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James Doyle Sell Mining Collection

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Mr. James D. Sell P.O. Box 5747 Tucson, Arizona 85703

Dear Jim:

We received your letter of July 9 and regret that you have elected not to make a proposal at this time on the property. The plan was designed with you in mind to meet the flexibility and timing you desired.

You are, of course, most welcome to inspect the core. A few days notice would be desirable to be certain that we have someone available to help you with the core boxes. Give us a call, and we will set it up.

Respectfully yours,

E+E MANAGEMENT CORPORATION

Wayne Erickson President

la



AMERICAN SMELTING AND REFINING COMPANY SOUTHWESTERN EXPLORATION DIVISION P. O. BOX 5747, TUCSON, ARIZONA 85703

July 9, 1971

1150 NORTH 7TH AVENUE TELEPHONE 602-792-3010

Mr. Wayne Erickson, President E + E Management Corporation 7244 East Indian School Road Suite 100 Scottsdale, Arizona 85251

Dear Wayne:

Your "Request for Proposal" on the Morgan Property which was sent to Mr. Saegart has been transmitted. I have also received your memo and Blucher's report on the apparent increase in intensity of alteration in the lower portions of the holes and specifically in E + E hole Number 4. Thank you for this additional information.

Asarco at this time will not submit a proposal for the reasons stated to you verbally. However, I would appreciate the opportunity of looking at the core in a continuing reevaluation of the prospect which would provide additional third dimensional information.

Sincerely,

James D. Jell

James D. Sell

JDS:sh

cc: WESaegart

AMERICAN SMELTING AND REFINING COMPANY Tucson Arizona

July 8, 1971

TO: W. E. Saegart

FROM: J. D. Sell

MORGAN PROPERTY PINAL MOUNTAINS GILA COUNTY, ARIZONA

On June 2, 1971 1 met with Wayne and George Erickson of the E + E Management Corporation, 7244 East Indian School Road, Suite 100, Scottsdale, Arizona, phone 947-4308. They have control of the Morgan Property and had talked to you about it by phone.

Attached is a copy of their <u>Technical Report - Summary</u> on the property (Att. A). They would not reproduce the other data for me (note: Later, Erickson did send a copy of Blucher's report which is attached), but I did abstract some information. They also submitted a copy of their base map showing drill holes, claims, etc. A reproduction of the area of drill holes is also attached to this memo. (Att. C)

Blucher had covered this area in his 1958 report to Asarco and his map 1409 is attached (Att. B) showing the Morgan area. As shown, and subsequently reported in Blucher's report to E + E, the Morgan property is on the east end of the Madera alteration zone. In addition to the reports listed in the <u>Summary</u> of E + E, a report by Richard E. Mieritz was available for consultation.

Shown on Attachment C is the location of the Pinal Adit (Ellis Vein of N. P. Peterson), underground drill holes M-1, M-2, and M-3, drilled by Consolidated Uranium Corporation in 1957 and four drill holes DDH 1 through 4 drilled for E + E by Metler Drilling Company in 1969 and 1970. Apparently, Miami Copper Company put down a churn drill hole in the early 1950's near the location of E + E DDH No. 4, but no information is available.

For the reports by Mieritz and Blucher, the following notes:

1) Pinal Adit, at 5940 elevation, vein strikes N 20° W, Adit is 520 feet long. The last 400 feet sampled 0.55% copper (assay work for item 1-4 was done by Magma Copper Co.).

2) Drill Hole M-1, bearing N 70° E, angle - 4° , drilled AX for 300 feet, dated 3/19/57 - 4/4/57. Arithmetic average of core and sludge was 300 feet of 0.371% copper.

3.) Drill Hole M-2, bearing S 70° W, angle - 4° , drilled AX for 301 feet, dated 4/5/57 - 4/17/57. Average was 301 feet of 0.348% copper.

4.) Drill Hole M-3, vertical downward, AX for 196 feet, dated 4/23/57 - 4/30/57. Average was 143 feet of 0.257% copper, plus 47 feet of 0.190% copper, plus 6 feet of 0.65% copper for average of 196 feet of 0.254% copper.

5.) Drill Hole No. 1 (E + E), collared in diorite gneiss at 6154 elevation with 180 feet oxidized capping indicative of primary pyrite and chalcopyrite. Sulfide from 180-300 feet averaged slightly less than 0.1% copper, from 300-500 feet averaged slightly more than 0.1% copper, from 500-560 feet averaged 0.15% copper, 560-600 major shear zone with 0.23% copper, 600-670 (TD) averaged 0.13% copper. Drilled from 10/21/69 -11/6/69. Assayed by Jacobs Assay Office.

6.) Drill Hole No. 2 (E + E), collared in quartz diorite porphyry at 5967 elevation with 79 feet of oxidized and partly oxidized capping, sulfide from 79-530 feet is weak with 0.05% copper and 0.005% moly, 530-570 averaged 0.2% copper, thereafter from 570-787 (TD) ranged from 0.03 - 0.4% with average of 0.1% copper. Less than 3% total sulfides. Fault gouge at 506 feet. Drilled from 11/14/69 - 12/20/69. Assayed by Jacobs Assay Office (top portion) and Arizona Testing Labs (bottom portion).

7.) Drill Hole No. 3 (E + E), collared in quartz diorite gneiss at 6059 elevation with 75 feet of oxidized capping, 75-180 minor amounts of chalcopyrite and moly with occasional chalcocite with average assay of 0.25% copper and 0.006% moly, 180-702 (TD) average 0.1% copper with ranges from 0.04 - 0.4% copper. Ratio of cp-py = 1:1, total sulfides about 2% by weight. Thick gouge zone at 660 feet and from 721-724 fault gouge and breccia with finely divided chalcocite in gouge. Drilled from 1/8/70 - 2/4/70.

8.) Drill Hole No. 4 (E + E), collared in strongly altered quartz diorite gneiss at 6226 feet elevation with 320 feet of capping indicative of moderate to strong mineralization, 320-450 sulfides are chalcopyrite but degree of mineralization is relatively weak with average of 0.14% copper in range of 0.02-0.76%, 450-465 (TD) the three samples averaged slightly more than 0.4% copper which may be significant as alteration appears to increase with depth. Drilled from 2/6/70 - 2/16/70.

Several additional days were spent in the field, one with Mr. Wayne Erickson in walking over the western and northern part of the alteration mineralization zone. There seems to be little question that the Morgan property is the tail end of an alteration zone as stated by Blucher. The best looking ground is in the vicinity of the Pinal Adit and along its projection northward. Elsewhere the fracture pattern is sparce (3-6 inch spacing with knife-edge to thin widths of predominantly pyritic mineralization). As shown by the assay values, there is only a minor change in values from top to bottom and Blucher's logs show minor variability in the alteration, although he does state (as reported in the copy of his report attached) that the intensity increases with depth.

Humble controls a large block of ground in Sections 13-14-23-24 to the west of Morgan. I spent one day going over the eastern drill roads in section 14 and 23 where the alteration and apparent pyritic and associated copper (?) mineralization is much more intense than at Morgan. The intervening section 13 was not traversed due to time and access limitations.

The Madera area is a large altered and mineralized zone and further information on the values within the zone is desireable. However, the eastern Morgan area is probably a low-grade pyritic zone and not of continued interest in size or grade considerations.

J. D. Sell

JDS:sh

TECHNICAL REPORT

ATTACHMENT A

E + E MORGAN PROJECT Gila County, Arizona

March 10, 1970

TABLE OF CONTENTS

Section	Ву
Technical Report – Summary	E + E
Geologic Report	Blucher *
Geophysical, Geochemical Reconnaissance Geology	Heinrichs
Claims	Smith & E + E
Base Map & Other Reports	E+E **

* "Deological Report - Morgan Property, Gela County, duyona" Arthur G. Blucher, Mining Geologist, February 23, 1970. 4 pases; location, regional, and preliminary geology maps; logs of DDH 26.1 through 4. Copy of Report attached, minus log-

** <u>Includes</u>: "In Evaluation Report of the Physical Exploration Completed on E+E Management's Margan Property, Gila County, Aujora." Richard E. Mieritz, Mining Consultant, Phoener, Arizona, April 25, 1970. & pages, 4 maps showing assay plans of Period adit, and DD H Ro. M-1 through M-3. (Underground),

ETE MANAGEMENT CORPORATION



 E+E SYSTEMS CORPORATION MARINWOOD PROFISSIONAL CENTER 2400 LAS GALLINAS AVENUE
 SAN RATAEL, CALIFORNIA 94903

TECHNICAL REPORT

E + E MORGAN PROJECT Gila County, Arizona March 10, 1970

TABLE OF CONTENTS

Section	<u>By</u>
Technical Report – Summary	E + E
Geologic Report	Blucher
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Claims	Smith & E + E
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É+E MANAGEMENT. CORPORATION 132 EAST STEISON SCOTTSDALL, ARLEONA 65251



E+E SYSTEMS CORPORATION MARINWOOD PROFESSIONAL CENTER 2400 LAS GALLINAS AVENUE SAN RAFAEL, CALIFORNIA 94903

TECHNICAL REPORT E + E Morgan Project - 4382.10 3/10/70 - WE/JE/DCM Page 1 of 3

SUMMARY

The acquisition of the Morgan prospect was one of the results of a minerals feasibility study conducted by E + E Management and E + E Systems Corporation for the account of Fleschner-Becker Associates. The study began in January of 1969 and included preliminary screening and evaluation of minerals prospects.

Mr. Robert Daniel, an independent geologist, brought the Morgan prospect to the attention of E + E. The prospect lies in the Miami-Globe area, one of the proven major copper districts in Arizona. A portion of the favorable area had been staked by Pat Morgan and Mr. Daniel. Humble Oil Company staked the property adjoining the claims on the west side.

Negotiations were conducted with Messrs. Morgan and Daniel by Darrell Maluy, representing E + E, in June of 1969. The property was subsequently transferred to the Limited Partnership established with Fleschner-Becker. Legal opinions were obtained as to title of properties and ownership.

The accounting records of the partnership for 1969 were audited by Dalby, Wendland & Jensen, CPAs.

E + E retained Harvey Smith, registered engineer, to resurvey the Morgan . claims and under the direction of E + E, to expand the claim group.

Heinrichs Geoexploration was then retained to conduct a limited geophysical and geochemistry program which began in early September and was completed in December. Induced polarization, resistivity, and magnetic surveys were made by Geoex.

During this period E + E opened up old workings (drifts) on the prospect and laid out access roads and drill sites. The claim group was expanded further to a total of 61 claims and road building equipment, diamond drilling equipment and air drilling equipment was hired. Roads were completed, survey control established, validation drilling conducted, and four diamond drill holes were drilled.

Core was split on the first hole and part of the second under the direction of Heinrichs Geoex. The remainder of the second hole plus the third and fourth were split and assayed by Arizona Testing Laboratories. All samples, split core, air samples, geochemistry samples, etc., have been identified and stored by E + E.

