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(237)
item 1

NEVADA
NYE COUNTY
LEE (BIG DUNES) DISTRICT

References: USGS 15' topographic sheet, Big Dune, 1952 edition

USGS Open File Preliminary Geologic Map of Southern Nye Co., scale 1:200,000, 1967

Calif. Div. Mines Geologic Map of California, scale 1:250,000, 1958

This is notes on a scouting trip January 14, 1969 by Arthur Baker III and Liang Chi Hsu of Nevada Bureau of Mines. Main purpose of the trip was to evaluate the diggings shown on the topographic map in view of current proposal by USBLM to segregate from mining a couple of square miles containing the Big Dune sand dunes. (Also called Treasure Hill Claims and WC-TH claims (northern area))

See attached overlay for Big Dune topographic quadrangle for locations described.

The Nye Co. geologic map shows all of the bedrock here as pre-Cambrian Stirling quartzite: quartzite with interbedded mica schist and minor marble. The Death Valley sheet shows the rocks just across the state line as undivided pre-Cambrian metamorphosed sediments.

Northern area. 7818? Isolated cluster of half a dozen diggings in projected Sections 3 and 4, T. 15 S., R. 47 E. Easternmost pit symbol is 15' shaft in limestone and quartzite N. 45 W., steeply NE; a 6" zone along the bedding has light malachite on fractures. No particular iron staining. Adit one-quarter mile west of this pit is open; dump and portal have only purplish shale, a very small quantity of which -- maybe half a ton total -- has films of weak copper stain.

Half a mile west, reached by road looping to north. Adit at east end is in shale, with no trace mineralization. Next shaft to west is about 50' deep, on vein up to 5" (inches) wide quartz with clots of chalcocite up to 1/2" diam., mostly gone to malachite and azurite. The vein lies along shear zone (N. 70 E., 75 S.), and is discontinuous -- at surface adjacent to shaft is about 2" copper oxide staining; just below this widens to 5"; at 12' below surface in cut from shaft, pinches out to shear again. A picked specimen of quartz with chalcocite and copper oxides, probably about 10% Cu, assays 0.0/oz. Au, 600 oz. Ag (B69L3). Bedding of shale here N. 20 E., 40 S. Shaft 500' farther west has shear, with local weak quartz and some cu stain -- probably on same structure. From here halfway to northern shaft on map is a pit 6' deep, in red sandy shale N. 45 E., 45 S.; 1' altered (bleached) zone assays (B69L1 trace oz. Au, nil Ag, and a local 1'-thick by 2'-high pod of quartz and silicification assays (B69L2) trace Au, 0.04 oz. Ag. Northernmost shaft 20' deep; two (?) east-west structures with locally up to 4" quartz and some cu stain.

Overall, this is an area of very widely-spaced quartz veins with some chalcocite -- the absence of iron staining is notable. Virtually no alteration associated with veins, and none regionally; no sign of a porphyry copper. No sign of copper staining except in the diggings shown on topographic quad.

No. 1 pit. On point somewhat north of pit symbol, coarse purple quartzite with several 6" veins bullish quartz, intensely brecciated, no sign cu or fe stain. On point somewhat south of symbol, 50' immediately above road, pit in quartzite with very many narrow quartz veins with moderately abundant specks limonite after (probably) siderite. No trace copper staining.

No. 2 cluster mines. Location notice, Red Hill claim, located 1/13/68 by John F. Rambo, 5936 S. Topaz Rd., Las Vegas. This area conglomeratic quartzite. Alongside monument, fairly new 6' trench 20' long on 4' zone N. 15 E. 90 sheared, brick-red, some quartz; grab sample of dump of pit assays 0.05 oz. Au, nil Ag. 50' southeast is bug dump of old shaft. 50' southwest are old pits on same structure. 500' SE are three fairly big old pits on 1' quartz vein with much brick red staining adjacent, also N. 15 E., 90; chip sample of quartz vein only (B69L5) assays 0.01 oz. Au, nil Ag. No trace copper staining.

No. 3 area. Adit shown is 70' long, on shear N. 10 E., 30 W., with much brick red staining, in quartzite. 50' east of portal is pit in quartzite with particularly abundant quartz stringers containing moderate siderite, such as are ubiquitous in the quartzite in this general region; grab sample of dump (B6916) assays trace Au, nil Ag. This sample should be high-gradely typical of the bullish-looking quartz stringers of the area. Eastern shaft on map is on a 2' quartz vein with some fe stain; shaft is about 50' deep.

