historic resource study

historic sites deemed ineligible for national register nomination
mines and mining districts

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LAKE MEAD

NATIONAL RECREATION AREA / NEVADA

HISTORIC RESOURCE STUDY

VOLUME II

LAKE MEAD NATIONAL RECREATION AREA

ARIZONA - NEVADA

Branch of Cultural Resources
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INTRODUCTION

In the fall of 1977, the National Park Service contracted with Michael Belshaw for the production of a historic resource study for Lake Mead National Recreation Area, Arizona-Nevada. That study was subsequently published (Belshaw, Historic Resource Study, Lake Mead National Recreation Area [Denver: Denver Service Center, National Park Service, 1980]). Belshaw later produced a companion volume entitled Mines and Mining Districts in the Lake Mead National Recreation Area that has not been previously published. While these reports provide useful background material, they are not detailed enough or thorough enough to support the assessment of potential historic sites against the criteria for eligibility to the National Register of Historic Places. Accordingly, the National Park Service funded further studies in the fall of 1981 in order to carry out its responsibilities under Executive Order 11593.

On the basis of the Belshaw reports and other research that had taken place at Lake Mead, 15 potential historic sites were selected for further study. Seven of these sites were found to possess National Register qualities. They are Ringbolt Rapids, Copper Mountain Mine, Grand Gulch-St. Thomas Road, Waring Ranch, Willow Beach gaging station, Quartette Railroad grade, and the U.S. Government Railroad grade. National Register forms are being processed for these sites. In addition, a portion of the Scanlon Dugway was found to possess National Register qualities. A National Register form is also being prepared for this property. Finally, seven sites--Golden Gate Mine, Golden Mile Mine, Pearce Ferry Road, Bonelli Ferry Road, Pearce Ferry seismic station, Pine Valley cabin, and the Six Companies Railroad grade--were determined not to possess National Register qualities. The latter eight sites are the subject of Nick Scrattish's report, also published in this volume, which details the reasons that all or portions of those sites do not meet National Register criteria.

In conjunction with Scrattish's study, the Western Archeological and Conservation Center of the National Park Service conducted investigations

to evaluate seven potential sites for their archeological and historic archeological significance. Three sites were determined to possess National Register qualities. These are the Grapevine Canyon petroglyphs, Salt Cove Salt Mine, and the Homestake Mine. National Register forms have been prepared for these sites. Four sites--Katherine Mine and Mill, Dunn inscription, Dinner Pockets cabin, and Tassi Springs--were determined not to possess archeological or historic archeological significance. Copies of the report on those sites may be obtained from the Western Archeological and Conservation Center, Tucson, Arizona.

Together these studies fulfill the National Park Service's responsibilities to inventory archeological and historical resources on lands under its control at Lake Mead National Recreation Area, as required by Executive Order 11593, "Protection and Enhancement of the Cultural Environment."

MINES AND MINING DISTRICTS IN THE LAKE MEAD NATIONAL RECREATION AREA

Supplement to Lake Mead National Recreation Area, Nevada: Historical Resources Study

Michael Belshaw, Ph.D.

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PREFACE

This report, a supplement to Lake Mead National Recreation Area, Nevada: Historical Resources Study, was prepared by Michael Belshaw, Ph.D., of Prescott, Arizona. Its purpose is to substantiate the statements made by Mr. Ed Peplow, Jr., who did the mining portion of that study.

In the preparation of the main report, a division of labor had been utilized wherein Mr. Peplow researched documentation pertaining to mining and Dr. Belshaw examined field evidence of mining activity. In the revision it became necessary to retrace all of Mr. Peplow's citations and to field check a number of sites that remained indeterminate. It should be noted that the terms of reference of the study included only unpatented, historic mines within the boundaries of the National Recreation Area but above the waters of the lakes. Thus, while Mr. Peplow cited better than one hundred and forty mines, only about forty sites fell within the predetermined limits. (See Appendices A and B) This revision focuses on the latter although occasional reference is made to other sites.

