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QUALITY STATEMENT

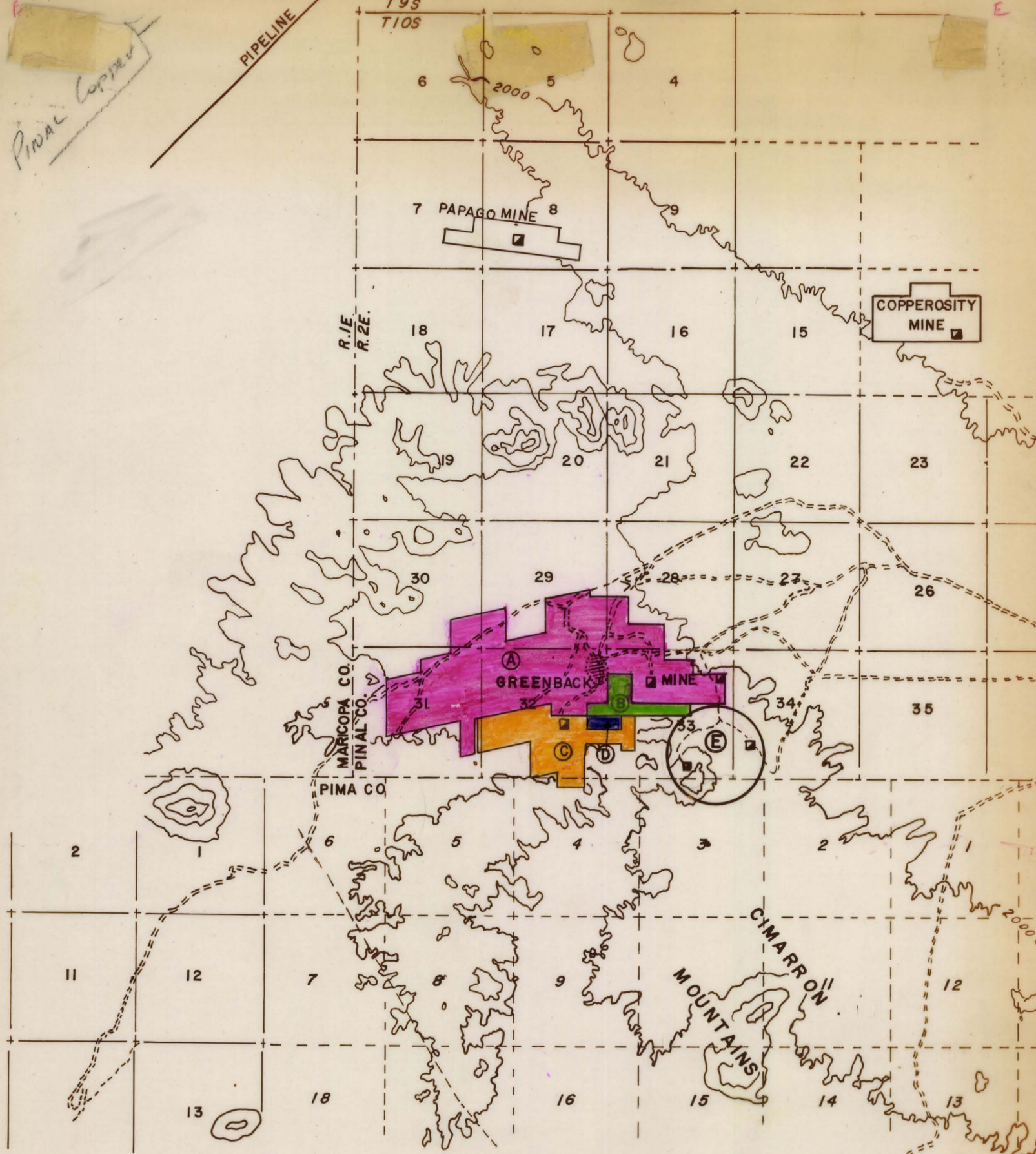
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Pinal Copper

PIPELINE

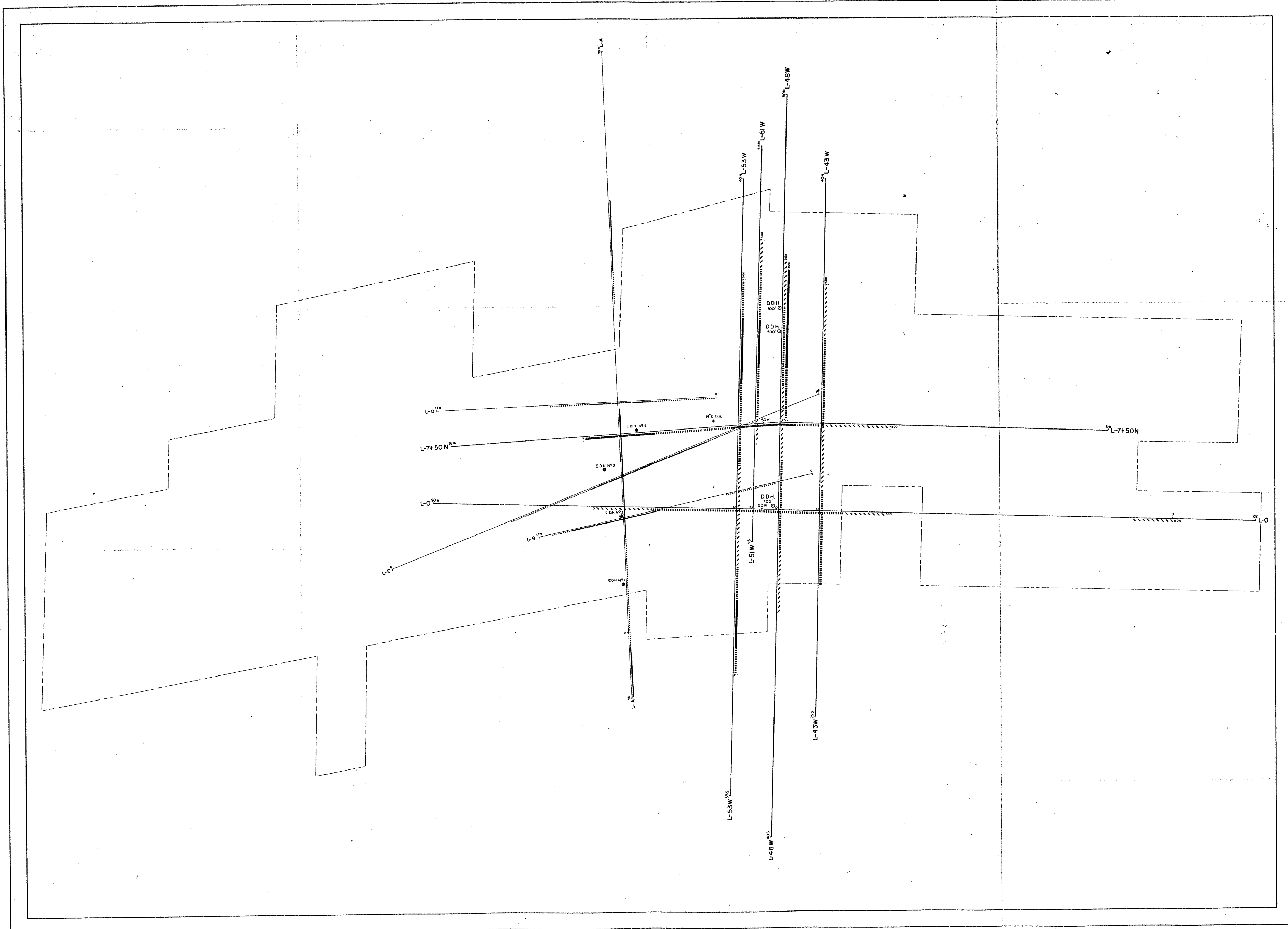
T9S
T10S

E



- (A) Pinal Copper Corp. Claims and area of interest
- (B) C Black Claims and area of interest
- (C) South Claims and area of interest
- (D) Black and Ogden Claims and area of interest
- Area of extensive Explor. and Devel.

McPHAR GEOPHYSICS LIMITED
INDUCED POLARIZATION AND RESISTIVITY SURVEY
PLAN MAP



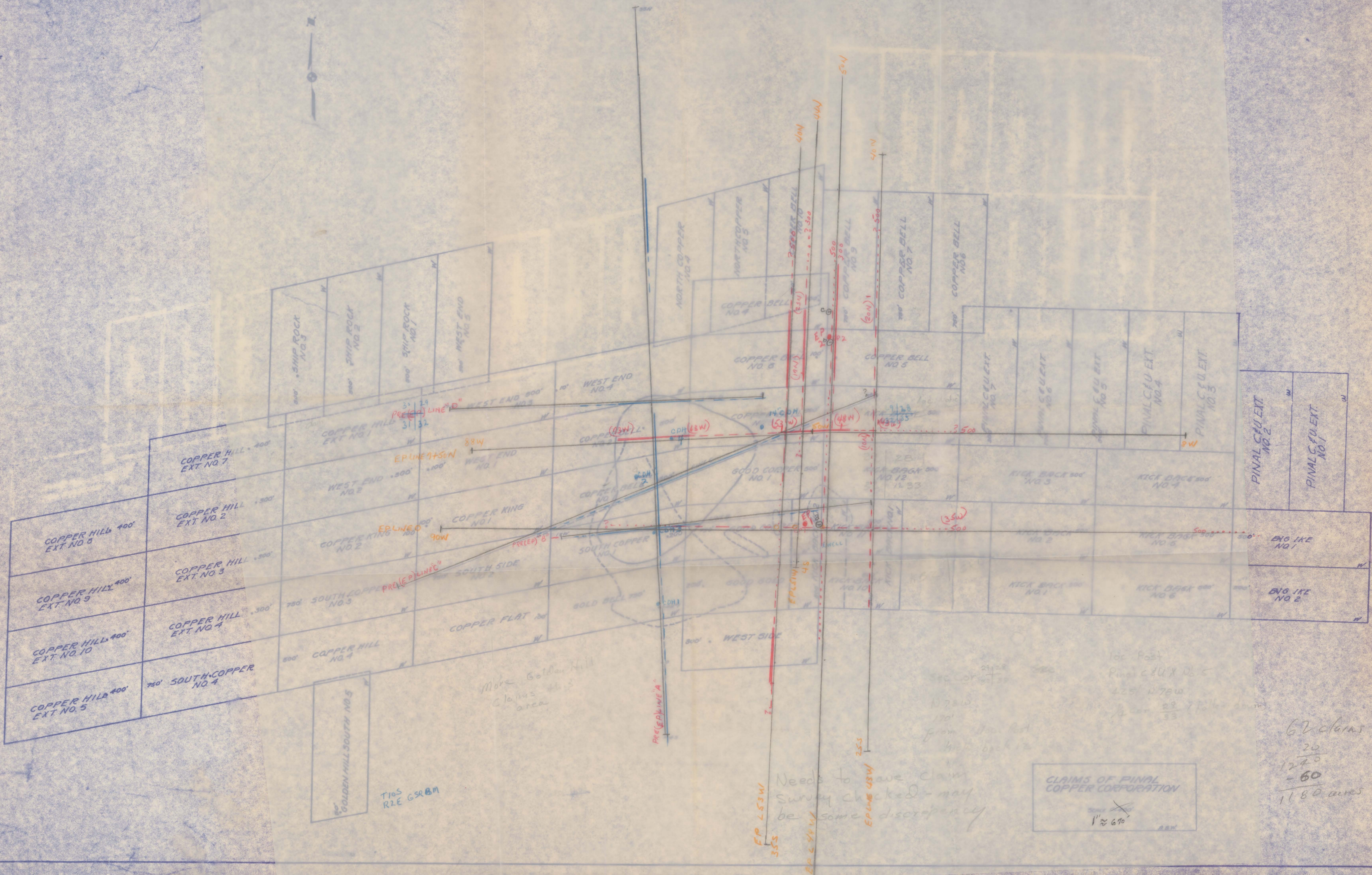
SURFACE PROJECTION
OF ANOMALOUS ZONES
DEFINITE
PROBABLE
POSSIBLE
NUMBER AT END OF ANOMALY
INDICATES SPREAD USED.

PINAL COPPER CORPORATION PROPERTY, PINAL CTY., ARIZONA, U.S.A.

SCALE
ONE INCH EQUALS FOUR HUNDRED FEET

NOTE:
LINES A,B,C, D ARE PREVIOUS LINES.
D PROPOSED VERTICAL DRILL HOLES.
CLAIM BOUNDARY.
EXISTING DRILL H.





CLAIMS OF PINAL
COPPER CORPORATION

1" = 60'

62 claims
20
1270
- 60
1180 acres

Needs to have claim
survey checked - may
be some discrepancy

More Golden Hill
Claims area

T105
R2E GSR BM

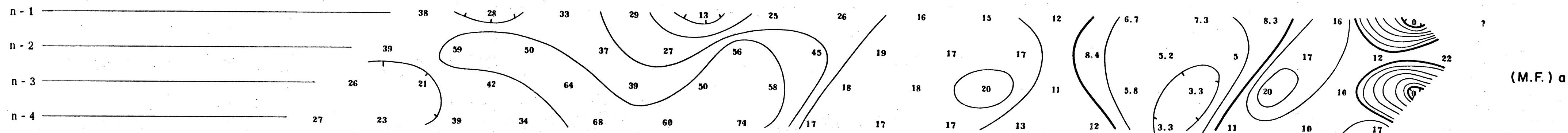
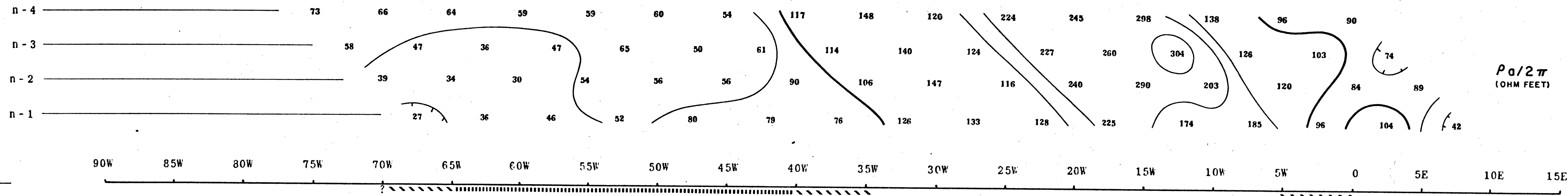
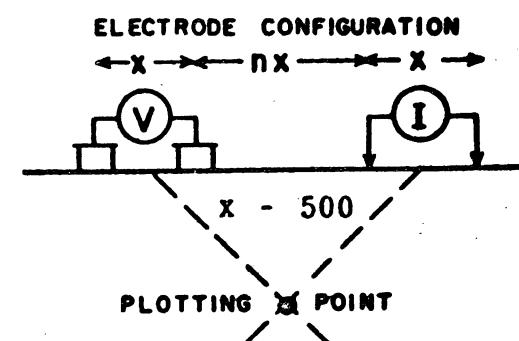
Loc Post
Pinal Cuesta No 5
425' N 78W
1/2 sec 28 T105 R2E

21128
170' from Loc Post
back 12

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT
LOGARITHMIC MULTIPLES
OF 10-15-20-30-50-75-100



SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

EL PASO NATURAL GAS COMPANY
PINAL COPPER CORPORATION PROPERTY, PINAL CTY, ARIZONA, U.S.A.

Scale—One inch= 500 Feet

NOTE LOGARITHMIC CONTOUR INTERVAL

FREQUENCY 0.05 & 1.25 C.P.S.

DATE SURVEYED SEPT. 1966

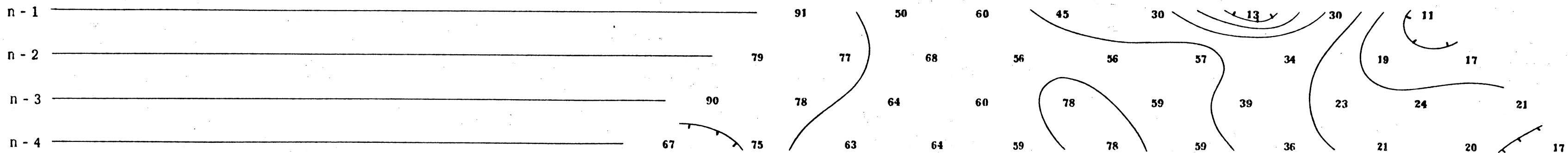
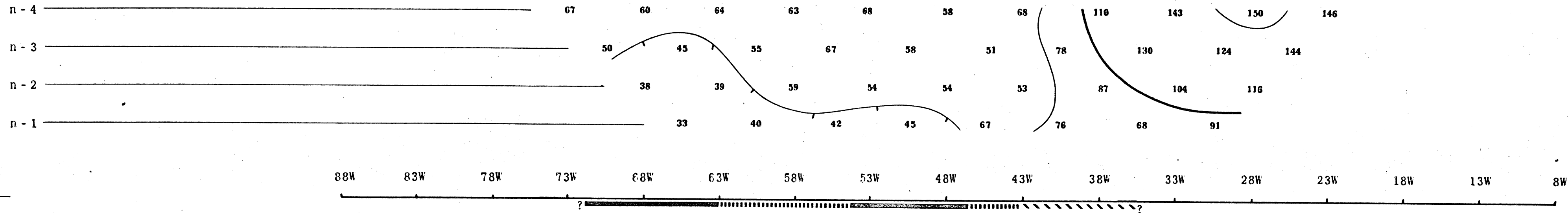
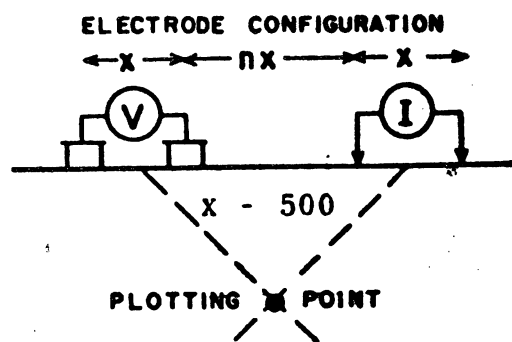
APPROVED

DATE 9/20/66

LINE NO.-0

McPHAR GEOPHYSICS LIMITED
INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT
LOGARITHMIC MULTIPLES
OF 10-15-20-30-50-75-100



SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

EL PASO NATURAL GAS COMPANY
PINAL COPPER CORPORATION PROPERTY, PINAL CTY., ARIZONA, U.S.A.

Scale - One inch = 500 Feet

NOTE LOGARITHMIC CONTOUR INTERVAL

FREQUENCY 0.058 Hz (25 C.R.S.)

DATE SURVEYED SEPT. 1966

APPROVED

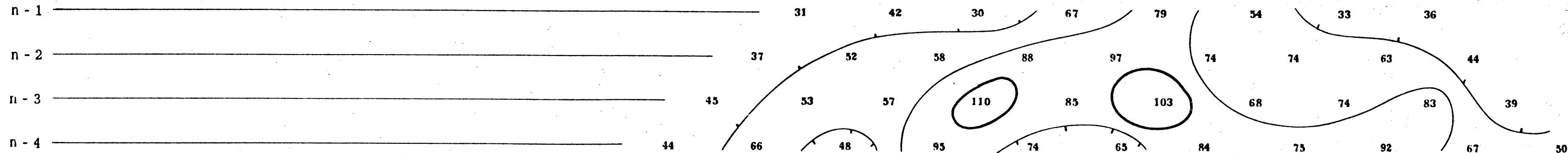
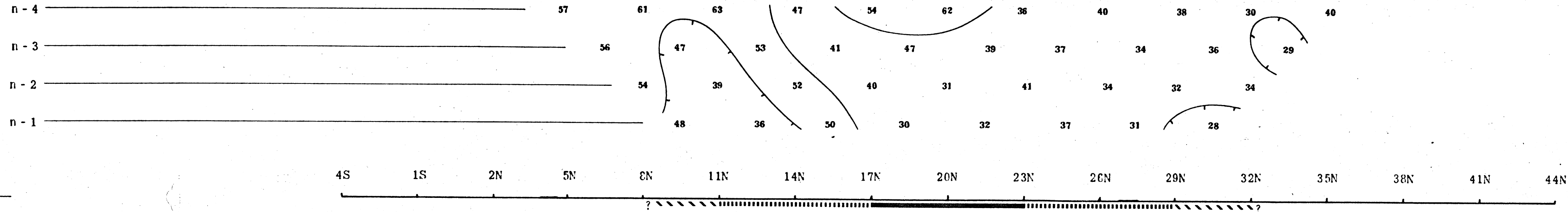
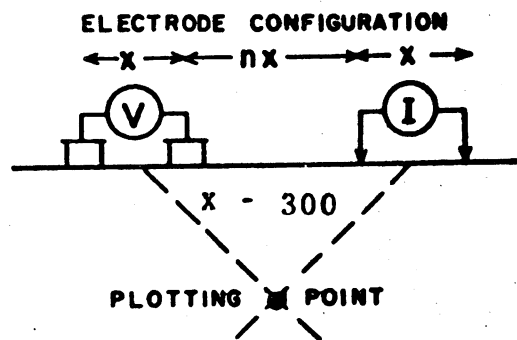
DATE 9/20/66

LINE NO.- 7 + 50N

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT
LOGARITHMIC MULTIPLES
OF 10-15-20-30-50-75-100



EL PASO NATURAL GAS COMPANY

PINAL COPPER CORPORATION PROPERTY, PINAL CTY., ARIZONA, U.S.A.

Scale—One inch= 300 Feet

NOTE LOGARITHMIC CONTOUR INTERVAL

SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

FREQUENCY 0.056125 C.P.S.

DATE SURVEYED SEPT. 1966

APPROVED

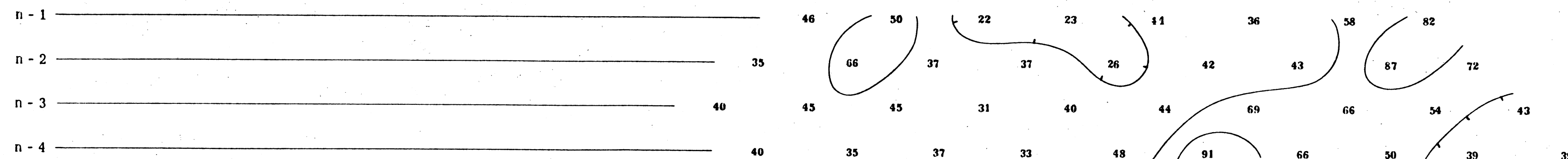
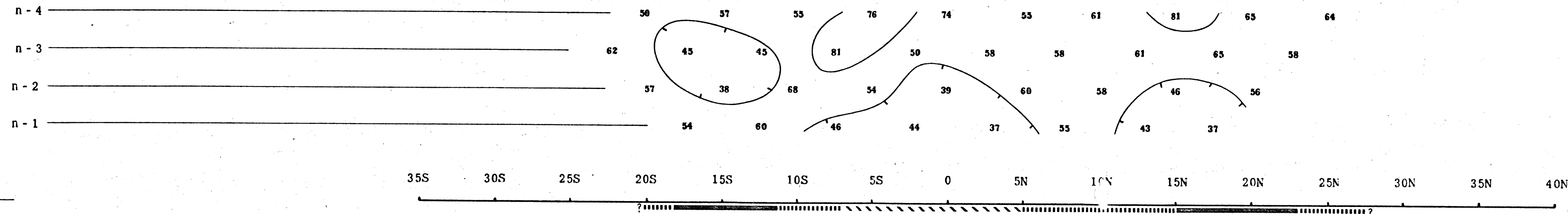
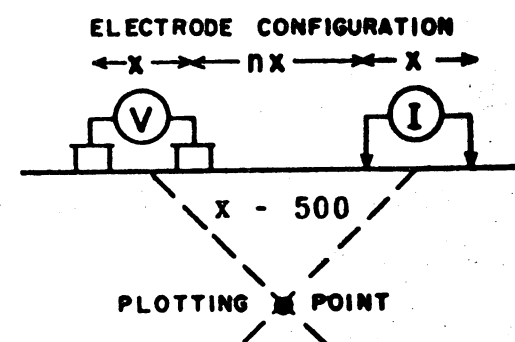
DATE 9/20/66

LINE NO.—51W

McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT
LOGARITHMIC MULTIPLES
OF 10-15-20-30-50-75-100



EL PASO NATURAL GAS COMPANY
PINAL COPPER CORPORATION PROPERTY, PINAL CTY., ARIZONA, U.S.A.

