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JDS

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MANAGER
ROCKY MOUNTAIN EXPLORATION DIVISION

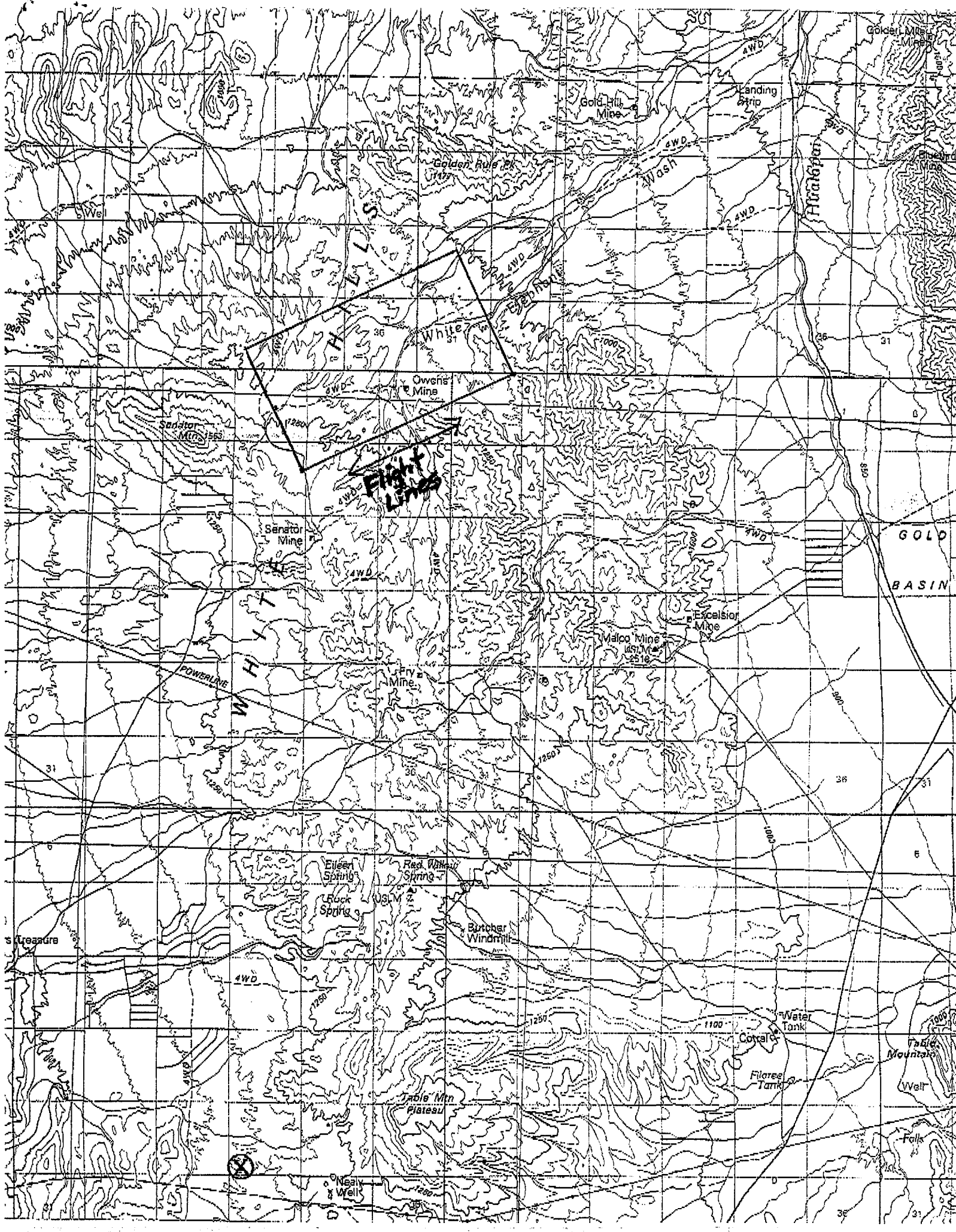
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OWENS MINE
MEM flight Lines
proposed 4/30/91

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FIGHT LEAS

**GOLD
BASIN**

POWERLINE

W
T
M

4WD

1100

Water Tank

Corral

Filices Tank

Table Mtn Plateau

Table Mountain

Well

Falls

Nealy Well



744 17° 30" 745 746 747

350 000 Feet 14' 10"

TOTAL P. 03

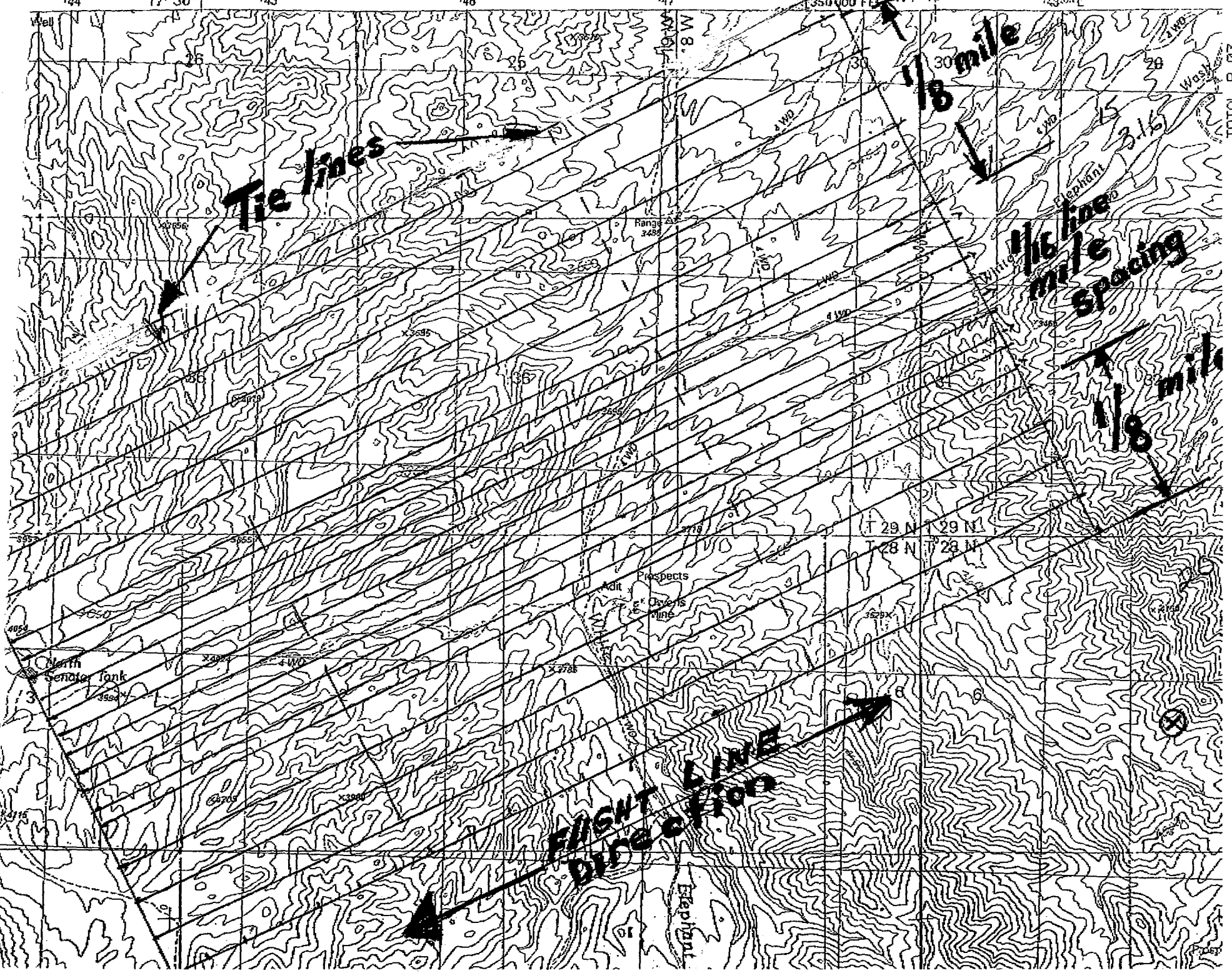
Tie lines

1/8 mile

1/6 mile
Spacing

1/8 mile

RIGHT LINE
direction



FEDERAL EXPIRES

4/25/91

FROM: W. L. KURTZ

TO: C. Windels

Owens Mine Area
Gold Basin Area
Mohave County
Arizona

Enclosed:

- 1] AMS sheet showing location
- 2] 7 1/2 minute quad showing outline of proposed survey area (approximately 3 square miles)
- 3] Road map with location

The area is controlled by a gently dipping to the northwest detachment fault which outcrops essentially as shown on the 7 1/2 quad. The hanging wall, except right next to the fault outcrop, is veneered with gneiss and Tertiary volcanics. The best guess is that the mineralized feeder zones would trend NS to NW and contain the best intensity of mineralization. Therefore Northwest flight lines may be best even tho' they will parallel the detachment fault.

