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a v o

TO Paul I. Eimon LOCATION Tucson
 FROM J. K. Jones LOCATION Tucson
 SUBJ. Squaw Peak Project DATE October 19, 1973

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Assay returns are nearly complete on the seven hammer bit holes drilled by Essex on the Squaw Peak property under RFA 335-47. Some surface geologic work has been accomplished and six of the original core holes have been logged in detail. Check assaying of pulps from the original core drilling by Phillips Petroleum Company is underway. Composite samples will be prepared in order to check molybdenum and precious metal content.

Phillips information indicates nearly 30 million tons at a grade of 0.36% copper 0.022% molybdenum, but this ore reserve is based on drill holes spaced 300 to 500 feet apart and on old assay information from the underground workings. It should be considered as a possibility subject to confirmation by more closely spaced drilling. Data gathered to date by Essex suggest that the area defined by Phillips as containing 0.2% copper or better may be substantially correct. However, the key factor in determining the average grade, and ultimately the economic potential, appears to be a central zone containing in excess of 0.4% copper.

The seven shallow holes drilled by Essex are situated in the Southeast portion of the mineralized area with four holes falling within the mineralized area as defined by Phillips and three holes outside or at the margin. The holes at or outside the outlined mineralized area contained less than 0.2% copper with the exception of a 40-foot interval averaging 0.41% copper in hole SP-5 at a depth of 120 feet.

Results from the four holes within the mineralized zone are listed below.

<u>Hole Number</u>	<u>From</u>	<u>To</u>	<u>% Copper</u>
SP-1	0 Feet	290 Feet	0.57
SP-2	0 Feet	385 Feet	0.30 (some assays missing)
SP-4	0 Feet	310 Feet	0.34
SP-6	0 Feet	260	0.65

Essex holes SP-1 and SP-6 contain copper values comparable to the best values reported from the Phillips holes, and confirm the existence of a central high grade zone.

The attached cost estimate details those expenditures considered essential to provide a proven ore reserve so that mining feasibility studies can be undertaken. Twenty-two drill holes to a depth of 400 feet each would be required along with road construction, additional property acquisition, option payment, and other incidental costs. This drilling would provide detailed grade information on a block containing 20 to 30 million tons. In order to define reserves in excess of 30 million tons additional drilling and incidental costs would be needed. Completion of a program such as that in the attached estimate would cost \$181,500.00 and would be prerequisite to a mining feasibility study. Duration of the program would be approximately 6 months.

Information available indicates that the average copper-molybdenum grade at Squaw Peak is too low to support a profitable mining operation under present economic conditions. Therefore, I do not recommend that the entire development program as outlined be undertaken at this time. The option agreement permits holding the property for 8 years at an annual cost of less than \$25,000.00 including nearly \$15,000.00 in assessment work obligations. A reasonable approach would be to proceed relatively slowly with development drilling, concentrating at first on the higher grade central portion. If drilling results are highly favorable or a significant change in economic conditions occurs development could be accelerated. However, if drilling results fail to enhance the grade of the orebody development and exploration can be stretched over an 8 year period with the chance that the price of copper will increase sufficiently to make a mining operation profitable.

SQUAW PEAK DEVELOPMENT COST ESTIMATE

1) OPTION PAYMENT -----	\$ 10,000
Due Squaw Peak Copper Mining Company on February 20, 1974	
2) ROADS and DRILL SITES -----	14,400
Construct 6000 feet of new road with drill pads, clean and modify 4000 feet of existing road, construct water barriers as per U.S. Forest Service specifications. Bulldozer with jackhammer and compressor, explosives, etc. @ \$60 per hour, 30 days work.	
3) DRILLING -----	92,400
a. Coredrilling - 11 holes 400 feet deep at \$15 per foot b. Hammerdrilling - 11 holes 400 feet deep at \$6 per foot	
4) ASSAYING, SAMPLE HANDLING -----	13,600
8800 feet of drilling at assay cost of \$1 per foot. Labor for sample handling, processing	
5) STORAGE, OFFICE SPACE -----	3,600
Repair old buildings on property for additional sample storage space, repair existing buildings to prevent damage to samples on property, rental of office and storage space in Camp Verde.	
6) PROPERTY ACQUISITION, SURVEYING -----	12,500
Locate a minimum of 50 additional mining claims, survey portions of existing claim group and modify as necessary, investigate adjacent ownership and water supply.	
7) TRANSPORTATION -----	8,000
Four wheel drive vehicle and operating costs for servicing drills, transportation of samples and equipment.	
8) GEOLOGICAL -----	5,000
Geologists Salary and expenses	
9) LEGAL -----	2,000
10) ENVIRONMENTAL COSTS -----	2,500
Environmental Impact Study for U.S. Forest Service	
11) METALLURGICAL TESTING -----	7,500
12) ENGINEERING STUDIES -----	5,800
Preliminary mining method studies	

