



CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
3550 N. Central Ave, 2nd floor
Phoenix, AZ, 85012
602-771-1601
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

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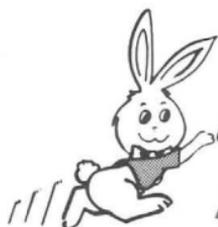
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The Arizona Geological Survey is not responsible for the accuracy of the records, information, or opinions that may be contained in the files. The Survey collects, catalogs, and archives data on mineral properties regardless of its views of the veracity or accuracy of those data.

Aug 26, 1983

Visited Area on Aug 23 with
Bill Kavis. "Chlorite Attention
Paper" does not exist. Only
alginate, greensheet chlorite
in area. Property been
tested. No further interest.
Kavis to write something for
file.

Jerry.



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5103 Menaul Blvd. NE

Free Pick Up
And Delivery

Date: August 15, 1983
Subject: MONTHLY REPORT - JULY, 1983
From: W. Karis
To: R. J. Miller

Marquette Project, Michigan

Detailed mapping and geochemical soil and rock sampling were conducted on grids at anomaly MA-11N and in the NW quarter of Section 24. Also, reconnaissance mapping and rock sampling were done in the east half of Section 24 on land which was recently leased from the State. Data from this mapping are presently being plotted and interpreted and the results of assaying are pending. Our preliminary impressions are that the whole of Section 24 is traversed by a NW-trending, quartz-feldspar rhyo-dacite porphyry dike which, in parts, has been extensively brecciated, sericitized, carbonatized and silicified. Although this zone is generally lacking in sulphide mineralization, it does contain several slightly pyritized sections and is adjacent to a few small showings, some with abundant pyrite in silicified volcanics and some with quartz-carbonate veins with Cu, Pb and Zn sulphides. This zone has not been explored in the past and is not noted in maps on records produced by Resource Exploration. Our initial surveys are encouraging.

Reconnaissance field work and a study of exploration work performed by Norgan Mining in the 1930's has prompted us to further explore Sections 34 and 35 where a number of gold showings were unsuccessfully tested in the past. Mapping and sampling will be conducted during August along a cherty iron-formation horizon which parallels gold-bearing zones drilled by Norgan. The old reports mention values of up to 0.6 oz/T in iron-formation in Section 34 but we have not been able to locate this sample site from the available data. Some work is also planned in the vicinity of Norgan's drilling and trenching.

Michigan Generative

Cleveland Cliffs Iron has offered to lease to NICOR approximately 60,000 acres of mineral rights which CCI owns or controls in the area north and west of Marquette. Except for about 1,000 acres which cover greenstones, the properties appear to be underlain by granite, granite gneiss and proterozoic sediments which contain little or no potential for gold mineralization. The geology of the properties will be studied in greater detail to determine whether a lease is warranted.

A literature search for prospective areas in the North Central States continues.

Wyoming Generative

Upon compiling a land ownership map of the South Pass area using data collected by Keith Tockman, it was decided to expand the area of coverage to include the whole of the mineral district. A search of the BLM claims files and MT plats in Cheyenne, rather than the county records examined by Tockman in Lander, revealed that a large part of the area which initially appeared available to NICOR had, in fact, been withdrawn from mineral locations since 1976 and 1970. Claims staked in these areas are completely invalid. Scott Gilmer, BLM Withdrawal Review Coordinator, informs us that some of the areas may be released in September. The land status of this highly prospective district is being studied with the view of obtaining a land position through staking or leasing.

Arizona Generative

Amselco's data package on the Stoddard property in Yavapai County was reviewed during the month. An area of about three square miles, which has been extensively explored by Amselco/Newmont/Preussag from 1980 to 1982, has been offered for joint venture exploration by NICOR. Essentially the prospect is underlain by a thick, steeply-dipping sequence of felsic to mafic volcanic flows and pyroclastics which are cut by a chloritic alteration "pipe" and which contains a number of copper mines and prospects, mainly associated with chlorite alteration. The "pipe" as exposed on the surface covers an area 4,000 feet long EW and 2,000 feet NS with an apparent necking to the west and a widening to the east. The Amselco JV has spent more than \$1 Million in exploration, including mapping, geophysical surveying and the drilling of seven diamond drill holes. The holes are located at the west end of the chlorite "pipe" which the Amselco JV believes to be the top because the volcanic sequence dips west at 75° to 85° . No significant mineralization was intersected in any of the holes.

Except for a passing reference to a single top determination in one of the reports, no such structural data seems to have been gathered. The single notation about "tops" indicates that tops are to the east, contrary to the JV's assumption and contrary to the exploration model used for drilling.

If in fact this volcanic sequence youngs to the east and the chloritic alteration is similar to that underlying many known massive sulphide deposits (rather than porphyry-type alteration), the chances are good that a major mineral deposit occurs at the eastern terminus of the "pipe", east of and outside Amselco's property. Arrangements have been made to examine this possibility with Gary Parkison in mid-August.

July 26/83

G. Parkison

NICOR Mineral Ventures

Gary —

Enclosed are several maps of Amelco's Stoddard property in Yavapai Co., Arizona. Note that all the drilling was concentrated on the western projection of the "chlorite pipe" but encouraging mineralization was intersected except in the "pipe." Geophysics rules out any significant massive sulphide deposit within 1000 feet of the surface in the area surveyed.

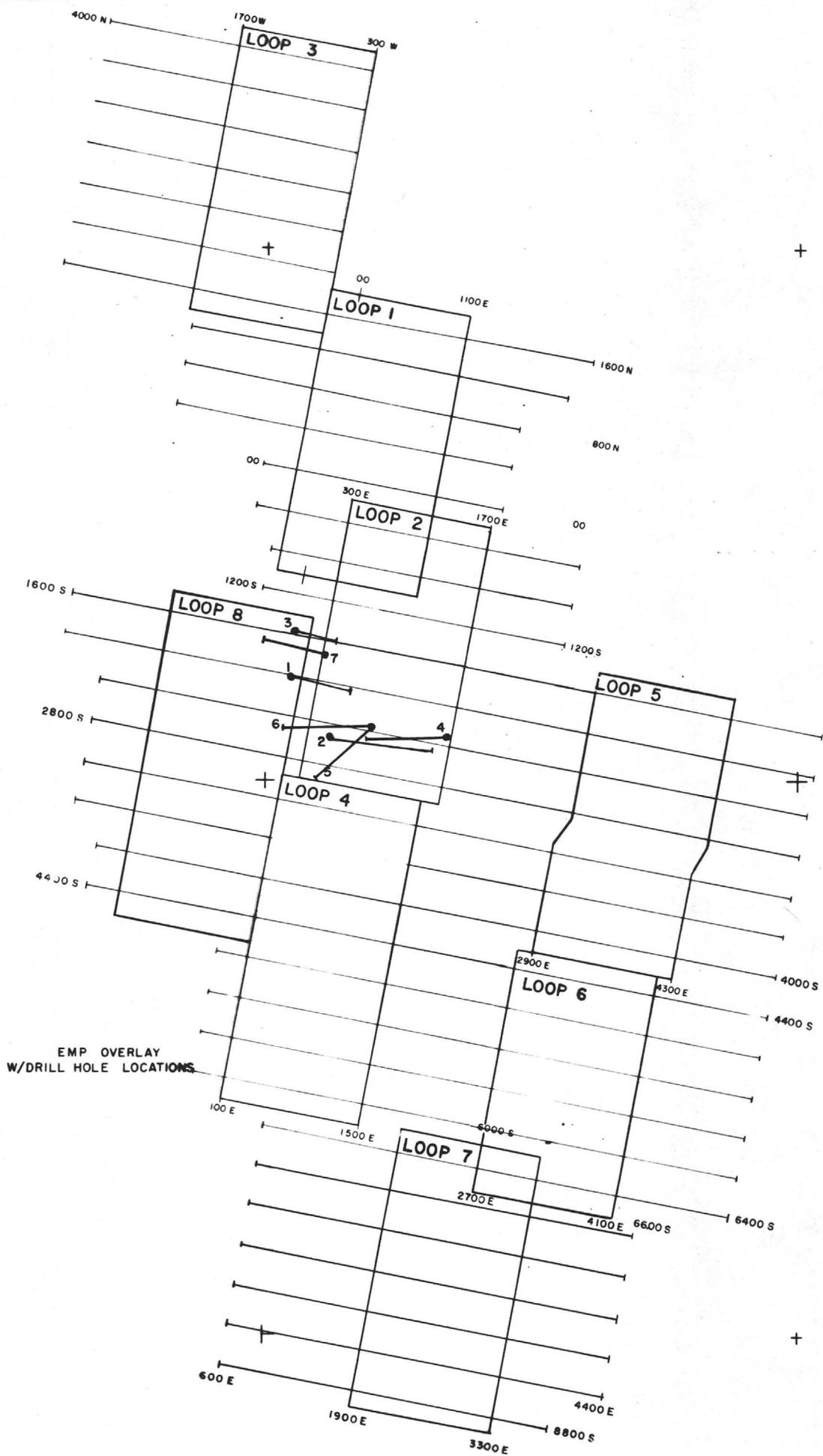
However, if the sequence is overturned, there may be a substantial deposit in Sections 16 or possibly 21. Certainly the size of the alteration "pipe" is impressive.