Archival materials were unearthed at the College of Mines, the Bureau of Geology and Mineral Technology, the Science Museum and Special Collections of the University of Arizona. In Phoenix the Arizona Division of Mineral Resources was checked as was the Nevada Bureau of Mines and Geology in Reno. The Mohave County Historical Society archives and those of Mohave County itself,

were reviewed. Some of the recreation area was flown in an effort to identify nameless sites, and salt deposits near Overton were visited. Although it stands to reason that more information of interest and relevance remains unfound, the marginal productivity of the research input began to fall rapidly when one became aware that citations of earlier citations were layering upon each other somewhat like depositions of sand in a dry wash. Thus, despite the uneasy feeling that there was more to say and to be found, the investigation was brought to closure.

This supplement, like the main report, results from the cooperative effort of a number of people. We must mention Professor David Raab and Tom McGarvin of the Arizona Bureau of Geology and Mineral Technology; Mr. Gerry Irvin of the Department of Mineral Resources in Phoenix; John Schilling, director of the Nevada Bureau of Mines and Geology in Reno; Dave Huntzinger, Chief of Interpretation at LAME headquarters; Larry Hanneman and Rangers Mike Stephenson and Pat Ozment at Echo Bay; Jeri Dawson of the Prescott Public Library; Steve Brown at the Arizona State Archives; Jim Whitmore of the Tasi Ranch and Pat and Chet Bundy of Bundyville. Mrs. Karen Gandy, director of the Mohave County Historical Society, not only unearthed some obscure documents but introduced me to Mike Price who proved to be a most diligent and enthusiastic research assistant. To all whose names are recorded here, I give my special thanks.

INTRODUCTION

The discovery and exploitation of mineral resources within the Lake Mead National Recreation Area coincided with the first penetration of the region by an Anglo American. On both of his trips to California in 1826 and 1827, Jedediah Smith extracted and packed out salt from extensive deposits along the Virgin River. These same deposits were to prove valuable later as they were used in the extraction of gold and silver from the mines of Nevada and California. Until the deposits were inundated by the rising waters of Lake Mead, ranchers, particularly Preston Nutter, packed this salt to stock in the Arizona Strip. On one occasion, a dispute over the salt resulted in an attempted murder.

Following the discovery by Jed Smith, almost thirty years were to elapse before further interest was shown in the region. In 1855 traces of gold were sighted in El Dorado Canyon by a member of Aubry's party and soldiers found ore of value in 1859. Although the Eldorado mining district is riddled with claims and workings, the significant mines, such as the Techatticup, lie outside the recreation area.

It was inevitable that the valuable findings at El Dorado would attract considerable interest and, from about 1860 onwards, the area below the site of Hoover Dam was combed and scratched by prospectors. However, of the mines within LAME, it would appear that only the Homestake may have shown any productive continuity in the nineteenth century. In all the districts below the bend

in the Colorado River and south of the river between the bend and the mouth of the Grand Canyon, exploitation waited upon the twentieth century. A new surge of prospecting began in 1900 and older discoveries began to revive interest. Indeed, the most important producer within LAME, the Katherine, was not found until 1900 despite the fact that other productive mines were near by. Mining districts such as the Eldorado Pass, the Gold Basin, the Lost Basin, the Gold Butte, the Newberry, and the Searchlight all were either discovered or energized in the early twentieth century. The same is true of the Copper Mountain Mine in the Bentley Mining District although that district's major mine, the Grand Gulch, showed activity as early as the seventies.