> E+E MANAGEMENT. CORPORATION 132 EAST STITSON SCOTTSOALE, ARIZONA (\$359)



E+E SYSTEMS CORPORATION MARINWOOD PROFESSIONAL CENTER 2400 LAS GALLINAS AVENUE SAN RAFAEL CALIFORNIA 94903



TECHNICAL REPORT E + E Morgan Project - 4382.10 3/10/70 - WE/JE/DCM Page 2 of 3

SUMMARY, continued

Arthur Blucher, professional geologist, of Tucson, Arizona, was then retained to analyze the work performed to date and to prepare a regional geologic map, property map, and make a geologic evaluation of the property. This work was completed March 10, 1970.

All engineering data, assays, geophysical results, geochemical data, geologic reports, legal facts and audits, are available through E + E.

A summary of physical activity on the property is as follows:

Claim Survey & Base Map Engineering

- 51,000 feet of brunton/chain survey for location and relocation of 61 claims was completed by H. Smith, registered mining engineer, and by E + E.
- 35,000 feet of theodolite/chain and theodolite/stadia survey was performed to establish field control by E + E.
 - 600 feet of underground workings were surveyed (upper drift).

Construction

6,500 feet of new roads and five drill sites were built

5,500 feet of old roads were rebuilt

Geological

Regional geology map prepared by Blucher

Geologic mineralization map prepared by Blucher for west central portion of property

General reconnaissance geologic mapping by Sherman

Geochemical

92 geochemical stations – broad reconnaissance traverse basis-were sampled and analyzed for copper and molybdenum

Geophysical

40,000 feet-induced polarization lines consisting of 6 lines with 500 foot dipole spacings were run

250 vertical magnetic intensity stations were observed

Drilling

2,647 feet of diamond drilling - 4 holes

350 feet of air drilling - claim validation

E+E MANAGEMENT, CORFORATION 131 LAST STETSON SCOTTEDALE, AURONA 19311



E+E SYSTEMS CORPORATION MARINWOOD PROFESSIONAL CENTER 2400 LAS GALLINAS AVENUE SAN RAFAFL CALIFORNIA 94903

TECHNICAL REPORT E + E Morgan Project - 4382.10 3/10/70 - WE/JE/DCM Page 3 of 3

SUMMARY, continued

Laboratory

617 samples submitted for assay

Legal

Claim check/property status check by attorneys – Verity & Smith; Lathrop, Lathrop & Uchner

E+E MANAGEMENT CORPORATION 132 LAST STETSON SCOTTSDALE, ARIZONA 83251



E+E SYSTEMS CORPORATION MARINWOOD PROFISSIONAL CENTER 2400 LAS GALLINAS AVENUE 5AN RAFAEL, CALIFORNIA 94903



E+E MANAGEMENT CORPORATION PHOENIX · SAN FRANCISCO June 24, 1971

Mr. James D. Sell American Smelting & Refining Company P.O. Box 5747 Tucson, Arizona 85703

Dear Jim:

We (or should I say I) erred in some of the numbers discussed regarding the Morgan property. I felt I should correct my mistakes. You asked about the Geo-chem samples and I stated the high end fell in the 200 to 300 p.p.m. range. Apparently, I was thinking of the dust samples from the validation holes. A review of the Geochem surface assays shows lows in the 10 to 20 p.p.m. categories. The high range falls in the 300 p.p.m. and up to 1040 p.p.m.

We also discussed the degree of alteration with depth in the drill holes. I stated that in my inexperienced opinion such alteration did not increase. I stand corrected and am enclosing Art Blucher's report in which he states that the zoning of alteration indicates an increase in degree with increasing depths. I don't know the importance of these items in relation to your thinking, but I did believe they should be corrected.

We are pursuing the Request for Proposal (R.F.P.) we discussed. This request will be mailed to your firm shortly and will be sent to Mr. Saegart.

I enjoyed our day on the mountain. See you soon.

Respectfully yours,

E+E MANAGEMENT CORPORATION

Wayne Erickson President

la Enclosure ARTHUR G. BLUCHER MINING GEOLOGIST 3149 EAST PRINCE ROAD TUCSON, ARIZONA 85716

793-2762

February 23, 1970

E + E Management Corporation 132 East Stetson Scottsdale, Arizona 85251

MORGAN PROSPECT Gila County, Arizona

Gentlemen:

Following is my report on the preliminary examination of your property.

INTRODUCTION

The Morgan Prospect is located about 65 miles east of Phoenix, Arizona. It spans the high ground between the Gila and Salt River drainage systems. At an elevation of about 6000 feet the topography is rugged and timbered or brush-covered. It can be reached by good dirt road off highway 60-70. (See Att.A).

This is a region from which there has been extracted several billion dollars worth of copper. These ore deposits have been associated with lateral apices of a Laramide intrusive termed the Schultz Granite. (See Att.B.) The Morgan Prospect is on a relatively unexplored apex of this intrusive.

There is here, without doubt, a major mineral deposit. Its exploitation is a matter of timing and economic factors.

SUMMARY AND CONCLUSIONS

Your preliminary drilling has encountered primary copper values equal to or exceeding the grade of the protore of the major producers of the district. (See Att. D.) Certainly there is here several hundreds of millions of tons of material at a grade of about 0.3% Cu with minor amounts of molybdenite and precious metals.

Surface geologic studies have failed in finding significant evidence in the leached capping of appreciable secondary enrichment. However, in the untested ground beneath Morgan Peak there might be a strong chalcocite zone not reflected in the oxidized zone. This is discussed below under Secondary Enrichment.

Further exploration is discussed below under RECOMMENDATIONS.

REGIONAL SETTING

Although the geologic history of the region is quite complex when considered in detail, it can be stated simply as follows:

At the beginning of late Precambrian time the land surface was fairly even and consisted of schist and granite.

Upon this surface there was discontinuous deposition of sedimentary and volcanic rocks from late Precambrian until the present time. During Precambrian and Paleozoic time there was little deformation or faulting and the depositional environment was miogeosynclinal.

Active crustal movement and vulcanism beginning in Mesozoic time continued well into Tertiary time and was accompanied by the intrusion of diabase, granite, and later porphyrys. Associated with the later intrusive rocks were hydrothermal solutions bearing copper mineralization.

Vertical faulting, uplift, and erosion during middle and late Tertiary time resulted in the secondary enrichment of some of these mineral deposits by downward percolating copper solutions. This was followed by the deposition of conglomerates and by the extrusion of a great thickness of volcanic rocks.

GEOLOGY AND MINERALIZATION

Geology

At Morgan Peak the Schultz Granite of Laramide age has intruded Precambrian Pinal Schist and Madera Diorite. The diorite near the contact has developed gneissic textures in the zone of mineralization, probably due to regional metamorphic stresses along the eastern boundry of the Schultz Granite intursive. Lineation of the gneiss is east-west and the dip averages 45 degrees south. There also may exist roof pendants of Pinal Schist. These gneissic rocks are cut by guartz porphyry dikes, probably differentiates of the Schultz Granite. (See Att. C.)

Mineralization

Mineralization is as chalcopyrite in irregular thread-like veinlets and occasionally as vugs or discrete grains. (See Att. E.) For the most part pyrite is sparse or absent. These veinlets are a sub-parallel conjugate system trending generally north 75 degrees east and north 15 degrees west. They dip nearly vertically. Some chalcopyrite occurs in thicker quartz veinlets with strikes and dips of about the same angles. Occasional molybdenite occurs along the quartz veinlets. Muck from the winze in the better mineralized zone in one of the old tunnels shows some chalcocite replacing pyrite and chalcopyrite. However, most of the core shows no chalcocite.

This mineralization is part of a zone of alteration about 2-1/2 miles long by 1 mile wide and elongated east-west. The most favorable part lies near E + E western property limits.

Alteration

Hydrothermal alteration at Morgan Peak consists mainly of silicification and sericitization. There is little or no kaolinitic or other form of argillic alteration as in most porphyry copper deposits. This unique aspect is displayed in the leached capping and accentuated by the relatively low degree of primary mineralization and the high ratio of chalcopyrite to pyrite.

One of the problems in the interpretation of this alteration is that it is difficult to separate mineralogic changes due to metamorphism from those due to alteration from hydrothermal solutions. Some of the sericite is quite coarse-grained. This, when intergrown with coarse quartz and feldspar, resembles pegmatitic textures. In other cases sericite plating parallel with gneissic banding is typical of regional metamorphic effects. Similarly, the distribution and texture of quartz is probably the result of several geologic processes.

The problem here is whether we are dealing with an apically truncated or deeply truncated volume of hydrothermally altered and mineralized rock. The presence of fine crystals of comb quartz in some open veinlets suggests low temperature - low pressure conditions. The absence of a wide zone of argillic alteration suggests the contrary. Detailed logging of the drill holes suggests an increase in alteration with depth. A search of the professional literature has found no comparable situation of conflicting data.

It is my feeling that the zoning of alteration at Morgan Peak indicates an increase in degree with increasing depth.

Post-Mineral History and Secondary Enrichment

About two-thirds of the large-tonnage disseminated copper deposits presently being exploited depend for economic grade on the process of secondary enrichment--that is, the existence of secondary chalcocite deposited by downward percolating copper solutions produced by the oxidation and leaching of primary ore.

In the opinion of most geologists familiar with this type of deposit, the erosional environment necessary for the development of such enriched blankets of secondary chalcocite was that of an arid climate, deep oxidation, and a fluctuating water table. These conditions occurred in the Southwestern United States, Southern Peru, and Northern Chile during late Tertiary time. In these areas some oxidation, leaching, and secondary enrichment is taking place during present geologic time.

The Morgan Prospect is in a region in which the geologic history, after primary mineralization, was particularly suited to the processes of secondary enrichment. It is probable that a zone of primary mineralization such as this enjoyed the benefit of secondary enrichment at some time. The question we face here is whether or not uplift and erosion have removed this blanket.

N. P. Petersen, USGS, has pointed out that area distribution of the oldest rocks of this region---Pinal Schist and coarse-grained Precambrian granite---may give a clue

to the oldest major structures of the region. If a N 70 degree E bearing line is drawn between Hewitt Ridge in the west and Ramboz Peak in the east, it will be seen that all of the coarse Precambrian granite (not including the Madera Diorite) lies to the north of this line, and most of the Pinal Schist lies to the south of the line. He also states that the reverse of this relationship, that is, Pinal Schist on the north and granite on the south, occurs along a similar line drawn through Ray, Arizona, to the south of the area.

When considering whether or not the western end of the Morgan Prospect---proven to be well mineralized by your drilling---has the post mineral history which would allow and preserve a zone of secondary enrichment, these structural problems are important.

In Southern Arizona there are two distinct types of major post-mineral fault structures. The first of these is horizontal to flatly dipping such as the Mission Fault or San Manuel Fault. The second is the generally north-south trending, nearly vertical type normal fault such as the Concentrator Fault at Superior or the Miami Fault north of the Morgan Prospect. Both of these have displacement in excess of 2500 feet.

It can readily be seen what effect such faulting would have regarding the development and preservation of a chalcocite blanket here.

