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PRINTED: 06/27/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: SOL

ALTERNATE NAMES:
SOL DOS

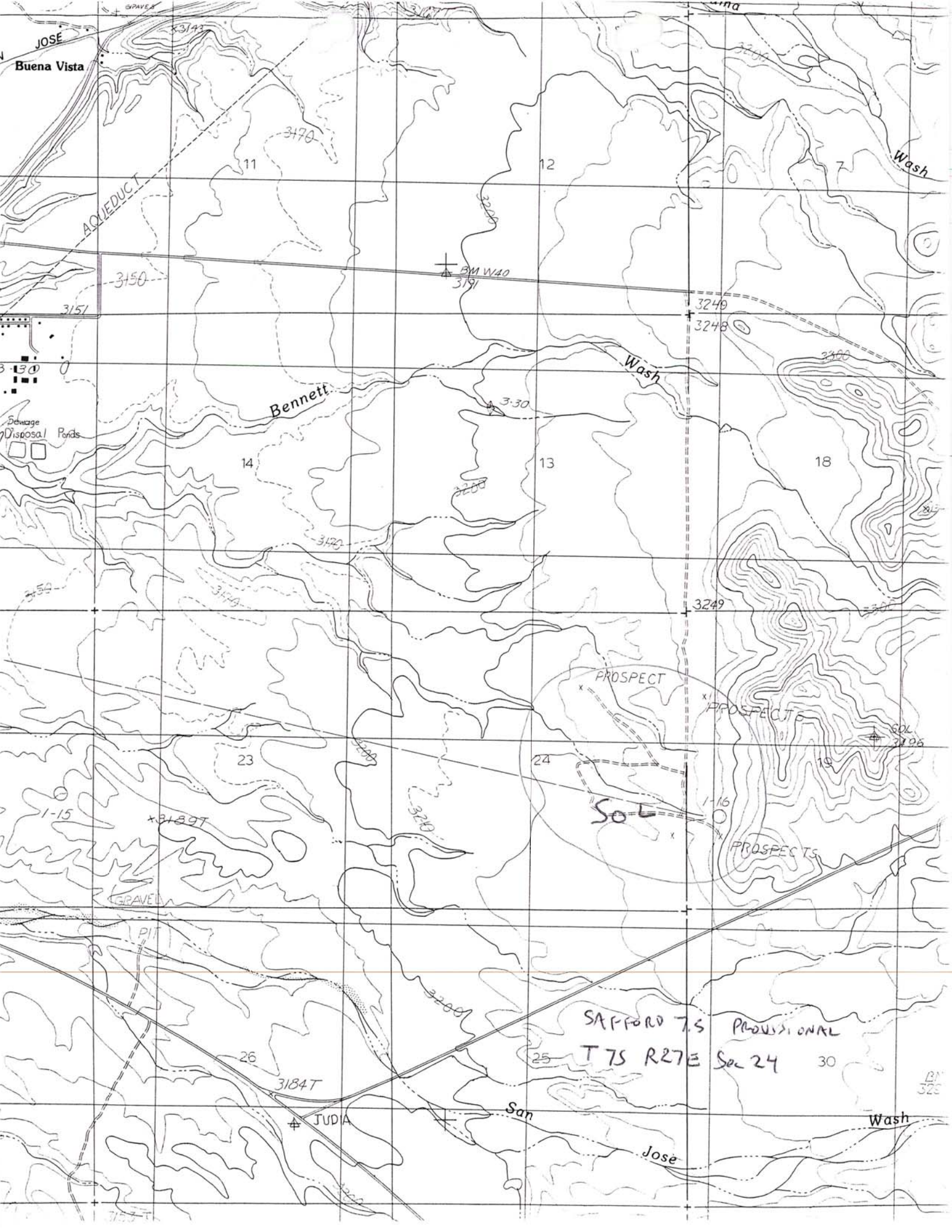
GRAHAM COUNTY MILS NUMBER: 308

LOCATION: TOWNSHIP 7 S RANGE 27 E SECTION 24 QUARTER SW
LATITUDE: N 32DEG 48MIN 20SEC LONGITUDE: W 109DEG 31MIN 41SEC
TOPO MAP NAME: SAN JOSE - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:
COPPER SULFIDE

BIBLIOGRAPHY:
ADMMR SOL FILE
USGS I-1617 GEOLOGIC MAP OF SAFFORD QUAD 1985
YARTER, W. V., 1981 U OF A MS THESIS
USGS MAP I-1310B MINERAL DEPOSITS SILVER CITY
1X2 QUAD. BY RICHTER AND LAWRENCE 1983 P. 3
WYNN, J. C. AND ZONGE, K. L. 1975 EM COUPLING
ETC. GEOPHYSICS, V 2 NO. 5 P 464-492.
ACTLABS, 1988, ENZYME LEACH STUDY (IN FILE)


JOSE
Buena Vista
GRAVEL
3143
3170
11
12
7
Wash
AQUEDUCT
3200
BM W40
3191
3150
3151
3240
3248
3300
Wash
Bennett
3130
Sewage
Disposal
Ponds
14
13
18
3200
3170
3150
3154
3249
PROSPECT
PROSPECTS
SOL
3196
23
24
19
1-15
3189T
3240
1-16
SOL
PROSPECTS
GRAVEL
PIT
3200
SAFFORD T.S PROVISIONAL
T 7S R27E Sec 24
26
25
30
3184T
JUDIA
San
Jose
Wash

SOL GRAHAM COUNTY

NJN WR 8/26/88: Gary Parkinson of Westmont (file) visited seeking data on a copper prospect reported in USGS map I-617, Geologic Map of Safford Quadrangle, Graham County, by B.B. Houser, et al, 1985, A portion of which has been reproduced for our file. This map reports the Sol deposit, T7S R27E Sec 24 SW. The property is reported in a table on the map to be a copper deposit discovered by AMAX Inc using geophysics. The deposit does not outcrop but is covered with Quaternary gravels. The deposit is reported to contain 8 - 15% sulfides, but no grade or tonnage figures were provided.

ARIZONA PORPHYRY COPPER PROSPECTS AND PROJECTS

NAME - LOCATION

Record Number 9

Primary Name	Sol	AZ MILS	308
County	Graham	AZ MRDS	
Alternate Name	None	USBM	
		UTM N	
Mining District	Safford	UTM E	
Main Mines or Prospects	None	UTM Zone	
		Latitude N	32.756
Current Status	Exploration Prospect	Longtitude W	109.528
		Township	T 7 S
Mountain Range	Gila Mountains	Range	R 27,28 E
Direction/Distance	The Sol prospect is about 12 miles east of the town of Safford and just east of the Arizona State Prison	Section	
		Portion of Section	
Names of Claims	Sol	Quad 250	Safford
		Quad 24	San Jose
		Quad other	
Number of Claims	Unknown		

Comments on Reasons for Acquisiton: The Sol prospect area was chosen for exploration by Amax Exploration after a review of the Safford district geology and geophysics. A regional gravity high which encompassed the Safford district deposits was observed to continue east south east towards the Sol area. It was decided, after an geochemical orientation survey of the Dos Pobres and San Juan deposits to conduct geochemical and detailed gravity surveys on this eastward extension of the regional gravity high.

The Sol prospect lies south of the Sanchez porphyry copper deposit and south of the Gila River. It is immediately south of the old Morenci-Safford road.

Information Contributed By: Charles Miller

Date Information Recorded: 27Dec02

ARIZONA PORPHYRY COPPER PROSPECTS AND PROJECTS

EXPLORATION HISTORY AND GEOLOGY - 1

.Record Number: 9

.Primary Name: Sol

Discovery Made: Yes

Exploration History: The Sol prospect was staked by Amax Exploration in 1972 after extensive geophysicl and geochemical surveys of the Safford district. Amax conducted detailed I. P. surveys and drilled 4 diamond core holes which discovered the buried Sol porphyry system; In 1973, Phelps Dodge entered into a joint venture exploration agreement, which agreement terminated in 1975 Phelps Dodge drilled an addition 14 holes on the property from 1973 to 1975. In the following years, Kennecott Copper Corporation, Quintana Minerals, Noranda and Arimetco conducted exploration on the property.

Resource -Tonnes: 50 million Possible

Cu Grade/Assays 0.14%

Mo Grade/Assays unknown

Au Grade/Assays: unknown

Ag Grade/Assays: unknown

Geologic Occurrence: At the time of acquisitionby Amax Exploration, the Sol property was completely covered by Quaternary gravels and volcanic rocks. No outcrops of pre-mineral rocks were present on the property.

Other commodities:

Exploration Methods Results: Amax Exploration began a review of the Safford district in early 1972 and performed a ground gravity survey over the eastern extension of the Safford mineal belt. The continuation of the regional gravity high over the main Safford district to the east and southeast was confirmed by the gravity survey. Subsequent, mesquite geochemical and stream sediment sampling outlined several anomalies along the southeast trending gravity high. On the basis of these anomalies Amax Exploration staked the Sol claims in 1972. Detailed I.P. surveys were conducted, which defined a strong I.P. anomaly on the Sol Claims. This anomaly was subsequently drilled by Amax resulting in the discovery of the buried Sol porphyry copper system. The pre-mineral rocks occur from 200 to 1000 feet below the surface. The drill holes encountered a leached capped zone. The initial Amax holes encountered significant sulfide mineralization as pyrite, chalcopyrite and chalcocite. The mineralized rocks were stongly altered.

Exploration Potential: Although the drilling by Amax Exploration and Phelps Dodge did not discover an economic porphyry copper deposit, several mesquite geochemical anomalies remain untested on the prospect. These anomalies could possibly overlie porphyry systems similar to Sol, or possible reflect transported enriched chalcocite blankets.

Exploraton Comments: The Sol prospect provides an excellent example of a integrated geological, geochemical and geophysical program which resulted in the discovery of a buried porphyry copper system. The initial interest in the area came through a geological interpretation of the structure of the Safford district. A followup ground gravity survey confirmed the presence of a gravity high extending out of the Safford district into the Sol area, the mesquite geochem survey outlined a specific target along the gravity high and the final I.P. survey confirmed the anomalous nature of the prospect and more closely defined a target for drilling.

Geochemical Data: A total of 17 mesquite samples were collected on the Sol prospect, at a density of about 5 samples per square mile. The samples were analyzed for Cu, Mo and Zn. No anomalous response was detected from the Cu and Zn data. However, the molydenum data indicated a broad weakly anomalous area. Data intepretation indicated samples with > 18 ppm Mo to be strongly anomalous, 12-18 ppm Mo moderately anomalous and 7-12 ppm Mo weakly anomalous.

