

## GEOCHEMICAL SAMPLING

Approximately 300 ridge and spur, and rock chip jasperoid samples were taken in and surrounding the area of interest in July, 1981. Ten percent of these samples had detectable gold with values up to 1.58 ppm. A gold anomaly approximately 4000' x 5000' was defined and was centered on zones of alteration. Gold values occurred in a variety of rock types including white quartz veins, a silicified breccia, and red to reddish brown highly oxidized Grass Valley siltstones. Sample numbers, locations and gold values are noted on Figure 3 (in pocket).

## GEOLOGY

The host rocks at Rose Creek are Triassic Grass Valley shales and siltstones which have been highly deformed and strongly oxidized. The Grass Valley is a brownish to olive grey siltstone-shale unit where it has not been oxidized. It was deposited under shallow water deltaic conditions, unconformably on top of the massive limestones of the Triassic Natchez Pass Formations. At Rose Creek (See Geologic Map, Figure 4, in pocket) the Grass Valley rocks strike NNE, generally dip steeply, and are altered to a soft to moderately hard red siltstone. It has been dissected by several NNE trending faults, sub-parallel to and related to the range front fault. Quartz veins and prominent veins of black and white calcite with subordinate quartz trend NNE and cut the Grass Valley as do a few quartz latite dikes.

Grass Valley rocks are in fault contact with the younger Triassic Raspberry Formation to the east. Lithologies in the Raspberry Formation include phyllitic mudstones and subordinate limestone. At Rose Creek these rocks are not altered or silicified and they carry no gold values.

Silicification and jasperoidization occur primarily along the NNE trending structures throughout the area. In most areas, silicification grades from fractures with or without quartz veins into unsilicified rock. Silicification is most intense (forming a jasperoid) along structures and less complete away from them. Locally casts of barite and/or calcite occur in quartz on fracture surfaces.

#### DRILLING

Gold values delineated in the surface sampling program were concentrated along the NNE structures which cut the altered area. Our hope for a Freeport sized target was to find places where the gold disseminated away from these faults sufficiently far and at appropriate grades to develop a large tonnage ore body. A drill pattern was developed to test the zone of potential mineralization with a minimum of roads for a maximum of information. Had this program been successful we would have proceeded to a normal grid drilling system. Thirty-seven holes were drilled at Rose Creek during April and May, 1981, for a total footage of 13825' at a direct cost of \$51,200 or \$3.70 per foot.

The holes all penetrated red oxidized Grass Valley siltstone/shale units. Some of the northern holes also penetrated "quartzite" which is believed to be part of the Grass Valley. All the holes intersected fractured and broken rock locally, and several of them did not reach their ultimate target depth due to loss of circulation. In addition, several of the holes near the valley floor encountered 100°F water. Below this water the rocks generally became grey and contained considerable pyrite (unoxidized), but there was no change in gold content.