I'll call you next week to try to set up of visit to the area.

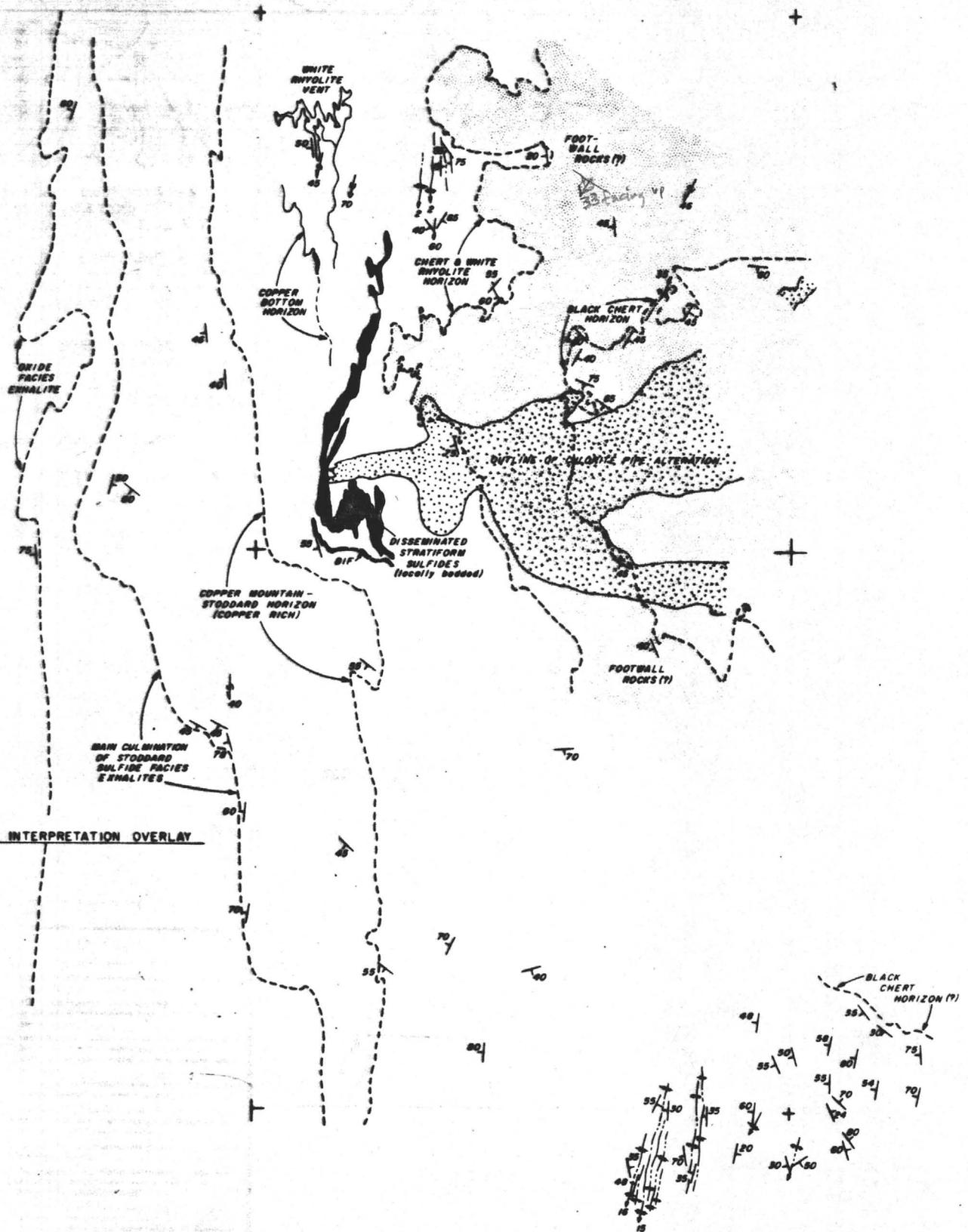
Bill Rais

Talk w/ Bill 8/8 -

Contact later this week, re. set up to go w field notes in next few weeks

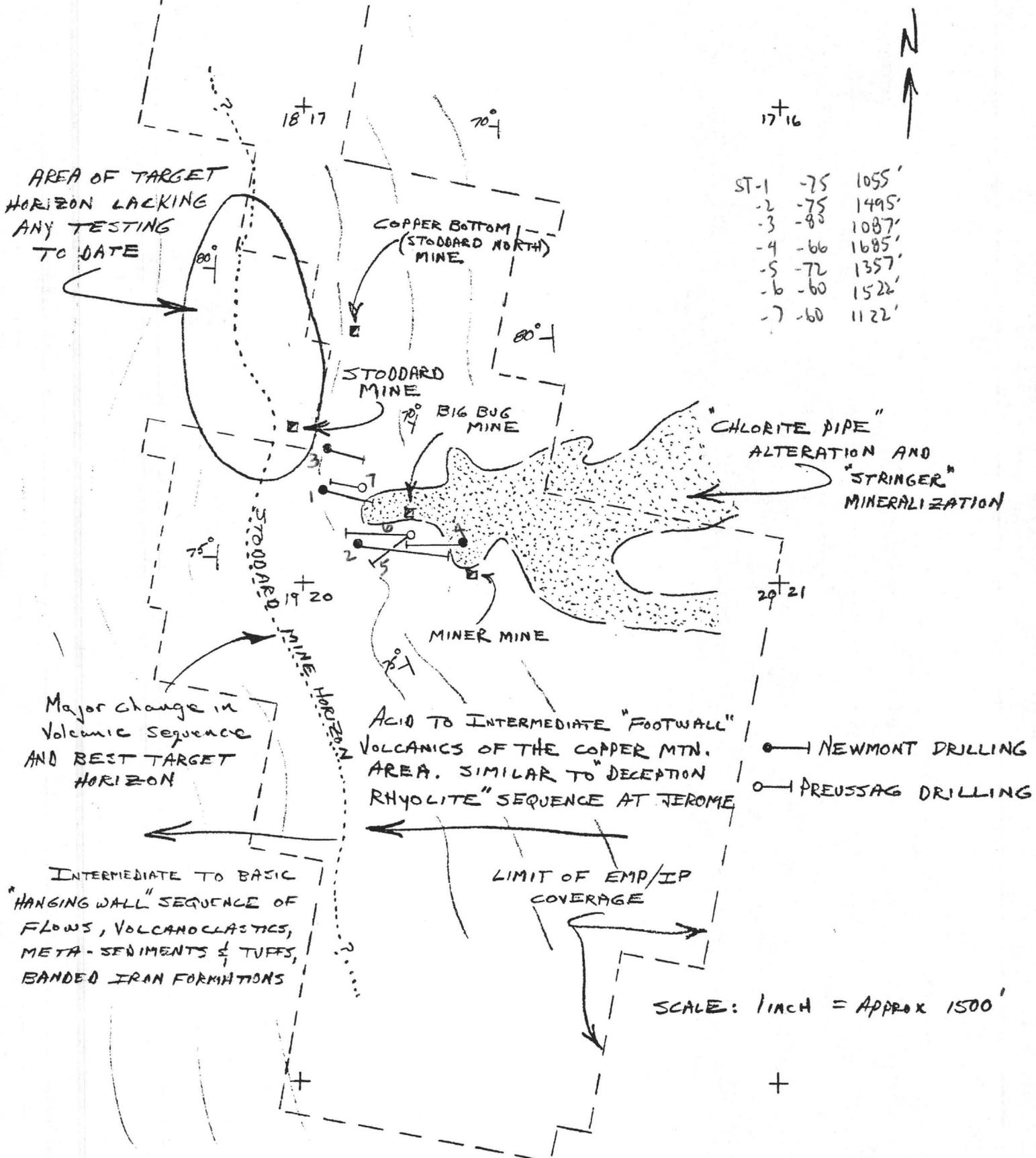


EMP OVERLAY
W/DRILL HOLE LOCATIONS



INTERPRETATION OVERLAY

BLACK CHERT HORIZON (?)