Placer deposits along the Colorado River at Temple Bar and south of the Big Bend were worked by dredge and barge before 1900 and shortly thereafter at Gregg's Ferry. Dry placering was not important until the 1930's and then only in Gold Basin and, for that matter, apparently only outside LAME boundaries. An exception to this would be the Sandy Harris Placer near Willow Beach. This deposit lies well above the river and an attempt was made to use river water for sluicing. A lessee took ten ounces of gold from this site in 1931. A gross yield of $210 would not be very encouraging and such, we suspect, was the case in virtually all of the mines of the recreation area. Production data are nonexistent for most of the mines. Enough reinforcement must have offered itself however, for men like S.C. Bagg persisted in making and working claim after claim.

The meager financial rewards must have been supplemented by strong psychic returns of a different nature, for the circumstances of life and work would be arduous for ordinary folk. All the mine locations were remote and difficult of access, some of them in the extreme. Even today, the Copper Mountain Mine is probably further from pavement and support services than any other location in the lower forty eight with only the exception of other mines in the same general area. As the saga of Miss McMasters and of freight haulers such as Harvey Frehner indicate, it took fortitude and fortune to make the trip at all. Once there, one was in exile. A crude sign on the door of a shack still reads, "Corey's Siberia." A spring near the camp provided all of 20 gallons per day although a shower stall indicates that greater amounts were brought in during the mine's post World War II operation.

Supplies had to be hauled in to all of the sites over great and costly distances, for the land could offer nothing. Well, not quite nothing. Terrapin shells were found near the Eureka Mine. Indians were a hazard, especially in the early days, but even well into the twentieth century. Toab tried to brain Marty Banker with a stone when he was on his way to Andrus Spring to pick up ore from Copper Mountain. Queho had twelve kills to his credit around El Dorado before he disappeared.

The hardship and hazard were not unrelieved of course. There is a delightful, gurgling stream in White Rock Canyon that must have given pleasure and respite. Vistas from such mines as the

Old Pope and the Eureka would make a man pause and regenerate himself. Earthly pleasures of bar and bed could be had to offer relief near larger operations, the Katherine in particular. And it is well recognized that prospectors and miners are a process oriented bunch and seem to have a preference for the image of the product rather than its substance. Why else would Bagg sell out the marvelous Katherine prospect and go for scanty scratchings in Eldorado Pass?

What these men left behind them was usually nothing but a hole in the ground, and an extremely dangerous one at that. Rickety ladders would give way to the foolhardy, old dynamite lurks in open cases, rattlesnakes seek shelter from the region's searing summer heat.

But relics abound above and below the surface. A number of shafts are embellished with headframes; there are steel rails leading to dumps and loading chutes, and rusty cans, cookstoves and other debris litter campsites. At Copper Mountain, the Brunswick Gold, and the Golden Mile, cabins are relatively intact, although they are completely collapsed for some reason at White Rock. Crude stone shelters were constructed at the Golden Gate. In some cases, especially at the Eureka, enough of the engineering is exposed to give the visitor some instruction into the miners' art.

This leads us then to the point of beginning. Of these remnants of the mining era, what, if anything, merits the protection accorded by nomination to the National Register of Historic Places?

Several potential candidates come before us - the Copper Mountain mine, the salt mines, the Homestake, and the Katherine.

As we examine these, doubts intrude. The Copper Mountain mine appears to have merit in a rather tangential way. People involved in the story of the Arizona Strip were associated with it. Abraham Bundy freighted its ore and in doing so decided to settle Hurricane Valley. Harvey Frehner was an important freighter there and elsewhere. Roxton Whitmore, who worked it after World War II, was a great grandson of Dr. James Whitmore whose death near Pipe Springs prompted the construction of "Winsor" castle. The extreme remoteness of the site give it fascination but no necessary historic merit.

The remnant salt deposits should also be considered as potential candidates. The locations of undoubted historical value were those along the river. Their accessibility induced their exploitation by Jed Smith, Preston Nutter, and Daniel Bonnelli. Why would the above lake deposits be exploited when the river deposits were available? There is some indication that a wagon road led to this location and the deposits are remarkably pure, both of which suggest the possibility of exploitation. However, the evidence would not allow one to specify these deposits as having historical significance in and of themselves. Only in association with, and as representations of, the main mines could they claim merit.