An analysis in detail of the relationship of the present erosional surface at the Morgan Prospect to that which existed in late Tertiary time is beyond the scope of this examination. A study of previous work by Ransome and Petersen of the USGS suggests the possibility that the block between Morgan Peak and the secondarily enriched deposits at Miami may be down-faulted along a north 20 degree east line roughly coinciding with the Miami Fault and tilted upward toward the east. Should this be the case there might exist at Morgan Peak a secondary zone not yet truncated and removed by erosion. Although the limonites in the capping do not indicate that they are the product of oxidized chalcocite ore, the high Cp-Py ratio (see Att. D) of the protore, or other special geologic circumstances may explain this condition.

GEOPHYSICAL CONSIDERATIONS

This mineral suite and this rock environment should be ideal for the application of induced polarization geophysical methods. However, the results of IP work to date do not coincide with drilling results. It may be in order to have an analysis made by a second geophysical firm of the data which Geoex gathered.

RECOMMENDATIONS

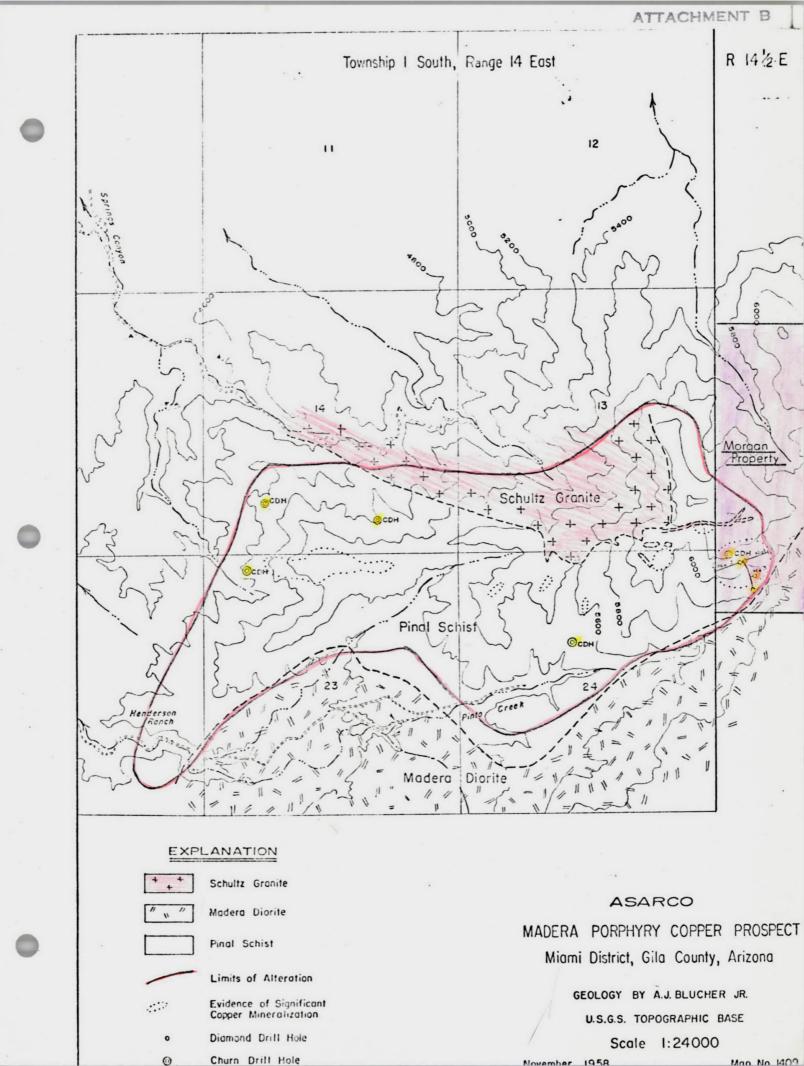
I recommend that this property be further explored by drilling. As the focal point of primary mineralization is quite near to the western boundary of the property, consideration should be given to the possibility of a joint enterprise with the adjacent property owners.

Sincerely yours,

ATTA & Bluelon

Arthur G. Blucher

mh



November 1958

Man No 1409



Notes: from EtE officer Lilos June 2, 1971. 1010 H 1. netles Brothen dutling; Heinich splitting; Jacobs assay. " " (part); " (part) ; Augone Testing Labs, spit + assay (part). NONH Z " ; any Testing lol, opt + assay, NON 3 and the second s DDH 4 Geological Report - morgan Respecting Geto Geenty, arguna Arthur G. Blucher, Mining Geologist, February 23, 1970 4 pages + loc, regencel, o puel. good map logs of 4 hales I chalcopyile in megula thread like ventet: 2 occasion vag orderaets gain. Pyrile sparse to obsert. Verile trend 11756 & NISTU, dep vertically. Occ moly along gity veertet alt at Morgan Feal mainly silicifications & severelyation 16 kaolintie a agullie Low degree of princing mineralgotic and high notic of chalogrite to prote losalel uncien in degree of alt up depth. Compring has no lemonte ofter andred chaleautore. 10LOH# 1 log (Blucher, March 1, 1970) Droub gnews. Elev. 6154 ft @ 50230N - 50039E. 150 ft condin' carping indications of purious py-cp. Sulfide 100-300 = = (0.1; 200-500' =70.12 Cu; 500-500 = 0.15%; 560-600 miga shear your (w/0.238 G.); 400-670 TD = 0.13% (10/21/69 - 11/4/69). 90 min on freet & veenles

DADH 2 log (Blucher, Mach 4, 1970). At divit porphy 5947 elev @ 49820 N & 50460 E. 79 ft orderid & partly of dy corrig say 79-530 work sulf 0.050% ter + 0.0050% moly. 530-570 = 0.22 ter, Therefte. (to 787 ft TD) rayer a 03 - 0.4 with ave 0.12.Cu. Les liters 3 % total suffice fault sour the socie 2. (11/14/69-12/20/69). DNH 3 log (Blucher, March 4, 1970). gty dis. gneros 6059 elev @ 49480N - 49630E. 75 ft of andred t leached coming. Kelow minor and al chalopy " moly + ace cholescite, assaged about 0.25% cer & 0.00 68 mg 150-70273 ranged from 0.03-0.4% - average 0.1%. (1/8/20-2/4/20) 83 & coo' gousi-bx. Notio of ep-py-1:1 u/_ total sulf = 29 by we get a lice' third goust zone 721-726 fault gouse + 6x. (fenely drinded ec in going?) (!!) 20 20/1 DDH 4 log Blocher March 4, 1970) strongly alt 2th did green 6226 ft 0 49699N - 49223E. 320 ft aring uidie I mad to strong pender muneraly ation. Solfiche are of but degreed min relatively weak. le this zone fluctuated 0.02-0.76? au ave 0.14 % Ce. The last thee navples averaged more than a y of which may be significand, as alterat increasing where 465 ft 7D. (2/6/70 - 2/16/70).

Morgan classing MI-MIS & MIG-M-62 claim No. M-10 not used & 2 fraction M- 3 & M-16 au underded. Classic comes are nech moment around a doin not. Neche spargel well stee joint. I post therefied using alcomine tape. (Crow grows of classes to coset). (Humble ail). A " a evaluation Report of the Hyper Exploration completed on EFE Managuet' Mongon Moget, Sile Guesty digina by Richard E. Mierity, Mencing consultant, Macin, ague, aguel 25, 1970 8 pages + 4 maps + consocit dull log 11-1-2-3 (Minity worked & reported on 3 underground like dulled by Consolidated Chamin (ong in early 1957.) Morgan = Modero Propely. Main Corps dulled two holes prior to 1850. One chunchill hole afacent to DDH 4 (Bloches mont). final adit N20°W, 520 ft. last 400 ft = 0.55% Cen. Hole MI & MZ dulled night & left of foce of adit Hole 143 dulled -90° in flow god note of winge nearest gotal M-1. = 300 pt @ 0:3718 Cu (anthini) AX M-2 = 301 ft @ 0:348 losayed by magne came to. Weighted are for blocks A&B (hund adit + neares dull hold = a 0,35-22

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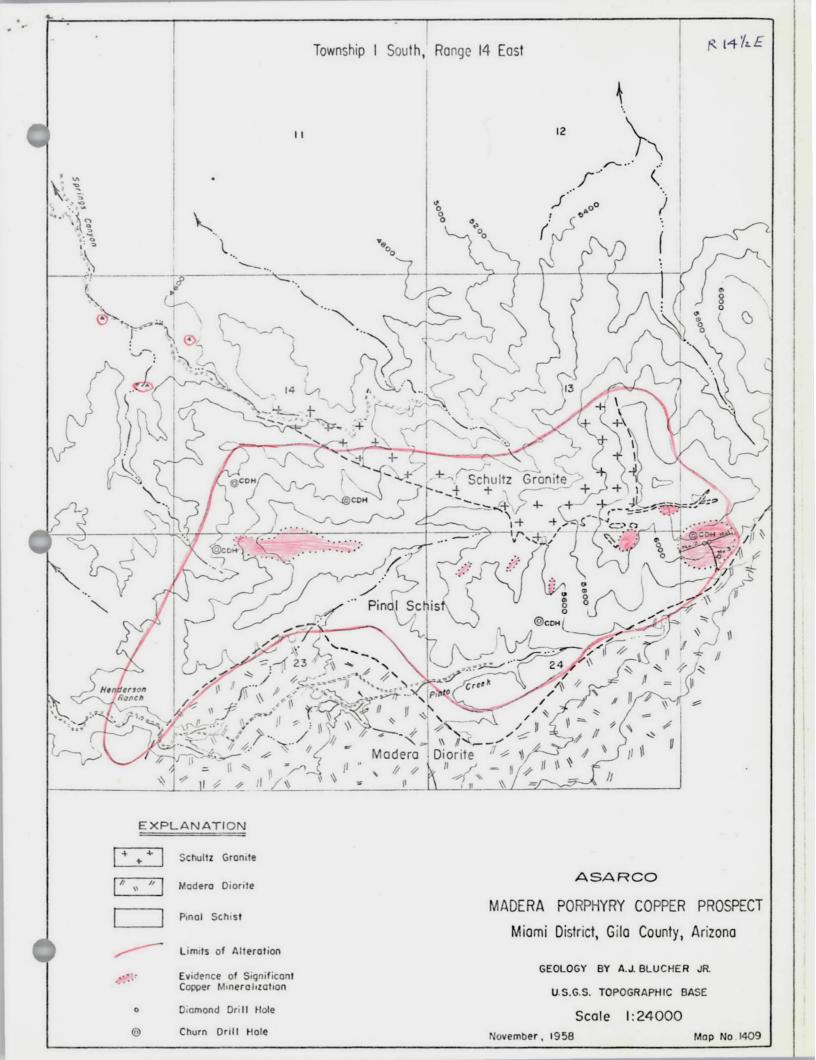
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Hundle.

EtE management consultants - Phoenin Mongan Property. Directly South of Miami - 5-6 miles at head of Tomoto Creek 2 sq ni 62 patented claims R 14%E

sie 13 & 24 RI4E projecting immediately to East

ZIT



None of the capping is sufficiently attractive to warrant drilling, nor is there any reason to expect better values beneath the dacite to the west.

