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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: LITTLE MAY

ALTERNATE NAMES:

PATENTED CLAIMS MS 1701

YAVAPAI COUNTY MILS NUMBER: 996A

LOCATION: TOWNSHIP 13 N RANGE 1 E SECTION 22 QUARTER SE
LATITUDE: N 34DEG 28MIN 38SEC LONGITUDE: W 112DEG 14MIN 37SEC
TOPO MAP NAME: MAYER - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:

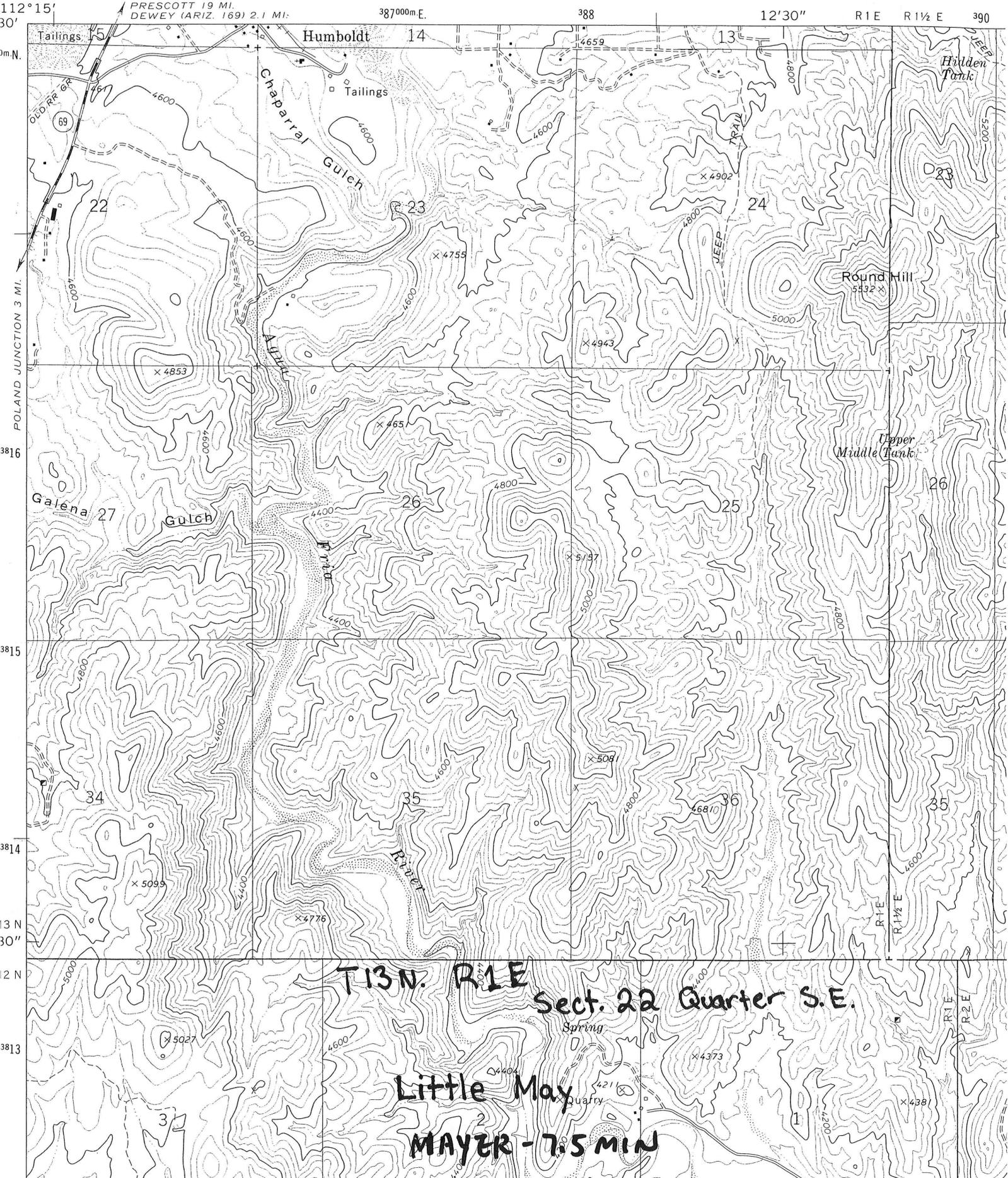
GOLD

BIBLIOGRAPHY:

USGS MAYER QUAD
BLM MINING DISTRICT SHEET 18
ADMMR LITTLE MAY FILE
WEBB, W.F. PRECAMBRIAN GEOLOGY AND ORDE DEPTS
NEAR POLAND JUNCTION U OF AZ THESIS 1979 P82
CLAIMS EXTEND INTO SEC. 27

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MAYER - 7.5 MIN



T13N. R1E Sect. 22 Quarter S.E.