The Homestake mine is an example of a site that would seem to merit nomination but chooses to withhold the kind of data that

can give one assurance. Our sources indicate that the mine's discovery was made in the "early sixties" which, if true, would make the Homestake the first mine, other than the salt mines, to be found within LAME. The site itself is quite impressive. There is the huge framework of a massive trio of chutes and the foundations for a boiler and stamp mill remain. But there is also a puzzle. The shafts, tunnels and waste piles do not appear to be sufficiently extensive to support such elaborate mill workings. The same might be said of the documentary evidence. Not only is it so scant that a coherent narrative is not possible, but it is confused by the existence of another Homestake mine in nearby Arizona.

This leaves us with only one incontrovertible candidate - the Katherine mine and millsite. This was a productive and competently managed enterprise that operated, with fluctuations of course, from 1900 until well into the post-historic period. Considerable documentation exists and the candidacy for National Register nomination would appear to be entirely proper and has been made as part of this project.

MINES AND MINING DISTRICTS

WITHIN THE LAKE MEAD NATIONAL RECREATION AREA

The Bentley Mining District (Arizona)

The Bentley District is the only mining district in the Grand Canyon and Arizona Strip portions of the Lake Mead Recreation Area. The principal mine is the Grand Gulch which, although not within LAME, is extensively reported on in the main report due to its connections with the freight road to St. Thomas which passes through the Recreation Area, and with the early history of the Shivwits plateau. Apart from the Grand Gulch, the Savanic and Bronzell mines (outside LAME), the only mine of consequence in the Bentley District is Copper Mountain (Az. T32N, R9W, S14). This lies three miles to the north of the Grand Canyon on a plateau intersected by deep side canyons and delineated by abrupt and massive cliffs which loom on all sides.

The isolation of the Copper Mountain is extreme. Even today, a trip of 100 miles by dirt road is required to reach the nearest settlement, St. George, Utah, and the last dozen miles down from Mule Canyon may take two hours to negotiate. Prior to the development of this road by Leland Whitmore, Sr., after World War II, access was from Andrus Spring above the rim, down a narrow pack trail, a distance of seven slow miles.

The history of the Copper Mountain mine is sparsely documented and much of the information comes from local informants. According to "Pat" Bundy of Bundyville, Arizona, Reed Mathis of St. George, Utah, and Laura Gentry of St. Thomas and Overton, Nevada, the "original" owner was an elderly woman by the name of McMasters.[1]

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1 Interviews with the above named persons, 1977 and 1978. Her first name could not be recalled.

She would come every summer from the East to inspect her mine with St. Thomas as her starting point for a diffuclt journey. She required stamina for the searing discomfort of the summer desert, yet Laura Gentry recalls how, one evening, McMasters stepped outside the door of the St. Thomas hostelry and let out a scream. She had been frightened by a "big old frog."

McMasters would hire a surrey at St. Thomas and when the head of Andrus Canyon was reached, would rent horses from Wally Mathis, Sr. Laura Gentry gives the time as about 1917. However, if this is the case, McMasters would not have been the "original" owner since John A. Swapp of Overton is reported as the owner by Hill in 1913.[2] The mine at that time was worked by Bishop Whitehead, also of Overton, who shipped a carload of ore every two or three months containing 23 to 26 percent and from $3 to $4 a ton in silver.

According to Wally Mathis, the high graded ore was packed out by way of Burro Springs and Andrus Canyon to Grassy Springs. Burros were used as pack animals and each carried three packs. There it was stashed for freighting. The freight trail went down Pigeon Canyon, past the Grand Gulch mine, down Grand Gulch Canyon, across Grand Wash, and thence to St. Thomas. The road out of Andrus was built by Lorraine Cox and the packers were Bill Shanley and Tyne Heckelthorne, both of whom made colorful contributions to the history of the Arizona Strip. One of the freighters was Harvey Frehner who, with Marty Bunker, would occasionally haul

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2 James M. Hill, Contributions to Economic Geology, 1913, U.S.G.S. Bulletin, 580, p. 56.