13) SUPPLIES, MISCELLANEOUS ----- \$ 4,200
Sample handling equipment, office supplies,
heaters and lights for storage area,
water tank.

TOTAL \$ 181,500

REQUEST FOR APPROPRIATION

NUMBER 335-47

REQUESTS MUST BE FILED FOR ITEMS COSTING \$250.00 OR MORE

LOCATION Tucson, Arizona DIVISION Metallurgical & Mining DATE Aug. 17, 1973

REQUEST IS HEREBY MADE FOR AN APPROPRIATION OF \$ 17,650.00 FOR ITEMS NOTED BELOW

APPROVED BY

REQUESTED BY Paul Eimon DATE 8/17/73 PRESIDENT _____ DATE _____
 VICE PRESIDENT _____ DATE _____ CHM. OF BOARD _____ DATE _____

COMPLETE DESCRIPTION AND ANALYSIS OF ESTIMATED COST OF ITEMS TO BE EXPENSED

W.O. NUM.	ACC'T NUM.	SQUAW PEAK COPPER PROPERTY	\$
		Option payment	2,000
		Drilling, road building	11,000
		Geological mapping	
		Assaying	1,250
		Maps, Misc. supplies	200
		Legal expenses	800
		Metallurgical testing	1,000
		Vehicle rental (if necessary)	1,400
			TOTAL EXPENSED \$17,650

AUTHORIZED BUDGET ADDER YES NO DIV. CONTROLLER _____

COMPLETE DESCRIPTION AND ANALYSIS OF ESTIMATED COST OF ITEMS TO BE CAPITALIZED

W.O. NUM.	ACC'T NUM.		\$
		To be capitalized if project becomes an operating property.	
			TOTAL CAPITALIZED \$

