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# COPPERVILLE MINE

## Drilling Program

### (2nd Phase)

#### **Introduction**

The following program has been designed to delineate the four Copperville mine ore shoots as described in "DESCRIPTIVE REPORT ON THE SIAMESE GROUP OF CLAIMS" by Carl Anderson, Mining & Metallurgical Engineer, dated May 23, 1940. The existence of the ore shoots has been confirmed by Fleetwood Petroleum during June, 1983 by rotary drilling, surface, and underground sampling. The following program will define the ore shoots length, width, depth and grade of mineralization. This will be accomplished by a geophysical survey followed by diamond drilling the known mineralized zones and favorable geophysical anomalies.

#### **Geophysical Survey**

A Turam E.M. geophysical survey is recommended for the

Copperville mine area to delineate extensions of the ore shoots and parallel mineralized vein systems. A total of ten line miles of Turam electromagnetic survey is recommended to test for the mineralized zones in the Copperville area.

Turam E.M. is a fixed source ground electromagnetic method which utilizes a large rectangular shielded wire loop and transmitter to provide a primary electromagnetic field. The magnetic field, away from the long edge of the loop, approximates the field due to a single straight wire. Compared to moving source systems whose energizing fields fall off roughly as the inverse cube of the distance, the turam method has a greater penetration potential. The Scintrex SE-77F Multifrequency Turam Electromagnetic system has been employed in the arid southwest for a number of years with considerable success in delineating mineralized vein systems.

Mr. Webster of Scintrex, located in Salt Lake City, Utah has been contacted and preliminary estimates indicate the cost of the survey will not exceed \$15,000.00. Mr. Webster

also stated field crews and instruments are readily available.

### **Diamond Drilling**

The diamond drilling program will be designed to test the following:

- (1) The downward extensions of the four ore shoots which have been described in previous reports.
- (2) To determine the strike lengths and widths of mineralized zones.
- (3) To test for the presence of mineralized zones parallel to the Copperville vein.

Ore shoot #3 is recommended as the first target area. This is based on its location next to Shaft #2 and results obtained during the rotary drill program. Samples taken from Rotary Hole #10 indicate:

RH 10	150-155ft	.138 oz/ton Au	.96 oz/ton Ag
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155-160ft	tr	.24
160-165ft	tr	1.18
165-170ft	.008	2.02
170-175ft	.034	1.05
205-210ft	tr	2.88
210-215ft	.008	6.64
215-220ft	tr	.24
220-225ft	.008	3.92
225-230ft	tr	3.24
230-235	tr	4.76

Ore Shoot #3 has been described by Mr. Anderson as 400 feet in length with a width that ranges from 10 to 15 feet. The drilling program will confirm this and also establish the depth of the mineralization.

Utilizing the data obtained in June, 1983 and previous reports, it is reasonable to assume that Ore Shoot #3 has the potential to contain up to 500,000 tons of mineralization above the 1,000 ft. level. At this time it is estimated that 2,500 feet of drilling will be necessary to delineate the ore shoot sufficiently to warrant a shaft

rehabilitation and mine development program.

Ore Shoot #2 is recommended as the second drill target. This ore shoot has been intersected by Tunnel #1. Channel samples from this area indicate silver values range from 2.62 to 5.13 oz/ton and gold values range .004 to .01 oz/ton. Rotary hole #12 intersected the ore shoot 200 feet southeast of the tunnel no. 2 portal. Samples taken from the drilling indicate the ore shoot does not extend into this area. Drill targets during the next phase will center below the tunnel and determine the physical dimensions and grade of this ore shoot. Mr. Anderson's report and recent underground sampling indicate the ore shoot is 300 feet long and 8 to 14 feet wide. This would indicate that Ore Shoot no. 2 has the potential to contain up to 275,000 tons of mineralization above the 1,000 ft. level. It is estimated that approximately 2,000 feet of drilling will be required to delineate this ore shoot.

Ore Shoot #1 is located northwest of Shaft #1 and has been described in Anderson's report as 200 feet long, 4 to 8 feet wide and developed to the 400 level. Surface mapping and sampling tend to confirm this data and it is,

therefore, recommended that this mineralized zone be drilled to confirm the above dimensions and establish the grade of the mineralization. It is estimated approximately 1,500 feet of drilling will be necessary to delineate this ore shoot which has the potential to contain 100,000 tons above the 1000 ft. level.