Copper Mountain ore.[3] Merle Frehner also recalls another important actor in Arizona Strip history, the patriarch Abraham Bundy, who while freighting from the mine in 1916, discovered and decided to settle in the Hurricane Valley.

Howell writes that freighters to Copper Mountain would take the longer route through Hidden Canyon. This may have been to avoid the difficult climb up Grand Gulch.

> The road going to Copper Mountain went by way of Pakoon and passed another cow camp called Hidden Father along the trail. Copper Mountain was a good deal further from the railroad than the other mining properties. It took freighters a week longer to make the trip hauling ore from this property.
>
> The road going to Copper Mountain came up on top of the mountain a good deal farther north than the Grand Gulch Trail. The Copper Mountain Mine was down in a deep rugged canyon and the ore was packed out on burros for seven miles to where it was loaded on the freight wagons. At times there were two or three hundred burros in the pack train. It was quite a sight to see them strung out on the trail. The ore from this property was very high grade, as nothing but the best of ore could be shipped hauling it from that distance.[4]

Butler, in an address to the Kingman Chamber of Commerce, spoke of the Bentley District mines but, because he did so collectively, we are unable to determine if Copper Mountain was worked as early as the other two.

> North of the Colorado River, on the slope of the Grand Wash Cliffs, a very considerable production has been made from several copper deposits, the most important of which are the Grand Gulch, Savanic,

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3 Transcribed interview with Merle Frehner, pp. 13-14.

4 Harry E.W. Howell, Expressions of Harry Howell, private printing. Copies available from Mrs. Boyd C. Sutherland, 1025 West State, Lehi, Utah, pp. 26, 27.

> and Copper Mountain. These deposists (sic) were worked by St. George and Salt Lake City capital from 1901 to 1902 and again from 1906 to 1920 inclusive. The ore being carefully hand sorted to over 40 percent grade and hauled to Moapa, Nevada, from where it was shipped to Salt Lake smelters. These deposits can only be worked during abnormally high copper prices, as they are extremely inaccessible.[5]

Ownership of the mine is difficult to trace subsequent to the McMasters and Swapp period.[6] McMasters hired Pete Wulfenstein to do the assessment work and he and a son, Elroy, have laid claim to the site on more than one occasion. Winifield Covey was staked by a Mr. Mosier apparently in the twenties. Following the Second World War, Western Gold, owned by Leland Whitmore, Sr., attempted to work the ore body for gold and uranium.

Production figures, probably like production itself, are scant. Collectively, the three mines produced $100,000 during 1901 and 1902 and $1,377,500 between 1906 and 1920.[7]

We do not know what proportion of the total was contributed by Copper Mountain, nor, indeed, when it entered the collectivity. The only independent figure is for 1913 through 1918 when Copper Mountain produced 200,000 pounds of copper and $10,000 in silver.[8]

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5 C.M. Butler, "History of Mining in Mohave Country," The Mining Journal, 15-10-28, p. 28.

6 The term "ownership" is used advisedly. There seems to have been a number of claimants, but no patent record can be found.

7 Butler, op. cit., p. 10.

8 Morris Elsing and Robert E.S. Heineman, Arizona Metal Production, Arizona Bureau of Mines Bulletin, #140, 15-2-36, p. 96.

The Copper Mountain Mine derives what interest and significance it might have, not from its production, but only indirectly from being an incident in the lives of a few men who left their imprints elsewhere in the Arizona Strip.

Black Canyon or Willow Beach Mining District (Arizona)

The Black Canyon or Willow Beach District, about a dozen miles below Hoover Dam, includes only two identifiable mines, the Sandy Harris Placer (Az. T29N, R22W, S29) and the Two B's (Az. T29N, R22W, S11).