GRAND TOTAL → \$17,650.00

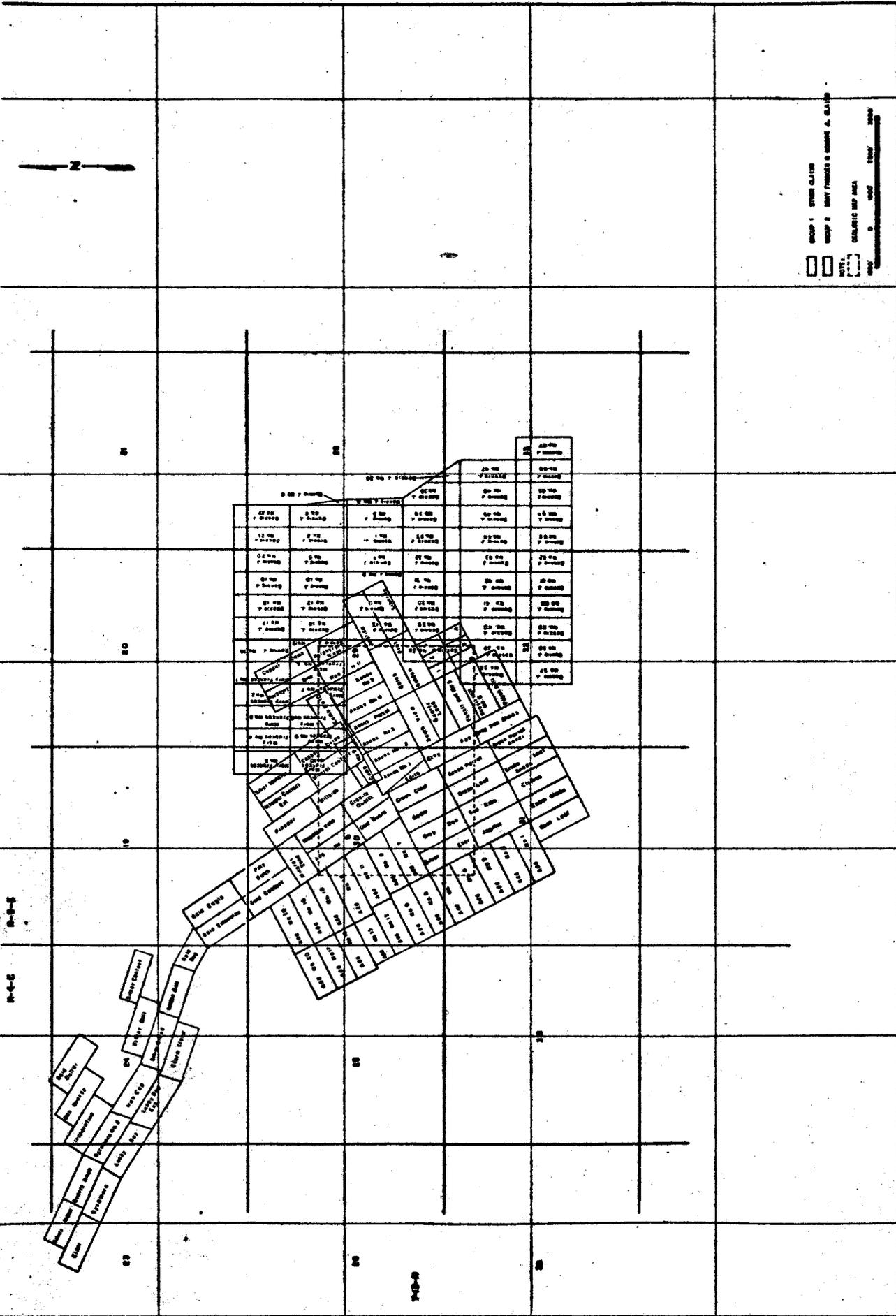
INDICATE BELOW THE COST SAVINGS RESULTING FROM THIS EXPENDITURE AND HOW THE EXPENDITURE WILL BE RECOVERED. OR WHY THE EXPENDITURE IS NECESSARY.

This appropriation is to option, map, drill, sample and evaluate the Squaw Peak copper property near Camp Verde, Arizona for an initial 6-months period. The Squaw Peak Mine presents a unique opportunity for Essex to tie up a known copper reserve at low cost, explore it trying to expand and increase ore grade and reserves, and search for new targets on and surrounding the optioned ground. The minimum aim is to develop 20 to 45 million tons of open pitable ore with possible grades of 0.35 to 0.50% Cu and .02% MoS₂. Favorable option terms allow Essex to purchase the property for long term reserves. This appropriation is strongly recommended by the Tucson Exploration Staff.

