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EXPLORATION SUMMARY REPORT

WINKLER - FAULKNER PROJECT
LONE STAR DISTRICT
GRAHAM COUNTY
SAFFORD, ARIZONA

scanned 10/25/07 YP

NEWMONT - HECLA 6/6/65

Exploration Summary Report
Winkler- Faulkner Poject
Lone Star mining District
Graham County, Arizona

J. D. Bell Hecla Mining Co. 6/6/65

# EXPLORATION SUMMARY REPORT
# WINKLER*FAULKNER PROJECT

Lone Star Mining District
Graham County, Arizona

June 6, 1965


Summary

The Winkler-Faulkner property, located in T 6 S, Range 26 E, Lone Star Mining District, approximately 6 miles north of Safford, Graham County, Arizona, was explored in a joint effort by Hecla Mining Company, Wallace, Idaho, and Newmont Exploration Limited, New York City, during January-June, 1965. The exploration program consisted of 59,000 feet of data coverage by induced polarization survey, a magnetometer survey ofthe property, and the drilling of one diamond drill hole to a depth of 1500 feet. The field program was accomplished under the direction of J. D. Bell, Hecla geologist, and Dr. A. A. Brant, Newmont Chief Geophysicist.

The Lone Star District has a history of minor copper-gold production prior to 1910; interest in the area as the possible site of large low-grade disseminated copper deposits began in 1949, and culminated in discoveries of such deposits by Phelps-Dodge and Kennecott in the mid-1950's.

The oldest formation exposed in the district is a series of andesite tuffs, flows, and agglomerates, Cretaceous or Early Tertiery in age. These rocks were strongly fracturedon NE-SW trends, followed by successive intrusive of Quartz diorite, quartz monzonite porphyry, and dikes and plugs of rhyolite and latite, hydrothermal alteration, and chalcopyrite-pyrite mineralization. After a period of erosion, oxidation, and enrichment, the region was covered by mid-Tertiary flows rhyolite and andesite, and then by later Tertiary flows of basaltic composition. Block faulting on NW-SE trends, with easterly tilting of the volcanics, then formed the Gila Mountains, succeeded by the long erosional period to the present.

The W-F property is situated on a gravel-covered pediment flanking the Gila Mountains on the Southwest; no outcrops are present, and the alluvial thickness ranges from 400 to 1000 feet. Magnetics and drill holes indicate the sub-surface to consist of a broad intrusive mass of quartz diorite trending S 40 W across the easterly part, a broader area of Lower Volcanics comprising the central and Northwest part of the property, and Upper Volcanics in the Southwesterly . Seven holes have been drilled on the property by the owners to depths in bedrock ranging from 740 to 1308 feet; one hole, WF-1, reportedly assays 0.1 to 0.65% Cu, although the latter assay could not be verfied. the remainder reveal only 0.01-0.041 Cu in spot samples.

Hecla-Newmont's induced polarization survey failed to yield definitive information below 800 feet depth, due to a low resistivity layer near the bed-rock surface and to low resistivity contrasts between the various rock types of the area; no significant anomolies were found. The magnetic survey yielded data enabling interpretation of broad areas of the rock types. Drill-hole NH-1 was sited to test a zone ofsuspected fracturing in the Lower Volcanic series flanking the SW-trending intrusive mass, a potential environment for ore. It encountered the Lower Volcanics andesite, andesite porphyry, and andesite agglomerate, little alteredexcept by weak clay-sericite, iron stain, and manganese stain confined to strong fractures. No copper minerals were observed; assays of split core ranged from0,02 to 0.08% Cu and a trace of molybdenum. Almost no pyrite is present, and the rock has none of the characteristics of a leached capping.

It is the conclusion of Hecla and Newmont personel that the weak alteration and lack of mineralization in Hole NH-1 indicatethe absence of ore grade mineralization laterally or in depth in its vicinity. Although the remainder of the property is not completely tested, there is no scientific methods of defining a target, and future exploration will involve blind drilling. Such speculative and expensive exploration does not warrant by the work accomplished to date on the property.

General

Hecla-Newmont interest in the Winkler-Faulkner property began in June, 1964, when the claims and surrounding area were examined by the writer in company with Paul Winkler and Ted Faulkner of Safford, Arizona, representing a group of fifty-Two participating owners. Subsequent examination by R. E. Fulton, of Newmont, and H. E. Harper and the writer, of Hecla, resulted in a decision to negotiate for exploration rights on the property. Agreement with the owners was reached in December, and a lease and option, dated January 15, 1965, was signed by the involved parties. Paramount terms of the lease and option are as follows: End price of $3,000,000, payable in 3 years and 5 months, including immediate payment of $1,000, 3 annual payments of $25,000 commencing June 15, 1965, payment of remainder on or before June 15, 1968, if option is exercised, and right of Hecla-Newmont to terminate option at any time after completetion of work required.

Location

The W-F property, encompassing approximately 4475 acres, is located principally within the northern half of T 6 S, R 26 E, G.& S. R. N., in Graham County, Arizona, about 6 miles due north of the City of Safford. It consists of 241 unpatented lode claims, part of which cover Section 16 of the above township; Section 16 is State land, held by Arizona State Prospect Permit No. 564, issued to P. Winkler and T. Faulkner on December 6, 1962.

The holdings are situated on a broad gravel-covered pediment which slopes shallowly southwest from the Gila Mountains toward the Gila River Valley; the topograghy is slightly rolling, with SW'ly trending shallow dry washes. No bedrock outcrops are present, although in Section 10, immediately north of the claims, a small hill of andesite and andesite porphyry is present.

Access to the property is via the airport highway and San Juan Mine road northerly from Safford; the latter road traverses the claims, and unimproved roads leading from it yield access to a fair part of the holdings.

Safford is the rail and supply point; Drilling water is obtained from a pumping point near the Gila River.

Mining History

Mining in the the Lone Star District commenced prior to 1910, with developement of a number of small gold and oxidized copper prospects and mines in the low SW'ly foothills of the Gila Mountains; the San Juan Mine yielded 110,000 lbs. of copper in 1907. In 1949-1952, American Metals and Consolidated Copper tested the NE'ly trend of mineralization indicated by surface showings at the Morton Mine, and in 1956-1959, this zone was further tested by Bear Creek Mining Company, culminating in the discovery by the latter company of a low grade disseminated copper deposit estimated at 100,000,000 tons, with a grade of minus 1% Cu, and at a depth of 800 feet. At about the same time of the Bear Creek exploration, Phelps Dodge optioned and later purchased a large block of claims north of the W-F property and west of the Bear Creek deposit, and reportedly has developed a similar large copper deposit of somewhat better grade and shallower depth than that of Bear Creek. Neither deposit is being worked at present, apparently constituting future reserves for the owning companies.

Duval, American Metals, Rare Metals, Charles Steen, Kerr-McGee Hecla-Newmont, and United Nuclear have conducted additional exploration in the district; United Nuclear is currently drilling the Sanches property about 5 miles SE of the Bear Creek deposit, and limited drilling has been continuing on the Phelps Dodge and Bear Creek properties.

Geology

Generalized geology of the Lone Star District is shown on the Safford Quadrangle topographic map, pocket. In this area of theGila Mountains, the lowest exposed formation is a series of andesite flows, agglomerates, and tuffs of Cretaceous or Early Tertiary age, termed here are the Lower Volcanics formation Tlv); these rocks outcrop on the lower NW'ly-trending Gila Range. The exposures exhibit several zones of strong NE-trending shears and fractures, which are considered to have localized later successive intrusions of quartz diorite (Lone Star Stock), quartz monzonite porphyry (San Juan Stock), and plugs and dikes of rhyolite and latite (Bear Creek area). Hydrothermal alteration and pyrite-chalcopyrite mineralization apparently accompanied the later intrusive phasas, following by renewed fracturing, ozidation, and enrichment of the protore. The region was then covered by volcanics of rhyolitic to andesitic intermediate composition (Tmv), and then by basaltic flows.(Tu

In later Tertiary time, the Gila Range was block-faulted on NW'ly trends, with uplift and easterly tilting of the volcanics. Erosion has continued from that time, exposing a belt of Lower Volcanics and intrusive bodies on the SW flank of the range, and leaving only rement of Upper Volcanics in the down-faulted foreland of the range. The long-continued erosion has filled the Safford Valley with a deep fill of semi-consolidated sand, gravel, and boulders, a younger mantle of slope wash on the upper flanks of the valley, and recent alluvium in its center.

The Kennecott ore body is described as a mixed oxzide-sulfide body in which the most abundant copper mineral is chrysacolla. The ore occurs in the Lower Volcanics section in andesite flows sheared on NE'ly trends and intruded by rhyolite and latite; the mineralization occurs in both the andesite and the intrusives. Sericite-silica alteration characterizes the ore zone, bordered by a biotite alteration phase, and then by propylitic chlorite-epidote. Broad pyritic envelopes are described at both the Bear Creek and San Juan deposits, and iron staining indicates its presence at the Phelps Dodge depesoit.

The W-F property is located on the pediment slope south and southwest of the Phelps Dodge and Kennecott ore deposits. Mapping by these companies indicates the presence of two major NW-trending faults, the Foothills-Butte Fault and the Valley Fault, intervening between the Kennecott-Phelps Dodge zones and the W-F property; opposing dips suggest the area between the two faults(assumed normal) is a graben block.

The W-F property is entirely covered by a mantle of sand, gravel, and boulders which, according to resistivity data and drill holes, ranges from about 400 feet in thickness in the NE'ly part of the group to over 1000 feet in the SW'ly part. Immediately north of the property in section 10, a small hill shows outcrops of andesite and andesite porphyry tentatively identified as Lower Volcanics.

Sub-surface geology on the W-F property, shown on the 2000-scale map, is derived from study of short core intervals obtained by Faulkner in the rotary drilling of 10 holes on the claims, 7 of which cut bed-rock and bottom at depths ranging from 740 to 1308 feet, and from interpretatation of a magnetic survey of the property. Summary logs of the cored intervals are included with this report. Magnetic profiles and contours indicate a broad magnetic high trending S 40 W through the easterly part of the property; core from Drill Holes W-F 1, 2, 7, and 10 show the bed-rock to be a medium grained, partly Kaolinized quartz diorite.

Bounding the magnetic high on the west is a broad magnetic low area covering the central and NW'ly part of the group; the magnetic susceptibility of core from NH-1, the andesite outcrop in Section 10, and drill core in W-F12 indicate that bed-rock here is Lower Volcanics. The SW'ly part of the group shows slightly higher magnetic readings, and drill core from holes WF-6 and WF-9 is basaltic in nature; this area is interpreted as Upper Volcanics. The Upper and Lower Volcanics may be separated by a N'ly trending fault; the alluvial thickness is consistent with the rest of the property, and occurrence of the Upper Volcanics as a topographically high remnant cap in the in the buried bed-rock surface does not appear probable.

Drill core from Holes WF-1, 2, and 10 reveals considerable Kaolinization and limonite staining; the crystalline intrusive in WF-7 does not appear altered, and the core from W-F-12 reveals chlorite-epidote alteration with a little pyrite. No copper mineralization is visible in any of the cores, although some weak assays have been obtained.

Hecla-Newmont Exploration

Predibated on the reasoning that the Phelps Dodge and Kennecott deposits are apparently localized within zones of NE-trending shears, that the W-F property lies athwart the SW'ly production of these trends, and that prior drilling indicates only moderate thicknesses of overburden, it was possible that an ore body might be found beneath th cover. The exploration project consisted of testing the area by induced polarization-resistivity and magnetic geophysical methods and by the drilling of one hole, NH-1 to a depth of 1500 feet.

Geophysical Exploration

This phase of the project was conducted by Heinrichs Geo Exploration, Tucson, Arizona, under the direction of Dr. A. A. Brant, Chief Geophysicist, Newmont Exploration Limited, who describes the results and interpretation in a separate report. Geophysical field work was accomplished during the period January 12-March 14, 1965, and consisted of: Induced Polarization-Resistivity Survey, dipole-dipole array, 460 stations, 59,000 feet data coverage, on Lines 1-5 ( see 2000-scale map ,pocket); (2) Induced Polarization, Pole-Pole array, 40 data points, vicinity 5000' E of Base Line on Line 4; (3) Resistivity tests, rock outcrops of known age, Wenner array, in locations shown on map, following page; (4) Magnetic survey of property, Askania tripod-mounted magnetometer, 881 stations, 44.7 miles; (5) Magnetic susceptibility tests of drill core from Hole WF-6, 33 determinations between 910 and 1223 feet depths.

Summarization the results, the frequency system induced polarization method proved ineffective in penetrating depths below 800 feet in this area, and no significant anomalies were determined. The magnetic survey yielded results of material assistance in interpreting broad areas of rock types in the buried bed-rock surface. Resistivity studies indicate a very low contrast between rocks mapped as quartz diorite, Upper Volcanics, and Lower Volcanics.

Drilling Exploration

Because of the wide electrode spacing required for effective interpretation, due to low resistivity contrasts of the rock types of the area, Dr. Brant concluded that an ore body 2500 x 2500 feet in area extent and containing 2% total sulfides by volume, similar to the low total sulfide ore bodies of Phelps Dodge and Kennecott, could not be detedted below a depth of 1000 feet by the IP method used.

The Magnetic survey indicates the presence of an elongated mass of quartz diorite trending S40 W in the easterly part of the property, in direct alighnment with the Lone Star quartz diorite stock outcropping NE of the Foothills-Butte Fault.

The alignment of the two intrusive masses is construed as indicating no strike-slip componenton the intervening post-intrusive faults, and tentatively permits projection of the SW-striking fracture and dike zones into the W-F property as shown on SectionsA-A' and B-B', and on the 2000-scale map, pocket.

Drilling by Kennecott in the Lone Star stock has not shown that intrusive body to be strongly minerized, and while Winker-Faulkner drilling of the intrusive mass on the W-F property reveals some kaolinization and iron stains in the fratured zones, little significant copper mineralization has been found in depths to 1308 feet. Geological considerations suggessted that the probably fractured Lower Volcanics flanking the intrusive mass on the west should provide a suitable environment for a possible ore body, and that one hole should be drilled to 1500 feet in depth to test for ore and alteration.

Hecla-Newmont Hole NH-1 was sited on March 22, 1965; road and site construction and rotary drilling to bed-rock were contracted to Winkler and Faulkner, who completed the rotary drilling at a depth of 628 feet on April 21. A Boyles truck-mounted diamond drill was moved on the hole the same day, and the hole, drilled BXWL, was completed at 1500 feet on May29, 1965.

The log of the core is included in this report; rocks encountered were andesite, andesite porphyry, and andesite agglomerate, strongly fractured, largely purplish-gray in color, but accasionally bleached and stained with iron and manganese oxides in the fractured zones. Epidote and chorite are the dominant alteration minerals, indicating only propylitic alteration. Analyses by the Newmont laboratory of core specimens confirm rock type and alteration identification, and magnetic scaceptibility tests indicate that the andesite is of the Lower Volcanic series.

No copper minerals were visible in the core. Overal recovery averaged 81.8%, but dropped to 40-50% in the fractured zones. Split core samples of these fractured intervals of low recovery were assayed for copper through a total hole interval of 120 feet, and for molybdenum through a total hole interval of 39 feet. Jacobs Laboratory and Hawley and Hawley, of Tucson were the assayers; copper assays ranged between 0,02 and 0.08% copper, and the molydenum assayed only a trace.

## Cost of Project

Diredt cost of the project, spent during the period January 8-June 15, 1965, and including control survey for the geophysical work, the geophysical work itself, and the drilling, including road and site construction, rotary and diamond drilling, drilling water, and assaying, has totaled $27,741.42.

## Conclusions

Although the Lower Volcanics andesite was encountered in hole NH-1, and the rocks were strongly fractured, clay and weak sericite alteration is confined to the stronger fractures, and the intervening core reveals only weak propylitic alteration. Pyrite is almost entirely lacking; the metalic iron minerals are magnetic and specularite. The weakly altered appearance of the core, the low pyrite, and the lack of any trace of visible copper mineralization are features evidencing the absence of a leached capping and preclude the possiblity of an underlying ore body; the trace assays of copper and molydenum are not regarded as significant. Similarly, the weak alteration does not suggest the presence laterally of a nearby ore body.

While it cannot be said that the W*F property has been completely tested, the Hecla-Newmont effort has shown that induced polarization surveys as a guide to ore have little or no value here, and that there are no other scientific guides pointing to defined target area. If further exploration of the W-F property is contemplated, it will probably entail blind drilling of a NW-SE trending fence of holes spaced one thousand feet apart, approximately along line b, and it will be a relatively expensive project.

Hecla and Newmont personnel concur that such speculative exploration is not warranted by the results of the work accomplished on the property.

Respectfully submitted,

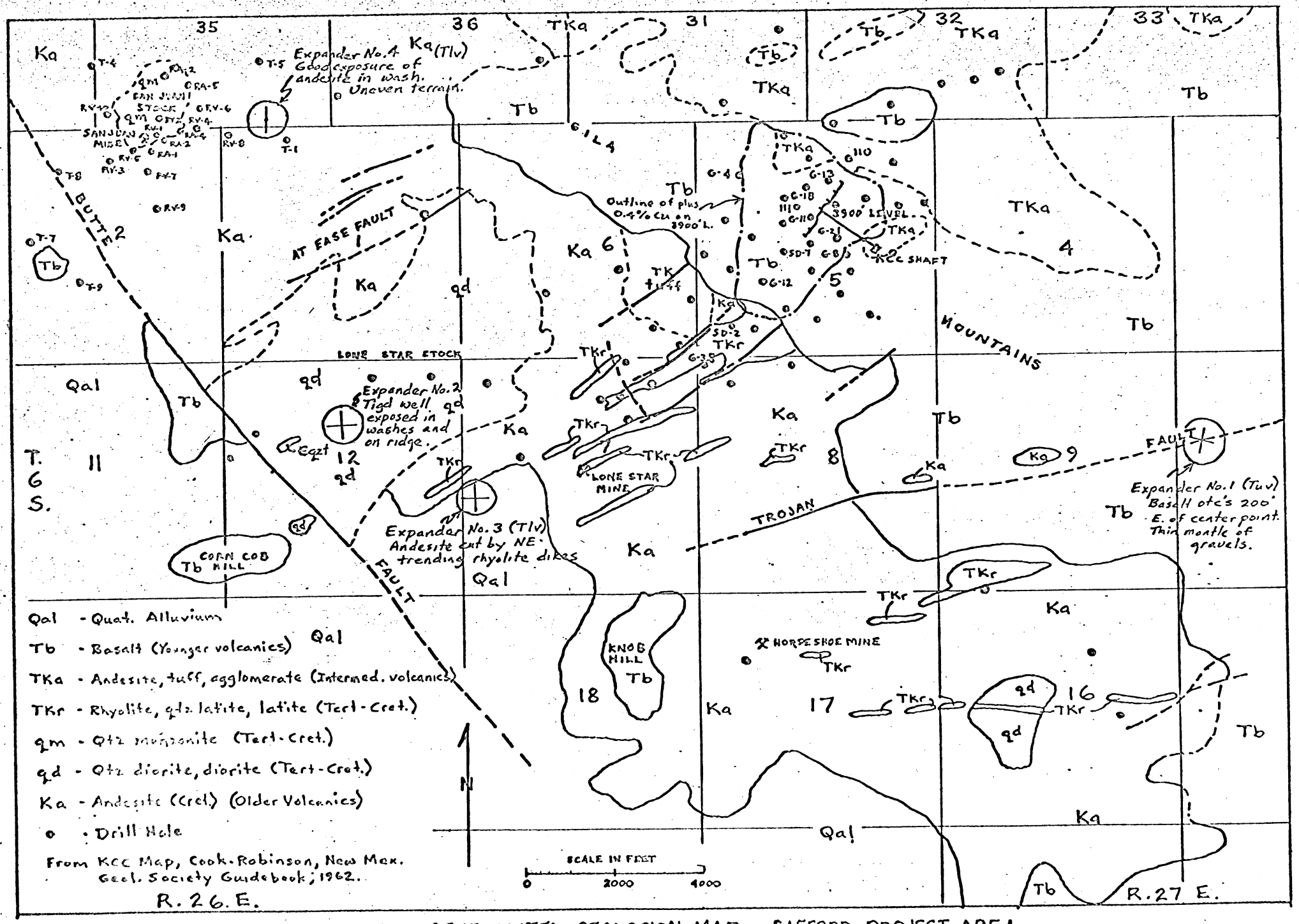
J. D. Bell

J. Douglas Bell
Geologist, Exploration

Appended: Drill Logs

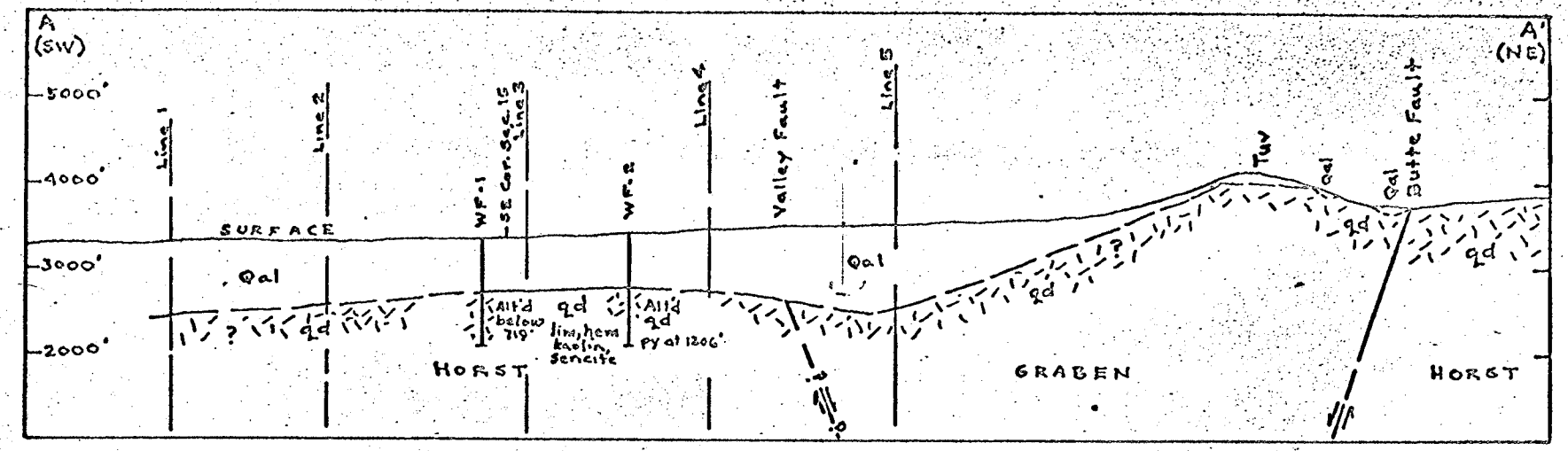
Pocket: Safford Quadrangle, General Geology
Claims and Drill Map