Geophysical Data: In addition to the gravity survey, Amax Exploration ran 10 I.P. lines covering 28 lines miles over the Mo anomalous area; An I.P. anomalous zone measuring 8000 x 6000 feet was defined by the survey. Additional I.P. surveys were run by Phelps Dodge. In addition a one squre kilometer seismic survey was run west of the I.P. anomaly.

ARIZONA PORPHYRY COPPER PROSPECTS AND PROJECTS

EXPLORATION HISTORY AND GEOLOGY - 2

Primary Name: **Sol**

Discovery Made: Yes

Date of Discovery: 1972

Discoverer: Amax Exploration Tucson Office Staff

Nature of Discovery: Porphyry copper

Past Production: None

Workings: None

Host rock to Mineralization: Cretaceous volcanic and sedimentary rocks

Intrusive Rocks:

Mineralization/Deposit Type: Porphyry Copper

Mineralization Progenitor: Granodiorite - diorite

Ore Mineralogy Chalcopyrite-Chalcocite

Reactive Rocks: None

Age of Mineralization: Laramide

Gangue Mineralogy: Pyrite

Erosion Level: Prospect completed buried

Dimensions of Mineralization: 9000 ft NW-SE x 6000 feet

Age Dates and Medium Dated: Granodiorite - 60.7 & 67.5 M. Y. on sericite

Mineralization Description: the Sol hydrothermal system is the second largest mineralized zone in the Safford District, with only the Kennecott Safford (Lone Star) being larger. The total sulfide content varies between 1 and 8% pyrite. Chalcopyrite and minor chalcocite make up the copper minerals. The mineralization occurs as stringers and veinlets in a stockwork pattern.

Alteration Description: A northeast-southwest trending potassic core zone is telescoped by phyllic and the peripheral propylitic alteration. The potassic zozne is charaterized by pervasive biotite-sericite-quartz-K-feldsper-anhydrite cut by local veinlets of K-feldspar-quartz-anhydrite-biotite-sulfides. Pyrite averaged 3% and was associated with up to 3% magnetite and traces of molybdewnite. Locally disseminated and veinlet chalcopyrite was present. The [phyllic zone as characterized by pervasive sericite-clay-carbonate-quartz, locally cut by thin quartz-sericite-calcite-zeolite - sulfide veinlets. The peripheral propylitic zone was characterized by pervasive chlorite-epidote-clay-sercite-calcite, cut by local calcite-zeolite-quartz-adularia-sulfide veinlets.

Prospect Structure: Several strong NNE structures detected by drilling and I.P. surveys; also strong NS structures

ARIZONA PORPHYRY COPPER PROSPECTS AND PROJECTS

EXPLORATION HISTORY AND GEOLOGY - 2

Regional Structure/tectonics:

The main regional feature is the NW trending Safford Mineral belt. The Morenci NNE strucutural zone cuts through the west end of the Sol Property and may have offset the Safford Zone to the south at the Sol Propect.

General Geology Description:

The pre-mineral rocks in the Safford district consists of Cretaceous andesites, flow breccias and interbedded tuffs. Following the deposition of these rocks, strong northeast fracturing occurred along the Dos Pobres, San Juan Lone Star and Sanchez deposits.Subsequent to the fracturing, rhyolite to latite dikes and plugs intruded the older Cretaceous rocks. Tertiary volcanic rocks subsequently covered most of the Safford district. Post mineral faults, notably the WNW trending Foothills fault offset some of the mineralization. Much of the region was also covered by Quaternary gravels and alluvium.

Geology Comments:

The Safford district differs from many of the other porphyry copper deposits in Arizona by the lack of widespread quartz-sericite alteration and with host rocks of andesite and latite volcanic flows and breccias. The Sol property is unique in the occurrence of mineralized Cretaceous fine grained sandstones and shales underlying the volcanic rocks.

ARIZONA PORPHYRY COPPER PROSPECTS AND PROJECTS

BIBLIOGRAPHY AND REFERENCES

Record Number: 9

Primary Name: **Sol**

Reference 1 Durning, W. P., 1973, Sol Project Area, 1972 Year End Report: Private Report to Amax Exploration

Reference 2: Durning, W. P., 1974, 1973 Annual Review, Sol Project 531, Graham County, Arizona: Private Report to Amax Exploration

Reference 3: Boatman, R. L., 1975, Gila Mountain Exploration, Amax-Sol Project: Private Report to Phelps Dodge Corporation

Reference 4: Yarter, W.V., 1981, MS Thels University of Arizona

Reference 5: USGS, 1985, Mineral Investigation Map I-1617, Geologioc Map of the Safford District

Reference Comments: Wynn, J. C. and Zonge, K.l., 1975, EM coupling at Sol Prospect, Arizona, Geophysics v2, No. 5 p. 464-492.

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Date: ___January 10, 2003___

FAX

To: Nyal Niemuth
ADMMR
Fax: 602-255-3777

From: Charles P. Miller
Tel: (520) 575 – 8344
Fax: (520) 575 – 6440

Subject: SMEA Porphyry Copper Project
Tentative Format: Sol Project Description

Cc:

Number of pages including cover sheet ____6_____

_____Urgent _____ Reply ___X____ For Your Information

Message: Dear Nyal, Attached is a description of the Sol Project, Graham County in the format which I propose to use for our porphyry copper compilation. I would appreciate any comments or suggestions that you might wish to send.

The format is in Access 97 and utilizes five tables:

1. Name
2. Location
3. Exploration History
4. Geology
5. Bibliography and References

And four reports:

1. Name and Location
2. Exploration History and Geology –1
3. Exploration History and Geology-2
4. Bibliography and References

As soon as I can figure out how to send these tables and reports via email, they will be sent along for your review.

Incidentally, the resource of 50 million tonnes and 0.14% copper for Sol is correct, and was taken from Ron Boatman's final 1975 report to Phelps Dodge Corporation .

Charlie

MILLER RESOURCES, INC.
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milroc1@azstarnet.com

June 19, 2002

Mr. Nyal J. Niemuth
Mining Engineer
Arizona Dept. Mines & Mineral Resources
1502 W. Washington
Phoenix, AZ 85007-3210

Re: Sol Dos Property
Graham County, Arizona

Dear Nyal,

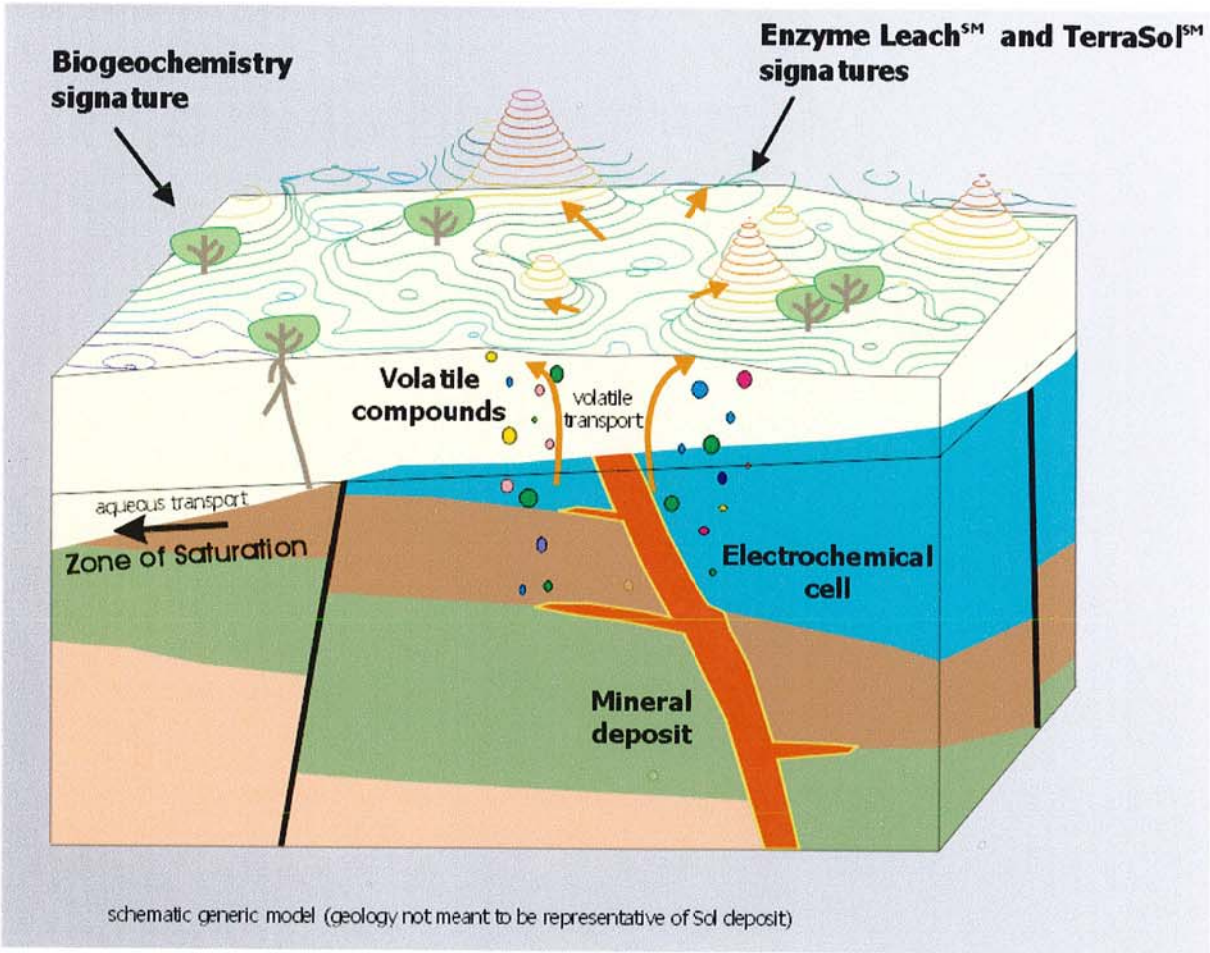
Enclosed are two reports on the Sol Dos property. The first is an Executive Summary that I prepared in 1999 and the second is a handout prepared by Ken Lovstrom and Bob Clark for a SEG meeting in Arizona last spring. Unfortunately, I am unable to provide all the Exhibits for the Executive Summary, but the text should provide a good overview of the geology. The Lovstrom-Clark handout provides a good description of the moly and enzyme leach anomalies associated with the original Sol porphyry system.

