Road enters east-trending wash on west edge of DA claim group, drive as far as you care to and park.

Access to DA claim group via the southern approach, alternative 2

	Mile	
	-.-	Drive toward Oracle (Fig 1, Report on the DA claims), approach from west
	-.-	Turn north on Willow Springs Ranch road, turn-off is about 5 miles west of Oracle C 22790
	-.-	Drive north (about 19 miles) to Freeman road (road links the Pinal Pioneer Parkway (US 89) with Dudleyville) C 22810.8
	-.-	Turn right (east) and drive 1.6 miles to Haydon Ranch Road
	0.0	Turn left (north) on Haydon Ranch Road 22812.4
	0.4	Pass ranch on right
	1.5	Fork, bear right
15.3	2.4	Pass under power lines, power lines now west of road
	2.6	Fork, bear left
15.7	3.2	Pass under power lines, power lines now east of road
	-.-	You are now on the **Crozier Peak 7.5' quad**. Note the quad was mapped in 1949 and the road net is quite out-of-date.
16.7	4.2	Turn right onto pipe-line (running east-west) road (presently adjacent to pipe line). (Note: mileages are along the pipe-line road, not the pipe-line, the road being the most easily traveled route)
	4.3	Pass under power line
	4.6	Road joins pipe line from right, stay on pipe-line road
17.25	4.7	El Paso Natural Gas gate
17.4	4.8	Cross Old Florence Road, stay on pipe-line road
	5.2	Cross upper branch of Eagle Wash
	5.7	Road from Tony Lopez Ranch joins pipe-line road from left, stay on pipe-line road. You are near the "D)" in (UNDERGROUND) as shown on the topographic quad.
18.5	6.1	El Paso Natural Gas gate
18.75	6.3	Turn left (northwest) onto a second pipe-line (running north-south) road. Turn-off is marked with orange flagging.
19.6	7.1	Road joins pipe line
	7.5	Fork, road leaves pipe line?, bear left
	7.7	"balanced rocks", Ruin granite outcrops at hilltop on left
20.53	8.1	Road joins pipe line
21.0	8.5	El Paso gate
	8.6	Section corner on right of road (side center ?, S4 I S3, T5S, R14E)
21.3	8.8	Road to Eagle Wash on left (orange flagging at junction), stay on pipe-line road.
22.4	10.0	El Paso gate
22.55	10.2	Turn right, leave pipe-line road and drive in wash
	10.4	4WD road joins from right, stay in wash
	10.6	Galvanized stock tank
	11.5	Adits into hillside associated with Asarco prospect behind the hill from here
	11.6	Fence, coral, abandoned truck and bulldozer on right skyline
	11.9	Turn hard right, road immediately enters a three-way fork (right = road marked by blue and white Asarco sign, straight = ranch road up wash, and left = rough (drill ?) road to the east), turn left
	12.0	Road enters east-trending wash on west edge of DA claim group, drive as far as you care to and park.

Access to DA claim group via the northern approach

Mile	
-.-	Drive to Winkleman (Fig 1, Report on the DA claims)
0.0	Winkleman, junction highway 77 and 177 drive northwest toward Kearny on 177
0.1	Turn left on Griffin Ave
0.2	Turn right on Quarelli Street, past Winkleman golf course
1.0	Just over rise, turn left, Asarco tailings on right
1.3	Turn right at power sub-station
1.5	Cross one-lane bridge over Gila river
1.6	Bear right, under tailing pipe trestle, continue northwest along best road
4.3	Bear right onto river bottom road, main road turns left to smelter flux quarry
8.1	Gate
8.2	Turn left (southeast) into wash
9.1	Turn right out of wash follow 4WD road on Tertiary sediments
10.9	Turn right (south), leave road and drive up wash
11.2	Stop, you should be near the common corner of sections 14,15,22, and 23, T5S, R14E = SE DAB, NE DAK, and SW DAP. The section/claim corner is on a small rise, 50 feet west of the wash.



Supplemental map of DA Claims, showing points of interest

Henry Truebe
93/02/04
Scale 1:10,000

Notes to accompany Supplemental Map

Point

1 Access road via the southern approach, alternatives 1 and 2. Width of lines indicates the quality of roads and trails.

2 Access road via the northern approach.

conspicuous gossany outcrop of silicif Rhyolite with oxide clots

3 Park here for the southern approach, (drill ?) road continues up wash but is impassible.

4 Twenty meter wide shear ±alteration zone. in Ruin granite strong sericite/clay some silicif.

5 Copper oxides visible in gossan at prospect pit. Pit is on the east end of 100 meter long quartz vein. Areas of anomalous copper that have been seen are shown with green dots. bleached silicif struct in diabase?