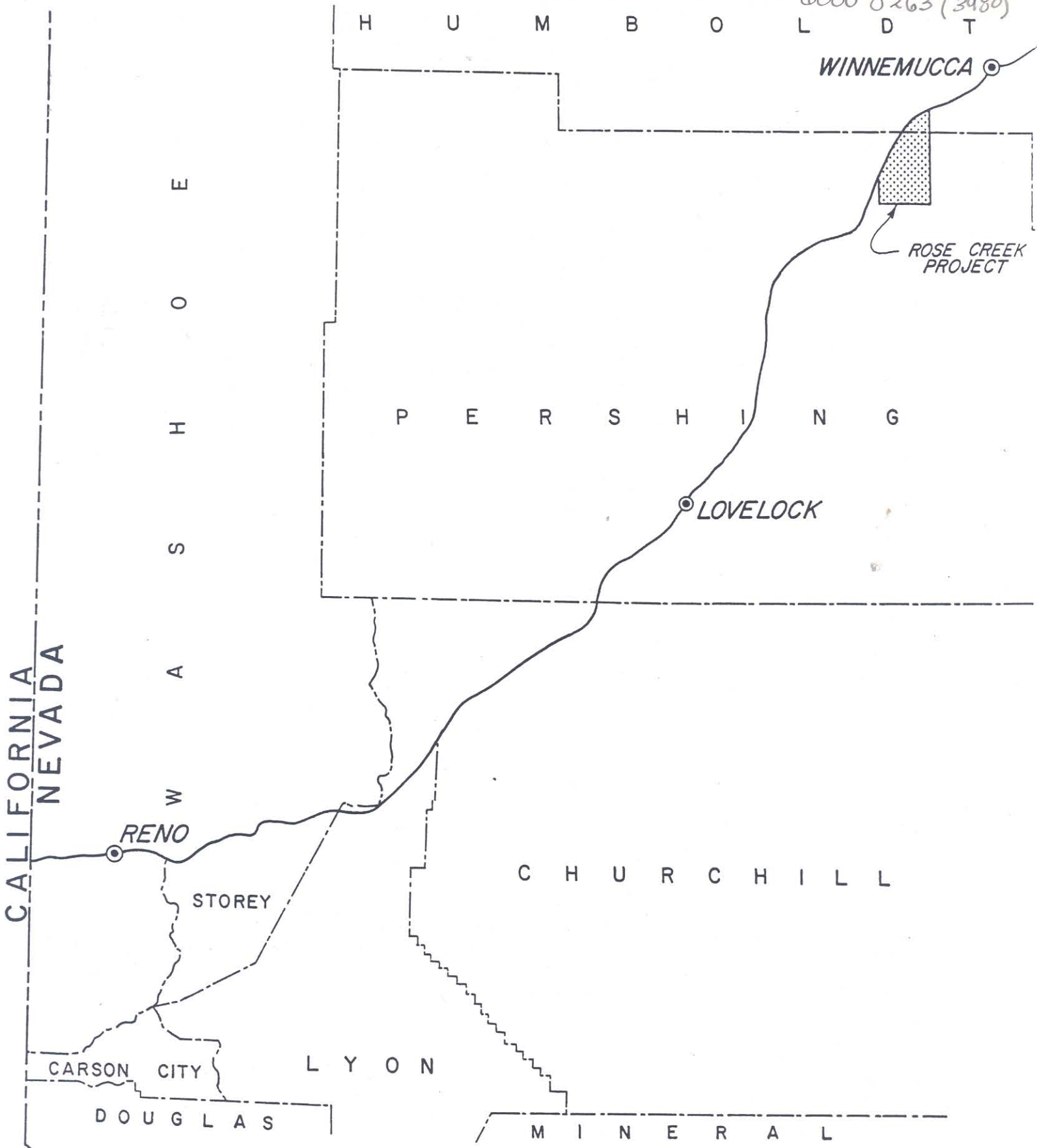
Hole locations are noted on Figure 5.

## DRILLING RESULTS

Drill logs and assay sheets are included in Appendix 2. Most holes show scattered values of .001 to .009 oz/T Au. Only 16 holes contained values greater than .01 oz/T Au, and the highest value was 10' @ .047 in RC 20.

Our drilling program indicates the presence of low grade mineralization which is insufficient to warrant Freeport's continued interest in the property. The project was a technical success as a gold system was identified, but there is not enough gold concentrated to produce ore grades. A combination of factors accounts for this situation. There does not appear to be a specific mechanism to concentrate the gold at this horizon. The intensity of shearing over a broad area between the range front fault and subparallel fault 3000' east created a very large zone of oxidized rock of fairly constant permeability. The presence of the large amounts of calcite veining indicates in addition, that we may be located high in a hot spring system, and the presence of hot water in the area indicates that the system may be too young to have deposited an economic orebody. It is based on these observations that the recommendation to terminate the project was written in early June, 1981.