If permitted, I would like to know the names of the individuals who have looked at the Sol Data over the last year or so. I am still trying to find a company to do further work at Sol -- basically some I. P. work over my remaining untested anomalies; although a drill hole or few would not be turned down.

Sincerely,

Charles P. Miller
CPM:m
Enclosures (2)

Complementary Soil Selective Extraction and Biogeochemical Patterns at the Sol Porphyry Copper Deposit, Safford District, Graham County, Arizona



schematic generic model (geology not meant to be representative of Sol deposit)

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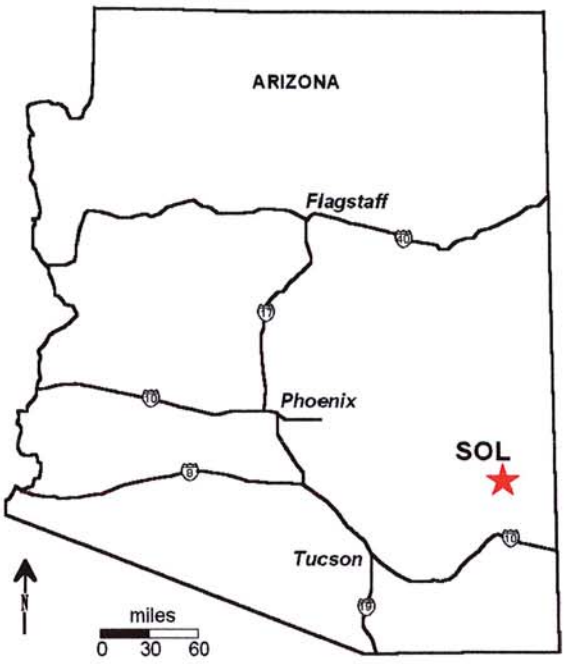
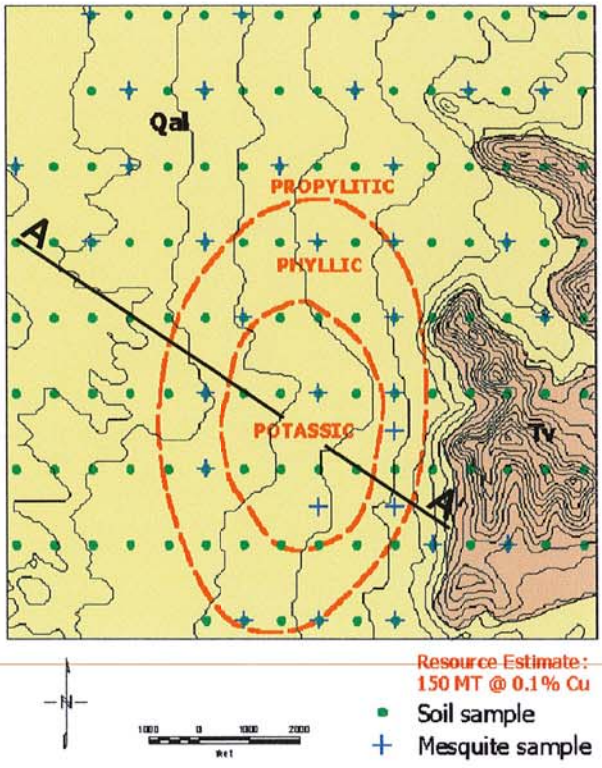
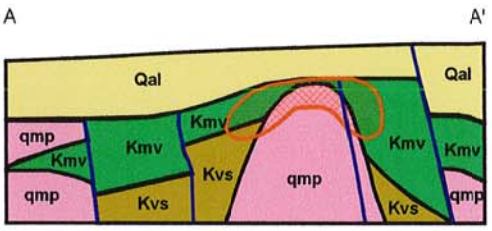
clark@actlabs.com
www.actlabs.com

Deposit information and property access permission provided by Charles P. Miller, Miller Resources, Tucson, Arizona



- Totally blind porphyry Cu deposit
- 240-1000+ feet of alluvial cover
- Resource est. 150 MT @ 0.1% Cu
- Quartz monzonite porphyry
- Chalcocite-covellite supergene mineralization
- Pyrite-chalcopyrite hypogene mineralization
- 1-8% pyrite, disseminated and in veinlets
- potassic, phyllic, and propylitic alteration





METHODS

MESQUITE - Ashed samples (by aqua regia ICP-MS)

- 34 samples
- Live twigs - up to 1 cm diameter multiple limbs around each tree, multiple trees composited where possible

SOILS - Enzyme Leach[SM] (by ICP-MS)

- 130 samples
- *B*-horizon soils, 200g, 20-30 cm depth

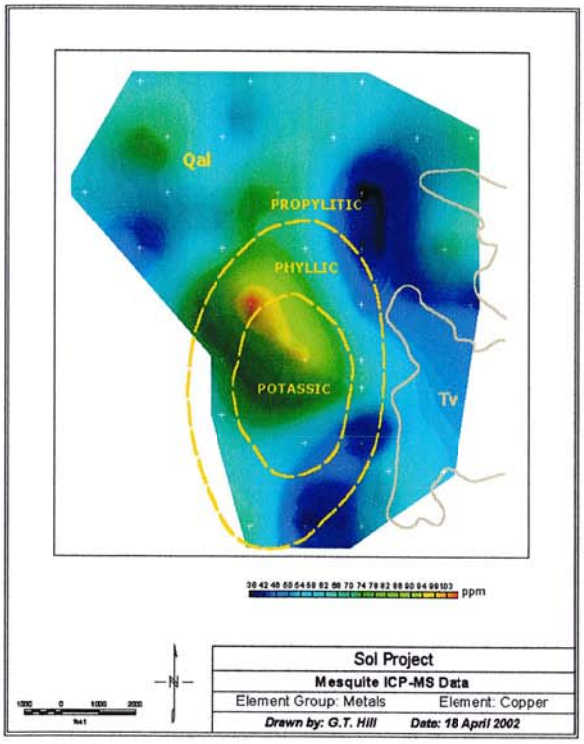
The Sol deposit lies within an extension of the Safford mineral trend that is completely covered by post mineral Quaternary alluvium and Tertiary volcanic rocks. The Safford District totals several billion tons of copper ore contained within four porphyry copper deposits; Dos Pobres, San Juan, Lone Star, and Sanchez. The potential zone of porphyry copper mineralization at Sol was initially defined in 1971 via a combination of regional gravity and mesquite surveys and further enhanced by magnetic, IP, and detailed mesquite surveys. In 1971 and 1972 porphyry copper mineralization was confirmed by drilling. In 1998, Actlabs conducted Enzyme Leach[SM] and mesquite orientation surveys over the Sol mineralization, the results of which are shown herein.

Biogeochemical exploration affords a prospecting tool whereby surface vegetation can be systematically sampled, analyzed for traces of ore metals and interpreted to reveal blind, subsurface concentrations of metals. Phreatophytes are desert plant species with moderate to deep roots that habitually obtain their water and nutrients from the zone of saturation. In the case of mesquite trees in the southwestern United States, tap roots are documented to hundreds of feet in depth thus providing a medium capable of chemically sampling through considerable thickness of overburden.

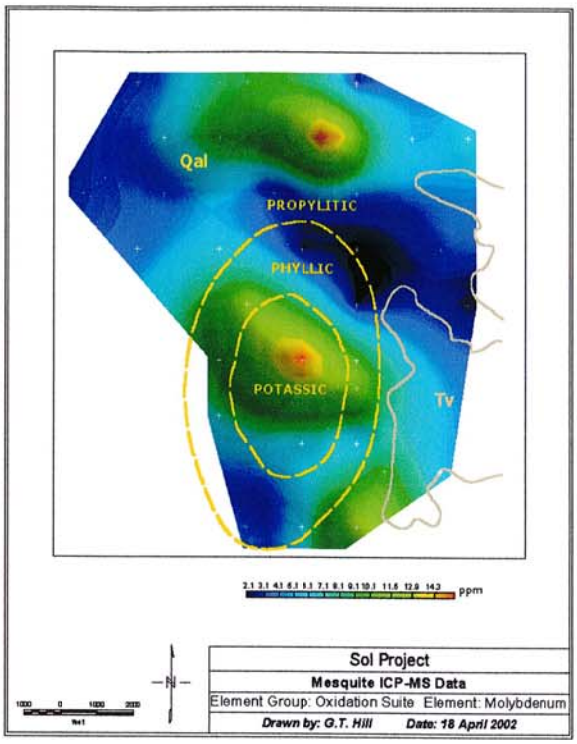
Selective extraction soil surveys trace volatile chemical species such as halogen and organometallic compounds that are formed and liberated from slowly oxidizing reduced bodies in the influence of electrochemical processes. This biologically-driven oxidation produces ppt and ppb level anomalies as a wide range of elements ascends to the surface. The anomalies are detectable with Enzyme Leach[SM], a very weak selective extraction, because it effectively lowers background, thus allowing for the recognition of low level enrichments of trapped and adsorbed volatile species.

Anomalous copper and molybdenum mesquite data outline the concealed porphyry copper mineralization at Sol. Numerous trace elements also characterize the mineralization. These anomalies are classic biogeochemical patterns above this type of mineralization. In addition to direct indications of porphyry mineralization manifest as copper and molybdenum highs, lead, zinc, and other base metals show classic zoning patterns and are enriched in portions of the core of the system as well as in distal zones. Base metals and lithophile elements also indicate structural trends within the subsurface, particularly a northwest-trending zone that bisects the porphyry.

Copper and molybdenum are enriched into distinctive halos detected by Enzyme Leach[SM]. Lead and zinc are also enriched and these Enzyme Leach[SM] patterns are strongly structurally controlled. These patterns are interpreted to indicate northwest- and north-trending fault zones bounding a triangular low that is approximately coincident with the porphyry and could represent a dilatent zone. These and other structural zones are also shown by the REE and lithophile elements. Combining mesquite and Enzyme Leach[SM] surveys at Sol provides a strong indication of subsurface mineralization and a comprehensive picture of the structural setting in which it occurs.