The Sandy Harris Placer is unique as the only placer not inundated by impounded waters. Eldred Wilson explains:

> At Willow Beach, 65 miles from Kingman and near the Hoover Dam highway, one of these ancient bars contains the Sandy Harris placer. -- This placer material was probably eroded from gold-bearing rocks in the vicinity and washed, by way of tributary gulches, to the river where it accumulated in the outer portion of the nearest curve. Subsequently down-cutting of the river has left this bar elevated in its present position. Some thirty-five years ago, Mr. Harris worked this placer by tunneling on bedrock. In 1920, an unsuccessful attempt was made to sluice the gravels with water pumped from the river. A lessee took out about ten ounces of gold during 1931.[9]

It was hoped that Mr. Wilson's reference to "some thirty-five years ago" would give a clue as to the placer's first working. However, the bulletin was first printed in 1933, revised in 1952, and again in 1961. This gives 1898 as a candidate year, but 1919 or thereabouts is possible.

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9 Eldred D. Wilson, Gold Placers and Placering in Arizona, Arizona Bureau of Mines Bulletin, No. 168, pp. 34, 35.

It was certainly earlier than 1920 but not likely to be as early as 1898 for Harris was at work there in 1920.

> Rapid progress is being made in the preparations for sluicing at the Harris Placers, 80 miles northwest of Kingman in Jumbo Wash in the Black Canyon district. A large pumping plant is being installed by Shaw and Harris at the river from which water for sluicing is to be obtained. These placers have been known for years; they are found in a district in which there are a number of important gold veins, among which is the Jumbo.[10]

The tunnels worked by Harris remain, albeit collapsed. Although not judged to be of historic significance, they have some curiosity and educational value and may be considered for exhibit status because they represent the only extant placer within the Recreation Area, and because of the hydraulic washing developed to utilize the waters of the rivers.

Nothing is known concerning the Two B's Mine. Field examination suggests post-historic use. No habitations are in evidence, This suggests that trailers or tents may have been used. A grease pit was in place, indicating use by powered vehicles. A radio antenna extends across the canyon with a lead to the apparent habitation site. If trailers and a radio were used, post 1930 occupancy would be clear. This, of course, would not preclude earlier working. One lacks documentary or other evidence to give historical value to this site.

Another interesting property is found in this general area although whether or not it should be ascribed to the Black Canyon district, the Minnesota district, the Gold Bay district, or the

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10 Mining and Scientific Press, Vol. 121, 18-12-20, p. 883.

Eldorado Pass District, is less than clear. Four claims straddle the section line between sections 24 and 25 in T28N, R22W. These are the Gold Standard, the Brunswick Gold, the Gold Key and the Gold Rod. The north line of the Brunswick Gold intersects USMM 2948. Patent claims were applied for but denied. Nevertheless the claims were active as testified to by a number of shafts, a tripod headframe and a two-room board and batten cabin. (See Appendix C)

Eldorado Mining District (Nevada)

It is perhaps ironic that the Eldorado Mining District should contribute no mines of interest to this study. This district was discovered, and active, earlier than any other within LAME (1857) and was organized as the Colorado district in 1861.[11] The most important mine in the district was the Techatticup which, between its opening in 1863 and 1907, produced $1,700,000 in gold. The balance of the two to five million in production was contributed by 304 mines scattered over 44 square miles of land.[12]

Two patented claims of slight interest within LAME were the Nevada Eagle and the Capitol. These mines were active during the first decade of this century and contributed to the ore fed to mills established on the Colorado River. An attempt to dredge the river failed after one year's operation in 1910 when the

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11 For the early years of this region, see the main report of this study, Part 1, Chapter One, Prehistory, Exploration, River Crossings, and Settlement - Eldorado Canyon: The Early Years, 1-24.