6000 0263 (3980)



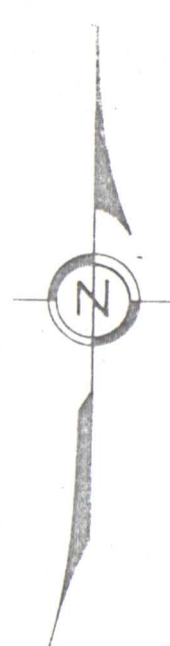
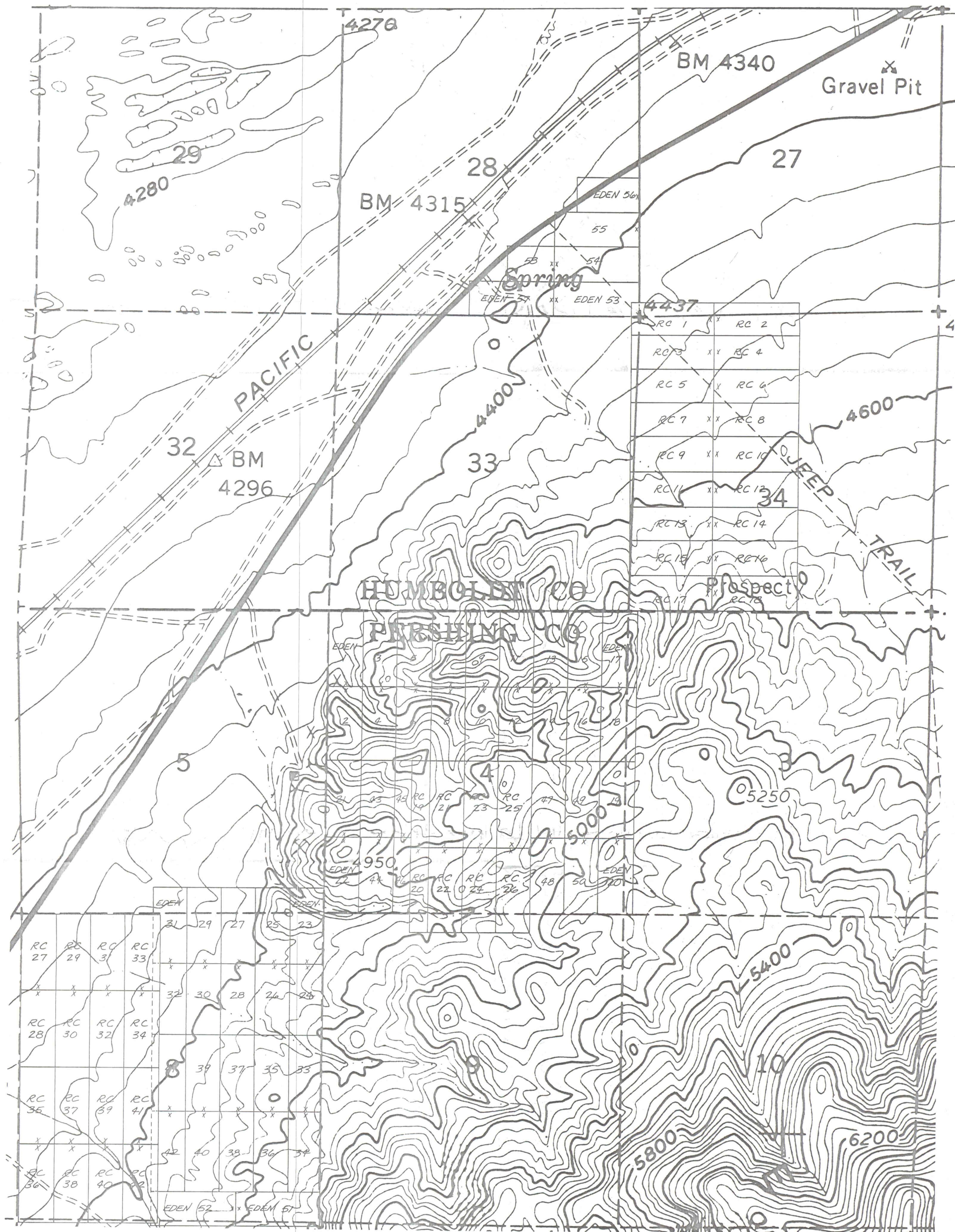
# ROSE CREEK PROJECT