North Pinal Ranch

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The granite-schist contact to the north of Pinal Ranch strikes more nearly N-S and passes just northwest of the ranch. Within the schist north of the contact and nearly paralleling the edge of the dacite is a zone nearly 3 miles long in which there are a number of very small zones of weak alteration with fairly common chrysocolla. There is very little evidence of sulphides and most of this copper is probably transported.

Although none of the exposed outcrops show much promise, the relative abundance of transported copper and the possibility of an extension beneath the dacite have led to a number of exploration attempts. At least 7 and perhaps 15 or more holes have been drilled by Howe Sound, Verde Extension, and various promotors. The location of the seven holes drilled through the dacite are shown on attachment C.

Cactus

At the junction of Cottonwood Gulch with Pinto Creek and about 1/2 mile west of Castle Dome tailings pond is an E-W trending area of about 2500 feet by 1000 feet of breccia consisting of angular fragments of variably silicified Pinal schist in a reddish matrix.

Mineralization as seen on dumps and in outcrops is confined to the fragments and consists of pyrite and weak chalcopyrite as discrete grains or occasionally on fractures, and chalcocite replacing the pyrite and chalcopyrite.

Neither transported nor indigenous limonite is abundant in the capping but nearly everywhere some "live limonite" can be found filling very small vugs. Copper stain is fairly common in the capping.

Rather than a pipe, this breccia is believed to represent a thrust plate. The thrust is exposed in an adit on the eastern end and is reportedly penetrated by the old shaft in the center of the area.

The northern boundary of the breccia is partly covered by post-mineral dacite and Gila conglomerate, but along the road unaltered and unmineralized schist outcrops between the breccia and the cover rocks.

According to N. P. Peterson of the U.S.G.S. the Cactus is an old property, not operated since 1919, and held for many years by Miami Copper Co. Old workings, old drilling, and recent drilling by Miami have indicated less than 10 million tons of mixed, sulphide-oxide, ore.

Madera

The Madera alteration zone occupies the ridgeline which extends westward from Madera Peak and separates the headwaters of Pinto Creek and Bloody Tanks Wash. It is about 5 miles south of the Miami and Liveoak orebodies. In areal extent this zone is only slightly smaller than those at Copper Cities or Castle Dome, it being about 2 1/2 miles long by one mile wide, but the alteration is much less intense and for the most part not pervasive. In 1948 Miami Copper drilled five churn drill holes with apparently negative results. In 1957 De Soto Copper Co. drilled three diamond drill holes which gave average assays of about 0.35% Cu. At present most of this property is held by W. Ellis of Miami, Arizona.

The two more favorable portions of this zone will be referred to here as the East Zone and the West Zone.

In the East Zone quartz veinlets with pyrite and chalcopyrite are fairly numerous over an area about 600 feet in diameter. There is almost no disseminated mineralization. Alteration, principally silicification, is generally confined to less than 1" on each side of the veinlets. This zone has been thoroughly tested by about 540 feet of tunnel, three diamond drill holes, and one churn drill hole. The core from the diamond drilling by De Soto Copper Co. may be seen at Ellis Ranch. Occasional chalcocite found in the core and in the dump material from the tunnel indicate a thin and irregular zone of secondary enrichment. A sample of the old sludge from the churn drill hole, drilled by Miami, assayed 0.25% Cu.

Leached capping in the West Zone indicates this same type of veinlet mineralization without disseminated sulphides, but with a somewhat higher percentage of total sulphides. As in the East Zone much of the rock between veinlets is only very slightly altered. Most of the veinlets trend generally eastwest, and the zone itself is elongated in an east-west direction, about 3000 feet by a maximum of 700 feet, and very narrow on the eastern end. Although there is occasional "live limonite" in the capping, most of the limonite is honeycomb after pyrite. The three churn drill holes drilled in this outcrop by Miami Copper were not located on the most favorable outcrops but were in the fringes and sharply limited its possible areal extent. A sample of the old sludge from one of these holes assayed 0.09% Cu.

Because of the relatively wide extent of the alteration and pyritic mineralization with some known copper mineralization, the Madera altered zone was studied in considerable detail. A map was prepared on a scale of 1 inch equals 500 feet, showing outcrops, talus covered areas, and geology and mineralization. Pertinent details from this map appear on Attachment D.

This mapping failed to disclose outcrops of promising size and quality. Talus covered areas are numerous but generally small, and there appears to be no chance of covered zones of better mineralization.

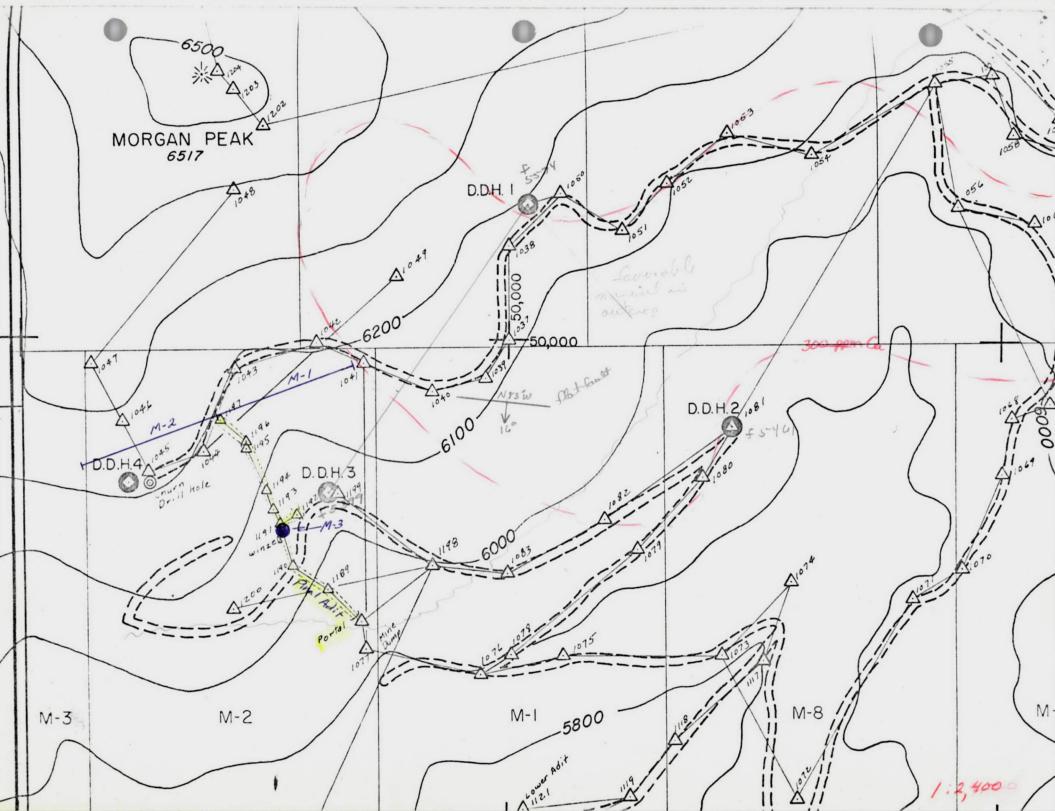
OTHER ALTERATION AND BRECCIA PIPES

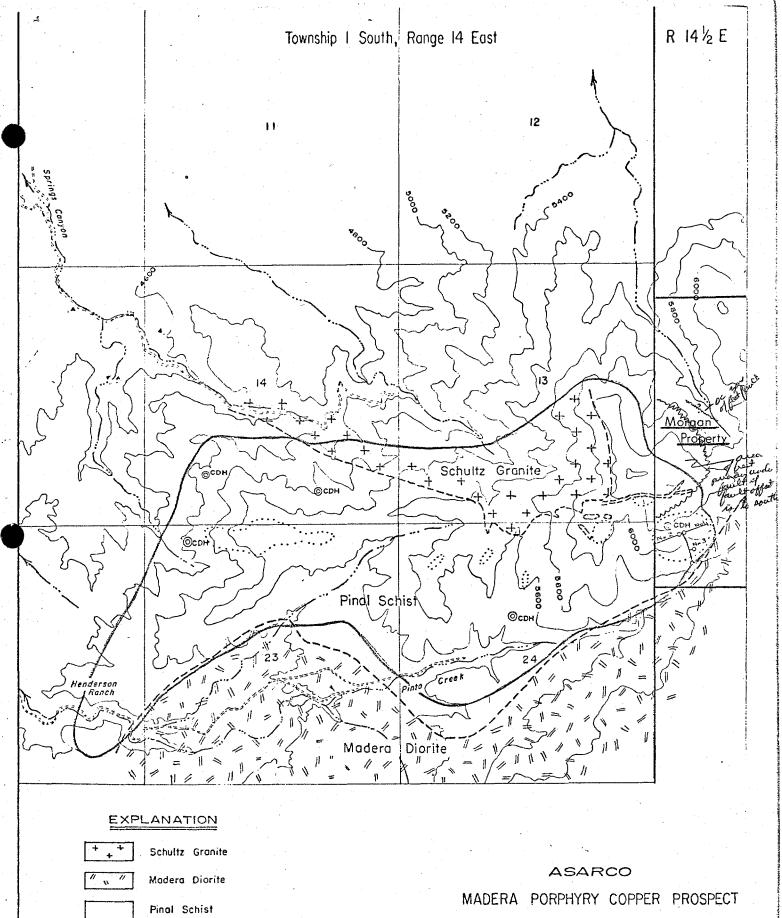
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Altered zones of insufficient size or quality to warrant detailed study are listed below and appear on attachment C.

In the vicinity of Iron Mountain about 5 miles northwest of Rock House





Limits of Alteration

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Evidence of Significant

Copper Mineralization

Diamond Drill Hole

Churn Drill Hole

Miami District, Gila County, Arizona

GEOLOGY BY A.J. BLUCHER JR.

U.S.G.S. TOPOGRAPHIC BASE

Scole 1:24000

November, 1958

Map No.:1409

JDS - I presume this represents mothing new relative

Mr. William E. Saegart American Smelting & Rafining Company S.W. Exploration Division 1150 N. 7th Avenue Tucson, Arizona 85705

W.E.S. JUL 8 1971

Dear Mr. Soegart:

Enclosed is a "Request For Proposal" on a copper prospect which we call the E+E Morgon Project located in the Globe-Miami district of Arizona. We have included in this request a location map, a generalized geologic map, and a claim and development map. Also enclosed is a summary statement of the acquisition and development work performed on the property.

This property is a worthwhile mineral prospect. We believe this to be true for the following reasons:

- 1. Seven drill holes have encountered significant mineralization.
- 2. It is in "Elephant Country," primarily located on the contact area of the Pinal Schist and the Schultz Granite.
- To the best of our knowledge, this is the only sizable claim group (61 claims) available in this area of major companies and major producers.
- A partially defined target exists.
- 5. There are no known legal or contractual problems. (We have been in possession of the property for over two years.)
- Because the property is located in an established, major producing mining district, the minerals exploration and production can be carried forward with minimal intervention from the current ecology and conservation movement.
- 7. Professional reports have been prepared by independent geologists and mining engineers. A broad difference of opinion exists regarding interpretation of data. However, there is a unanimous opinion . that the prospect deserves additional work.