JDB:jan



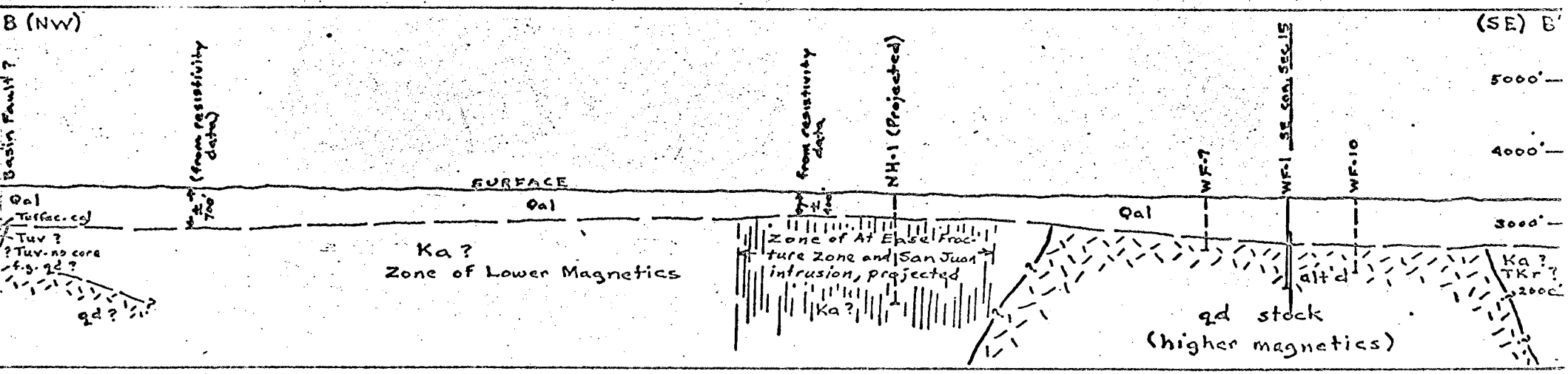

GENERALIZED GEOLOGICAL MAP, SAFFORD PROJECT AREA
SHOWING LOCATION OF EXPANDER RESISTIVITY SPREADS

Heinrichs
Feb. 5-6, 1965




SECTION A-A', LOOKING N45 W

SCALE: 1" = 2000'




SECTION B-B', LOOKING N40 E

SCALE: 1" = 2000'

SECTIONS TO ACCOMPANY PROPERTY-DRILLING MAP, WINKLER-FAULKNER

J D. Bell
3-23-65

APPENDIX-1.

HEINRICHS GEOEXPLORATION COMPANY

806 WEST GRANT ROAD, TUCSON, ARIZONA, 85703. P.O. BOX 5671. PHONE: (AREA CODE 602) 623-0578

APRIL 3, 1965

Newmont-Hecla Joint Venture

Re: Letter Report
Winkler-Faulkner Project

Gentlemen:

This is a brief letter report outlining the field work accomplished and results obtained for the Newmont-Hecla Joint Venture on the Winkler-Faulkner project from January 12 to March 14, 1965.

ELECTRICAL PHASE

| | Data Coverage | Stations |
|---|---|---|
| I. P. Line 1 (0 N/S) | 7000 ft. | 54 |
| I. P. Line 3 (4000 N) | 19500 ft. | 154 |
| I. P. Line 4 (6000 N) | 10000 ft. | 76 |
| I. P. Line 5 (8000 N) | 22500 ft. | 176 |

I. P. Pole-Pole depth probe #1: East & West legs: 40 data points total.
East leg a= 100 ft. to 2000 ft.
West leg a= 20 ft. to 3000 ft.

Wenner depth probes for rock property test on:

| | | |
|---|---|---|
| Long Star granite | 12 stations | a= 10 to 200 ft. |
| Tuv | 12 stations | a= 10 to 200 ft. |
| Tlv | 18 stations | a= 10 to 200 ft. |

MAGNETIC PHASE

Magnetic susceptibility log of Drill Hole #6 core from 910 to 1223 feet - 33 determinations.

| Magnetic Survey | Coverage |
|---|---|
| 5 - East-west lines | 100,000 feet |
| 17 - North-south lines | 136,000 feet |

Re: Letter Report
Winkler-Faulkner Project

Total coverage: 236,000 feet for a total of 44.7 miles and 881 stations.

## RESULTS
## ELECTRICAL PHASE

The induced polarization effects noticed were attributed mainly to low resistivity inductive coupling and the normal background response of the alluvium. The only zone of possible sulfide indication noticed is on Line 3 at about 100 E, although this zone is more likely just a zone of higher background effects.

The resistivity data, in general, shows a three layer case with the middle layer lower in resistivity than the others. A possible interpretation of this could be dry alluvium for the upper layer, water saturated alluvium for the middle layer and bedrock for the lower layer. Depths to bedrock indicated were from about 200 feet to the north to about 1000 feet to the south.

The induced polarization two array depth probe was centered at 50 + 00 E Line 4 and gave a two layer solution with the upper layer higher in resistivity and about 220 feet thick. This 220 foot interface is possibly the alluvial water table. The absence of the third layer may be the result of a lack of electrical contrast between bedrock and water saturated alluvium in this area. No frequency effects were noted that could not be attributed to inductive coupling interference.

The Wenner depth probe, rock property tests were made on outcrops of the three suspected bedrock types; Tuv, Tlv, and the Lone Star granite. This test shows these three rocks to have very similar resistivities (rho/2 pi from 115 to 160 ohm feet), thereby making it very difficult to distinguish between them electrically. The resistivity of these rocks is higher than was indicated at depth on the I.P. lines and two array probe and may be due to their being above the water table on the Wenner test and below on the I.P. and the I.P. generally nearer to the lower part of the valley (i.e. finer and more conductive constituents).

## MAGNETIC PHASE

Drill Hole #6 was logged for magnetic susceptibility and a

change was noted at approximately 1050 feet, perhaps indicating the contact between Tuv and Tlv. The Tlv was somewhat higher in susceptibility and considerably more polarized than the Tuv.

The vertical intensity magnetic data was very erratic over the whole area due to the abundant volcanic boulders in the surface alluvium and, therefore, the plan and profile data had to be smoothed out before interpreting. The most obvious feature was a high zone centered at about 6000 N - 10000 E and trending NE-SW. On interpretation of the profiles of this high zone, it was estimated that the cause was a truncated wedge or tubular zone 2000 to 3000 feet thick and buried from 700 to 1200 feet below surface. This feature is likely the SW downfaulted block of the Lone Star granite and thereby indicates that the faulting only had a dip slip component since both the exposed block to the NE, and the downfaulted block, are on the same strike.

Sincerely,

HEINRICHS GEOEXPLORATION COMPANY

Chris S. Ludwig

Chris S. Ludwig
Senior Geophysicist

pr

cc: Dr. A. A. Brant 5

# DIAMOND DRILL RECORD

Standpipe
Casing

Started 3-30-65
Finished 5-29-65
Hole Size BXWL
Depth 1500
% Core Rec. 81.8

Mine Winkler-Faulkner, Safford, Arizona
Location 1990' E. and 990' S. of NW Cor.
Sec. 15, T 6 S, R 26 E, Graham Co., Arizona
Logged by Bell-Quinlan Date May, 1965
Drilled by Faulkner (Rotary), Boyles Bros. (DD)

Hole No. NH-1
Level Surface
Grid IP Line 4 - 4400 E
Latitude --
Departure --
Elevation 3465' Apx
Bearing --
Inclination Vertical

| Depth Feet | Foot Core | Lithologic Description Summary Log | Sample Data No. | Interval Feet | Spls. Feet | Oz. -Ag- | % -Pb- Cu | % -Zn- Mo |
|---|---|---|---|---|---|---|---|---|
| 0 | | Alluvium, difficult drilling, many boulders | | | | | | |
| | Plug | alternating with sections caving fine-grained sands. | | | | | | |
| 250 | | Alluvium, fairly uniform sand. Improved | | | | | | |
| | Plug | drilling. Water table at 350. | | | | | | |
| 500 | | Boulders, caving sand, difficult drilling. | | | | | | |
| | Plug | Bedrock at 572. | | | | | | |
| 572 | | Plug-bitted for assurance of bedrock and to | | | | | | |
| | Plug | provide good seating for casing. | | | | | | |
| 595 | | Cored NX with rotary. Andesite agglomerate (Lower Volcanics), fine grained purplish | | | | | | |
| | 5.4 | ground mass, fragments, to 4" length, of lt gy-grn med grain porph. volcanic. | | | | | | |
| 601 | | To reach unfractured rock for start of | | | | | | |
| | Plug | diamond drilling. | | | | | | |
| 628 | | Andesite agglomerate as before, fragments to 7" length. Mild epidotization and chloriti- | | | | | | |
| | 120.6 | zation. Rounded to sub-angular fragments of light grn-gy strongly porphyritic rock (andesite porphyry) and dark gy-purplish aphanitic rock with less numerous white fs phenos (porphyritic andesite). Thin fractures 10-20 to core, often lined with xtal. calcite. Specks fe ox and minor magnetite. Color banding and textural variations 60-90 to core, suggesting flow attitude. Rock moderately broken, but no pronounced faulting. | NH-1-1 | 875.7-877) 896-905) | 10.3 | | (.08 | NS |
| | | | NH-1-2 | 921-928.2 | 7.2 | | (.05 | NS |
| 764 | | Andesite porphyry, fine grained greenish groundmass, many ortho and plag. phenos, | NH-1-3 | 939.6-962 | 22.4 | Jacobs | (.08 | Tr |
| | 45.2 | few clots dark mafics, sparse magnetite and epidote. Fracturing 10-40 to core. Mod. broken. | NH-1-4 | 1119-1136 | 17.0 | | (.04 | Tr |
| | | | NH-1-5 | 1230-1239 | 9.0 | | (.03 | NS |
| 811.5 | | Porphyritic andesite, dk gy-purplish sugary vfg ground mass, scattered white fs phenos. Epi- | NH-1-6 | 1298-1341 | 43.0 | | (.02 | NS |
| | 138.1 | dote and sparse magnetite. Minor Mn Ox, Fe ox, calcite on thin fracts. 10-30 to core. Andesite porphyry 861.9-862.1. Andesite is badly brkn, blchd yellowish, fe ox specks after py | NH-1-7 | 1453-1465 | 12.0 | H & H | (.08 | NS |

(cont. next page)

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

# DIAMOND DRILL RECORD

Mine Winkler-Faulkner, Safford, Arizona
Location

Logged by Date
Drilled by

Hole No. NH-1
Level
Grid
Latitude
Departure
Elevation
Bearing
Inclination

| Depth Feet | Feet Core | Lithologic Description | Sample Data No. | Interval Feet | Sple. Feet | Oz. ~~Ag~~ | % ~~Pb~~ Cu | % ~~Zn~~ Mo |
|---|---|---|---|---|---|---|---|---|
| | | Summary Log (continued) | | | | | | |
| 811.5 | (cont.) | 875.7-877, 896-905, and 921-935.5, 939.7-955.3. Partly blchd dull gy to yellowish gy from 935.5 to 939.7 and 971-975.5. 57% recovery 921-928, 44.75% recovery 934-955 (with some sericite), and 42.4% 975.5-984 (fractured, with a little andesite porphyry). | | | | | | |
| 984 | | Andesite agglomerate, mostly gy to purplish gy, except in fract. zones 10-30 to core, where blchd to yellowish brn. Stronger epidote 1056-1067, sparse epidote below 1067 (decreased propylitic alteration). Weak orange-brn fe ox, black mn ox, xtal. calcite on open fracts. to | | | | | | |
| | 260.7 | bottom. A few striated brown xtals (py?) 1241-1245, and scattered sparse magnetite and specular hematite. Rare textural variations 60-75 to core suggest flows tilted 15-30°. Badly brkn ggy fract. zones 1005-1019, 1105-1147, 1230-1239, and 1265-1280. No Cu noted. 29.2% recovery 1118-1130, and 53.8% recovery 1221-1280. | | | | | | |
| 1298 | | Andesite agglomerate, ± 1" sub-angular to rounded pebbles in porphyritic andesite ground mass, mostly purplish gray to dull gray, but bleached yellowish brown in fracture zone 1453-1465. Slight increase propylitic epidote- | | | | | | |
| | 148.4 | chlorite 1338-1445, weak epidote, chlorite, Fe ox-Mn ox stains on fractures, very sparse magnetite and specularite to bottom. Increased MnOx and orange-red FeOx in gouge zones 1338-1351 and 1453- 1465. Moderately broken, except badly broken 1296-1351 and 1453-1465, with gg and bx. 44.2% recovery 1298-1351, 47.0% recovery 1378-1401, and 60.7% recovery 1452-1466. | | | | | | |
| 1500 End | | Note: Core specimen at 796' identified by Newmont technical laboratory as andesite porphyry, and at 835' as andesite. Alteration minerals are chlorite, epidote, sericite, calcite, and secondary quartz. Magnetite, hematite, no sulfides. | | | | | | |

# DIAMOND DRILL RECORD

Standpipe
Casing 702'

Started
Finished
Hole Size 3½"
Depth 1275
% Core Rec.

Mine Winkler-Faulkner, Safford, Arizona
Location 190' W, 250' S of NE cor.
Sec. 22, T 6 S, R 26 E
Logged by Bell Date 10-20-64
Drilled by Faulkner, Rotary

Hole No. W-F - 1
Level Surface
Grid
Latitude
Departure
Elevation 3355' Apx
Bearing
Inclination Vertical

| Depth Feet | Feet Core | Lithologic Description |
|---|---|---|
| 0 | | Alluvium, sand, boulders, conglomerate, clay. |
| 660 | | Rock bit. No core. |
| 706 | 18.0 | Qtz diorite (?). Gray, med. grained, xtalline texture, lt gy-white partly euhedral fs; gy-grn mafics, softened outlines, gy interstitial qtz, some hematite stain. Brkn, stronger alteration, with fe ox and sericite 719-724. |
| 724 | | Rock bit. No core. |
| 1275 | | |
| End | | |

Note: Hole was deflected above 1150', and re-drilled through the 1150'-1200' interval. Hecla assay of cuttings from 40 feet of this 50' re-drilled interval assayed only 0.02% Cu. No copper visible in cuttings.

Sample Data

| No. | Interval Feet | Spls. Feet | Oz. Ag | % Pb | % Zn |
|---|---|---|---|---|---|
| Assays by P-D Laboratory | | | | | |
| | | | % Cu | % S | |
| | Sludge, rotary chips | | | | |
| | 736-1150 | 414 | .064 | .046 | |
| | 1150-1200 | 50 | .650 | .070 | |
| | 1200-1275 | 75 | .100 | .050 | |
| | Core | | | | |
| | 702-724 | 22 | .104 | .095 | |
| | Bit Sample | | | | |
| | 1255 | Spot | .225 | .110 | |

16

# DIAMOND DRILL RECORD

Standpipe
Casing
Started
Finished
Hole Size
Depth 1308'
% Core Rec.

Mine Winkler-Faulkner, Safford, Arizona
Location 975' N and 975' E of NE Cor. Sec. 22, T 6 S, R 26 E
Logged by Bell Date 10-20-64
Drilled by Faulkner, Rotary

Hole No. W-F - 2
Level Surface
Grid
Latitude
Departure
Elevation 3410' Apx.
Bearing
Inclination Vertical

| Depth Feet | Feet Core | Lithologic Description | Sample Data No. | Interval Feet | Spls. Feet | Oz. Ag | % Pb | % Zn |
|---|---|---|---|---|---|---|---|---|
| 0 | | Alluvium, sand, conglomerate. | | | | | | |
| 670 | | Rock bit, no core. | | | | | | |
| 680 | 10 | Qtz diorite (?). Core is strongly altered, with Kaolin and limonite. Mafics gone. Ghosts of xtalline texture. | | | | | | |
| 690 | | Rock bit, no core. Cuttings show white fs, lesser qtz grains, dark mafics, minor epidote-chlorite, moderate to minor limonite and hematite stain. Classified as qtz diorite (?). | | | | | | |
| 900 | 3 | Qtz diorite (?), altered, with faint relict euhedral fs, cube void after py, kaolin, orange limonite with some reddish specks indigenous hematite. | | No visible copper. | | | | |
| 903 | | Rock bit, no core. Cuttings as in 690-900 interval, varying amounts limonite and hematite, some specks disseminated pyrite 945-960, sparse epidote-chlorite. Qtz diorite (?). | | | | | | |
| 1227 | | Rock bit, no core. Not logged. Harder rock reported in bottom. | | | | | | |
| 1308 | | | | | | | | |
| End | | | | | | | | |
| | | Note: Tool string in bottom. | | | | | | |

# DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth
% Core Rec.

Mine Winkler-Faulkner, Safford, Arizona
Location See below

Logged by Date
Drilled by Faulkner, Rotary

Hole No. W-F - 3, 4, 5
Level Surface
Grid
Latitude
Departure
Elevation
Bearing
Inclination Vertical

| Depth Feet | Feet Core | Lithologic Description | Sample Data No. | Interval Feet | Sple. Feet | Oz. Ag | % Pb | % Zn |
|---|---|---|---|---|---|---|---|---|
| | | W-F - 3: 1600' N, 180' W of SE Cor. Sec. 8, T 6 S, R 26 E. Lost hole at shallow depth in alluvium. | | | | BH 1-8-72 | | |
| | | W-F - 4: 800' N, 1100' W of SE Cor. Sec. 10, T 6 S, R 26 E. | RIGHT COORDINATES ARE 1000 N, 2320 W of SE Cor. Sec 10 T 6 S, R 26 E | | | | | |
| | | 0-240' Alluvium | | | | | | |
| | | 240-580' Crushed, ggy rock. No core. | | | | | | |
| | | W-F - 5: 2200' N, 1800' W of SE Cor. Sec. 8. | | | | | | |
| | | 0-580' Alluvium. Stopped. | | | | | | |

# DIAMOND DRILL RECORD

Standpipe
Casing 910'

Started
Finished
Hole Size
Depth 1232'
% Core Rec.