ST-1	-75	1055'
-2	-75	1495'
-3	-80	1087'
-4	-66	1685'
-5	-72	1357'
-6	-60	1522'
-7	-60	1122'

Holiday Inn - Lansing, MI. Thurs tomorrow 5/24

no date yet 5/23

Holiday Inn - Chagone, NY.
← Tomite, Tues, Wed. →



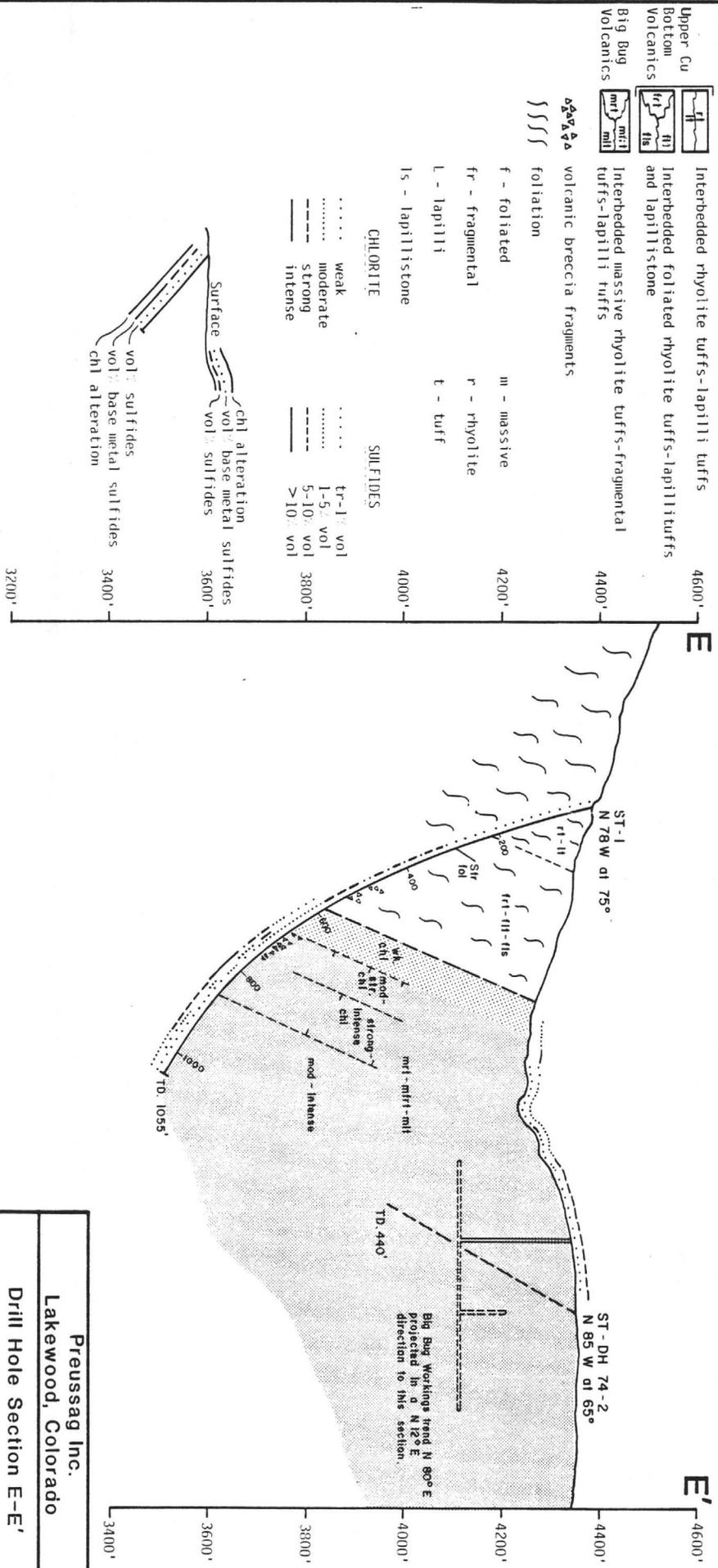
Cherry Creek - Lansing, MI.
Morton Susan - Lansing, MI.
Hinsdale head ft. up to - Spaldard Mine -

continued page 749-4677
Irene - Bill Kernas - (607) 749-4677
- package out to Falconbridge -
Paul Strabel - Ameliso -

one and the same. Make Lawrence photo

Information on the bank building and surrounding area, will be provided by the Hinsdale County

DRILL HOLE ST-1 (Section looking N 12 E)



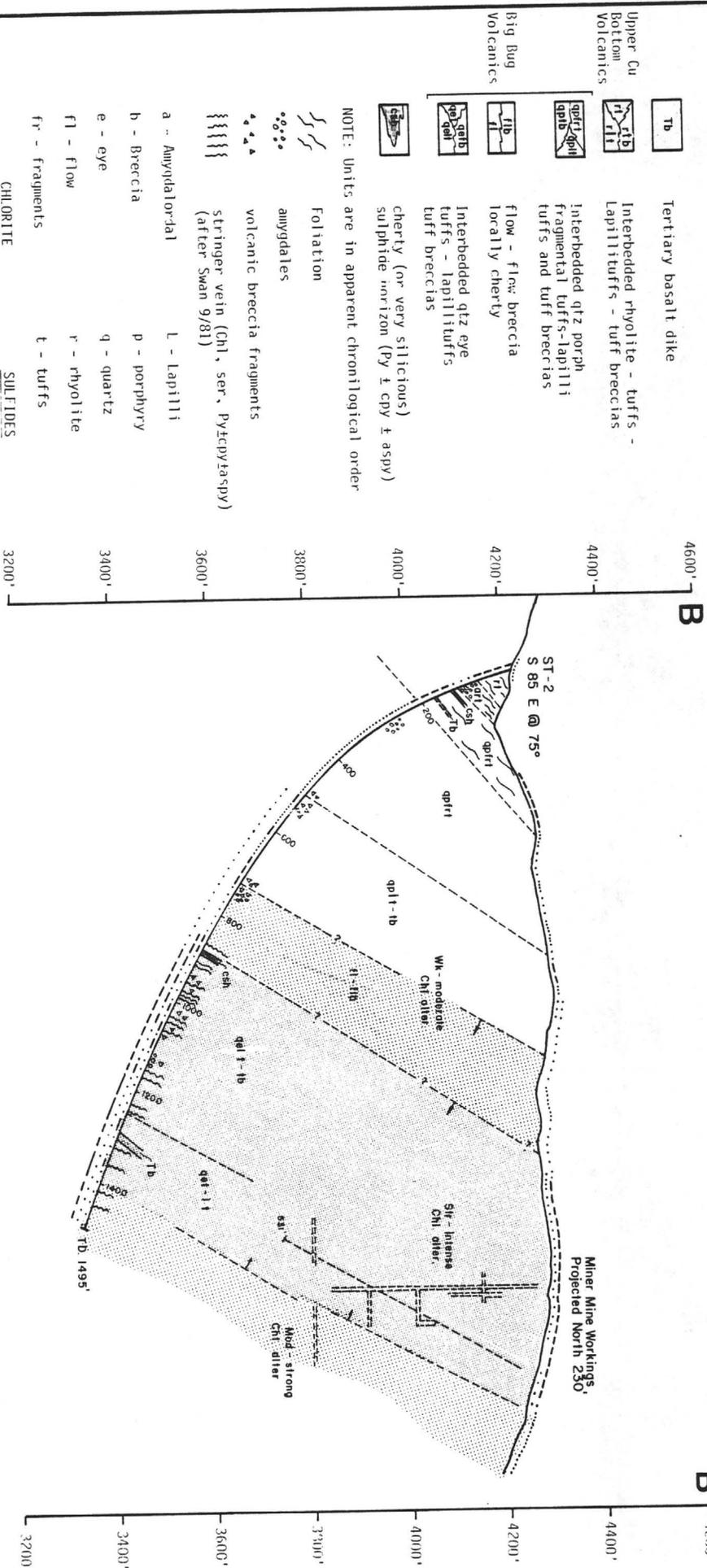
Preussag Inc.
Lakewood, Colorado

Drill Hole Section E-E'
Stoddard Project

0 600 ft
Yavapai County, Arizona

REL: Swan 9/81 D.A.B. 8/82

DRILL HOLE ST-2 (Section looking N 5 E)