Sol Project	
Mesquite ICP-MS Data	
Element Group: Metals	Element: Copper
Drawn by: G.T. Hill	***Date: 18 April 2002***



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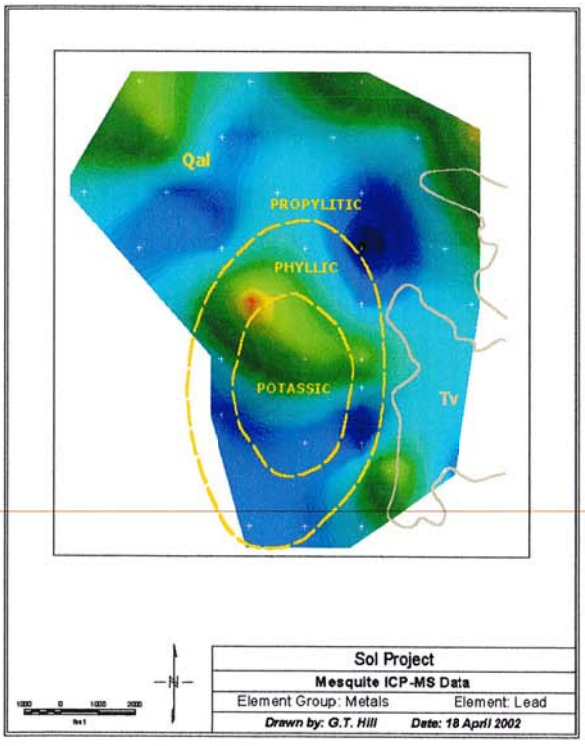
Element Group: Oxidation Suite	Element: Molybdenum
Drawn by: G.T. Hill	***Date: 18 April 2002***



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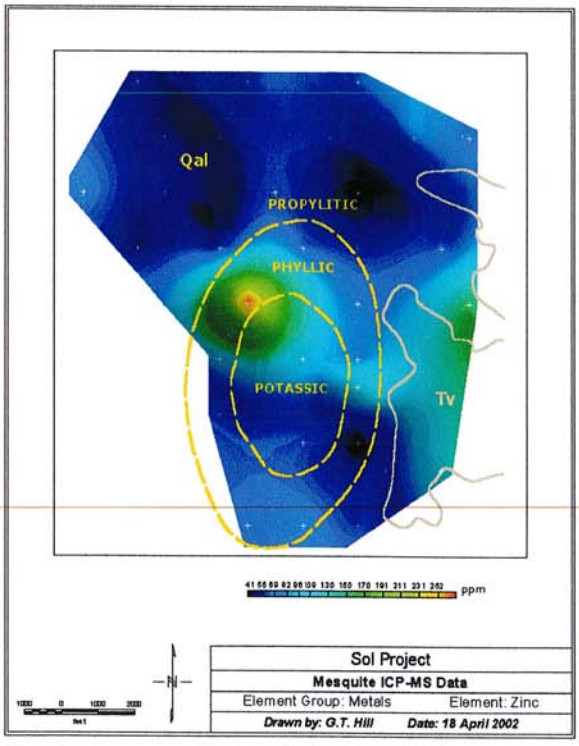

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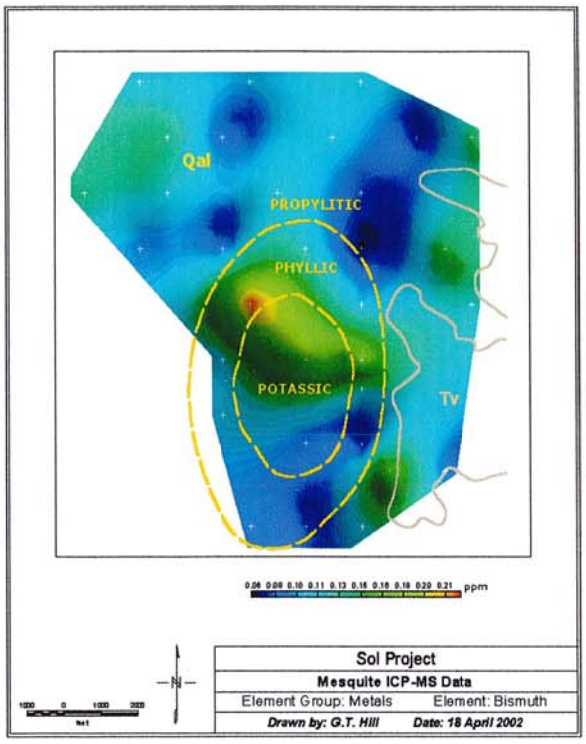
Drawn by: G.T. Hill	***Date: 18 April 2002***


Qal
PROPYLITIC
PHYLLIC
POTASSIC
Tv
0.06 0.09 0.10 0.11 0.13 0.15 0.16 0.18 0.19 0.20 0.21 ppm
Sol Project
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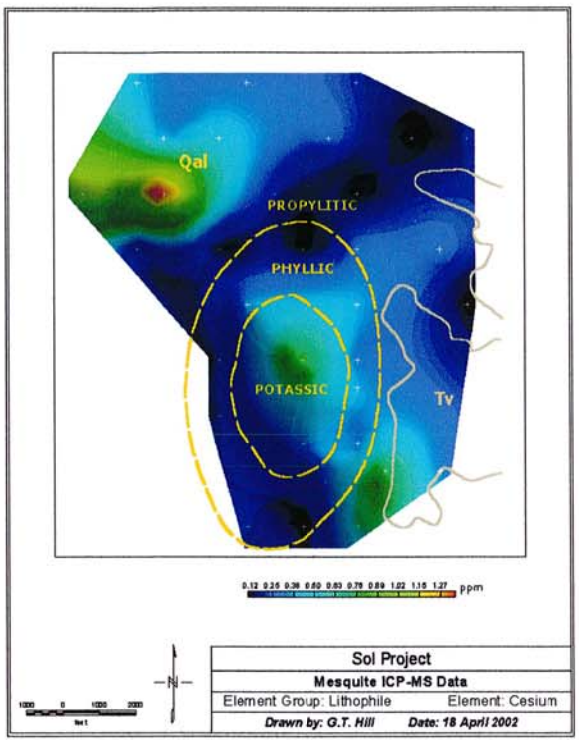
Drawn by: G.T. Hill Date: 18 April 2002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PHYLLIC
POTASSIC
Tv
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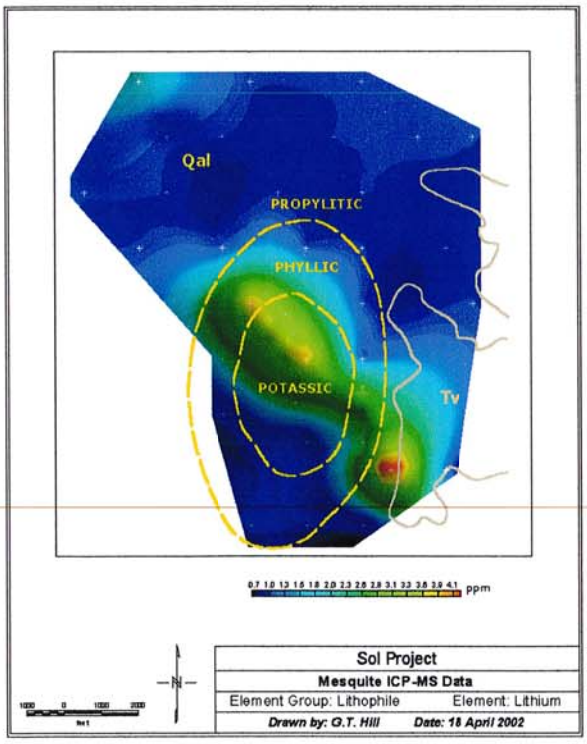
Drawn by: G.T. Hill Date: 18 April 2002


Qal
PROPYLITIC
PHYLLIC
POTASSIC
Tv
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Sol Project
Mesquite ICP-MS Data
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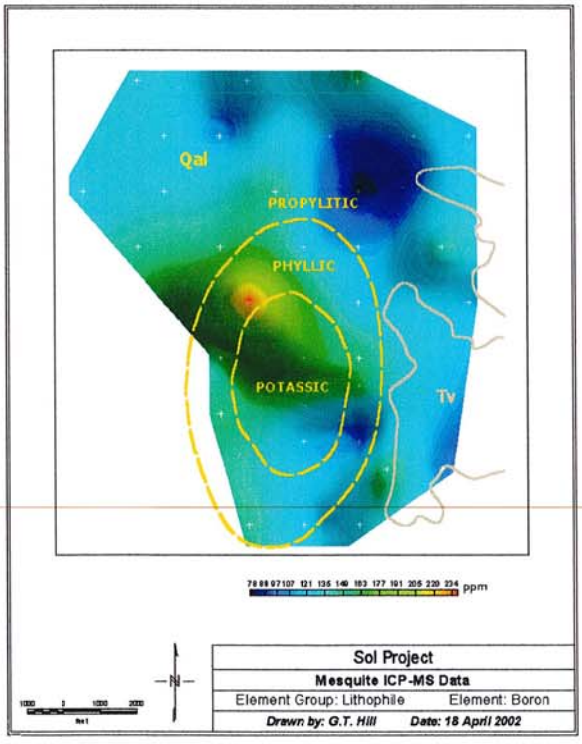
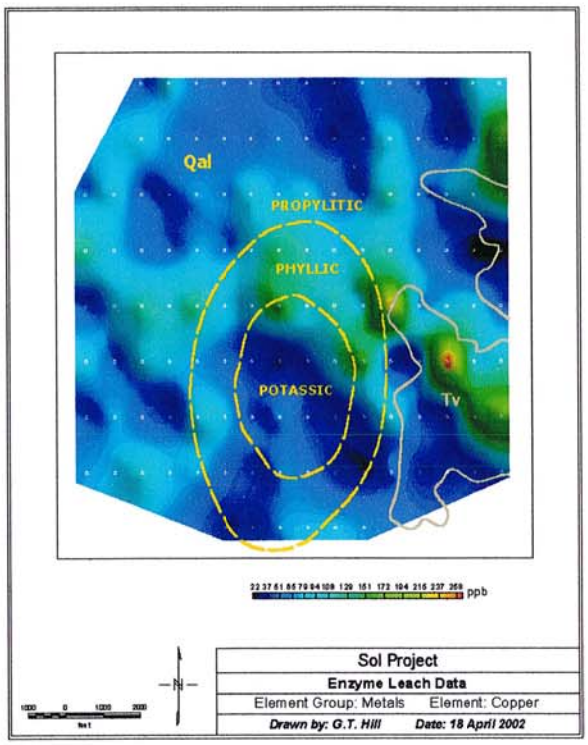
Drawn by: G.T. Hill Date: 18 April 2002