No. 4 area. Shaft is 50' or so deep; couple pits 150' SW of shaft, and one 50' NE, all on vein N. 30 E., about 80 SE., up to 2' shattered quartz, some fe stain, parallel to and about on contact of quartzite to SE and schist to NW. I wonder if this whole area (of Areas 1-4) is not impregnated with quartz veins formed by remobilization of quartz from the quartzite during metamorphism; appear to be two types of veins -- erratic, random ones very white with minor siderite, and somewhat more persistent ones (up to 200' length) with some iron flooding. No trace of copper stain in entire area.

Nos. 5 and 6 diggings. No. 6 is about a 50' shaft in alluvium, my guess is it was a shot at bedrock for placer. No. 5 is a 6' pit in alluvium for no discernable reason.

Lees Camp. Looked at this, although it is across border into California. In the area marked 7, the northern of the two shafts is vertical, maybe 200' deep, and dump is barren. Southern shaft is incline on zone N. 15 E., 6' wide of shearing, heavy red and yellow iron staining, local quartz pods about 2' thick by 6' dip length by 20' or so strike length. These are stoped a few feet to 20' from shaft. Chip sample of small pillar adjacent to shaft just below collar, of bullish quartz with abundant yellow limonite assayed (B69L7) 0.0 oz. Au, 0.83 oz. Ag. Country rock is quartzite like hills to NE., with some purple shale.

No. 8 shaft. Country rock is conglomeratic quartzite, bedding N. 60 E., 40 S. Vein N. 80 E., 70 N. outcrops for length of 50' or more. Shaft is 50' deep, on the vein. At shaft, vein is quartz up to 2.5' wide, bullish, with clots of specular hematite up to 2" x 6" but mostly smaller, associated with siderite. Very rare traces copper stain. This is the only coarse hematite recognized in the district. Grab sample of 3-4 ton pile of vein material on the dump assays (B69L8) nil Au, 0.06 oz. Ag.

No. 9 diggings. Westernmost shaft symbol 25' incline on quartz vein N. 60 E., 70 S. Rocks here red and greenish thin-bedded fine ss, bedding about N. 70 E., 30 N. Vein is erratic quartz in sheared zone; quartz is white, bullish, some clots yellowish siderite (but not deep red like elsewhere); no ilmenite, no brick red, no copper stain. Of the pair of shafts a little to east, the southernmost one is 20' deep in purple and greenish silty limestone, thinbedded, no sign of mineralization of any kind. Northern shaft is a 30' incline on 6" quartz vein N. 60 E., 75 S. Bedding about flat, red quartzite. Quartz has some specular hematite as thin films, and some of dump material has traces of galena. Of the pair of pits shown, the westernmost is on a 2' quartz vein N. 50 E., 75 S., some

red staining, no hematite or sulfides; rock is white-gray quartzite. The eastern pit is a 12' shaft on the same vein as western pit, with a few small outcrops of the vein between the pits.

Overall: The mineralization seen here looks like no chance at all of signifying major mineralization anywhere in the area. The only mineralization is the very widely-spaced quartz veins with rare traces of base metals and of gold. The country rock is not altered, except immediately adjacent to the veins where it is probably a result of leaching by acids formed by oxidation of pyrite in the veins; there is nothing at all to suggest a large altered area.

What mineralization there is looks rather odd to me -- the wide spacing of practically identically mineralized quartz veins, the abundance of the brick red staining associated with the veins, the total lack of regional alteration. The thought occurred to us that maybe this is an area of mineralization developed by concentration of material from the enclosing sediments during regional metamorphism -- really truly lateral secretion. There are actually two possibilities for this: the mineralized quartz veins, on which most of the digging has been done, or the (older ?) unmineralized ones with siderite that are very abundant in the 2-3-4 area. The latter appear most likely for lateral secretion, at least from local sources.

This would make an interesting thesis area: field mapping for distribution of rocks and veins, and for sampling, and much analytical work on rocks and vein material looking for evidence of lateral secretion.