Page 2

We are contacting numerous firms within the industry regarding this prospect. Complete information will be made available to all interested parties. It is our intent to accept the offer that, in our judgment, is the best for development of the property. We will not use one firm's proposal to negotiate with any other firm.

An expression of your interest in the property will be appreciated. Appointments can be made for the inspection of all data and arrangements for inspection of the property can be made by contacting the E+E office in Scottsdale.

Respectfully yours,

E+E MANAGEMENT CORPORATION

-no

Wayne Erickson President

la Enclosure

REQUEST FOR PROPOSAL

E+E Management Corporation is soliciting proposals for the continued exploration and development of the copper prospect known as the E+E Morgan Property, located 3 1/2 miles south of Miami, Arizona. The property consists of a block of 61 unpatented mining claims. The total expenditure by E+E and associates, specifically related to the minerals program, has been \$330,000. Of this amount \$165,000 has been spent on the Morgan Property. For more detailed information see the attached Summary of the Technical Report and enclosed maps.

The alternative proposals which will be considered are:

- 1. A work commitment which would earn a specific participation interest in the property, with a defined continuing interest.
- 2. A combination of a work commitment and an initial cash payment, with a specified end price and a schedule of terms.
- 3. An outright purchase of the property.

Proposals will be accepted prior to August 10, 1971. Formal response by E+E will be made not later than August 16, 1971. Annual assessment work for the fiscal year ending September 1, 1971, is yet to be performed.

All information will be made available by appointment only. Appointments can be made by contacting our office at the following address:

> E+E MANAGEMENT CORPORATION 7244 East Indian School, Suite 100 Scottsdale, Arizona 85251

Phone: (602) 947-4308



The acquisition of the Morgan prospect was one of the results of a minerals feasibility study conducted by E+E Management and E+E Systems Corporation for eastern financial interests. The study began in January of 1969 and included preliminary screening and evaluation of minerals prospects.

Mr. Robert Daniel, an independent geologist, brought the Morgan prospect to the attention of E+E. The prospect lies in the Miami-Globe area, one of the proven major copper districts in Arizona. A portion of the favorable area had been staked by Pat Morgan and Mr. Daniel. Humble Oil Company staked the property adjoining the claims on the west side.

Negotiations were conducted with Messrs. Morgan and Daniel by Darrell Maluy, representing E+E, in June of 1969. The property was subsequently transferred to a Limited Partnership with E+E as general partner. Legal opinions were obtained as to title of properties and ownership.

The accounting records of the partnership for 1969 were audited by Dalby, Wendland, & Jensen, CPAs.

E+E retained Harvey Smith, registered engineer, to resurvey the Morgan claims and under the direction of E+E, to expand the claim group.

Heinrichs Geoexploration was then retained to conduct a limited geophysical and geochemistry program which began in early September and was completed in December. Induced polarization, resistivity, and magnetic surveys were made by Geoex.

During this period E+E opened up old workings (drifts) on the prospect and laid out access roads and drill sites. The claim group was expanded further to a total of 61 claims, and road building equipment, diamond drilling equipment and air drilling equipment was hired. Roads were completed, survey control established, validation drilling conducted, and four diamond drill holes were drilled.



TECHNICAL REPORT SUMMARY

Core was split on the first hole and part of the second under the direction of Heinrichs Geoex. The remainder of the second hole plus the third and fourth were split and assayed by Arizona Testing Laboratories. All samples, split core, air samples, geochemistry samples, etc., have been identified and stored by E+E.

Page 3

Arthur Blucher, Professional Geologist, of Tucson, Arizona, was then retained to analyze the work performed to date and to prepare a regional geologic map, property map, and make a geologic evaluation to the property. This work was completed March 10, 1970.

Richard E. Mieritz, mining consultant from Phoenix, was later retained to evaluate three underground diamond drill holes and other work performed in the area of the upper drift prior to E+E ownership.

All engineering data, assays, geophysical results, geochemical data, geologic reports, legal facts and audits are available through E+E.

A summary of physical activity on the property is as follows:

Claim Survey & Base Map Engineering

51,000 feet of brunton/chain survey for location and relocation of 61 claims was completed by H. Smith, registered mining engineer, and by E+E.
35,000 feet of theodolite/chain and theodolite/studia survey was performed to establish field control by E+E.

600 feet of underground workings were surveyed (upper drift).

Construction

6,500 feet of new roads and five drill sites were built

5,500 feet of old roads were rebuilt

Geological

Regional geology map prepared by A.G. Blucher

Geologic mineralization map prepared by Blucher for west central portion of property.



TECHNICAL REPORT SUMMARY

Geological Continued

General reconnaissance geologic mapping by J.E. Sherman

5. **B**

Evaluation Report by R.E. Mieritz

Geochemical

92 geochemical stations – broad reconnaissance traverse basis-were sampled and analyzed for copper and molybdenum

Geophysical

40,000 feet-induced polarization lines consisting of 6 lines with 500 foot dipole spacings were run

250 vertical magnetic intensity stations were observed

Drilling

2,647 feet of diamond drilling - 4 holes

350 feet of air drilling - claim validation

Laboratory

617 samples submitted for assay

Legal

Claim check/property status check by attorneys – Verity & Smith; Lathrop, Lathrop & Uchner

Commitments

Monthly payment to Mrs. Ann Morgan (widow of Pat Morgan) of \$500 (\$6000/yr.) until total of \$75,000 is paid. Agreement covers 15 claims and may be terminated upon 90 days written notice and return of claims to owner.

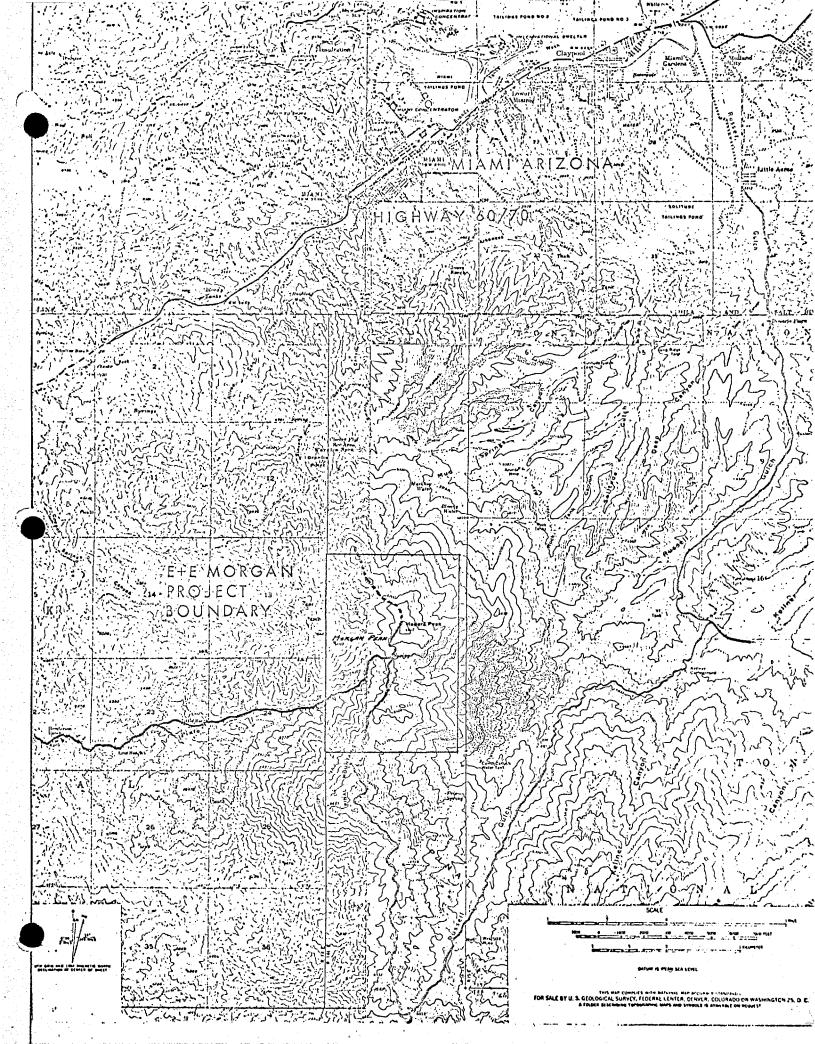
No other owner royalties, interest, or owner equities are outstanding against property.

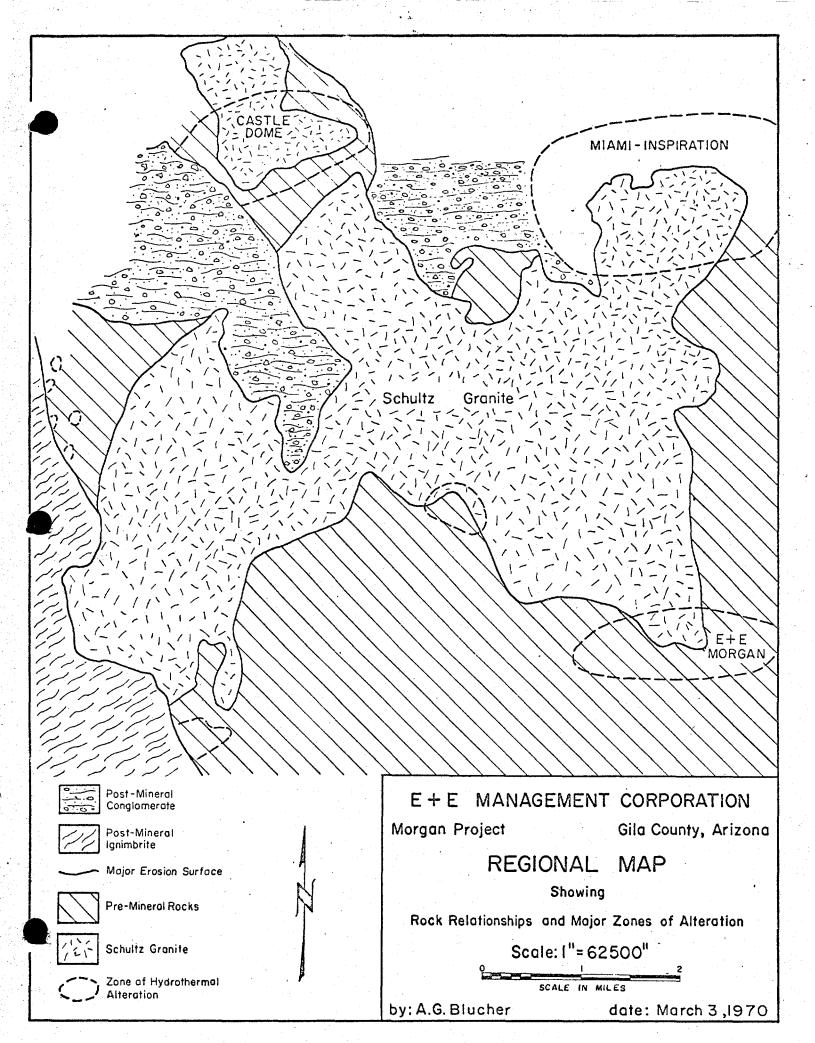


LIST OF INFORMATION AVAILABLE

			영상 이번 것 같은 것이라 같은 것 같아?
	INFORMATION	DATE	<u>BY</u>
1.	"Mineral Exploration and Economic Evaluation Program of Morgan Claim Group" [Report] (Includes results of geophysical and geochemi- cal reconnaissance)	January, 1970	Heinrichs Geoexploration Company – Registered Mining Engineers and Geophysicists
2.	"Geologic Report Morgan Prospect" (Includes assay and core logs for drilling done by E+E)	February 23, 1970	Arthur G. Blucher Mining Geologist
3.	"Evaluation Report of Physi- cal Exploration of Morgan Project" (Includes assay logs for drilling done <u>prior</u> to E+E ownership)	April 25, 1970	Richard E. Mieritz Reg. Prof. Mining Engineer Mining Consultant
4.	Claim Survey & Maps	March, 1970	Harvey Smith Reg. Prof. Mining Engineer Reg. Minerals Surveyor
5.	Technical Report, Property Survey & Maps	March 10, 1970	E+E Mgmt. Corp. & E+E Systems Corporation James Erickson Reg. Prof. Engineer Reg. Land Surveyor
6.	Core & Samples DDH 1–4 (2647 Feet)	1969-1970	E+E Mgmt. Corporation E+E Systems Corporation