12 See Francis Church Lincoln, Mining Districts and Mineral Resources of Nevada, Nevada Newsletter Publishing Co., Reno, 1923, and Nevada Bureau of Mines, Bulletin 62, Plate 10, 1933.

barge was wrecked by high water.[13]

It would appear that no unpatented claims or remnants, lying above the waters of Lake Mohave but within the boundaries of LAME, have any historical significance.

Eldorado Pass Mining District (Arizona)

The Eldorado Pass Mining District lies on the Arizona side of the Colorado River, directly opposite the Eldorado Mining District in Nevada which attracted the first attention to the region. Shrader reports:

> The Eldorado Pass district, an area about 2 miles in diameter, lies west of the White Hills at Eldorado Pass, on the road leading to Eldorado Canyon, --- The principal properties are the Burrows, Bagg, Young, and Pauly. They are in the prospect stage, but have produced some gold, the production of the Burrows being reported to be about $10,000.[14]

Of the mines mentioned by Shrader, only the Young (T27N, R22W, S1) lies within LAME. According to the data files of the Arizona Department of Mineral Resources, it held copper in quartz veins. The Book of Patents shows the Eldorado mine lying about one mile to the south of the Young in T28N, R28W, Sections 12 and 13. This claim was made on 23-5-1912, several years after Shrader wrote, and was patented by the Arizona Mining and Exploration Company.

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13 Mining and Scientific Press, XCV11:26, 26-6-09, p. 871; M & S P, 100:4, 22-1-10, p. 173; M & S P, 100:23, 4-6-10, p. 845; Mining Journal, Vol. XV1:14, 15-10-22, pp. 1, 2.

14 F.C. Shrader, Mineral Deposits of the Cerbat Range, Black Mountains, and Grand Wash Cliffs, Mohave County, Arizona, U.S.G.S. Bulletin #397, Washington, G.P.O., 1909, p. 218.

Earlier, November 5, 1903, the Eldorado had been patented by B.R. Perkins. Its description was given as "about Two Hundred feet in a Northerly direction from the El Dorado and White Hills stage road, about 1/4 of a mile E.S.E. of John Young's camp, and about 700 ft. N.N.E. of Black Butte south of wagon road."[15]

Another mine in this small group, the Gold Bar, would also appear to lie within LAME. This claim was recorded also by Perkins, but on the 4th of May, 1903. Its location is given as "about 1/4 of a mile in a Northerly direction from the El Dorado and White Hills stage road and about 700 ft. north of John Young's Camp and about 1/3 of a mile in a northerly direction from Black Butte south of wagon road. Was formally (sic) known as the 'Gold Bell' mining claim, and was formerly located and claimed by J.B. Davis & Jas. Teriggo."[16]

John Young's camp would appear to have been close to the wagon road, whereas the Young mine, presumably owned by, and named for, him, was, as noted, about a mile north of the Eldorado mine.

We also have a report from the Mining and Scientific Press that clearly relates to Eldorado Pass but no coordinates are given.

> S.C. Bagg, who has been cleaning out the Jennie mine on the Arizona side of the river opposite Eldorado canyon, has completed the work and will now begin development of the property. The shaft, which was filled up, was found to be 110 ft. deep, with a vein five feet wide between well-defined walls. Several drafts from 20 to 100 ft. long were cleaned out.

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15 Mohave County Recorders Office, Book Q., p. 268.

16 Book Q., p. 262.

> The ore body ranges two to five feet in width. Some of the ore remaining in the stopes assayed two ounces gold and 1,200 oz. silver per ton, while hundreds of tons will run $20 to $50 per ton. A contract has been let to sink the new shaft 200 ft. west of the hold shaft. Twenty-five sacks of ore have been shipped to the Needles smelter.[17]

The identity of the Jennie (Jenny?) is somewhat clarified by the claim made by S.C. Bagg and J.A. Carrow on 20-3-05 which they named the Michigan.

> About 8 miles in an easterly direction from the Colorado River, 300 yards from the Eldorado Stage road, 1½ miles west of the summit, we embrace within this location the Jenny Mine forfeited for non performance of labor in year 1904.

