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James Doyle Sell Mining Collection

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September 26, 1991

FILE NOTE

Four Metals Breccia Pipe
Sec. 29 (unsurveyed)
T23S, R16E
South Patagonia Mountains
Santa Cruz County, Arizona

Richard D. McNeely (ex Reno Mgr. for Western States Minerals Corp.) (Reno 702/677-0740) and Jeffrey R. Ward (Tucson 602/797-0187) of Metallic Ventures Inc. have taken a lease on the Four Metals Mine and hope to have it in production soon.

They claim: 10,000,000 tons at 0.74% copper, with 1.8/1 stripping ratio which may be lowered if the undrilled cap has enough ore which is not in present reserve; with 0.035% Mo, and 0.4 opt Ag. They intend to drill the cap.

They said it was chalcocite and easily leachable, but they also talked about a 5000 tpd mill for better recovery. The 1950's Asarco reports suggest the mineral is mainly chalcopyrite with only minor chalcocite being formed.

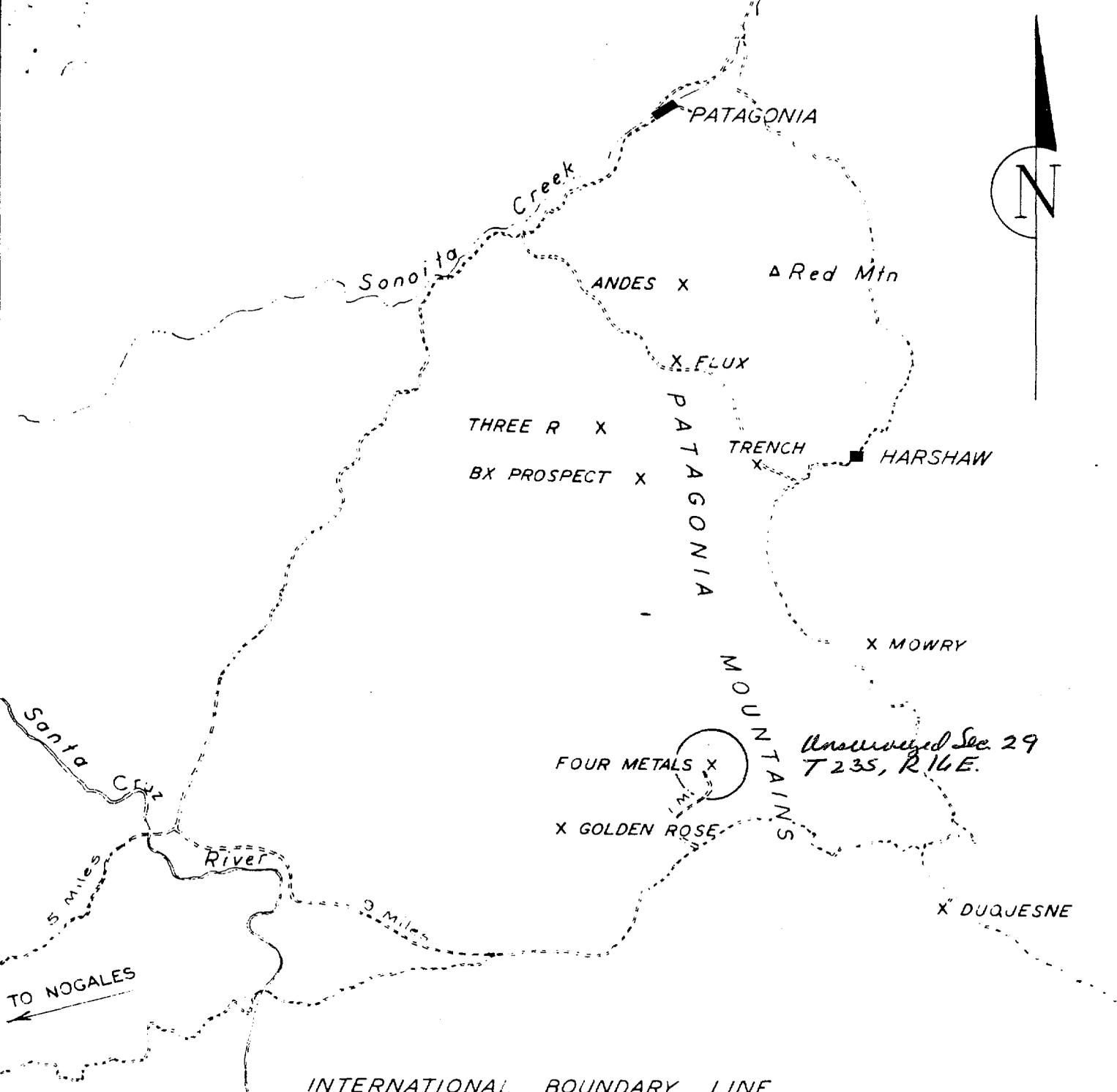
They have the Duval Sulphur drill data as well as Iso Mines (Four Metals), etc., and have been underground, but I'm not sure they have fully investigated the mineralogy and its relationship to copper recovery.