## LOCATION MAP

Scale: 1:1,000,000

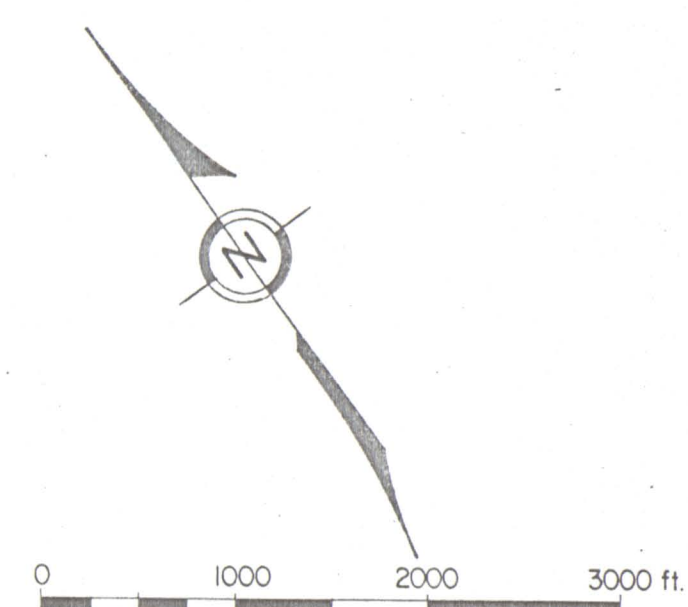