J.D. Sell is presently review previous drill results. We will phone you any changes or, Tho unlikely, notice no survey needed.

cc. Note Only J.D. Sell, R.C. Brown

AMERICAN COPPER & NICKEL COMPANY, INC.

Western District Office
#24 Glen-Carran Circle
Sparks, Nevada 89431
702-331-7331

March 13, 1991

Russell Corn
8425 Desert Steppes Dr.
Tucson, AZ 85710

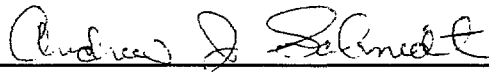
Dear Mr. Corn:

As per the request of our District Manager Mel Lahr, enclosed are two (2) ACNC reports for the Owens Property, Mohave County Arizona.

We are pleased we were able to accommodate your request. Good luck in your future exploration endeavors.

Sincerely,

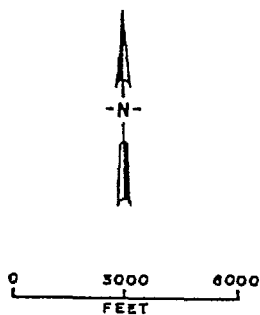
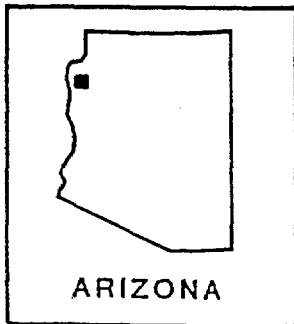
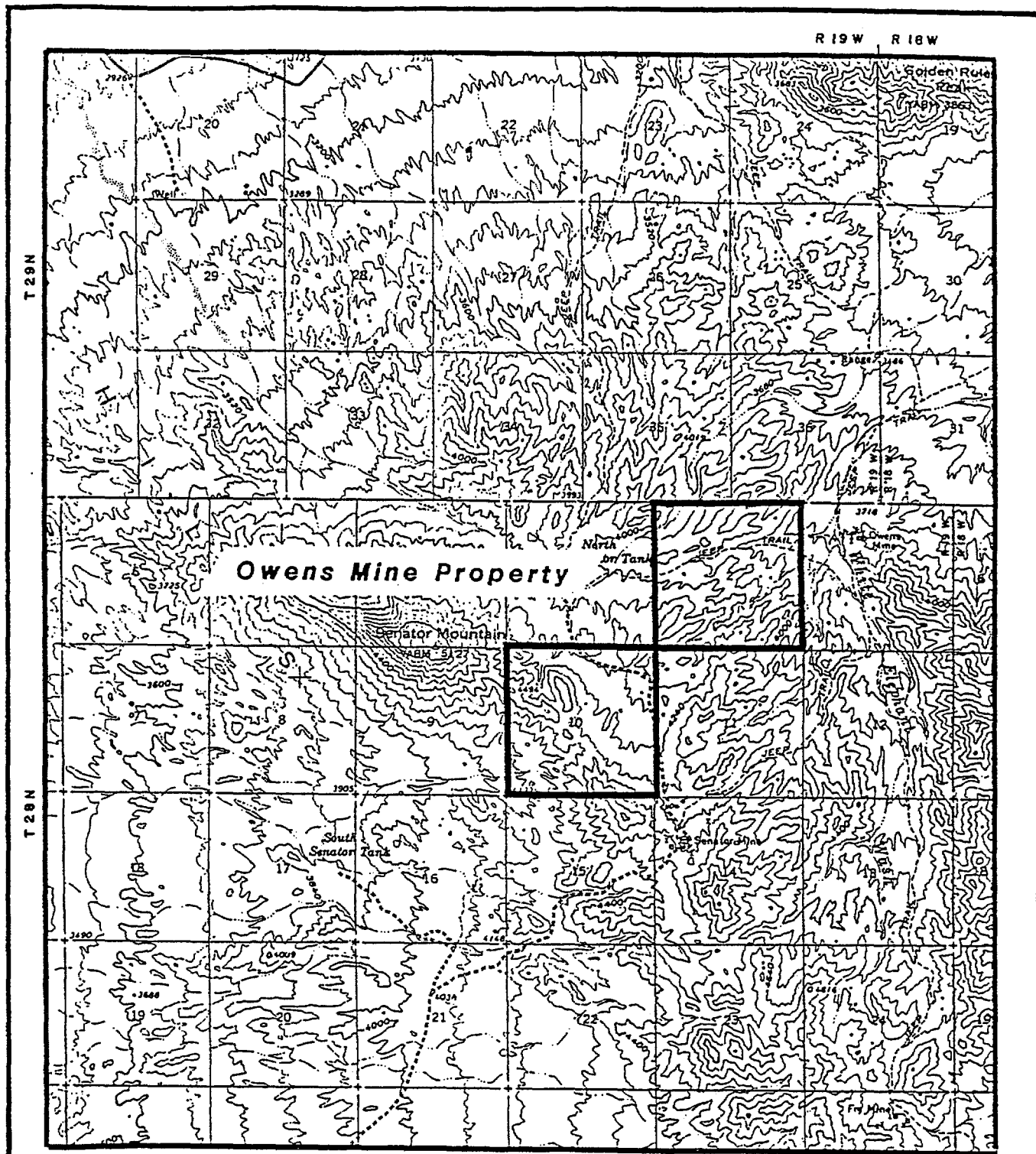
AMERICAN COPPER & NICKEL CO., INC.

By 
Andrew J. Schmidt
Associate Landman

enc.

xc: Mel Lahr
File no. 603.008.0018

Owens Mine.
Background Info.
ACMC Rept Feb 1987



American Copper and Nickel Company, Inc.
ACNC-NDCO

**PA JOINT VENTURE III
Owens Mine Property**

Mohave County, Arizona

Figure 1.

PROPERTY STATUS

The property consists of thirty-six (36) unpatented federal lode mining claims on BLM-administered federal land and one leased state section. The property was acquired by Mapco Minerals Corporation as part of a larger property which included one additional state section, two additional staked federal sections, and a 160-acre private lease. These lands were subsequently dropped by ACNC in late 1985. Recordation information for the property is listed below:

<u>Section</u>	<u>Claims/Lease</u>	<u>BLM Serial No.</u>	<u>Location Date</u>
10	BF 1-36	AMC 226267-226302	6/11/84
2	AZ Permit #86368		6/22/84

The property was acquired by Nerco Minerals through their Mapco-DeLamar Silver Mine acquisition in 1984. In April, 1985, the property was acquired by ACNC as part of the PA Joint Venture. ACNC can earn a 50% interest in the property by funding \$400,000 of exploration costs by the end of 1988. To date, \$115,000 has been expended on the property.