Scale - One inch = 500 Feet

NOTE LOGARITHMIC CONTOUR INTERVAL

FREQUENCY 0.05 & 25 C.P.S.

DATE SURVEYED SEPT. 1966

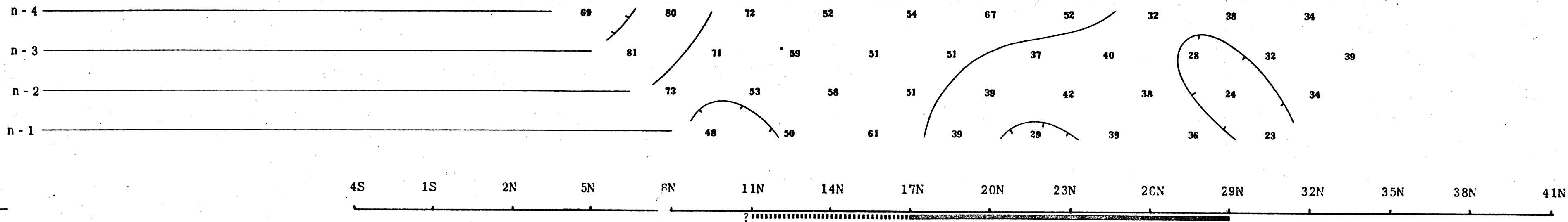
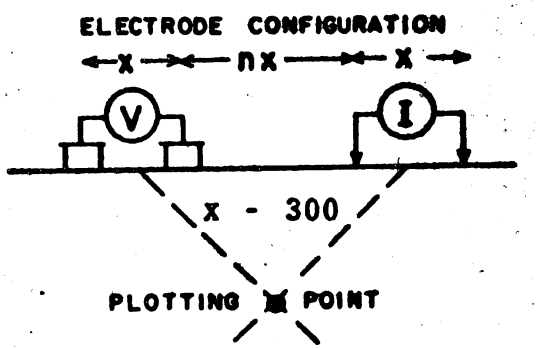
APPROVED *H*

DATE 9/20/66

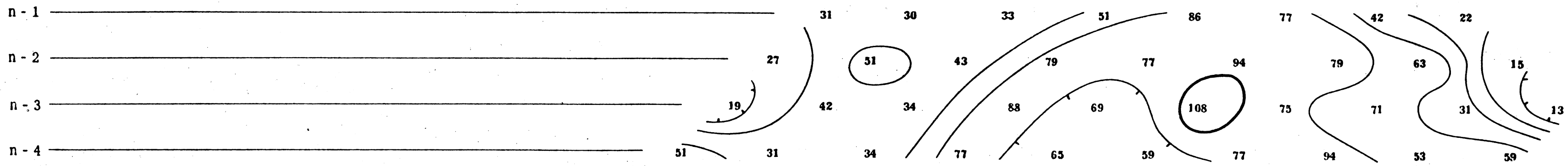
LINE NO.-53W

McPHAR GEOPHYSICS LIMITED
INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT LOGARITHMIC MULTIPLES OF 10-15-20-30-50-75-100



$P_a/2\pi$
(OHM FEET)



(M.F.) a

SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

EL PASO NATURAL GAS COMPANY
PINAL COPPER CORPORATION PROPERTY, PINAL CTY., ARIZONA, U.S.A.

Scale-One inch= 300 Feet
NOTE LOGARITHMIC CONTOUR INTERVAL

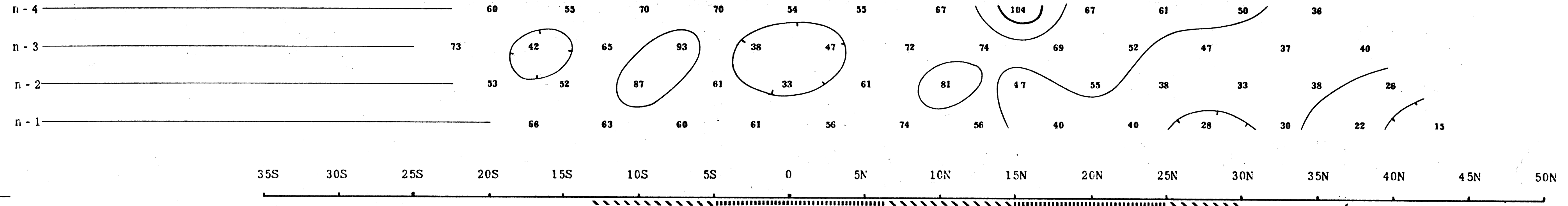
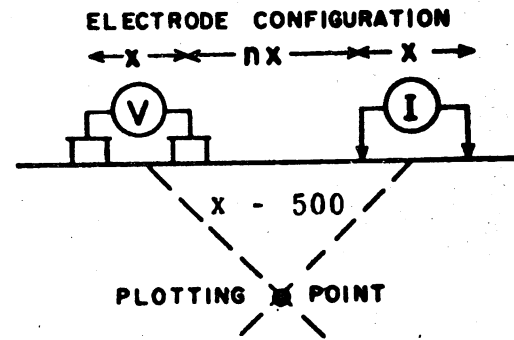
FREQUENCY 0.05 & 25 C.P.S.
DATE SURVEYED SEPT 1966
APPROVED
DATE 9/20/66

LINE NO.-48W

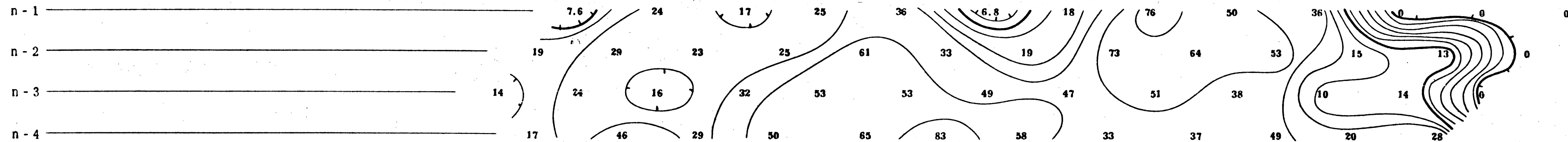
McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT
LOGARITHMIC MULTIPLES
OF 10-15-20-30-50-75-100



$\rho_a / 2\pi$
(OHM FEET)



(M.F.) a

SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE —————

PROBABLE

POSSIBLE

EL PASO NATURAL GAS COMPANY

PINAL COPPER CORPORATION PROPERTY, PINAL CTY., ARIZONA, U.S.A.

Scale—One inch= 500 Feet

NOTE LOGARITHMIC CONTOUR INTERVAL

FREQUENCY 0.05 & 125 C.P.S.

DATE SURVEYED SEPT. 1966

APPROVED *[Signature]*

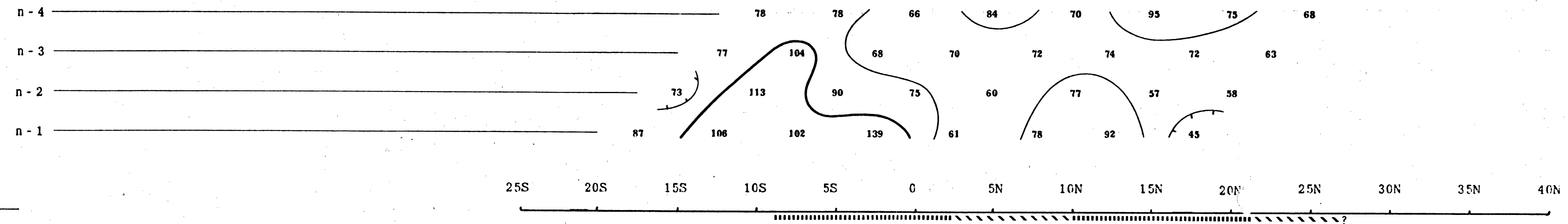
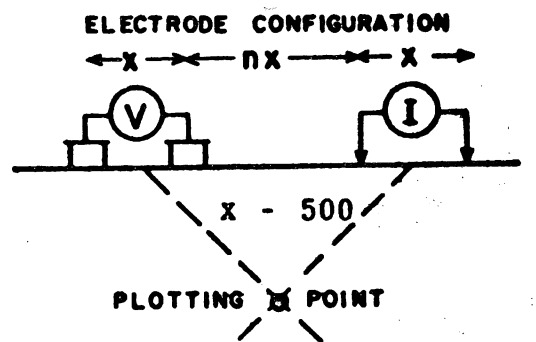
DATE 9/20/66

LINE NO.-48 W

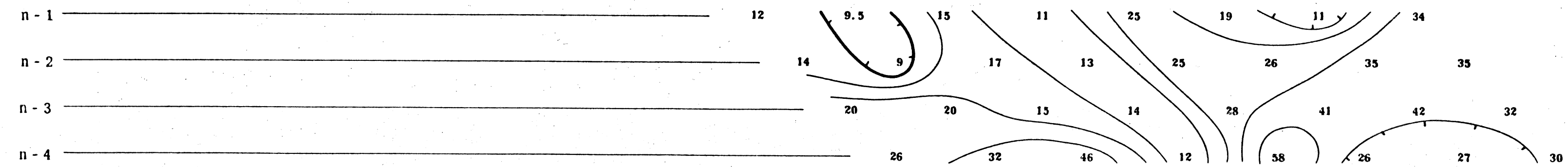
McPHAR GEOPHYSICS LIMITED

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: CONTOURS AT
LOGARITHMIC MULTIPLES
OF 10-15-20-30-50-75-100



$\rho_a / 2\pi$
(OHM FEET)



(M.F.) α

SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

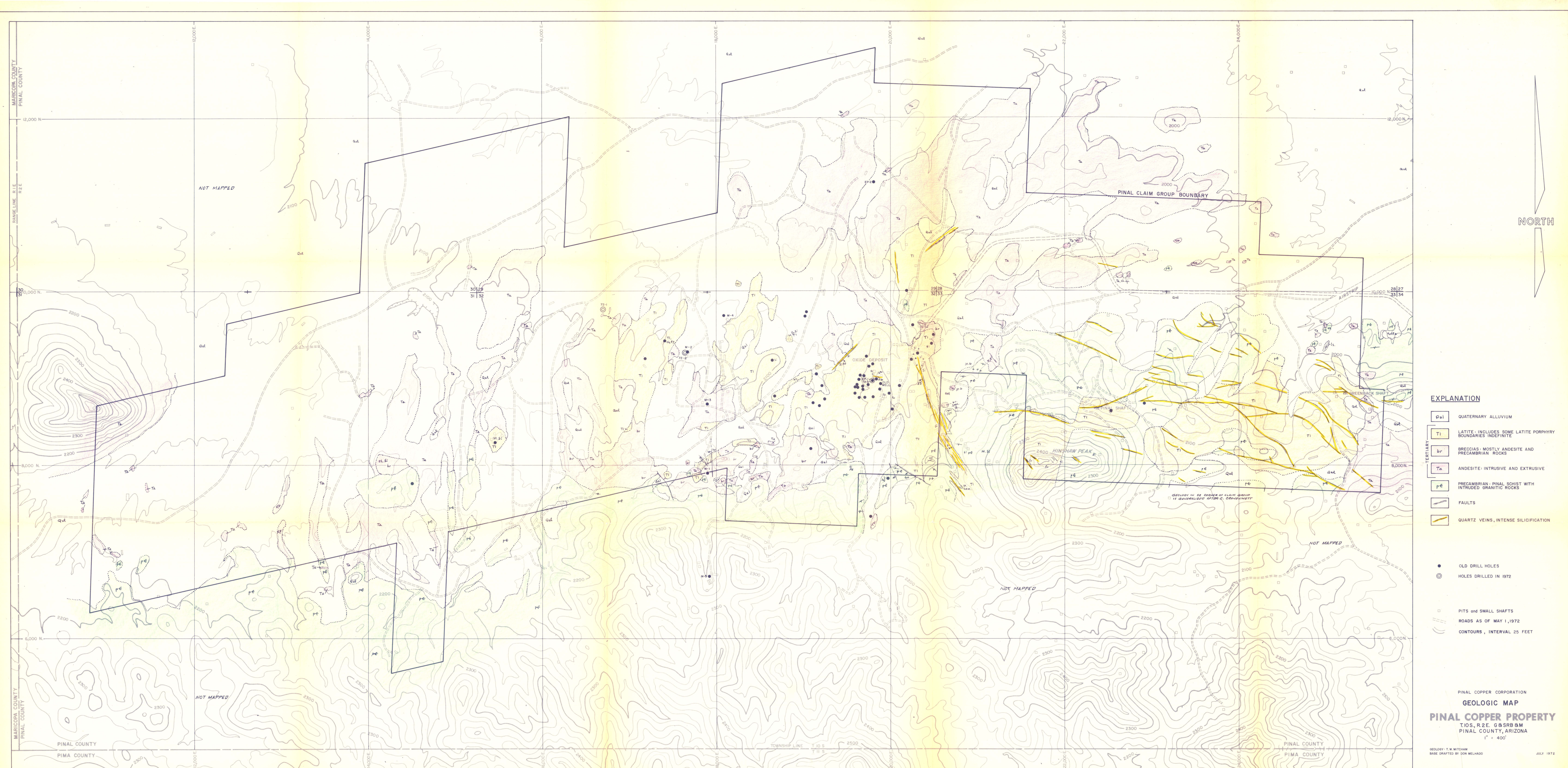
EL PASO NATURAL GAS COMPANY
PINAL COPPER CORPORATION PROPERTY, PINAL CTY., ARIZONA, U.S.A.

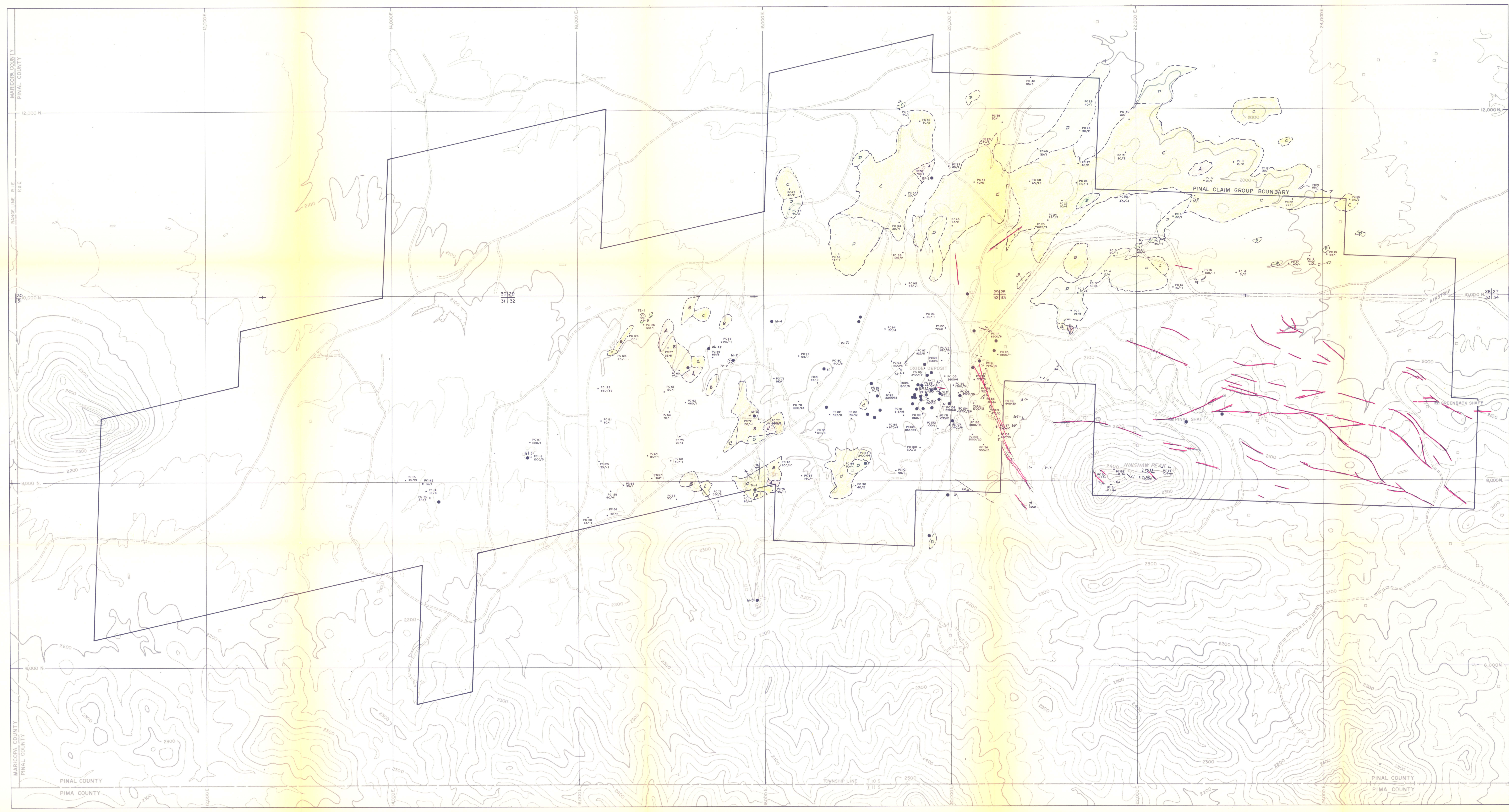
Scale - One inch = 500 Feet

NOTE LOGARITHMIC CONTOUR INTERVAL

FREQUENCY 0.058-125 CPS
DATE SURVEYED SEPT. 1966
APPROVED
DATE 9/20/66

LINE NO.-43W





NORTH

EXPLANATION

- D** PYRITE-SERICITE ALTERATION VOL. % PY* 0.5
- C** PYRITE-SERICITE ALTERATION VOL. % PY* 1.0
- B** PYRITE-SERICITE ALTERATION VOL. % PY* 2.0
- A** PYRITE-SERICITE ALTERATION VOL. % PY* 3.0
- QUARTZ VEINS, INTENSE SILICIFICATION
- VISIBLE COPPER

PC 100 SURFACE ROCK SAMPLE NUMBER
1000/20 Cu/Mo CONTENTS IN PPM **

* PYRITE CONTENT AT DEPTH, ESTIMATED FROM SURFACE LIMONITE OBSERVATIONS

** As (only) IN PPM FOR SAMPLES PC 50-56

- OLD DRILL HOLES
- ⊙ HOLES DRILLED IN 1972
- PITS and SMALL SHAFTS
- ROADS AS OF MAY 1, 1972
- CONTOURS, INTERVAL 25 FEET

PINAL COPPER CORPORATION
ALTERATION & MINERALIZATION
PINAL COPPER PROPERTY
T10S, R2E, G&SRB 8M
PINAL COUNTY, ARIZONA
1" = 400'

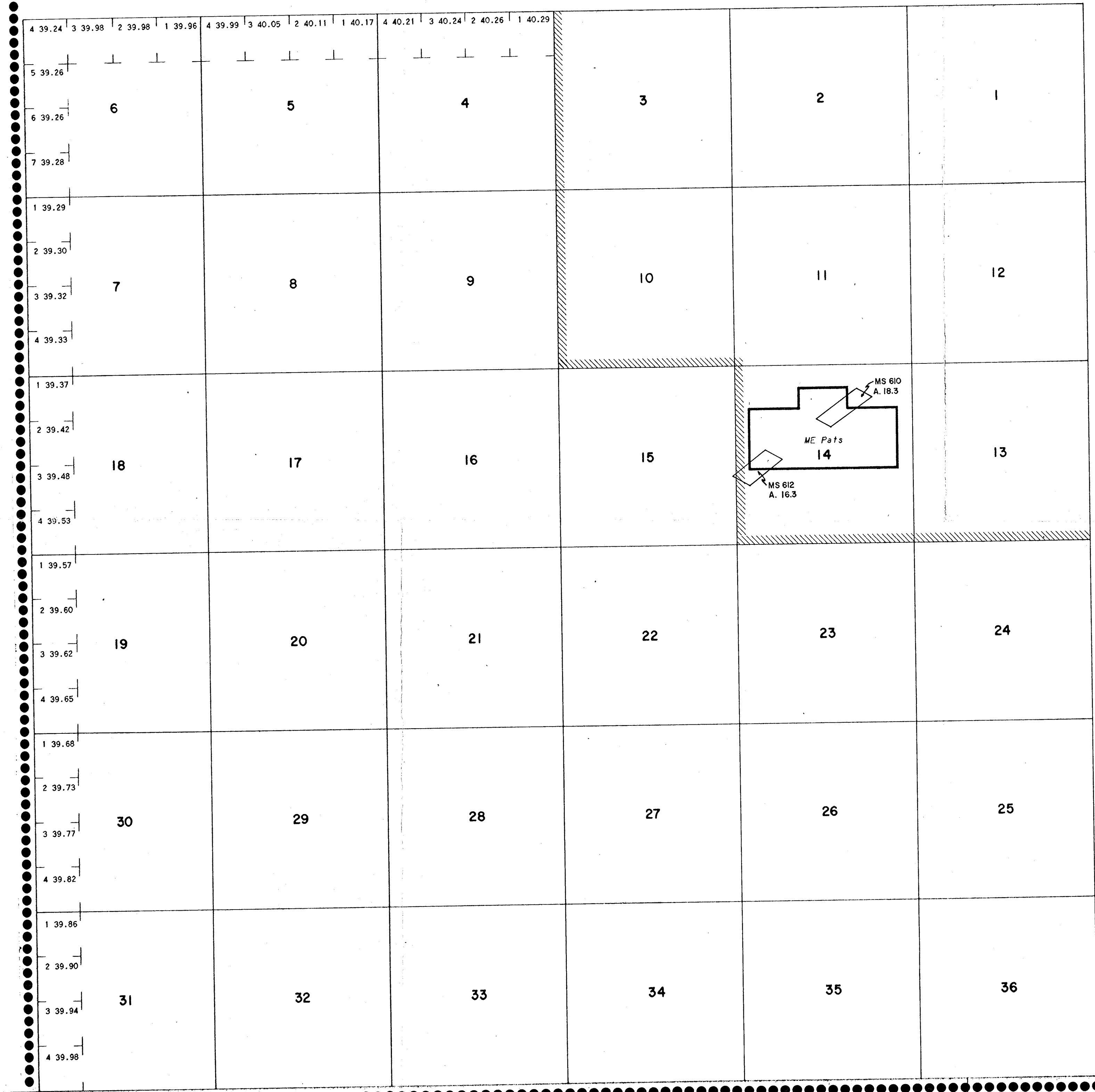
PARTIALLY SURVEYED TOWNSHIP 10 SOUTH RANGE 2 EAST OF THE GILA AND SALT RIVER MERIDIAN, ARIZONA

Greenback T. 10S, R. 2E, E. 1
Pinal County

STATUS OF PUBLIC DOMAIN
LAND AND MINERAL TITLES

County Line

PINAL COUNTY



INDEX TO SEGREGATED TRACTS				
RESURVEY		ORIGINAL SURVEY		
TRACT NO	T	R	SEC	SUBDIVISION

FOR ORDERS EFFECTING DISPOSAL OR USE OF
UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION,
MINERALS, WATER AND/OR OTHER PUBLIC PURPOSES,
REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.