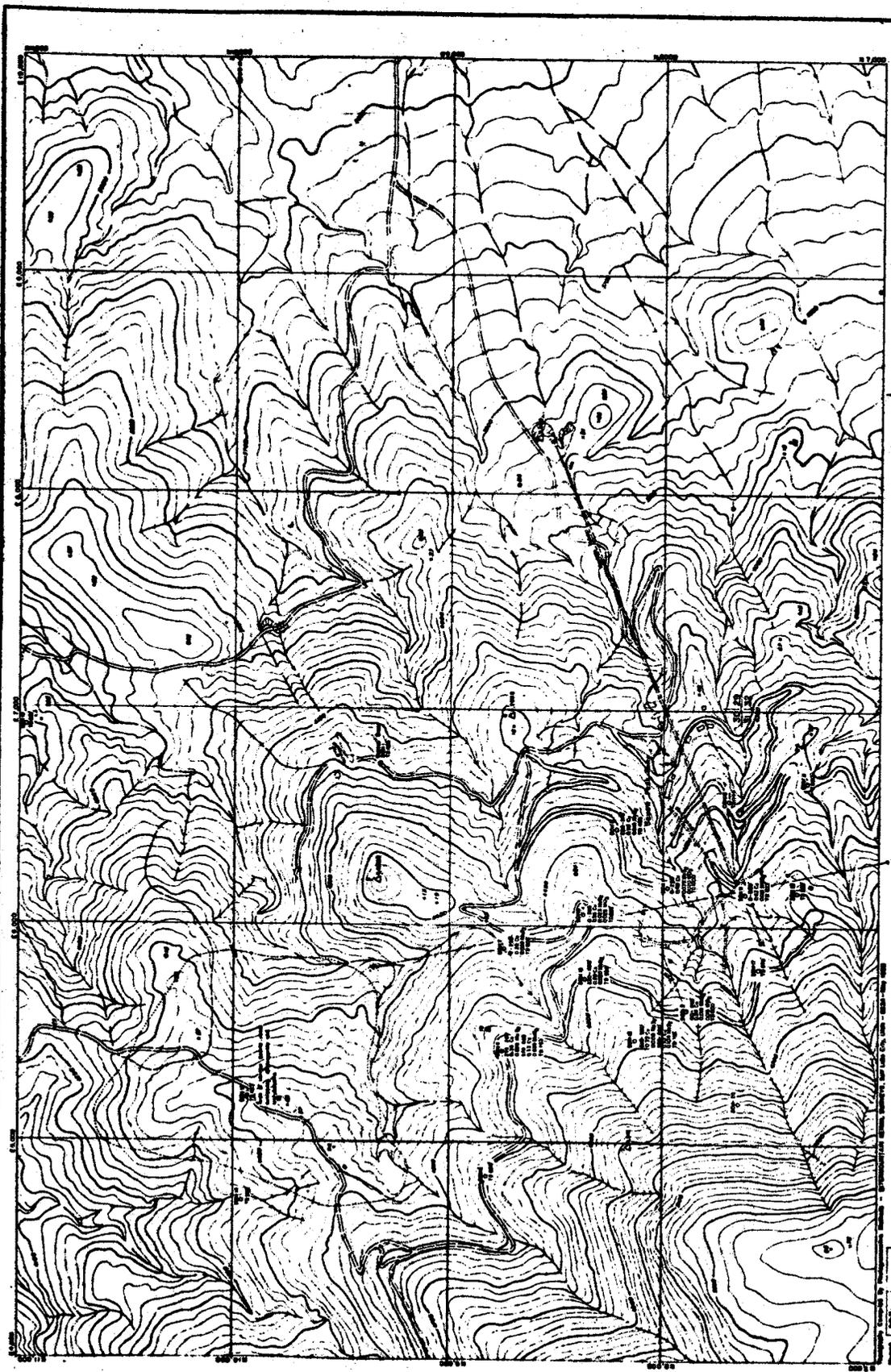
If successful, this appropriation will lead to further Essex expenditures for blocking out ore reserves, additional explorations, economic feasibility studies, and pre-production planning and construction. If Essex decides to "sit on the reserves" it will entail an annual \$10,000.00 option payment and annual assessment work of approximately \$10,000.00 for the first 6½ years.

WHITE COPY ORIGINATOR
 YELLOW COPY CORPORATE
 BLUE COPY DIVISIONAL COPY
 GOLDENROD DIVISIONAL COPY

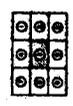
USE REVERSE SIDE IF NEEDED



CLAIM MAP SQUARE PEARL PROJECT TARRANT COUNTY	
DATE: _____ SCALE: _____ DRAWN BY: _____ CHECKED BY: _____	SHEET NO. _____ TOTAL SHEETS _____
PROJECT NO. _____ SECTION _____ TOWNSHIP _____ RANGE _____	COUNTY _____ STATE _____



SQUAW PEAK DISTRICT
MARICOPA COUNTY, ARIZONA
SHEET 6 OF 6 SHEETS



VERTICAL SCALE OF 1" = 100'
HORIZONTAL SCALE OF 1" = 100'



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VICE PRESIDENT _____ DATE _____ CHM. OF BOARD _____ DATE _____

COMPLETE DESCRIPTION AND ANALYSIS OF ESTIMATED COST OF ITEMS TO BE EXPENSED

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		Option payment	2,000
		Drilling, road building	11,000
		Geological mapping	
		Assaying	1,250
		Maps, Misc. supplies	200
		Legal expenses	800
		Metallurgical testing	1,000
		Vehicle rental (if necessary)	1,400
TOTAL EXPENSED			\$17,650