Little May

MAYER - 7.5 MIN

COPY

SHATTUCK DENN MINING CORPORATION

IRON KING MINE

P. O. DRAWER C :: HUMBOLDT, ARIZONA 86329

*Other maps &
information in
Shattuck Denn files*

Humboldt

July 6, 1964

MR. D. M. KENTRO
Humboldt

DRILLING RECOMMENDATIONS ON
LITTLE MAY AREA

SUMMARY

A Turam (electro-magnetic) survey carried out in June confirmed the presence of two conductors which had been detected by a previous vertical-loop E. M. survey conducted jointly by Shattuck Denn and New Jersey Zinc. These conductors are of interest because they occur at a contact of metamorphosed rhyolitic and andesitic rocks which is known to have been mineralized at the former Lone Pine, Boggs, Iron Queen and Upshot mines.

RECOMMENDATIONS

It is recommended that each of these two conductors be tested by means of a hole drilled from surface. In order to test the conductors at a sufficient depth, two holes 500 feet long will be required. At an estimated cost of \$6.00 per foot, this will cost \$6,000, plus supervision, sampling and assaying.

GENERAL

The Little May adjoins to the north a patented claim of that name, which, in turn, lies across the lower reaches of Galena Gulch about one-and-a-half miles southeast of the Iron King Mine. (Specifically, T. 13 N., R. 1 E, S.E. corner of Sec. 22 and N.E. corner Sec. 27)

While the joint venture involving Shattuck Denn and New Jersey Zinc was in existence, a number of lode mining claims were staked, though it did not prove possible to acquire the patented Little May claim. After making a geological reconnaissance and prior to carrying out the Turam survey described here six mining claims were staked in exactly the same locations as six of the old claims. There was reason to believe that part of the area covered by lode claims is State land. This was confirmed by a check on the land status. As a result, applications for State prospecting permits for the required areas were filed and these applications are now pending.

GEOLOGY

The Little May area formed part of the "Boggs" venture conducted jointly by Shattuck Denn and New Jersey Zinc. An excellent geological map of the Boggs area

which was made on a scale of 1 in. to 800 ft. shows that the Little May area covers the contact of a broad series of metamorphosed rhyolite, porphyritic rhyolite and rhyolite breccia, or agglomerate, on the west, and metamorphosed andesite and related basic intrusions (?) on the east. The map shows that a number of lenses of massive quartz lie on the contact. It is also clear that this is the same contact which was mineralized at the Lone Pine, Boggs, Iron Queen and, less distinctly, Upshot mines. The strike of the rocks in the Little May area is 20° (Azimuth) and the dip is approximately vertical.

Reconnaissance work confirmed the previous regional mapping. Detailed mapping on a scale of 1 in. to 200 ft. is in progress. It was observed that, locally, the massive, jasperoidal quartz is rusty-weathering and that a number of pits have been excavated on the outcrop. Traces of copper minerals are visible in at least one of these pits.

Altogether, the geological setting is considered favourable for the occurrence of the type of massive, pyritic sulphide deposit being sought.

GEOPHYSICS

A geophysical survey of the Little May area was carried out as part of the Boggs Project. The vertical-loop electro-magnetic technique was used - a technique which has fairly good depth penetration, but is not informative as to the quality, depth or width of a conductor. Two electro-magnetic anomalies or conductors were detected. One of these lies on the meta-rhyolite/meta-andesite contact and the other occurs within the meta-andesitic rocks lying east of the contact.

These two electrical anomalies were checked in June by means of a Turam survey conducted by Moreau, Woodard and Co. The Turam method is another variant of E. M. technique, but, in some circumstances, it permits an estimate of the quality, width, and depth of a conductor to be made, accompanied by reasonable depth penetration. The Turam survey confirmed the presence of the two vertical loop anomalies and showed that the anomaly which lies within the meta-andesite is a better conductor than the anomaly which lies on the meta-rhyolite/meta-andesite contact. Woodard wrote: "One good conductor was located on Line 12N, 830 feet east of the base line. It has an indicated depth of around 150 feet. The other indications are weak and appear to be due to current concentrations at shallow depths."