Texas money is behind them, but they are looking for Asarco, Cominco, etc. to take it off their hands.

JDS:mek

cc: W.L. Kurtz
S.A. Anzalone


James D. Sell



INTERNATIONAL BOUNDARY LINE

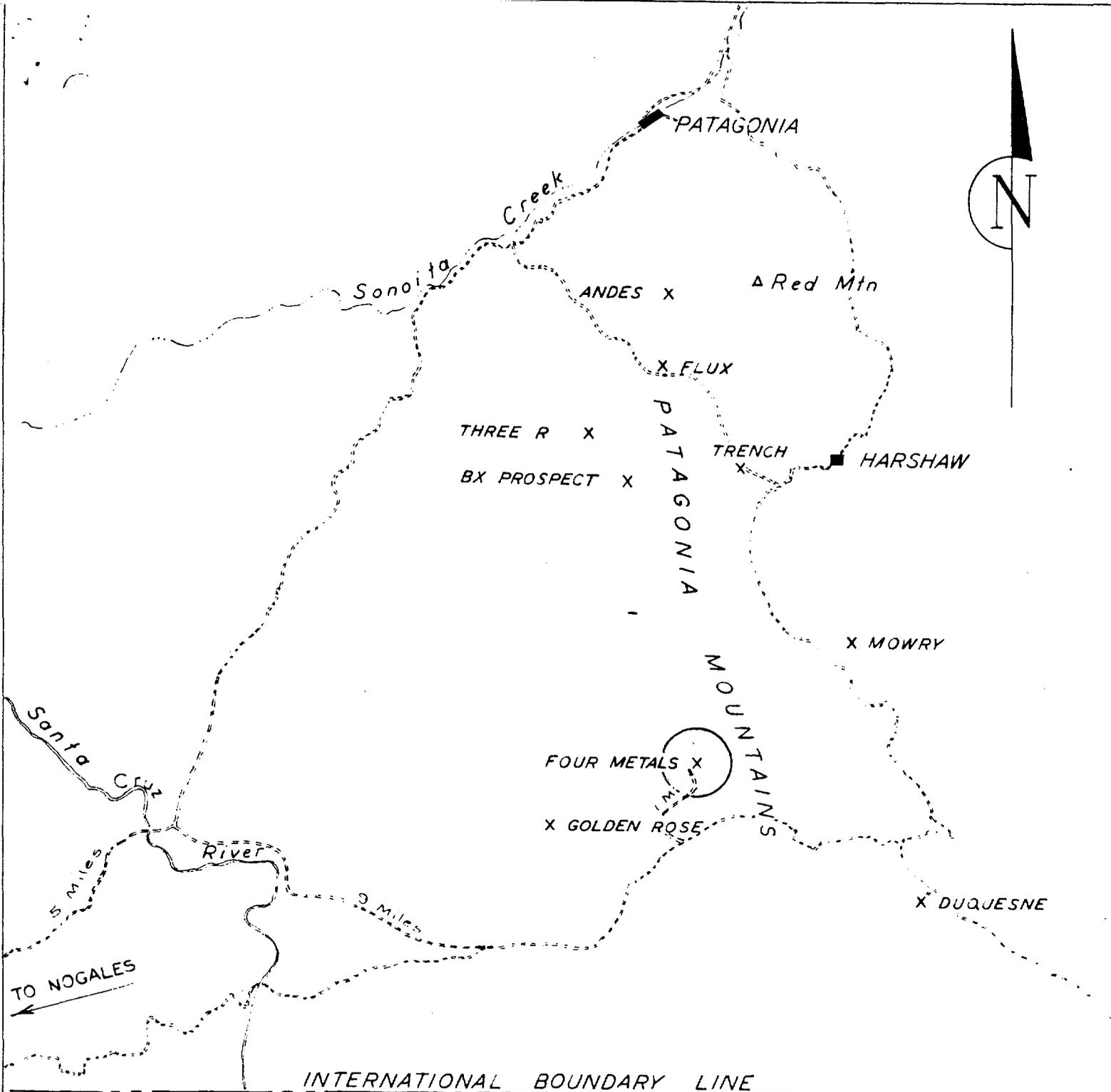
MEXICO

Report
June 8, 1951
J. H. Courtwright

LOCATION MAP
PATAGONIA MOUNTAINS
SANTA CRUZ COUNTY, ARIZONA