All Tp. included in Wdl. Papago Ind. Res.,
EO 2524 2/1/1917

DIST. NO. 2

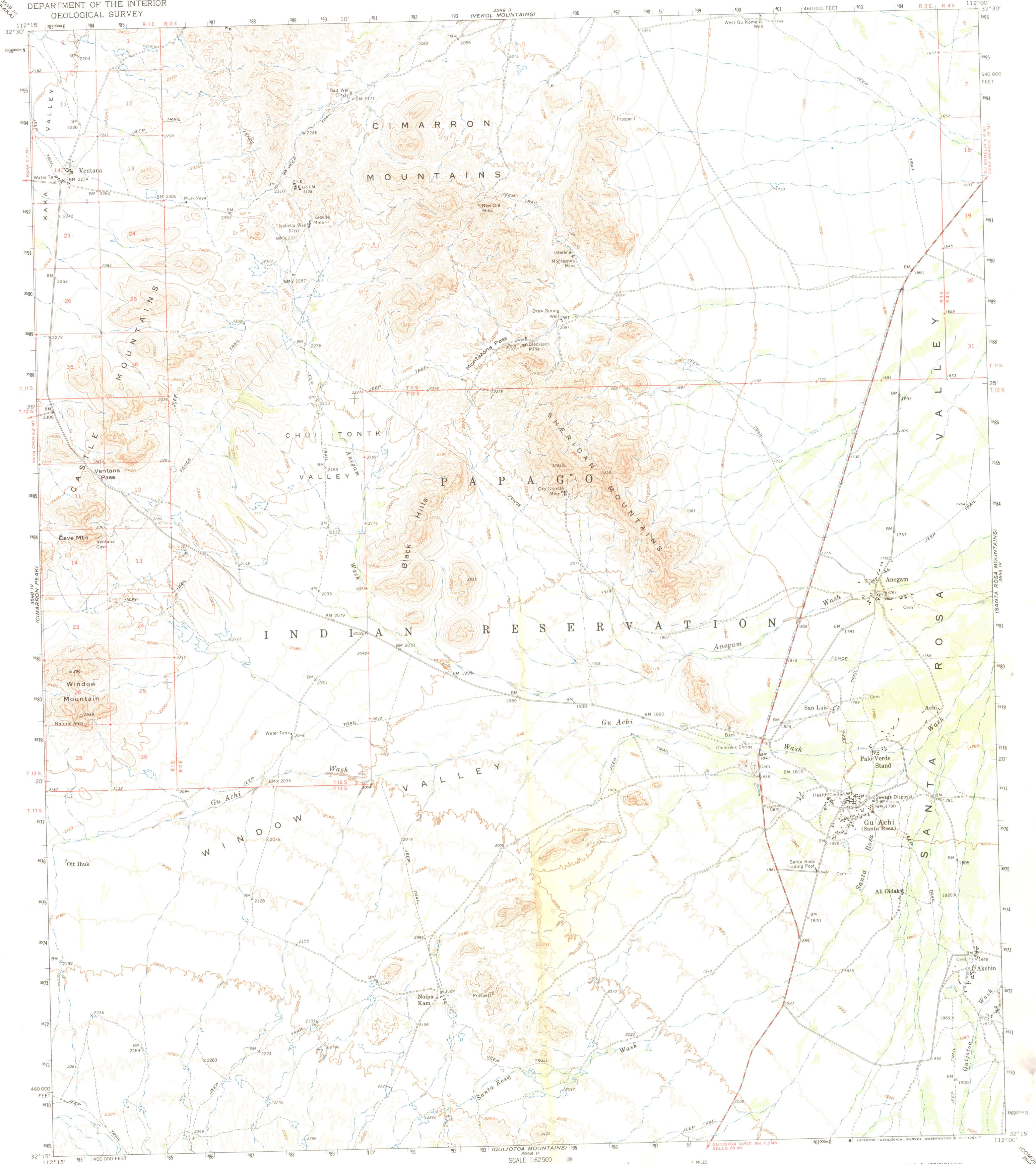
PROTRACTION DIAGRAM NO. 67

CURRENT TO	BY

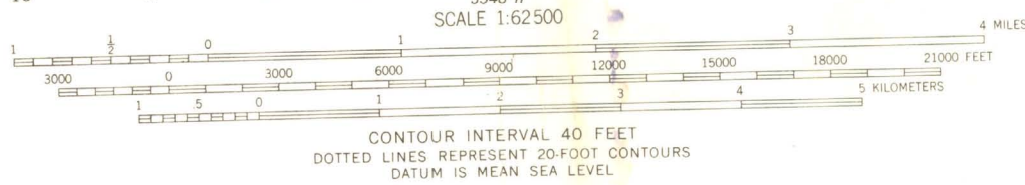
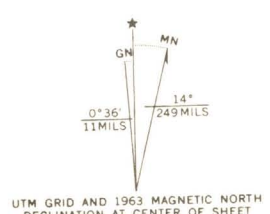
T. 10S.
R. 2E.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GU ACHI QUADRANGLE
ARIZONA-PIMA CO.
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial
photographs taken 1961. Field checked 1963
Polyconic projection. 1927 North American datum
10,000-foot grid based on Arizona coordinate system,
central zone
1000 meter Universal Transverse Mercator grid ticks,
zone 12, shown in blue
Where omitted, land lines have not been established

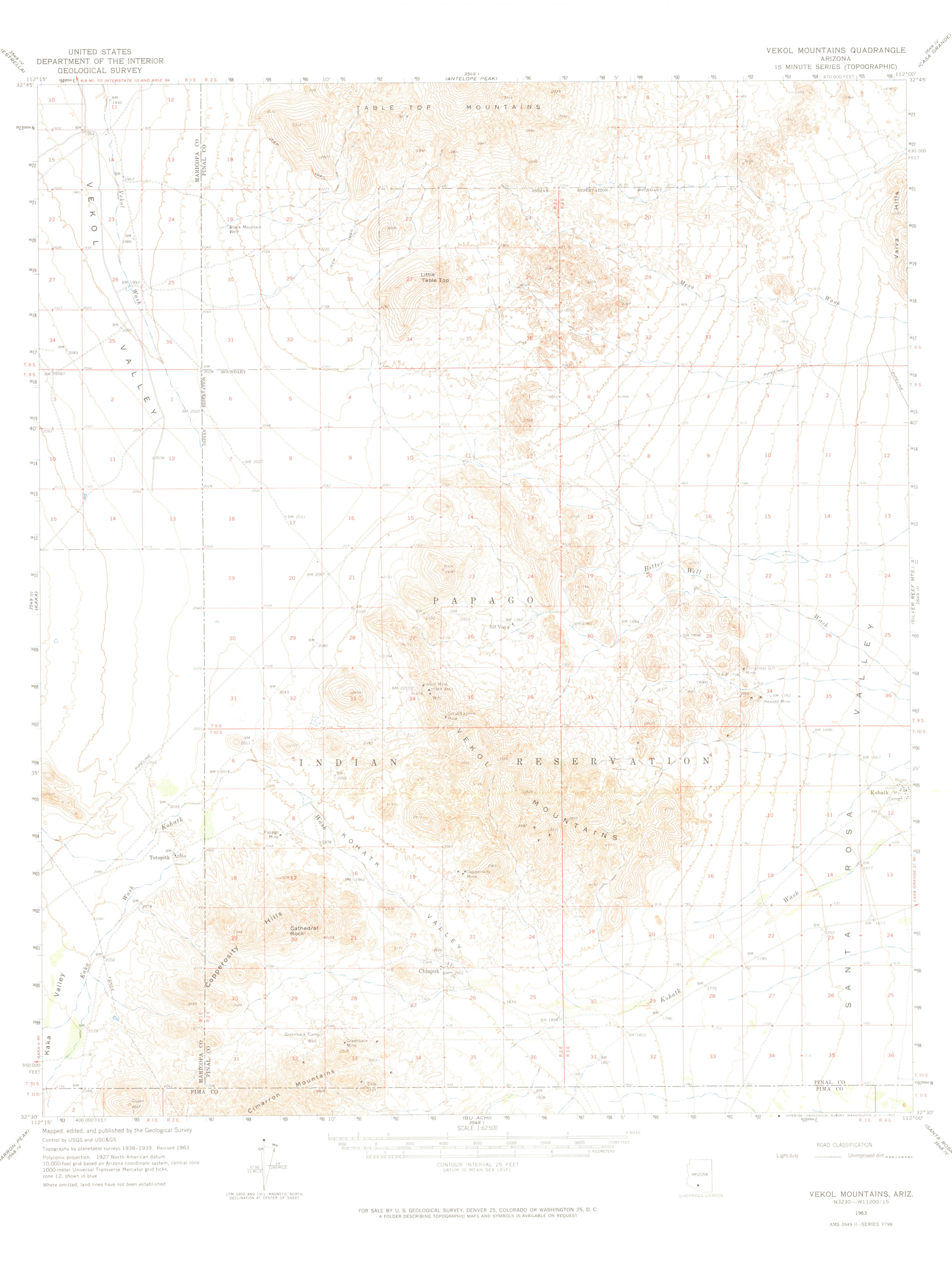


THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION
Medium-duty ——— Light-duty ———
Unimproved dirt - - - - -



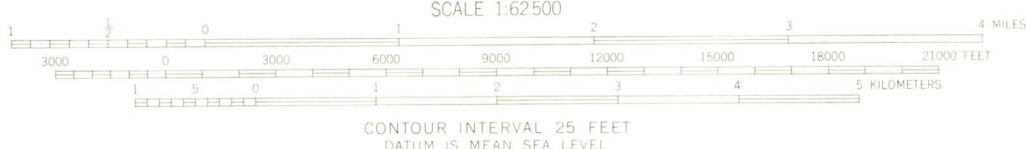
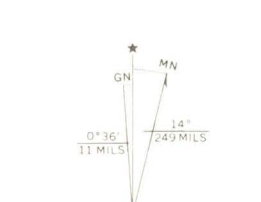
GU ACHI, ARIZ.
N3215-W11200/15
1963
AMS 3548 I-SERIES V798



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

VEKOL MOUNTAINS QUADRANGLE
ARIZONA
15 MINUTE SERIES (TOPOGRAPHIC)

Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by planetable surveys 1938-1939. Revised 1963
Polyconic projection. 1927 North American datum
10,000-foot grid based on Arizona coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks,
zone 12, shown in blue
Where omitted, land lines have not been established



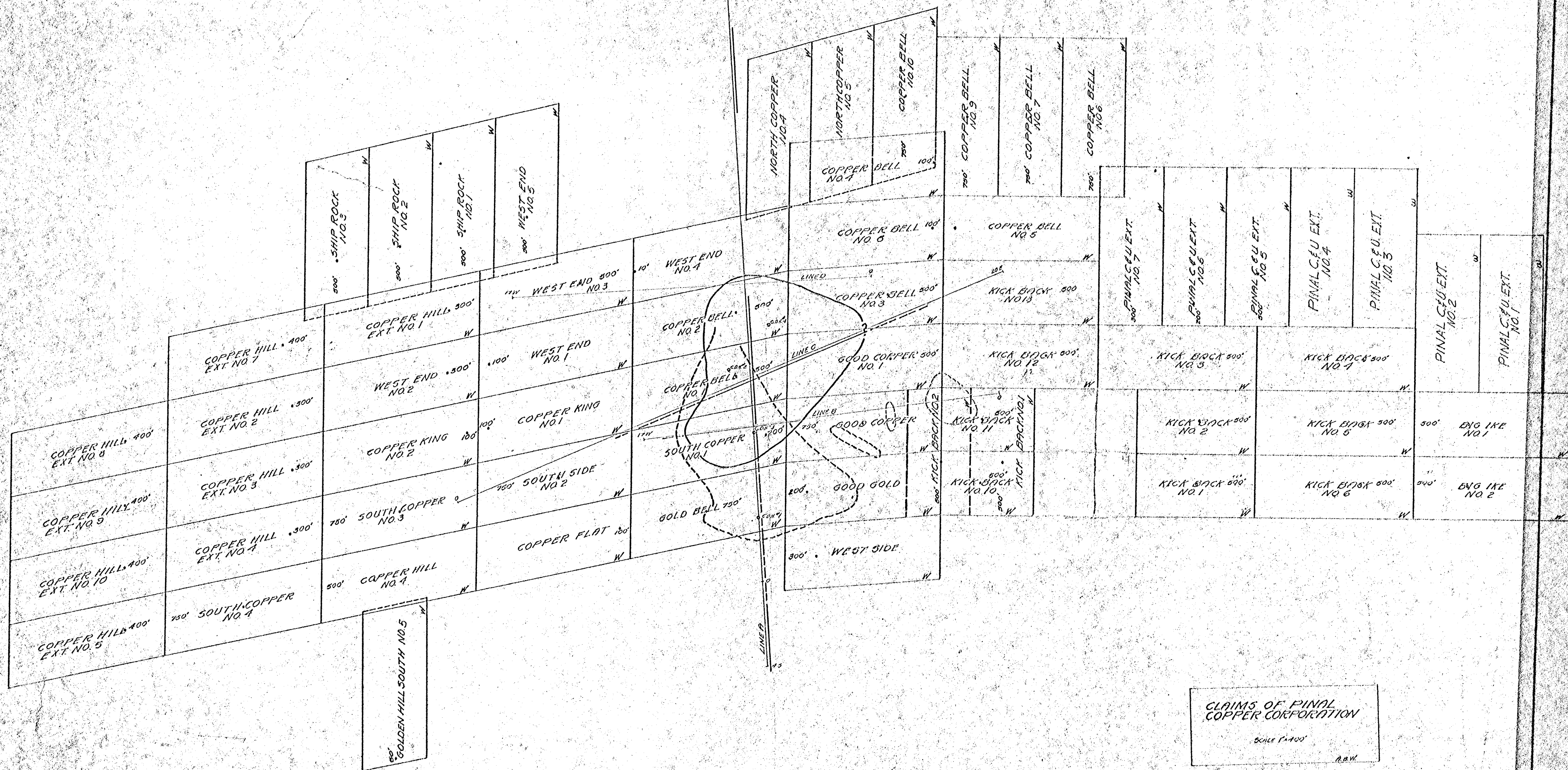
ROAD CLASSIFICATION
Light-duty ————— Unimproved dirt —————

VEKOL MOUNTAINS, ARIZ.
N3230-W11200/15

1963

AMS 3549 II--SERIES V798

FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



4-27-71

11 pieces of
data on
Pinal Copper
loaned to
Chuck Sewell

Pinal

May 21, 1970

Mr. Guy Anderson
Attorney At Law
Safford, Arizona 85546

Dear Guy:

It is my understanding that the property belonging to the Pinal Copper Company is in final stages of judication. I am sure you are aware of the interest of Essex in developing property of this type to achieve production at an early date. Consequently, I am writing to formally express our interest in seeking some basis of understanding with the Pinal Copper Company for prompt development of this property.

Our plan would be to achieve production from the oxide ores as rapidly as sound engineering would permit. At this point, I am not in possession of all information regarding the property which would enable our developing a specific course of action. However, in general terms our program would include (1) preliminary studies of the property to define adequate ore reserves, mining plans and processing flow-sheets (2) engineering and construction of a Leach-Cementation operation to initiate production and (3) design and construction of a LIX-Electrowinning plant.

I anticipate the study would require three to six months to complete depending upon the data now available. A ten ton per day precipitation plant would be in operation within six months following the decision to proceed. A LIX-Electrowinning plant would not be completed for two years.

We would be interested in purchasing control of Pinal Copper on a stock exchange basis with Pinal Copper retaining an interest in the earnings. The values of the stock exchange and royalty terms are both negotiable. We would like to review available data for our preliminary evaluation of the property.

Anticipating that the principals of The Pinal Copper Company may wish to consider this proposal further, I am forwarding some basic information regarding Essex. In summary, the advantages that Pinal Copper may realize from an association with Essex are as follows:

1. Prompt operation of the property to obtain earnings from the oxide ores while extending development to possible sulfide reserves.
2. Long term market security through association with a growing, major copper consumer.

I would appreciate meeting with you and principals of the company to explore further a basis for an agreement.

Best personal regards.

Very truly yours,

Howard Lanier
Manager
Copper Processing Operations

HL/bb

April 26, 1971

TO: H. Lanier
FROM: P. Eimon
SUBJECT: Pinal Copper

I talked to Charles Sewell and he agreed to gather this week all of the available data concerning the Pinal Copper property. He will present this data to me on Thursday or Friday.

Since some of this data will be of a confidential nature, he will present it in the form of notes and oral discussion from which I will produce an informal report on results of previous drilling and exploration work by other companies on the Pinal prospect.

P.I. Eimon

FILE MEMO

May 6, 1971

SUBJECT: EL PASO NATURAL GAS - PINAL COPPER

Following my contact to C.L. Perkins, V.P. of Exploration for El Paso Natural Gas, a meeting was held May 3rd with Don Thurman, Executive Assistant, and Dick McConn, Asst. V.P. Although the initial contact had been regarding the Pinal Copper, El Paso N.G. was interested in a broader relationship with Essex in exploration.

Thurman referred to a conversation with Bill Love, President of Hecla, indicating that Hecla was favorably impressed in our previous contacts and plans to maintain a relationship with Essex. (Hecla and El Paso are partners in the Lakeshore project).

In regards to Pinal, El Paso has an interest and would like to joint venture with Essex and possibly Kerr-McGee. El Paso drilled two holes in the Pinal claims in 1966 which were sufficiently interesting that they want to proceed if a reasonable agreement can be reached with Guy Anderson. A proposal for negotiations with Guy was outlined and I am to meet with him this week to determine his flexibility. I am also to meet with Garth Black (owner of the adjacent 25 claims to the south) to make a proposal for his property.

H.Lanier

Note: At our luncheon meeting Mr. McConn fainted twice and was taken to the Tucson Medical Center where he was placed under surveillance for a heart attack.

cc: P.W. O'Malley

FILE MEMO

April 20, 1971

PINAL COPPER - GARTH BLACK

Paul Eimon and I met with Garth Black and James H. Russell April 20, 1971 to review their holdings in the Pinal Copper area.

There has been some realignment in the relationship of Garth Black and other parties. Steve Black, Garth Black, and J.H. Russell (a real estate broker from Kansas City) are co-holders of a company called Russ-Lee Inc., an Arizona corporation. In addition to real estate held in Kansas City this corporation holds the mining property in the Papago Reservation shown in yellow, green and red on the mine map that they supplied. They also have organized Lee Explorations Inc. which holds approximately 5% of the Pinal Copper stock and an additional area of 25 claims coded in blue on the property map. These claims are adjacent to the Pinal Copper. This company also includes a Holiday Inn in Corpus Christi, Texas. Garth Black is president of both corporations and Steve Black is on the board.

Black was proposing that they gain control of 51% of Pinal Copper with the intent of delivering it plus their holdings to Essex. I advised them that we are currently negotiating with Guy Anderson who represents the owners and we prefer that he not initiate action with the stock holders until we have had a chance to assess our ability to reach an agreement with the owners. I am to meet with Black prior to my next meeting with Guy Anderson.

In a discussion regarding the property option arrangement I suggested a one year entrance-free option with a work commitment with a payment for the next year and a larger payment for the initiation of the third year. Although I recommended a buy-out, I did indicate a willingness to consider a retained interest if the property payments were less. Both Black and I are to consider proposals which we will discuss at our next meeting.

Black reported that Kerr-McGee had offered the Pinal owners a \$50,000 entrance and payments of 1/2 million dollars per year. He claims that he can substantiate this with documents. Kerr-McGee has done some work on the property and must know considerably more than we are aware of.

H. Lanier

5-11-71

The same letter was
written to

Richard M. Conn
E. L. Pace, National Bar
E. L. Pace, Texan

May 11, 1971

Mr. Zeb Jones
Kerr-McGee Corporation
1637 East 18th Street
Tucson, Arizona

Dear Zeb:

This confirms our telephone conversation following my discussions with Messrs. Guy Anderson and Garth Black.

In a meeting with Mr. Anderson on May 6, 1971 I proposed that Kerr-McGee, El Paso Natural Gas and Essex enter into an option arrangement with the owners of Pinal Copper with a four year option period after which payment would be made for proven minable ore reserves. My negotiations with Mr. Anderson proceeded as I had outlined them to you. The attached purchase agreement outline summarizes the essential points of the proposal that was presented to Mr. Anderson.

Mr. Anderson's response was that he considered the proposal to be a fair one. He liked the concept of payment based upon proven tonnage and he was impressed with the concept of a retained interest based upon additional proven tonnage. Mr. Anderson agreed to submit the proposal to the owners of Pinal Copper with his favorable recommendation. I do not expect a reply from Mr. Anderson until the week of May 16.

The outline, of course, is very preliminary and contains only the concept of an agreement. If the reaction of the owners is favorable there will be many questions that must be considered by the parties entering into this purchase agreement. Also it would be necessary for Kerr-McGee, El Paso Natural Gas and Essex to develop an agreement regarding the joint venture. I

Mr. Zeb Jones
Kerr-McGee Corporation
Tucson, Arizona

May 11, 1971

-2-

recommend that as soon as we have had a reply from Mr. Anderson, a meeting should be scheduled between the parties to determine our future course of action.

Very truly yours,

ESSEX INTERNATIONAL, INC.

Howard Lanier, General Manager
Copper Operations

HL:td
attachment

PURCHASE AGREEMENT PROPOSAL

PINAL COPPER CO.

OPTION PERIOD

Start of 1st Year	-	No Payment
" " 2nd "	-	\$ 65,000
" " 3rd "	-	100,000
" " 4th "	-	200,000

PURCHASE AGREEMENT SUMMARY

With election to purchase, the parties would pay \$1,000,000 for each 100 million tons of minable ore reserves. An announcement at the time of election would establish the reserve figures proven to date. Information confirming the ore reserve estimate would be provided the owners at the time of election. A minimum payment would be made if less than 50,000,000 tons of ore were proven. The schedule would be as follows:

<u>Tons of Ore Proven</u>	<u>Payment \$</u>
0 to 50 Million	500,000
50-100 Million	750,000
100-200 "	1,000,000
Over 200 "	2,000,000
" 300 "	3,000,000
" 400 "	4,000,000
" 500 "	5,000,000
" 600, "	6,000,000
Etc.	Etc.

If at any time additional reserves are proven, additional payments would be made according to the above formula.

Memorandum from . . .

HOWARD LANIER

4/22/71

PAUL ATTACHED IS A
PROPOSAL FOR AN OPENING
POSITION FOR NEGOTIATIONS
ON PINAL COPPER. I
BELIEVE ALL OF THESE
NUMBERS COULD BE DOUBLED
IN NEGOTIATIONS.

NOTE THAT I HAVE
NOT INDICATED A WORK
COMMITMENT FOR PHASES
3 & 4 OF THE OPTION.

I WOULD LIKE FOR YOU
TO CONSIDER OR PROGRAM
THE COST FOR THE 3 YR OPTION.

May 10, 1971

Mr. Guy Anderson
Safford,
Arizona

Dear Guy,

At Howard Lanier's request I am forwarding two copies of a property map showing Pinal Copper Company holdings in the Greenback Mine area, Pinal County, Arizona.

I hope this information will be helpful to you.

Very truly yours,

E. Grover Heinrichs

EGH:td
enclosures

cc: H. Lanier ✓

February 5, 1973

Mr. Edward Hopkins, Jr., President
Pinal Copper Corporation
401 E. Indian School Road
Suite 107
Phoenix, Arizona 85012

Dear Mr. Hopkins:

This will acknowledge your letter of January 17, 1973 to Mr. Walter F. Probst. We have reviewed the reports submitted with that letter and would be interested in an option arrangement with Pinal Copper Corporation that would allow us sufficient time to do further exploration work before any value is placed on your property located on the Papago Reservation in Pinal County, Arizona.

If you have any further interest in discussing possible terms with us would you please contact me directly.

Very truly yours,

Paul I. Eimon
Manager of Exploration
ESSEX INTERNATIONAL, INC.

PIE:td

cc: Walter F. Probst

bcc: Howard Lanier

258 8483

5964

April 21, 1970

Mr. Benton L. Blake
2200 N. Central Avenue
Phoenix, Arizona 85004

Re: Pinal Copper Company

Dear Mr. Blake:

This will confirm our phone conversation today in which you advised me of the fact that you are legal counsel for Pinal Copper Co. and that a suit is currently pending in court, against the company. I further understand that the suit has progressed to the appeal stage and Monday, April 27, 1970 is the deadline for your adversaries to appeal.

Although, over the phone I did not disclose the firm GEOEX is working for, I see no objection to mentioning that it is Essex International Inc. I cannot commit them to any obligations in regard to a possible lease purchase arrangement, however, they have authorized me to gather all the factual technical information available on your property for evaluation purposes.

As I understand it at the moment, your Board of Directors has decided not to enter into any lease agreements with anyone until the property is unencumbered.

In any case, we would like to have any factual information, claim maps, geology, etc. you may care to pass over to us. This will enable my client to be prepared to make you an offer once the property is available.

I further understand that Guy Anderson of Safford has contracted to Pinal Copper Co. to find possible buyers for the deposit. He furnished us with your phone number and address and via a copy of this letter he will be aware of our conversation.