Woodard may well be correct and the preferred conductor from a geological standpoint may be caused by a surficial effect. Possibly, however, the results have been influenced by the fact that the poorer conductor coincides with a ridge where the water table, and hence the depth of weathering, may be deeper than in the small dry wash where the better conductor lies.

Unfortunately, the Turam survey extended no farther north than Line 12N, the line on which the best conductor was detected. It would obviously be desirable to survey additional lines in order to learn how far the conducting body extends.

CONCLUSIONS

The nature of these two conductors should be tested by drilling. Both should be drilled, but first priority should be given to the western anomaly which coincides with the meta-rhyolite/meta-andesite contact. The better conductor should also be tested, because it could represent a sulphide body in an analogous position with respect to the major lithological contact as the "Footwall" ore-bodies at the Iron King Mine.

P.G.

PAUL GILMOUR

cc: Mr. W. J. La Morte
File (2)

Humboldt

Oct. 28, 1964

MR. C. R. SUNDEEN

DRILLING RESULTS - LITTLE MAY AREA

Two diamond drill holes were completed in the Little May area during October. As discussed in P. Gilmour's report of July 6, 1964, these holes were drilled to test two geophysical anomalies in an area of favorable-looking rhyolitic rocks. The results of this drilling were essentially negative, and the project has been abandoned, at least for the present.

Both drill holes intersected substantial sections of sericitic-siliceous-rhyolitic rocks of the type in which massive sulphide orebodies usually occur, but no significant mineralization was encountered. Six intervals from each hole were selected for assay to make certain that no gold or silver values might go undetected; only traces of these elements were found (one gold assay showed 0.02 oz./T). In LM #1 it was not possible to determine the source of the geophysical response, though the conductive horizon was certainly tested. The anomaly tested by LM #2 was very probably caused by a narrow pyritic and possibly graphitic horizon intersected in the general vicinity of the conductor axis. The drill core from LM #1 also contained an anomalous amount of magnetite, the significance of which is uncertain.

LM #1 was drilled to a depth of 506 feet, and LM #2 to 550 feet, a total of 1056 feet.

Due to the lack of any encouraging indications in these two holes, the project has been terminated. Because the state prospecting permits are valid until August 19, 1966, without further work or rental requirements, should any favorable targets become apparent in the meantime, the ground will still be in our possession and available. Assessment work will be necessary to hold the three Little May federal mining claims if it is thought advisable to do so.