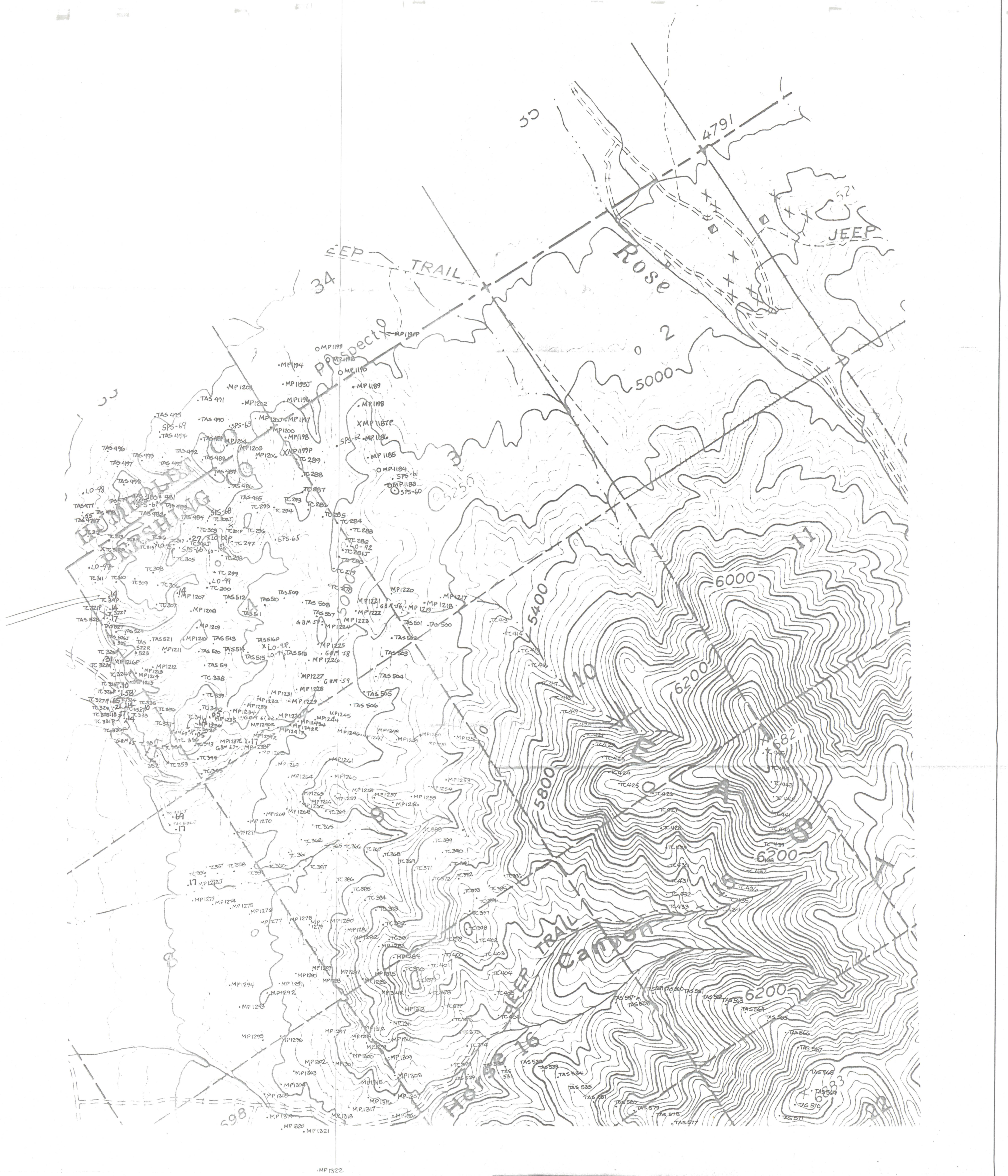
(FIGURE 1)