Mine Winkler-Faulkner, Safford, Arizona
Location 1500' N, 100' E of SW Cor, Sec. 16, T 6 S, R 26 E.
Logged by Bell Date 10-20-64
Drilled by Faulkner, Rotary

Hole No. W-F - 6
Level Surface
Grid
Latitude
Departure
Elevation 3285' Apx
Bearing
Inclination Vertical

| Depth Feet | Feet Core | Lithologic Description | Sample Data No. | Interval Feet | Sple. Feet | Oz. Ag | % Pb | % Zn |
|---|---|---|---|---|---|---|---|---|
| 0 | | Alluvium, sand, conglomerate, 165' clay. | | | | | | |
| 800 | | Rock bit, no core. | | | | | | |
| 910 | | Alternating beds red-brn conglomerate, pinkish-gy sandstone, brn siltstone, and thin andesite flows 45 to core. | | No visible copper. | | | | |
| | 322 | | | | | | | |
| 1044 | | Dense gray aphanitic andesite flows and thinner flows red vesicular basalt. Sparse chlorite, calcite, fe ox. Talcy bx at bottom. | | | | | | |
| 1232 | | | | | | | | |
| End | | | | | | | | |

FORM 127 4M 7-59

# DIAMOND DRILL RECORD

Standpipe 11'
Casing
Started
Finished
Hole Size
Depth 740'
% Core Rec.

Mine Winkler-Faulkner, Safford, Arizona
Location 400' N, 1200' W of NE Cor.
Sec. 22, T 6 S, R 26 E.
Logged by Bell Date 10-20-64
Drilled by Faulkner, Rotary

Hole No. W-F - 7
Level Surface
Grid
Latitude
Departure
Elevation 3360' Apx
Bearing
Inclination Vertical

| Depth Feet | Feet Core | Lithologic Description | Sample Data No. | Interval Feet | Sple. Feet | Oz. Ag | % Pb | % Zn |
|---|---|---|---|---|---|---|---|---|
| 0 | | Alluvium, sand, with many boulders. | | | | | | |
| 665 | | Rock bit, no core. | | | | | | |
| 710 | 10 | Qtz diorite, medium grained, somewhat porphyritic xtalline texture, lt gy milky euhedral fs xtals with glistening surfaces, brn-blk biotite, gy interstitial qtz, a little orthoclase. Not strongly altered. | Spot assays to 0.04% Cu. | | | | | |
| 720 | | Rock bit, no core. | | | | | | |
| 725 | 14 | As in 710-720 interval, with some brn fe ox stains and sparse epidote. Qtz diorite. | | | | | | |
| 739 | | No core. | | | | | | |
| 740 | | | | | | | | |
| End | | | | | | | | |

2.0



# DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth 1063'
% Core Rec.

Mine Winkler-Faulkner, Safford, Arizona
Location 1300' N, 550' E of SW Cor.
Sec. 16 T 6 S, R 26 E.
Logged by Bell Date 10-20-64
Drilled by Faulkner, Rotary

Hole No. W-F - 9
Level Surface
Grid
Latitude
Departure
Elevation 3290' Apx
Bearing
Inclination Vertical

| Depth Foot | Foot Core | Lithologic Description | Sample Data No. | Interval Feet | Spls. Feet | Oz. Ag | % Pb | % Zn |
|---|---|---|---|---|---|---|---|---|
| 0 | | Alluvium, sands, conglomerate, boulders | | | | | | |
| 970 | | Rock bit, no core. Cuttings suggest reddish andesite or basalt. | | No visible copper. Spot spl by Faulkner reported to assay .01 oz. Ag, .02% Cu, Tr. Mo. | | | | |
| 1043 | 20 | Andesite, dark gray dense, aphanitic rock, flecks fe ox after py, 3' bx section, color banding 40 to core. | | | | | | |
| 1063 | | | | | | | | |
| End | | | | | | | | |

FORM 127 4M 7-55

21

# DIAMOND DRILL RECORD

Standpipe
Casing

Started
Finished
Hole Size
Depth 1040'
% Core Rec.

Mine Winkler-Faulkner, Safford, Arizona
Location 110' N, 1220' E of NE Cor.
Sec. 22, T 6 S, R 26 E.
Logged by Bell Date 6-29-64
Drilled by Faulkner, Rotary

Hole No. W-F 10
Level Surface
Grid
Latitude
Departure
Elevation 3390' Apx
Bearing
Inclination Vertical

| Depth Feet | Feet Core | Lithologic Description | Sample Data No. | Interval Feet | Sple. Feet | Oz. Ag | % Pb | % Zn |
|---|---|---|---|---|---|---|---|---|
| 0 | | Alluvium, sand, conglomerate, clay | | | | | | |
| 675 | | Some core, not marked as to depth. Gray | | | | | | |
| | 10 | porphyritic rock, badly brkn, with calcite veinlets, considerable limonite. Qtz diorite | (?). | No visible copper. | | | | |
| 690 | | Rock bit, no core. Cuttings described as yellowish, limonitic, some brn fe ox. | | | | | | |
| 1040 | | | | | | | | |
| End | | Note: 3 bit cones in bottom. | | | | | | |

# DIAMOND DRILL RECORD

Standpipe
Casing

Started 7-11-64
Finished
Hole Size
Depth 1270'
% Core Rec.

Mine Winkler-Faulkner, Safford, Arizona
Location 900' N, 2250' E of SW Cor.
Sec. 5, T 6 S, R 26 E
Logged by Bell Date 10-20-64
Drilled by Faulkner, Rotary

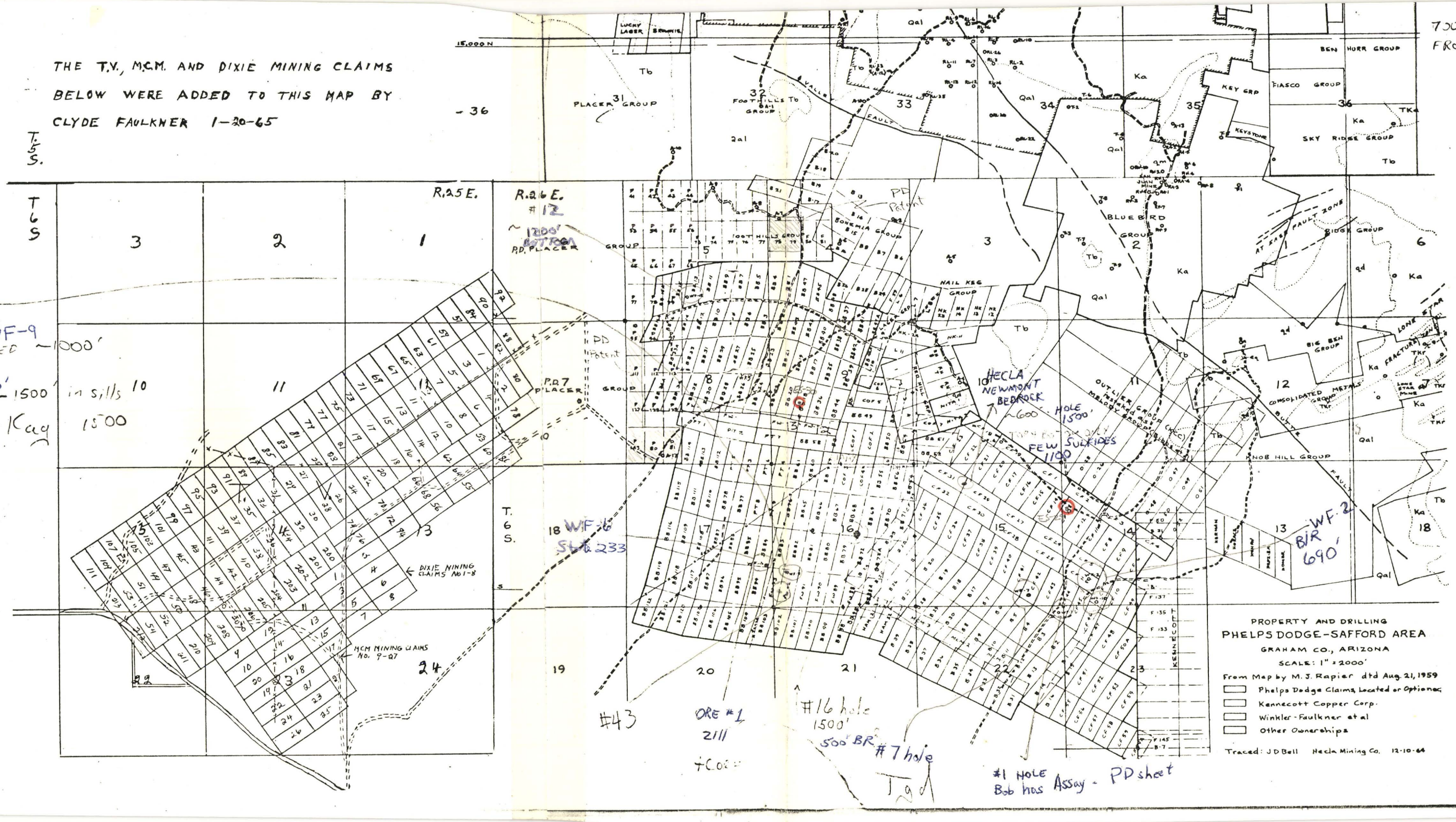
Hole No. W-F - 12
Level Surface
Grid
Latitude
Departure
Elevation 3480' Apx
Bearing
Inclination Vertical

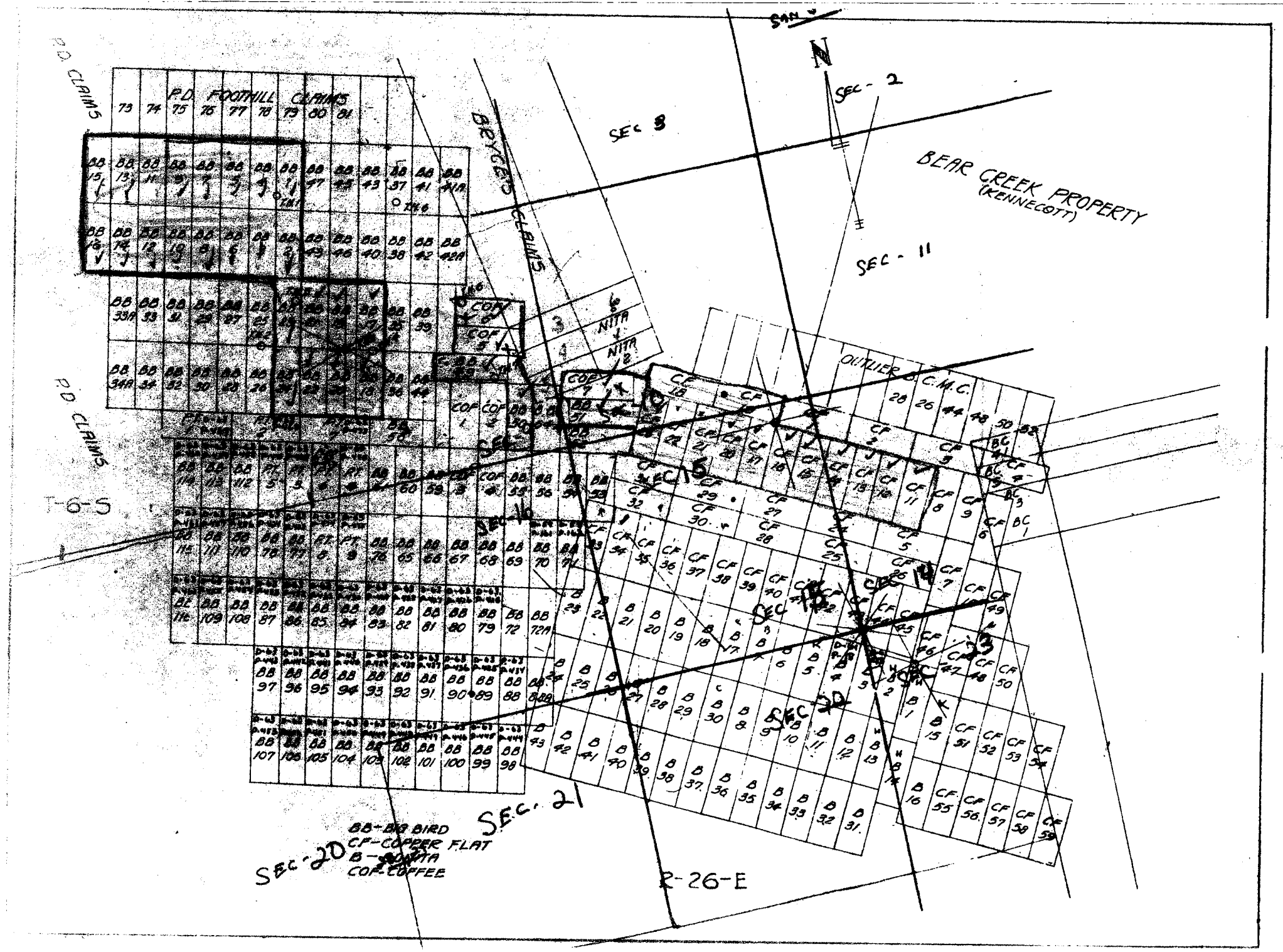
| Depth Feet | Feet Core | Lithologic Description | Sample Data No. | Interval Feet | Sple. Feet | Oz. Ag | % Pb | % Zn |
|---|---|---|---|---|---|---|---|---|
| 0 | | Alluvium, sand, gravel, conglomerate. | | | | | | |
| 550 | 20 | Two boxes core, depth intervals not marked. In first, some tuffaceous conglomerate, succeeded by porph. andesite (?), a gray fine grained rock, faintly xtalline texture, consisting of partly euhedral fs, hornblende lathes, biotite, and interstitial qtz. Specks magnetite, some fe ox specks after disseminated py, and a few yellowish py grains. Second box, same fine grain gray rock, faintly xtalline texture, biotite. Remainder rock bitted, no core. | | No visible copper. | | | | |
| 1090 | 10 | Gray fine grained rock, sugary ground mass, with gray white fs, biotite, specks magnetite and pyrite, interstitial qtz. Porphyritic andesite (?). | | | | | | |
| 1100 | | Rock bit, no core. | | | | | | |
| 1270 | | | | | | | | |
| End | | | | | | | | |

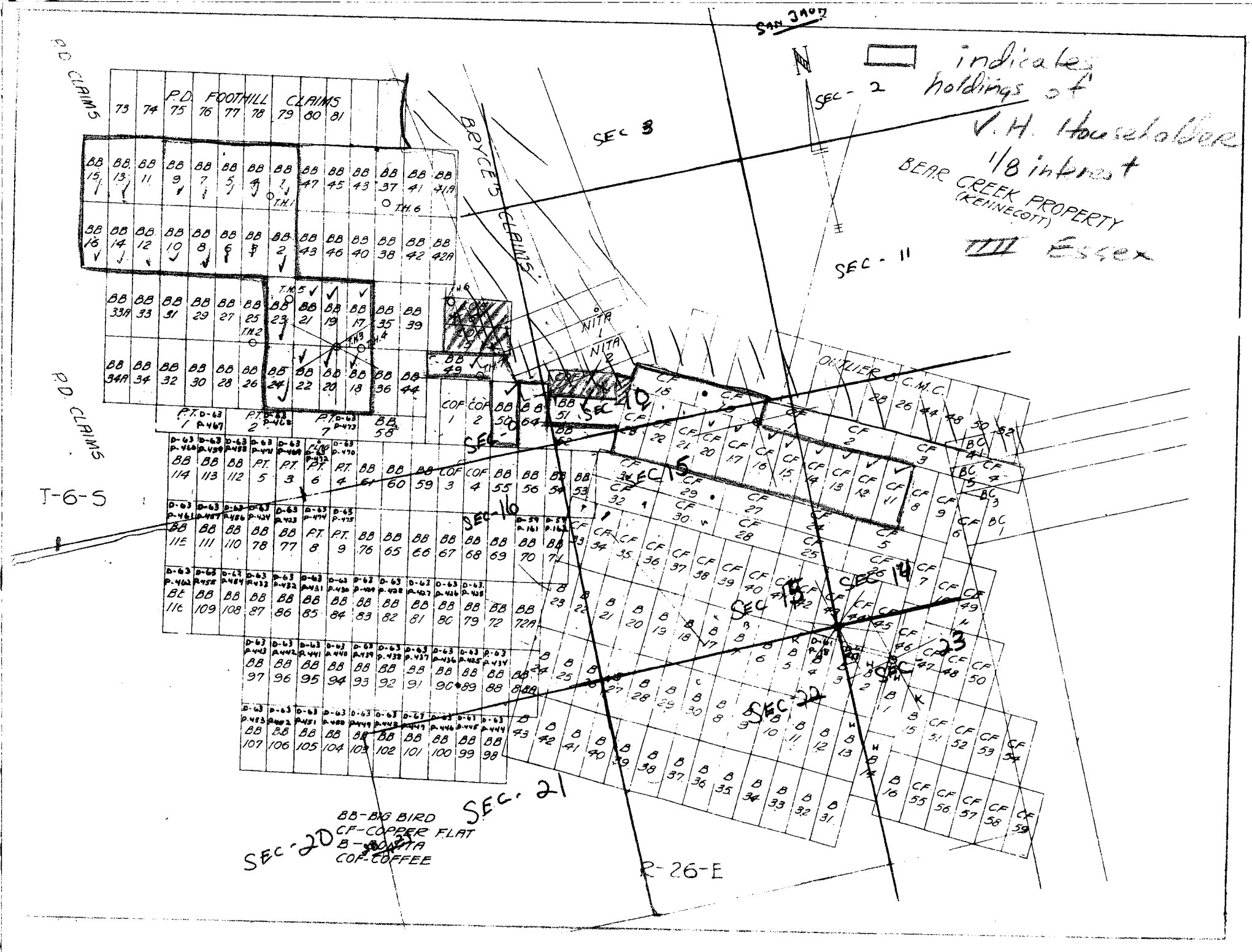
FORM 127 4M 7-55

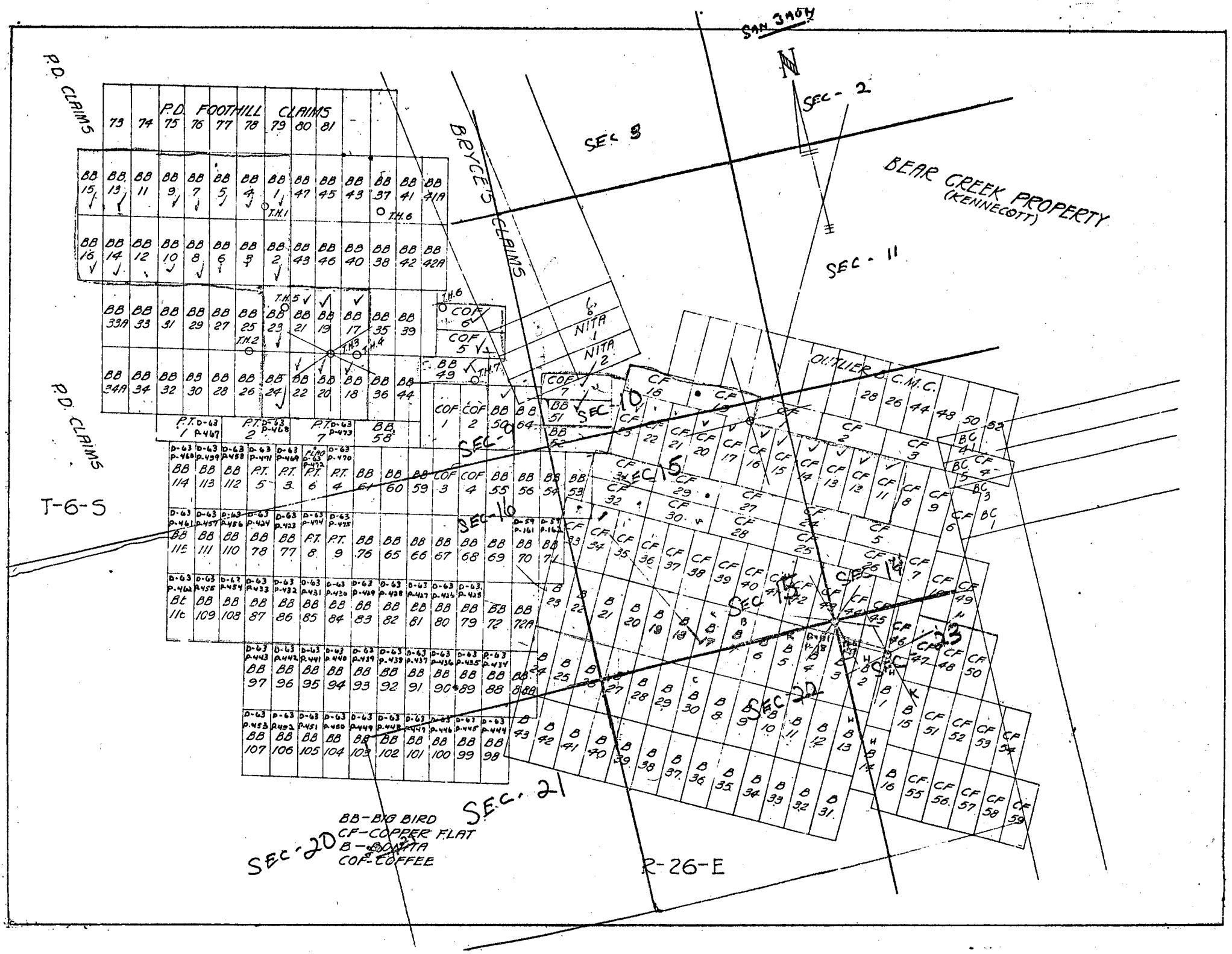
THE T.V., M.C.M. AND DIXIE MINING CLAIMS BELOW WERE ADDED TO THIS MAP BY CLYDE FAULKNER 1-20-65