In 1986, a work commitment of \$55,000 was required for the property to remain in the joint venture under provisions of the original joint venture agreement. However, discussions are ongoing with Nerco regarding reducing this commitment or including the Owens property into the RM joint venture. This includes the 1986 rental and assessment requirements for the State lease. These requirements total \$13,550. The state also retains a 5% NSR production royalty for section 2. An expenditure of \$25-30,000 is planned for 1987.

HISTORY

Production from the Gold Basin mining district is variously estimated at 6,000 oz. gold and 5,000 oz. silver from six mines (Theodore, 1982 and Butler, 1933). These mines contained small tonnages of free milling, gold-quartz ores with an average grade of 0.5-3.0 oz/ton gold. The most productive of these, the Cyclopic mine, is located about four miles south and is the closest both spatially and geologically to the Owens Mine property.

The Owens Mine (Section 1), formerly under joint venture control, is reported to have been a small copper, iron and possibly gold producer (Theodore, et al, 1982). No production records are known for the mine but Mapco reports indicate less than 1,000 tons of ore were taken.

Prior to being acquired by NERCO, Mapco Minerals Corporation became interested in the southern Gold Basin area and acquired the current Owens Mine property. Their work concentrated on the Owens Mine where they drilled 46 holes and calculated 385,000 tons of 0.026 oz/ton gold. Four additional holes were drilled in Section 2 to test the western extension of mineralization. Mapco also completed geological mapping (1:12,500) and limited rock sampling over the remainder of the properties.

To expand upon Mapco's work, ACNC has completed geological mapping at 1:6000 scale across the properties, taken 56 rock samples, 856 soil samples, completed IP and magnetic surveys and drilled 1,375 feet in four rotary holes.

As a result of 1985 work, ACNC has narrowed the area of interest to just two of the former Owens Mine properties (Section 2 & 10). All other properties including the Owens Mine, reverted back to Nerco Minerals. Negotiations with Santa Fe Minerals for Section 3 (adjacent to section 2 and 10) were suspended in 1986 when Santa Fe would only J. V., and not option, the ground. Hence, the terms were not acceptable to ACNC. No other work was done in 1986, as sufficient monies were spent in late 1985 to satisfy state and federal assessment requirements.

REGIONAL GEOLOGY

The Gold Basin mining district is within the Basin and Range province less than 20 miles west of the Colorado Plateau. Proterozoic X (1.75 g.a.) gneisses are the dominant rock type throughout the district. Lithologies include mostly quartzo-feldspathic gneiss with lesser cordierite gneiss, biotite-garnet-sillimanite schists and amphibolite. Intruding the gneiss are several upper Cretaceous leucocratic granitic stocks, described as two-mica monzogranites (Theodore, et al, 1982). Associated with the intrusives are numerous pegmatites and quartz veins.

The oldest Tertiary rocks in the district are rhyolitic tuffaceous sediments and conglomerates which crop out to a limited extent in the southern portion of the district. Overlying these rocks is the widespread Miocene-Pliocene Muddy Creek Formation which consists of conglomerate, claystone, mudstone, basalt tuff and an upper carbonate member. Muddy Creek Formation conglomerates overlie large areas of Precambrian gneiss across the district. Tertiary-Quaternary gravels cover large sections of the district, occurring as dissected alluvial fans and unconsolidated sediment.

The gneisses exhibit intense folding and locally shearing and cataclasis, resulting from several episodes of deformation, which may range in age from Proterozoic to Tertiary. Miocene east-west extension resulted in the high-angle normal faulting which defines the Basin and Range topography observed today. A seven-mile long, low-angle structure occurring in the southern portion of the district is defined as a Miocene detachment fault by the USGS (Theodore, et al, 1982). The Cyclopic Mine (four miles south-east of the property) and several prospects occur along the structure, which crosses the Owens property in Section 10. The structural zone contains pervasive iron-oxide staining, gouge zones, shearing and zones of brecciated quartz.

Mineralization in the Gold Basin mining district is hosted by Proterozoic to Cretaceous quartz veins and by brecciated quartz associated with the Miocene detachment fault. Mineralization varies but typically includes gold with pyrite, ferroan calcite, galena, and chalcopyrite. Free gold reportedly occurs with fluorite-bearing veins in the area (Theodore, et al, 1982). In addition to the vein occurrences, placer gold occurs throughout the region. Myers (1984) states that mineralization ranges in age from Cretaceous to Tertiary, and that some of the mineralization associated with the low-angle fault is Tertiary in age and associated with iron alteration.

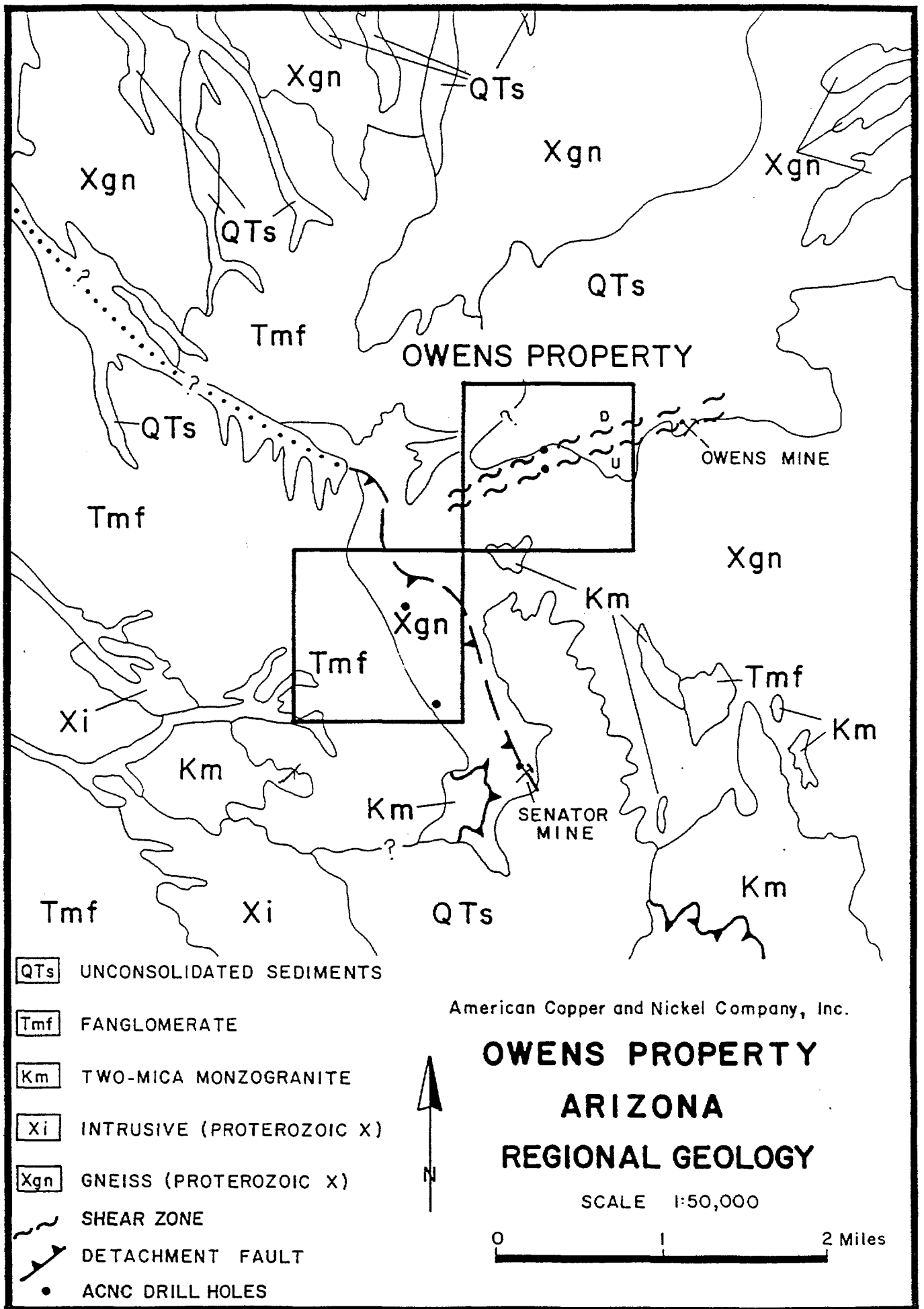


Figure 2.