SCALE 1 INCH = 2 MILES

AFTER U.S.G.S. TOPOGRAPHIC MAP - DATED 1914



INTERNATIONAL BOUNDARY LINE

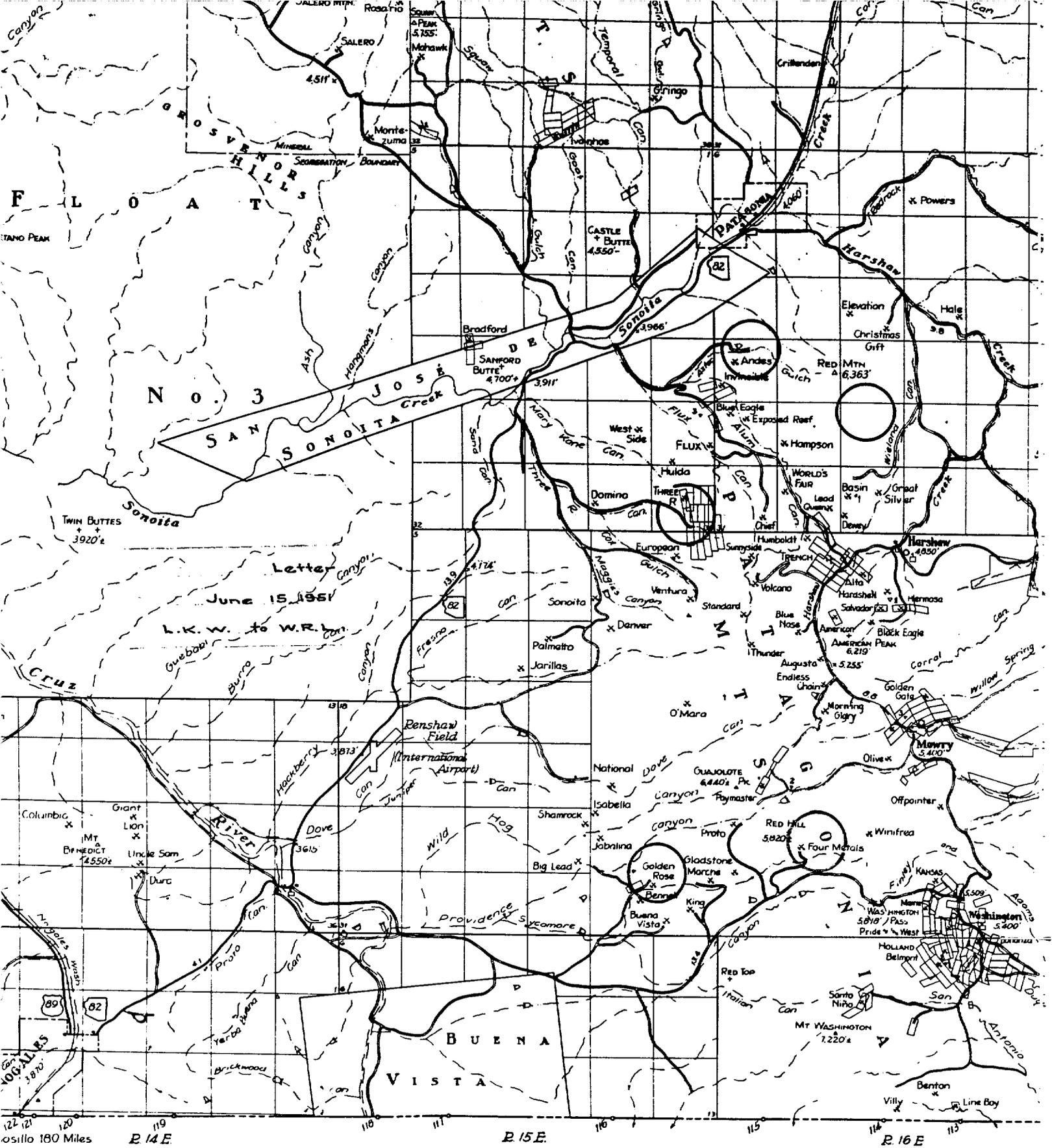
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LOCATION MAP
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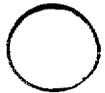
AFTER U.S.G.S. TOPOGRAPHIC MAP - DATED 1914