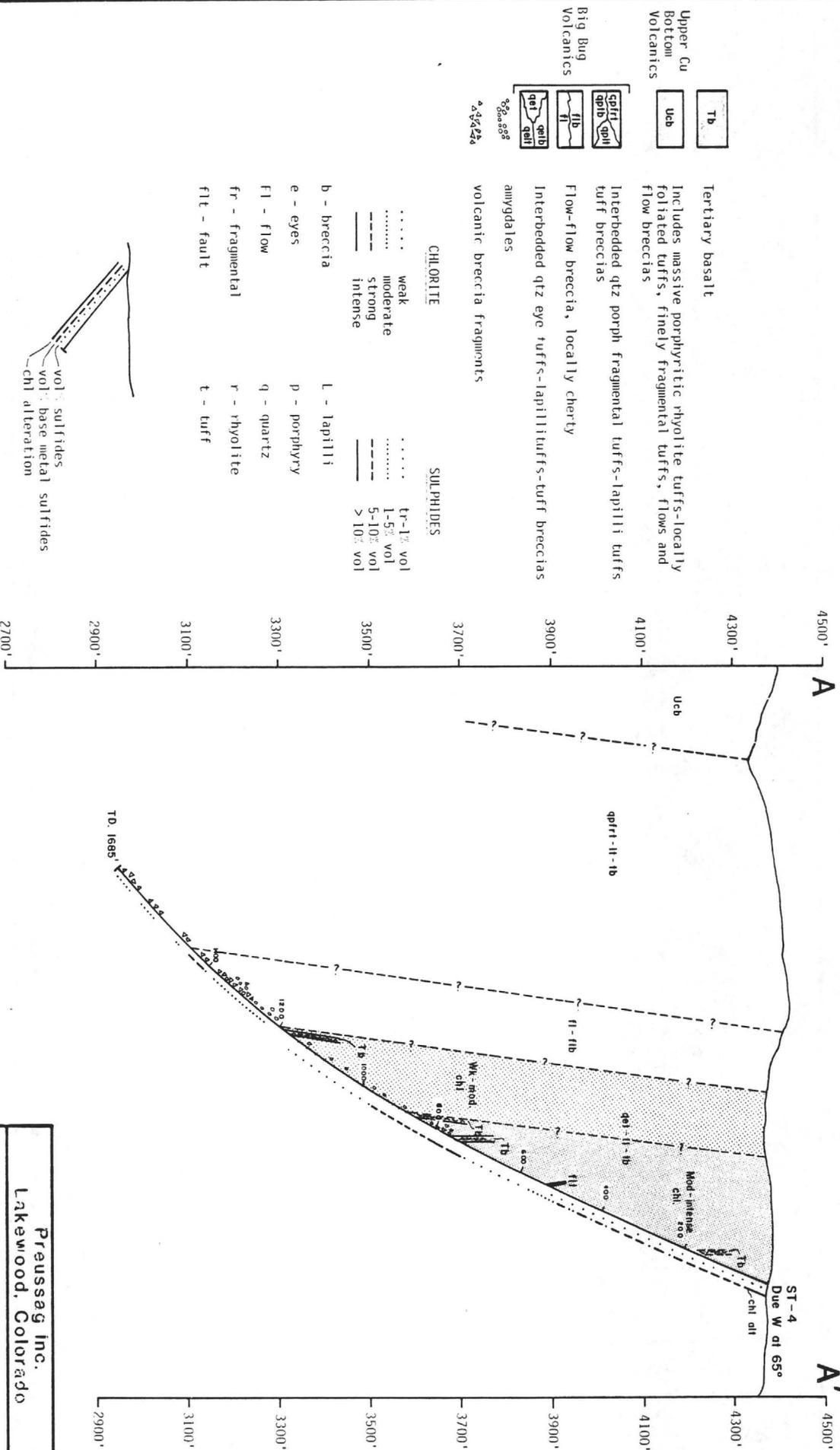
Preussag Inc.
Lakewood, Colorado

Drill Hole Section B - B'
Stoddard Project

Yavapai County, Arizona

Scale: 0 to 600 Ft.
Date: 11/8/82

DRILL HOLE ST-4 (Section looking N)

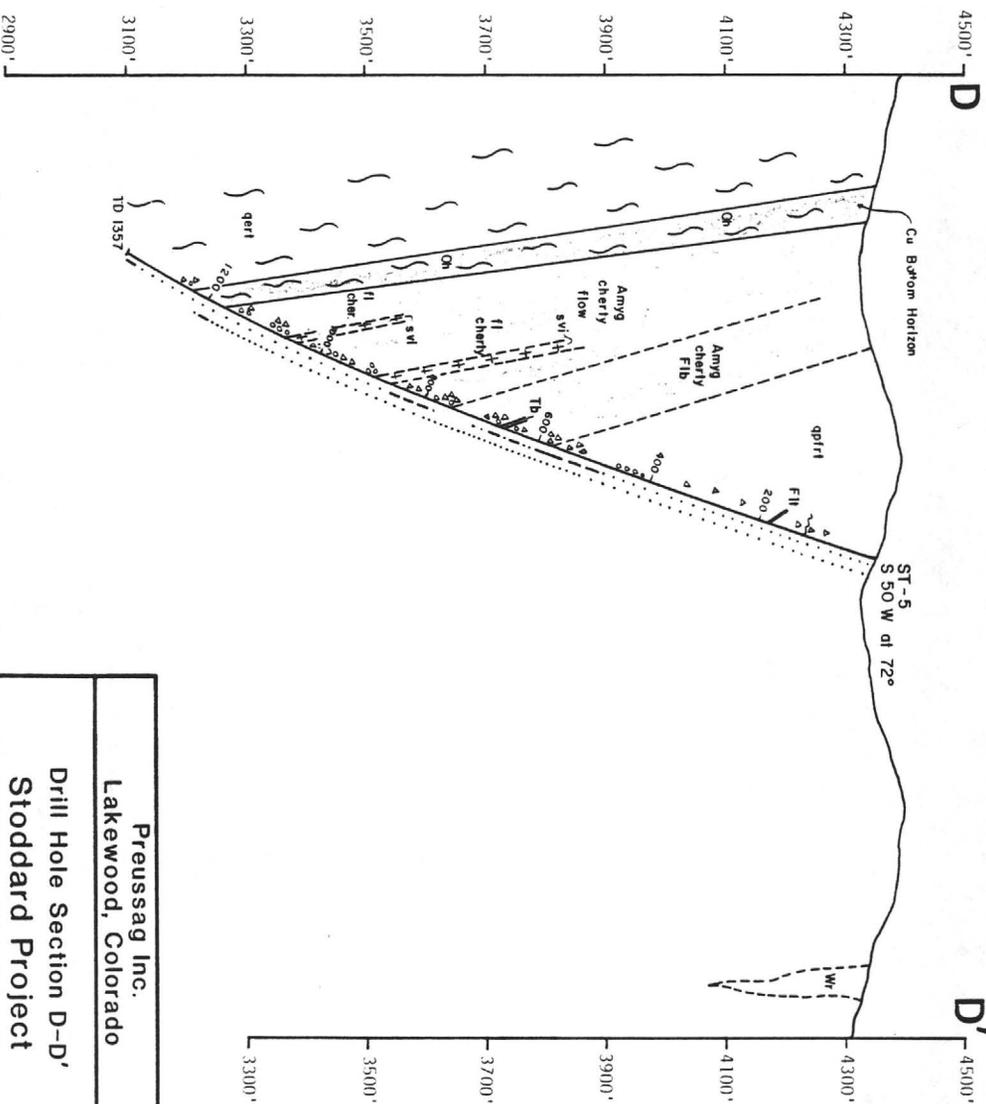


Preussag Inc.
Lakewood, Colorado

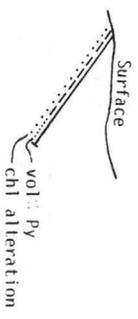
Drill Hole Section A-A'
Stoddard Project