PROPERTY GEOLOGY

The most notable features within the property are structural zones manifested as color anomalies due to iron-oxide staining and zones of shearing and cataclastic fracturing of the rock. Section 2 contains a west-trending zone, dipping 50 degrees to the north, and section 10 contains a shallowly dipping structure which is the Tertiary detachment fault.

Section 2

The northern third of the section consists of unconsolidated Quarternary gravels and the southern two-thirds consists primarily of Precambrian gneiss. A Cretaceous leucogranite, (reported to be two-mica, Theodore, et al, 1982) intrudes the gneiss in the southwestern portion of the section. Numerous pegmatites occur within one-half mile of the intrusive.

The gneiss and Quarternary gravel are separated by a high-angle normal fault(s) trending east-northeast and dipping approximately 50 degrees to the north. This fault is the western extension of the mineralized structural zone at the Owens Mine (Section 1). A zone up to 1,500 feet wide south of the fault, within the footwall, contains gneisses that are sheared and contain iron-staining, propylitic alteration, mafic dikes, quartz veining and scattered copper mineralization. The mafic dikes are 3-20 feet wide and generally trend north-northwest, parallel to regional foliation. The dikes are presumably Cretaceous or younger in age.

Quartz veining up to three feet in width occurs in this structural zone along with altered gneissic wallrock. Samples of these veins and altered zones contain up to 60 ppm gold, often associated with iron-oxides, chalcocite and copper carbonates.

Section 10

The west half of the section consists of unconsolidated Quaternary gravels overlying Muddy Creek fanglomerate. The east half contains predominantly Precambrian quartz-feldspathic gneisses. The regional low-angle structure (detachment fault, Theodore, et al, 1982) trends northerly through the east-central portion of Section 10. Coincident with the fault is a wide zone of abundant iron-oxide coloration, shearing, moderate-to-low-grade propylitic alteration, mafic dikes and scattered quartz and gouge zones. The mafic dikes are similar to those in Section 2.

Quartz occurs within the structural zone both as steeply dipping veins and masses of brecciated quartz. Most of the veins are massive white quartz although two veins have been found which contain quartz, secondary K-spar, sooty iron-oxide, calcite, siderite, and barite. The masses of brecciated quartz often contain iron-stained silica between breccia fragments and is similar to the auriferous quartz at the Cyclopic mine. Most samples of the brecciated quartz in Section 10 contain less than detection (70 ppb) values for gold, but a few sample contain up to 0.8 ppm gold.

RESULTS

Geochemistry

A total of 56 rock chip samples, 19 stream sediment sample, and 856 soil samples were collected on the Owens Mine properties (including properties dropped) in 1985. Of the 29 rock samples collected from currently held properties, values ranged from below detection (22 samples) to 60 ppm. Of the 673 soil samples collected, the highest gold value is 550 ppb (in section 2). Several anomalous (greater than 50 ppb) areas were defined by soil sampling, but the majority of high values are surrounded by background values (<2-20 ppb). The largest anomalous area (1,000 feet x 2,000 feet) is associated with the high-angle fault zone in section 2.

Geophysics

About six line-miles of IP and magnetic surveys were conducted on sections 2 and 10. Results are generally inconclusive and only weakly reflect changes in lithology.

Drilling

Four reverse circulation drill holes totalling 1,375 feet were drilled in November, 1985. Two were drilled in section 10 and were targeted to intercept the detachment zone in areas of iron staining and quartz veining. Slightly anomalous gold mineralization was intersected (up to 0.34 ppm). In section 2, two holes were drilled into the footwall of the east-west-trending fault zone. Both holes were collared in an area containing 50-550 ppb gold in soil samples. Anomalous gold was intersected in both holes. The highest value encountered is 0.96 ppm over 5 feet, within a 30-foot interval assaying 0.62 ppm gold.

Owens Mine
Background Info
ACNE Rept June 1987

SUMMARY

A total of 665 feet of reverse circulation rotary drilling in three holes was completed within the northeast quarter of Section 2 of the Owens Project Area during May, 1987. The holes were designed to test a gravel-covered portion of the major east-west fault zone in Section 2. This fault zone contains low-grade gold mineralization over about a mile of strike length, based on Mapco and ACNC drilling and sampling. Results of 1987 drilling indicate that gold mineralization does continue locally under gravel cover but at very low grades. DH 76001 intersects several 15-55 foot zones containing 0.05-0.17 ppm gold. DH 76002 values are all below detection, and DH 76003 contains four five-foot samples with 0.03-0.18 ppm gold.

With both the exposed ground and gravel-covered areas of Section 2 well tested, all portions of the original Owens Mine Property have now been deemed of no further interest. It is therefore recommended that the ACNC-NERCO PA Joint Venture be terminated.

INTRODUCTION

This report summarizes results of reverse circulation rotary drilling conducted within the Owens Mine Project Area during 1987. A review of regional and property geology and previous work conducted by ACNC is included in Results of Exploration During 1985, Owens Mine Property, December 1985, by Steve Mornis.

A total of 665 feet of drilling in three holes was completed between May 14, 1987 and May 21, 1987. The original proposal called for between 1,000 and 2,000 feet of drilling, but equipment problems and bad ground forced the abandonment of two 500-foot holes at approximately 100 feet each.

JUSTIFICATION

Drill holes in the main Owens Mine area (northwest quarter, section 1) and in central portion of section 2 have intersected disseminated gold mineralization in the footwall zone of the high-angle, east-west structure. At the Owens Mine, several Mapco holes contain up to 20 feet of 0.09 oz/ton gold, and ACNC's 1985 DH 72888 in section 2 contains 30 feet of 0.018 oz/ton. The exposed footwall gneisses between the two drilled areas commonly exhibits shearing, iron staining and propylitic alteration with extensive gold in soil anomalies (50-200 ppb). Rock samples from the zone contain up to 60 ppm gold but only in thin-quartz-copper veinlets. Chip samples of altered iron-stained gneiss contain background gold values.

The only area of Section 2 remaining with possible potential for higher grade, near surface mineralization is the gravel-covered projection of the footwall zone in the northeast quarter of Section 2.

1987 DRILL RESULTS

DH 76001, TD 455 feet, 11100N, 14300E, Bearing 160°, Dip 48°, (Figure 3)

Drill hole 76001 was drilled to test the intersection of the main east-west fault with a northeast trending cross fault below gravel cover. Both faults have coincident gold in soil anomalies which terminate at the gravel contact.