INDEX MAP

1" = 2 miles

See also with Mr. Tourgeant's memo on Dis-minated Copper Prospects, Pariaqui Area. June 12, 1950.

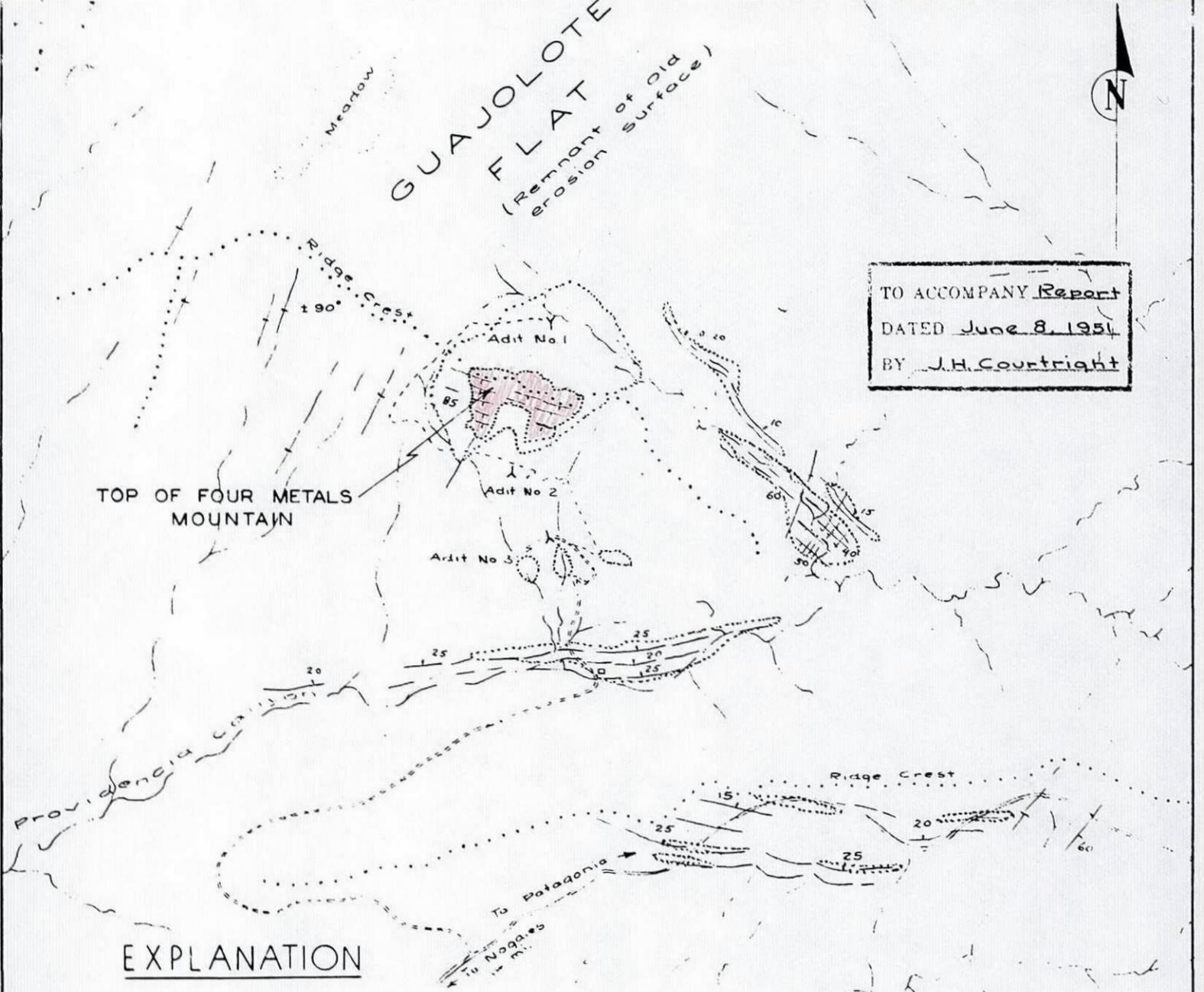


GUAJOLOTE FLAT

(Remnant of old erosion surface)



TO ACCOMPANY Report
 DATED June 8, 1951
 BY J.H. Courtright



EXPLANATION

Country rock is QUARTZ MONZONITE with a few partially digested blobs of diorite.

 Area of prominent outcrops of breccia. Represents zone of strongest quartz-sericite and copper mineralization.

 Extent of disseminated sulphide mineralization — essentially pyritic. Characterized by argillic type alteration in weakly brecciated or shattered rock.

 Fresh or slightly altered monzonite

 Mineralized shears — widely spaced seams of pyrite-chalcopyrite marked by thin quartz-sericite zones, leached near surface.

Areal Geologic Map FOUR METALS DEPOSIT and Vicinity

Santa Cruz County, Arizona
 AMERICAN SMELTING AND REFINING CO.

Drainage pattern from aerial photograph mosaic
 Breccia pipe and outline of mineralization reduced from 200 scale map No. 931

SCALE 1" = 1000'

J. H. COURTRIGHT

MAY, 1950

Map No. 930

Bagby Ranch

Pay Spr

75

Guajolote Flat