PROJECT			
FREEPORT EXPLORATION CO.			
ROSE CREEK PROJECT			
LOCATION			
T 34 N., R. 36 E.			
CO., STATE			
PERSHING CO., NEVADA			
TITLE			
CLAIM MAP			
SCALE		SOURCE	
1" = 1000'		USGS TOPO	
MAPPED BY/DATE	DRAWN BY/DATE	PLATE	MAP FILE
		Figure 2	



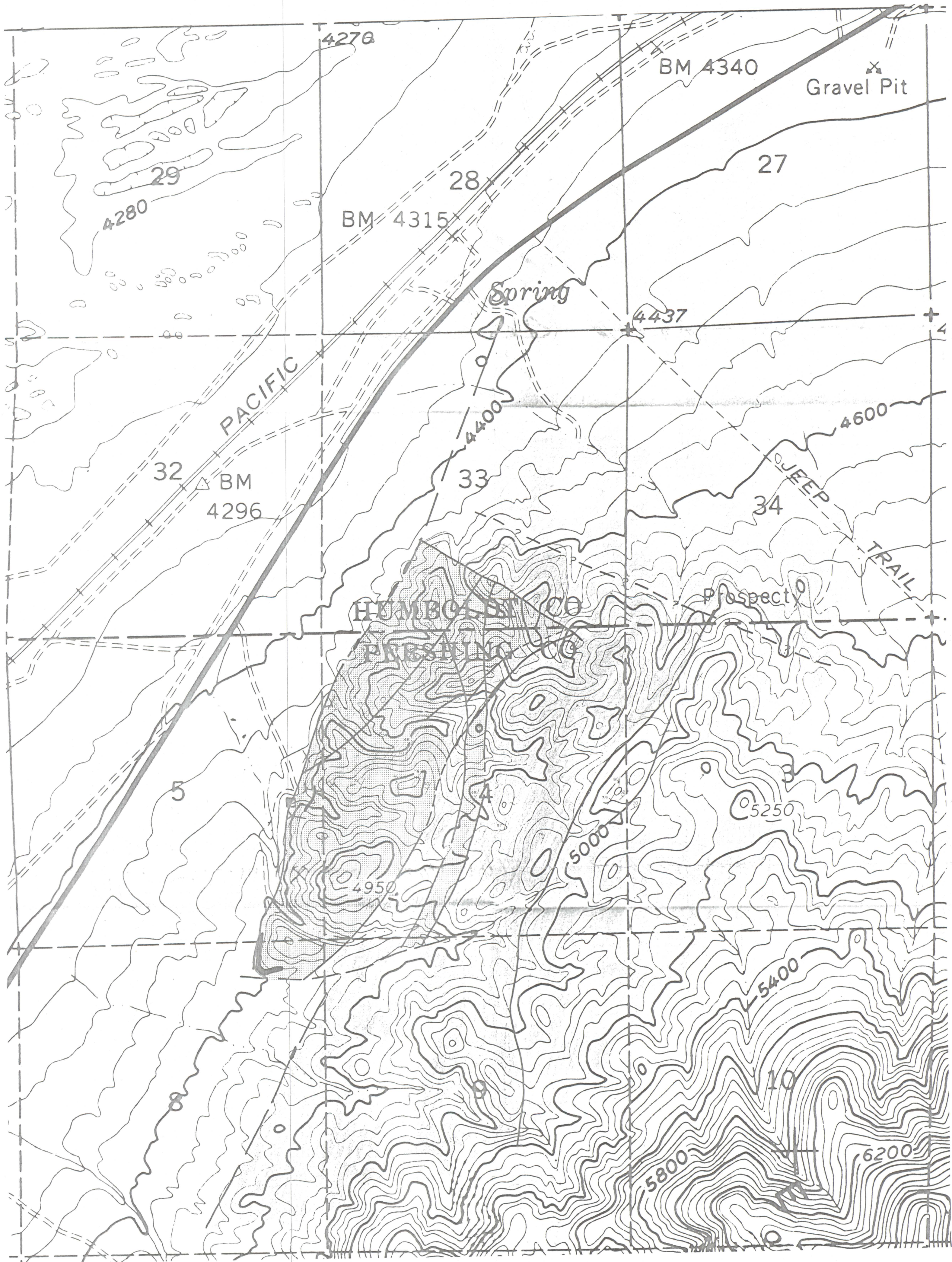


FREEPORT EXPLORATION CO.	
PROJECT	ROSE CREEK AREA
LOCATION CO, STATE	T 34 N., R 36 E. PERSHING CO., NEV.
TITLE	WITH GOLD VALUES IN PPM SAMPLE LOCATION MAP
SCALE 1" = 1000'	BASE USGS TOPO
MAPPED BY/DATE	DRAWN BY/DATE
PLATE Sheet 1 of 2	
MAP FILE	

(FIGURE 3)