Area scouted January 14-15, 1969

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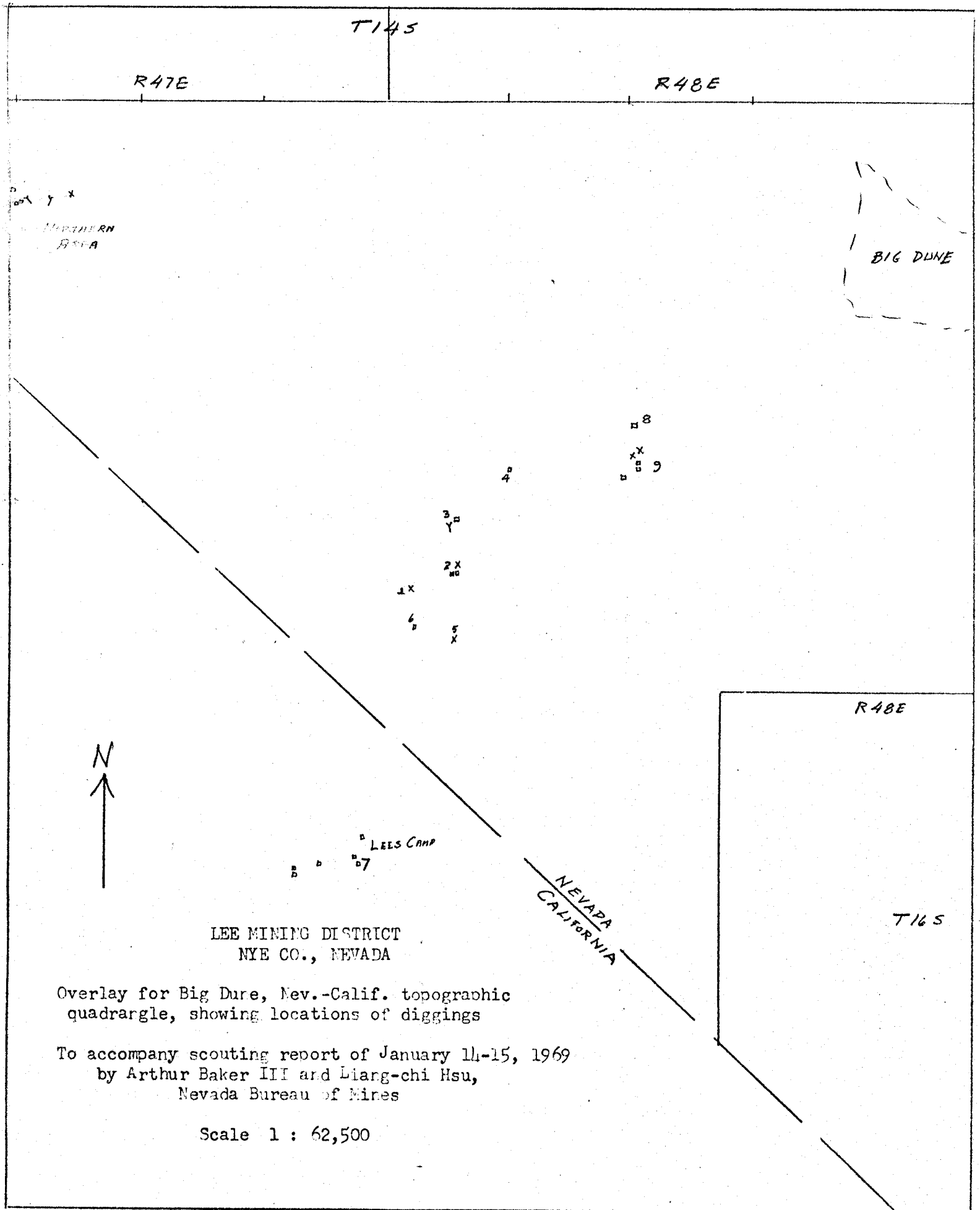
Nevada Bureau of Mines



LEE MINING DISTRICT
NYE CO., NEVADA

Overlay for Big Dune, Nev.-Calif. topographic quadrangle, showing locations of diggings

To accompany scouting report of January 14-15, 1969
by Arthur Baker III and Liang-chi Hsu,
Nevada Bureau of Mines

Scale 1 : 62,500