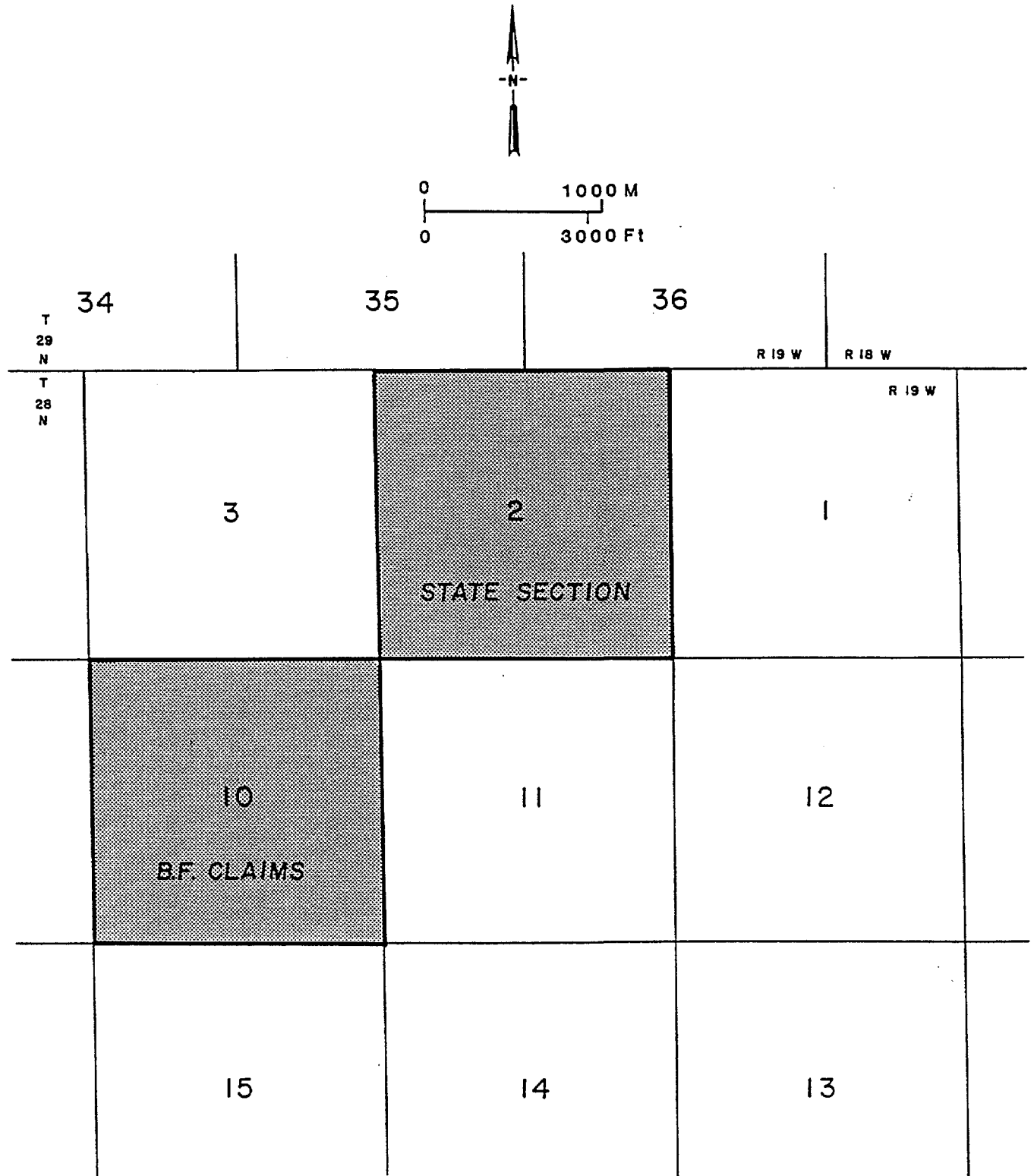
The hole encounters 132 feet of feldspar-quartz-biotite-hornblende gneiss within the hanging wall. The major east-west fault zone is intersected between 132 and 134 feet and consists of limonite-rich clay gouge. Below the fault zone (134-363 feet) are footwall gneisses, schists and a mafic dike (263-278)). The cross fault is intersected at 363 feet and also consists of limonite-rich clay gouge. Below this fault, to 455 feet, the hole intersects biotite schist and felsic gneiss.

Results of previous drilling have indicated that the hanging wall is not enriched in gold. This is confirmed in DH 76001 where the 132 feet of hanging wall gneiss contains less than detection limit gold values. From the fault down through the footwall, the hole contains slight gold enrichment with values ranging from below detection to 0.3 ppm. The best intervals are 0.16 ppm/75 feet, 0.17 ppm/28 feet and 0.14 ppm/55 feet with no distinguishing lithologic features noted.

American Copper & Nickel Company, Inc.

OWENS MINE PROPERTY CLAIMS

Mohave County, Arizona



June 1987

Figure 1.

DH 76002. TD 100 feet, 10700N, 15250E, Bearing 160°, Dip 54°, (Figure 4)

Drill hole 76002 was designed to test the southern portion of the foot-wall zone which hosts three anomalous rock samples (60.0, 0.45 and 0.16 ppm gold), several +50 ppb soil anomalies and scattered quartz vein subcrop. The hole is collared in Quaternary gravel. A total depth of 300-500 feet was intended for the hole, but bad ground forced abandonment at 100 feet.

DH 76002 encounters five feet of Quaternary gravels before intersecting 67 feet of feldspar-quartz-biotite-hornblende gneiss. A clay-rich fault zone occurs from 67 to 70 feet. Below the fault is another ten feet of gneiss and twenty feet of mafic dike to the bottom of the hole.

Gold values are below detection level throughout the hole.

DH 76003, TD 110 feet, 10300N, 14900E, Bearing 160°, Dip 55°, (Figure 5)

DH 76003 was drilled to test the east-west fault in an area with extensive gravel cover. Several Mapco holes drilled to the northeast of 76003 were barren but are believed to have been collared within the hanging wall. The total depth of DH 76003 was intended to be 300-500 feet, but bad ground forced abandonment after 110 feet of drilling.

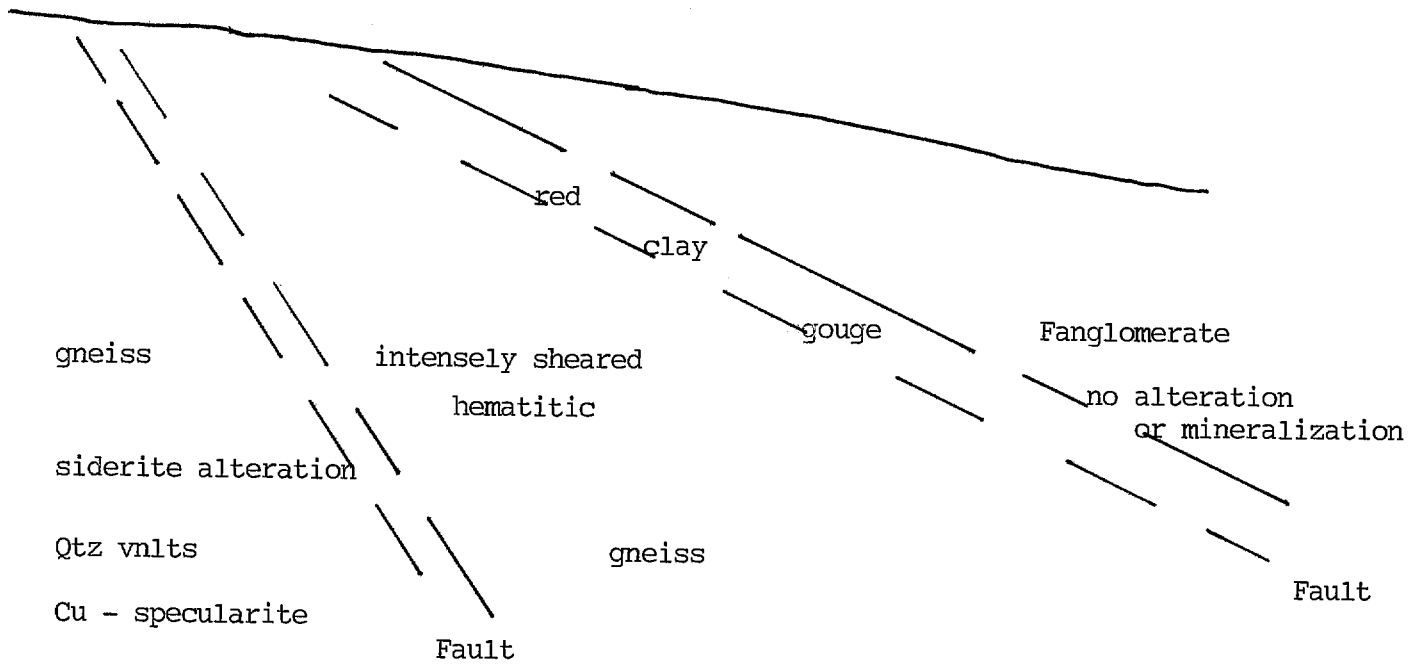
The upper 25 feet of the hole consists of unconsolidated Quaternary gravel. From 25 to 40 feet are highly weathered gneisses with abundant limonite-rich clay and 10% quartz veinlets. Below the weathered gneisses, to the bottom of the hole are mafic and felsic gneisses with between 1% and 20% iron oxide coloration.