Yavapai County, Arizona 600ft
D A B 8/82

DRILL HOLE ST-5 (Section looking N 40 W)



- Tertiary basalt dike
- Subvolcanic intrusive
- Oxidize horizon - includes bonded iron formation oxidized rhyolite and oxidized chert fragments
- Flow - flow breccia, locally cherty
- Interbedded qtz eye tuff-lapilli tuffs-tuff breccias, locally cherty
- Interbedded qtz porph fragmental tuffs-lapilli tuffs-tuff breccias
- amygdales
- volcanic breccia fragments
- foliation
- stringer vein (chl, ser, py)
- b - breccia
- e - eye
- q - quartz
- fl - flow
- flt - fault
- L - lapilli
- p - porphyry
- r - rhyolite
- fr - fragmental
- t - tuff

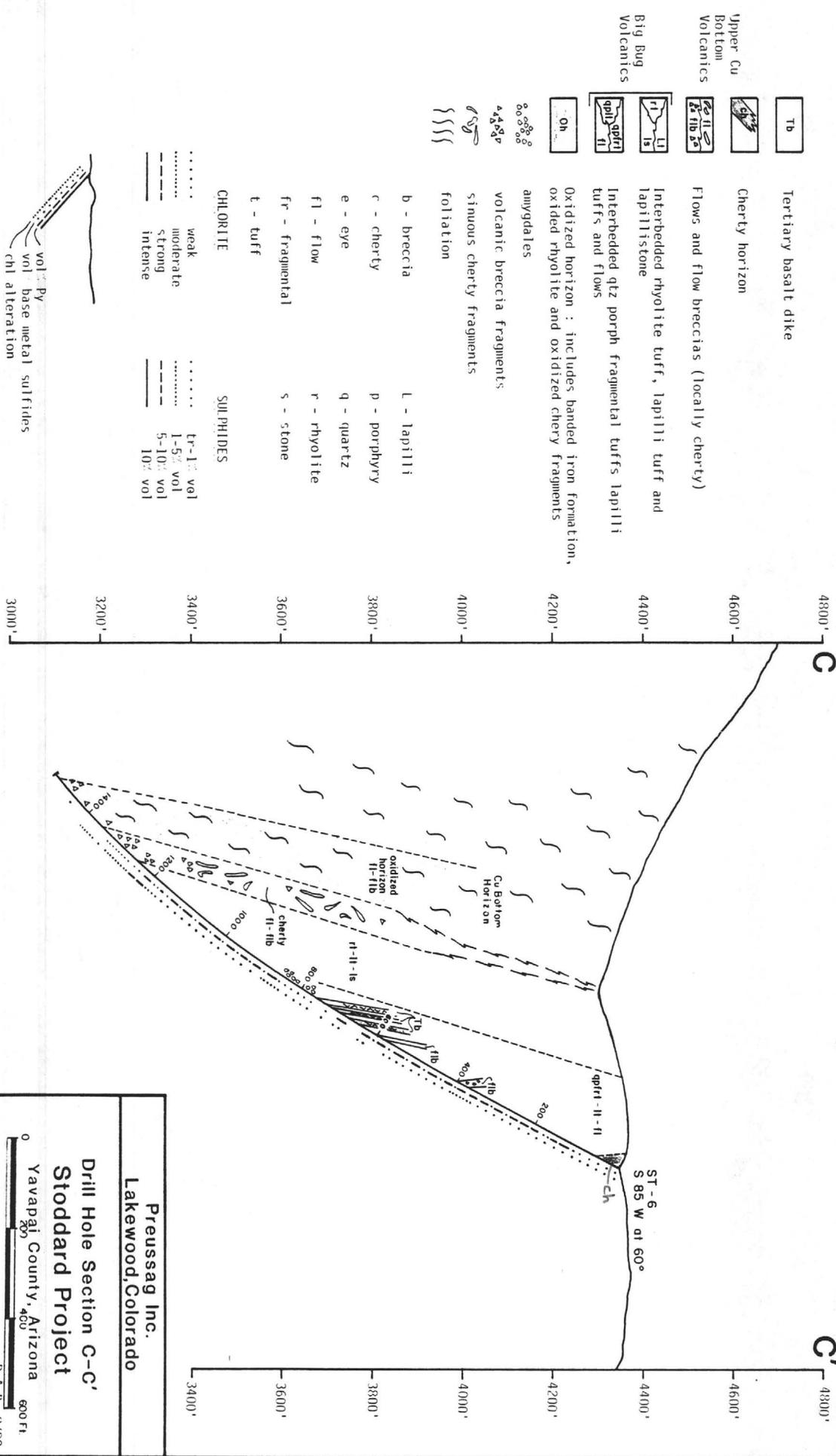


Preussag Inc.
 Lakewood, Colorado

Drill Hole Section D-D'
Stoddard Project

Yavapai County, Arizona
 600 Ft.
 0 200 400
 D A.R. 8/82

DRILL HOLE ST-6 (Section looking N 5 W)

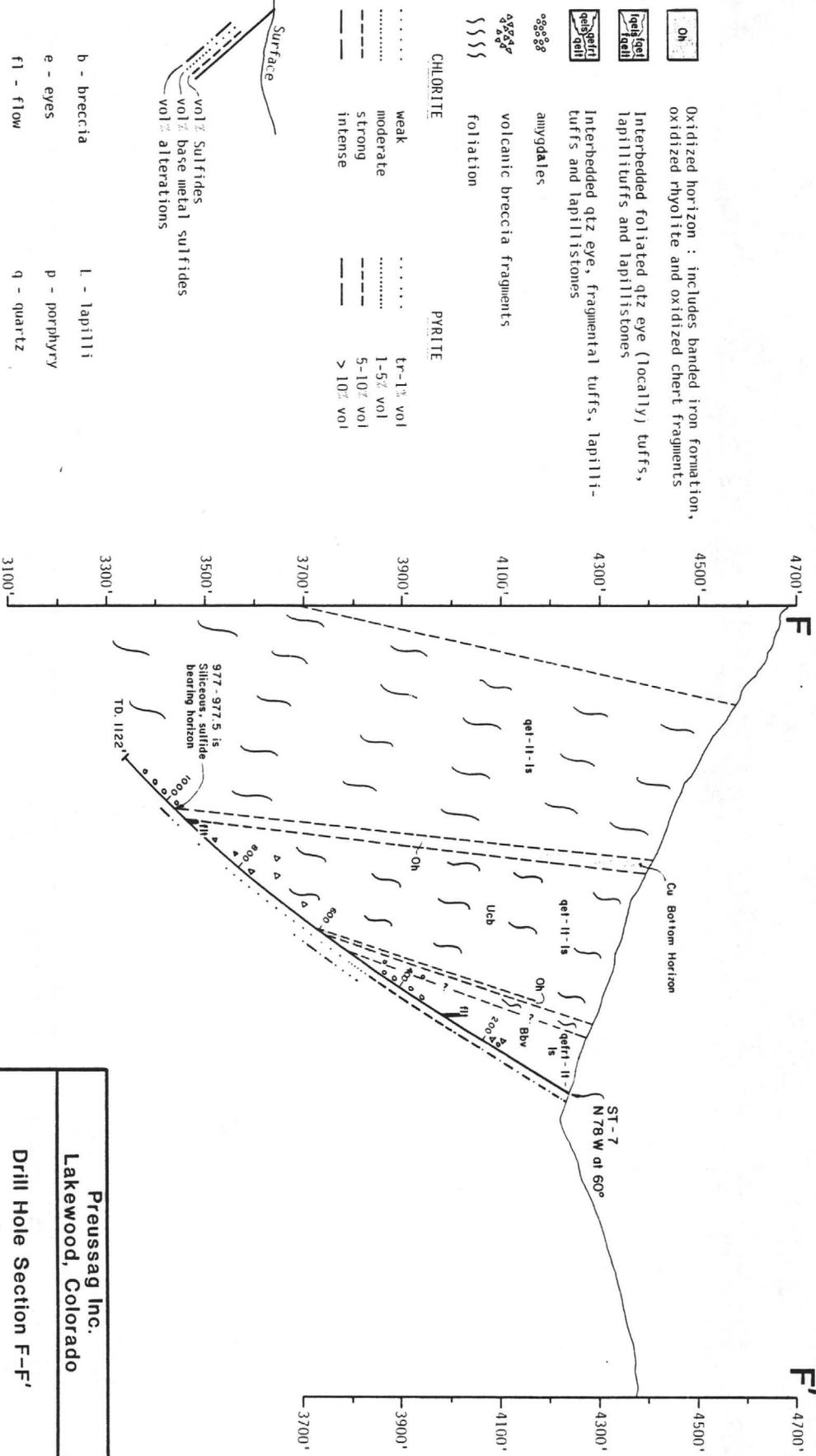


Preussag Inc.
Lakewood, Colorado

Drill Hole Section C-C'
Stoddard Project



DRILL HOLE ST-7 (Section looking N 12 E)