Very truly yours,
HEINRICHS GEOEXPLORATION CO.

EGH:jh
cc: Guy Anderson

E. Grover Heinrichs
Vice President

THOMAS W. MITCHAM

6644 N. Amahl Place

Tucson, Arizona 85704

mining geologist

phone: (602) 297-4070

December 12, 1972

Mr. Edward Hopkins, Jr., President
Pinal Copper Corporation
401 E. Indian School Road, Suite 107
Phoenix, Arizona 85012

Final Report, 1972 Exploration
Pinal Copper Property
T10S, R2E, Pinal County, Arizona

Dear Mr. Hopkins:

I shall attempt here to summarize the 1972 exploration program conducted on subject property, starting in March 1972 and terminating with preparation of this report.

Mapping.--Systematic mapping on a part-time basis was conducted during the course of the program. This involved location of old drill holes, shafts, pits, and additional roads as well as geologic mapping and surface sampling. Contours were taken from a topographic map prepared previously by Landis Aerial Surveys.

Three maps (A,B,C) were prepared on a common base at a scale of 1" = 400'. The base includes coordination, topography, roads, shafts, pits, and drill holes. Copies of the three principal maps are enclosed, i.e., Map A (Claim Map), Map B (Geologic Map), and Map C (Alteration and Mineralization Map). In addition, a copy of Map D (Oxide Deposit) on a scale of 1" = 40' is attached.

Drilling.--Three vertical diamond drill holes were drilled on the property during the course of the 1972 program. Locations of these holes are shown on all three principal maps (A,B,C), and the logs (total 30 pages) are enclosed. The three holes are tabulated below.

<u>Hole</u>	<u>Depth</u>	<u>Bottom size</u>	<u>Casing left in hole</u>
72-1	300'	NQ	Collar standpipe only
72-2	3500'	BQ	670' 3" pipe, 2500' BX casing
72-3	1372'	NQ	480' 3" pipe

All holes were left in good condition and with secure caps. All drilling was core drilling with the following exceptions: because Hole 72-3 was a reentry of old El Paso Hole #1, it was reamed to 532' before coring was started; because Hole 72-2, following an unsuccessful attempted reentry of old Miami hole #M-2, was a 22-ft. offset of this old hole, it was drilled by rotary rock bit to a depth of 670' before coring was started; 20' of Hole 72-1 was rotary rock bit drilling.

By classification, the project total (5172') consisted of 3950' of core drilling, 690' of rotary rock bit drilling, and 532' of old-hole reaming.

The drilling was done with one truck-mounted Longyear 44 drill by the Longyear Company, starting June 24, 1972, and terminating October 26, 1972. Drilling was well executed, and core recovery was excellent. The total of contract drilling charges was \$59,046.22, which includes all water and casing costs. Drill site preparation and engineering (e.g., logging and assaying) costs were additional.

Drilling water was pumped from an old Miami churn drill hole, M-3, where the water table is at a depth of 400'. The original depth of this hole was 700', but it was blocked at 465'.

Regardless of visual core observations, pilot samples were split at intervals, generally 5' runs at 25' intervals, and sampling was continuous where mineralization was encouraging. Cores and sample pulps and rejects are on file, presently in Tucson. Rotary cuttings from the first 670' of Hole 72-2 were not sampled because results of the old Miami hole, which it offsets by 22', were known.

Geologic notes.--The original objective was to make a deep test for mineralization somewhere on the property. The approach to its accomplishment involved (1) the assembly and coalition of old data, insofar as possible, (2) the acquisition of new data by mapping, and (3) site selections from correlations among the combined data.

Much of the old data is fragmental; logs and identifications for most of the old drill holes shown on maps A, B, C could not be obtained. Adequate logs were obtained for holes drilled by El Paso (2), Miami (5), and American Metal (4), but locations of the American Metal holes could not be identified.

The general geologic setting (Map B) is Precambrian Pinal Schist (including tuffaceous quartzites) intruded by Precambrian dikes and irregular bodies of quartz monzonites (equigranular, aplitic, and pegmatitic) and minor diorite. These Precambrian rocks are intruded by dikes and large bodies of Tertiary (?) andesite and irregular bodies of breccia, composed of andesite and various Precambrian rocks (some of the andesite on the property may be extrusive). Finally, all of these rocks are intruded by dikes and irregular bodies of quartz latite. Paleozoic and Mesozoic rocks were not encountered and must be interpreted as missing in most (if not all) of the property.

All of the above described rocks are variously mineralized (Map C) over a large portion of the property. Mineralization consists of intensely silicified shear zones (with small gold shoots in the vicinities of the Pinal and Greenback shafts), large volumes of disseminated pyrite, and some areas of disseminated chalcopyrite and pyrite. The Oxide deposit (Map D) is a supergene enriched area which was subsequently oxidized. The best primary copper mineralization encountered was in Hole 72-2 where values generally exceed 0.15% Cu for runs of 150' and 208' (1770-1920' and 2400-2608' respectively).

No particular preference of copper mineralization for rock type was noted, but a general spatial association of copper and quartz latite is indicated.

Propylitic alteration is widespread, but sericitic alteration and silicification are intense locally. Secondary biotite and anhydrite were observed in some of the cores. Flooding by primary hematite is common on contacts between Precambrian and Tertiary rocks. Magnetite in various quantities is common in Precambrian rocks, but it does not appear to be an alteration mineral.

Fairly complete oxidization extends to various depths, averaging about 190'. Specifically, the elevation range appears to be about 1820' to 2070'.

The present water table is about 400' below the surface, specifically ranging in elevation from about 1713' to 1720'.

Acknowledgements--Under my supervision, a surface sampling was done by Douglas M. Martin, and core logging and sampling by Mr. Martin and Charles E. Cronenwett. Also, geologic mapping was facilitated by reference to some previous mapping by Mr. Cronenwett. Petrographic studies were made by James A. Fouts. Don Melhado did the basic drafting on the maps.

Surface samples were chemically analyzed by the Rocky Mountain Geochemical Corporation and drill core samples by Hawley & Hawley Assayers & Chemists, Inc.

As previously noted, drilling was done by the Longyear Company and topographic mapping by Landis Aerial Surveys.

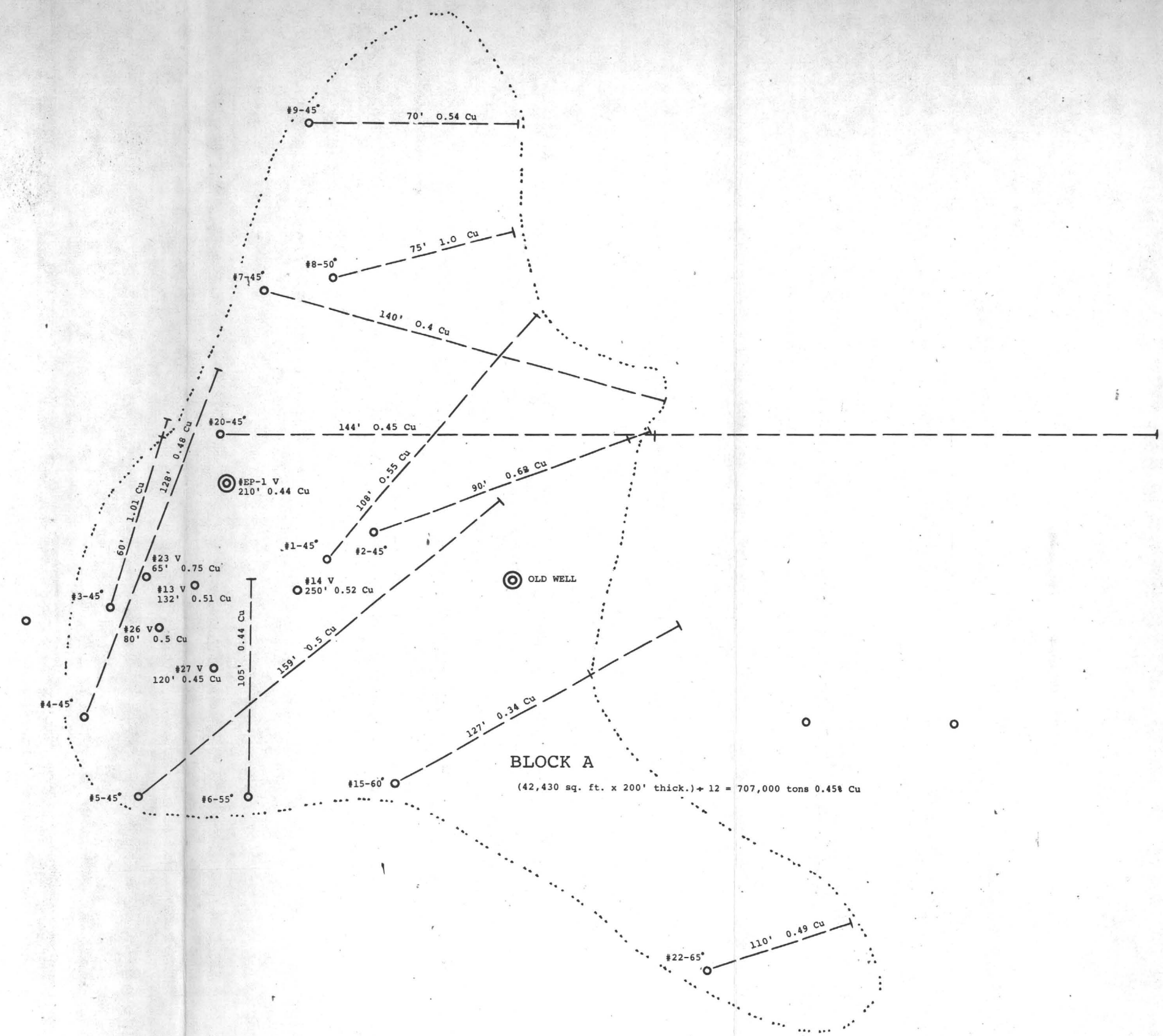
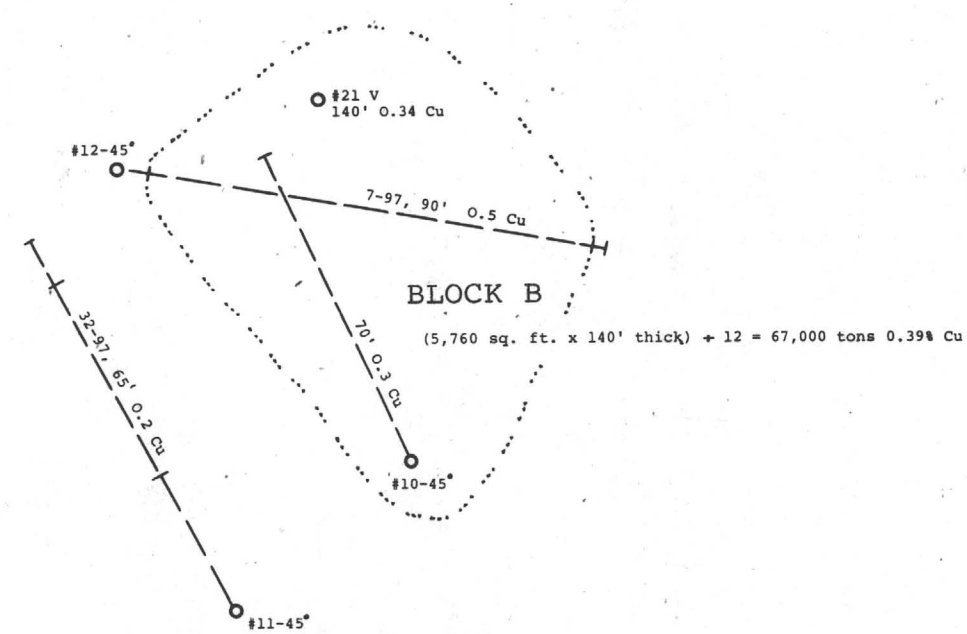
Very truly yours,



Thomas W. Mitcham

TWM/cm

Enclosures: Drill hole logs (30 Pages)
Map A claims
Map B geology
Map C mineralization
Attachment: Map D Oxide deposit



TOTAL INDICATED OXIDE ORE: 774,000 tons 0.44% Cu

OXIDE DEPOSIT
Pinal Copper Property
 Pinal County, Arizona
 1" = 40'

Thicknesses shown on inclined holes are vertical components of inclined intercepts. Cut-off 0.30% Cu except for short internal runs.

Platted from old drilling data which are fragmental and, in part, difficult to interpret. TWM, Nov. 1972

File : Pinal
Copper

PINAL COPPER CORPORATION

401 EAST INDIAN SCHOOL ROAD, SUITE 107 • PHOENIX ARIZONA 85012 • (602) 279-6402

January 17, 1973

Mr. Walter F. Probst
Essex International, Inc.
1601 Wall Street
Fort Wayne, Indiana 46804

Dear Mr. Probst:

I am enclosing herewith data having reference to our mining property located on the Papago Reservation in Township 10 South, Range 2 East in Pinal County, Arizona. We own 64 claims by right of discovery, subject only to annual assessment work of \$100.00 per claim per year, and \$54.60 "grass fees" payable annually. In 1958 the Bureau of Land Management certified these claims as containing commercial grade copper. Good showings of gold and silver were also noted at that time.

In 1956 we employed Mr. Charles H. Dunning, a mining engineer to examine the property. A copy of his report is enclosed. Later, we also employed Mr. J. J. Beeson of Salt Lake City and a copy of his report is also enclosed.

At first we sought to bring this property into production by leasing it out. Two attempts to do this failed, and on the second lease it was necessary to resort to litigation in order to clear title. This was accomplished in 1971.

In March 1972 we engaged the services of Dr. Thomas W. Mitcham to carry on a new drilling program with the Longyear Company of Minneapolis. His report and other data is enclosed.

Our Board of Directors and principal stockholders are giving thought to a possible merger or sale of Pinal's assets to a publicly traded company, if an acceptable valuation can be arrived at. Stock of the acquiring corporation would ultimately be passed through to Pinal stockholders at an exchange ratio to be negotiated.

If you feel that your company would be interested in such a proposal, or if you have any suggestions along this line, please contact me at your earliest convenience. Thank you kindly.

Yours truly,

PINAL COPPER CORPORATION

By

Edward Hopkins, Jr., President

CHARLES H. DUNNING

MINING ENGINEER

PHOENIX, ARIZONA

OFFICE
817 W. MADISON ST.
PHONE ALPHAT 3-6272

RESIDENCE
1635 W. EARLL DR.
PHONE AMHERST 5-1132

January 9, 1956

Pinal Copper & Uranium Corporation
4318 North Central Avenue
Phoenix, Arizona

Gentlemen:

Pursuant to your request, I have made a new or additional examination of your group of copper claims on the Papago Indian Reservations, south of Casa Grande, Arizona.

A previous examination and report was made in May, 1955, but since that time there has been considerable additional exploration by drilling, and further data is available on which to base opinions.

Rather than refer to the old report it is thought that this report would be clearer if it included the pertinent matter covered before.

LOCATION AND CLAIMS

The group consists of 106 mining claims or about 2000 acres, and is situated 42 miles southwest of Casa Grande on the northern slope and outlying valley of the Cimarron Hills.

Probably 40 or 50 claims would be sufficient for your present purposes, but Congress recently passed a bill allotting mineral rights on the Papago Reservation to the tribe, and after it was passed mining locations may be more difficult and expensive to obtain. As all your locations were prior to this act you are in no way effected.

GEOLOGY - GENERAL

The terrain consists of a basement of Pinal Schist which has been invaded by magmas solidifying as various phases of granitic porphyry, quartz monzonite porphyry, and dioritic porphyry.

The geology at the site was quite thoroughly studied and reported upon in 1920 by Dr. G.M. Butler of the University of Arizona. There has been no cause for any change in opinions since that time, and as this is an economic, rather than a technical report, may it suffice to say that I fully agree with Dr. Butler.

LOCALIZED GEOLOGY AND ECONOMIC IMPLICATIONS
VARIOUS GEOLOGICAL SITUATIONS

Your group of claims cover several square miles, and while the basis geology outlined above applies to the general terrain there are on your group several separate geological situations, which should be treated, and also explored separately.

Unfortunately you do not have a general map of your group, with prominent markers on the ground. To get to some points on your group it is necessary to travel via roundabout roads, and then one only has a general idea of where he is. I have however, drawn a blocked out claim map and indicated thereon the approximate location of the situations to be discussed.

CENTRAL SITUATION

The central area may not prove in the long run to be "central" but is so designated at the present time. It was a natural starter for exploration because there were outcroppings of commercial ore, a water well that had drilled through ore, and an intriguing geological situation generally.

Most of your present 27 drill holes have been put down in this area.

From one open cut a test carload was shipped to smelter some years ago and assayed 2.89% copper. Copy of this smelter return is on file. Dr. Butler reports that the water well passed through 290 feet of low grade ore.

In this area the rock consists of the various phases of porphyry mentioned above and also contains some silicified zones of dykes which are sparsely mineralized.

The general course of mineralization is from the southeast to the northwest. It is bounded on the east by a major fault, on the north by valley fill, on the west gravelly fill, and on the south it contacts the schist, which constitutes a situation in itself. The total area of this Central Situation is approximately 500,000 sq. ft.

In the softer portions of this area there is generally no copper showing in the outcrop, but one need dig a few inches before copper is encountered. Angle drilling has shown: good copper in the softer areas, special enrichment along the contacts with the harder zones, very low grade copper in the hard zones themselves.

These conditions lead one to believe that the entire area was originally one of moderate or low grade content, much like the hard zones. The softer zones have been amenable to leaching and such leached copper has precipitated and enriched such soft zones for some vertical distance immediately below the surface. The hard zones have been comparatively unleached but have acted as dams against percolating solutions causing extra enrichment along their walls.

It would therefore seem that you are already in as much of a secondarily enriched zone, with your drill holes as you can hope for. The present water level was not the controlling factor in this secondary enrichment, and it is doubtful if you will find further enrichment, or commercial ore, below that indicated by your present drilling, in this Central Area.

This does not preclude there being a good sized open pit mine of leachable ore in this area. You will have to contend with some low grade hard ribs which you may be able to dodge in mining, or excavate and waste like ordinary overburden. And you are especially fortunate in having practically no ordinary overburden to remove, whereas in most Arizona open pit mines the ratio of waste overburden that must be removed is about two tons waste to one ton ore.

SOUTHEAST SITUATION

This area, prospected by Hole #22 seems to comprise the extension of a mineralized condition spurring off from the Central Area. A general sample of Hole #22

assayed 2.00% copper. Drilling proof that there was continuity between the Central Area and this situation would add large tonnage to "assured ore", and economic features to an open pit.

SOUTH SITUATION

In the general area designated as the "South Situation" geological conditions are quite different. Here the mineralization is in schist. Bands of the schist that are normal, and predominate, show intense leaching, with traces of copper remaining. Oxidized iron minerals are of the type that once contained copper. Silicious lenses that are normal to such a schist, are unleached but show copper approaching commercial grade.

Schists of this type, when invaded by copper bearing intrusions are often more receptive to replacement by copper than monzonitic type rocks, thus forming higher grade ores. This highly mineralized and leached schist area could easily form rich secondary, and commercial primary, ore zones. It has good possibilities of developing into the best producer of any area you have. It should be explored by preliminary drilling.

NEAR WEST SITUATION

Proceeding west from the Central Area the terrain is mostly covered with alluvium, except for some croppings in washes (such as situation 30 - q.v.). But at a distance of about 1/2 mile an area of highly kaolinized monzonite or rhyolite outcrops. There are a few ten foot prospect holes showing a little copper.

Kaolinization is an alteration of the constituents of rhyolitic type rocks caused by chemically charged solutions. Such conditions portend mineralization when they occur where economic minerals are indicated in the altering solutions. Such situations are also prone to subsequent leaching.

Such an area of kaolinization, with a bit of copper remaining, in a general area of copper mineralization, certainly justifies exploration by drilling. Here there could well be a secondary zone of the chalcocite type.

FAR WEST SITUATION

This area, from a mile to a mile and a half west of the Central Area again shows a highly mineralized condition. It cannot be defined, mapped, nor tied in geologically

until there is a survey with ground markers. To the south it seems to tie into unmineralized achiast; to the west it is covered with later volcanic flows. But generally speaking there is a lot of good looking country there that warrants exploration.

NORTHEAST SITUATION

Immediately northeast of your Central Area there seems to be a band or zone of comparatively unmineralized rock. Further northeast drill holes #16 and 18 were put down and penetrated soft, leached, low copper bearing material. This area looks doubtful but justifies a bit of further exploration.

SITUATION "30"

For lack of a better name I have called this area "30" because assay samples taken there happened to be numbered 30, 31, and 32. Here we have a hard silicified zone cropping across a gulch. No copper was apparent but a peculiar shade of some of the red "iron" led me to suspect red copper oxide. An average sample assayed .90% copper. Sample #31 was taken of a different type of porphyritic material on the hangingwall side of the silicified zone. It was leached and showed no visible copper, but assayed .30%. Sample #32 was taken of the same hard silicified band as sample 30, where it outcrops through the gravel fill about 100 yards woutheast from #30. It assayed 1.20% copper.

This general area warrants exploratory drilling. Like the South Situation, the values in the hard rib, and slight remaining values in its soft neighbor indicates important secondary values at reasonable depth in the leachable material.

TONNAGE AND AVERAGES

Twenty seven diamond drill holes have been put down but they have not been systematically spaced (see map) nor have the cores or sludges been consistently assayed.

At the time of my examination in May 1955, I sampled the cores from holes 3, 5, 8, & 14. These were selected as being fairly representative of the general area covered by the then 15 holes. Assays were as follows:

Hole #3	1.40%
Hole #5	3.30
Hole #8	3.40
Hole #14	1.50

More recently I have sampled the cores from other holes with results as follows:

#3 upper portion	3.00%
#14 middle portion	1.50
#20 from 25' to 45'	2.80
#22 general	2.00
#23 general	1.40
#26 general	1.60
#27 general	.50

This last lot of assays, represented by the attached certificate, were selected for the following purposes:

- (a) To check or train the eye in estimating other holes or cores.
- (b) To supply a diversified set of standards so that quick colormetric assays can be made at the mine.
- (c) To obtain definite and positive results in at least a few holes and in some unknown situations (the 30s).

The average of all of the above assays is about 2,00% copper. Judgement indicates that the average of all the holes, or of the area covered by the holes would be somewhat less - probably 1.40% to 1.60%. And in considering this area or tonnage a further allowance must be made for the very low grade hard ribs mentioned above, although they may not have to be mined.

The general area covered by the holes, without including some outlying holes, is approximately 640,000 sq. ft. Deducting 20% for some islands that would be better left unmined we have about 500,000 sq. ft. At an average depth of 150 feet which is as much as can be assured at present, the tonnage is such a block would be about 4,000,000.

It must be born in mind that because of the irregularity of the holes the above tonnage cannot be stated as positive. However, such tonnage does seem well assured. It should also be born in mind that this comparatively small area is a small portion indeed, of the total probable commercial area or areas.

LEACHING TESTS

A copper leaching test made by the Arizona Bureau of Mines, April 12, 1955, shows the oxidized ore to be amenable to sulphuric acid leaching. Head sample was 2.01% copper, extraction 81.2%, and acid consumption 70.5 lbs per ton of ore. This ratio of 1.75 lbs of acid to 1.0 lb of copper is normal. Cost of acid in operating a plant on that grade of ore would be about 1.00 per ton. On lower grade ore it would be proportionally less.

JUSTIFICATION FOR LEACHING PLANT

With an assurance of several million tons of ore containing in the neighborhood of 30 lbs copper per ton, and showing good amenability to leaching, you are well justified in considering a moderate sized leaching plant of say 500 to 1000 tons per day.

But before such plant is installed or designed very thorough tests should be made on the various types of your ore, on a pilot plant basis.