The upper gneiss with limonite-rich clay and quartz veinlets is slightly enriched in gold with three 5-foot samples containing 0.03, 0.12 and 0.05 ppm. Values throughout the remainder of the hole are below detection, except from 50-55 feet with 0.18 ppm gold.

DISCUSSION AND RECOMMENDATIONS

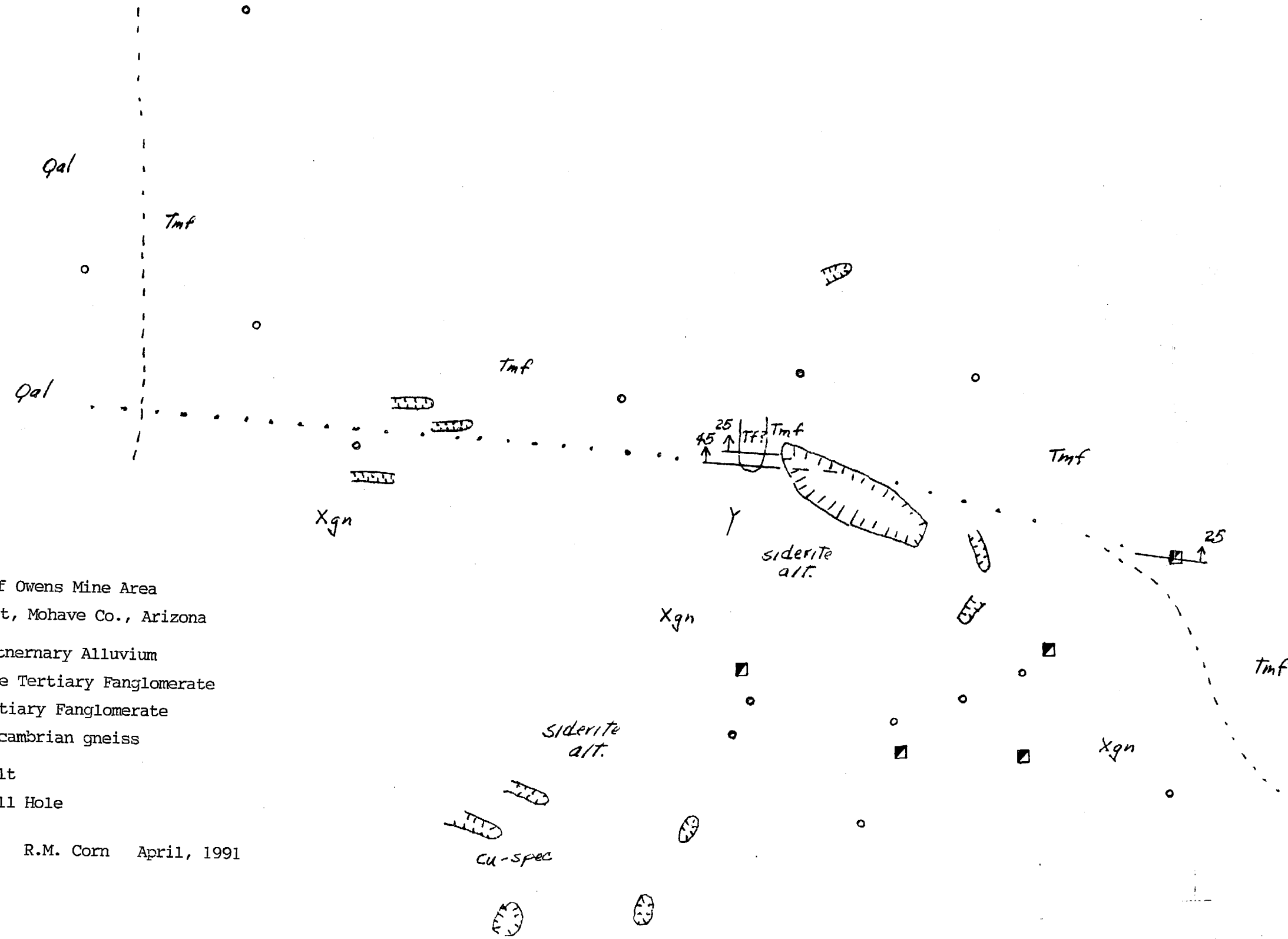
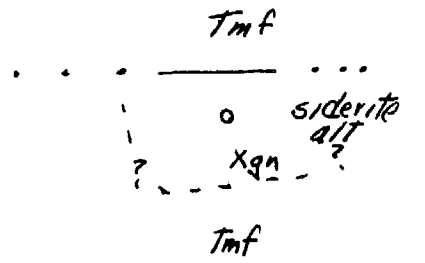
The 1987 Owens Property drill program was designed to test the gravel-covered areas between low-grade gold mineralization encountered at the Owens Mine area and central Section 2. Results of 1987 drilling range from less than detection to 0.009 oz/t. Even though drill holes 76002 and 76003 did not reach target depth, it is highly improbable that significant mineralization occurs in the gravel-covered area between the drill holes completed to date. With both the exposed ground and the gravel-covered areas tested, there is no remaining potential for significant gold mineralization within Section 2.

All of the ground within the original Owens Mine Project area has now been adequately tested and found to be of no further interest. It is therefore recommended that the ACNC-NERCO PA joint venture be terminated. Nerco was advised of ACNC's decision in early June.



Generalized Section Through Fault Zone
 Owens Mine
 Gold Basin District, Mohave County, Arizona
 (Looking West)