TECHNICAL REPORT

E + E MORGAN PROJECT Gila County, Arizona March 10, 1970

TABLE OF CONTENTS

Section	Ву
Technical Report - Summary	• • E + E
Geologic Report	. Blucher *
Geophysical, Geochemical Reconnaissance Geology	. Heinrichs
Claims	. Smith & E + E
Base Map & Other Reports	. E+E **

* Deological Report - Morgan Property, Gela County, duyona" Arthur G. Blucker, Mining Geologist, February 23, 1970. 4 pages; location, regional, and preliminary gology maps; logs of DDH 26.1 through 4. Copy of Report attached, minus loop.

** Includes: "An Evaluation Report of the Physical Exploration Completed on E+E Management's Morgan Property, Gila County, Aujon." Richard E. Mieritz, Mining Consultant, Phoener, Aujone, April 25, 1970. & pages, 4-maps showingarsay plans of Prival adit, and DD H Ho. M-1 through M-3. (Muderground).

E+E MANAGEMENT CORPORATIO



E+E SYSTEMS CORPORATION MARINWOOD PROFISSIONAL CENTER 2410 LAS GALLINAS AVENUE SAN RALALL CALIFORNIA MIRES

TECHNICAL REPORT

E + E MORGAN PROJECT Gila County, Arizona March 10, 1970

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E+E MANAGEMENT CORPORATION 132 LAST STETION SCOTTIONEL, ALLONA 19291



E+E SYSTEMS CORPORATION MARINWOOD PROFESSIONAL CENTER 2400 LAS GALLINAS AVENUE SAN RAFAEL, CALIFORNIA 34903

TECHNICAL REPORT E + E Morgan Project - 4382.10 3/10/70 - WE/JE /DCM Page 1 of 3

SUMMARY

The acquisition of the Morgan prospect was one of the results of a minerals feasibility study conducted by E + E Management and E + E Systems Corporation for the account of Fleschner-Becker Associates. The study began in January of 1969 and included preliminary screening and evaluation of minerals prospects.

Mr. Robert Daniel, an independent geologist, brought the Morgan prospect to the attention of E + E. The prospect lies in the Miami-Globe area, one of the proven major copper districts in Arizona. A portion of the favorable area had been staked by Pat Morgan and Mr. Daniel. Humble Oil Company staked the property adjoining the claims on the west side.

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THE BASE SPECTO

E SYSTEMS CORPORATION

2400 LAS GALLINAS AVENUE

E + E Morgan Project - 4382.10 3/10/70 - WE/JE/DCM Page 2 of 3

SUMMARY, continued

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- Geologic mineralization map prepared by Blucher for west central portion of property
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E+E MANAGEMENT CORPORATION THE EAST STITSON SCOTTSDALL ARLEONA BASET



E+E SYSTEMS CORPORATION MARINWOOD PROFESSIONAL CENTER 2400 LAS GALLINAS AVENUE LAN BAFALL CALIFORNIA 54903

E + E Morgan Project - 4382.10 3/10/70 - WE/JE/DCM Page 3 of 3

SUMMARY, continued

Laboratory

617 samples submitted for assay

Legal

Claim check/property status check by attorneys - Verity & Smith; Lathrop, Lathrop & Uchner

E+E MANAGEMENT. CORPORATION 131 EAST STUTION SPOTTSIONE, ARIZONA 83251



E+E SYSTEMS CORPORATION MARINWOOD PROITSSIONAL LENTER 2400 LAS GALLINAS AVENUE SAN RAFAEL, CALIFORNIA \$1903 E+E MANAGEMENT CORPORATION PHOENIX · SAN FRANCISCO June 24, 1971

Mr. James D. Sell American Smelting & Refining Company P.O. Box 5747 Tucson, Arizona 85703

Dear Jim:

We (or should I say I) erred in some of the numbers discussed regarding the Morgan property. I felt I should correct my mistakes. You asked about the Geo-chem samples and I stated the high end fell in the 200 to 300 p.p.m. range. Apparently, I was thinking of the dust samples from the validation holes. A review of the Geochem surface assays shows lows in the 10 to 20 p.p.m. categories. The high range falls in the 300 p.p.m. and up to 1040 p.p.m.

We also discussed the degree of alteration with depth in the drill holes. I stated that in my inexperienced opinion such alteration did not increase. I stand corrected and am enclosing Art Blucher's report in which he states that the zoning of alteration indicates an increase in degree with increasing depths. I don't know the importance of these items in relation to your thinking, but I did believe they should be corrected.

We are pursuing the Request for Proposal (R.F.P.) we discussed. This request will be mailed to your firm shortly and will be sent to Mr. Saegart.

I enjoyed our day on the mountain. See you soon.

Respectfully yours,

E+E MANAGEMENT CORPORATION

ap (

Wayne Erickson President

la Enclosure

PHOENIX: 7244 EAST INDIAN SCHOOL ROAD • SCOTTSDALE, ARIZONA 85251 • (602) 947-4308

ARTHUR G. BLUCHER MINING GEOLOGIST 3149 EAST PRINCE ROAD TUCSON, ARIZONA 85716 793-2762

February 23, 1970

E + E Management Corporation 132 East Stetson Scottsdale, Arizona 85251

> MORGAN PROSPECT Gila County, Arizona

Gentlemen:

Following is my report on the preliminary examination of your property.

INTRODUCTION

The Morgan Prospect is located about 65 miles east of Phoenix, Arizona. It spans the high ground between the Gila and Salt River drainage systems. At an elevation of about 6000 feet the topography is rugged and timbered or brush-covered. It can be reached by good dirt road off highway 60-70. (See Att.A).

This is a region from which there has been extracted several billion dollars worth of copper. These ore deposits have been associated with lateral apices of a Laramide intrusive termed the Schultz Granite. (See Att.B.) The Morgan Prospect is on a relatively unexplored apex of this intrusive.

There is here, without doubt, a major mineral deposit. Its exploitation is a matter of timing and economic factors.

SUMMARY AND CONCLUSIONS

Your preliminary drilling has encountered primary copper values equal to or exceeding the grade of the protore of the major producers of the district. (See Att. D.) Certainly there is here several hundreds of millions of tons of material at a grade of about 0.3% Cu with minor amounts of molybdenite and precious metals.

Surface geologic studies have failed in finding significant evidence in the leached capping of appreciable secondary enrichment. However, in the untested ground beneath Morgan Peak there might be a strong chalcocite zone not reflected in the oxidized zone. This is discussed below under Secondary Enrichment.

Further exploration is discussed below under RECOMMENDATIONS.

REGIONAL SETTING

Although the geologic history of the region is quite complex when considered in detail, it can be stated simply as follows:

At the beginning of late Precambrian time the land surface was fairly even and consisted of schist and granite.

Upon this surface there was discontinuous deposition of sedimentary and volcanic rocks from late Precambrian until the present time. During Precambrian and Paleozoic time there was little deformation or faulting and the depositional environment was miogeosynclinal.

Active crustal movement and vulcanism beginning in Mesozoic time continued well into Tertiary time and was accompanied by the intrusion of diabase, granite, and later porphyrys. Associated with the later intrusive rocks were hydrothermal solutions bearing copper mineralization.

Vertical faulting, uplift, and erosion during middle and late Tertiary time resulted in the secondary enrichment of some of these mineral deposits by downward percolating copper solutions. This was followed by the deposition of conglomerates and by the extrusion of a great thickness of volcanic rocks.

GEOLOGY AND MINERALIZATION

Geology

At Morgan Peak the Schultz Granite of Laramide age has intruded Precambrian Pinal Schist and Madera Diorite. The diorite near the contact has developed gneissic textures in the zone of mineralization, probably due to regional metamorphic stresses along the eastern boundry of the Schultz Granite intursive. Lineation of the gneiss is east-west and the dip averages 45 degrees south. There also may exist roof pendants of Pinal Schist. These gneissic rocks are cut by quartz porphyry dikes, probably differentiates of the Schultz Granite. (See Att. C.)

Mineralization

Mineralization is as chalcopyrite in irregular thread-like veinlets and occasionally as vugs or discrete grains. (See Att. E.) For the most part pyrite is sparse or absent. These veinlets are a sub-parallel conjugate system trending generally north 75 degrees east and north 15 degrees west. They dip nearly vertically. Some chalcopyrite occurs in thicker quartz veinlets with strikes and dips of about the same angles. Occasional molybdenite occurs along the quartz veinlets. Muck from the winze in the better mineralized zone in one of the old tunnels shows some chalcocite replacing pyrite and chalcopyrite. However, most of the core shows no chalcocite.

This mineralization is part of a zone of alteration about 2-1/2 miles long by 1 mile wide and elongated east-west. The most favorable part lies near E + E western property limits.

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Alteration

Hydrothermal alteration at Morgan Peak consists mainly of silicification and sericitization. There is little or no kaolinitic or other form of argillic alteration as in most porphyry copper deposits. This unique aspect is displayed in the leached capping and accentuated by the relatively low degree of primary mineralization and the high ratio of chalcopyrite to pyrite.

One of the problems in the interpretation of this alteration is that it is difficult to separate mineralogic changes due to metamorphism from those due to alteration from hydrothermal solutions. Some of the sericite is quite coarse-grained. This, when intergrown with coarse quartz and feldspar, resembles pegmatitic textures. In other cases sericite plating parallel with gneissic banding is typical of regional metamorphic effects. Similarly, the distribution and texture of quartz is probably the result of several geologic processes.