Ore Shoot #4 is located approximately 1,000 feet southeast of Shaft #2. The ore shoot has been intersected by tunnel #2 for a distance of 200 feet. Rotary Holes #11 & #13 were located approximately 450 feet southeast of the Tunnel #2 portal. The drilling did not intersect the ore shoot and due to adverse terrain, the truck mounted drill could not locate in an area favorable for drilling this ore shoot. Ore Shoot #4 data indicates the mineralized zone is 400 feet long and from 15 to 30 feet wide. Therefore, the ore shoot has the potential to contain up to 750,000 tons of mineralized material. It is estimated that Ore Shoot #4 will require approximately 3,500 feet of drilling to confirm the above potential and establish the grade of the mineralization.

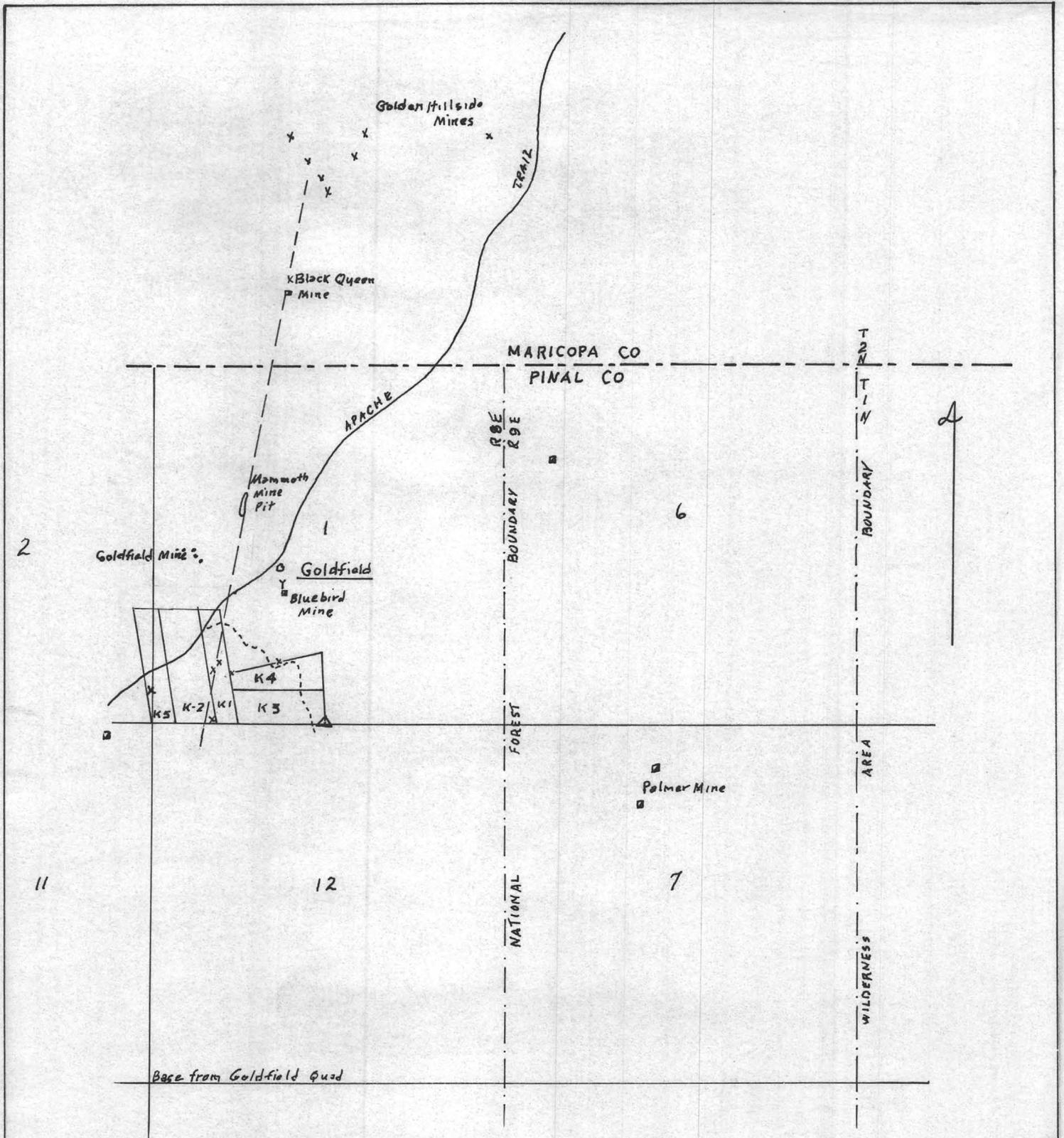
### Conclusion

The above geophysical and diamond drilling programs have the potential to delineate 1,650,000 tons of mineralized reserves as indicated below.