Sec. 1, T28N., R19W

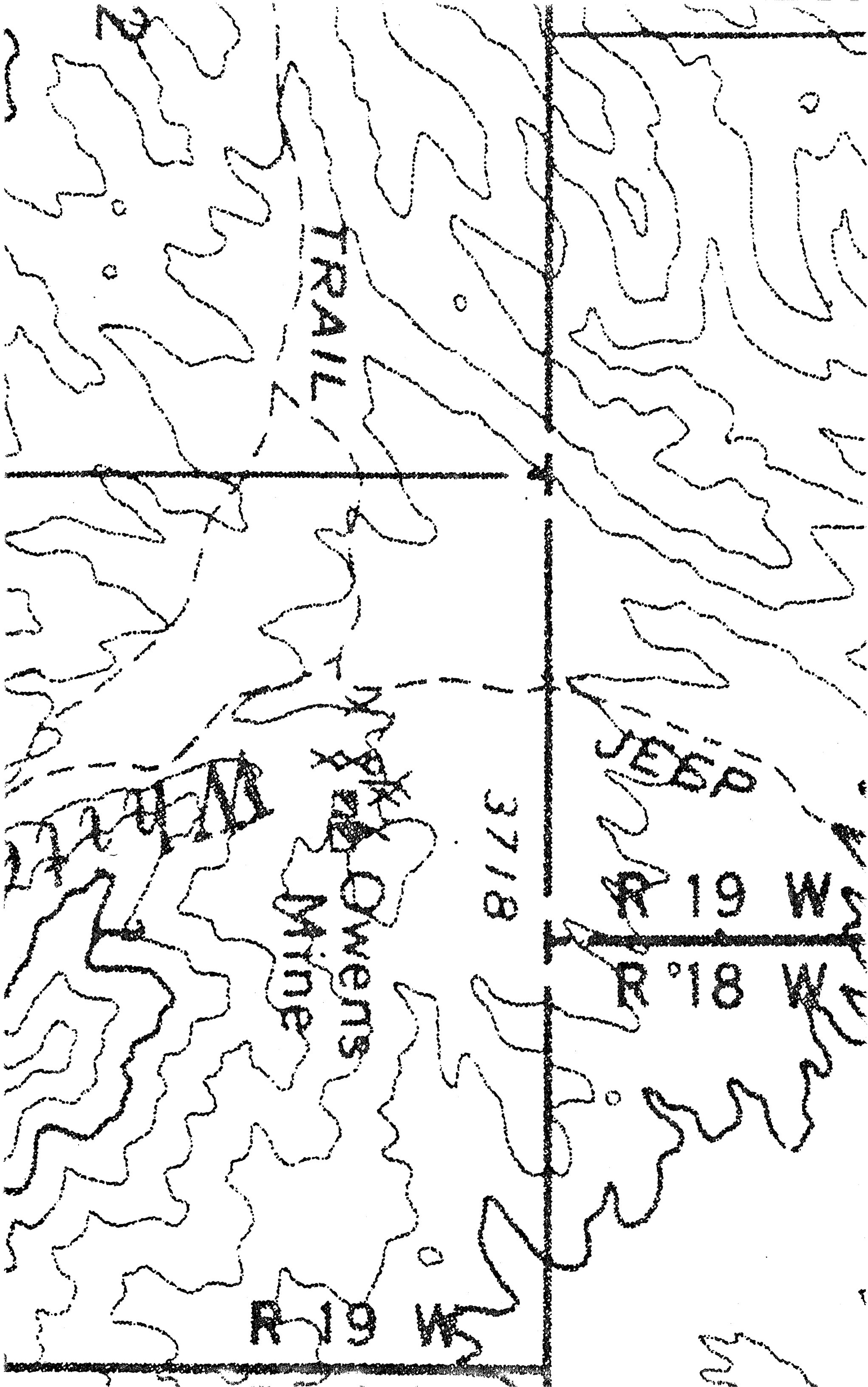


Scale
1" = 100'

Sketch Map of Owens Mine Area
Gold Basin District, Mohave Co., Arizona

- Qal. Quaternary Alluvium
- Tmf Late Tertiary Fanglomerate
- TF Tertiary Fanglomerate
- Xgn Precambrian gneiss
- - - Fault
- o Drill Hole

R.M. Corn April, 1991



RAILROAD

OWNERS

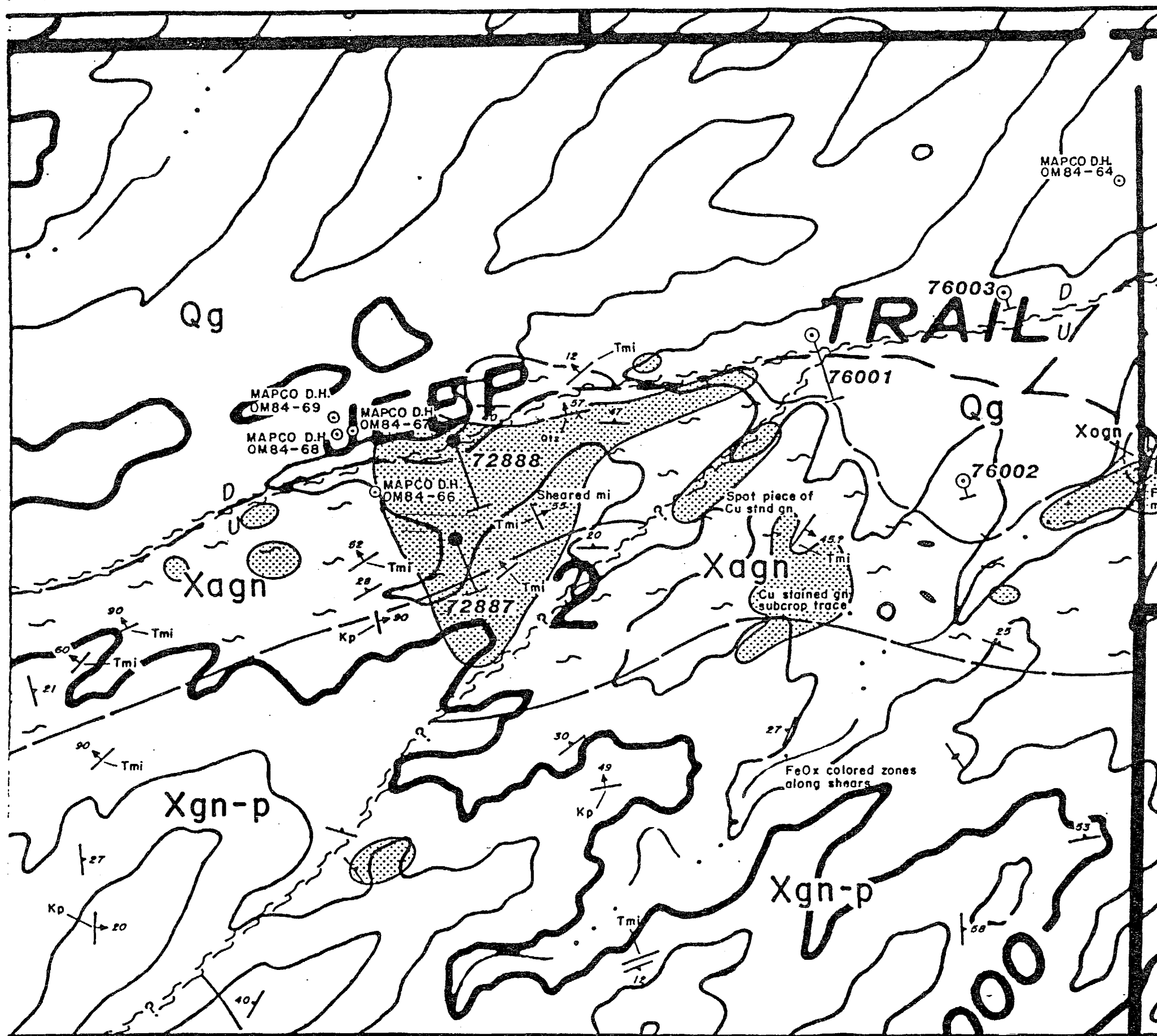
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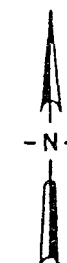
American Copper and Nickel Company, Inc.
ACNC - NDCO