COSTS AND GENERAL ECONOMICS

On a basis of 500 to 1000 tons of leaching ore per day from open pit I would estimate that your operating costs should not be greater than the following:

<u>MINING</u> :	Mining and delivery to plant, including necessary stripping of overburden, and wasting of non-commercial islands.....	1.00
<u>MILLING</u> :	Acid and iron	1.50
	Labor and other	1.50
		3.00
<u>OVERHEAD AND TAXES</u> :	(Not including income taxes).....	.50
<u>MARKETING</u> :	(Deducted from value of copper)	
	Total	\$ 4.50 per ton

Assuming 30 lbs copper per ton and 80% extraction you would recover 24 lbs of copper per ton. The present market for copper is 43¢ but it would be a bit sanguine to project such price very far in the future. A price of 36¢ would seem a fair basis for estimates. If the market is 36¢ you will actually receive about 33¢ the difference covering freight, refining and sales costs (marketing).

24 lbs copper @ 33¢	\$ 7.92
Deducting operating costs	4.50
Profit before income taxes.....	\$ 3.42 per ton

CAPITAL

To achieve this operating profit rather large capital expenditure will have to be made. They will be discussed further under "Recommendations", but generally speaking a well engineered plan for coordinate drilling of the Central Area, and exploratory and some coordinate drilling of the other areas will require....\$ 500,000.

Pilot plant and thorough testing of the ore, together with cost of the above mentioned leaching plant.....\$ 300,000.

Miscellaneous and corporate expenses, and operating capital.....\$ 200,000.

Total.....\$ 1,000,000.

MAPS

Attached to this report is a map showing the block of claims with the above mentioned areas roughly outlined. Also a map, drawn in coordinates, of the area where most of the drilling has been done. Present drill holes are spotted on this map, and it is recommended that further drilling be done with vertical holes at these coordinates.

RECOMMENDATIONS

All of the old drill cores or sludges should be assayed and mapped. Such map should show the respective elevation of the collars of the holes.

A survey should be made of the claims, erecting prominent claim corners, each with a tag showing what corner it is. Then a geological map should be prepared using these corners as field markers.

Coordinate drilling should be carried on in the Central Area. This will result in your being able to segregate the ore and waste zones, estimate definite or positive tonnages, average values, and thickness of ore and overburden at all points. This is all essential information before planning your pit operation.

Exploratory drilling should be carried on in the other areas mentioned, to be followed by at least some coordinate drilling as soon as preliminary information is obtained.

An engineer or metallurgist experienced in copper leaching should be employed at least part time, and a pilot plant can be built and put in operation as soon as practicable. All types of ore from all locations should be tested.

CHARLES H. DUNNING
Mining Engineer

Pinal Copper & Uranium Corporation
Page 9.

Coordinate drilling and pilot plant tests could well reach conclusive results simultaneously, and you would then be ready to design and install a commercial plant.

Roads should be repaired to stand up under heavy traffic, and the waste material from pilot plant operation, or from overburden excavation, should be useful for that purpose.

Systematic sampling of drill cores and/or sludges should be carried on continuously and the results tabulated and mapped.

CONCLUSION

You have a large but not definitely measurable tonnage of commercial ore, and very large areas of probable ore.

If development and operation is carried on according to good engineering practice the project should be very successful.

Respectfully submitted,

Charles H. Dunning

CHARLES H. DUNNING



ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.
PHONE AL 3-6272 817 WEST MADISON ST.

P. O. BOX 1888

PHOENIX

For Mr. Harold Ferrin
Final Copper & Uranium Corp.
4318 North Central
Phoenix, Arizona

Date December 20, 1955

Sample of ore

Received.

Submitted by:

ASSAY CERTIFICATE

Gold figured at \$ 35.00 per ounce.

Silver figured at \$ 0.90 per ounce.

Lab. No.	Identification	Gold		Silver		Percentages	
		Oz. per Ton	Value	Oz. per Ton	Value	Copper (Cu)	
124113	# 3 G					3.00	
124114	# 14					0.50	
124115	# 14 B					1.50	
124116	# 20					2.80	
124117	# 22 G					2.00	
124118	# 23 G					1.40	
124119	# 26 G					1.60	
124119	# 26 G					0.50	
124120	# 27 G					0.90	
124121	# 30					0.30	
124122	# 31					1.20	
124123	# 32						

2 cc: Mr. C. E. Punning

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.

Claude E. McLean, Jr.

Charges: \$ 16.50 MAIL

January 30, 1956

Up to this time we have completed the sampling of the diamond drill holes with the exception of some two or three. This has involved the splitting of the cores and also taking representative samples from the sludges which represent the drilling from the various diamond drill holes. To date they have completed 27 holes and the approximate location of these holes is shown or indicated on the map which has been compiled. This map has been taken from the records at the mine which constitutes a similar map and some additional information that was furnished by Mr. Farrin. When I say the approximate location, these are made by Tape and Brunton surveys made by Mr. Farrin.

Several of these holes have been used by Mr. Dunning as a basis for a calculation of tonnage which he considers to be reasonably assured at the mine. While the total number of samples and sludges that we have taken are quite complete, it is proposed at this time to check the holes that were used by Mr. Dunning in his report to see how the values compare. It is not anticipated that they will be close in all cases because Mr. Dunning took samples which he considered representative; that is, sections of core were selected from each core box of the holes indicated and these were sent to the sample. Our sampling has differed from his in that the total remaining cores have been split lengthwise and it is these samples combined with the sludges from the holes used that we propose to base our results on. In the event that these samples approach the results shown by Mr. Dunning then it is recommended that all of the samples and sludges be run to show the complete picture insofar as it has gone to date.

We expect to have the holes used by Mr. Dunning and the cores from these ground and pulped and about every fifth sample a duplicate will be sent to a second assayer to see how the results compare. To properly interpret the results to date it will be necessary to return to the mine for about three days and map the geology in the immediate vicinity of the diamond drill holes shown on the map. Then a preliminary report can be made giving recommendations as to further procedure. The geology is necessary because it has been recognized at the mine that some holes showing inferior grade were drilled in dyke material. The extent of the dyke material must be determined before we can make a proper evaluation of what the future must be and also what is actually shown in the present samples.

Two or three outside holes should be run at this time and I am referring particularly to holes No. 16 and No. 18. At present it is estimated that this will require the running of about 157 samples. These samples should first be run for copper, then if the copper looks promising comparative samples from the various holes will be assayed for gold and silver. Inasmuch as the 157 samples must be run for core and sludge also, the actual number will be about twice this figure or about 314 samples.

JJB:ja


 J. J. Leason

State of Utah
 License 764 1971
 Mining Geologist

Custom Assay Office

ASSAY CERTIFICATE

J. W. (Jack) Sharpe, E. M.

Assayer

Certificate No.

Wickenburg, Arizona... 2/7/56.....19....

.....Uranium Enterprises of America.....

SAMPLE NO.	OWNER'S MARK ON SAMPLE	GOLD		SILVER		PER CENT OF			TOTAL VALUE PER TON
		OZ. TON	VAL. TON	OZ. TON	VAL. TON	Cu			
1	J E 22156 ✓	0.09	3.15	0.81	0.75	0.3			
2	32156 ✓	0.01	0.35	0.27	---	0.4			
3	42156	0.01	0.35	0.09	---	0.1			
4	72156	Tr	---	0.14	---	0.7			
5	12256 ✓	0.01	0.35	0.26	---	0.4	✓		
6	22256 ✓	0.03	1.05	0.38	---	0.5	✓		
7	32256	0.04	1.40	0.32	---	0.8			
8	52256 ✓	0.03	1.05	0.41	---	0.4			

Gold at \$..... per oz. Charges \$.....

J. W. Sharpe

J. W. Sharpe Assayer

Certificate No.

Wickenburg, Arizona... 2/7/56.....19....

.....Uranium Enterprises of America.....

SAMPLE NO.	OWNER'S MARK ON SAMPLE	GOLD		SILVER		PER CENT OF			TOTAL VALUE PER TON
		OZ. TON	VAL. TON	OZ. TON	VAL. TON	Cu			
9	J E 62256	0.01	0.35	0.30	---	0.8			
10	72256	0.02	0.70	0.27	---	Tr	✓		
11	82256	0.02	0.70	0.35	---	0.5	✓		
12	92256	0.03	1.05	0.44	---	0.6	✓		

Gold at \$..... per oz. Charges \$.....

J. W. Sharpe

J. W. Sharpe Assayer

24 East McKinley
Phoenix, Arizona

Salt Lake City 1, Utah

February 2, 1956

ASSAY PER TON OF 2000 POUNDS

DESCRIPTION	NO.	GOLD OUNCES	SILVER OUNCES	WET LEAD %	COPPER %	ZINC %	INSOL %	%	%	%	%
# 1 - 50 - 70					0.42						
2 - 50 - 60					0.11						
2 - 55 - 65					0.92						
# 2 - 80 - 90	✓				0.55						
8 - 80 - 90	✓				0.45						
16 - 20 - 30	✓				0.30						
20 - 85-95					0.43						
26 - 75 - 80	✓				0.45						
22 - 80 - 90	✓				0.45						
27 - 100-r10					0.55						

10.00

CHARGES \$

J. W. Sharpe

CUSTOM ASSAY OFFICE

(Out Wickenburg Way.)

J. W. (Jack) SHARPE; ASSAYER & CHEMIST

Description

Received

2/1/36
Submitted by

Date

2/7/36

Uranium Enterprises
of America.

ANALYSIS

Element XXXXX			Estimated Intensity XXXXXXXXXX			Low Sample		
Hole No.	Depth	%Cu	Hole No.	Depth	%Cu			
1	0-10'	0.8	2	0-10	0.3			
1	0-20'	0.6	2	10-20	1.5			
1	20-30 B	0.3	2	20-30	0.4	.01	0.2	.46
1	30-40	0.3	2	30-40	0.5	.01	0.2	.45
1	40-50	0.7	2	40-50	0.4	.005	0.2	.41
1	50-60	0.5	2	50-60	0.6	.02	0.2	.56
1	60-80	0.4	2	60-70	1.6	.01	0.3	.54
1	80-90	1.1	2	70-80	0.7	.14	0.2	.06
1	90-100	0.3	2	80-90	0.8	.005	0.2	.02
1	100-110	0.4	2	90-100	0.4	.01	0.3	.012
1	110-120	0.3	2	100-110	0.6	.005	0.2	.02
1	120-130	0.7	2	110-120	0.9	.005	0.2	.03
1	130-140	0.5	2	120-130	0.5	.01	0.3	.045
1	140-150	0.6	2	130-140Bt	0.5	.01	0.3	.043
1	150-160	0.8						
1	0-150	0.4						

0.0055Cu

(Sample taken from
top of section
near creek)

J. W. Sharpe

Respectfully submitted,

J. W. Sharpe

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CUSTOM ASSAY OFFICE

(Out Wickenburg Way.)

J. W. (Jack) SHARPE; ASSAYER & CHEMIST

Description

Received

2/2/56

Submitted by

Date

2/7/56

Uranium Enterprises
of

America Element

ANALYSIS

Estimated Intensity

Hole No	Depth	%Cu	Hole No	Depth	%Cu	Hole No	Depth	%Cu
3	0-10	-0.4	4	0-20	-0.7	5	20-30	-0.2
3	10-20	-0.3	4	20-30	-0.4	5	30-40	-0.3
3	20-30	-0.7	4	30-40	-0.6	5	40-50	-0.3
3	30-40	-2.1	4	40-60	-0.4	5	50-60	-0.5
3	40-50	-2.2	4	60-80	-0.4	5	60-70	-0.4
3	50-60	-1.5	4	80-100	0.4	5	70-80	-0.7
3	60-70	-0.9	124	100-120	-0.6	5	80-90	-0.9
3	70-80	-0.6	4	120-140	-0.3	5	90-100	-0.4
3	80-95	-1.4	4	140-150	-0.4	5	100-110	-0.4
3	90-100	-0.5	4	150-160	-0.6	5	110-120	-0.4
3	10-20	-0.4	4	160-170	-0.6	5	120-130	-0.7
3	20-30	-0.7	4	170-180	-0.4	5	130-140	-0.6
3	30-35	-2.2				5	140-150	-0.4
3	35-55	-2.3				5	150-160	-0.5
3	55-65	-1.2				5	160-170	-0.6
3	70-80	-0.8				5	170-180	-0.4
3	80-90	-2.4				5	180-190	-0.7
3	85-95	-0.6				5	190-200	-0.9
3	90-95	-0.7				5	200-210	-0.9
3	95-100	-0.6				5	210-220	-1.1
						5	220-224	-0.3
						5	224-230	-0.5
						5	230-240	-0.4
						5	240-250	-0.2
						5	250-260	-0.3
						5	260-270	-0.4
						5	270-280	-0.6

0-10 15" ore
10-20 30" " *anhydrous*
20-30 45" "
30-40 56" *low* *plus 1.5 cu*
40-50 60" " *ore 1.5 cu*
50-60 75" "
60-70 93" "
70-80 35" "
80-90 15" "
90-100

J. W. Sharpe
Respectfully submitted,

All reports are submitted as the confidential property of clients. Authorization for publication of our reports, conclusions, or extracts from or regarding them is reserved pending our written approval as a mutual protection to clients, the public and ourselves.

(D³ - 1.40%)
3 - 3.00% upper portion

(D⁵ 3.30%)

CUSTOM ASSAY OFFICE

(Out Wickenburg Way.)

J. W. (Jack) SHARPE; ASSAYER & CHEMIST

Description

Received

2/1/56

Submitted by

Date

2/7/56

Uranium Enterprises
of
America

ANALYSIS

Element				Estimated Intensity			
Hole no	Depth	%Cu	Hole No Depth %Cu	Hole No Depth %Cu	Hole No Depth %Cu	Hole No Depth %Cu	Hole No Depth %Cu
C 5	--120-140	--0.3	6 --B 0-20	--0.4	7 --	10-20	-0.3
x 5	--140-150	--0.6x	6 --B40-20	--0.4	7 --	20-30	-0.4
x 5	--150-140	--0.5	6 --20-30	--0.4	7 --	30-40	-0.5
C 5	--140-147	--0.4	6 --30-40	--0.4	7 --	40-50	-0.5
x 5	--160-170	--1.3	6 --40-50	--0.4	7 --	50-60	-0.3
Cx 5	--160-172	--0.6	6 --50-60	--0.2	7 --	60-70	-0.3
5	--177-180	-0.9	6 --60-70	--0.3	7 --	70-80	-0.2
5	--170-180	-0.5	6 --70-80	--0.3	7 --	80-90	-0.3
C 5	--172-180	-0.7	6 --80-90	--0.6	7 --	90-100	-0.5
5	--150-165	-0.6	6 --90-100	-0.4	7 --	100-110	-0.3
x 5	--180-190	-0.4	6 --100-110	-0.3	7 --	110-120	-0.2
46 5	--142-160	-0.8	176 --110-120	-0.2	7 --	120-130	-0.2
C 5	--147-150	-0.4	6 --120-130	-0.5	7 --	130-140	-0.4
5	--190-200	-0.8	6 --130-140	-0.3	7 --	140-150	-0.4
12fx120			6 --0-30	-0.5	7 --	150-160	-0.6
5	--165-180	-0.5	6 --30-60	-0.4	7 --	160-170	0.5
5	--80-120	-0.5	6 --60-140	-0.4	7 --	170-180	-0.5
5	--210-220	-0.6	Surface analysis 44% Cu		7 --	180-190	-0.6
5	--220-227	-0.5	43		7 --	190-200	-0.3
y 5200-210		-0.9	15% error		See memo no 200, #7		

Crack analysis

Supposably 68% Cu

with 10% recovery measured
up to 160'

from 160-227

79% recovery

(160-170 1.3% Cu
5" recovery zone)

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D #5 - 3.3%

Respectfully submitted,

J. W. Sharpe

Jack Sharpe

no analysis notes
auth. no. 4%

CUSTOM ASSAY OFFICE

(Out Wickenburg Way.)

J. W. (Jack) SHARPE; ASSAYER & CHEMIST

Description

Received

2/1/56

Submitted by
Uranium Enterprises
of
America

Date

2/7/56

ANALYSIS

Element x				Estimated Intensity:			
Hole No	Depth	%Cu		Hole No	Depth	%Cu	
8	0-10	0.2		9	0-20	0.4	
8	10-20	0.4		9	20-30	0.4	
8	20-30	0.6		9	30-40	0.2	
8	30-40	0.8		9	40-50	0.6	
8	40-50	0.5		9	50-60	0.4	
8	50-60	0.6		9	60-70	0.2	
8	60-70	0.5		9	70-80	1.0	
8	70-80	0.8		9	80-90	0.2	
8	80-90	0.5		9	90-100	0.5	
8	90-100	0.5					
8	100-110	0.7					
8	110-120	0.5					
8	120-130	1.0					
8	130-140	1.1					
8	140-150	1.7					
8	150-160	0.2					
8	160-170	0.4					

no analysis kept until hole
Joe made no notes on core
with av. slightly 41% Cu
core = 1.8°
percentage same recovery?

slightly & apparent
cores bear no relation
to each other

11	45-120	0.3		12	10-20	0.3	
	45-60	0.3		12	20-30	0.9	
11	60-70	0.2		12	30-40	0.5	
11	70-80	0.4		12	40-50	0.7	
11	80-90	0.2		12	50-60	0.5	
11	90-100	0.1		12	60-70	0.5	
11	100-110	0.2		12	70-80	0.8	
11	110-120	0.2		12	80-90	0.3	
				12	90-100	0.4	
				12	100-110	0.7	
				12	110-120	0.7	
				12	120-130	0.3	
				12	130-140	0.2	

#7 slightly
with av. 51% Cu
higher Cu cores
not analyzed.
(#9? not run.)
#11 with av. 0.2 Cu

Respectfully submitted,

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D#8 - 3.40%

CUSTOM ASSAY OFFICE

(Out Wickenburg Way.)

J. W. (Jack) SHARPE; ASSAYER & CHEMIST

Description

Received

2/1/56

Submitted by

Uranium Enterprises, Inc.
of
America

Date

2/7/56

ANALYSIS

Element				Estimated Intensity			
Hole No	Depth	% Cu		Hole No	Depth	% Cu	
13	--0-20	--0.5		14	--0-20	--0.4	
13	--20-30	--0.4		14	--20-30	--0.3	
13	--30-40	--0.4		14	--30-40	--0.8	
13	--40-50	--0.3		14	--40-50	--0.6	
13	--50-60	--0.5		14	--50-60	--0.4	
13	--60-70	--0.6		14	--60-70	--0.9	
13	--70-80	--0.6		14	--70-80	--0.5	
13	--80-90	--0.5		14	--80-90	--0.4	
13	--90-100	--0.3		14	--90-100	--0.2	
13	100-110	--0.3		14	100-110	--0.4	
13	110-120	--0.7		14	110-120	--1.1	
c13	120-130	--0.5		14	120-130	--0.3	
c13	130-140	--0.6		14	130-140	--0.2	
c13	140-50	--0.5		14	140-150	--0.7	
c13	150-60	--0.3		14	150-160	--0.3	
cx22x22				14	160-170	--1.2	
c13	160-70	--0.3		14	170-180	--0.6	
B13	70-80	--0.6		14	180-190	--0.6	
c13	80-90	--0.4		14	190-200	--0.4	
13	90-98	--0.6		14	200-210	--0.5	
13	98-110	--0.8		14	210-220	--0.4	
c13	110-120	--0.9		14	220-230	--0.5	
13	120-125	--1.0		14	230-240	--0.3	
13	130-135	--0.3		14	240-250	--0.3	
13	125-130	--0.2		c14	0-10	--0.1	
13	120-132	--0.5		14	30-45	--0.3	
13				14	45-60	--0.3	
				c14	70-80	--0.3	

Sample av.
with 5%

Sample av.
6%

Sample

15 ---0-15 ---0.2
15 ---15-31 ---0.4
15 ---31-67 ---0.5
15 ---67-103 ---0.3
15 ---87-147 ---0.3

with 0.5% Cu, 34% Cu

no shavings seen,
are reported by analysis

173' - 193'

Respectfully submitted,

250' Sample analyzed 52% Cu
Sample 5% Cu
Sample 60% Cu

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D#14 --- 1.5%
Middle part 14 --- 1.5%

CUSTOM ASSAY OFFICE

(Out Wickenburg Way.)

J. W. (Jack) SHARPE; ASSAYER & CHEMIST

Description

Received

Date

2/1/56
Submitted by

2/7/56

Uranium Enterprises
of
America

ANALYSIS

Element

Estimated Intensity

Hole No.	Depth	CCu	Hole No.	Depth	Cu	Hole No.	Depth	Cu
16	-- 0-20	---0.4	D&N 19	---10-20	---0.5	20	---0-5	---0.5
16	--20-30	---0.2	-0.30 19	---20-30	---0.4	20	---5-15	---0.7
16	--30-40	---0.3	19	---30-40	---0.1	20	---15-25	---0.3
16	--40-50	---0.4	6 19	---40-60	---0.3	20	---25-35	---0.6
16	--50-60	---0.2	19	---60-70	---0.3	20	---35-45	---0.6
16	--60-70	---0.1	19	---70-80	---0.2	20	---45-55	---0.6
Surface av. 0.2% Cu			19	---80-90	---0.2	20	---35-50	---1.9
17	-- 0-10	---0.3	19	---90-100	---0.2	20	---55-65	---1.2
17	--10-20	---0.3	19	---100-110	---0.3	20	65-75	---9.2
17	--20-30	---0.2	19	---110-120	---0.4	20	---75-85	---0.2
17	--30-40	---0.1	19	---120-130	---0.3	20	---85-95	---0.5
17	--40-50	---0.4	19	---130-140	---0.4	20	---95-105	---0.6
17	--50-60	---0.4	19	---140-150	---0.2	20	---105-115	---0.2
17	--60-70	---0.1	19	---150-160	---0.5	20	---115-125	---0.1
17	70-80	---0.5	19	---160-170	---0.2	20	---125-135	---0.1
17	--80-90	---0.5	19	---170-180	---0.2	20	---135-145	---0.8
17	--90-100	---0.3	Surface av. 0.3% Cu			20	---145-155	---0.8
17	--100-110	---0.2	cores numbered 1-20			20	---155-165	---0.3
17	--110-120	---0.5	av. 0.3%			20	---165-175	---0.2
17	--120-130	---0.4				20	---175-185	---0.3
17	-- 0-20	---0.1				20	---185-195	---0.7
17	--20-40	---0.3				20	---195-205	---0.8
17	--40-60	---0.3				20	---205-215	---0.5
17	--60-80	---0.3				20	---215-225	---0.1
17	--80-110	---0.2				20	225-235	---0.4
Surface 0.3% Cu						20	235-245	---0.4
cores 25%						20	---245-255	---0.2
						20	---255-265	---0.2
						20	---265-275	---0.2

Respectfully submitted,

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J. W. Sharpe
J. W. Sharpe (25-45) 2.5%

CUSTOM ASSAY OFFICE

(Out Wickenburg Way.)

J. W. (Jack) SHARPE; ASSAYER & CHEMIST

Description

Received

2/1/56

Date

2/7/56

Submitted by
Uranium Enterprises
or
Amer ion

ANALYSIS

Element				Estimated Intensity			
Hole No	Depth	Cu		Hole No	Depth	Cu	
20	--275-285	-0.1		21	--0-20	--0.5c	
20	--285-295	-0.2		21	--40-50	--0.5c	
20	--295-305	-0.4		21	--50-70	--0.5c	
20	--305-315	-0.5		21	--70-100	-0.4c	
20	--315-325	-0.3		21	--90-115	-0.2c	110'
20	--325-335	-0.1		21	--110-130	-0.3c	
20	--335-345	-0.2		21	--130-140	-0.2c	
20	--345-355	-0.2		21	100-195	-0.1	
20	--355-365	-0.2					
20	--365-375	-0.2					
20	--375-385	-0.2					
20	--385-395	-0.3		22	--0-10	---0.7-	
20	--395-405	-0.2		22	--40-20	---0.4-	
20	--405-415	-0.2		22	--40-30	---0.2-	
20	--415-425	-0.3		22	--30-40	---0.3-	
20	--425-435	-0.4		22	--40-50	-1.3-	
20	--435-445	-0.2		22	--50-60	-0.4-	
20	--440-445	-1.0		22	--60-70	---0.4-	
20	---0-30	-1.1		22	--70-80	---0.4-	
20	---30-35	-1.8		22	--80-90	---0.3-	
20	---60-65	-0.5		22	110-120	---0.3-	
20	50-60	---0.2		22	120-122	-0.2-	
20	---70-80	---0.2					
20	---40-100	-0.2		22	--90-95	---0.4-	
20	---100-110	-0.2		22	--60-70	---0.3	
20	---195-205	-0.7		22	--80-85	---0.5	
				22	--80-90	---0.6	
				22	--88-122	---0.3-	
				22	--30-40	---2.6	

(used in
analysis?)

whole hole except as noted
analysis 2/1/56

55C-60 Respectfully submitted,
J. W. (Jack) Sharpe

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D#20 25-45 2.8 D#22 general 2.00% D#23 general 1.40%

(Out Wickenburg Way.)