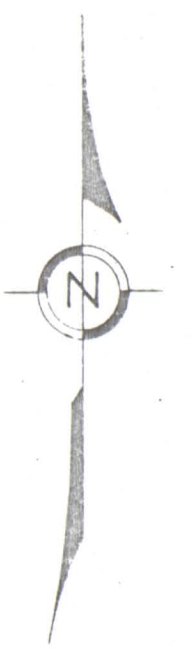
FIGURE 3





EXPLANATION

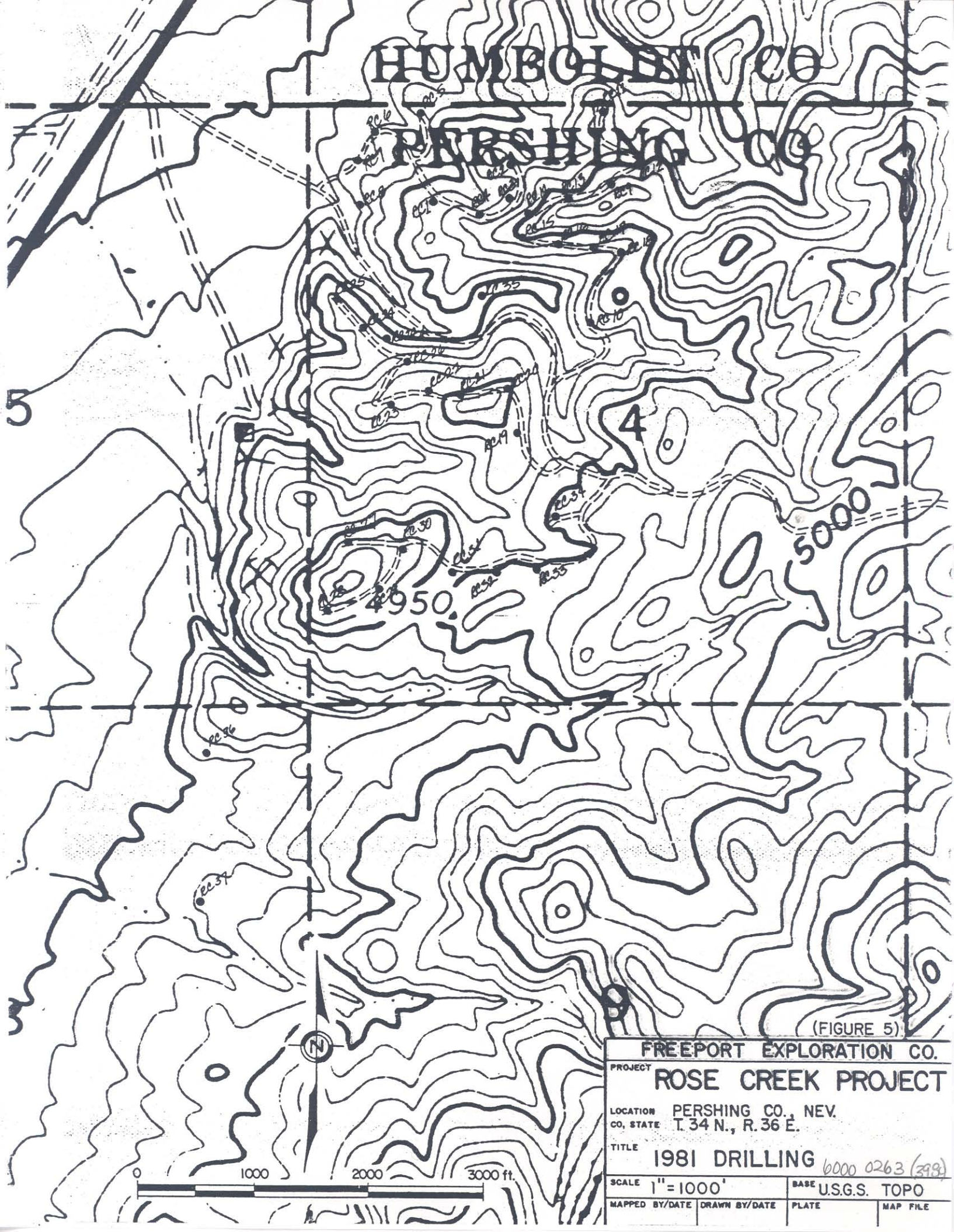
- Qal
- Triassic Raspberry Fm
- Triassic Grass Valley Fm
- Oxidized
- Jasperoid
- Calcite Veins
- Fault
- Strike & Dip



PROJECT			
FREEPORT EXPLORATION CO.			
ROSE CREEK PROJECT			
LOCATION			
T 34, 35 N., R 36 E.			
CO., STATE			
PERSHING & HUMBOLDT COS., NEVADA			
TITLE			
GEOLOGY MAP			
SCALE		BASE	
1" = 1000'		U.S.G.S. TOPO	
MAPPED BY/DATE	DRAWN BY/DATE	PLATE	MAP FILE



# HUMBOLDT CO PERSHING CO



(FIGURE 5)

FREEPORT EXPLORATION CO.

PROJECT ROSE CREEK PROJECT

LOCATION PERSHING CO., NEV.  
CO, STATE T. 34 N., R. 36 E.