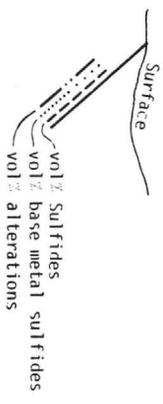


Upper Copper Bottom Volcanics
Big Bug Volcanics

OH
Oxidized horizon : includes banded iron formation, oxidized rhyolite and oxidized chert fragments
Interbedded foliated qtz eye (locally) tuffs, lapillistones and lapillistones
Interbedded qtz eye, fragmental tuffs, lapillistones and lapillistones
amygdalites
volcanic breccia fragments
foliation

CHLORITE
weak
moderate
strong
intense

PYRITE
tr-1% vol
1-5% vol
5-10% vol
> 10% vol



b - breccia
e - eyes
fl - flow
fr - fragmental
flt - fault

L - lapilli
p - porphyry
q - quartz
r - rhyolite
t - tuff

Preussag Inc.
Lakewood, Colorado

Drill Hole Section F-F'
Stoddard Project

Yavapai County, Arizona
200 400 600 Ft.
D.A.B. 8/82

Evaluation of Stoddard Submittal
Yavapai County, Arizona

August 31, 1983

to G. Parkison
from W. Kavis

The Stoddard massive sulphide prospect was submitted to NICOR Mineral Ventures for consideration as a joint venture project with Amseco Exploration. Following a review of an exploration data package and a field examination, it was concluded that the prospect does not offer a significant potential for the discovery of a mineral deposit that would meet NICOR's objectives. Amseco has been notified of our conclusion.

The Stoddard property consists of approximately 3 square miles of patented and unpatented claims located in Sections 8, 16, 17, 20 and 21, T 12N, R 2E, Yavapai County, Arizona. Between 1980 and 1983, the Amseco Joint Venture (Amseco Exploration, Newmont Exploration and Preussag) spent about \$1 million to explore the property with geological mapping, geochemical sampling, geophysical surveying (including IP, dc resistivity, surface and down-hole EMP and magnetics) and diamond drilling of more than 9000 feet in 7 drill holes. None of the holes intersected important mineralization and none of the surveys detected anomalies that might be indicative of massive sulphides.

The property is underlain by a west-dipping sequence of mafic to felsic volcanic flows and pyroclastics which

have been cut by felsic intrusions. Amselco's mapping outlined a number of "exhalite chert units" of sulphide, carbonate and oxide facies. On the basis of drill hole logs and field exams, I suggest that most, if not all, of these "exhalite" horizons are either (1) brecciated quartz-carbonate fault zones, (2) zones of silica replacement and (3) quartz-rich interflow sediments. I have not seen any evidence or read any descriptions of these "units" which would suggest that they may be considered "exhalites".

Amselco's interpretation maps show a large zone of "chlorite pipe" alteration and "stringer" mineralization which covers an area 4000 feet long by 2000 feet wide. The Big Bug and Minor mines were interpreted by Amselco to be within the "chlorite pipe" and the Stoddard mine to be in a similar "chlorite" area. All 7 of the Amselco JV's drill holes were put down at the west end of the "chlorite pipe" to test the inferred "top" of this feature, although none of the data submitted by Amselco showed any top determinations: tops were assumed to be in the direction of dip.

NICOR's field evaluation was made to determine the nature of the "chlorite pipe" alteration and "stringer" mineralization and to determine the facing of the volcanic sequence. Our thought was that if the alteration was really a massive sulphide-type of pipe and if the volcanics faced east, the potential for a sizeable deposit existed to the east of Amselco's property. The interpreted

"chlorite pipe" was examined in the southwest quarter of Section 17 and was found to contain no more chlorite than is present in other parts of the property. No massive chlorite veins or veinlets were observed in the area and no quartz or chalcopyrite or pyrite veining was seen in outcrop (exposures are good). Dump material at the Big Bug and Minor mines shows nothing beyond greenschist metamorphism. I have no idea why this zone was singled out in Amseco's interpretations. Although facings become purely academic without an alteration pipe, graded bedding in interflow sediments in the northeast quarter of Section 17 showed a strike of $N60^{\circ}W$ and tops to the SW.

The Stoddard property may have a potential for small-tonnage Cu-Zn deposits associated with fault zones but it does not appear to have any features suggestive of massive sulphide mineralization. It is recommended that no further interest be expressed in this prospect.

W Kain

XC - RJ Miller

August 15, 1983

P. S. Strobel
Amselco Exploration Inc.
90 West Grove Street
Suite 100
Reno, Nevada 89509

Re: Stoddard Mine Area

Dear Paul,

I have now had a chance to review your data package and discuss this property with NICOR. I am sorry to say that we are not in a position to join Amselco in joint exploration of the prospect at this time. Although the lithology, alteration and mineralization are all attractive factors, it appears that your testing over the past few years has been thorough and adequate and that only "long shots" remain to be explored on the properties.

Thank you for giving NICOR the opportunity to join you in this venture and please keep us in mind for other possibilities.

Enclosed is the data package you sent me.

Regards,
William Kain
NICOR Mineral Ventures



90 West Grove Street, Suite 100, Reno, Nevada 89509

June 16, 1983

Mr. William Kavis
2650 N. Conestoga Ave.
Tucson, Ariz. 85749

RE: Stoddard Mine Area Data

Dear Bill:

Enclosed is a data package pertaining to the Stoddard Mine area in Yavapai Co., Ariz. Since Anselco's position on the Stoddard Project has not changed significantly from the Feb. 9, 1983 letter to Gulf Minerals, the letter to Norm Lehman included in this package should be sufficient information for now.

I'd like the package returned as soon as you've had sufficient time to determine possible interest on behalf of Nicor Mineral Ventures. Please advise at your earliest

Regards,
Paul Stoddard



**AMSELCO
EXPLORATION INC.**

90 West Grove Street, Suite 100
Reno, Nevada 89509
Telephone: (702) 827-2270
Telex: 354424
Facsimile: (702) 827-3463

February 9, 1983

Mr. Norm Lehman
Gulf Mineral Resources Company
2045 N. Forbes Boulevard
Suite 106
Tucson, Arizona 85745



Re: Stoddard Mine Area

Dear Norm:

As discussed in our recent telephone conversation, Amselco has chosen to consider Gulf's inquiry and preliminary proposal to seek an exploration joint venture in Yavapai County, Arizona, known as the Stoddard Mine area currently held by Amselco on its sole behalf. This area was the subject of a recently terminated joint venture between Amselco, Newmont, and Preussag, in which the current property position was consolidated and roughly \$1,000,000 was expended in the course of exploration activities.

Currently, Amselco's interest in the property is the continued potential for the discovery of a "Jerome-like" (UV/UVX) ore deposit in the immediate vicinity of the old Stoddard mine. We feel the recently concluded efforts by Newmont and Preussag, while considered very competent and appropriate, failed to adequately test certain areas and aspects of the Stoddard Mine vicinity to Amselco's satisfaction. As I may have mentioned, until very recently Amselco had subsequently planned to drill a few relatively deep holes beneath the Stoddard Mine workings to test what we feel to be one of the more favorable horizons that remain untested at this time.