AUTHORIZED BUDGET ADDER YES NO DIV. CONTROLLER _____

COMPLETE DESCRIPTION AND ANALYSIS OF ESTIMATED COST OF ITEMS TO BE CAPITALIZED

W.O. NUM.	ACC'T NUM.		\$
		To be capitalized if project becomes an operating property.	
TOTAL CAPITALIZED			\$

GRAND TOTAL → \$17,650.00

INDICATE BELOW THE COST SAVINGS RESULTING FROM THIS EXPENDITURE AND HOW THE EXPENDITURE WILL BE RECOVERED, OR WHY THE EXPENDITURE IS NECESSARY.

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If successful, this appropriation will lead to further Essex expenditures for blocking out ore reserves, additional explorations, economic feasibility studies, and pre-production planning and construction. If Essex decides to "sit on the reserves" it will entail an annual \$10,000.00 option payment and annual assessment work of approximately \$10,000.00 for the first 6½ years.

WHITE COPY ORIGINATOR
 YELLOW COPY CORPORATE
 BLUE COPY DIVISIONAL COPY
 GOLDENROD DIVISIONAL COPY

USE REVERSE SIDE IF NEEDED

Officers

—
J. J. CAIN
PRESIDENT
H. W. THACKER
VICE-PRES.
EDISON THACKER
SEC. AND MGR.

**The Squaw Peak
Copper Mining Company**
Postoffice Box 625 ————— Jerome, Arizona

Directors

—
J. J. CAIN
H. W. THACKER
EDISON THACKER
R. THACKER
ARTHUR W. WHITAKER

REPORT ON PROPERTY SQUAW PEAK MINING COMPANY

The following is the Mining Engineer's report on our property, dated at Phoenix, Arizona, November 29, 1916. You will also find claim and key map on pages four and five.

SITUATED

Squaw Peak Mining District, Yavapai County, Arizona. Two miles west of the Verde River and seven miles south of Camp Verde.

ROADS

The wagon road from the valley to main tunnel can be made passable at a nominal expenditure.

WATER

There are several serviceable springs upon the property, and an unlimited supply in the Verde River, two miles distant.

POWER

At present a small steam plant is used for the drilling operations, but the Fossil Creek Power Line passes within one mile of the property.

CLAIMS

Twenty claims comprise the group; the titles to these are held by the performance of annual assesment work.

DESCRIPTION OF WORKINGS.

MAIN TUNNEL—Course southwest from gulch, 265 feet in length. In block faulted gray granite with east-west slips. The face shows narrow veinlets of quartz carrying chalcopyrite. (Sample at this face marked No. 1.)

Two inch white quartz seam, carrying chalcopyrites, with visible platting of molybdenum on both sides of seam. This seam crosses tunnel at right angles. Some seams appear to show fine specks of native copper but on investigation prove to be fine speck of oxidized stained quartz. In canyon to right of main tunnel the rugged croppings of granite show copper carbonates on the fracture faces, as well as iron oxides. Short tunnel up the gulch on east course, and at a point about 204 feet from portal of tunnel, showing copper carbonates, intensely fractured and porphyzied ground with abundance of ferrugenous stain. (Sample No. 3 culled from the face of this working.)

Open cut above latter working shows malachite and azurite and ferrugenous stain in altered granite.

GREEN CHIEF CLAIM

Fourteen feet open cut on east side of hill, showing copper carbonates in face. (Sample No. 4 from this face.)

There is some good appearing carbonate ore on the dump that was taken from this cut. The granite at this point is porphyritic, and has a general course which can be easily followed northeast-southwest. 100 foot tunnel in granite, at end is cross cut 30 feet in length, following a 6 inch streak of quartz heavily charged with chalcopyrites. Tunnel thirty feet in length, course west, opposite side of gulch from camp, following crushed quartzose granite, full of slips and seams, and heavily charged with yellow and brown iron oxides, with specks of copper carbonates all through the mass.

SUNRISE CLAIM

Open cut in silicified schistose material, three feet in width, with strong coloration of copper carbonates. (Sample No. 6 taken across this face.)