The problem here is whether we are dealing with an apically truncated or deeply truncated volume of hydrothermally altered and mineralized rock. The presence of fine crystals of comb quartz in some open veinlets suggests low temperature – low pressure conditions. The absence of a wide zone of argillic alteration suggests the contrary. Detailed logging of the drill holes suggests an increase in alteration with depth. A search of the professional literature has found no comparable situation of conflicting data.

"It is my feeling that the zoning of alteration at Morgan Peak indicates an increase \mathbb{Z} in degree with increasing depth.

Post-Mineral History and Secondary Enrichment

About two-thirds of the large-tonnage disseminated copper deposits presently being exploited depend for economic grade on the process of secondary enrichment--that is, the existence of secondary chalcocite deposited by downward percolating copper solutions produced by the oxidation and leaching of primary ore.

In the opinion of most geologists familiar with this type of deposit, the erosional environment necessary for the development of such enriched blankets of secondary chalcocite was that of an arid climate, deep oxidation, and a fluctuating water table. These conditions occurred in the Southwestern United States, Southern Peru, and Northern Chile during late Tertiary time. In these areas some oxidation, leaching, and secondary enrichment is taking place during present geologic time.

The Morgan Prospect is in a region in which the geologic history, after primary mineralization, was particularly suited to the processes of secondary enrichment. It is probable that a zone of primary mineralization such as this enjoyed the benefit of secondary enrichment at some time. The question we face here is whether or not uplift and erosion have removed this blanket.

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GEOPHYSICAL CONSIDERATIONS

This mineral suite and this rock environment should be ideal for the application of induced polarization geophysical methods. However, the results of IP work to date do not coincide with drilling results. It may be in order to have an analysis made by a second geophysical firm of the data which Geoex gathered.

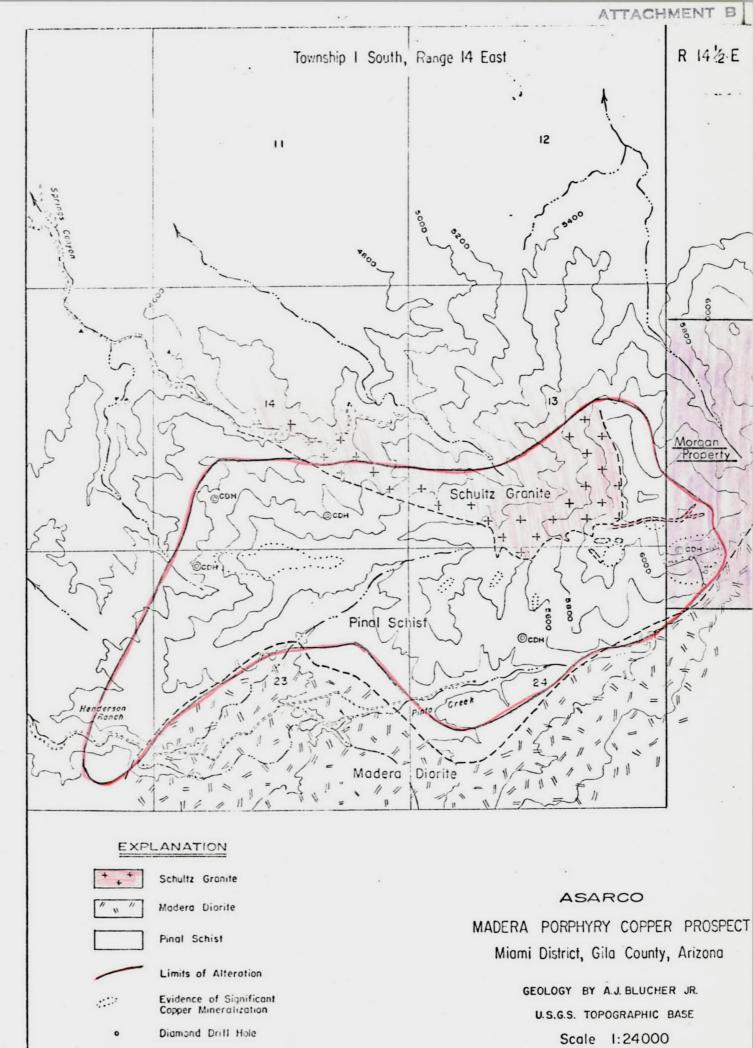
RECOMMENDATIONS

I recommend that this property be further explored by drilling. As the focal point of primary mineralization is quite near to the western boundary of the property, consideration should be given to the possibility of a joint enterprise with the adjacent property owners.

Sincerely yours,

allton & Blacker

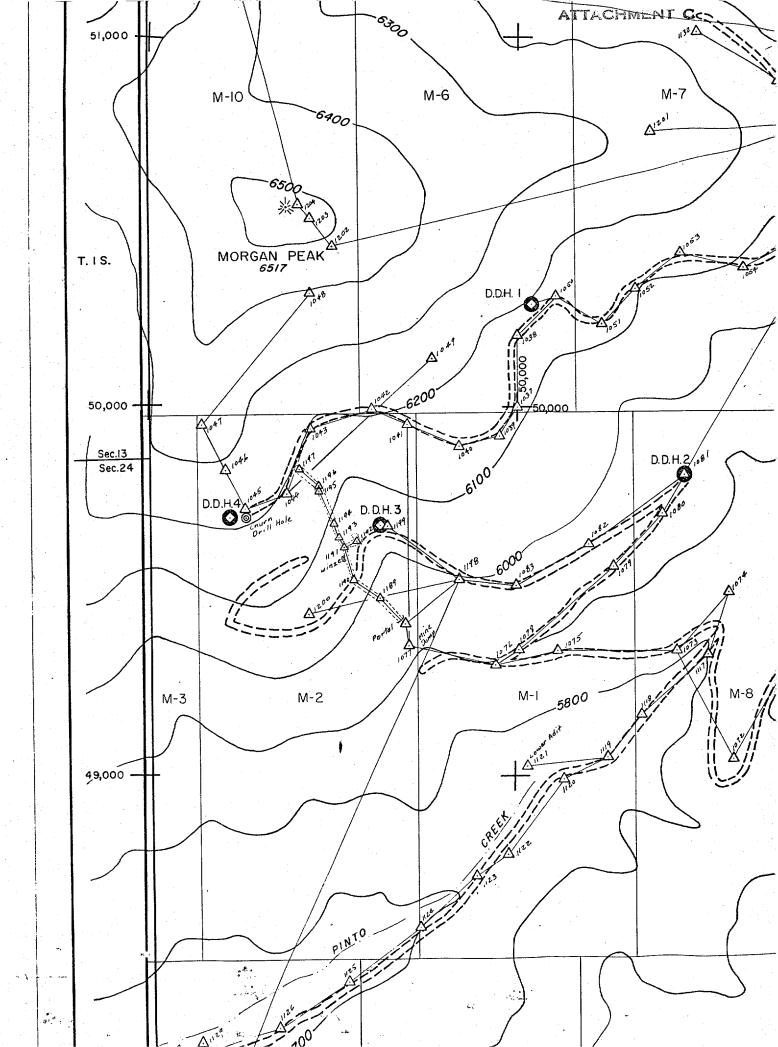
Arthur G. Blucher



Churn Drill Hole

Map No. 1409

November, 1958



TECHNICAL REPORT

E + E MORGAN PROJECT Gila County, Arizona March 10, 1970

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Claims	• • •	Smith & E + E
Base Map & Other Reports	• • •	E+E **

* Deological Report - Morgan Property, Gela County, duyona" Arthur G. Blucher, Mining Geologist, February 23, 1970. 4 pages; location, regional, and preliminary goology maps; logs of DDH 26.1 through 4. Copy of Report attached, minus logs.

** <u>Includes</u>: "In Evaluation Report of the Physical Exploration Completed on E+E Management's Morgan Property, Gila County, Aujona" Richard E. Mieritz, Mining Consultant, Phoener, Aujora, April 25, 1970. & pages, 4-maps showingarsay plans of Period adit, and DDH No. M-1 through M-3. (Underground).

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E+E SYSTEMS CORPORATION MAINWOOD PROFISSIONAL CENTER 2400 LAS GALLINAS ASENUE SAN RATALL, CALIFORNIA 14903 TECHNICAL REPORT

E + E MORGAN PROJECT Gila County, Arizona March 10, 1970

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E+E SYSTEMS CORPORATION MARINWOOD PROFESIONAL CENTER 2400 LAS GALLINAS AVENUE SAN RAFAEL, CALIFORNIA 94903

E + E Morgan Project - 4382.10 3/10/70 - WE/JE/DCM Page 1 of 3

SUMMARY

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The acquisition of the Morgan prospect was one of the results of a minerals feasibility study conducted by E + E Management and E + E Systems Corporation for the account of Fleschner-Becker Associates. The study began in January of 1969 and included preliminary screening and evaluation of minerals prospects.

Mr. Robert Daniel, an independent geologist, brought the Morgan prospect to the attention of E + E. The prospect lies in the Miami-Globe area, one of the proven major copper districts in Arizona. A portion of the favorable area had been staked by Pat Morgan and Mr. Daniel. Humble Oil Company staked the property adjoining the claims on the west side.

Negotiations were conducted with Messrs. Morgan and Daniel by Darrell Maluy, representing E + E, in June of 1969. The property was subsequently transferred to the Limited Partnership established with Fleschner-Becker. Legal opinions were obtained as to title of properties and ownership.

The accounting records of the partnership for 1969 were audited by Dalby, Wendland & Jensen, CPAs.

E + E retained Harvey Smith, registered engineer, to resurvey the Morgan . claims and under the direction of E + E, to expand the claim group.

Heinrichs Geoexploration was then retained to conduct a limited geophysical and geochemistry program which began in early September and was completed in December. Induced polarization, resistivity, and magnetic surveys were made by Geoex.

During this period E + E opened up old workings (drifts) on the prospect and laid out access roads and drill sites. The claim group was expanded further to a total of 61 claims and road building equipment, diamond drilling equipment and air drilling equipment was hired. Roads were completed, survey control established, validation drilling conducted, and four diamond drill holes were drilled.

Core was split on the first hole and part of the second under the direction of Heinrichs Geoex. The remainder of the second hole plus the third and fourth were split and assayed by Arizona Testing Laboratories. All samples, split core, air samples, geochemistry samples, etc., have been identified and stored by E + E.

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E + E Morgan Project - 4382.10 3/10/70 - WE/JE/DCM Page 2 of 3

SUMMARY, continued

Arthur Blucher, professional geologist, of Tucson, Arizona, was then retained to analyze the work performed to date and to prepare a regional geologic map, property map, and make a geologic evaluation of the property. This work was completed March 10, 1970.

All engineering data, assays, geophysical results, geochemical data, geologic reports, legal facts and audits, are available through E + E.

A summary of physical activity on the property is as follows:

Claim Survey & Base Map Engineering

- 51,000 feet of brunton/chain survey for location and relocation of 61 claims was completed by H. Smith, registered mining engineer, and by E + E.
- 35,000 feet of theodolite/chain and theodolite/stadia survey was performed to establish field control by E + E.
 - 600 feet of underground workings were surveyed (upper drift).