6 Quartz - sericite altered Ruin granite, sample 1815 from here. NE trending (alt zones)

7 Manganese oxide - calcite vein in diorite.

8 One meter wide calcite vein, extending NW - SE.

9 Coarse grained calcite on fault surface. (black calcite)

10 Area of extensive brecciation, mostly pre-Cambrian sedimentary rocks, but includes some Laramide rhyodacite that has been brecciated and shows phyllic alteration. (lots of conglomerate) shattered metaseds some ang frag (structural) Bx

11 Area of most intense alteration noted to date on property. Unusual breccias, rhyodacite, granite altered and complex in detail.

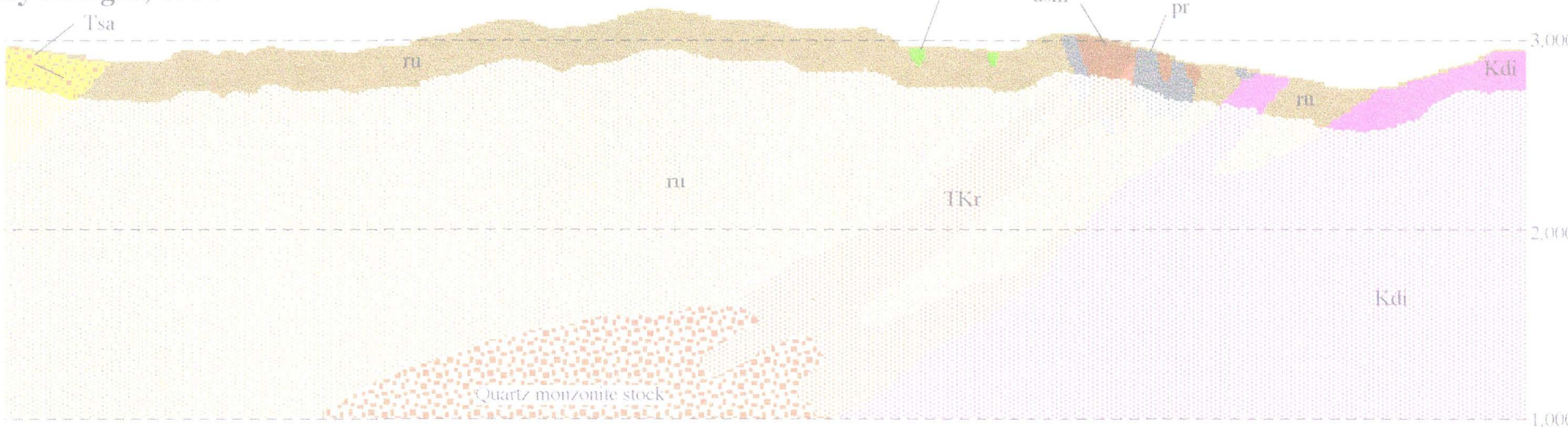
12 Northeast trending quartz vein in sericite and breccia. Traces of copper oxide minerals and galena.

13 Outline of DA claims.

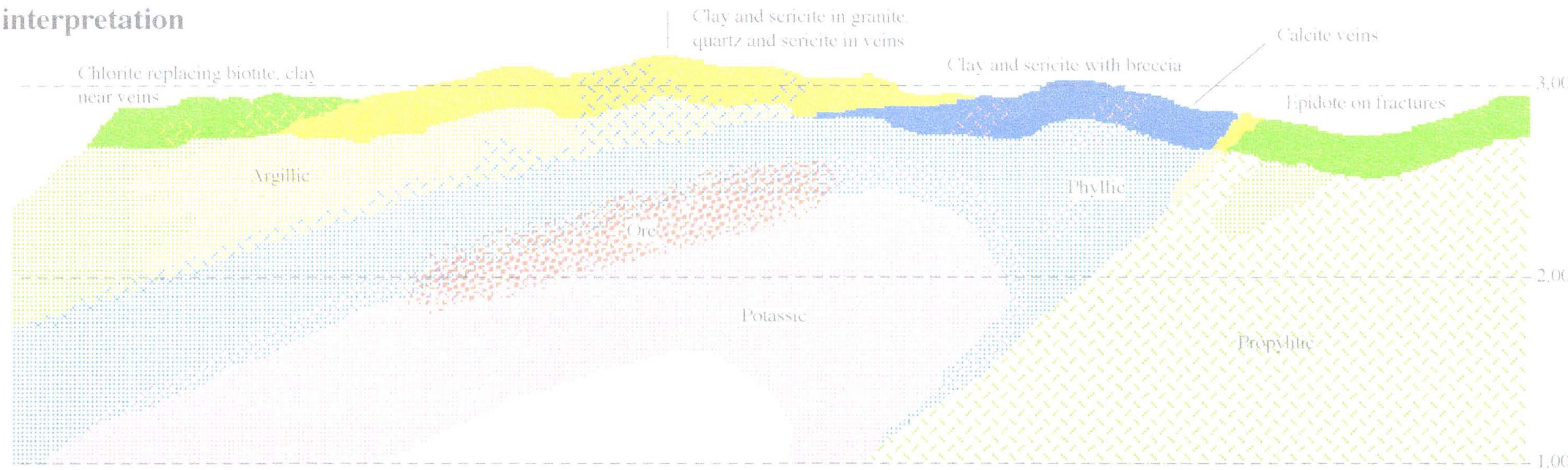
14 Prospect on northeast-trending vein, containing pyrite and chalcopyrite.