GREEN LEAF CLAIM

Seventy-five foot shaft, in altered granite its entire depth, shows the presence of copper. At bottom there is a short drift south and two cross-cuts east and west, all showing mineralization of pyrite, chalcopyrite, bornite and flower like forms and spots of molybdenum. Sample No. 7 was taken four feet in width from shaft in south drift all of which shows a decidedly visible contents of the mineralization previously specified. Awaiting further development work as outlined was the reason of not taking more samples from different positions in these workings. Open cut at foot of hill in soft decomposed ground, with yellow and brown ferruginous stain. Sample No. 8 is from this point.

DESCRIPTION OF SAMPLINGS

- Sample No. 1.—Across the face of the main tunnel, granite with quartz seams showing copper sulphide.
- Sample No. 2.—Seam in tunnel carrying minute specks of native copper.
- Sample No. 3.—Face of short tunnel up gulch, 42 inches in width crushed granite showing copper carbonates and limonite.
- Sample No. 4.—44 inches in face of fourteen-foot open cut showing copper carbonates and specks of ferruginous oxides, in porphyritic granite.
- Sample No. 5.—6-inch streak in crosscut end of 100 foot tunnel, heavy in chalcopyrite.
- Sample No. 6.—Three foot silicified schist in open cut strongly impregnated with copper carbonates.
- Sample No. 7.—Four feet along south drift bottom of seventy-five foot shaft.
- Sample No. 8.—Three feet across face soft decomposed ground in open cut bottom of hill.

ASSAY DETERMINATION

No.	Silver	Ounces	Gold	Value	Percentage Copper
1.	.....		.....	...	0.50 per cent
2.	.....		.....	...	0.30 per cent
3.	.....		.....	...	1.50 per cent
4.	.....		.....	...	1.10 per cent
5.	Trace		Trace	...	6.75 per cent
6.	.....		.....	...	4.25 per cent
7.	Trace-		0.02	.40	3.10 per cent
8.			.03	.60	.....
	Molybdenum, 0.16 per cent			...	.....

GEOLOGY AND MINERALIZATION

The general formation which these claims cover is a fine grained quartzose feldspathic gray granite covered on its higher eminences with red sandstone, limestone and basaltic flow in order of ascension as named. The main granite mass has subsequently been intruded by another granite, this altered area of granite is distinctive and is defined from the general body by its inclusions of other rocks, and its minute quartz seams and disseminations of pyrite affording a distinct coloration on the surface as a resultant of weathering. Also, the visible contents of copper carbonates on the surface and specks of same in the shallow workings, and oxidization of original specks of chalcopyrites. The lines of this granite are easily traceable on the surface, by its general disintegration and oxidization, and has a general course northeast-southwest. All openings sampled show the presence of copper values, and in several of them the presence of Molybdenum.

CONCLUSIONS AND RECOMMENDATIONS

As the determinations prove, the property has some value in copper contents, and the presence of Molybdenum may prove of commercial value with further developments, and such I recommend under competent mining direction. In my opinion the present tunnel continued under the altered granites would be the best mode of proving up these areas. The distance to be penetrated from the present face would be from 200 to 300 feet, at the same time this would give a similar depth from the apex. There is sufficient merit and indicative mineralization to warrant this work being carried out. and drifts in any direction might be run from this working if future developments demonstrated the necessity. I would advise that in so much as it is now evident that your present plant is totally inadequate to perform the work required of it I am entirely in accord with your installing a motor or gasoline engine for the generation of power which is needed. This is absolutely essential for the energetic and satisfactory development of the property. The property affords sufficiently meritorious features to warrant expenditure for the furtherance of developments as outlined.