Qal
PROPYLITIC
PHYLLIC
POTASSIC
Tv
78 88 97 107 121 135 149 163 177 191 205 220 234 ppm
Sol Project
Mesquite ICP-MS Data
Element Group: Lithophile Element: Boron
Drawn by: G.T. Hill Date: 18 April 2002



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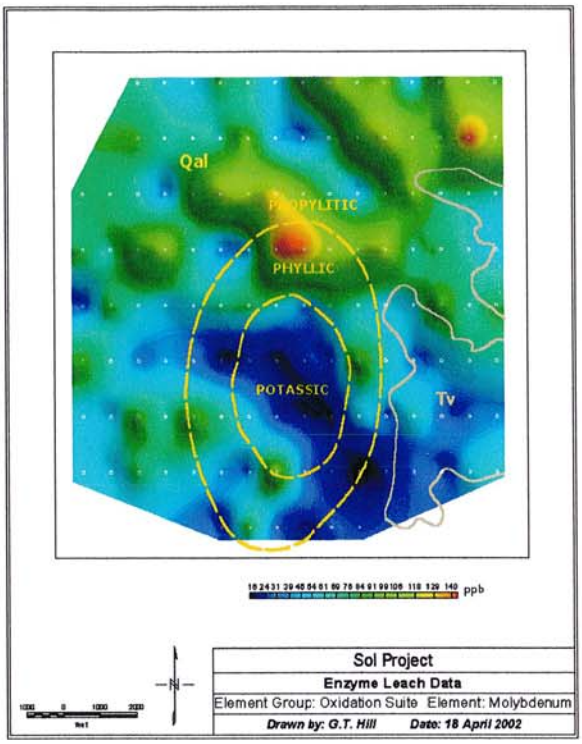
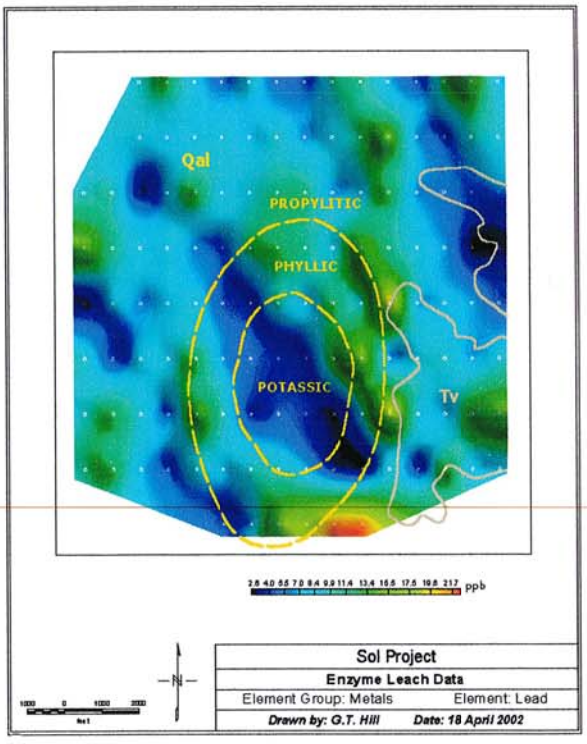
Drawn by: G.T. Hill	*Date: 18 April 2002*



Sol Project	
Enzyme Leach Data	
Element Group: Oxidation Suite	Element: Molybdenum
Drawn by: G.T. Hill	*Date: 18 April 2002*



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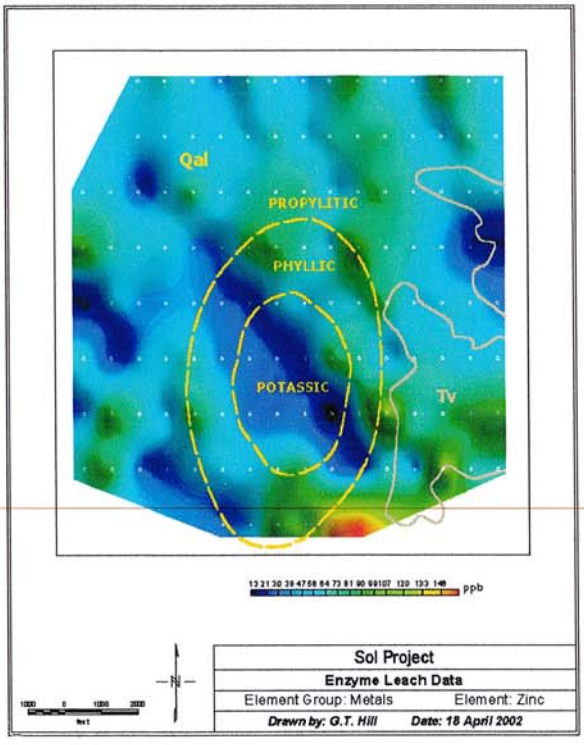
Enzyme Leach Data	
Element Group: Metals	Element: Lead
Drawn by: G.T. Hill	*Date: 18 April 2002*



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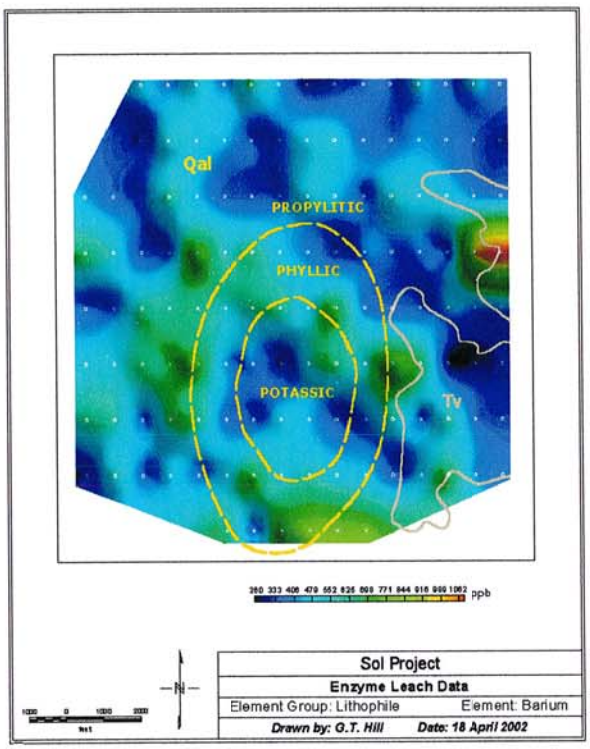
Drawn by: G.T. Hill	*Date: 18 April 2002*


Qal
PROPYLITIC
PHYLLIC
POTASSIC
Tv
ppb
Sol Project
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Element Group: Lithophile
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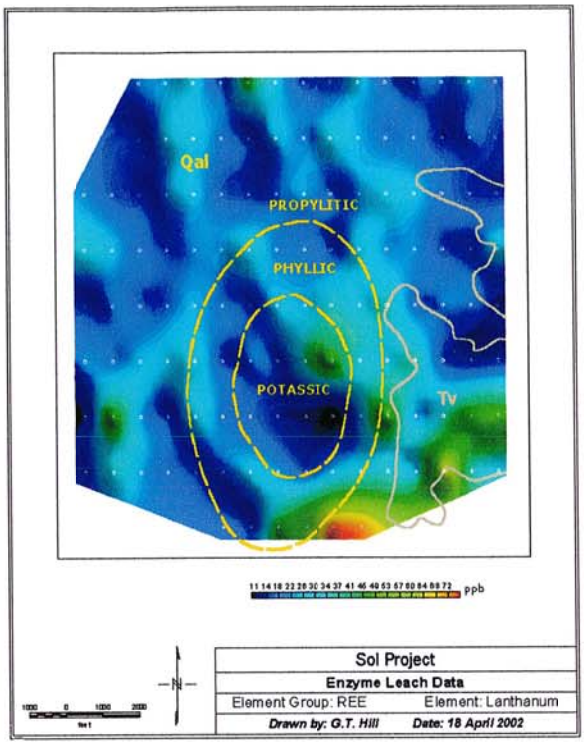
Drawn by: G.T. Hill
Date: 18 April 2002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ppb
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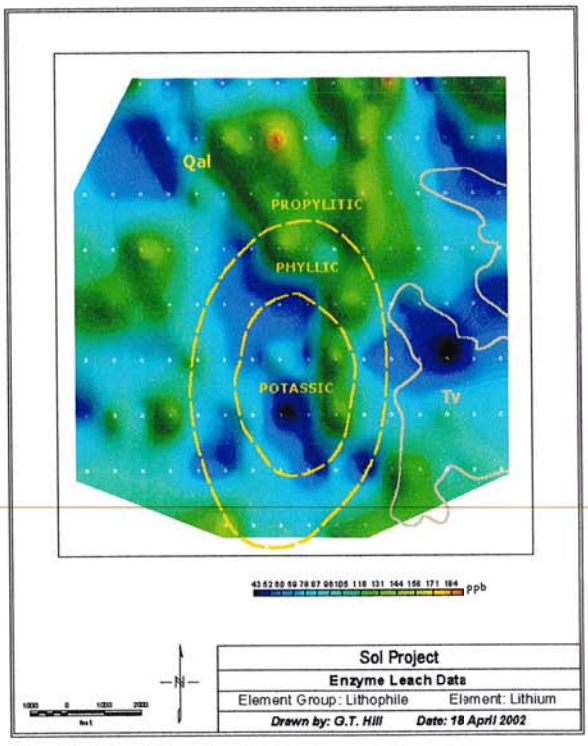
Drawn by: G.T. Hill
Date: 18 April 2002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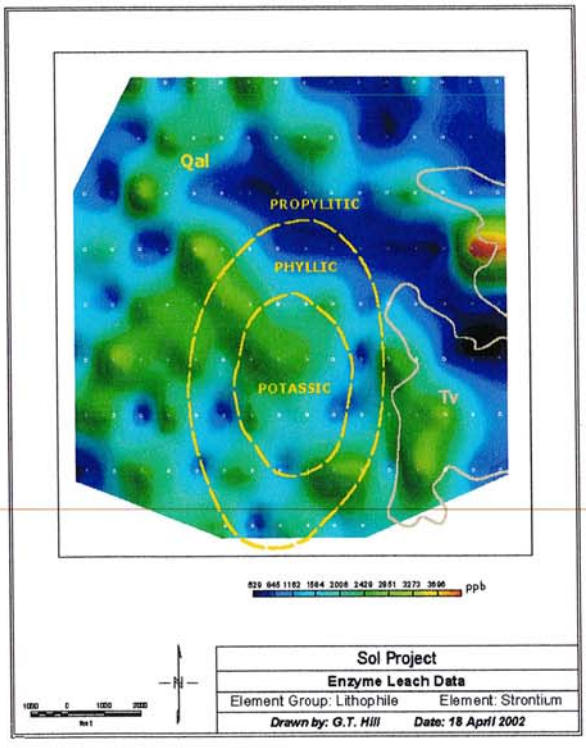
Date: 18 April 2002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PHYLLIC
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Tv
ppb
Sol Project
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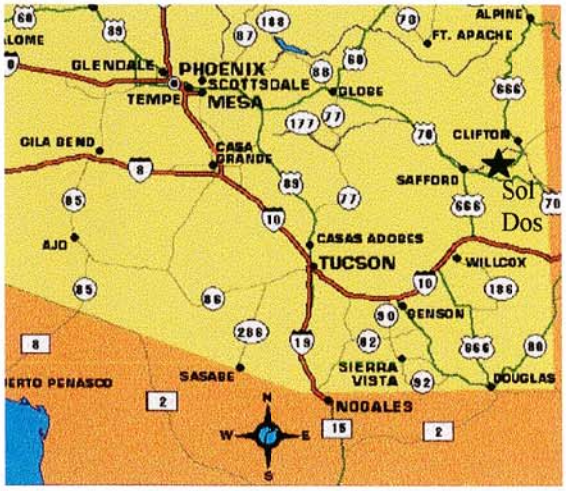
Element Group: Lithophile
Element: Strontium
Drawn by: G.T. Hill
Date: 18 April 2002