Description

Received

2/1/56

Submitted by
Uranium Enterprises
or
America

Date _____

2/7/56

Element

Estimated Intensity

Hole No	Depth	Cu
24	5-15	-0.2
24	15-25	-1.6
24	25-35	-1.7
24	35-50	-0.4
a 24	34-50	-0.5
c 24	0-34	-2.1

sl av. 1.0% cu.

с. 203 а. 1. 20/000

that a fair sample.

26 75-80
0.45

0.45 in

Hale No	Depth	Cu
26	--5-16	---0.4
26	--15-25	---0.2
26	--25-35	---0.6
26	--35-45	---0.3
26	--45-55	---1.1
26	--55-65	---0.3
26	--65-75	---0.4
26	-- 0-25	---0.4
26	--25-35	---0.3
26	--35-50	---2.9
26	--50-58	---0.7
26	--58-70	---1.2
26	--70-80	---0.7
26	--70-80B	---0.6

av. sl. 46%

Ans. 2 one, 1.2%

Hole	No	Depth	Cu
c27	--0.50	---	0.2
c27	--50-90	---	0.5
c27	--90-113	---	1.0
27	--20-30	---	0.4
27	--30-40	---	0.1
27	--40-50	---	0.3
27	--50-60	---	0.6
27	--60-70	---	0.3
27	--70-80	---	0.3
27	--80-90	---	0.4
27	--90-100	---	0.4
27	--100-110	---	0.5
27	--110-120	---	0.7

sl. av. 40 m

cores lasted av. 5% or

Respectfully submitted,

All reports are submitted as the confidential property of clients. Authorization for publication of our reports, conclusions, or extracts from or regarding them is reserved pending your written approval as a mutual protection to clients, the public and ourselves.

(D#26 - 1.6% general) - D#27 general 0.50
Only one that checks

Final Copper Property

LOGS OF CORE HOLES DRILLED IN 1972

<u>Hole No.</u>	<u>Depth</u>	<u>No. of log pages</u>
72-1	300'	2
72-2	3500'	13
72-3	1372'	7

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by SS; reduced Sampled by C.C. Date 6/12

SAMPLE AND ASSAY LOG PINAL COPPER CORPORATION

Project _____ Page No. 1
 Hole No. 72-1 of 2
 Rotary Fr. 0 To 20
 Core Fr. 20 To 300

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assay by	Sample No.	CU ppm	Mo ppm	Vol. % Sulf.	Description
0	20											
20	25	5	4.2		84							
25	30	5	4.5		90		H4H	P-147	104	<2		Andes. br., ser. alt.
30	40	10	9.6		96							"
40	50	10	9.7		97							"
50	55	5	4.6		92		"	P-148	121	<2		"
55	60	5	3.0		60							"
60	70	10	8.8		88							"
70	75	5	4.2		84							"
75	80	5	2.5		50		"	P-149	37	2		"
80	90	10	8.0		80							"
90	100	10	10.0		100							"
100	105	5	4.5		90		"	P-150	60	<2		"
105	110	5	4.6		92							" v. fract.
110	120	10	10.0		100							"
120	125	5	3.7		74							"
125	130	5	4.5		90		"	P-151	21	<2	<1	" 127' base ox. zone
130	140	10	9.2		92							"
140	150	10	8.0		80							"
150	154	4	3.0		75		"	P-152	33	<2	1-2	" v. bkn.
154	160	6	5.1								3-5	"
160	170	10	9.0		90							"
170	175	5	4.0		80							"
175	180	5	3.9		78		"	P-153	25	<2		"
180	190	10	8.0		80							"

Collar Elev. —

Coord. (Survey).

Coord. (Grid).

Logged by CC

Sampled by C.C.

Date 6/97

6/4/97

SAMPLE AND ASSAY LOG
PINAL COPPER CORPORATION

Project -

Hole No.

Rotary F

Core Fr.

Page No. 2

Page 2 of 2

To 20

To 300

[illegible]

Collar Elev. _____
Coord. (Survey) _____
Coord. (Grid) _____
Logged by CC Sample _____

Project _____
Hole No. 72-2
Rotary Fr. 0
Core Fr. 670
Page No. 1 of 21
To 670
To 3500

Sampled by C.C. Date 17/72

[illegible]

SAMPLE AND ASSAY LOG **PINAL COPPER CORPORATION**

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by JOE Sampled by JOE Date 7/77

Project _____ Page No. 2
 Hole No. 77-7 of 21
 Rotary Fr. 0 To 670
 Core Fr. 670 To 3500

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assdy by	Sample No.	Ppm Cu	Ppm Mo	Vol % G.F.	Description
700	710	10	10		100						1	Andes, pk water and "Gly-manag" 68
710	720	10	10		100						2	"
720	725	5	4.5		90							"
725	730	5	4.5		93	Core	U.S. 4	P-161	68	42		"
730	740	10	9.5		96							"
740	750	10	9.8		98							"
750	755	5	5		100	"	"	P-162	41	42		"Dy-manag" be in 4 qtz vides
755	759	4	4		100						1-2	"
759	770	11	11		100						2	Andes, dk qtz-deer in be 1-2%
												Andes, sulf on 1-2%
770	775	5	4.5		95							"
775	780	5	5		100	"	"	P-163	76	10		"
780	790	10	9.5		96							"
790	795	5	5		100							"
795	800	5	4.5		92	"	"	P-164	116	42		"
800	807	7	6.7									"
807	816	9	8.3								2	Andes, dk qtz, 2-3% 1-2% 1-2%
816	825	9										Andes, coarse, mostly 1-2% 1-2%
825	830	5	5		100	"	"	P-165	94	2	1	Andes
830	840	10	9.3		93							Andes, dk qtz
840	849	4	3.5									Andes, dk qtz
849	850	6	6		100							Andes, dk qtz, 1-2% 1-2% 1-2%
850	855	5	5		100	"	"	P-166	50	42		" ore app in 5 ft
855	860	5	5		100							"
860	869	9	9		100						1-2	"

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by ABD

SAMPLE AND ASSAY LOG FINAL COPPER CORPORATION

Sampled by ABD Date 7/77

Project _____ Page No. 3
 Hole No. 77-2 of 21
 Rotary Fr. 0 To 610
 Core Fr. 670 To 3500

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assdy by	Sample No.	Ppm Cu	Ppm Mo		% SOL	Description
869	875	6	6										bluish grey sand fine br - 5' built zone
875	880	5	4.4					P-167	131	5		1-2	" 1/4" spar phono
880	890	10	9		90								" "
890	900	10	9.5		96								" " V broken
900	905	5	4.8			"	"	P-168	319	15		1	reddish br. sand comp. calc. 1"
905	910	5	5		100								br. both 0.2 mm & 0.5 mm
910	920	10	9.7		97								" "
920	925	5	4.8		96								" "
925	930	5	4.8		96	"	"	P-169	161	5			" "
930	940	10	9.7		97								" "
940	950	10	9.8		95							41	" "
950	955	5	4.8		96	"	"	P-170	114	5			" red 1-2" clay phono. 1 mm & 0.5 mm?
955	960	5	4.6		92								more qtz 4-7 mm
960	970	10	9.6		96								" "
970	975	5	5		100	"	"	P-171	112	5			" abnd many qtz, 1 mm - 1 mm med.
													and in br. zone
975	980	5	5		100							41	Meta-sed. lt. qtz. fine lamp. 1-1.5 mm
980	990	10	10		100								qtz. interbeds. fine. 0.5 mm. 1 mm. beds
990	1000	10	9.7		97							1-2	" "
1000	1005	5				"	"	P-172	541	30			" "
1005	1010	5	5		100								" " composed of 1 mm
1010	1020	10	9.7		97								" " broken
1020	1025	5	4.8		96	"	"	P-173	203	2			" "
1025	1030	5	5		100								" "
1030	1040	10	9.4		94								" "

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by 211 Sampled by 211

SAMPLE AND ASSAY LOG
PINAL COPPER CORPORATION

Project _____ Page No. 4
 Hole No. 11-2 of 21
 Rotary Fr. 0 To 670
 Core Fr. 670 To 3500

Date 7/72

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assay by	Sample No.	PPM Cu	PPM Mo	% Sulf	Description
1040	1050	10	10		92						<1	White sand, banded 1/4"
1050	1055	5	4.7		91	2008	1174	P-174	394	40		"
1055	1061	6	6.0									" Yellow & fine bed
1061	1070	9	8.5								<1	wt conc. Gtz in frgs.
1070	1075	5	4.5		90	"	"	P-175	394	7	1	Medium sand: calcareous, white, calc. nod.
1075	1080	5	4.5		90							medium & calc. nod. in frgs.
1080	1089	9	8.7								<1	Med. sand? If yes, calc. nod. in frgs.
1089	1100	11	11.0		100	"	"	P-176	411	5		" Medium & calc. nod. in frgs.
1100	1105	5	5		96						<1	"
1105	1111	6	6.8									"
1111	1120	9										Pea sized, 1/4" sandstone
1120	1125	5	5		100	"	"	P-177	564	8		Fracture as 41
1125	1130	5	4.8		96							"
1130	1140	10	9.7		97						<1	"
1140	1150	10	9.6		96							"
1150	1055	5	4.9		96	"	"	P-178	377	8		"
1155	1160	5	4.7		94						<1	" sand 1/2"
1160	1170	10	9.6		96							"
1170	1175	5	5		100	"	"	P-179	434	2		"
1175	1180	5	4.7		94							" calc. nod. in frgs.
1180	1190	10	9.7		97							" grad. decr. in phenoc. size
1190	1200	10	9.5		95						<1	" calc. nod. in frgs.
1200	1205	5	4.6		92	"	"	P-180	511	5		
1205	1210	5	4.8		96							

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by 200

SAMPLE AND ASSAY LOG
PINAL COPPER CORPORATION

Project _____ Page No. 5
 Hole No. 12-2 of 21
 Rotary Fr. D To 670
 Core Fr. 670 To 3500

Date 7/72
 Sampled by 202

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assay by	Sample No.	ppm Cu	ppm WtO	% Vol. S&L Fr.	Description
1210	1220	10	2		34						Tr	interbedded arg. and chert
1220	1225	5	4.1		94	704	WV	P-181	398	10		" 2 ft arg. chert with arg.
1225	1230	5	4.2		92							" arg. chert with arg.
1230	1240	10	6.1		97							"
1240	1250	10	9.6		93						1	"
1250	1255	5	4.0		96	"	"	P-182	481	42		" arg. chert
1255	1260	5	5		100							"
1260	1270	10	9.6		96			P-236	500			"
1270	1275	5	4.8		96	"	"	P-183	909	2	1	Metased @ 21 grm in steel
1275	1280	5	6		100			P-237	1100			dip km(?) across of intos sil
1280	1290	10	9.6		96			P-238	600			"
1290	1300	10	9.6		99			P-239	900			"
1300	1305	5	4.9		99	"	"	P-184	999	2.2		"
1305	1310	5	4.7		98			P-240	1200			"
1310	1320	10	10		100			P-241	500		Tr	"
1320	1325	5	5		100	"	"	P-242	600			" 1/2 phz veins @ 30%
1325	1330	5	4.9		98			P-185	1700	2		"
1330	1340	10	9.5		95			P-243	1100			Metas - quartzite, faint bdg, intos sil
1340	1350	10	9.2		92			P-244	1100		1	" arg. chert
1350	1355	5	4.8		96	"	"	P-186	809	42		"
1355	1360	5	4.8		96			P-245	500		Tr	"
1360	1363	3	3		100			P-246	400			"
1363	1370	7	7		100			P-247	1100		1	Metas quartzite with arg. H grn
1370	1375	5	5		100	"	"	P-248	700			"
1375	1380	5	5					P-187	996	5		"

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by DB

SAMPLE AND ASSAY LOG PINAL COPPER CORPORATION

Sampled by DB Date 7/72

Project _____ Page No. 6
 Hole No. 72-2 of 21
 Rotary Fr. 0 To 670
 Core Fr. 670 To 3500

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assay by	Sample No.	Ppm Cu	Ppm Ppm	% Sulf	Description
1380	1390	10	9.7		97			P-249	1300			Traceable on fine vln. 14 gr.
1390	1400	10	9.6		96			P-250	1100			Alto red, 100 bands, gray, v sil
1400	1405	5	4.8		96	core	Hid	P-188	1700	2		"
1405	1410	5	5		90			P-251	900			Gray, below on fine vln. 14 gr.
1410	1420	10	9.7		97			P-252	1300			"
1420	1425	5	4.7		94	"	"	P-189	1300	<2		" sulf. on Sres
1425	1430	5	5		100			P-253	1700			"
1430	1440	10	10		100			P-254	1200		21	"
1440	1450	10	9.8		93			P-255	1300		21	"
1450	1455	5				"	"	P-190	1700	5		"
1455	1464	9	9		100			P-256	1400			"
1464	1470	6	5.7					P-257	500			Traceable 1/2 - 1000 gr. vln. 14 gr.
1470	1475	5	4.9		90	"	"	P-191	392	62		Traceable 1/2 - 1000 gr. vln. 14 gr. vln. 14 gr. vln. 14 gr.
1475	1480	5	5		100							" v. all d.
1480	1490	10	10		100							" sil. 14 gr.
1490	1500	10	9.5		95							"
1500	1505	5	5		100	"	"	P-192	365	8		"
1505	1510	5	4.7		94							"
1510	1520	10	10		100							"
1520	1525	5	5		100	"	"	P-193	948	42		"
1525	1530	5	5		100							"
1530	1540	10	10		100							"
1540	1545	5	5		100							"
1545	1550	5	4.8		96	"	"	P-194	660	2		"
1550	1553	3	3		100							"

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by: ABC Sampled by: ABC

SAMPLE AND ASSAY LOG
PINAL COPPER CORPORATION

Project _____ Page No. 7
 Hole No. 72-2 of 21
 Rotary Fr. 0 To 670
 Core Fr. 670 To 3500

Date 7/72

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assay by	Sample No.	ppm Cu	ppm Mo	% Sulf	Description
1553	1557	4	3.8			core	ABC	P-195	162	2	21	Yellowish material
1557	1570	13	13		100							"
1570	1575	5	5		100	"	"	P-196	384	2		low trace of molybdenum ore in matrix
1575	1580	5	5		100							more silty matrix
1580	1590	10	10		100							" low trace in silty matrix, at 1000
1590	1600	10	9.8		99							"
1600	1605	5	4.8		96	"	"	P-197	741	5		"
1605	1610	5	5		93							" silty material, no molybdenum
1610	1620	10	9.6		93							"
1620	1625	5	5		100	"	"	P-198	292	5		"
1625	1630	5	5		100							"
1630	1640	10	9.6		96							" molybdenum low in core
1640	1650	10	9.8		98							"
1650	1655	5	5		100	"	"	P-199	677	10	21	matrix silty, molybdenum in self
1655	1660	5	5		100							"
1660	1670	10	9.6		98							"
1670	1675	5	5		100	"	"	P-200	93	8	1	" low molybdenum, low silty, at 9
1675	1680	5	4.8		97							" silty, low molybdenum, silty material
1680	1690	10	9.8		98							" low molybdenum
1690	1700	10	9.8		98			P-258	500			"
1700	1705	5	4		100	"	"	P-201	1400	22		" molybdenum ore in silty
1705	1710	5	5		100			P-268	1000			" low molybdenum in silty
1710	1720	10	9.8		98							"
1720	1725	5	5		100	"	"	P-202	453	2		"
1725	1730	5	5		100							"

SAMPLE AND ASSAY LOG

PINAL COPPER CORPORATION

Project 8 Page No. 21
 Hole No. 72-2 of 21
 Rotary Fr. 0 To 670
 Core Fr. 670 To 3500

Collar Elev.
 Coord. (Survey)
 Coord. (Grid)
 Logged by Sampled by Date 7/17/72

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assy by	Sample No.	Cu	Mo	Ag	%	Description
1730	1740	10	9.8		98								Qty. more? 1/4" core with mottl.
1740	1750	10	9.7		97								" more qty mottl. and core box
1750	1760	10	9.0		90								"
1760	1765	5	4.8		96	CORE	11/4	P-202	242	15			"
1765	1770	4	4.0		100								"
1770	1775	5	5.0		100			P-300	1700			2	Meta-sed 1/4" lam. - horiz to 502
1775	1780	5	5.0		100	"	"	P-204	1700	2		"	1/4" mottl. 1/4" core @ 71 / Monz 76-80
1780	1790	10	9.8		98			P-301	1000			"	Andes. di. qtz. mottl. v. a. w.
1790	1800	10	10.0		100	"	"	P-302	1300			"	" meta-sed. frags. basin @ 94.
1800	1805	5	4.8		96	"	"	P-205	1200	2		"	" br'ln to 1/4" mottl.
1805	1815	10	10.0		100			P-303	1700			1	Meta-sed. mottl. 1/4" core
1815	1825	10	10.0		100			P-304	1800				frags. andes. pay
1825	1830	5	10.0		100	"	"	P-206	1300	8		"	pyrite - andes. @ 1790
1830	1835	5	4.9		98			P-305	900			"	Meta-sed. @ 1811
1835	1840	5	4.8		96			P-306	1500			"	Pyrite andes. @ 1790
1840	1845	5	4.6		92			P-307	2300			"	Meta-sed. @ 1811
1845	1851.5	6.5	6.5		100			P-308	1200			"	Latite - pay. H. granite 1/4" star
1851.5	1852	0.5	0.5		100	"	"	P-207	204	5	40.01	73	old pole up to frags. < 1/4"
1852	1855	3	3		100			P-309	3100			"	"
1855	1860	5	5		100	"	"	P-208	2100	10		"	"
1860	1870	10	10		100			P-310	1900			2	" abd biot. in core k. o. t. t. a.
1870	1875	5	4.8		96	"	"	P-311	2200			"	"
1875	1880	5	5		100			P-209	1400	10		1	" v. f. r. d.
1880	1890	10	9.5		95			P-312	1800			"	" to top
1890	1900	10	9.6		96			P-313	1500			"	" qtz. in patches @ 45° br'ln frags

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by EL Sample _____

Project _____
Hole No. 72-2
Rotary Fr. Q
Core Fr. 670
Page No. 9 of 21
To 670
To 3500

Sampled by 23

[illegible]

SAMPLE AND ASSAY LOG **PINAL COPPER CORPORATION**

Project 10
Hole No. 12-2
Rotary Fr. 0 To 670
Core Fr. 670 To 3500

Collar Elev.
Coord. (Survey)
Coord. (Grid)
Logged by Sampled by Date 8/77

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assay by	Sample No.	ppm	Description
2030	2040	10	9.8		93					Latite spar 1/8" occ. int. 1/2"
2040	2050	10	9.6		96					" broken chloritic v. sil
2050	2055	5	4.8		96	CORE	N4H	P-216	673	30
2055	2060	5	5.0		100					"
2060	2070	10	9.7		97					"
2070	2075	5	4.8		96	"	"	P-217	435	5
2075	2080	5	4.8		96					" 0cc. 1/4" 1/2" qtz veins
2080	2090	10	9.6		96					" 82- FZ, broken loc. int. qtz
2090	2100	10	9.7		98					"
2100	2105	5	5		100	"	"	P-218	261	5
2105	2110	5	5		100					" 1/2" FM
2110	2120	10	9.6							"
2120	2125	5	4.7							"
2125	2130	5	4.8			"	"	P-219	151	8
2130	2140	10	9.5							" FZ 44, int. qtz, vert. frs
2140	2150	10	9.5							" 44, int. frs
2150	2155	5	4.7					P-220	503	5
2155	2160	5	4.8							"
2160	2170	10	9.3		93					"
2170	2175	5	4.8					P-221	490	8
2175	2180	5	4.7							" 44, int. frs
2180	2190	10	9.6							"
2190	2200	10	9.5					P-217	700	
2200	2205	5	4.9		93			P-222	1500	8
2205	2210	5	4					P-218	1600	

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by EC Sampled by R

SAMPLE AND ASSAY LOG FINAL COPPER CORPORATION

Project _____ Page No. 11
 Hole No. 72-1 of 21
 Rotary Fr. Q To 670
 Core Fr. 670 To 3500

Date 5/72

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assay by	Sample No.	Cu	Pb	Description
2210	2220	10	9.5		96			P-319	1300	110	10-12 metam. fine lam.
2220	2225	5	4.8		96			P-320	1900		12-25 lat. w/ metam. frags
2225	2230	5	4.8		96	2005	W44	P-223	1500	8	lat. deer frag.
2230	2240	10	9.7		97			P-321	1100		
2240	2250	10	9.8		96			P-322	1300		45-60 Andes. blk. grs.
2250	2255	5	4.8		96	"	"	P-224	1100	50	
2255	2260	5	4.8		96	"	"	P-225	574	8	lat. pk. w/ 3/4-1/2" spots, biot
2260	2270	10	9.8		96						" w/ fine - spots heavy bands
2270	2275	5	4.7		94	"	"	P-226	467	10	"
2275	2280	5	4.8		96						" 70 pk. spot glossy rims
2280	2290	10	9.8		98						" R6 Fz
2290	2300	10	9.8		98						"
2300	2305	5	4.8		96	"	"	P-227	113	2	"
2305	2310	5	4.8		96						" deer pk. spot
2310	2320	10	9.8		98						"
2320	2325	5	4.7		97						"
2325	2330	5	4.8		98	"	"	P-228	281	5	" w/ m. g. white
2330	2340	10	9.8		98						"
2340	2350	10	9.7		97						"
2350	2355	5	4.7		97	"	"	P-229	70	2	"
2355	2360	5	4.7		97						"
2360	2370	10	9.7		97						"
2370	2375	5	5		100						"
2375	2380	5	5		100	"	"	P-230	522	2	" deer frags. folky biot - gfs
2380	2390	10	10		100						"

Project Re-entry Page No. 13
Hole No. 12-2 of 21
Rotary Fr. 0 To 670
Core Fr. 670 To 3500

SAMPLE AND ASSAY LOG
PRINCIPAL COPPER CORPORATION

Collar Elev. _____
 Coord. (Survey) _____
 (Grid) _____

Do not _____ Date 9-27-72

PINAL COPPER CO.

Coord. (Grid) _____ Sampled by _____

Sampled by-

Doug. Date.

Doug. Date.