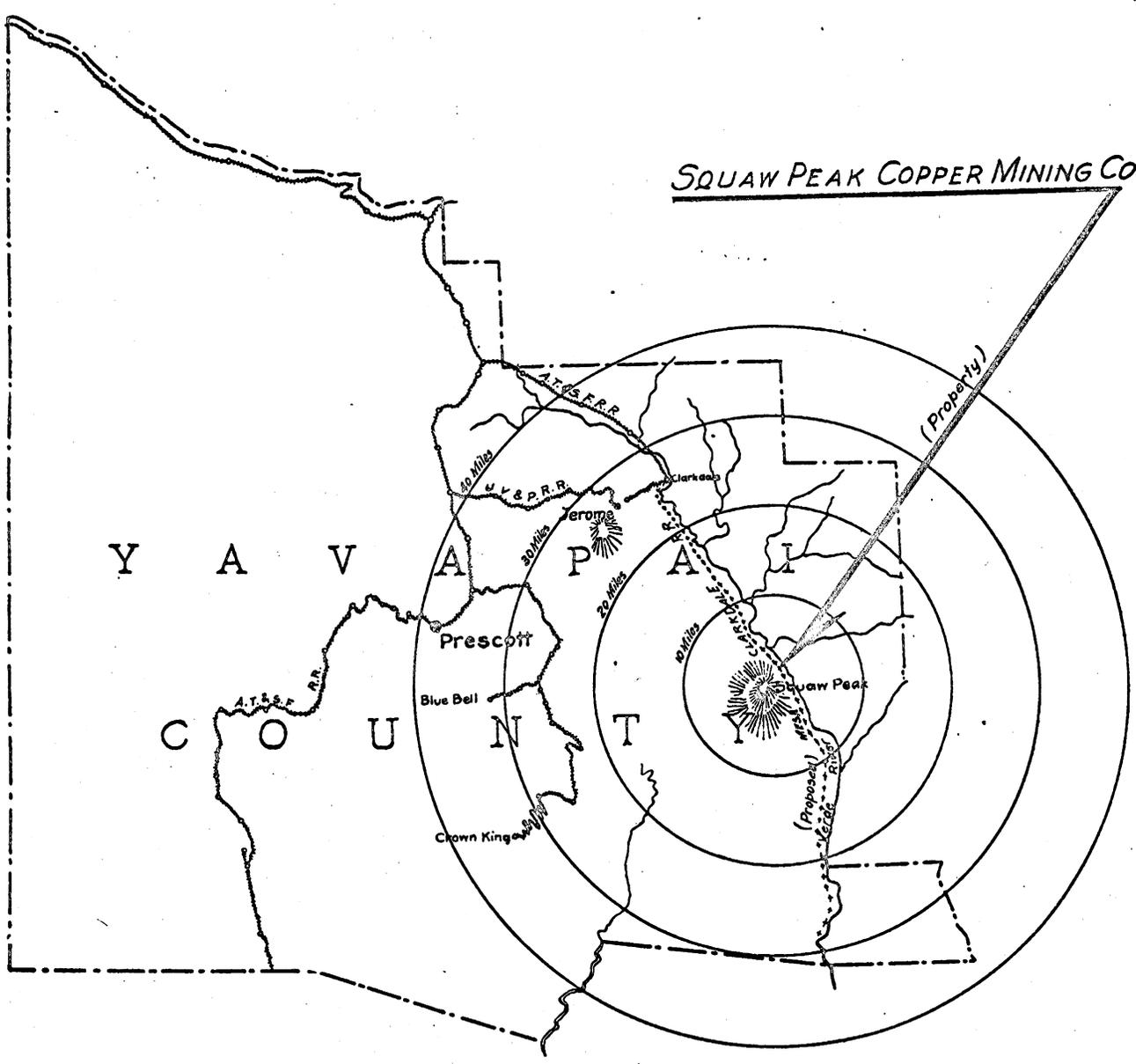
(Signed)

W. E. DEFTY,

MINING ENGINEER.

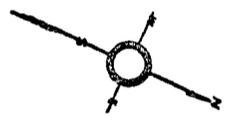
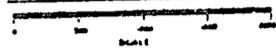
Dated at Phoenix, Ariz., November 29th., 1916.

SQUAW PEAK COPPER MINING CO.