700-900 FEET FROM NEC BB61




P.D. FOOTHILL CLAIMS
P.D. CLAIMS
P.D. CLAIMS
BRYCE'S CLAIMS
SEC 3
SEC - 2
SEC - 11
BEAR CREEK PROPERTY
(KENNECOTT)
OUTLIER
SEC 21
SEC 20
SEC 16
SEC 14
SEC 15
SEC 23
T-6-S
R-26-E
BB-BIG BIRD
CF-COPPER FLAT
B-BONITA
COF-COFFEE


indicates holdings of
V. H. Houselober
1/8 interest
BEAR CREEK PROPERTY
(KENNECOTT)
Essex
P.D. FOOTHILL CLAIMS
P.D. CLAIMS
BRYCE'S CLAIMS
SEC. 3
SEC. 2
SEC. 11
SEC. 10
SEC. 16
SEC. 15
SEC. 14
SEC. 23
SEC. 22
SEC. 21
SEC. 20
T-6-S
R-26-E
BB-BIG BIRD
CF-COPPER FLAT
B-BONITA
COF-COFFEE


SAN JUAN
N
SEC - 2
SEC 3
BEAR CREEK PROPERTY
(KENNECOTT)
SEC - 11
BRYCE'S CLAIMS
P.D. CLAIMS
P.D. FOOTHILL CLAIMS
P.D. CLAIMS
T-6-S
OUTLIER
B.C.M.C.
NITA
COFFEE
SEC-10
SEC-15
SEC-16
SEC-14
SEC-13
SEC-22
SEC-23
SEC-21
SEC-20
R-26-E
BB-BIG BIRD
CF-COPPER FLAT
B-BONITA
COF-COFFEE
2" = 1 mi. TO 1" = 1000'

# INDUCED POLARIZATION SURVEY REPORT

## BIG BIRD AND OTHER CLAIMS
## GRAHAM COUNTY, ARIZONA
## T6S, R26E

Exhibit A is a plan map of the Location of the Big Bird and other claims and of the lines along which the induced polarization resistivity survey was performed.

In addition to drill hole information, information regarding geologic conditions under cover was obtained from seven induced polarization lines on a bearing of S45°E trending to the southwest. Line G originates at the north quarter corner of Section 5, T6S, R26E and extends in a southeast direction for 34,000 feet. Lines H, J. K, L, M, and N start at consecutive half mile intervals to the west of this point and extend 38,000 feet to the southeast. A total of 54.5 line miles were run on this survey. The total direct cost allocated to the Big Bird and other claims is $24,000.

A standard multifrequency induced polarization survey was performed using frequencies of 0.1, 1.0, and 2.0 Hertz. Percent frequency effects were derived from the 0.1 and 1.0 Hertz and from the 0.1 and 2.0 Hertz. The apparent resistivity was computed for the reference frequency of 0.1 Hertz. The dipole-dipole configuration was used with a dipole length of 2,000 feet. Dipole separations out to 14,000 feet in opposite directions from a center point were run yielding information to 14,000 feet on the survey lines.

Exhibit B consists of eleven induced polarization and resistivity plot sheets showing the values of apparent resistivity and percent frequency effect derived from the survey on the Big Bird and other claims.

The basic findings of this work reveal a weak to moderate induced polarization anomaly at depth located on the Big Bird claims.

The persons performing this work and their qualifications area:

| | |
|---|---|
| Salvador I. Gaytan<br>931 - 11th Street<br>Douglas, AZ 85607 | - Senior Geophysicist<br>BS, 1949, University of Arizona<br>20 years experience as an exploration geophysicist |
| Richard V. Alvarez<br>1016 - 11th Street<br>Douglas, AZ 85607 | - Crew Chief<br>10 years experience as a geophysical field technician |
| Armando Amarillas<br>760 - 13th Street<br>Douglas, AZ 85607 | - Helper |
| Arnulfo Manzo<br>1137 - 9th Street<br>Douglas, AZ 85607 | - Helper |
| Chester Bartell<br>1235 - 23rd Street<br>Douglas, AZ 85607 | - Helper |
| Robert A. Durazo<br>1532 San Antonio Dr.<br>Douglas, AZ 85607 | - Helper |

S. I. Gaytan
S. I. Gaytan
Senior Geophysicist

Phelps Dodge Corporation
Western Exploration Office
Drawer 1217
Douglas, Arizona 85607

August 31, 1972

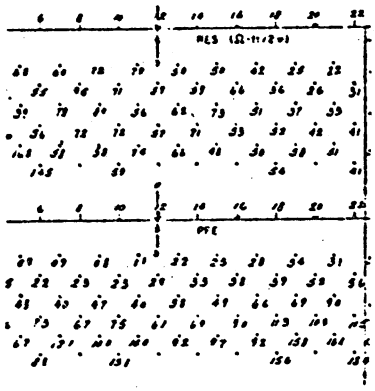
- - - - - - - - - - -

Subscribed and sworn to before me in the county of Cochise and State of Arizona, this 1st day of Sept., 1972.

Edythe A. Gobbele
Notary Public

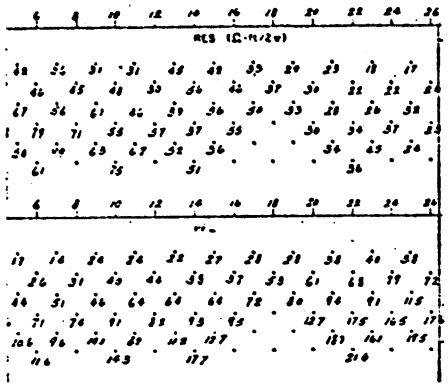
My Commission Expires May 27, 1976

North LINE G



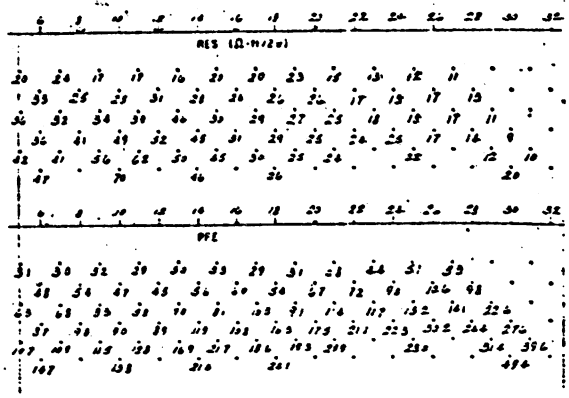

0.1 & 1.0 CPS

LINE H



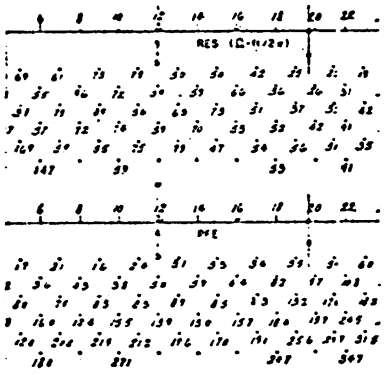

0.1 & 1.0 CPS

LINE J South



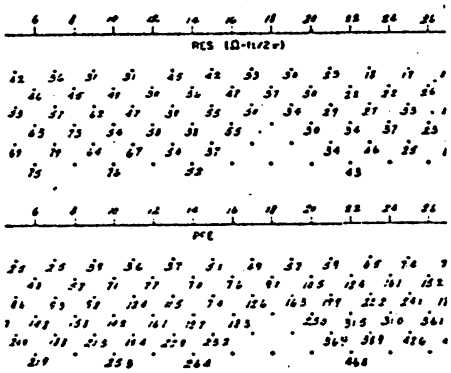

0.1 & 1.0 CPS

North LINE G



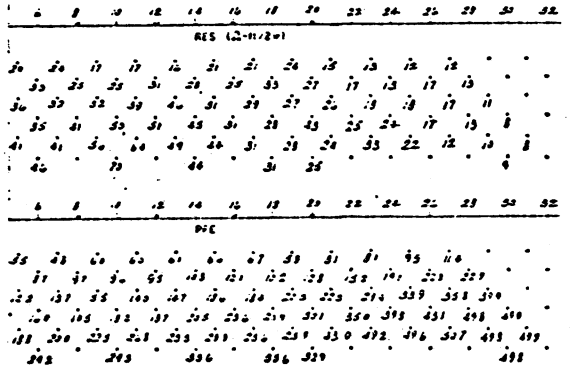

0.1 & 2.0 CPS

LINE H



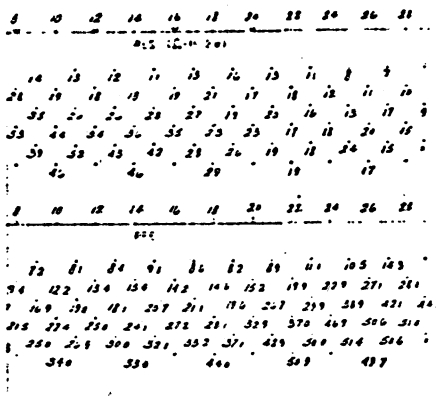

0.1 & 2.0 CPS

LINE J South



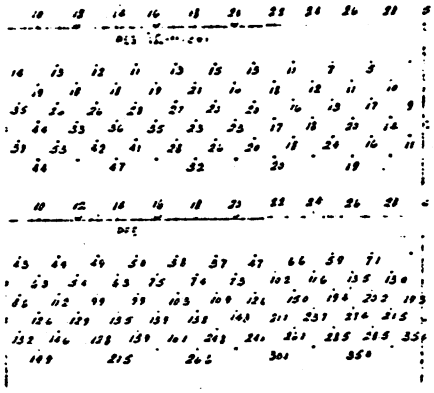

0.1 & 2.0 CPS

North LINE K



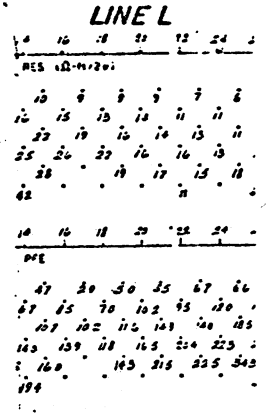

0.1 & 2.0 CPS

LINE K



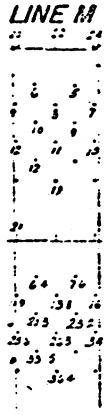

0.1 & 1.0 CPS

LINE L




0.1 & 1.0 CPS

South LINE M



0.1 & 1.0 CPS

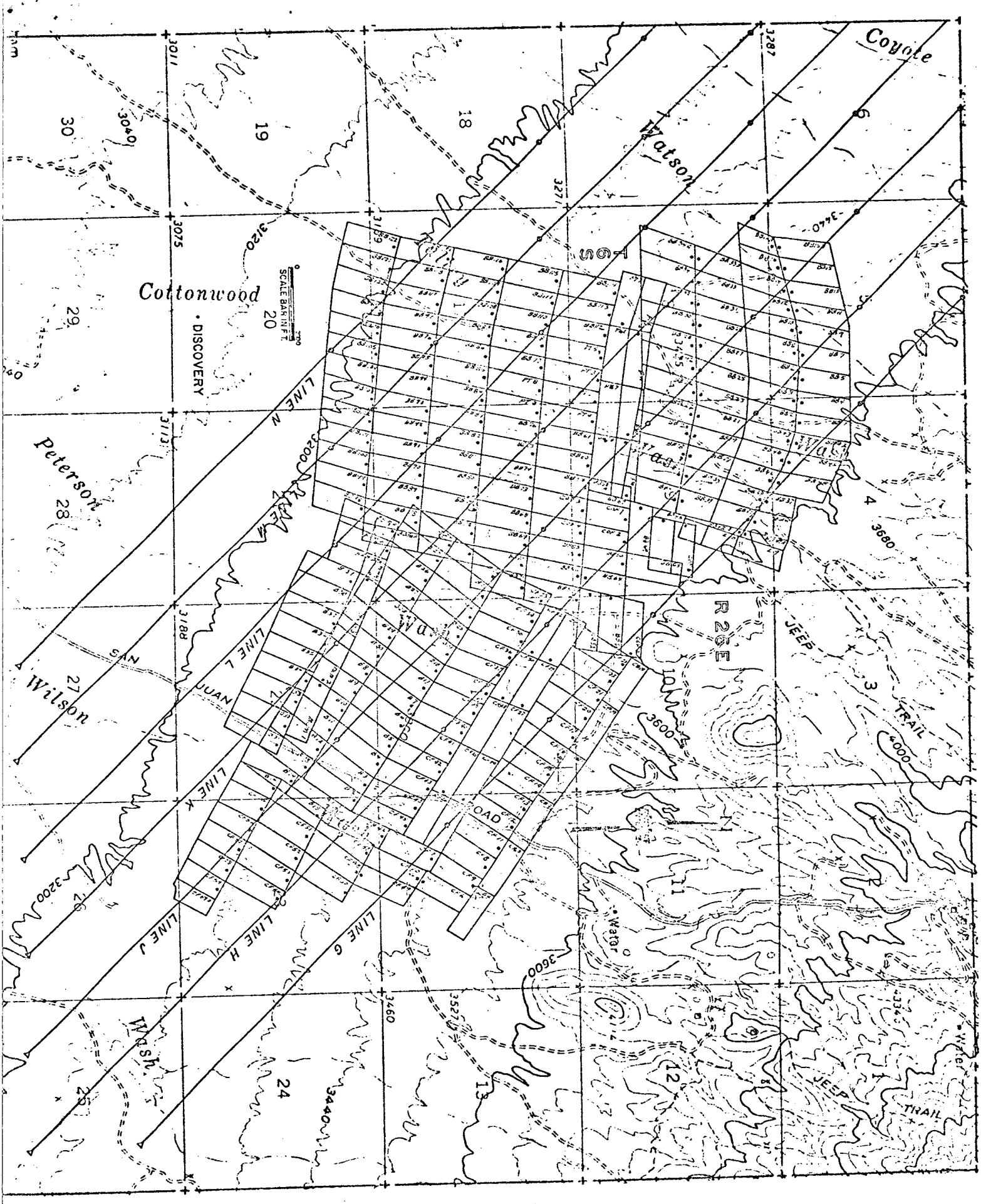
2,000' DIPOLES

DOCKET 191 PAGE 47

WESTERN EXPLORATION OFFICE PHELPS DODGE CORPORATION

INDUCED POLARIZATION COVERAGE
BIG BIRD AREA
GRAHAM COUNTY, ARIZONA

| | | | |
|---|---|---|---|
| SCALE H. As Shown | CONTOUR INTERVAL | | REVISIONS |
| V. | DATE Oct., 1972 | BY WKM, JMK | |
| SHEET 1 OF 1 | DRAWING NO. | | FILE P3-1-769 |


Coyote
Watson
Cottonwood
DISCOVERY
SCALE BAR IN FT.
Peterson
Wilson
SAN JUAN
LINE N
LINE M
LINE L
LINE K
LINE J
LINE H
LINE G
Wash
R 29 E
JEEP TRAIL
Water
3011
3049
3075
3120
3159
3200
3188
3227
3287
3440
3680
3600
3460
3527
3414
3334
30
19
18
29
20
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27
26
24
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12
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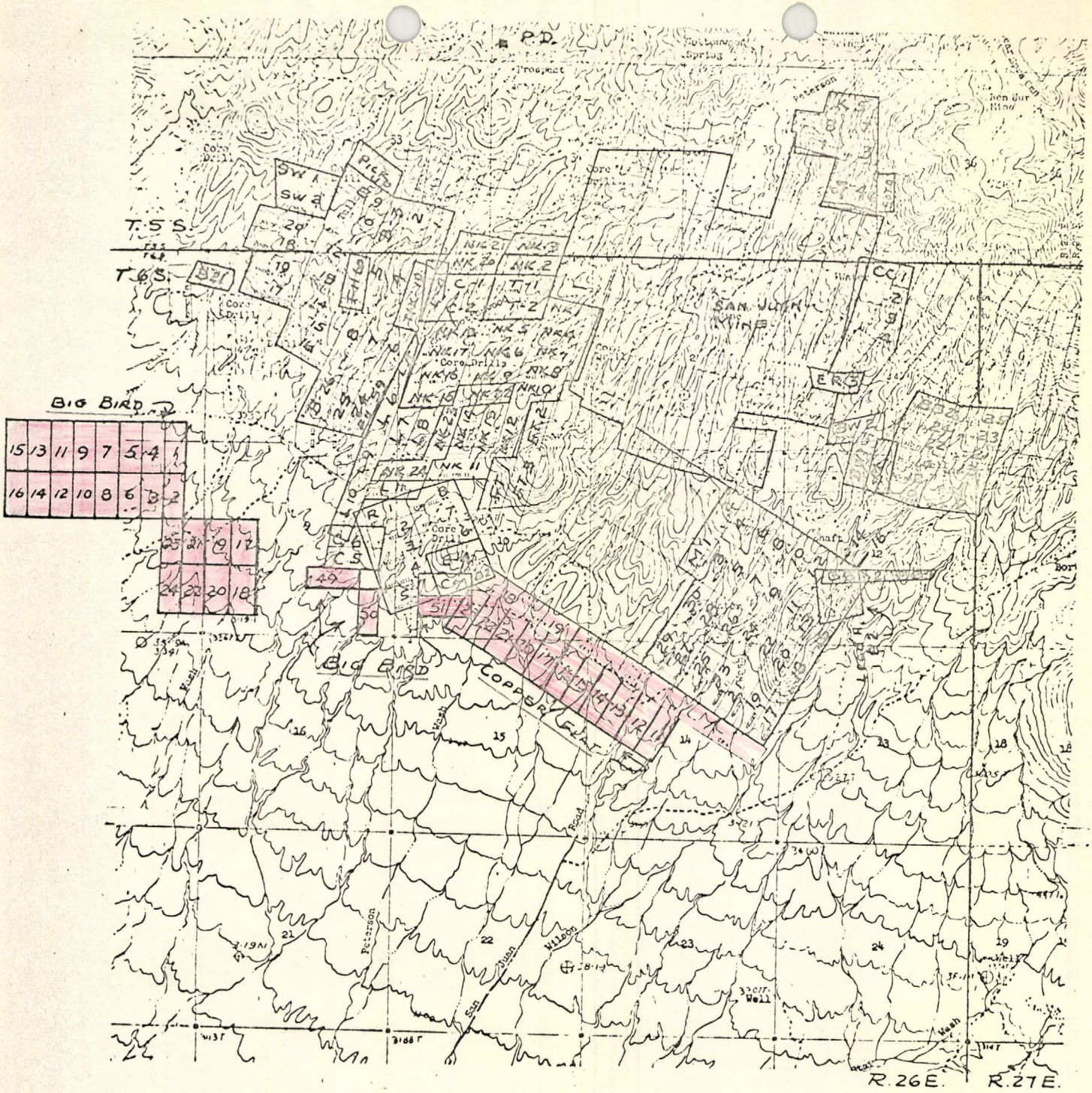
4
6




CLAIM GROUPS

| Parcel No. | Group | Parcel No. | Group | Parcel No. | Group |
|---|---|---|---|---|---|
| 1 | Nail Keg 1-19 | 6 | Flat Top 1-38 | 11 | Lead Hill 1 & 2 |
| 2 | Nail Keg 20-24 | 7 | Melody 1-30 | 12 | Key 1-8 |
| 3 | Red Hill 1-8 | 8 | Lager 4-11 | 13 | Mesquite |
| * 4 | Bohemia 1-21, 24-26 | 9 | Big Ben | 14 | Copper Chief |
| 5 | Cochino & Coffee | 10 | Bardwell 1 & 2 | 15 | Sandwash 1 & 2 |
| | | | | 16 | Pickup |