SOL DOS PORPHYRY COPPER PROSPECT

Location

The Sol Dos porphyry copper prospect is in the Lone Star Mining district in parts of sections 13 and 24, T 7 S, R 27 E and sections 18 and 19 ,T 7 S, R 28 E , Graham County Arizona. Ninety seven unpatented lode mining claims owned by Charles P. Miller of Tucson, Arizona constitute the present property position.

The Sol Dos property is accessible via paved highway to the northwest corner of the claim block and by gravel roads along the northern and eastern boundaries. The city of Safford AZ is six miles west of the property and has infrastructure to support ongoing mining operations at Phelps Dodge Morenci and Safford operations.



The local topography is characterized by gently rolling hills in the front range of the Gila Mountains that lie to northwest of the claim block. The property is almost entirely covered by shallow valley-fill gravels with limited exposures of late-Tertiary basalt along the eastern side. The mineralized body does not crop out. Local property elevations average less than 127 feet over the western two-thirds of the property and less than 350 feet along the eastern boundary. The local desert flora is characterized by sparse mesquite and creosote. Winter annual temperatures average 60 degrees and summer temperatures average 95 degrees Fahrenheit.

Regional Setting

The Sol Dos prospect is on the southeast end of a broad northwest-southeast trending mineral belt which includes the Dos Pobres , Sanchez, Safford and Lone Star porphyry copper deposits of Phelps Dodge Corporation. A broad but distinct gravity high, part of the regional northwest trending gravity ridge, which extends southward from the Sanchez property and through the Sol Dos claims possibly reflects a north-south to north-east trending structure which cuts the regional northwest belt. Similar northeast to north south cross structures are present at the Lone Star and Dos Pobres deposits.

Discovery of the Sol Porphyry Copper System and Previous Work

The porphyry copper mineralization at the Sol Dos property was discovered by Amax Exploration in 1972. The Sol area was originally identified by regional copper and molybdenum geochemical, gravity, and magnetic surveys. Subsequent induced

polarization surveys outlined a large sulfide system coincident with both the gravity high and the moly anomaly which was confirmed by drilling. Sixteen wide spaced drill holes by Amax Exploration and Phelps Dodge in 1972, 1973 and 1974 cut pre-mineral meta-volcanics and volcaniclastic meta-sediments below 250 to 1,000 feet of gravels and lake bed sediments. The premineral series were intruded by mineralized and altered granodiorite and monzonite porphyry. Two holes were drilled by Quintana Minerals in the late 1970s.

A regional mesquite geochemical survey by Amax Exploration, Inc. in 1970 outlined a discrete molybdenum anomaly coincident with the gravity high at the Sol Dos area. Recent reinterpretation of the original mesquite survey has confirmed the earlier mesquite anomaly. A 1998 Ensyme Leach and mesquite survey by ActLabs defined a copper, arsenic, bromine and iodine geochemical anomaly in the northwest part of the claims .

A property and drill hole location map (Figure 1) is in the Exhibit attached to this report. Several overlays (Figures 5 and 6) illustrate the results of the geochemical work. Additional reports and data by Amax and Phelps Dodge are available for inspection in Tucson.

Geology

Pre-mineral rocks at Sol Dos consist of a lower series of Cretaceous black shale, sandstone and siltstone which are overlain by a thick upper series of Cretaceous andesitic breccias, tuffs and massive porphyritic andesite. The andesitic rocks are similar to the Safford andesitic rocks described at the Dos Pobres and Lone Star mineralized areas. These rocks are intruded by two phases of igneous rocks: an early hornblende quartz monzonite porphyry and a younger hornblende biotite diorite porphyry.

The Sol Dos prospect has been cut by several basement faults as indicated by an aeromagnetic survey and drilling. A strong northeast trending fault east of Drill Hole 11 and a strong north-south trending fault east of Drill Hole 12 are suggested by drilling and a strong northeast fault near Drill Holes 1 and 2 by the aeromagnetic survey. The relationship of these faults to the mineralization is not known. These faults are shown on the overlay to the Location Map in the Exhibit.

Post-mineral rocks consist of 250 – 1000 feet of lakebed sediments and alluvium.

Alteration and Mineralization

The alteration and mineralization at Sol Dos as defined by the 16 drill holes form a classic porphyry copper pattern with a central core of potassic alteration surrounded by an intermediate shell of phyllic alteration and an outer shell of propylitic alteration. Propylitic, phyllic and potassic alteration suites occurred in all of the pre-mineral rocks

Mineralization is characterized by chalcocite-covellite on pyrite-chalcopyrite, chrysocolla and 1 – 8 percent finely disseminated and veinlet pyrite. All of the pre-mineral rocks at Sol Dos are altered and weakly mineralized. The most intense alteration and mineralization are related to the diorite porphyry and its contact zones primarily with the andesitic rocks. The potassic core contained 1 to 3 % pyrite, whereas the phyllic shell averaged 3 to 8% pyrite. The outer propylitic zone contained 1 to 5% pyrite.

The 1972 –1973 Reports describe the geology , mineralization and alteration in the Sol Dos area as determined by the drill holes. Figure 4 (a map in the Exhibit) is a fence diagram of the alteration and rock types of the Sol Dos porphyry copper system (R. L. Boatman (1974).

1972-1974 Drilling Results

Sixteen holes were drilled by Amax and Phelps Dodge within and adjacent to the Sol Porphyry copper cell. All of the holes encountered significant alteration and sulfide mineralization and the average grade of the holes was less than 0.1 % copper. Weak chalcocite occurred on the chalcopyrite but no significant chalcocite blanket was found in the drilling during that period. The oxidized zone ranged from several hundred to over a thousand feet and the grade of copper in the oxide zone was about half of that in the underlying sulfide zone.

The intriguing possibility that a perched or offset chalcocite blanket was present was considered but never verified. The Sol porphyry copper cell is cut by several major faults. Such a chalcocite blanket, if present, could be hidden within a fault block adjacent to the Sol cell.

Exploration Targets and Resource Potential

The Sol Dos prospect is along the broad northwest-southeast trending Safford mineral belt which includes the Dos Pobres, San Juan, Sanchez, Safford and Lone Star porphyry copper deposits of Phelps Dodge Corporation.

Although the central part of the original Sol porphyry system has been tested, significant exploration targets remain within the Sol Dos Claim block. The potential area of mineralization covers more than 4 square miles and has been tested to date only by 16 drill holes. Four types of targets are present: Enzyme Leach and mesquite geochemical anomalies; untested zones within the original Sol porphyry cell; areas within and adjacent to the Sol porphyry cell which were identified by a re-interpretation of the drilling data; and faulted segments of the original porphyry cell which might contain a faulted top or side of the original Sol porphyry cell or a hidden and buried chalcocite blankets.

Exploration Targets

1. Geochemical Anomalies

Re-interpretation of early mesquite geochemical data coupled with recent ensyme leach and mesquite data have outlined extensions of the original geochemical anomaly in areas where the system has not been drilled. A summary of the Enzyme Leach geochemical approach in porphyry copper exploration has been included in the Exhibit.

Summary of 1970 Amax Mo Cu mesquite data. Mo in mesquite outlines a NW-SE trending anomaly with a strongly anomalous center over the surface projection of the Sol Porphyry cell. An untested anomaly is to the northwest in section 14. A broad Cu in mesquite anomaly covers the Sol area with strongly anomalous concentrations immediately south and northwest of the surface projection of the Sol porphyry cell. An untested Cu anomaly is coincident with the Mo anomaly to the northwest. Figure 5 is an overlay of the combined1970 moly and copper anomalies for targeting (in Exhibit)

Summary of 1998 Actlabs ICP-MS mesquite data. A classic Cu, Mo (and Bi, Li, Pb, B) mesquite anomaly occurs over the surface projection of the Sol porphyry cell. Untested Cu, Mo (Bi) anomalies lie to the north and northwest.

Summary of Actlabs 1998 Enzyme Leach Data. Enzyme Leach halo anomalies of As, Cu, Li, Pb, Ti, Zn, Th (Mo) surround the surface projection of the Sol Porphyry cell. Structural (N-S) anomalies of Cu, Li, Pb, Ti and Zn lie on the eastern side of the Sol porphyry cell. An untested Cu, As, Mo, Pb, Sb, Ti, Br and I anomaly lies to northwest.

Figure 6 is a plot of the 1998 ActLabs combined mesquite and Enzyme Leach anomalies (in Exhibit).

a. **Northwest Anomaly** Northwest of the original Sol porphyry copper cell is a large mesquite and Enzyme Leach anomaly which was never tested in the original drilling. The original Amax 1970 program defined a mesquite anomaly in this area. The 1998 Act Labs Enzyme Leach and mesquite surveys clearly define a distinct anomaly in this area and confirm the earlier Amax anomaly. Reinterpretation of the old 1970 Amax data more clearly defines the original anomaly. This anomaly could represent a sister porphyry cell to the Sol Cell; an offset portion of the Sol Cell; or a chalcocite blanket related to the Sol porphyry cell.