Although I am not authorized to formally commit Amselco to a joint exploration and development venture arrangement with Gulf, I am able to suggest some basic requirements and guidelines which could lead to an Amselco - Gulf Resources agreement.

*The agreement would be based on an "earned interest" formula such that Gulf would actually earn a proportionate share in the properties as exploration funds were expended.

*Gulf would be required to expend funds for exploration of the property at a minimum set figure prior to gaining any vested interest...most likely a level of expenditure to match that of Amselco's through December 31, 1982...roughly \$226,000.

*Amselco would not be required to contribute any exploration funds prior to Gulf earning a vested interest in the properties, essentially matching Amselco's expenditure through December 31, 1982.

*Gulf would be required to reimburse Amselco for those expenditures beginning January 1, 1983...primarily amounting to those costs involved in holding properties, etc. These funds could be credited against any minimum expenditure level requirement.

*Gulf would be allowed to earn a majority interest in the properties while serving as operator, once sufficient funds had been expended, etc. The limit to which Amselco would be willing to dilute is probably on the order of 40% to 49%. At whatever limit is agreed and ultimately reached, Amselco would then be required to contribute a proportionate share of funds, or elect to dilute further, etc.

*A general plan of exploration must be agreed to prior to execution of a formal agreement. Essentially this means we are strongly of the opinion that the Stoddard Mine horizon is a primary target at this stage of exploration and feel a joint venture partner should share this view and be willing to test it accordingly.

*Certain other typical joint venture clauses would need to be addressed such as: establishment of area of interest, confidentiality, provisions for management and meetings, etc.

Certain property obligations in the Stoddard area will become significant later this year. Therefore, we'd like to establish a mutual interest with Gulf as quickly now as possible. Otherwise, we will be forced to reconsider further testing of the target areas ourselves on relatively short notice. I'd be happy to meet with you to discuss this matter and supply necessary data at your convenience.

Sincerely,

AMSELCO EXPLORATION INC.



Paul S. Strobel
Exploration Services Manager

PSS/ck

Enclosure

cc: A.P. Taylor w/o enclosure
H.M. Lane w/o enclosure
B.D. Rayment w/o enclosure



MEMORANDUM

Date: 9/1/83
Subject: Monthly report
From: W. Karis
To: R. J. Miller

Marquette Project, Michigan

Soil and rock sampling and geological mapping were conducted in sections 34 and 35, 49-27 and in section 5, 48-26. This work is designed to evaluate the gold potential of a zone which contains chert and iron formation in the vicinity of weak gold mineralization in felsic dikes. Parts of this zone in sections 34 and 35 and known to contain anomalous gold values and one old report mentions a sample value of 0.6 oz./ton from section 34. Sampling done by the USGS in section 5 and 6 shows the iron formation to be anomalous in Cu, Pb and Zn (samples were not assayed for Au or Ag). The results of NICOR's sampling are not yet available.

The results of sampling done in July in section 24, 49-28 are quite encouraging. As mentioned in last month's report, this section is crossed by a series of quartz-feldspar porphyry dikes which in part have been brecciated, sericitized, carbonatized and silicified. In the northwest quarter where sampling was done on a grid, several soil samples yielded anomalous gold values up to 0.27 ppm and one rock sample contains 0.12 ppm Au. In the eastern half of section 24 where only a few rock samples were collected, a rhyolite quartz porphyry dike (?) with 1-2% pyrite assayed 2.5 ppm Au and samples from an old Cu-Pb-Zn prospect assayed up to 11.0 ppm Au and 50 ppm Ag (fire assays gave 13.3 ppm Au and 45 ppm Ag). The prospect pit exposes flat-lying quartz-carbonate veins which contain sparse kernels of pyrite, galena, sphalerite and rare chalcopyrite.

Close-spaced sampling the vicinity of aborted drill hole SI-44 on grid MA-11N produced a few slightly anomalous Au values but the results are not particularly exciting.

During September, mapping and sampling will be conducted in Section 24 to follow-up the high Au assays discussed above and in Sections 1 and 2, 48-27 to test the extension of the chert-iron formation sampled in Sections 34 and 35. Plans are also being made to clean and resample a number of the trenches put down in Section 35 by Norgan mining.

Michigan Generative

The geology of properties submitted to NICOR by Cleveland-Cliffs Iron was reviewed during the month. It was concluded that these lands are not sufficiently attrac-

9/1/83
MONTHLY REPORT
To: R. J. Miller
Page 2

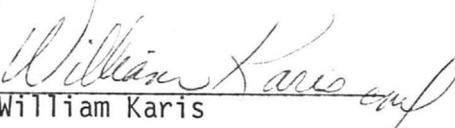
tive to warrant leasing by NICOR. The properties are underlain by Archean granites and high-grade metamorphics and by Proterozoic sediments which are judged to have a very low potential for gold. CCI has been notified of our conclusions.

Wyoming Generative

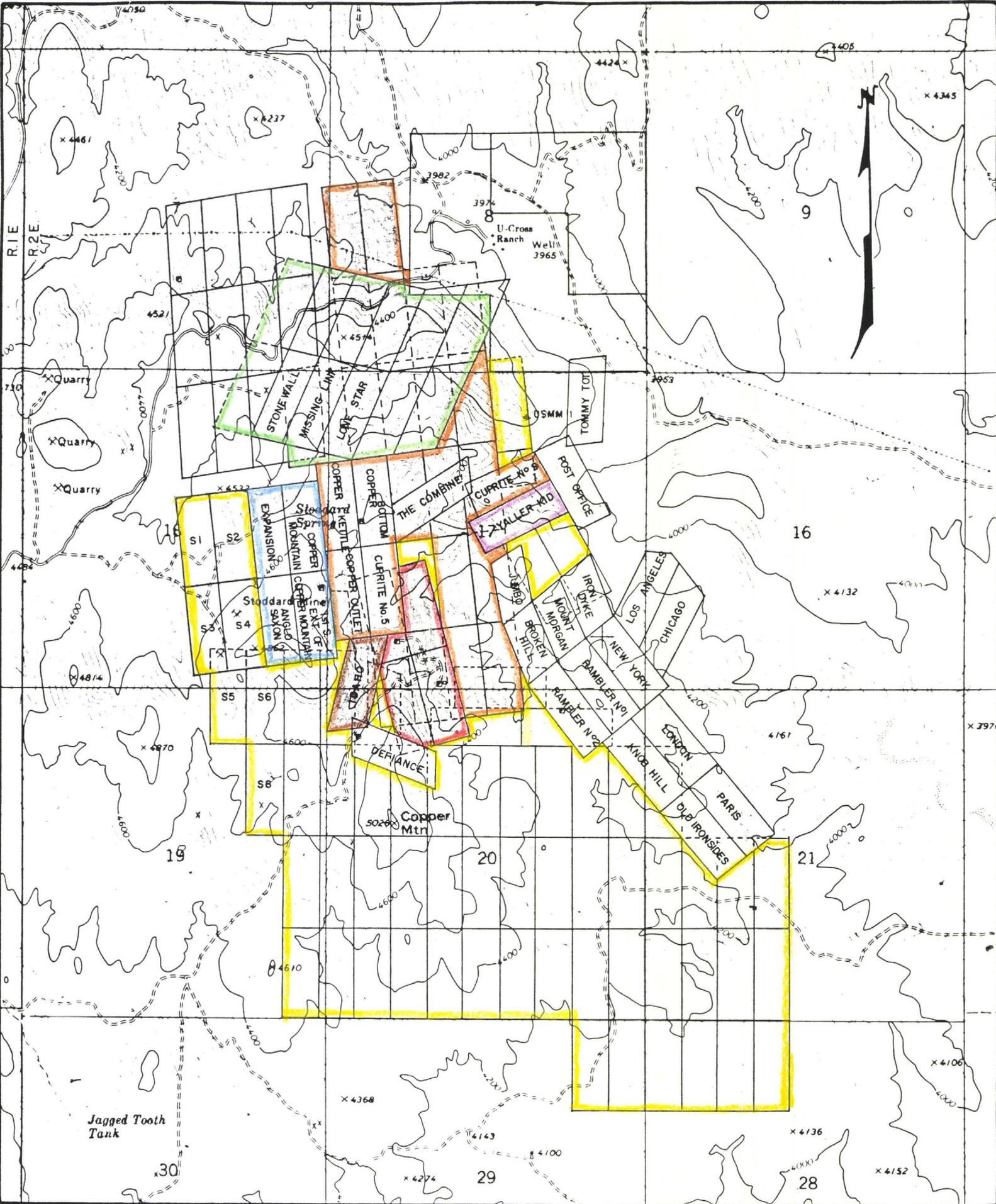
Based on a study of mineral ownership in the South Pass-Atlantic City area, it appears that a number of valid claim groups may be available for lease by NICOR in spite of the fact that large parts of the district have been withdrawn from mineral location since 1967. Our evaluation of this area suggests that it offers a good potential for the discovery of stratiform gold deposits which would be of interest to NICOR. I estimate that up to 10 square miles of favorable land could be obtained through leasing and staking.