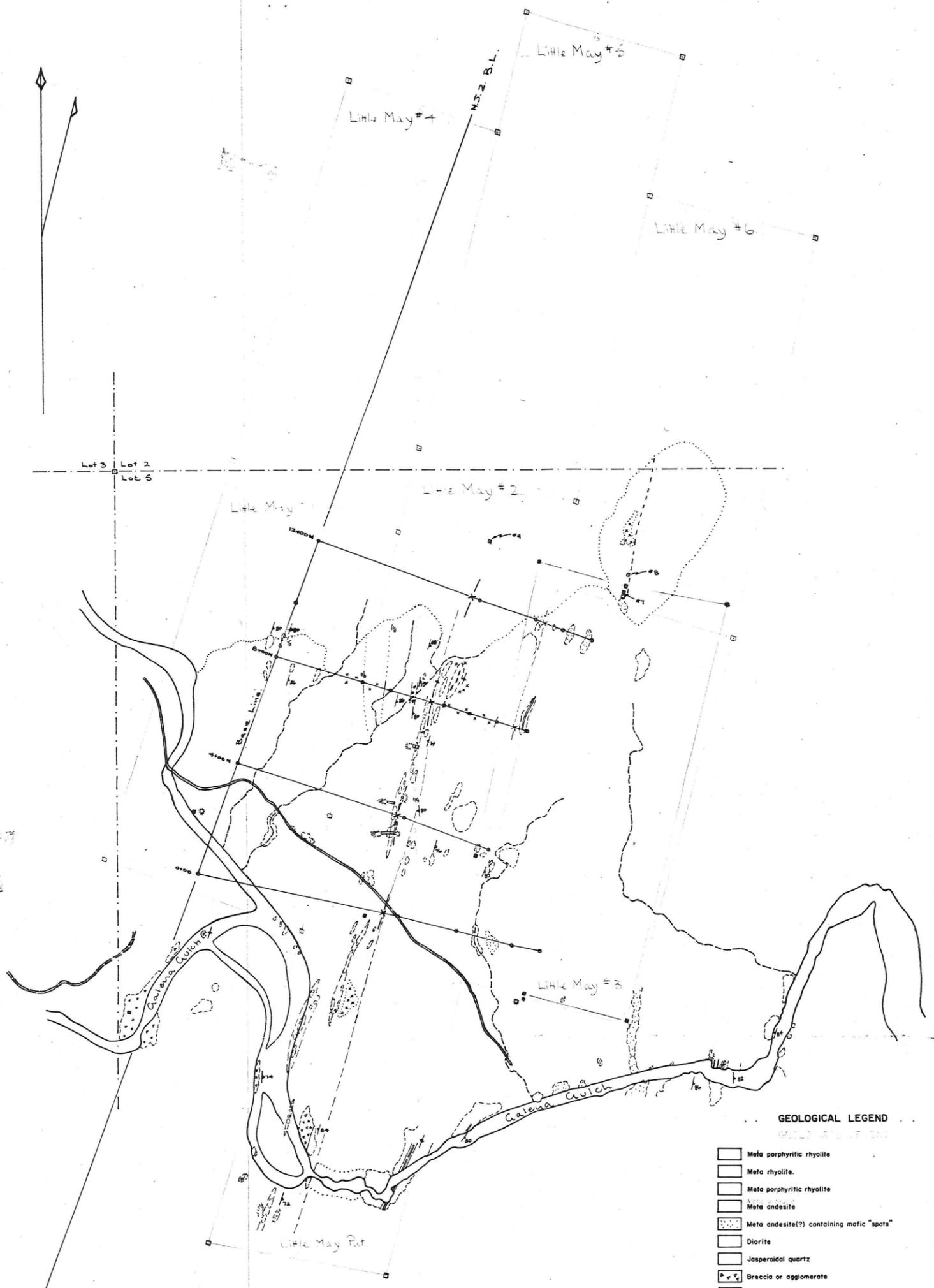
JAK:b

JAMES A. KNOX

cc: W. J. La Morte
File



Handwritten text, possibly a signature or initials.