6112

Jackalo Mine

Red Hill

Winifred Mine

Four Metals Mine

Unsurveyed Section 29
T23S, R16E

Providencia

Sycamore Canyon

Finley and

Canon 7 1/2'

Cumero

Nogales 15 miles

140 000 FEET

31° 22' 30"

110° 45' 24"

870 000 FEET

26

27

42' 30" 28

Mapped by the Army Map Service
Edited and published by the Geological Survey
Control by USGS, USC&GS, and USCE

Topography from aerial photographs by stereoplanigraph methods
Aerial photographs taken 1946. Field check 1948
Revised by the Geological Survey 1958

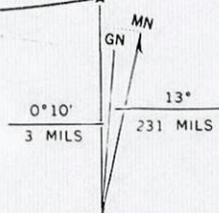
Polyconic projection. 1927 North American datum
10,000-foot grid based on Arizona coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks,
zone 12, shown in blue

To place on the predicted North American Datum 1983
move the projection lines 9 meters south and
62 meters east as shown by dashed corner ticks

Unchecked elevations are shown in brown

There may be private inholdings within the boundaries of
the National or State reservations shown on this map

Hawshaw 7 1/2'



UTM GRID AND 1958 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

Duquesne 7 1/2'

MINO SPRINGS
3886 N SE