*4 includes FOOTHILL 5&6
And TECOTE 1&2

17 SOTO
ST. LEASE
18 BOLD
19 BIG BIRD
COP. FLAT

ESSEX CLAIMS

ESSEX

ESSEX INTERNATIONAL, INC.
1708 WEST GRANT RD. TUCSON, ARIZONA
PHONE (602) 624-7[illegible]

| | |
|---|---|
| PROJECT | SAFFORD |
| PROSPECT | |
| NUMBER | A021P8-771 |
| COUNTY, STATE | GRAHAM CO., ARIZ. |
| T. & R. SECTION | as shown |
| LATITUDE, LONGITUDE | |

PROPERTY MAP

| | |
|---|---|
| SCALE | 1" = 4166' |
| DATE | 7/71 revised 10/71 |
| DATA BY | egh |
| PREPARED BY | egh |

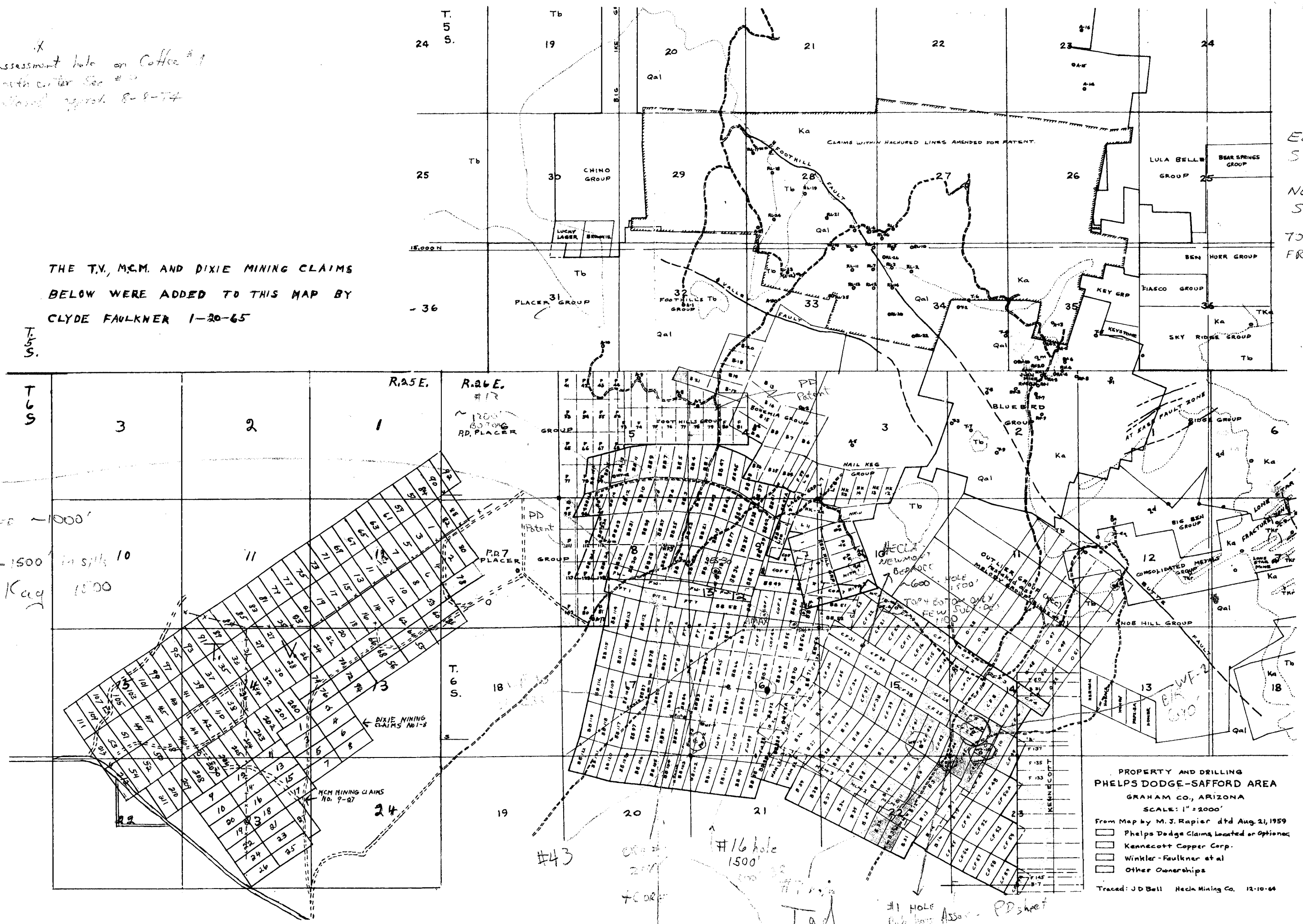
X
Assessment hole on Coffee #1
South center Sec #20
Collared approx. 8-8-74

THE T.V., M.C.M. AND DIXIE MINING CLAIMS BELOW WERE ADDED TO THIS MAP BY CLYDE FAULKNER 1-20-65

EEC FW 13
S 60 E

NEC BB61
S 87 E

700-900 FEET
FROM NEC BB61

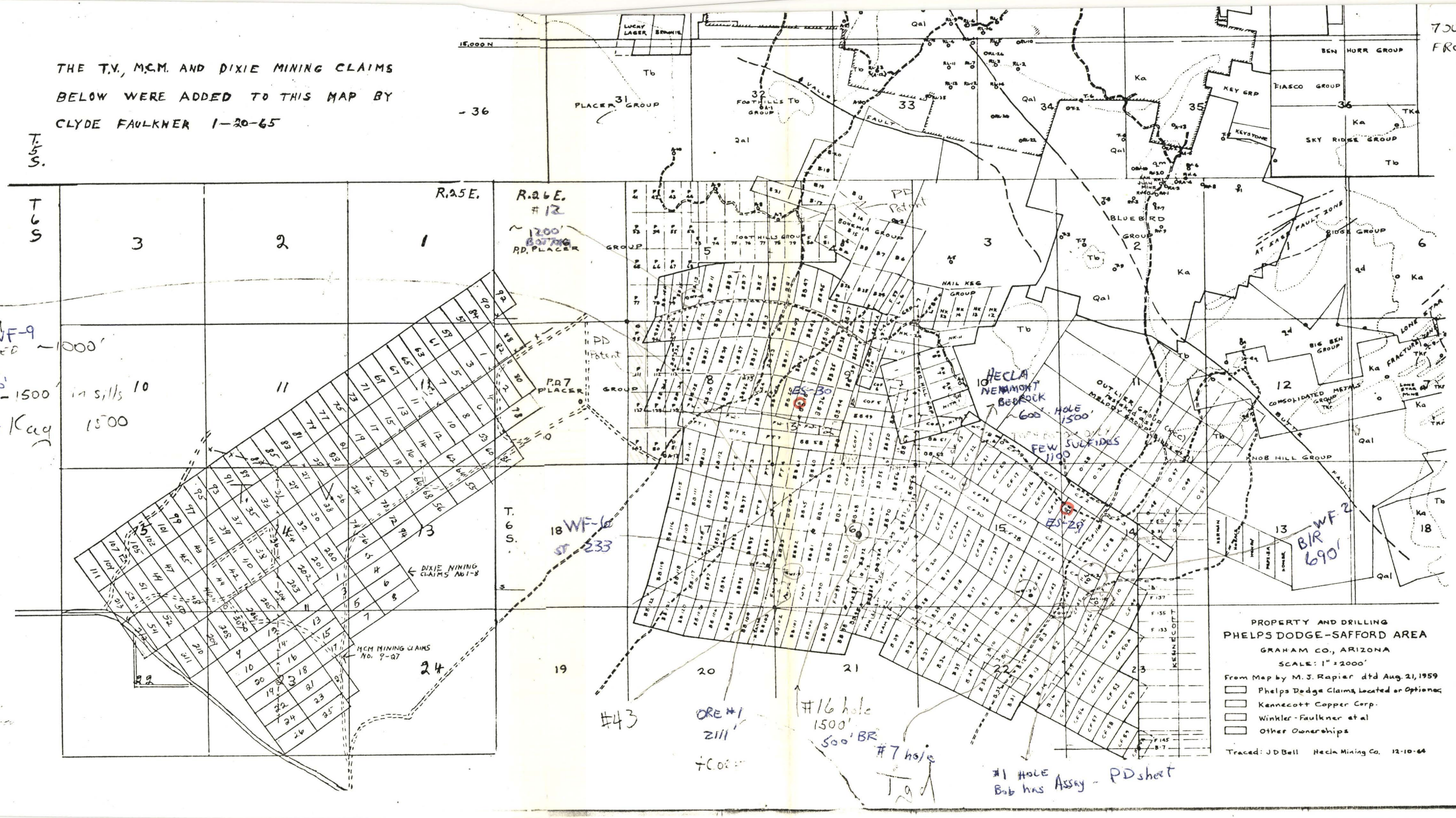



WF-9
Rotarite ~1000'
B/R
1000'-1500' in sills
Hit Kcg 1000

NOTES BY TED FAULKNER

THE T.V., M.C.M. AND DIXIE MINING CLAIMS BELOW WERE ADDED TO THIS MAP BY CLYDE FAULKNER 1-20-65

700 - 900 FEET FROM NEC BB61



34
4
136

Winkler - Faulkner drill holes.
Overlay for district property map.
1" = 24,000"
Logs are in J.D. Bell report for
Hecla + Newmont joint effort. 1965

ROCHIN ENGINEERING AND ASSAY OFFICE
100 W. 9TH STREET • P. O. BOX 218 • EMPIRE 4-8062
DOUGLAS, ARIZONA

H. C. ROCHIN, MGR.
REGISTERED ASSAYER
ARIZONA REG. 4075

HECTOR A. ROCHIN
MINING ENGINEER AND LAND SURVEYOR
ARIZONA REG. 2472

BIG BIRD CLAIMS - GRAHAM COUNTY
SAFFORD
WINKLER-FAULKNER PROSPECT

P.D. Geophysical Dept.

# CERTIFICATE OF ASSAY

| | GOLD OZS. | SILVER OZS. | COPPER % | LEAD % | S. % | MISC. | DDH #1 |
|---|---|---|---|---|---|---|---|
| Lab. 4255 #5980 | | | 0.071 | | .07 | Nil. | 736-766 |
| " 4256 #5984 | | | 0.040 | | [illegible] | " | 766-826 |
| " 4257 #5985 | | | 0.040 | | [illegible] | " | 890-890 |
| " 4258 #5986 | | | 0.082 | | 0.05 | " | 890-942½ |
| " 4259 #5987 | | | 0.060 | | 0.05 | " | 942½-998 |
| " 4260 #5988 | | | 0.071 | | 0.04 | " | 1008-1058 |
| " 4261 #5989 | | | 0.082 | | 0.05 | " | 1058-1108 |
| " 4262 #5990 | | | 0.092 | | 0.05 | " | 1108-1150 |
| " 4263 #5991 | | | 0.650 | | 0.07 | " | 1150-1200 |
| " 4264 #5992 | | | 0.100 | | 0.05 | " | 1200-1255 |
| " 4265 #5993 | | | 0.100 | | 0.05 | " | 1255-1275 |
| " 4266 #5994 | | | 0.133 | | 0.07 | " | 702-706 |
| " 4267 #5995 | | | 0.100 | | 0.07 | " | 706-719 |
| " 4268 #5996 | | | 0.092 | | 0.18 | " | 719-724 |
| " 4269 #5997 | | | 0.225 | | 0.11 | " | 1254 |

RETAINED CHIPS

CORE

REGISTERED ASSAYER
ARIZONA, U.S.A.

REMARKS:

ANALYSIS CERT. BY: H. 19

DATE: March 26, 1963

CHARGES: $ 165.00

# DIAMOND DRILL LOG

HOLE No. WF-1 SHEET 1 OF 1

SCALE _____ STARTED _____ STOPPED _____ NOTES BY BHH

DEPTH _____ BEARING _____ INCLINATION _____

PROPERTY _____ COUNTY _____ STATE _____ COLLAR COORD. N. _____ E. _____ COLLAR ELEV. _____

| ASSAYS % MO | ASSAYS % CU | ASSAYS | % RECOV. | DEPTH | Graph | COL. | DETAIL | MINERALIZATION | ALTERATION | ROCK TYPE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 706 | | | | | original mafics (hbld) weakly altered to chlorite | quartz diorite porphyry, fine-grained, milky plagioclase ≤ 1 mm, groundmass pink or gray; color gray or greenish gray |
| | | | | 724 | | | | 720-724 purple, bleached, clay alteration w/ weak brown limonite fissure vein material | | 1-2% dissem magnetite oxidizing to hematite |

# DIAMOND DRILL LOG

HOLE No. WF-2 SHEET 1 OF 1

SCALE _____ STARTED _____ STOPPED _____ NOTES BY BHH

DEPTH _____ BEARING _____ INCLINATION _____

PROPERTY _____ COUNTY _____ STATE _____ COLLAR COORD. N. _____ E. _____ COLLAR ELEV. _____

| ASSAYS % MO | ASSAYS % CU | ASSAYS | % RECOV. | DEPTH | Graph | COL. | DETAIL | MINERALIZATION | ALTERATION | ROCK TYPE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 980 | | | | | | Bleached, strong clay(?) alteration | intrusive? purple due to Fe oxide / yellow limonite fissure vein |
| | | | 990 | | | | | | | |
| | | | 1342(?) | | | | | weak hematite stain from oxidation of dissem magnetite | very weak, greenish white specks of clay? | quartz diorite porphyry, gray milky plagioclase ≤1mm in aphanitic groundmass |
| | EOH | | 1350 | | | | | | | |

# DIAMOND DRILL LOG

SCALE _____ STARTED _____ STOPPED _____ NOTES BY BAH

DEPTH _____ STATE 233 BEARING _____ INCLINATION _____

HOLE No. WF-6 SHEET 1 OF 1

PROPERTY _____ COUNTY _____ STATE _____ COLLAR COORD. N. _____ E. _____ COLLAR ELEV. _____

| ASSAYS % MO | ASSAYS % CU | ASSAYS | % RECOV. | DEPTH | Graph | COL. | DETAIL | MINERALIZATION | ALTERATION | ROCK TYPE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Ax | | | | | | | | |
| | | | 910 (?) | | | | | | | 910 - 912 fine grained gray andesite (basalt?) |
| | | | | | | | | | | 912 - 1050 red to gray conglomerate rounded to angular volcanic fragments in tuffaceous, sandy matrix |
| | | | | | | | | | ENTIRE SECTION IS Tb - post-ore volcanics | 1050 - ? missing box brown-gray vesicular basalt w/ calcite |
| | | | | | | | | | | 1064 - 1073 aphanitic gray andesite calcite veinlets |
| | | | | | | | | | | 1073 - 1082 brown gray vesicular basalt |
| | | | | | | | | | | 1082 - 1124 gray aphanitic andesite |
| | | | | | | | | | | 1124 - 1154 brown vesicular basalt w/ red baked zone 1134 to bottom |
| | | | | | | | | | | 1154 - 1242 aphanitic gray andesite red baked zone 1188 - 1234 |
| EOH(?) Box 26 | | | 1242 | | | | | | | |

PROJECT BB

# DIAMOND DRILL LOG

HOLE No. #7 SHEET 1 OF 1

SCALE _____ STARTED _____ STOPPED _____ NOTES BY _____

DEPTH _____ BEARING _____ INCLINATION _____

PROPERTY _____ COUNTY _____ STATE _____ COLLAR COORD. N. _____ E. _____ COLLAR ELEV. _____

| ASSAYS % MO | ASSAYS % CU | ASSAYS | % RECOV. | DEPTH | Graph | COL. | DETAIL | MINERALIZATION | ALTERATION | ROCK TYPE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Bx | | | | | | | |
| | | | 750 | | | | START CORE | | | 750 — Tqdp light pinkish gray porphyry quartz diorite or granodiorite, very similar to San Juan Tqmp; clear to milky plagioclase phenocrysts in sugary pink groundmass; medium grained; brown biotite books apparently unaltered, mafics minor but altered to chlorite, |
| | | | | | | | | weak to locally moderate yellow-brown limonite on seams + a few stringers | weak chlorite after mafics; weak epidote | |
| | | | | | | | | 1-2% disseminated magnetite | calcite on fxs and filling open cavities | |
| | | | | | | | | | ≈900 primary biotite and amphib altered to chlorite, traces epidote; plagioclase unaffected | ≈900' groundmass loses pink color ≈930' back to pink groundmass |
| | | | | | | | | below ≈1100 increased Fe stain goethite color to orange red no definitive bot work | | |
| | | | | | | | | | 1202-1227 some weak ttring, moderate gold limonite, clay alteration strongest 1218 | |
| | | | | | | | | increasing limonite to bottom, golden brown, 1% disseminations and occasional stringers | | |
| | | | 1344 | = 1354 | | | — one foot of gravel for core | | | |
| | | EOH | | 1354 | | | | | | 1354 EOH |

# DIAMOND DRILL LOG

HOLE No. WF-9 SHEET 1 OF 1

SCALE _____ STARTED _____ STOPPED _____ NOTES BY BHH

DEPTH _____ BEARING _____ INCLINATION _____

PROPERTY _____ COUNTY _____ STATE _____ COLLAR COORD. N. _____ E. _____ COLLAR ELEV. _____

| ASSAYS % MO | ASSAYS % CU | ASSAYS | % RECOV. | DEPTH | Graph | COL. | DETAIL | MINERALIZATION | ALTERATION | ROCK TYPE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | NX CORE | | | |
| | | | | 1520 | | | | | weak to locally moderate propylitic<br>weak calcite veins and coatings | Kag - andesite agglomerate, various porphyritic + aphanitic mostly rounded fragments up to 4 inches, a few short intervals tuffaceous w/ angular fragments up to 3/4" in aphanitic matrix color predominantly dark purple, some fragments and short intervals green |
| | | | | 1660 | | | | | | |

# DIAMOND DRILL LOG

HOLE No. WF-12 SHEET 1 OF 1

SCALE _____ STARTED _____ STOPPED _____ NOTES BY BHH

DEPTH _____ BEARING _____ INCLINATION _____

PROPERTY _____ COUNTY _____ STATE _____ COLLAR COORD. N. _____ E. _____ COLLAR ELEV. _____

| ASSAYS % MO | ASSAYS % CU | ASSAYS | % RECOV. | DEPTH | Graph | COL. | DETAIL | MINERALIZATION | ALTERATION | ROCK TYPE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1090 | | | | | | | light gray, fine-grained qtz diorite porphyry 1% dissem magnetite plagioclase phenocrysts ~2mm in crystalline groundmass |
| | | | 1100 | | | | | | | |
| | | | | | | | 2 other boxes of unknown footage | | | |