TITLE 1981 DRILLING

6000 0263 (398)

SCALE 1" = 1000'

BASE U.S.G.S. TOPO

MAPPED BY/DATE

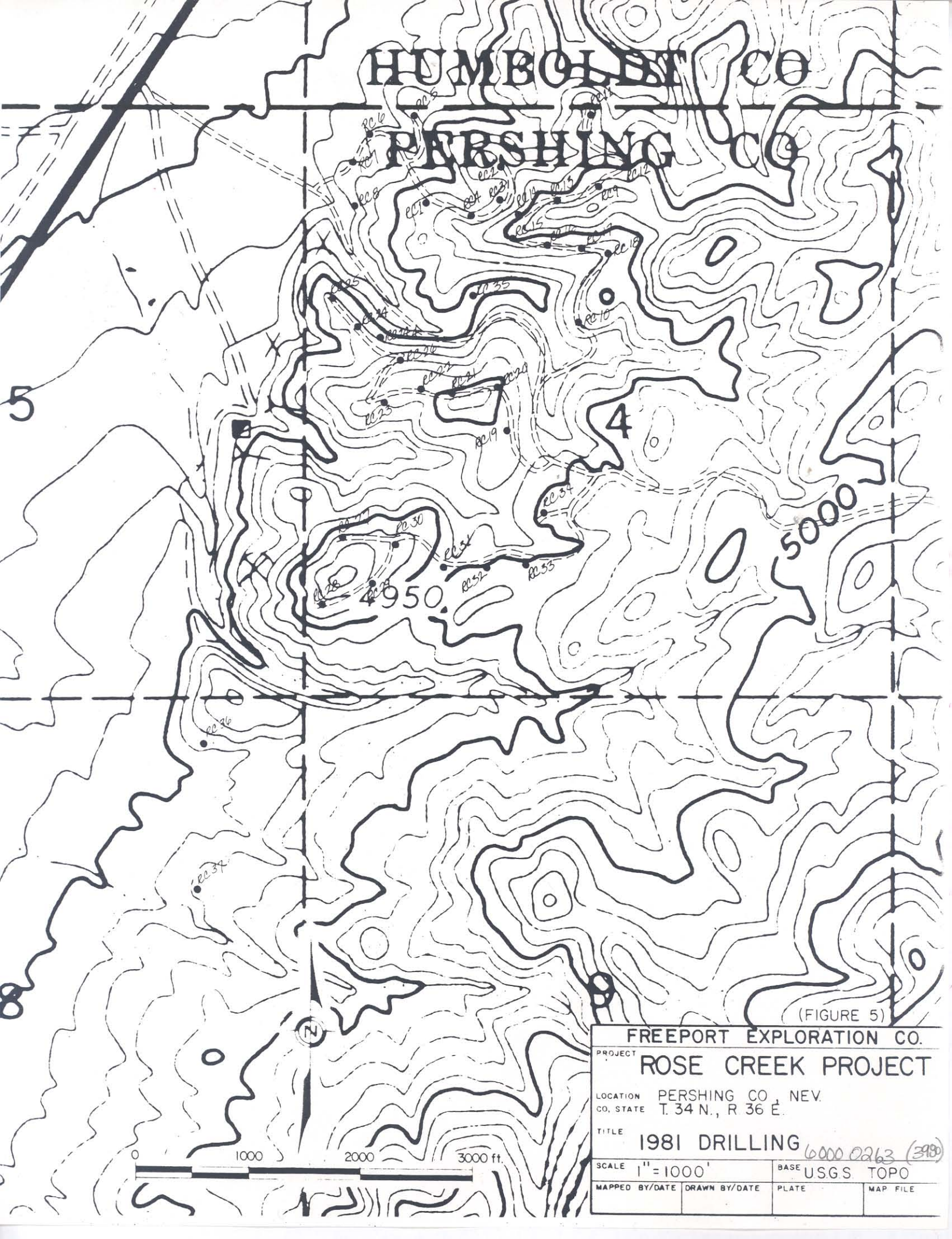
DRAWN BY/DATE

PLATE

MAP FILE



# HUMBOLDT CO PERSHING CO



(FIGURE 5)

FREEPORT EXPLORATION CO.

PROJECT ROSE CREEK PROJECT

LOCATION PERSHING CO, NEV.  
CO, STATE T. 34 N., R 36 E.

TITLE 1981 DRILLING 6000 0263 (398)

SCALE 1" = 1000' BASE USGS TOPO

MAPPED BY/DATE DRAWN BY/DATE PLATE MAP FILE