SECTION 2 DRILL HOLE LOCATIONS

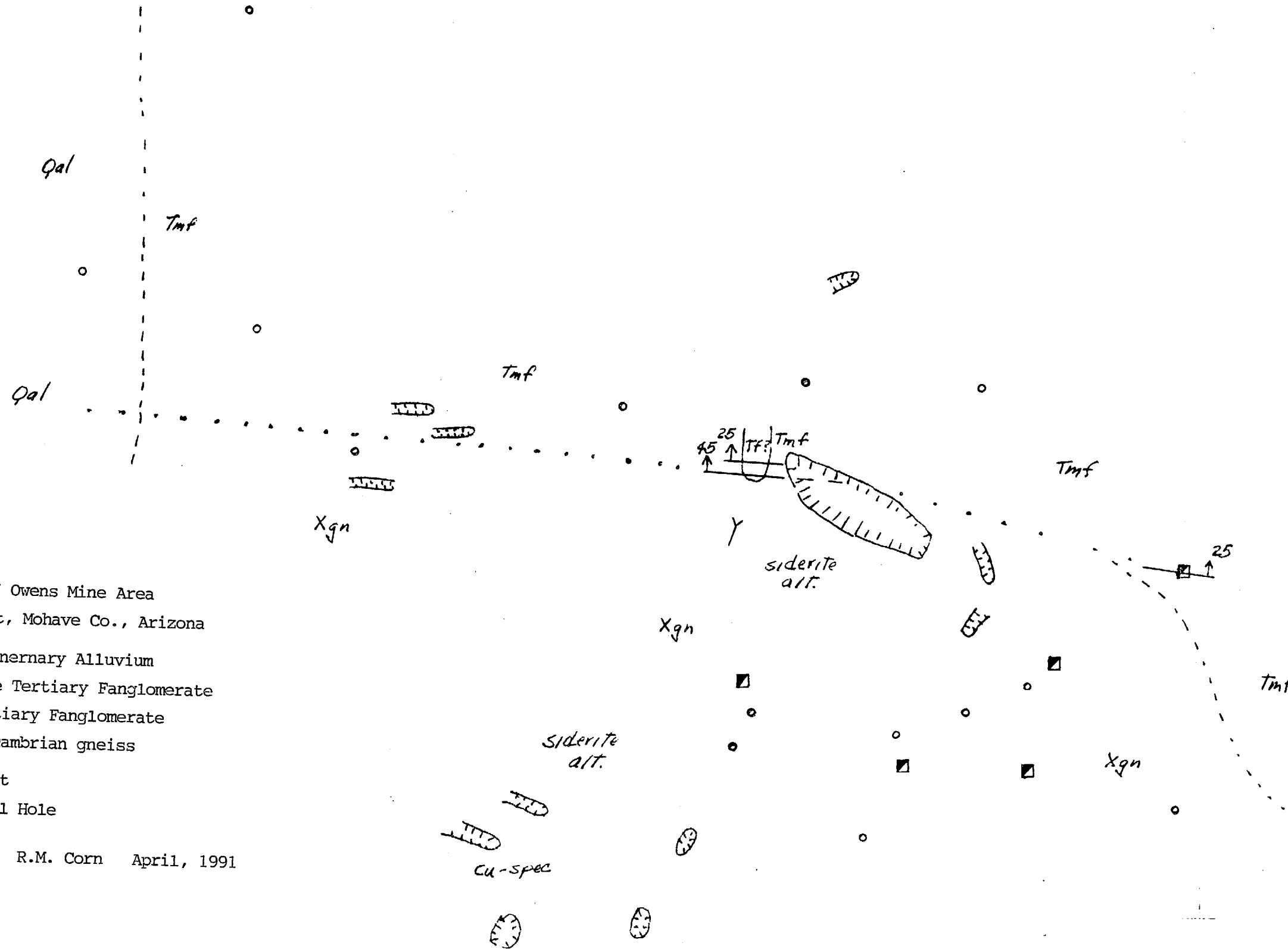
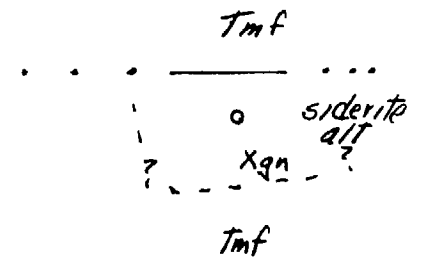
Owens Mine Property
Mohave County, Arizona

- ⊙ 1987 Drill hole location
- 1985 Drill hole location
- ⊙ Gold in soil anomalies >50 ppb

For explanation of geology, please refer to
Plate 1, "Geology of the Owens Mine Property."



Sec. 1, T28N., R19W

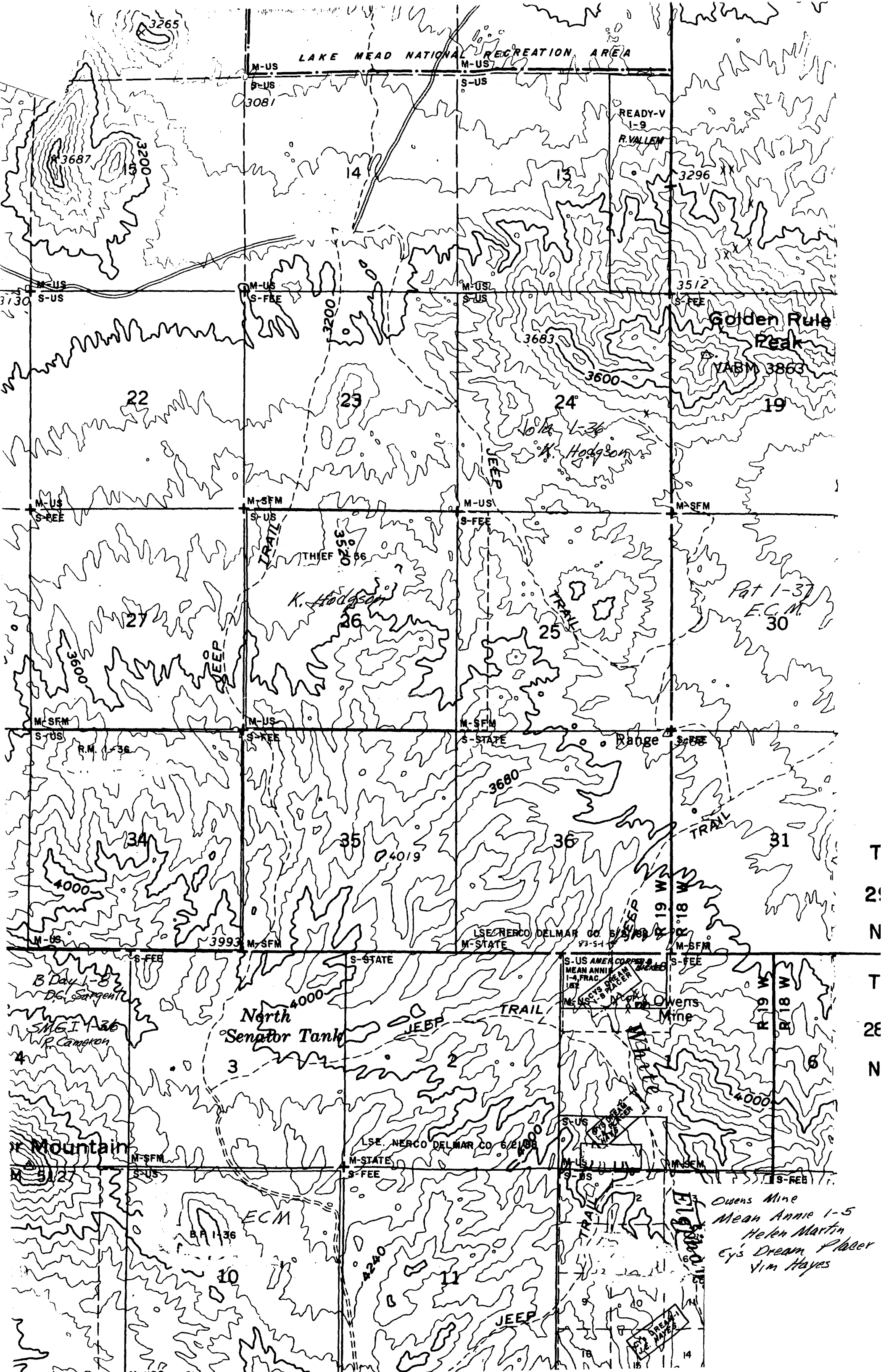


Sketch Map of Owens Mine Area
Gold Basin District, Mohave Co., Arizona

- Qal. Quaternary Alluvium
- Tmf Late Tertiary Fanglomerate
- Tf Tertiary Fanglomerate
- Xgn Precambrian gneiss
- - - Fault
- Drill Hole

R.M. Corn April, 1991

LAKE MEAD NATIONAL RECREATION AREA



M-US
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R. VALLEN

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Golden Rule Peak
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Owens Mine
Mean Annie 1-5
Helen Martin
Eys Dream Pledge
Jim Hayes

TRAIL
EYS DREAM
JIM HAYES

14



Jan 11-13, 1985 *Other to AZ ~~land~~ ^{state} ~~land~~ ^{land} ~~land~~ ^{land} Oct 28, '86*

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Latter 3658.

- 0-24 Gal
- 24-215 Ogl.
- 215-243 mops
- 243-275 low level AW in mops. gn. 0.01 out An (252-255)
- 275-486 Fresh gn. boat.

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