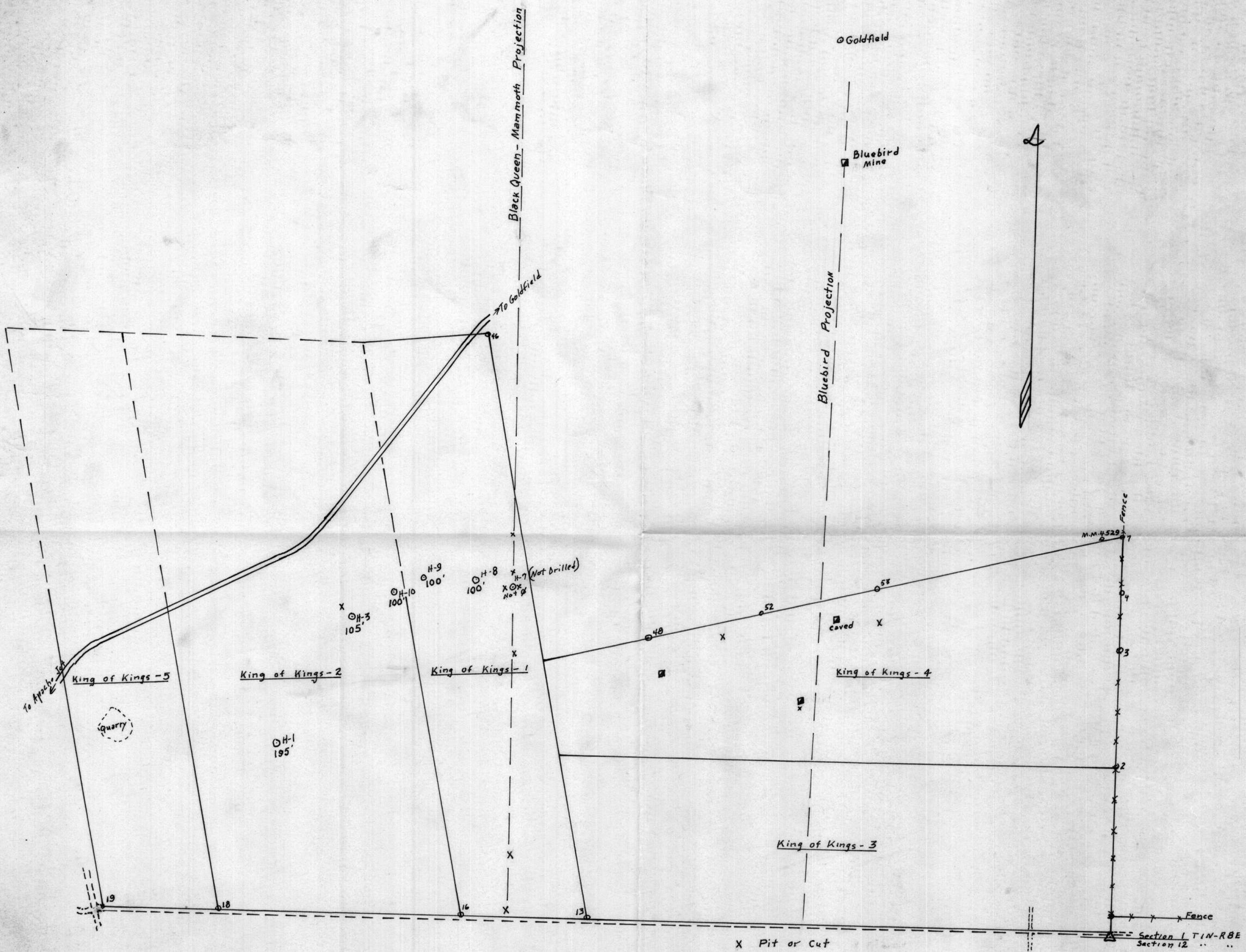
ORE SHOOT	POTENTIAL RESERVES	DRILL FOOTAGE
#1	100,000 tons	1,500 feet
#2	275,000 tons	2,000 feet
#3	500,000 tons	2,500 feet
#4	750,000 tons	3,500 feet
TOTAL -----	1,625,000 TONS -----	9,500 FEET

Diamond drilling costs are estimated at \$30.00/ft. This includes actual drilling costs, mobilization, demobilization, water haulage, geologic supervision and assaying charges. Therefore, it is estimated that the above program will cost-

GEOPHYSICAL SURVEY	\$15,000.00
DIAMOND DRILLING	\$285,000.00
TOTAL -----	\$300,000.00



SKETCH MAP  
KING OF KINGS CLAIMS



X Pit or Cut  
 □ Shaft  
 ○ H-1, Drill Hole  
 195' Depth

**THUNEY - KING OF KINGS PROJECT**  
 PINAL COUNTY, ARIZONA  
 SCALE: 1 inch = 200 feet  
 D. K. MARTIN & ASSOCIATES  
 SILAS C. BROWN, GEOLOGIST