

SITE : RUTH MINE

PRELIMINARY

DRAFT

GEOLOGIC LOG: WELL R-F

Depths (in feet)
from to

0	12	Fill, comprised of mine dump material, predominantly Rib Hill sandstone with lesser amounts of monzonite, tan to light brown.
12	45	Gravel, sand and trace of silt, predominantly derived from sandstone, oxidation of iron minerals, tan to light orange brown.
45	57	Gravel, sand, predominantly derived from undifferentiated Ely limestone, light gray.
57	95	Monzonite, phaneritic, predominantly composed of anhedral potassium feldspar and plagioclase, some quartz and hornblende, light to medium gray.
95	110	Monzonite, grading porphyritic and displaying iron oxide staining, medium to dark gray.
110	185	Monzonite, grading phaneritic to aphanitic, anhedral potassium feldspar and plagioclase, light gray.
185	200	Monzonite, grading phaneritic with a trace of pyrite, light gray.
200	225	Monzonite, porphyritic, euhedral potassium feldspar, plagioclase and hornblende, increasing quartz content, medium to dark gray.
225	240	Monzonite, grades with more pyrite.
240	255	Grades without pyrite.
255	275	Monzonite, porphyritic, euhedral potassium feldspar and plagioclase, some quartz, increasing hornblende content, some pyrite, medium to dark gray.
275	280	Monzonite, same as above, fracture zone. Cuttings display slickensided features.
280	315	Monzonite, porphyritic, euhedral potassium and plagioclase feldspar, some quartz and hornblende, medium to dark gray.
315	340	Monzonite, grades with increasing quartz content in matrix medium gray.
340	375	Monzonite, grades phaneritic, less quartz, increase in potassium feldspar content, anhedral, medium gray.
375	405	Monzonite, grades porphyritic, some pyrite, medium to dark gray.
405	440	Monzonite, grades phaneritic, anhedral potassium feldspar and plagioclase, minor quartz, hornblende and pyrite, medium gray.
440	460	Monzonite, grades with increasing pyrite, medium to dark gray.
460	497	Monzonite, porphyritic, euhedral to anhedral potassium and plagioclase feldspar, some hornblende and pyrite, minor quartz, medium to dark gray.

REMARKS: Spring was drilled to 497 feet below grade and plugged back to 249 feet. Ground water was first encountered at 54 feet below grade and again between 270 and 300 during drilling. Geophysical log available.

WELL CONSTRUCTION DATA:

WELL R-F

Location: Township & Range Coordinates: SW1/4, NW1/4, SW1/4
of Sec. 9, T. 16N, R. 62E.
Kenecott Coordinates: N. . . . E.

Elevation: Ground: . feet. Top of casing;
Completion Date: 9/15/89
Drilling Co: R.D. Reynolds Drilling Co.
Drilling Method: Air Rotary
Drilling Fluid: Water, foam.
Boring: Diameter: 6 and 10 inch. Depth: 497 feet.
Casing: Diameter: 5.0 inch Material: Schedule 80 PVC
Depth: from ground to 249.0 feet.
Screen: Diameter: 5.0 inch Material: Schedule 80 PVC, 0.064 slot
Screen Depth: 249.0 to 349.0 feet below grade.
Sand Pack: Type: #4-8 graded Colorado Silica Sand
Depth: from 233.0 feet to total depth.
Bentonite Seal: Type: Bentonite pellets
Depth: 228.0 feet to 233.0 feet.
Grout Seal: Type: Neat cement with 4% bentonite
Depth: from 0 to 228.0 feet.

ADDITIONAL DATA:

Static water level: Date: 8/10/89
Depth: 51.1 feet below top of casing
Elevation: . feet.
Chemistry: Date: 8/09/89
pH 7.60, Sp. cond. 1950 micromhos/cm.

COMMENTS: Geophysical log available.

319: 10/13/89

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