Arizona Generative

During this month, Amselco's Stoddard property was examined in the field with Gary Parkison. This submittal was discussed in last month's report. It was concluded following our exam that an extensive zone of "chlorite pipe" alteration and "stringer" mineralization outlined by the Amselco JV exists only in the imagination of the geologists who mapped it. No evidence was found of either the alteration or mineralization. In addition, it was found that the abundant "exhalite" horizons mapped by Amselco are actually silicified zones, quartz-carbonate fault zones and inter-flow clastic sediments. We saw no features to encourage exploration for massive sulphide deposits in this area. No further interest appears to be warranted.


William Karis

WK/cmf

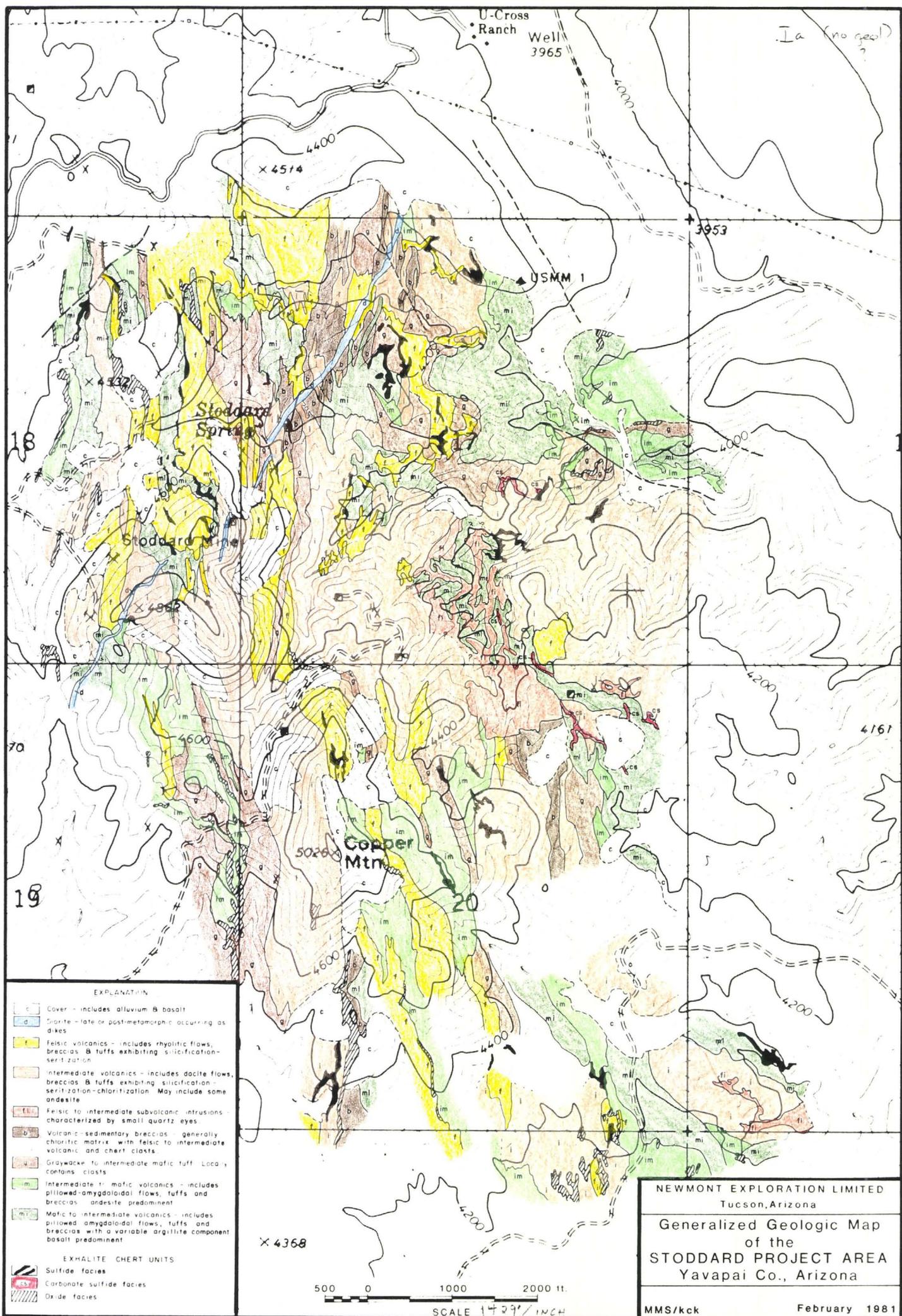


**AMSELCO-NEL-PREUSSAG J.V.
STODDARD PROPERTY MAP
T 12 N, R 2 E, Yavapai County, Arizona**

1" = 2000'

- | | | | |
|---|--|---|---|
|  | AMSELCO PROPERTIES
Patented claims acquired from Tech-Sym.
Unpatented claims located by Amselco. |  | Unpatented claims located by N.E.L. |
|  | STARNICK PROPERTIES
Lease w/option to purchase. |  | HYSLIP STONE PROPERTIES
Lease w/option to purchase |
|  | KENNEDY PROPERTIES — <i>Dropped</i>
Lease w/option to purchase. |  | Unpatented claims held by third parties |
|  | FISHER PROPERTY — <i>Dropped</i>
Lease w/option to purchase. |  | Patented claims held by third parties |
| | |  | RICKS PROPERTY
Lease w/option to purchase |

NOTE: patented claims are labeled.



EXPLANATION

- c Cover - includes alluvium & basalt
- d Granite - late or post-metamorphic occurring as dikes
- f Feisic volcanics - includes rhyolitic flows, breccias & tuffs exhibiting silicification-seritization
- i Intermediate volcanics - includes dacite flows, breccias & tuffs exhibiting silicification-seritization-chloritization. May include some andesite
- i-b Feisic to intermediate subvolcanic intrusions - characterized by small quartz eyes
- s Volcanic sedimentary breccias - generally chloritic matrix with feisic to intermediate volcanic and chert clasts
- q Graywacke to intermediate mafic tuff. Locally contains clasts
- m Intermediate to mafic volcanics - includes pillowed amygdaloidal flows, tuffs and breccias - andesite predominant
- m-i Mafic to intermediate volcanics - includes pillowed amygdaloidal flows, tuffs and breccias with a variable argillite component basalt predominant

EXHALITE CHERT UNITS

- Sulphide facies
- Carbonate sulfide facies
- Oxide facies



SCALE 1" = 2000' / INCH

NEWMONT EXPLORATION LIMITED
Tucson, Arizona

Generalized Geologic Map
of the
STODDARD PROJECT AREA
Yavapai Co., Arizona

MMS/kck

February 1981

Holden Inn - Cheyenne (307) - 638-4466

Yavapai Cty. → Stoddard and Hwy ↔

T12NR2E ↔ Secs.

E $\frac{1}{2}$ Sec. 17

NE $\frac{1}{4}$ Sec. 20

Sec. 21

Sec. 16

6	5	4	3	2	1
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21			

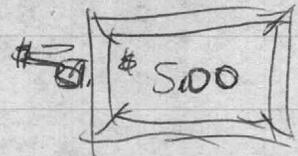
Stoddard - W $\frac{1}{2}$ Sec. 17
E $\frac{1}{2}$ Sec. 18

Phone Denver -

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S $\frac{1}{2}$ Sec. 20 - BLM

Sec. 21 - BLM - pat claims