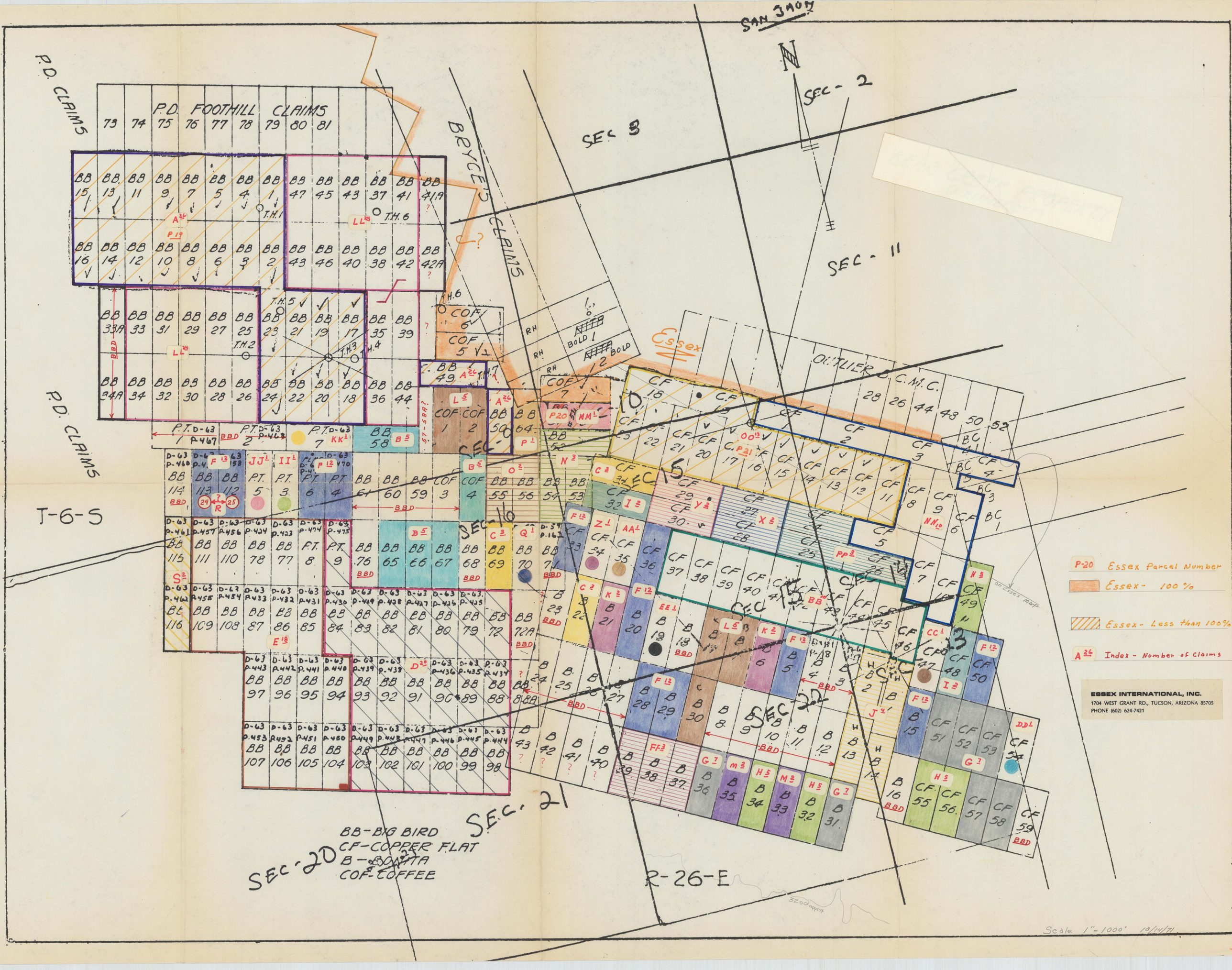
(S-S-1 STATE)

# DIAMOND DRILL LOG

HOLE No. WF-16 SHEET 1 OF

SCALE | STARTED | STOPPED | NOTES BY BHH | DEPTH | BEARING | INCLINATION | PROPERTY | COUNTY | STATE | COLLAR COORD. N. | E. | COLLAR ELEV.

| ASSAYS % MO | ASSAYS % CU | | % RECOV. | DEPTH | Graph | COL. | DETAIL | MINERALIZATION | ALTERATION | ROCK TYPE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 660 | | | | START CORE BEDROCK 600'<br>DIP AT 720 IS 25° | | strong groggy litic, calcite stringers rare | 660<br>Kag - andesite agglomerate, green gray to gray, mostly gray @ 800' |
| | | | 899 | | | | | | | |
| | | | NO CORE ZONE 1075 | | | | | weak fn dissem magnetite | some typical large clumps of epidote, calcite filling small open spaces<br>weak sericite 1300± | 1075<br>Kag - gray to green gray<br>purple tints 1350-1390 |
| | | MANY MISSING BOXES | | | | | | | | |
| | | EOH | 1508 | | | | | | | 1508 - EOH |


SAN JUAN
N
P.D. CLAIMS
P.D. FOOTHILL CLAIMS
BRYCE'S CLAIMS
SEC. 3
SEC. 2
SEC. 11
SEC. 16
SEC. 21
SEC. 20
T-6-S
R-26-E
Essex
OUTLIER
C.M.C.
P-20 Essex Parcel Number
Essex - 100 %
Essex - Less than 100%
A 26 Index - Number of Claims
ESSEX INTERNATIONAL, INC.
1704 WEST GRANT RD., TUCSON, ARIZONA 85705
PHONE (602) 624-7421
BB-BIG BIRD
CF-COPPER FLAT
B-BONITA
COF-COFFEE
Scale 1" = 1000'
10/14/71

NATIONAL 45-604 EYE-EASE 45-704 20/20 BUFF Made in U.S.A.

BIG BIRD DEVELOPMENT CO. SAFFORD, ARIZONA

TOTAL ACREAGE 4,816.710 A021P8-771

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| BIG BIRD 1 - 24<br>ACRES IN PARCEL 480<br>PARCEL 19 - 1 | ACRE/INT. IN PARCEL | %/INTEREST IN PARCEL | %/INTEREST OF TOTAL | |
| BIG BIRD DEVELOPMENT CO. | 24.000<br>100.320 | 25.90 | 2.58 | |
| HOUSEHOLDER | 56.976 | 11.87 | 1.18 | |
| JOHNSON | 8.928 | 1.86 | 0.18 | |
| PROCTOR | 2.350 | 0.48 | 0.04 | |
| D. McMILLAN | 3.024 | 0.63 | 0.06 | |
| B. McMILLAN | 11.330 | 2.36 | 0.23 | |
| R. LINDSEY | 18.240 | 3.80 | 0.37 | |
| L. LINDSEY | 9.120 | 1.90 | 0.18 | |
| COFFEE | 56.976 | 11.87 | 1.18 | |
| HOOPES | 6.864 | 1.42 | 0.14 | |
| WHITMORE | 27.360 | 5.70 | 0.56 | |
| ROWLEY | 9.120 | 1.90 | 0.18 | |
| MALOY | 45.600 | 9.50 | 0.94 | |
| GODFREY | 45.072 | 9.39 | 0.93 | |
| CHLARSON | 54.720 | 11.40 | 1.13 | |
| | 480.00 | 99.98 | = 9.96 - 9.88 | |

NATIONAL 45-604 EYE-EASE 45-704 20/20 BUFF Made in U.S.A.

BIG BIRD DEVELOPMENT CO. SAFFORD, ARIZONA

TOTAL ACRES 4,816.710 A021P8-771

| | BIG BIRD 25 - 48<br>ACRES IN PARCEL 480<br>PARCEL 19 - 2 | 1<br>ACRE/INT.<br>IN PARCEL | 2<br>%/INTEREST<br>IN PARCEL | 3<br>%/INTEREST<br>OF TOTAL | 4 |
|---|---|---|---|---|---|
| 1 | J. WINKLER | 22.800 | 4.75 | 0.47 | |
| 2 | CHLARSON | 54.720 | 11.40 | 1.13 | |
| 3 | B. McMILLAN | 34.130 | 7.11 | 0.70 | |
| 4 | D. McMILLAN | 3.024 | 0.63 | 0.06 | |
| 5 | GODFREY | 45.072 | 9.39 | 0.93 | |
| 6 | HOOPES | 6.864 | 1.43 | 0.14 | |
| 7 | MARKLE | 11.376 | 2.37 | 0.23 | |
| 8 | MALOY | 45.600 | 9.50 | 0.94 | |
| 9 | R. LINDSEY | 18.240 | 3.80 | 0.37 | |
| 10 | L.LINDSEY | 9.120 | 1.90 | 0.18 | |
| 11 | PROCTOR | 2.350 | 0.48 | 0.04 | |
| 12 | WHITMORE | 27.360 | 5.70 | 0.56 | |
| 13 | MEYER | 11.376 | 2.37 | 0.23 | |
| 14 | JOHNSON | 8.928 | 1.86 | 0.18 | |
| 15 | ROWLEY | 9.120 | 1.90 | 0.18 | |
| 16 | BIG BIRD DEVELOPMENT CO. | 24.000<br>145.920 | 35.40 | 3.52 | |
| 17 | | 480. | 99.99 = 9.96 | 9.86 | |
| 18 | | | | | |
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
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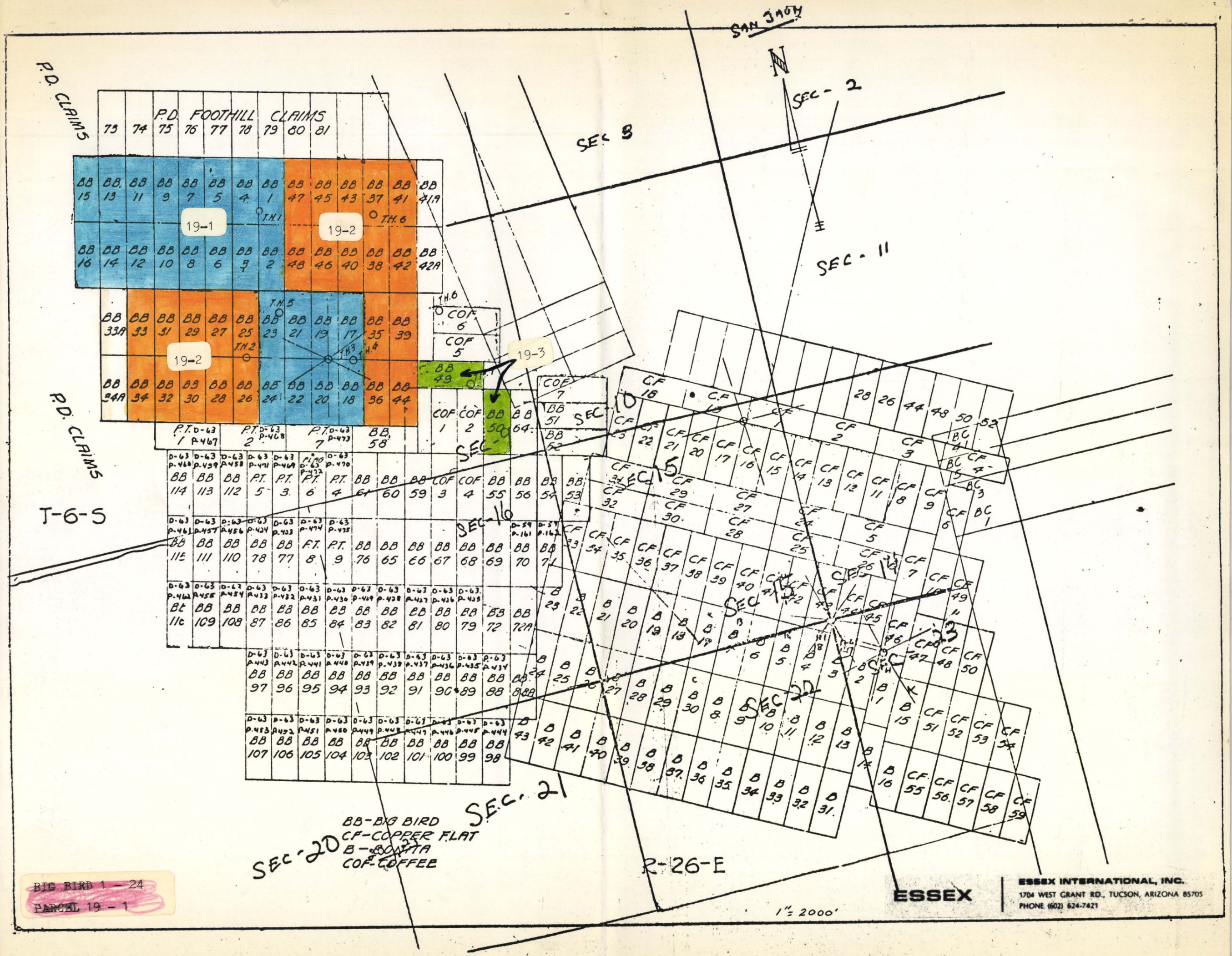
| 31 | | | | | |
| 32 | | | | | |
| 33 | | | | | |
| 34 | | | | | |
| 35 | | | | | |
| 36 | | | | | |
| 37 | | | | | |
| 38 | | | | | |
| 39 | | | | | |
| 40 | | | | | |

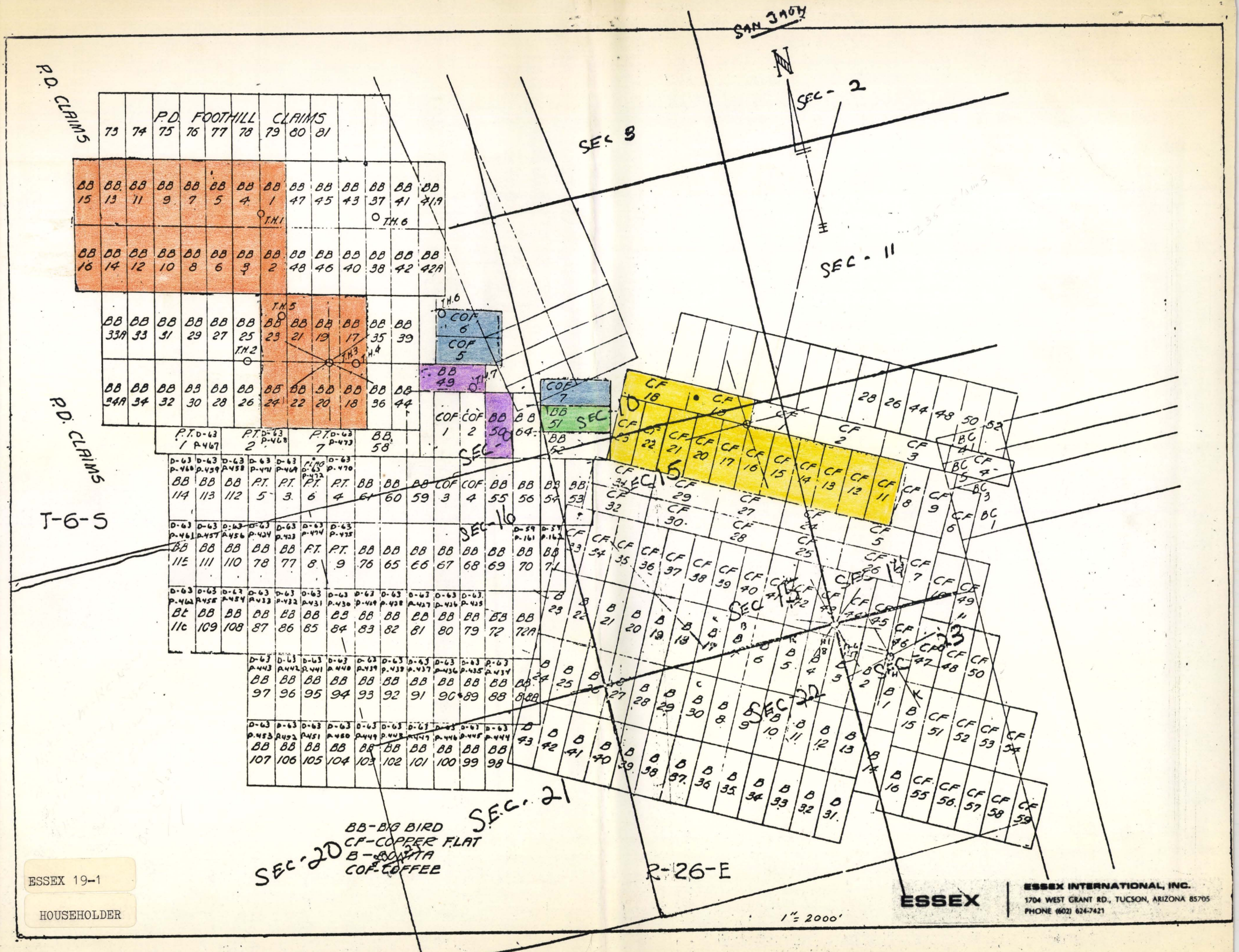

SAN JUAN
N
P.D. CLAIMS
P.D. FOOTHILL CLAIMS
73 74 75 76 77 78 79 80 81
SEC. 3
SEC. 2
SEC. 11
19-1
19-2
19-3
T.H.1
T.H.2
T.H.3
T.H.4
T.H.5
T.H.6
BB 15 13 11 9 7 5 4 1 47 45 43 37 41 41A
BB 16 14 12 10 8 6 3 2 48 46 40 38 42 42A
BB 33A 33 31 29 27 25 23 21 19 17 35 39
BB 34A 34 32 30 28 26 24 22 20 18 36 44
BB 49
COF 6
COF 5
COF 7
COF 1 2
BB 50
BB 64
BB 51
BB 52
BB 58
P.T. D-63 P-467 1
P.T. D-63 P-468 2
P.T. D-63 P-473 7
BB 114 113 112 5 3 6 4 61 60 59 3 4 55 56 54 53
BB 115 111 110 78 77 8 9 76 65 66 67 68 69 70 71
BB 116 109 108 87 86 85 84 83 82 81 80 79 72 72A
BB 97 96 95 94 93 92 91 90 89 88 88A
BB 107 106 105 104 103 102 101 100 99 98
B 23 22 21 20 19 18 17 6 5 4 3 2 1 24 25 26 27 28 29 30 8 9 10 11 12 13 14 15 16 42 41 40 39 38 37 36 35 34 33 32 31 43
CF 18 19 22 21 20 17 16 15 14 13 12 11 8 9 6 7 10 28 26 44 48 50 52 2 3 4 5 1 29 30 27 28 25 5 26 34 35 36 37 38 39 40 41 42 43 45 46 47 48 50 51 52 53 54 55 56 57 58 59
BC 4 5 3 1
SEC. 10
SEC. 15
SEC. 14
SEC. 23
SEC. 22
SEC. 16
SEC. 21
SEC. 20
T-6-S
R-26-E
BB-BIG BIRD
CF-COPPER FLAT
B-BONITA
COF-COFFEE
1" = 2000'
ESSEX
ESSEX INTERNATIONAL, INC.
1704 WEST GRANT RD., TUCSON, ARIZONA 85705
PHONE (602) 624-7421
BIG BIRD 1 - 24
PARCEL 19 - 1

NATIONAL 45-604 EYE-EASE 45-704 20-20 BUFF Made in U.S.A.