Collar Elev.		Core Fr.		Date		Sampled by		Description				
Coord. (Survey)		Core Fr.		Date		Sampled by		Description				
Coord. (Grid)		Core Fr.		Date		Sampled by		Description				
From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assdy by	Sample No.	mm Ch	mm Flc	Rock Type	Description
2500	2505	5	5		100	Core	H&H	P- 323	1300	30	PQ. Monz.	Fr. gr. to porph. Loc. sil, ser ch. la. (propylitic) py < 1/2 in. dia. & al. frs. cpy-dis, minor QTZ vnls. and vnls.
2505	2510	5	5		"						"	"
2510	2515	5	5		"						"	"
2515	2520	5	5		"						"	"
2520	2525	5	5		"	"	"	P- 324	1600	15	"	"
2525	2530	5	5		"						"	"
2530	2535	5	5		"						"	"
2535	2540	5	5		"						"	"
2540	2545	5	5		"						"	"
2545	2548	3	3		"						"	"
2548	2552	4	4		"						"	"
2552	2557	5	5		"	"	"	P- 325	1300	55	"	"
2557	2565	8	8		"						"	"
2565	2571	6	6		"						"	"
2571	2575	4	4		"						"	"
2575	2580	5	5		"	"	"	P- 326	1300	10	"	"
2580	2585	5	5		"						"	"
2585	2590	5	5		"						"	"
2590	2595	5	5		"						"	"
2595	2599	4	3.75		90%						"	"
2599	2603	4	1.5		40%			P- 327	863	45	"	"
					100			P- 328	1500	35	"	"

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by _____

SAMPLE AND ASSAY LOG PINAL COPPER CORPORATION

Project Re-entry Page No. 14
 Hole No. 72-2 of 21
 Rotary Fr. 0 To 670
 Core Fr. 670 To 3500

Sampled by Doug Date 10-1-72

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assay by	Sample No.	ppm Cu	ppm Mo	Rock	Type	Description
2608	2615	7	7		100						"	"	" v. min. mag.
2615	2620	5	5		"						"	"	" "
2620	2625	5	5		"						"	"	" "
2625	2630	5	5		"	Core	H&H	P- 341	938	165	pf? Q. monz	Sil., Ser., propylitic, Ch, py	Porph. dis. & along Frs, Qtz, Vnlts,
													py < 4.5%, min. cpy.
2630	2635	5	5		"						"	"	" "
2635	2640	5	5		"						"	"	" "
2640	2645	"	"		"						pf? Q. monz	"	"
2645	2650	"	"		"						"	"	" in Qtz, vnlts
2650	2655	5	4		80	"	"	P- 342	626	35	Q. Latite	very mafic phases, py 1.5%	ch, some shearing, sec bio?
2655	2660	5	5		100						"	"	" "
2660	2665	"	"		"						"	"	Less mafic, silicified, ch
													ser, sec bio? some Qtz, vnlts.
													py < 8% dis.
2665	2670	"	"		"						"	"	" "
2670	2675	"	"		"						"	"	" "
2675	2681.5	6.5	6.5		"	"	"	P-343	613	15	"	"	u. loc. shps at 85°
2681.5	2685	3.5	3.5		"						Younger Q.	sec? bio, ch, py < 2%, contains	dis py < 4% calc vnlts
											monz. Porph.	Q lat? grains to 10 mm	
													w/ schist direction (or sh-
													earing) at various orientations
													minor ep., some alt, and
													twining of feldspars
2685	2690	5	5		"	"	"	P- 344	134	2	"	"	" "
2690	2697.5	7.5	7.5		"						"	"	" Thin Section 2694
2697.5	2700	2.5	2.5		"						Q. Latite	sec? bio, ch, sil. ser? Loc	
											porph.	sch. loc in cpy. py to 4%	
													dis. v. min Pb?
2700	2705	5	5		"	"	"	P- 345	1100	55	"	"	" "
2705	2710	5	5		"						"	"	" Qtz vnlts.

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by Doug

SAMPLE AND ASSAY LOG
PINAL COPPER CORPORATION

Project Re-entry Page No. 15
 Hole No. 72-2 of 21
 Rotary Fr. 0 To 640
 Core Fr. 670 To 5500

Sampled by Doug Date 10-1-72

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assdy by	Sample No.	ppm Cu	ppm Mo	Rock	Type	Description
2710	2715	"	"	"	"	"	"	"	"	"	"	"	"
2715	2720	"	"	"	"	"	"	"	"	"	"	"	"
2720	2725	"	"	"	"	"	"	"	"	"	pt Q. Monz	"	fin grained equigranular to morph. minor sil? ser. ch. py dis to 3%, some clays from field? v. minor cpy?
2725	2730	"	"	"	"	"	"	P- 346	964	30	"	"	"
2730	2735	"	"	"	"	"	"	"	"	"	"	"	"
2735	2740	5	5	100	"	Core	H&H	P- 347	1100	25	"	pt Q. Monz Porph	sil. di. ie. propylitic, sec. loc. cpy, sec bio? py to 3% dis & in vnlts
2740	2745	"	"	"	"	"	"	"	"	"	"	"	" Local in maf. "
2745	2750	"	"	"	"	"	"	"	"	"	"	"	"
2750	2755	"	"	"	"	"	"	"	"	"	"	"	" (v min. hem & mag)
2755	2760	"	"	"	"	"	"	"	"	"	"	"	"
2760	2765	5	5	100	"	"	"	"	"	"	"	"	"
2765	2770	"	"	"	"	"	"	"	"	"	"	"	"
2770	2775	"	"	"	"	"	"	"	"	"	"	"	" (v. min Mag & Pb?)
2775	2780	"	4.5	90	"	"	"	P- 375	789	100	"	"	"
2780	2785	"	5	100	"	"	"	"	"	"	"	"	" (qtz vnlts)
2785	2790	"	"	"	"	"	"	"	"	"	"	"	" increase sil.
2790	2795	"	"	"	"	"	"	"	"	"	"	"	"
2795	2800	"	"	"	"	"	"	"	"	"	"	"	" no cpy.
2800	2805	"	4.7	95	"	"	"	P- 376	"	"	"	"	" Pb, & calc & qtz vnlts
2805	2810	"	5	100	"	"	"	"	"	"	pt Q. Monz	"	Ha. Cr., very sil, ch. (propylitic) py to 3% min cpy. pb.
													qtz & calc vnlts
2810	2815	"	"	"	"	"	"	"	"	"	"	"	"
2815	2820	"	"	"	"	"	"	"	"	"	"	"	"
2820	2825	"	"	"	"	"	"	"	"	"	Q. lat	"	sec bio? sil, ch. py dis & al shreds to 5% calc vnlts, ser. some all a bio

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by _____

SAMPLE AND ASSAY LOG
PINAL COPPER CORPORATION

Sampled by _____ Date 10-7-72

Project Re-entry Page No. 16
 Hole No. 72-2 of 21
 Rotary Fr. 0 To 670
 Core Fr. 670 To 3500

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assay by	Sample No.	ppm	ppm	Rock	Type	Description
2825	2830	"	"	"	"	"	"	P- 377	240	105	"	"	"
2830	2835	"	"	"	"	"	"				"	"	"
2835	2840	"	"	"	"	"	"				"	"	T.S. 2831
2840	2843	3	3	"	"	"	"				"	"	" (brecciated)
2843	2850	7	7	"	100	"	"				"	"	"toPorph "py, some Pb.
2850	2855	5	5	"	"	"	"	P- 378	693	37	"	"	"
2855	2860	"	"	"	"	"	"				"	"	"
2860	2865	5	4.7	"	95	"	"				Q. lat Fr. seq bio? Ch sil, string locally, gr to ph by 1% generally, some calc & Qtz vnits, some feld to clays some app vnits.	"	"
2865	2870	5	5	"	100	"	"				"	"	"
2870	2875	"	"	"	"	"	"				"	"	"
2875	2880	"	"	"	"	Core	H&H	P- 379	269	160	"	"	"
2880	2885	"	"	"	"	"	"				"	"	"
2885	2890	"	"	"	"	"	"				"	"	"
2890	2895	"	"	"	"	"	"				"	"	"
2895	2900	"	"	"	"	"	"				"	"	"
2900	2905	"	"	"	"	"	"	P- 380	37	2	Q. latite	"	Large Feld pheno & Hb? ep.
2905	2910	"	"	"	"	"	"				"	"	"
2910	2915	"	"	"	"	"	"				"	"	"
2915	2920	"	"	"	"	"	"				"	"	"
2920	2925	"	"	"	"	"	"				"	"	"
2925	2930	"	"	"	"	"	"	P-381	38	42	"	"	"
2930	2935	"	"	"	"	"	"				"	"	"
2935	2940	"	"	"	"	"	"				"	"	"
2940	2945	"	"	"	"	"	"				"	"	"

Collar Elev. _____

Coord. (Survey) _____

Coord. (Grid) _____

Logged by _____

Doug _____

Sampled by _____

Date 10-7-77

SAMPLE AND ASSAY LOG PINAL COPPER CORPORATION

Project Re-entry Page No. 17

Hole No. 72-2 of 21

Rotary Fr. 0 To 670

Core Fr. 670 To 3500

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assdy by	Sample No.	ppm Cu	ppm Mo			Description
2945	2950	"	"		"						"	"	"
2950	2155	"	"		"	"	"	P- 382	105	<2	"	"	"
2955	2960	"	"		"						"	"	"
2960	2965	"	"		"						"	"	"
2965	2970	"	"		"						"	"	"
2970	2975	"	"		"						"	"	"
2975	2980	"	"		"	"	"	P- 383	34	<2	"	"	"
2980	2985	"	"		100						"	"	shearing, some H. in shr.
2985	2990	"	"		"						"	"	"
2990	2995	"	4.7		95						"	"	"
													Sec bio? chlon, string, some Feld to clays. 0.2 vnlts, calc & ann. vnlts. py <2%
2995	3000	"	"		"						"	"	"
3000	3005	"	4.5		90	Core	H&H	P- 384	179	10	"	"	"
3005	3010	"	4.5		90						"	"	"
3010	3015	"	5		100						"	"	"
3015	3020	"	5		100						"	"	"
3020	3025	"	5		"						"	"	"
3025	3030	"	4.5		90	"	"	P- 385	124	37	"	"	"
3030	3035	"	5		100						"	"	"
3035	3040	"	"		"						"	"	"
3040	3045	"	"		"						"	"	"
3045	3050	"	4.75		95						"	"	Sec bio? ch. Some Feld & bio clays. py dis & al Frs to 2.5%
3050	3055	"	5		100	"	"	P- 386	296	10	"	"	"
3055	3060	"	"		"						"	"	"
3060	3065	"	"		"						"	"	some shearing some sil, qtz. vnlts.

SAMPLE AND ASSAY LOG

PINAL COPPER CORPORATION

Project 72-2 Page No. 18
 Hole No. 21 of 21
 Rotary Fr. 0 To 670
 Core Fr. 670 To 3500

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by Doug Sampled by Doug Date 10-19-72

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assdy by	Sample No.	ppm Cu	ppm Mo	Description
3065	3070	"	"		"						"
3070	3075	"	"		"						"
3075	3080	"	"		"	"	"	P- 387	152	2	"
3080	3085	"	"		"						"
3085	3090	"	"		"						"
3090	3095	"	"		"						" some qtz. vnlt.
3095	3100	"	"		"						"
3100	3105	"	"		"	"	"	P- 388	324	2	"
3105	3110	5	5		100						unit w/ calc, Pb., Cpy., py. Q. latite Sec. 7 bio. di, some Feld & bio Porph. to Clays. py dis & al frs to 3.5%
											calc vnlt., qtz vnlt w/py.
3110	3115	"	"		"						"
3115	3120	"	"		"						"
3120	3125	"	"		"						"
3125	3130	"	"		"	Core	H&H	P-389	141	2	"
3130	3135	"	"		"						"
3135	3140	"	"		"						"
3140	3145	"	"		"						"
3145	3150	"	4.75		95						"
3150	3155	"	4.75		95	"	"	P-390	96	<2	" v. min? ank vnlt.
											3051 -- cut by One Foot un-eral and Ph
3155	3160	"	4.5		90						" some brecciation In Fring & Shring
3160	3165	"	4.75		95						"
3165	3170	"	4.75		95						"
3170	3175	"	4.75		95						"
3175	3180	"	5		100	"	"	P- 391	132	<2	"

SAMPLE AND ASSAY LOG **PINAL COPPER CORPORATION**

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by _____

Doug _____ Sampled by _____ Date _____
 Doug _____

Project _____ Page No. 19
 Hole No. 72-2 of 21
 Rotary Fr. 0 To 670
 Core Fr. 670 To 3500

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assdy by	Sample No.	ppm Cu	ppm Mo	Description
3185	3190	"	"	"	"	"	"	"	"	"	"
3190	3195	"	"	"	"	"	"	"	"	"	"
3195	3200	"	"	"	"	"	"	"	"	"	"
3200	3205	"	"	"	"	"	"	P-392	66	10	" much alt of Feld to clay.
3205	3210	"	"	"	"	"	"	"	"	"	">in QTZ vnlt w/py
3210	3215	"	"	"	"	"	"	"	"	"	"
3215	3220	"	"	"	"	"	"	"	"	"	"
3220	3225	"	"	"	"	"	"	"	"	"	"
											Q. Latite Ph.
3225	3230	"	4.75		95	Core	H&H	P-393	150	2	Silic, Ch, Sec bio? Mary QTZ vnlt. w. py. dis. & al vnlt. to 4% ann vnlt. Some Feld to clays.
3230	3235	"	5.0		100						"
3235	3240	"	5		"						"
3240	3245	5	4.5		90						" 3242 Fault gouge w/ser. Ch. clays. py.
3245	3250	"	"		90						"
3250	3255	"	3.5		70	"	"	P-394	319	10	"
3255	3260	"	5		100						Q. Lat. Foult.
3260	3265	"	"		"						Silic. Ser. Q. some ann. QTZ vnlt. py dis & al vnlt to 3% some faulting
3265	3270	"	"		"						"
3270	3275	"	"		"						" >in Qtz vns.
3275	3280	"	"		"	"	"	P-395	166	2	"
3280	3285	"	"		"						"
3295	3290	"	"		"						"
3290	3295	"	"		"						Meta? Dia base
											some calc vnlt. Annhyd. vnlt py < 2% dis & al vnlt v. minor H. shring. some cpv? very dis.
3295	3300	"	"		"						" TS 3298

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by _____

SAMPLE AND ASSAY LOG
PINAL COPPER CORPORATION

Project _____ Page No. 20
 Hole No. 72-2 of 2
 Rotary Fr. 0 To 670
 Core Fr. 670 To 3500

Sampled by _____ Date 10-24-72

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assay by	Sample No.	ppm Cu	ppm Mo	Rock	Type	Description
3300	3305	"	"	"	"	"	"	P- 396	114	2	"	"	"
3305	3310	"	"	"	"	"	"				"	"	"
3310	3315	"	"	"	"	"	"				"	"	Sill. Ch. Ser? Propylitic Alt of some Feld. py. dis. & a.l. Frs to 5%
3315	3322	7	6.5		94						"	"	
3322	3325	3	3		100								same as 3305 - 3310.
3325	3330	5	5		"	"	"	P- 397	59	5			same as 3315 - 3322 (py to 8% dis.)
3330	3335	5	5		100						"	"	QTZ vnlt.s.
3335	3340	5	5		"						"	"	"
3340	3345	"	"		"						"	"	"
3345	3350	"	"		"						"	"	TS-3348
3350	3355	"	4.75		95	Core	H&H	P- 398	57	2	"	"	
3355	3360	"	5		100						"	"	some brecciation
3360	3364	4	4		"						"	"	TS-3363
3364	3370	6	5.1		86						QTZ Lafite?	"	ch. sec. big. very shred. py 4% dis. & along shrs. minor py vnlt.s
3370	3375	5	4.6		96						"	"	3369 TS " "
3375	3380	5	4.7		96	"	"	P-399	97	8	"	"	" QTZ " much shearing vnlt.s & Anh. vnlt.s.
3380	3385	5	5		100						"	"	"
3385	3390	"	4.75		95						"	"	"
3390	3395	"	"		95						"	"	" some Barite?
3395	3400	"	"		95						"	"	"
3400	3405	"	5		100	"	"	P- 400	144	2	"	"	"
3405	3411.5	6.5	6.4		98						"	"	"
3411.5	3415	3.5	3.5		100						Apilitic dike	"	py dis to 4% minor alt to Clay. minor brecciation.
3415	3419	4	4		"						"	"	"
3419	3425	6	6		"						Apilitic dike	"	py granitic rock/and diorite? py brecciation, py to 4% dis.

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by _____ Doug _____ Sample _____

SAMPLE AND ASSAY LOG
PINAL COPPER CORPORATION

Project 72-2 Page No. 21
 Hole No. 21 of 21
 Rotary Fr. 0 To 670
 Core Fr. 670 To 3500

[illegible]

Drilling started at bottom of old hole, EP-1

SAMPLE AND ASSAY LOG PINAL COPPER CORPORATION

Collar Elev. _____
Coord. (Survey) _____
Coord. (Grid) _____
Logged by _____

Project _____ Page No. 1
Hole No. 72-3 of 7
Rotary Fr. _____ To _____
Core Fr. 532 To 1372

Sampled by _____ Date 2-8-72

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assay by	Sample No.	Cu ppm	Mo ppm	Rock	Type	Description
532	540	8	5		62.5	Core	H&H	P-259	809	8	pC	Schist	meta-sed. bd. // to hole py. al. shrs. fitting & sh. bdly. ph. alt., H&G, cut by Q.
540	550	10	9		90						Q. Lat.	Ph. FeOx, G&H al. frs.	Alt. feld. & bio, Ch., Sil.
550	555	5	5		100	"	"	P-260	371	5	"	"	CaCO ₃ vnits, min. Mag. dis. py. to 2%, v. min. green Cu.
555	565	10	9		90						p.C.	schist	bd. // to hole, py. al. sh. dis. 55-57 ft. w/ gouge cut by Q. Lat. Ph.
565	575	10	10		100						"	"	bd. at angle to hole, qtz. vnits. w/dis. py. to 2% min. mag.
575	580	5	5		"	"	"	P-261	493	10	"	"	" " " bd. // to hole.
580	590	10	10		"	"	"				"	"	cut by Q. monz, Qtz. vnits. py. w/ br.
590	600	10	9		90						Q. monz.		cutting schist, alt. of Bio. & feld. Ch, qtz. vnits. Ser. py. dis. in frs. to 1.5%
600	605	5	5		100	"	"	P-262	632	5	"	"	" " " bd. // to hole.
605	615	10	8.5		85	"					"	"	" " " 608 ft. w/ gouge FeOx 612 Qtz. Latite.
615	625	10	7.5		75						Qtz. Latite		Fresh bio. CaCO ₃ vnits. py. dis. to 1%, min. Ep.
625	630	5	4.5		90	"	"	P-263	496	8	"	"	" " " Ph. to Equig.
630	640	10	10		100	"					"	"	" " " "
640	650	10	9.5		95						"	"	" " " "
650	655	5	5		100	"	"	P-264	50	2	"	"	" " " "
655	665	10	10		100						"	"	" " " "
665	675	10	10		"						"	"	" " " "
675	679	4	4		"	"	"	P-265	412	5	pC.	schist	meta-sed. Ch, Sil, py dis. & al. bd. to 2% bd. // to hole, CaCO ₃ vnits.
679	689.5	10.5	10.5		"						"	"	" " " cut by Q. monz.

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by _____

SAMPLE AND ASSAY LOG
FINAL COPPER CORPORATION

Sampled by _____ Date 9/9/72

Project _____ Page No. 2
 Hole No. 72-3 of 7
 Rotary Fr. _____ To _____
 Core Fr. 532 To 1272

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assay by	Sample No.	Cu. ppm	Mo. ppm	Rock	Type	Description
689.5	692	2.5	2.5		100						Breccia		Containing Q. Monz. Lat. & Sch. py. dis. & al. frs. to 2%
692	700	8	7.8		96						Qtz. Monz.		qtz. vnlt. py. dis. & al. frs. to 1%
700	703	3	3		100	"	"	P-266	674	2	"	"	"
703	715	12	11.5		98						andesite		Shr., flted. Ch. sil. min. py. (meta-sed) py. dis. & al. frs. to 3% CaCO ₃ vnlt. bd. 80° Sil., shr., Ch.
											"	"	"
715	725	10	9.5		95						"	"	"
725	730	5	4.8		96	"	"	P-267	846	2	Qtzite		meta-sed. "
730	740	10	10		100						"	"	"
740	750	"	"		"						"	"	"
											"	"	"
750	755	5	5		"	"	"	P-270	564	2	"	"	"
755	765	10	9.5		95						"	"	"
765	775	10	9.5		"						pC schist		bd. 85° Ch. Ap. py. dis. & al. bd. to 1% qtz. vnlt. cut by Q. Monz.
775	780	5	5		100	"	"	P-271	748	2	Qtzite		qtz. vnlt. Ch. py. 5 to 2.5% w. min. cpy. bd. to hole w. min. gr. Cu.
											"	"	"
780	785	5	"		"						"	"	"
785	793	8	8		"						Qtz. Latite		alt. of feld., Ch. Ser., sec. 2 bio. py. to 1.5%
793	801	"	"		"						Schist		V. mafic, v. dis. py. Mag, Cpy? 797 br., sch. Q. Lat., And. lg. py. pheno.
											"	"	"
801	806	5	4.5		90	"	"	P-272	247	5	"	"	"
806	815	9	8		90						Q. Monz.		flt. ing. w/ gouge, Ch. Ep, dis. py. to 2.5%
													some metasandstone? bd. to hole.
815	825	10	9.5		95						Qtzite		(arkosic) py. cut by Q. Monz. min. dis. py. qtz. vnlt. Ep. Ch.

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by _____

SAMPLE AND ASSAY LOG
FINAL COPPER CORPORATION

Project _____ Page No. 3
 Hole No. 72-3 of _____
 Rotary Fr. _____ To _____
 Core Fr. 532 To 1372

Date 9-14-72 Sampled by _____

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assdy by	Sample No.	Cu ppm	Mo ppm	Rock	Type	Description
825	830	5	4.5		90	"	"	P-273	566	2	Qtzite	Schist	meta-seds, highly deo- metamorphosed, py to 5% CaCO ₃ , vn. cut by Q. Monz. dikes.
830	35	5	5		100						pC Schist		Qtz. vnits., 4%py, Ca., sec.?
835	40	"	"		"						"	"	"
840	45	"	"		"						"	"	"
845	50	"	"		"						"	"	cut by Q. Monz.
850	55	5	4.75		95	"	"	P-274	597	5	"	"	" sil. & shr.
855	60	"	"		"						Qtzite	meta-sed., arkosic, Qtz. vnits. Ch., Ho., CaCO ₃ , mag., min. Coy	
860	65	"	5		100						"	"	py. to 4%
865	70	"	"		"						"	"	" Q. Monz. Dk.
870	75	"	"		"						"	"	" 871 breccia
875	80	"	"		"	"	"	P-275	445	2	"	"	" bd // hole.
880	85	5	5		100						"	"	"bd 85 to hole
885	90	5	5		"						"	"	" "
890	95	"	"		"						"	"	" min. flt
895	900	"	"		"						"	"	" cut by Q. Lat.
900	05	"	"		"	"	"	P-276	711	2	"	"	meta-sed, cut by Q. Lat, Ch. bd // hole, py to 3% v. min. Coy
905	10	"	"		"						"	"	" "
910	15	"	4.74		95						"	"	" "
915	20	"	"		"						"	"	" "
920	25	"	5		100						"	"	" Q. Monz. dike
925	30	"	"		"	"	"	P-277	497	2	"	"	" MnOx
930	35	"	"		"						"	"	" "
													934 breccia
935	40	"	"		"						"	"	" "

SAMPLE AND ASSAY LOG FINAL COPPER CORPORATION

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by _____

Project _____ Page No. 4
 Hole No. 72-3 of 7
 Rotary Fr. _____ To _____
 Core Fr. 532 To 1372

Date 9-15-72 Sampled by _____

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assdy by	Sample No.	Cu ppm	Mo ppm	Rock	Type	Description
940	45	5	5		100						"	"	"
945	50	"	4.5		90						"	"	"
950	55	"	"		"	"	"	P-278	1100	2	"	"	"
													py. to 3% min. Cpy?
955	60	"	5		100						"	"	"
960	65	"	"		"						"	"	"
965	70	"	"		"						"	"	"
970	75	"	"		"						"	"	"
975	80	"	"		"	"	"	P-279	646	2	"	"	metased; arkosic sec? big cut by Q. Monz. Mn. x. py to 10%
980	85	"	"		"						"	"	also pC Schist, bd 80 to hold qtz, vnits. v. min. dis. Cpy, 6%
985	90	"	"		"						"	"	"
990	95	"	"		"						"	"	"
995	100	"	"		"						"	"	"
1000	05	"	"		"	"	"	P-280	286	2	"	"	" no Cpy.
1005	10	"	"		"						"	"	"
1010	15	"	"		"						"	"	"
1015	20	"	"		"						"	"	cut by
1020	25	"	"		"						"	"	And.
											"	"	"
1025	30	"	4.5		90	"	"	P-281	79	2	"	"	"
1030	35	"	5		100						Q. Monz.	"	Qtzite, CaCO ₃ vnits, cuts v. min Cpy, 3%
1035	40	6	5.75		95						"	"	"
1040	45	4	4		100						Qtzite	"	arkosic meta-sed; cut by Q. py dis and al frs to 2.5%

SAMPLE AND ASSAY LOG **PINAL COPPER CORPORATION**

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by _____

Project _____
 Hole No. 72-3
 Rotary Fr. 532
 Core Fr. 1372

Page No. 5
 of 7
 To _____
 To _____

Date 9-15-72

Sampled by _____

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assdy by	Sample No.	Cu ppm	Mo ppm	Rock Type	Description
1045	50	5	4.5		90						Arkoseic Qtzite	meta-sed, Ch, Sil, CaCO ₃ & Qtz vnits., py to 3%, v. min. C
1050	55	"	4.7		94	"	"	P-282	1100	2	"	" sch.
1055	60	5	5		100						"	" "
1060	65	"	"		"						"	" "
1065	70	"	"		"						"	" "
1070	75	"	"		"						"	" "
1075	80	"	"		"	"	"	P-283	555	5	"	" " cut by "Q. lat
1080	85	"	4.75		95						"	" bd. of 900' in hole.
1085	90	5	"		"						"	" "
1090	95	5	"		"						"	py v. finly dis to 1.5%, br., flting, inc. in CaCO ₃
1095	1100	"	4.5		90						"	" "
1100	05	"	4.75		95	"	"	P-284	202	2	"	" "
1105	09	4	4		100						Brecciation & Flting. Gouge, CaCO ₃ sec. bio. v. min py. to 1.5%	
1109	16	7	7		"						"	Br. cont. Qtzite & Q. Monz.
1116	20	4	4		"						Q. Latite	sec. bio. ser. py to 1.5%, Ch. some clays.
1120	25	5	5		100						"	" T.S 1121
1125	30	5	5		"	"	"	P-285	245	2	"	" "
1130	35	"	"		"						"	" "
1135	40	"	"		"						"	varies in gr to ph.
1140	47	7	7		"						"	" "
1147	50	3	3		"						Breccia. Lat. Q. meta-sed. incl. clays Ch, Sri. alt to clays	
1150	55	5	5		100	"	"	P-286	124	2	Q. Latite	Ch, Ser. Clays, sec. bio? py dis & al vnits to 2.5% Ca CO ₃ vnits.