Construction

- 6,500 feet of new roads and five drill sites were built
- 5,500 feet of old roads were rebuilt

Geological

- Regional geology map prepared by Blucher
- Geologic mineralization map prepared by Blucher for west central portion of property
- General reconnaissance geologic mapping by Sherman

Geochemical

92 geochemical stations – broad reconnaissance traverse basis-were sampled and analyzed for copper and molybdenum

Geophysical

- 40,000 feet-induced polarization lines consisting of 6 lines with 500 foot dipole spacings were run
 - 250 vertical magnetic intensity stations were observed

Drilling

- 2,647 feet of diamond drilling 4 holes
 - 350 feet of air drilling claim validation

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E + E Morgan Project – 4382.10 3/10/70 – WE/JE/DCM Page 3 or 3

SUMMARY, continued

Laboratory

617 samples submitted for assay

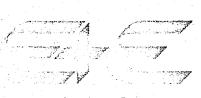
Legal

Claim check/property status check by attorneys – Verity & Smith; Lathrop, Lathrop & Uchner

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 E+E SYSTEMS CORPORATION MARINWOOD PROFESSIONAL CENTER 2400 LAS GALLINAS AVENUE SAN RAFAEL, CALIFORNIA 34203



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E+E MANAGEMENT CORPORATION PHOENIX · SAN FRANCISCO June 24, 1971

Mr. James D. Sell American Smelting & Refining Company P.O. Box 5747 Tucson, Arizona 85703

Dear Jim:

We (or should I say I) erred in some of the numbers discussed regarding the Morgan property. I felt I should correct my mistakes. You asked about the Geo-chem samples and I stated the high end fell in the 200 to 300 p.p.m. range. Apparently, I was thinking of the dust samples from the validation holes. A review of the Geochem surface assays shows lows in the 10 to 20 p.p.m. categories. The high range falls in the 300 p.p.m. and up to 1040 p.p.m.

We also discussed the degree of alteration with depth in the drill holes. I stated that in my inexperienced opinion such alteration did not increase. I stand corrected and am enclosing Art Blucher's report in which he states that the zoning of alteration indicates an increase in degree with increasing depths. I don't know the importance of these items in relation to your thinking, but I did believe they should be corrected.

We are pursuing the Request for Proposal (R.F.P.) we discussed. This request will be mailed to your firm shortly and will be sent to Mr. Saegart.

l enjoyed our day on the mountain. See you soon.

Respectfully yours,

E+E MANAGEMENT CORPORATION

Tay Cui

Wayne Erickson President

la Enclosure

PHOENIX: 7244 EAST INDIAN SCHOOL ROAD • SCOTTSDALE, ARIZONA 85251 • (602) 947-4308

ARTHUR G. BLUCHER MINING GEOLDOIST 3149 EAST PRINCE ROAD TUCSON, ARIZONA B5716

793-2762

February 23, 1970

E + E Management Corporation 132 East Stetson Scottsdale, Arizona 85251

MORGAN PROSPECT Gila County, Arizona

Gentlemen:

Following is my report on the preliminary examination of your property.

INTRODUCTION

The Morgan Prospect is located about 65 miles east of Phoenix, Arizona. It spans the high ground between the Gila and Salt River drainage systems. At an elevation of about 6000 feet the topography is rugged and timbered or brush-covered. It can be reached by good dirt road off highway 60-70. (See Att.A).

This is a region from which there has been extracted several billion dollars worth of copper. These ore deposits have been associated with lateral apices of a Laramide intrusive termed the Schultz Granite. (See Att.B.) The Morgan Prospect is on a relatively unexplored apex of this intrusive.

There is here, without doubt, a major mineral deposit. Its exploitation is a matter of timing and economic factors.

SUMMARY AND CONCLUSIONS

Your preliminary drilling has encountered primary copper values equal to or exceeding the grade of the protore of the major producers of the district. (See Att. D.) Certainly there is here several hundreds of millions of tons of material at a grade of about 0.3% Cu with minor amounts of molybdenite and precious metals.

Surface geologic studies have failed in finding significant evidence in the leached capping of appreciable secondary enrichment. However, in the untested ground beneath Morgan Peak there might be a strong chalcocite zone not reflected in the oxidized zone. This is discussed below under Secondary Enrichment.

Further exploration is discussed below under RECOMMENDATIONS.

REGIONAL SETTING

Although the geologic history of the region is quite complex when considered in detail, it can be stated simply as follows:

At the beginning of late Precambrian time the land surface was fairly even and consisted of schist and granite.

Upon this surface there was discontinuous deposition of sedimentary and volcanic rocks from late Precambrian until the present time. During Precambrian and Paleozoic time there was little deformation or faulting and the depositional environment was miogeosynclinal.

Active crustal movement and vulcanism beginning in Mesozoic time continued well into Tertiary time and was accompanied by the intrusion of diabase, granite, and later porphyrys. Associated with the later intrusive rocks were hydrothermal solutions bearing copper mineralization.

Vertical faulting, uplift, and erosion during middle and late Tertiary time resulted in the secondary enrichment of some of these mineral deposits by downward percolating copper solutions. This was followed by the deposition of conglomerates and by the extrusion of a great thickness of volcanic rocks.

GEOLOGY AND MINERALIZATION

Geology

At Morgan Peak the Schultz Granite of Laramide age has intruded Precambrian Pinal Schist and Madera Diorite. The diorite near the contact has developed gneissic textures in the zone of mineralization, probably due to regional metamorphic stresses along the eastern boundry of the Schultz Granite intursive. Lineation of the gneiss is east-west and the dip averages 45 degrees south. There also may exist roof pendants of Pinal Schist. These gneissic rocks are cut by quartz porphyry dikes, probably differentiates of the Schultz Granite. (See Att. C.)

Mineralization

Mineralization is as chalcopyrite in irregular thread-like veinlets and occasionally as vugs or discrete grains. (See Att. E.) For the most part pyrite is sparse or absent. These veinlets are a sub-parallel conjugate system trending generally north 75 degrees east and north 15 degrees west. They dip nearly vertically. Some chalcopyrite occurs in thicker quartz veinlets with strikes and dips of about the same angles. Occasional molybdenite occurs along the quartz veinlets. Muck from the winze in the better mineralized zone in one of the old tunnels shows some chalcocite replacing pyrite and chalcopyrite. However, most of the core shows no chalcocite.

This mineralization is part of a zone of alteration about 2-1/2 miles long by 1 mile wide and elongated east-west. The most favorable part lies near E + E western property limits.

Alteration

Hydrothermal alteration at Morgan Peak consists mainly of silicification and sericitization. There is little or no kaolinitic or other form of argillic alteration as in most porphyry copper deposits. This unique aspect is displayed in the leached capping and accentuated by the relatively low degree of primary mineralization and the high ratio of chalcopyrite to pyrite.

One of the problems in the interpretation of this alteration is that it is difficult to separate mineralogic changes due to metamorphism from those due to alteration from hydrothermal solutions. Some of the sericite is quite coarse-grained. This, when intergrown with coarse quartz and feldspar, resembles pegmatitic textures. In other cases sericite plating parallel with gneissic banding is typical of regional metamorphic effects. Similarly, the distribution and texture of quartz is probably the result of several geologic processes.

The problem here is whether we are dealing with an apically truncated or deeply truncated volume of hydrothermally altered and mineralized rock. The presence of fine crystals of comb quartz in some open veinlets suggests low temperature – low pressure conditions. The absence of a wide zone of argillic alteration suggests the contrary. Detailed logging of the drill holes suggests an increase in alteration with 7 depth? A search of the professional literature has found no comparable situation of conflicting data.

It is my feeling that the zoning of alteration at Morgan Peak indicates an increase in degree with increasing depth.

Post-Mineral History and Secondary Enrichment

About two-thirds of the large-tonnage disseminated copper deposits presently being exploited depend for economic grade on the process of secondary enrichment--that is, the existence of secondary chalcocite deposited by downward percolating copper solutions produced by the oxidation and leaching of primary ore.

In the opinion of most geologists familiar with this type of deposit, the erosional environment necessary for the development of such enriched blankets of secondary chalcocite was that of an arid climate, deep oxidation, and a fluctuating water table. These conditions occurred in the Southwestern United States, Southern Peru, and Northern Chile during late Tertiary time. In these areas some oxidation, leaching, and secondary enrichment is taking place during present geologic time.

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When considering whether or not the western end of the Morgan Prospect---proven to be well mineralized by your drilling---has the post mineral history which would allow and preserve a zone of secondary enrichment, these structural problems are important.

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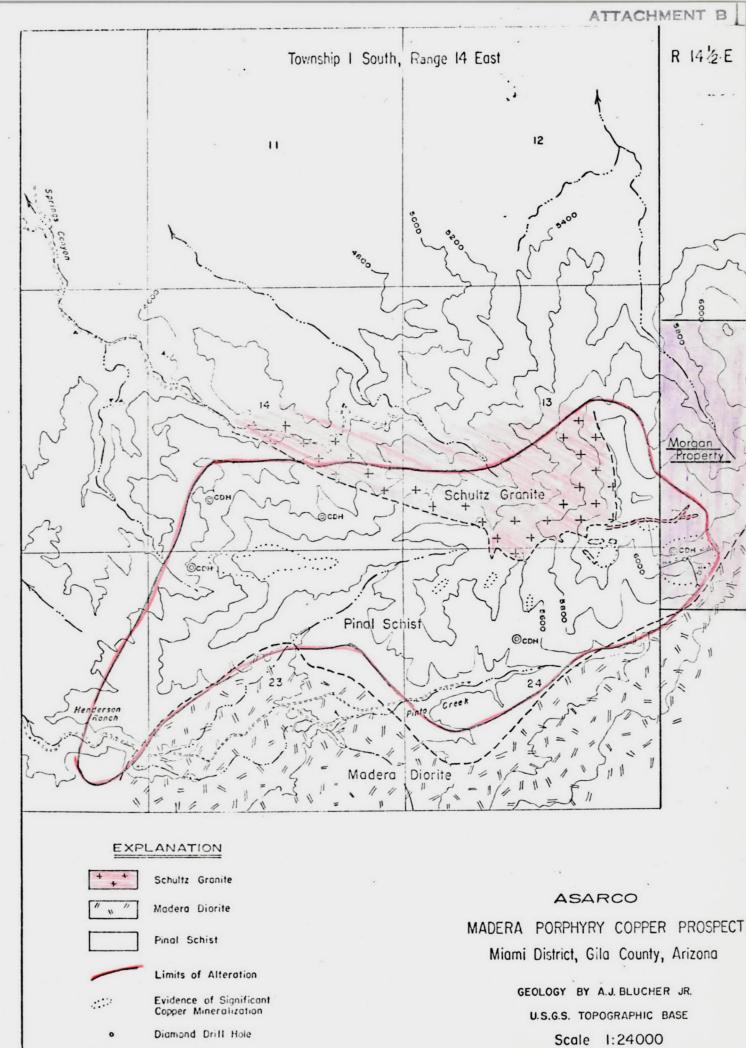
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Sincerely yours,

ATTA Bluelon

Arthur G. Blucher

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Churn Drill Hole

November 1958

Man No 1409