BIG BIRD DEVELOPMENT CO. SAFFORD, ARIZONA

TOTAL ACRES 4,816.710 A021P8-771

| | | HOUSEHOLDER 2.958 % interest in BBD | 1 ACRES IN PARCEL | 2 ACRE/INT. IN PARCEL | 3 %/INTEREST IN PARCEL | 4 %/INTEREST OF TOTAL |
|---|---|---|---|---|---|---|
| 1 | 19-1 | BIG BIRD 1 - 24 | 480 | 56.976 | 11.87 | 1.18 |
| 2 | 19-3 | BIG BIRD 49 & 50 | 40 | 4.784 | 11.87 | 0.09 |
| 3 | 19-4 | BIG BIRD 51 | 20 | 2.374 | 11.87 | 0.04 |
| 4 | 19-36 | COFFEE FLAT 11 - 23 | 260 | 30.862 | 11.87 | 0.64 |
| 5 | 19-85 | COFFEE 5,6, & 7 | 60 | 47.50 | 79.16 | 0.98 |
| 6 | | | 860 | 142.496 | 16.56% | 2.93 |




ESSEX 19-1

HOUSEHOLDER

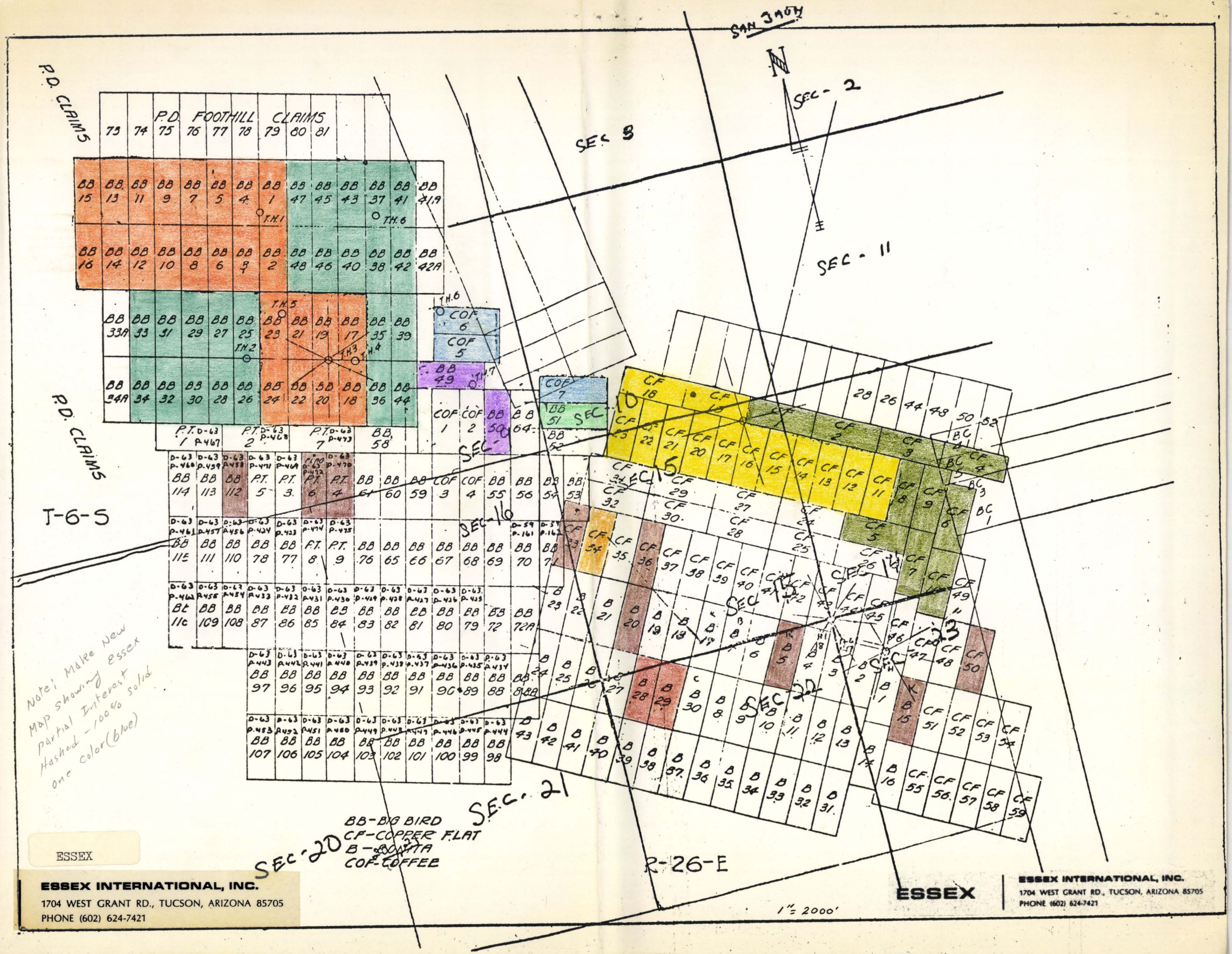
ESSEX HOLDINGS IN BIG BIRD DEVELOPMENT CO. SAFFORD PROJECT

* INDIVIDUAL PARCEL INTEREST (total acres 4,816.710) A021P8-771

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| | HOUSEHOLDER 2.958% BBD 16.57 % P* | CHLARSON 6.677% BBD 22.334 % P* | | ESSEX 9.635% BBD 38.904 % P* |
| BIG BIRD 1 - 24 | 11.87 | 11.40 | | 23.27 |
| " " 25 - 48 | | 11.40 | | 11.40 |
| " " 49 & 50 | 11.87 | 11.40 | | 23.27 |
| " " 51 | 11.87 | | | 11.87 |
| " " 112 | | 95.0 | | 95.0 |
| COFFEE FLAT 1 - 10 | | 2.47 | | 2.47 |
| " " 11 - 23 | 11.87 | | | 11.87 |
| " " 33,36 & 50 | | 95.0 | | 95.0 |
| " " 34 | | 63.33 | | 63.33 |
| BONITA 5,15 & 20 | | 95.0 | | 95.0 |
| " 28 & 29 | | 47.50 | | 47.50 |
| P T 4 & 6 | | 95.0 | | 95.0 |
| COFFEE 5,6 & 7 | 79.16 | | | 79.16 |

Note: Chlarson not Acquired by Essex

© WILSON JONES COMPANY G7204 GREEN 7204 BUFF MADE IN U.S.A.




Note: Make New Map showing Essex Partial Interest Hashed - 100% solid one color (blue)

ESSEX

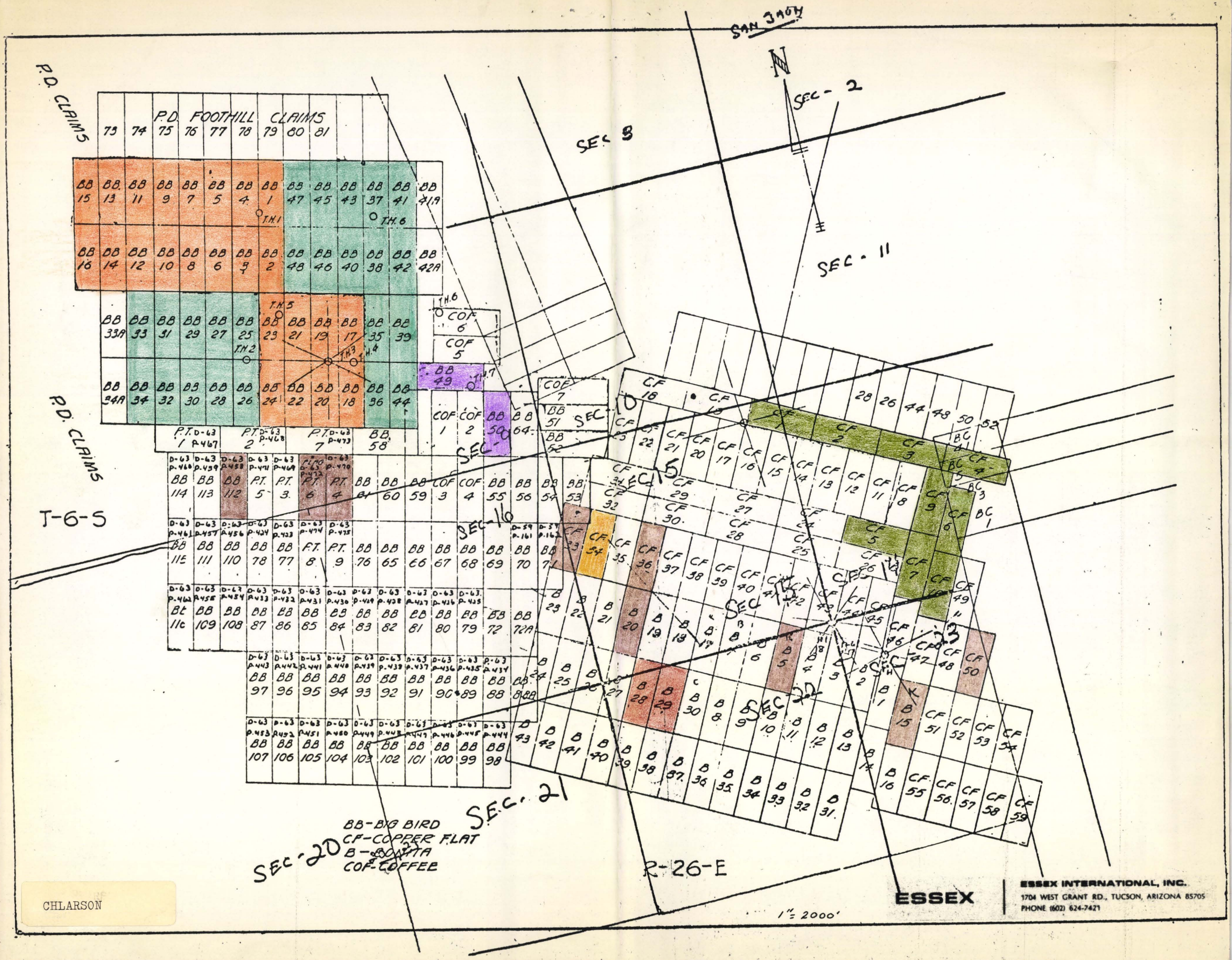
ESSEX INTERNATIONAL, INC.
1704 WEST GRANT RD., TUCSON, ARIZONA 85705
PHONE (602) 624-7421

NATIONAL 45-604 EYE-EASE 45-704 20/20 BUFF Made in U.S.A.

BIG BIRD DEVELOPMENT CO. SAFFORD, ARIZONA

TOTAL ACRES 4,816.710 A021P8-771

| | CHLARSON 6.677 % interest in BBD | 1 ACRES IN PARCEL | 2 ACRE/INT. IN PARCEL | 3 %/INTEREST IN PARCEL | 4 %/INTEREST OF TOTAL |
|---|---|---|---|---|---|
| 1 | BIG BIRD 1 - 24 | 480 | 54.720 | 11.40 | 1.13 |
| 2 | BIG BIRD 25 - 48 | 480 | 54.720 | 11.40 | 1.13 |
| 3 | BIG BIRD 49 & 50 | 40 | 4.560 | 11.40 | 0.09 |
| 4 | BIG BIRD 112 | 20 | 19.000 | 95.0 | 0.39 |
| 5 | COFFEE FLAT 1 - 10 | 200 | 4.94 | 2.47 | 0.10 |
| 6 | COFFEE FLAT 33 | 20 | 19.00 | 95.0 | 0.39 |
| 7 | COFFEE FLAT 34 | 20 | 12.666 | 63.33 | 0.26 |
| 8 | COFFEE FLAT 36 | 20 | 19.00 | 95.0 | 0.39 |
| 9 | COFFEE FLAT 50 | 20 | 19.00 | 95.0 | 0.39 |
| 10 | BONITA 5 | 20 | 19.00 | 95.0 | 0.39 |
| 11 | BONITA 15 | 20 | 19.00 | 95.0 | 0.39 |
| 12 | BONITA 20 | 20 | 19.00 | 95.0 | 0.39 |
| 13 | BONITA 28 & 29 | 40 | 19.00 | 47.50 | 0.39 |
| 14 | P T 4 | 20 | 19.00 | 95.0 | 0.39 |
| 15 | P T 6 | 20 | 19.00 | 95.0 | 0.39 |
| 16 | | 1440 | 321.606 = | 22.334% | 6.61 |


SAN JUAN
N
SEC - 2
SEC 3
SEC - 11
P.D. CLAIMS
P.D. FOOTHILL CLAIMS
P.D. CLAIMS
T-6-S
SEC-10
SEC-15
SEC-16
SEC-23
SEC-22
SEC-21
SEC-20
R-26-E
BB-BIG BIRD
CF-COPPER FLAT
B-BONITA
COF-COFFEE
1" = 2000'
ESSEX
ESSEX INTERNATIONAL, INC.
1704 WEST GRANT RD., TUCSON, ARIZONA 85705
PHONE (602) 624-7421

CHLARSON

AMAX
assessment hole on Coffee #1
south center Sec. #9
collared approx 8-8-74

THE T.V., M.C.M. AND DIXIE MINING CLAIMS BELOW WERE ADDED TO THIS MAP BY CLYDE FAULKNER 1-20-65

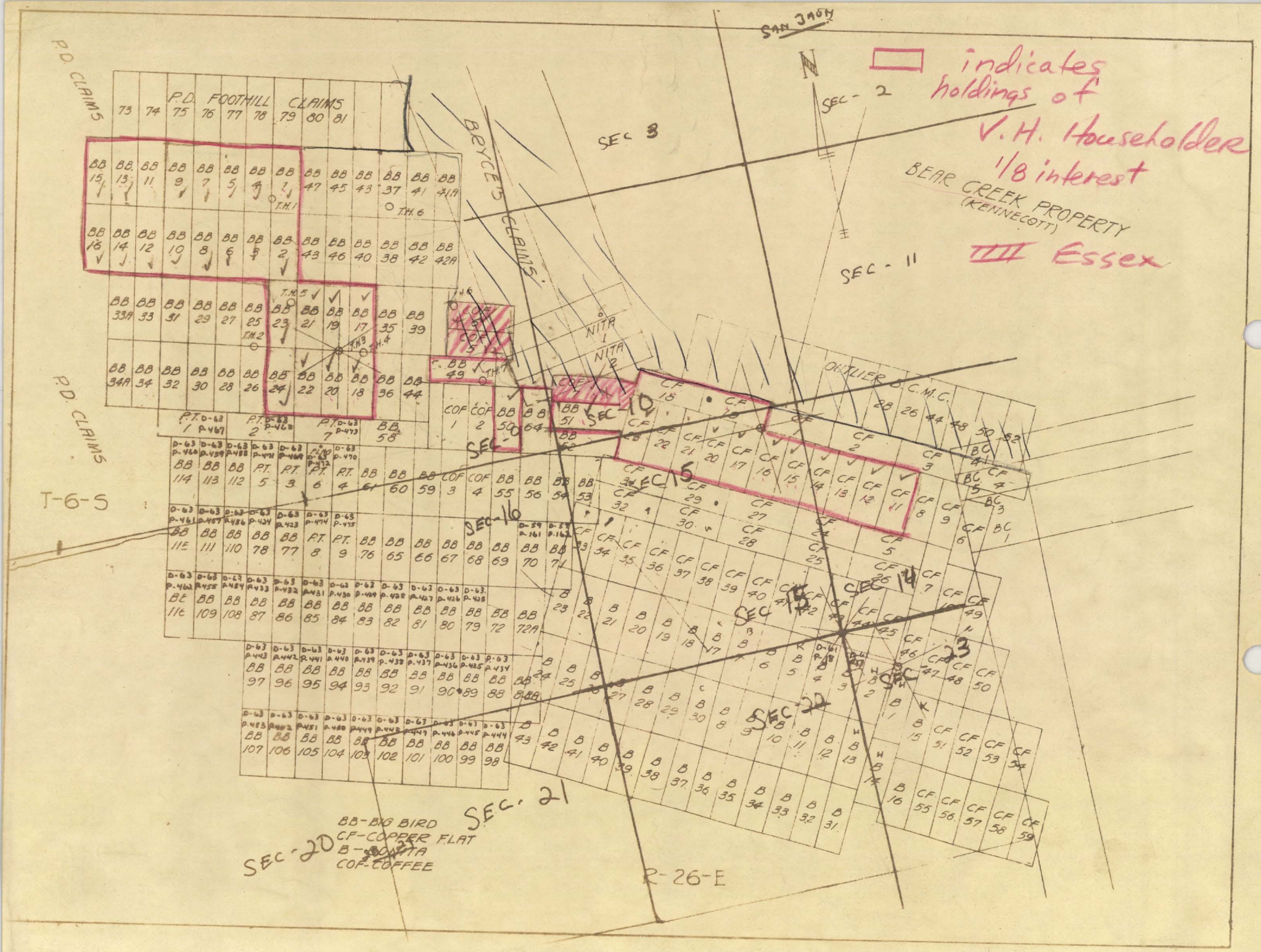
EEC FW 13
S60E

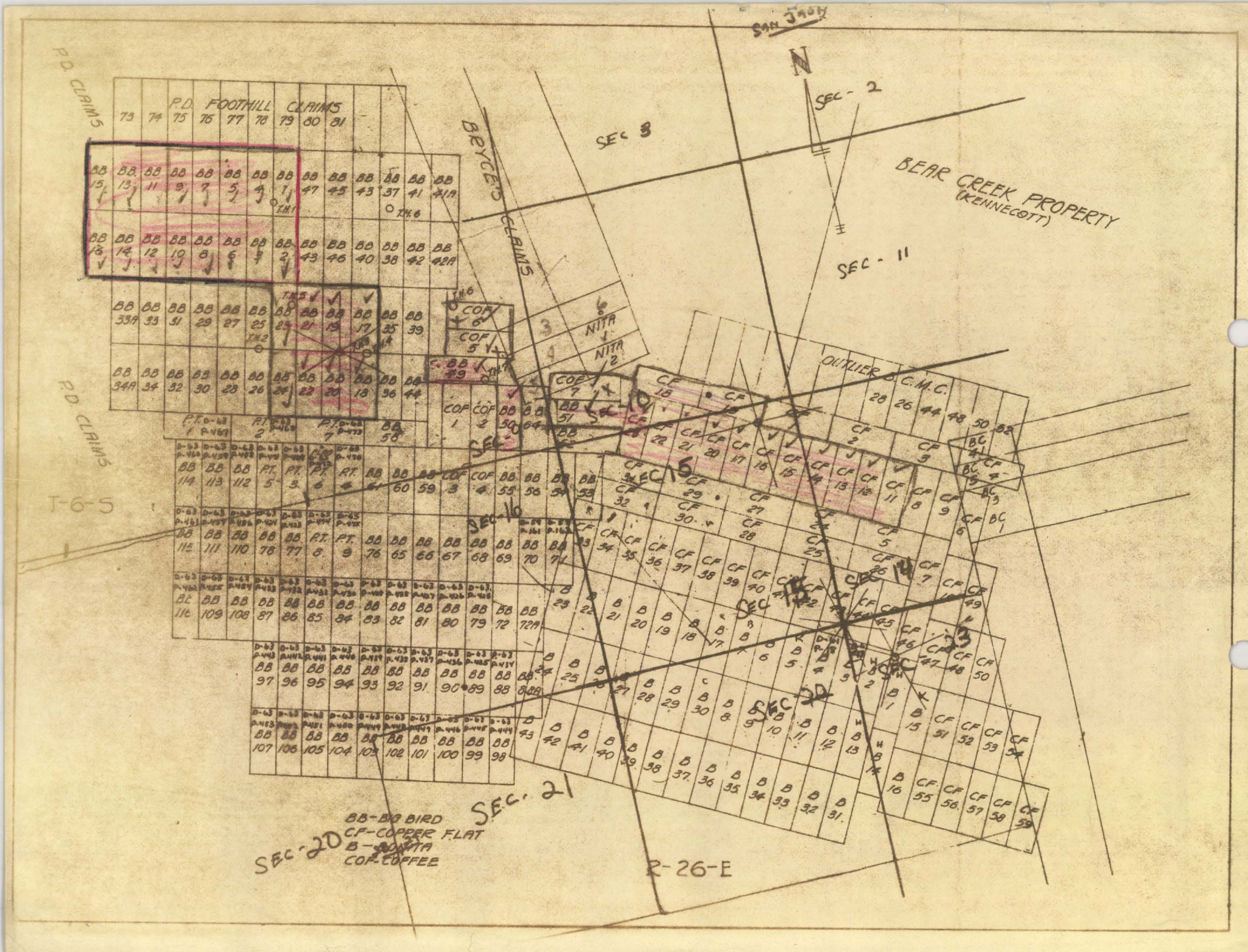
NEC BB61
S87E

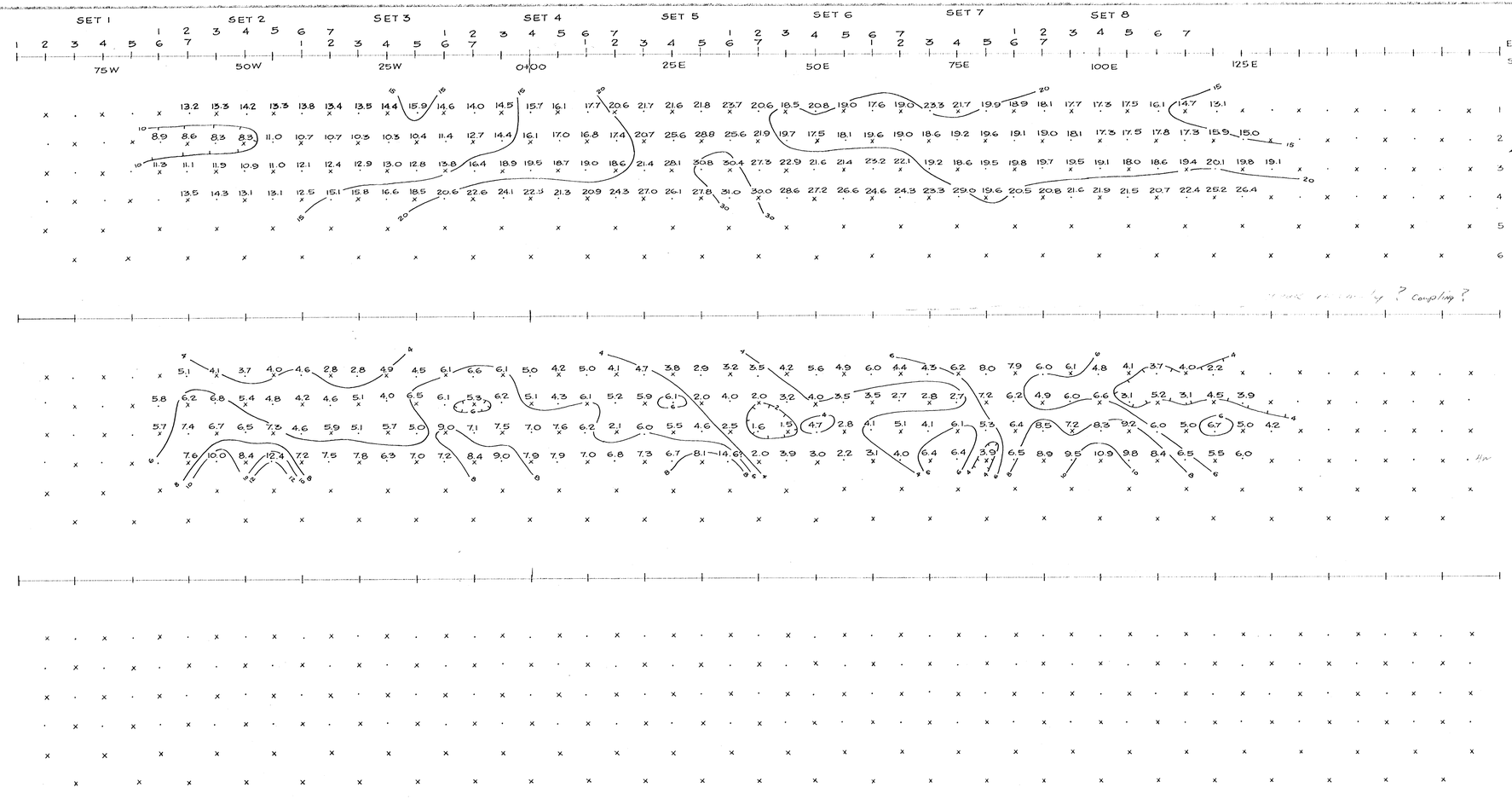
700-900 FEET
FROM NEC BB61

WF-9
ROTARIED ~1000'
B/R
1000'-1500' in sills
Hit Kaq
1500

NOTES BY
TED FAULKNER


indicates holdings of V.H. Householder 1/8 interest
BEAR CREEK PROPERTY (KENNECOTT)
III Essex
P.D. FOOTHILL CLAIMS
P.D. CLAIMS
BRYCE'S CLAIMS
SAN JUAN
SEC 3
SEC - 2
SEC - 11
SEC - 10
SEC - 6
SEC - 16
SEC - 15
SEC - 14
SEC - 23
SEC - 22
SEC - 21
SEC - 20
NITA 1
NITA 2
OUTLIER
C.M.C.
T-6-S
R-26-E
BB-BIG BIRD
CF-COPPER FLAT
B-BONITA
COF-COFFEE
2" = 1 MI