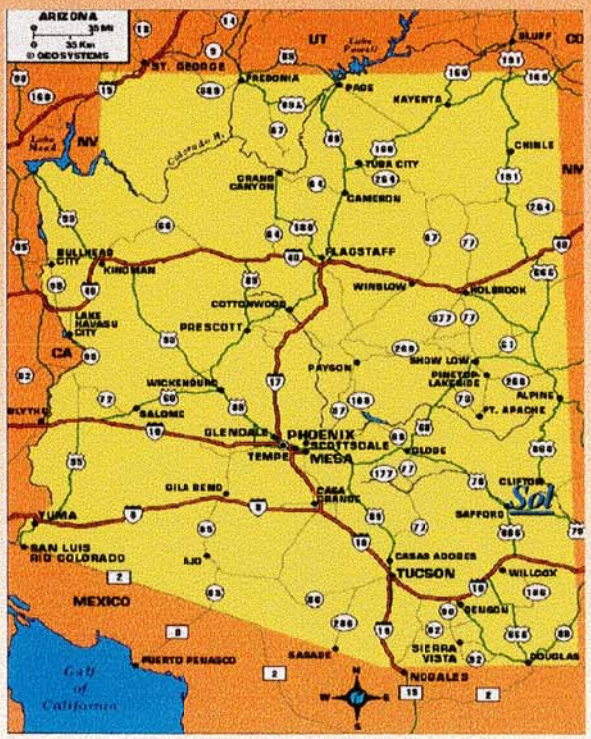
b. **Northern Anomaly**. North-northeast of the Sol Porphyry cell defined in the early 1970s is another untested geochemical anomaly which was defined by the 1998 Act Labs Enzyme Leach and Mesquite surveys. This anomaly could also represent either a new porphyry cell, a faulted portion of the original Sol porphyry cell or a chalcocite blanket related to the Sol cell. This anomaly was never tested by drilling.

c. **Southeast Anomaly** Southeast of the Sol Porphyry cell is a third

Sol Dos Porphyry Copper Deposit

Sol Dos Porphyry Copper:
Executive Summary Report

February 22, 1999



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Sol Dos Porphyry Copper Deposit

Sol Dos Porphyry Copper:
Executive Summary Report

February 22, 1999

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untested mesquite geochemical anomaly which lies along the original-southeast 1970 Amax geochemical anomaly. Reinterpretation of old data more clearly defines this distinct anomaly south of the Safford-Morenci highway. Similarly to the other geochemical anomalies, this southeast anomaly could represent a new sister porphyry cell, a hidden or buried chalcocite blanket or an offset of the original Sol cell.

Figure 5 and 6 are overlays showing the position of the geochemical anomalies (Exhibit)

2. Zones within the Original Sol Porphyry Copper cell.

Two large untested zones straddle the potassic-phyllic alteration boundary and provide sufficient area for additional tonnage. These target zones were defined in the early 1970s but were untested by the Amax and Phelps Dodge drilling programs. Although these zones most likely contain mineralization similar to the adjacent drill holes, they straddle the potassic-phyllic zones in a position favorable for chalcocite enrichment. An overlay to the Location Map showing these zones is in Exhibit.

3. Areas within and adjacent to the Sol porphyry cell identified by a re-interpretation of the drilling data.

In 1976 Amax geologists reviewed and re-interpreted the data obtained by ***the*** 1972-1974 drilling program. In addition to the two untested zones within the original Sol porphyry cell, several other targets were identified. These are listed below and shown on the overlay in the Exhibit A.

a. Mineralization between breccia areas in Dhs 9 and 12 and the strongest mineralization in DHs 3, 4 and 16.

b. Quartz-sericite-Kfeldspar-biotite alteration southwest of the area of strongest veining or possibly another porphyry center to the southwest.

c. Mineralization between strong veinlets and strong K-spar – biotite alteration.

d. Down faulted top of system.

e. Down faulted top of system.

f. Exotic copper in basin northwest of the Sol porphyry cell.

4. Faulted Segments of the Sol Porphyry Cell

The Sol porphyry copper cell is cut and broken by several major faults, which were defined either by drilling or by local geophysical surveys. Within the fault blocks adjacent to the Sol porphyry cell could be a faulted top or side of the original cell or a hidden chalcocite blanket. Other than the targets listed in d and e in section 3 above, the northwest, southeast and northern geochemical anomalies could represent this type of target.

DATA INVENTORY

~~The following materials are available in the Sol Dos data room at the offices of Resource Science, Inc., 15 West Washington Street, Tucson, AZ.~~

Item	For Take Home Package	Document Date	Date Received	Author
Remaining Exploration Potential at Sol Dos Graham County, Arizona	Yes	3/10/75	2/19/99	W.P. Durning (Amax)
Sol Drill Core Reelogging Project	Yes	5/7/76	2/19/99	W.P. Durning (Amax)
1973 Annual Review Sol Project 531	Yes	4/1/74	2/19/99	W.P. Durning (Amax)
Proposal for Amax Deep Drilling at Sol Project 531 Graham County, Arizona	No	12/29/72	2/19/99	W.P. Durning (Amax)
Sol Project Area 1972 Year End Report	No	5/1/73	2/19/99	W.P. Durning (Amax)
Sol Project Graham County, Arizona Maps	No	1/12/72	2/19/99	W.P. Durning (Amax)
Gila Mountain Exploration Amax-Sol Project, Volume 1	Yes	12/1/74	2/19/99	R.L. Boatman (Phelps Dodge)
Gila Mountain Exploration Amax-Sol Project, Volume II, DDH Dol-5 thru SOL-11	No	12/1/74	2/19/99	R.L. Boatman (Phelps Dodge)
Gila Mountain Exploration Amax-Sol Project, Volume III, DDH SOL-12 thru SOL-16	No	12/1/74	2/19/99	R.L. Boatman (Phelps Dodge)
Gila Mountain Exploration Amax-Sol Project, Volume IV, Petrographic Analysis	No	12/1/74	2/19/99	R.L. Boatman (Phelps Dodge)
Phelps Dodge whole rock analyses	No	Unknown	2/19/99	Unknown
Drill Logs Sol 1-9, 11-16	No	Various	2/19/99	Unknown
Geology, Geochemistry, Alteration and Mass transfer in the Sol Prospect	No	3/15/81	2/7/99	W. Y. Yarter (University of Arizona)
Location Map & Drill Holes Sol Dos Claims	Yes	2/21/99	2/21/99	C.P. Miller
Combined 1970 Cu-Mo Anomalies	Yes	2/21/99	2/21/99	C.P. Miller
Act Labs 1998 Enzyme leach and Mesquite anomalies	Yes	2/21/99	2/21/99	C.P. Miller

I.P. and Simple Bougeur anomalies	Yes	2/21/99	2/21/99	C.P. Miller
Exploration TargetsSol Porphyry Copper Cell	Yes	2/21/99	2/21/99	C.P. Miller
Act Labs 1998 Enzyme leach and Mesquite Color Plots	Yes	2/21/99	2/21/99	M.C. Stanley
ACTLab C.D. Rom	Yes	unknown	2/15/99	
I.P. and Resisivity Surveys	Yes	4/25/72	2/20/99	Mining Geophysical Surveys
I.P. and Resisivity Surveys	Yes	9/7/72	2/20/99	Mining Geophysical Surveys
Confidentiality Agreement	Yes	2/22/99	2/22/99	C.P. Miller

Charles P. Miller
Miller Resources, Inc
Tucson, Arizona
February 22, 1999

PROPERTY NAME: **SOL DOS**

GENERAL LOCATION: The Sol Dos porphyry copper prospect is in the Lone Star Mining district in Graham County, Arizona.

DEPOSIT MODEL: Porphyry Copper

PROPERTY SUMMARY: The Sol Dos claims were staked by Charles P. Miller in January 1999 and consist of 95 unpatented federal lode mining claims, covering about three square miles.

Significant past programs on and adjacent to the Sol Dos claims include those of Amax/Phelps Dodge (1970 – 1974), Kennecott (1992) and Noranda (1996-1998).

SIGNIFICANT MINES IN VICINITY:

Dos Pobres porphyry copper deposit - Phelps Dodge Corporation

Dos Pobres is currently under development and is estimated to contain 330 million tons of millable ore at 0.65 percent copper and 285 million tons of leachable ore at 0.29 percent copper.

San Juan porphyry copper deposit – Phelps Dodge Corporation

San Juan lies between the Dos Pobres and Lone Star deposits and is estimated to contain 270 million tons of 0.28 percent leachable ore at 0.28 percent copper.

Sanchez porphyry copper deposit - Phelps Dodge Corporation

Sanchez is currently under development and estimated to contain 230 million tons of leachable ore at 0.29 percent copper.

Safford-Lone Star Porphyry copper deposit – Phelps Dodge Corporation

The Safford-Lone Star deposit contains in excess of 1 billion tons copper resource in two distinct environments. It is currently awaiting development.

Morenci mine complex - Phelps Dodge Corporation-Sumitomo Corporation

The Morenci complex, a world class porphyry copper deposit is estimated to contain 543 million tons of millable ore at 0.68 percent copper and 1628 million tons of leachable ore at 0.29 percent copper. Morenci is currently in production

EXPLORATION MODEL: The Sol Dos area lies within a completely post-mineral covered extension of the Safford mineral trend. The potential zone of porphyry copper mineralization at the Sol Dos property was initially defined in 1971 by a team of Amax Exploration, Inc. geologists and geophysicists headed by Charles P. Miller, Kenneth Lovstrom and Frank Fritz. A combination of regional gravity and mesquite geochemical surveys outlined a general anomalous zone; this zone was further enhanced by magnetic and induced polarization surveys and later confirmed by drilling. The zone of alteration and mineralization probably exceeds 4 square miles in area and the ultimate limits of mineralized and altered rock have not been determined.

GEOLOGY:

Pre-mineral rocks at Sol Dos consist of a lower series of Cretaceous black shale, sandstone and siltstone which are overlain by an thick upper series of Cretaceous andesitic breccias, tuffs and massive porphyritic andesite. The andesitic rocks are similar to the Safford andesitic rocks described at the Dos Pobres and Lone Star mineralized areas. These rocks are intruded by two phases of igneous rocks: an early hornblende quartz monzonite porphyry and a younger hornblende biotite diorite porphyry.

Post-mineral rocks consist of 250 – 1000 feet of lakebed sediments and alluvium.