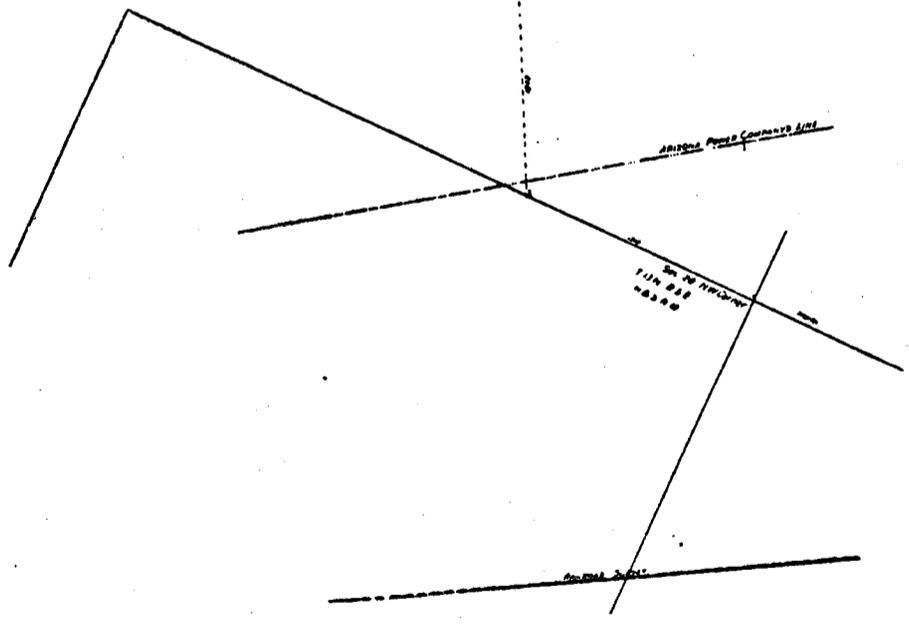
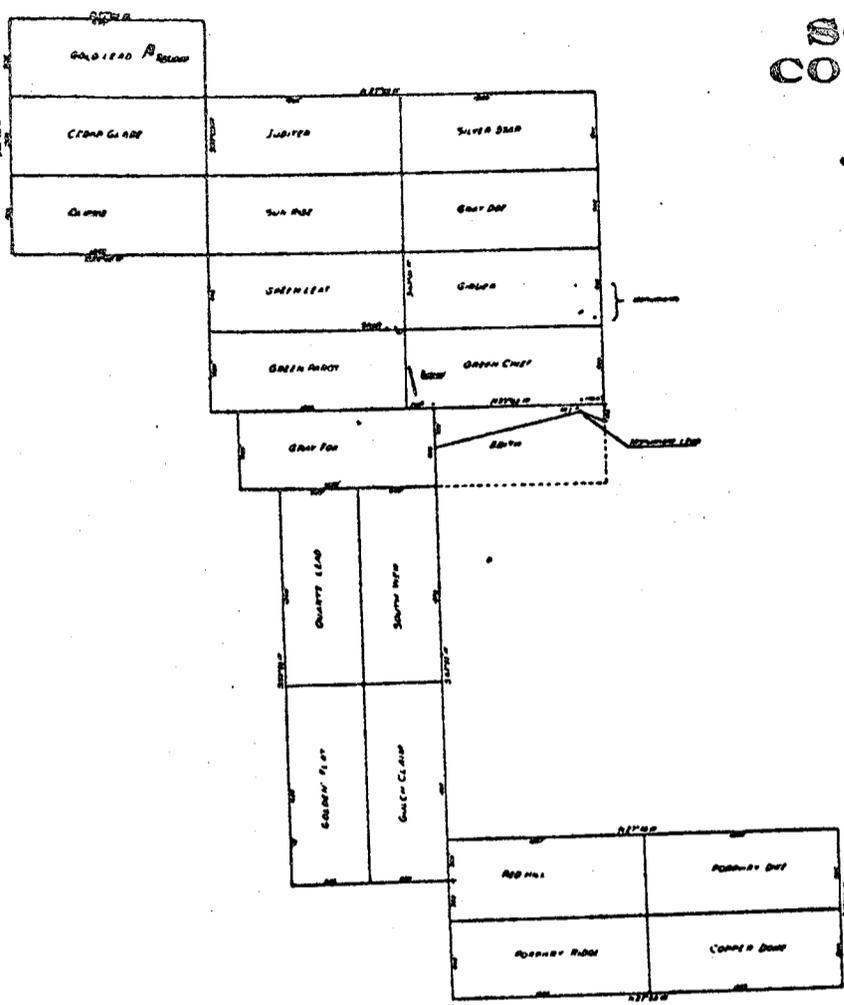


GOLD LEAD

CLAIM MAP OF SQUAW PEAK COPPER MINING COMPANY JEROME ARIZONA YAVAPAI COUNTY



Scale 1" = 100'



Jerome News Print