SAN JUAN
N
SEC - 2
SEC 3
BEAR CREEK PROPERTY
(KENNECOTT)
SEC - 11
P.D. FOOTHILL CLAIMS
P.D. CLAIMS
BRYCE'S CLAIMS
NITA
OUTLIER
C.M.C.
SEC - 16
SEC - 21
SEC - 20
T-6-S
R-26-E
BB-BIG BIRD
CF-COPPER FLAT
B-BONITA
COF-COFFEE




## EXPLANATION

ELECTRODE ARRAY: 1000' — 1000'n — 1000'
SENDER DIPOLE — RECEIVER DIPOLE

Relative Anomaly Strength

Very Weak — Weak — Moderate — Strong

LOOKING N 27° 30' E

WINKLER FAULKNER PROJECT

SECTIONAL DATA SHEET

LINE NO. 3 (4000 North)

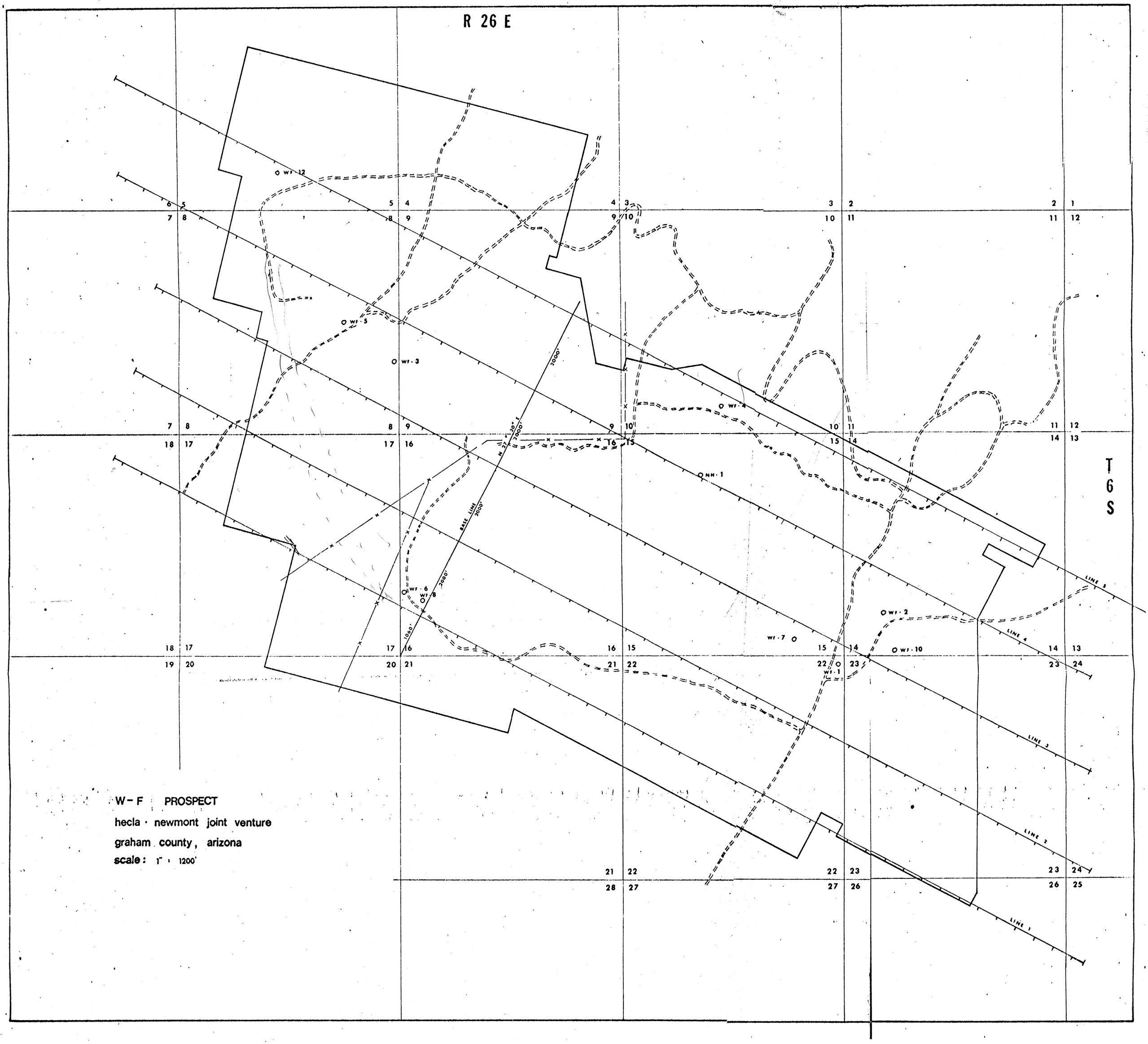
INDUCED POLARIZATION TRAVERSE

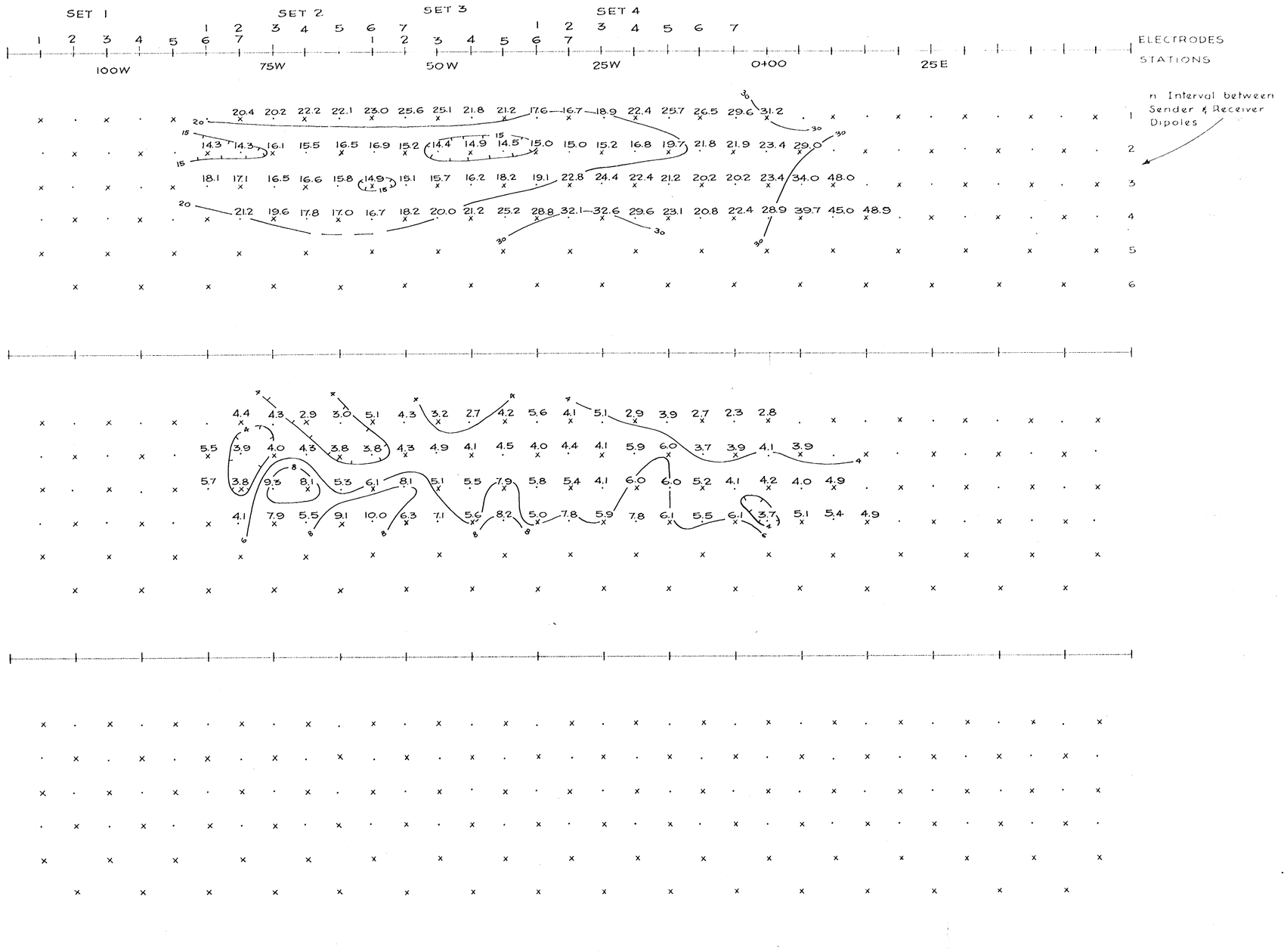
HEINRICHS GEOEXPLORATION COMPANY

SCALE: 1" = 1000' DATE: FEB. 1965

For

NEWMONT - HECLA JOINT VENTURE

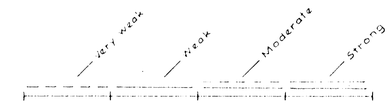

R 26 E
T 6 S
WF-12
WF-5
WF-3
WF-4
NH-1
WF-6
WF-8
WF-7
WF-2
WF-10
WF-1
BASE LINE
2000'
1000'
LINE 5
LINE 4
LINE 3
LINE 2
LINE 1
W-F PROSPECT
hecla · newmont joint venture
graham county, arizona
scale: 1" = 1200'




## EXPLANATION

ELECTRODE ARRAY:

Relative Anomaly Strength




LOOKING N 27° 30 E

WINKLER FAULKNER PROJECT

SECTIONAL DATA SHEET

LINE NO. 4 (6000 North)

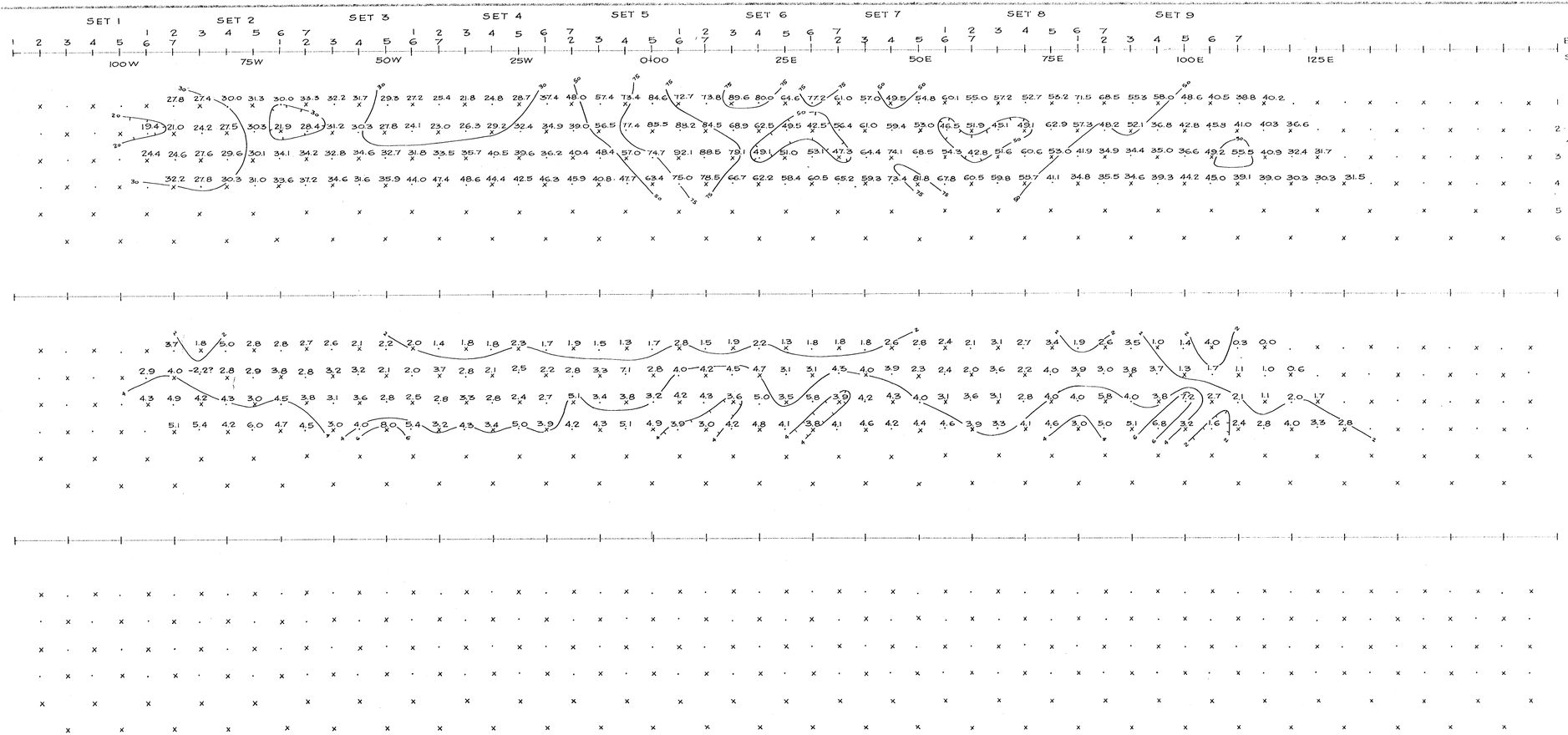
INDUCED POLARIZATION TRAVERSE

HEINRICHS GEOEXPLORATION COMPANY

SCALE: 1" = 1000'  DATE: FEB. 1965

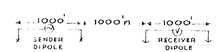
For

NEWMONT-HECLA JOINT VENTURE

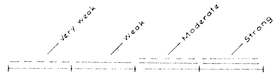



## EXPLANATION

ELECTRODE ARRAY:




Relative Anomaly Strength




LOOKING N 27° 30' E

# WINKLER FAULKNER PROJECT

## SECTIONAL DATA SHEET

LINE NO. 5 (8000 North)

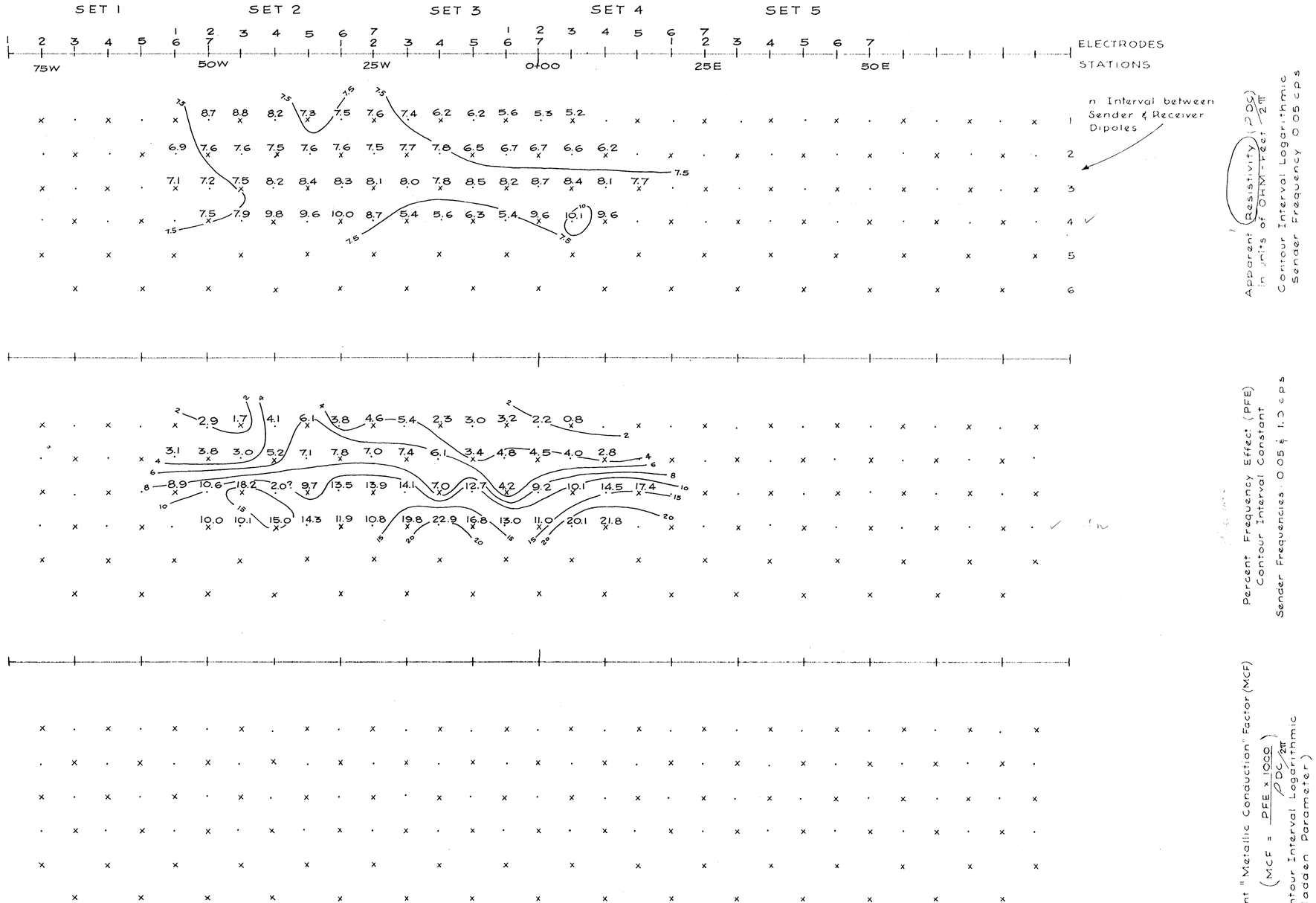
INDUCED POLARIZATION TRAVERSE

HEINRICHS GEOEXPLORATION COMPANY

SCALE: 1" = 1000' DATE: FEB. 1965

For

NEWMONT-HECLA JOINT VENTURE




## EXPLANATION

ELECTRODE ARRAY: 1000' n — SENDER DIPOLE; 1000'n — 1000' (V) RECEIVER DIPOLE

Relative Anomaly Strength

Very weak — Weak — Moderate — Strong

LOOKING N 27°30'E

# WINKLER FAULKNER PROJECT

## SECTIONAL DATA SHEET

LINE NO. 1 (0 North)

INDUCED POLARIZATION TRAVERSE

HEINRICHS GEOEXPLORATION COMPANY

SCALE: 1" = 1000' DATE: FEB. 1965

For

NEWMONT-HECLA JOINT VENTURE