SAMPLE AND ASSAY LOG PINAL COPPER CORPORATION

Project 72-3 Page No. 6
Hole No. 7
Rotary Fr. 532 To 1372
Core Fr. 532 To 1372

Collar Elev. _____
Coord. (Survey) _____
Coord. (Grid) _____
Logged by _____

Date 9-16-72 Sampled by _____

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assdy by	Sample No.	Cu ppm	Mo ppm	Rock	Type	Description
1155	60	5	5		100						Qtz.	Latite	Ch. Ser. CaCO ₃ py. dis. at all.
1160	65	"	"		"						"	"	Clay, sec bio?
1165	70	"	"		"						"	"	"
1170	75	"	"		"						"	"	" inc in alt
1175	80	"	"		"	"	"	P-287	197	2	"	"	of feld. alt
1180	85	"	"		"						"	"	" inc of alt
1185	90	"	"		"						"	"	of bio
1190	95	"	"		"						"	"	"
1195	1200	"	"		"	"	"	P-288	86	2	"	"	T. S. 1192
1200	05	"	"		"						"	"	inc. CaCO ₃
1205	10	"	"		"						"	"	"
1210	15	"	"		"						"	"	Qtz. vnlt
1215	20	"	"		"						"	"	"
1220	25	"	"		"						"	"	"
1225	30	"	"		"	"	"	P-289	333	2	"	"	MIN. Pb.
1230	35	"	"		"						"	"	"
1235	40	"	"		"						"	"	"
1240	45	"	"		"						"	"	"
1245	50	"	"		"	"	"	P-290	97	2	"	"	"
1250	55	"	"		"						"	"	Py 19c
1255	60	"	"		"						"	"	to 5%
1260	65	"	"		"						"	"	"
1265	70	"	"		"						"	"	"
1270	75	"	"		"						"	"	"
1275	80	"	"		"	"	"	P-291	149	2	"	"	"

SAMPLE AND ASSAY LOG
PINAL COPPER CORPORATION

Collar Elev. _____
 Coord. (Survey) _____
 Coord. (Grid) _____
 Logged by _____ Sample _____

Project 72-3 Page No. 7
 Hole No. 7 of 7
 Rotary Fr. To
 Core Fr. 532 To 1372

Sampled by _____ Date 9-16-72

From	To	Dist.	Length Core	Wgt.	% Rec.	Sample Type	Assdy by	Sample No.	Cu ppm	Mo ppm	Rock Type	Description
1280	85	5	5		100						Q. Latite	Ch; Ser, clay py dis & al. sec bio? frs to 1.5%
1285	90	"	4-76		95						"	" MINOR flting "
1290	95	"	5		100						"	"
1295	1300	"	"		"						"	"
1300	05	"	"		"	"	"	P-292	136	5	"	" Qtz vnites all of "
1305	10	"	"		"						"	"
1310	15	"	"		"						"	"
1315	20	"	4-75		95						"	"
1320	25	"	"		95						"	"
1325	30	"	5		100	"	"	P-293	110	2	"	"
1330	38	8	7		88						"	" meta-seq, Qtz vnites Ch, Ser, ad 80° to 90° by al bddic to 3%, Arkosic Qtzite
1338	45	7	6-5		93							
1345	50	5	5		100						"	} intruded by diklets of q. latite v. alt ch, Ser, clays
1350	55	"	"		"	"	"	P-294	153	2	"	}
1355	60	"	"		"						"	v. alt Ch,
1360	65	"	"		"						"	Ser, clays
1365	68	3	3		"	"	"	P-295	291	5	"	minor H.
1368	1372	4	4		"						"	"
			Bottom.									
			Note: bottom since NCR.									Hole left capped in good condition.

ESSEX

ESSEX INTERNATIONAL, INC.

1704 WEST GRANT RD., TUCSON, ARIZONA 85705
PHONE (602) 624-7421

November 24, 1971

Mr. Harold Ferrin
P.O. Box 102
Mesa, Arizona 85201

RE: Pinal Copper

Dear Harold,

Per our discussions of last week we propose the following outline as a possible basis of negotiation and for presentation by you to the Board of Directors of Pinal Copper.

Initial Option Period

	<u>Work Commitment</u>
Start of first year	\$ 50,000 would include geology, geophysics, drilling, etc.
Start of 2nd year	65,000 cash payment
Start of 3rd year	100,000 " "
Start of 4th year	200,000 " "

Purchase Agreement

Upon election to purchase a payment of \$1,000,000 for each 100,000,000 tons of mineable ore reserves would be made to Pinal Copper Co. Information confirming the ore reserve estimate would be provided the owners at the time of election. A minimum payment would be made if less than 50,000,000 tons of ore were proven. The schedule would be as follows:

<u>Tons of Ore Proven</u>	<u>Payment \$</u>
0-50 million	500,000
50-100 million	750,000
100-200 "	1,000,000
Over 200 "	2,000,000
Over 300 "	3,000,000
etc.	etc.

Because our initial contact on this property was through Guy Anderson, I am, via a copy of this letter, keeping him informed of our discussions with you.

Mr. Harold Ferrin
Mesa, Arizona

November 24, 1971

-2-

Enclosed is an Essex International, Inc. annual report and some other information on Essex that your Board may find interesting.

Regarding stock options in lieu of cash payments, this would require a corporate policy decision which cannot be determined at this time.

Very truly yours,



E. Grover Heinrichs
Assistant Mgr. Exploration

ESSEX INTERNATIONAL, INC.

EGH:td
enclosures

cc: H. Lanier
P.I. Eimon
Guy Anderson

PURCHASE AGREEMENT PROPOSAL

PINAL COPPER CO.

OPTION PERIOD

Start of 1st Year	-	No Payment
" " 2nd "	-	\$ 65,000
" " 3rd "	-	100,000
" " 4th "	-	200,000

PURCHASE AGREEMENT SUMMARY

With election to purchase, the parties would pay \$1,000,000 for each 100 million tons of minable ore reserves. An announcement at the time of election would establish the reserve figures proven to date. Information confirming the ore reserve estimate would be provided the owners at the time of election. A minimum payment would be made if less than 50,000,000 tons of ore were proven. The schedule would be as follows:

<u>Tons of Ore Proven</u>	<u>Payment \$</u>
0 to 50 Million	500,000
50-100 Million	750,000
100-200 "	1,000,000
Over 200 "	2,000,000
" 300 "	3,000,000
" 400 "	4,000,000
" 500 "	5,000,000
" 600 "	6,000,000
Etc.	Etc.

If at any time additional reserves are proven, additional payments would be made according to the above formula.

PINAL COPPER — OPTION PROPOSAL

OPTION PERIOD

<u>PHASE</u>	<u>PERIOD</u>	<u>BLACK PROPERTY</u>		<u>PINAL COPPER</u>		<u>TOTAL</u>	
		<u>PROPERTY</u>	<u>WORK</u>	<u>PROPERTY</u>	<u>WORK</u>	<u>PROPERTY</u>	<u>WORK</u>
1	3 MO	—	*	—	*	—	25 K
2	9 MO	—	*	—	*	—	100 K
3	1 YR	\$25K		\$100 K		\$125 K	
4	1 YR	\$50K		\$150 K		\$200 K	

ALTERNATE PROPOSALS FOR PURCHASE OR ROYALTY

PLAN I — BUY OUT

PURCHASE AGREEMENT AFTER 3 YR OPTION PERIOD WITH
BUY-OUT PRICE AS FOLLOWS:

\$1,000,000 \$2,000,000 \$3,000,000

PLAN II — RENTAL & ROYALTY

RENTAL WHILE NOT IN OPERATION

\$50K \$100 \$150

ROYALTY 5% NSR ON Cu, Au, Ag, Mo

* DURING INITIAL PERIOD WORK COMMITMENT WOULD
COVER BOTH PROPERTIES.

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Mesa, Arizona

November 24, 1971

-2-

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EGH:td
enclosures

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Guy Anderson

PINAL COPPER — OPTION PROPOSAL

OPTION		BLACK PROPERTY		PINAL COPPER		TOTAL	
PHASE	PERIOD	PROPERTY	WORK	PROPERTY	WORK	PROPERTY	WORK
1	3 Mo	—	*	—	*	—	25K*
2	9 Mo	—	*	—	*	—	100K*
3	1 YR	25K		100K		125K	
4	1 YR	50K		150K		200K	

PURCHASE AGREEMENT — ANNUAL PAYMENTS UNTIL PROPERTY DEVELOPED

4 TH YR,	50K	200 K	250K
5 TH YR	100K	↓	"
6 TH YR	100K	↓	"
7 TH YR	100K	↓	"

ROYALTY PAYMENTS 10% RETAINED INTEREST IN EARNINGS
FROM PORTION OF TOTAL ORE MINED FROM
RESPECTIVE PROPERTIES.

OR,

~~IF PROPERTY NOT DEVELOPED~~ MINIMUM ANNUAL
PAYMENTS UNTIL OPERATIONS START-UP,
100,000 TO BLACKS & \$300,000 TO PINAL.

OPTION FOR BUY-OUT AT END OF
4TH OPTION PERIOD.

\$1,000,000

\$2,000,000



AT TIME OF DEV. 1/2 MILLION

FOR EACH 10,000 TPY PRODUCTION

ESTIMATION OF PINAL COPPER ROYALTIES

ASSUME

ANNUAL PRODUCTION, LBS	50,000,000	100,000,000
TOTAL VALUE, \$	25,000,000	50,000,000
EARNINGS, \$	10,000,000	20,000,000
10% OF EARNINGS, \$	1,000,000	2,000,000
5% ON NSR	1,000,000	2,000,000
25% OF EARNINGS —	\$ 2.5 mega	5 mega.

ESSEX

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50-100 million	750,000
100-200 "	1,000,000
Over 200 "	2,000,000
Over 300 "	3,000,000
etc.	etc.

Because our initial contact on this property was through Guy Anderson, I am, via a copy of this letter, keeping him informed of our discussions with you.

0.286
66/1889 0
132

569
528
410
396
14

66 ASSAY
AV. 0.286% Cu
FOR 530

FIRST 200
33 ASSAY = 1340
AV. 0.42% Cu

0.42
33/13.90
132
20
66
40

13.90 37 25

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History Pinal Copper 4/27/71

~~XXXXXXXXXX~~ (Pinal Copper Co.)

I.

Report on the Greenback Mining Company Oct 24, 1923 F. H. ROYCE

(A) 7 mining claims + 2 fractions in one group

(B) 52 claims taken up around Greenback \approx 1915

(C) (1) Au-bearing gtz veins 5-12' wide cutting andesite & andesite schist - 3 veins striking nearly E-W & dip \approx 50° South.

Veins some degree mineralization known to 96' depth.

Gold values (@ $\frac{1}{2}$ oz) 8.80 to 97.60 / ton Selected samples 1944 to - 428, 1094-90 / ton.

(2) 2 other E-W veins with some Au

II

Report to Greenback Mining Company Los Angeles, California

April 3, 1926 by C. W. BOTS FORD

(A) Company has 70 claims covering veins

(B) ~~Geology~~ - Pinal Schist intruded by gtz monzonite porphyry.

(1) South $\frac{1}{2}$ property porphyry covered by schist (roof) Schist continues several miles to south striking \approx N70°E with dips to South.

(2) Porphyry cut by dikes & apophyses of more "acid" (granite spilites, pegmatites & gtz vein dikes) rocks.

(?)

West $\frac{1}{2}$ high ridge on the Silver Queen claims is hard dense porphyry (Neck of intrusive). Host rock (schists) are intensely silicified.

Intrusion dome shaped with upper surface cut by veins which continue into schist.

Eastern part distinct cut by many small ^{"basic"} dikes; many which follow vein fissures & are younger than mineralization.

(3) 12 + branching vein systems N70°E to N70°W & dip 45°-50° South. - West part property, large vein strikes

FILE MEMO

April 19, 1971

KERR-McGEE - PINAL COPPER

Ed Jones, Exploration Manager, Kerr-McGee, called April 19.

He advised that in conversation with Guy Anderson regarding Pinal Copper, Guy had informed him that we are also interested and Guy suggested that Jones speak to me. Kerr-McGee has done sufficient exploration work on the Pinal to indicate that they are interested in the property.

I suggested to Jones that Kerr-McGee, Essex, and possibly El Paso Natural Gas may make logical partners in joint exploration on the Pinal property. El Paso, Kerr-McGee and Essex are the three companies that are currently interested in the property; thus a joint approach could reduce competition and make a lower cost entry possible. Joint development also would reduce dollar risks involved in the exploration.

It is my intent on projects of this type to spread the risk of capital investment but retain control of all the copper produced plus the dollar return on our equity.

H. Lanier



cc: P.W. O'Malley
J.R. O'Hare
Kerr-McGee file

*NOTE : MET WITH GARTH BLACK 4/20/71
REGARDING HIS PROPERTY ADJACENT TO THE
PINAL. SEE FILE MEMO.*

F

April 26, 1971

TO: H. Lanier
FROM: P. Eimon
SUBJECT: Pinal Copper

I talked to Charles Sewell and he agreed to gather this week, all of the available data concerning the Pinal Copper property. He will present this data to me on Thursday or Friday.

Since some of this data will be of a confidential nature, he will present it in the form of notes and oral discussion from which I will produce an informal report on results of previous drilling and exploration work by other companies on the Pinal prospect.



P.I. Eimon

F
Pinal
BENTON BLAKE ATTY FOR PINAL.

BOARD.

TED HOPKINS. - PRESIDENT.

MARVIN LARSON

JIM ARMS. (M.I.N.N.).

GEO. WILSON (CHICAGO ATTY)

CRONNEWIT (GEOLOGIST (AS GRANT)).

1.4 MILLION SHARES OUTSTANDING.

PAR VALUE 50¢

WILSON & HOPKINS OWN OR CONTROL $\frac{2}{3}$ OF STOCK

120 STOCK HOLDERS.

Est 30-40K SHARES BY STEVEN BLACK

Black has wanted to merge
Pinal offered to negotiate jointly.

GUY HAS CONTRACT TO REPRESENT OWNERS.

FILE MEMO

April 20, 1971

PINAL COPPER - GARTH BLACK

Paul Eimon and I met with Garth Black and James H. Russell April 20, 1971 to review their holdings in the Pinal Copper area.

There has been some realignment in the relationship of Garth Black and other parties. Steve Black, Garth Black, and J.H. Russell (a real estate broker from Kansas City) are co-holders of a company called Russ-Lee Inc., an Arizona corporation. In addition to real estate held in Kansas City this corporation holds the mining property in the Papago Reservation shown in yellow, green and red on the mine map that they supplied. They also have organized Lee Explorations Inc. which holds approximately 5% of the Pinal Copper stock and an additional area of 25 claims coded in blue on the property map. These claims are adjacent to the Pinal Copper. This company also includes a Holiday Inn in Corpus Christi, Texas. Garth Black is president of both corporations and Steve Black is on the board.

Black was proposing that they gain control of 51% of Pinal Copper with the intent of delivering it plus their holdings to Essex. I advised them that we are currently negotiating with Guy Anderson who represents the owners and we prefer that he not initiate action with the stock holders until we have had a chance to assess our ability to reach an agreement with the owners. I am to meet with Black prior to my next meeting with Guy Anderson.

In a discussion regarding the property option arrangement I suggested a one year entrance-free option with a work commitment with a payment for the next year and a larger payment for the initiation of the third year. Although I recommended a buy-out, I did indicate a willingness to consider a retained interest if the property payments were less. Both Black and I are to consider proposals which we will discuss at our next meeting.

Black reported that Kerr-McGee had offered the Pinal owners a \$50,000 entrance and payments of 1/2 million dollars per year. He claims that he can substantiate this with documents. Kerr-McGee has done some work on the property and must know considerably more than we are aware of.

Handwritten signature

H. Lanier

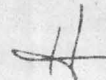
FILE MEMO

April 19, 1971

EL PASO NATURAL GAS
RE: PINAL COPPER

Called C.L. Perkins, Senior Vice President of El Paso Natural Gas, in regard to his interest in Pinal Copper.

Perkins advised me that they have had an interest and have held some position with Pinal Copper, holding a small percentage of the Pinal Copper stock. He was not aware that the litigation on Pinal had been resolved but indicated that he would check with the geologist who had been handling the investigation. He stated that he would consider the possibility of a joint venture with Kerr-McGee and Essex. This of course would be predicated upon the staff's report of the position of Pinal as an exploration target. He is to call back once he had made a review.



H. Lanier

cc: P.W. O'Malley
J.R. O'Hare

File
Pinal Copper

Aug 20

July 22, 1970

TO: H. Lanier

FROM: E. G. Heinrichs

Copper Coin

E.G.H. phoned Guy Anderson July 13, 1970. Guy said the Copper Coin people backed out of a deal with him and so he is not interested in the Copper Coin anymore.

Y. Grover
Can you find
out who owns.
possibly we
can deal with
them

Greenback

The Greenback is still tied up in litigation. Guy Anderson suggested Essex paying off the third party. I countered to say that we do not at the moment have any idea of the value of the property. We are at the moment trying to develop some info.

We plan to send a man to the field for two or three days to develop a feel for the property, and also search the files and contact Harold Ferrin, former president of Pinal Copper Co., who reportedly has much data on the property.

I know Ferrin personally and, confidentially, I suspect that most of his information will not contribute much but we should make an effort to evaluate the data, nevertheless.

E. Grover Heinrichs

EGH:td

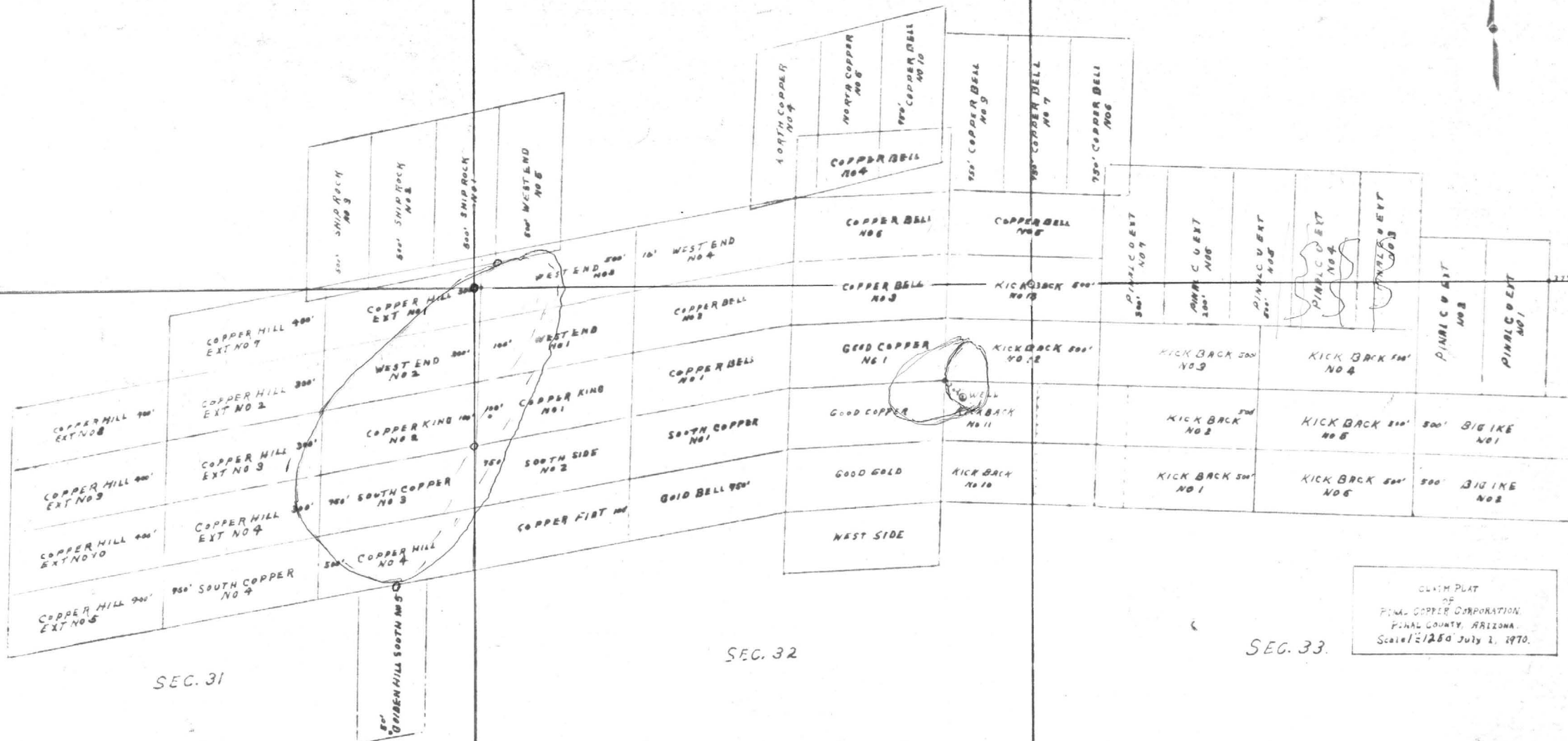
cc: D. Cooley
C. K. Chase

Review in
Dunn.
Y. Grover
Did you do this

SEC. 30

SEC. 29

SEC. 28



SEC. 31

SEC. 32

SEC. 33

R.2 E. G.S.R.B.M.

Green back
~~North Star Proj.~~
Rt. Indian Leases
Vernon Smith
299 6276

5-7-70

- ① Prospecting Permit \$10.00
2000 bond
- ② Meet with Berger & Smith
negotiating

Non exclusive Prospecting Permit
Set of 4
Send to V. Smith

Tribal Chairman

Tou Segundo

Lucero Supt.

3884351

①

640 3000
 25 00 2520

Don Hammer

385 4138

\$10⁰⁰/ft.

Papago

600

Vernon L. Smith

~~887 8575~~

Edward B. Berger

299 6276 home

Edward B. Berger

623 6355

Transamerica Bldg. Suite 500

Vernon B. Smith

299-6276

Greenback

Pinal Copper Co.

MARVIN LARSEN Phx. Engineer
60 American Engineering 279 9369

Benton^{L.} Blake Phx. Lawyer
258 8483 Legal Coun.
2200 N. Central Ave
Phx. 85004

Next Monday will pursue appeal

Memo

8-18-70

PINAL Copper

HAROLD FERRIN 1-9851760

P.O. Box 102

Still in court

Mesa AZ. 85201

Heard in Oct.

Case reopened

Green Back

Southern Pinal Copper Co.

Black Bros. - Tempe