GEOLOGICAL LEGEND

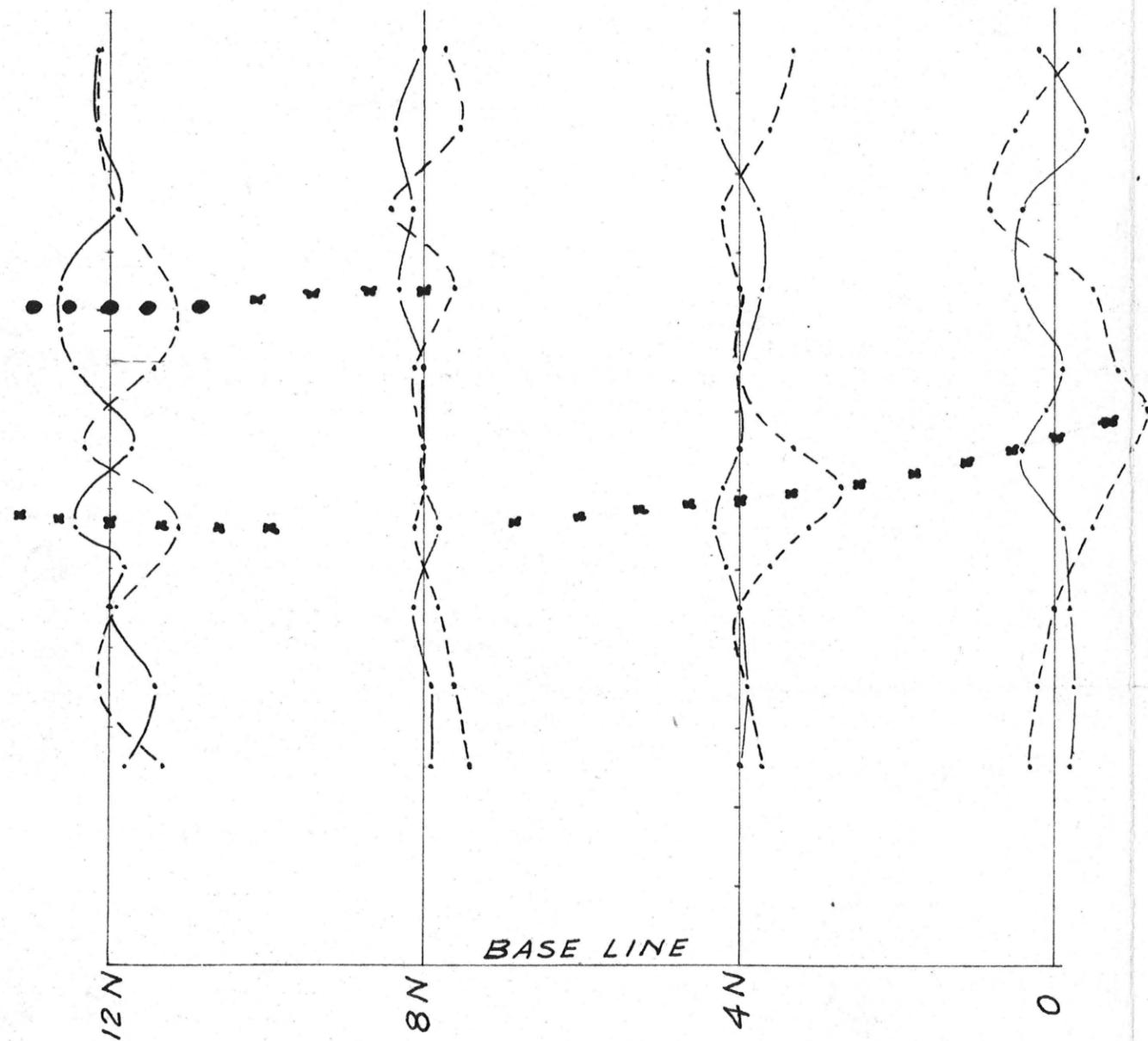
- Meta porphyritic rhyolite
- Meta rhyolite
- Meta porphyritic rhyolite
- Meta andesite
- Meta andesite(?) containing mafic "spots"
- Diorite
- Jasperoidal quartz
- Breccia or agglomerate
- Pillowed
- Outcrop
- Area of small outcrops or rubble.
- Observed contact
- Inferred contact
- Strike and dip of schistosity
- Trace of E.M. anomaly.

PLANIMETRIC LEGEND

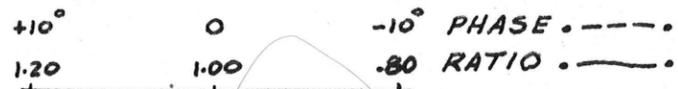
- Building
- Road
- Discovery or corner post or monument.
- Survey picket and line.
- Lot line
- Dump
- Pit or trench.
- Intermittent stream.

SHATTUCK DENN MINING CORP.
GEOLOGICAL MAP OF THE LITTLE MAY
AREA, SEC. 27, T. 15 N., R. 1 E., ARIZ.
SCALE: 1 IN. TO 200 FT.
 6TH. JUNE, 1964. P. 6.

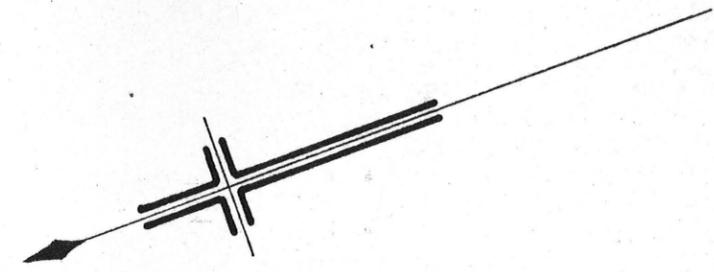
Shattuck



LEGEND



CONDUCTOR ● ● ● ● ●
 WEAK CONDUCTOR x x x x x



TURAM ELECTROMAGNETIC SURVEY
 BY
 MOREAU, WOODARD & CO. LTD.
 FOR
SHATTUCK DENN MINING CORPORATION
 LITTLE MAY GROUP
 HUMBOLDT AREA, ARIZONA
 SCALE: 1 INCH = 200 FEET
 DRAWN BY: J.W.
 DATE: JUNE, 1964