ALTERATION/ MINERALIZATION:

The alteration and mineralization at Sol Dos as defined by the 16 drill holes form a classic porphyry copper pattern with a central core of potassic alteration surrounded by an intermediate shell of phyllic alteration and an outer shell of propylitic alteration.

Mineralization is characterized by chalcocite-covellite on pyrite-chalcopyrite, chrysocolla and 1 – 8 percent finely disseminated and veinlet pyrite.

All of the pre-mineral rocks at Sol Dos are altered and weakly mineralized. The most intense alteration and mineralization are related to the diorite porphyry and its contact zones primarily with the andesitic rocks.

RESOURCE POTENTIAL:

The Sol Dos prospect is along the broad northwest-southeast trending Safford mineral belt which includes the Dos Pobres, San Juan, Sanchez, Safford and Lone Star porphyry copper deposits of Phelps Dodge Corporation.

The mineralized system defined to date by 16 drill holes covers more than 4 square miles. Although the central part of the system has been tested, significant Enzyme Leach and mesquite geochemical anomalies occur on untested parts of the Sol Dos claim block.

Reinterpretation of early mesquite geochemical data coupled with recent ensyme leach and mesquite data have outlined extensions of the original anomaly in areas where the system has not been drilled. These extensions together with zones within the original anomalous zone constitute the main exploration targets on the Sol Dos property.

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February 2, 1999

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3/1999

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Mineral Resource Data System **(MRDS)**
US Geological Survey Digital Data Series 20
Release 1 June 1996

RECNO	D011412
REC_TYPE	S
REP_DATE	83 04
REP	DAVIES, ROBERT C. (WORL, RON)
REP_AFF	USGS
DIST	LONE STAR DISTRICT
COUNTY	GRAHAM
STATE_CODE	AZ
CTRY_CODE	US
QUAD1	SILVER CITY
Q1_SCALE	250000
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SITE	SOL MINE
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ORE_MAT	CHALCOPYRITE
MAJOR	CU
PROD	N
STATUS	1
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TYPE	R
AFFIL	USGS
HUC	15040005

RECNO	D011412
REC_TYPE	S
REP_DATE	83 04
REP	DAVIES, ROBERT C. (WORL, RON)
REP_AFF	USGS
DIST	LONE STAR DISTRICT
COUNTY	GRAHAM
STATE_CODE	AZ
CTRY_CODE	US
QUAD1	SILVER CITY
Q1_SCALE	250000
ACC	WITHIN 10 SEC. TO CENTER OF SITE
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LONG	-109.5444
CTRY_NAME	UNITED STATES
COMMOD	CU
ORE_MAT	CHALCOPYRITE
MAJOR	CU
PROD	N
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NAME	DAVIES, ROBERT C. (WORL, RON)
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PROF_ALL	70
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TYPE	R
AFFIL	USGS
HUC	15040005

FROM: MINERAL DEPOSITS MAP OF THE SILVER CITY 1°x2° QUADRANGLE
USGS MAP I-1310 B - 1983 BY RICHTER AND LAWRENCE

SOL (F) GRAHAM

MAP NO.	NAME	LOCATION	GEOLOGY	ORE MINERALS	HISTORY AND DEVELOPMENT	PRODUCTION	REFERENCES
5	Sanchez (Safford Inspiration)	NE1/4sec. 26 T. 6 S., R. 27 E.	Secondary copper minerals in veins and disseminations in quartz monzonite porphyry pluton and host andesite volcanics	Oxide minerals--chrysocolla, brochantite	Old shaft indicates considerable early underground development. In 1970's developed for leaching operation. Inactive in 1980. Deposit contains 72 million metric tons of 0.18% Cu in oxide ore	About 7 metric tons Cu	100, 190, 191
6	SOL	Secs. 23, 24, 25, 26 T. 7 S., R. 27 E.	Sulfide system in monzonite pluton and host andesite volcanics overlain by as much as 200 m of Quaternary and Tertiary lacustrine and alluvial deposits	Primary minerals--chalcopyrite(?)	Discovered in 1970's by geophysical and geochemical surveys. Extensively drilled. Inactive in 1980. Deposit contains 3-15% sulfides	None	210
			Cu Vein Deposits				
	Same geologic environment as the porphyry copper deposits. Early activity in the Lone Star mining district was restricted chiefly to exploration and mining of these high grade oxidized veins that are localized in shear zones generally peripheral to the known porphyry deposits. Only a few of the many vein deposits in the district are described below.						
7	Ben Hur	N1/2sec. 36 T. 5 S., R. 26 E.	Secondary copper minerals and quartz in 0.5 m-wide shear zone (N75°E, 85°S) along contact of brecciated felsic dike and Late Cretaceous andesite volcanics	Chrysocolla	Old shallow shaft and trenches. Inactive in 1980	- - - - - - - - -	
8	Au	NE1/4sec. 8 T. 6 S., R. 27 E.	Secondary copper minerals and thin quartz stringers in shear zone (N65°E, vert) in Late Cretaceous andesite volcanics	Chrysocolla	Old shaft, >10 m deep, and trench. Inactive in 1980	- - - - - - - - -	
9	group of 5 prospects	SE1/4sec. 8, SW1/4sec. 9, NW1/4sec. 16 NE1/4sec. 17 T. 6 S., R. 27 E.	Secondary copper and iron minerals and quartz in thin (<1 m) shear zones trending between N75°E and E-W in Late Cretaceous andesite volcanics	Chrysocolla	Old shafts, adits, and pits. Inactive in 1980	- - - - - - - - -	
10	Lone Star	C sec. 7 T. 6 S., R. 27 E.	Secondary copper and iron minerals, quartz, and jarosite in shear zones in Late Cretaceous andesite volcanics	Chrysocolla	Old shafts and pits. Inactive in 1980	Possibly as much as 15,000 metric tons Cu, 170 kg Ag, and 11 kg Au. Figures may include production from other mines in district	100

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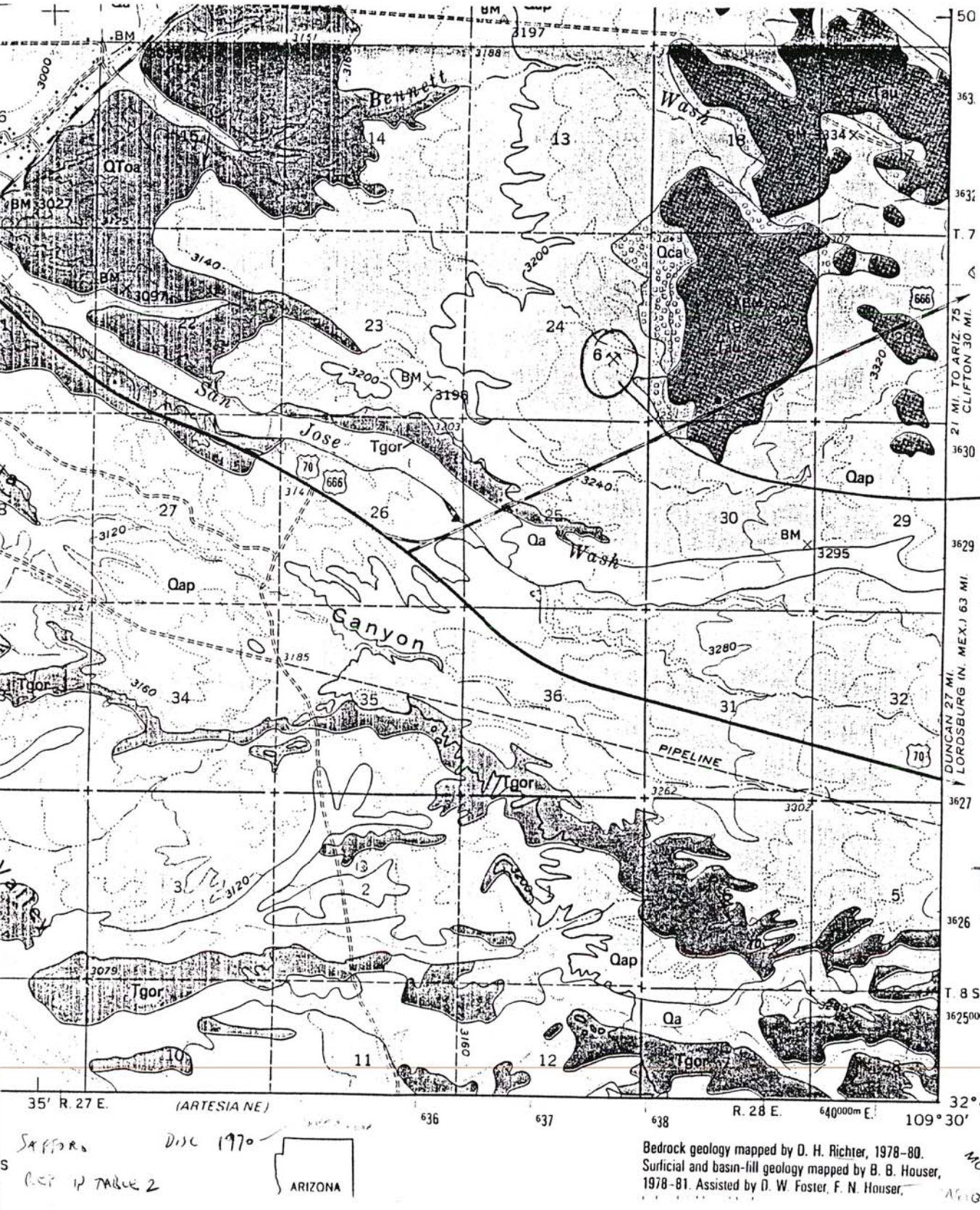

PORTION OF USGS I-1617 MAP

GEOLOGY MAP OF SAFFORD QUAD

02/03/92

ARIZONA COPPER RESERVES

COMPILED BY

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

PROPERTY:

SOL

OPERATOR\OWNER:

Arimetco
6245 E. Broadway, Suite 350
Tucson, Az 85711
602-745-8882

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"PD OLD ORE ONE REMAINED
NO GOLD" REPORT
HARRISON MATTSON OF
ARIMETCO.

LOCATION INFORMATION:

TOWNSHIP 7 S RANGE 27 E SECTION 24
COUNTY - Graham AZMILS - 308
DESCRIPTION - 10 miles east of Safford

ORE TYPE AND RESERVE INFORMATION:

- MILLION TONS AT %

RESERVE INFO - No known economic reserves.

SOURCES:

USGS I 1617 - Geologic Map of Safford Quad. by Houser et al (1985
) Arimetco International, Inc. Prospectus May 16, 1990