- widespread evid of supergene in Ruin granite & also diorite
- bleached / oxid linear NE trending zones cutting both lithologies – common to see scatt. qtz veining & black calcite
- No evid of pebble dikes ?

Geologic interpretation from data by Krieger, 1974



Field observations of alteration and interpretation



Geologic Sections, scale 1:10,000, see supplemental map for line of section

Note: Field observations and published map data shown in solid, inferrences are shown stippled.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

UNITED STATES
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

CROZIER PEAK QUADRANGLE
ARIZONA—PINAL CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

Mapped, edited, and published by the Geological Survey

Control by USGS, and USC&GS

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1947. Field check 1949

Polyconic projection. 1927 North American datum
10,000-foot grid based on Arizona coordinate system, central zone

Unchecked elevations are shown in brown

Dashed land lines indicate approximate location

All mining features on this map have been abandoned

1000-meter Universal Transverse Mercator grid ticks, zone 12, shown in blue

UTM GRID AND 1949 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ARIZONA
QUADRANGLE LOCATION

ROAD CLASSIFICATION

HARD-SURFACE ALL WEATHER ROADS — DRY WEATHER ROADS
Heavy-duty — 4 LANE | 6 LANE — Improved dirt
Medium-duty — 4 LANE | 6 LANE — Unimproved dirt
Loose-surface, graded, or narrow hard-surface
U. S. Route — State Route

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1978

CROZIER PEAK, ARIZ.
N3252.5—W11052.5/7.5

1949

AMS 3849 IV NW—SERIES V898

Alpine Exploration Group
3113 East Table Mountain Road, Tucson, Arizona 85718 USA
Phone (602) 577-2068, Fax (602) 299-0887 ***Mapping and Map Analysis***

October 28, 1993

Attn: Mr Nick Baar, Geologist
Cambior USA, Inc
230 South Rock Blvd, Suite 23
Reno, Nevada 89502-2345 USA

Dear Nick;

I assume that by now you have had a chance to get to the DA claims, I would like to know what you have found. Please send me the results of any sampling and analyses that you have done on the property.

Since I last spoke to you I have completed two phases of stream sediment sampling. The first round defined an area of high gold values and I have re-configured the claim block accordingly. A brief field check of the anomalous area shows a large, east-west trending zone of brecciation and silicification with several old prospect pits. I have not had a chance to plot the results of the second phase of stream sediments, or to update the report on the property.

I trust you are all busy, my work has certainly picked up in the last couple of months.

Best regards,

Henry Truebe

cc: Randy Moore

and copper production is reported from approximately 600 feet of workings. Mineralization appears poddy and restricted to vein structures. No further work is recommended.

Mr. Amodo is well-acquainted with claimholders in the Globe area and has submitted several additional properties to Cambior. It is anticipated that these properties will be visited in early April. Of particular interest at this time is a volcanic breccia hosted copper oxide occurrence close to Oracle, Arizona.

DA Claims, Pinal County: Limited initial evaluation of this property has defined a broad color anomaly hosted by PreCambrian granites and Laramide age diorite and rhyolite porphyry. Elevated iron oxides appear related to widely occurring, disseminated specular hematite. Copper mineralization has not yet been located along several linear trends marked by strong clay-sericite alteration and weak silicification. This area is complexly dissected by intersecting(?) structures. Additional work is anticipated in April.

Nicholas Barr
Geologist

NB:lat

* Access Problems due to flooding - Poor roads
No follow up work

(Crozier Peak 7.5)

3/22/93

DA claims - Henry Truebe

misc: abund Bx (post dates min)

* Center of min on west side of DA9 claim ← silica flooding, healed Bx / tourmaline Bx

- check in wash in SW corner of claim
- check common boundary Sect 14,15 (South 1/2)
- SW1/4 Sect 14 best min in Main Wash

* ⇒ best access come in Indian Camp Wash from the South