Whether the Jenny lies within LAME depends upon the location of the "summit" referred to above. The road from the river winds along a canyon and the LAME boundary is seven miles in a direct line from the former centerline of the river. The convolutions of the canyon would easily add at least one, and possibly two, miles to the road. Near the boundary, the road leaves the narrow defile to traverse more open country. It still continues to rise gradually until the locale of the present day Pope mine is reached about one and a quarter miles due east of the LAME boundary. Beyond the Pope to the east are sharply rising peaks. Is the summit at the Pope mine where the road intersects another highway, one of the peaks, or where one escapes the canyon?

It might help if we knew the identity of Black Butte. The author suspects that it is a dark volcanic height just to the south of the stage road overlain with a tufa like rock full of

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17 M & S P, XC11:20, 19-5-06, p. 332.

caverns and hiding places. It is a forbidding, forlorn and abandoned place. Predators only would call it home. A red tailed hawk angrily buzzed the author and his dog when they disturbed its attack on a rabbit. Near a dark cave we came upon the second half of a young, female bobcat. Rigor mortis had not yet set in.

All about there was evidence of the canyon's brief human occupancy. There was little in the way of structures, although one chute was found. But there were tunnels, burrows and shafts high and low.

But which was which, there seems no way to determine. The author is inclined to believe that the Jennie is one of the concentrated group, as is the Kentucky claim which is similar to the Michigan (Jenny) in location, date, and claimants. Bagg and John Young seem to have had some encouragement in their efforts, for on April 3, 1907 they laid a claim on the Crown Point which was "about eight miles in an easterly direction from the Colorado River and two miles westerly from the summit of the range, and ½ mile north of the El Dorado stage road." Whatever the definition of the summit, this claim would very likely lie within LAME. But again, the proliferation of workings and the looseness of the locators would make positive identification impossible.

Gold Basin Mining District (Arizona)

The Gold Basin district lies between White Hills and Temple Bar. Only a small portion of the district is within LAME, and principal claims center around Salt Springs just south of Lake Mead.

According to Hewett,

> The district was discovered in the early seventies and is believed to have produced between $50,000 and $100,000 prior to 1904. It yielded a fairly regular small production up to 1920 but was then essentially inactive until 1932, since when there have been several efforts to work some of the old properties. Recorded production, 1904-32, 15,109 tons of ore yielding 6,244.91 oz. Au, 5,059 oz. Aq, 27 lbs. cu., 1,765 lbs. Pb, valued in all at $133,014.[18]

J.B. Tenney calls Gold Basin "a small gold camp" about 12 miles east of White Hills. He differs from Hewett in a number of respects. Tenney states that the basin was discovered in the eighties and that "very little work was done until the organization of the Cyclopic Gold Mining Company in 1902."[19]

The Salt Springs group centers about a series of springs which emerge at a point where a broad wash narrows into a canyon and is intercepted by a cross-cutting reef. Shafts and tunnels pierce the country rock for several miles around and footings and foundations appear to have supported a mill below the spring. Despite the evidence of activity, little is known. In fact, Shrader reports it all when he states:

> The Salt Springs mine is about 7 miles northeast of the Senator mine and several miles south of Colorado River, in the first canyon west of Hualapai Wash. It is owned by the Salt Springs Mining Company, which is said to include members of the Arizona-Minnesota

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18 D.F. Hewett, Eugene Callaghan, B.N. Moore, T.B. Nolan, W.W. Rubey, and W.T. Schaller, Mineral Resources of the Region Around Boulder Dam, U.S.G.S. Bulletin, #871, USGPO, Washington, 1936, p. 15.

19 James Brand Tenney, History of Mining in Arizona, Tucson 1927-29, pp. 365, 366. C.M. Butler's above cited address to the Kingman Chamber of Commerce is almost word for word the same as Tenney's. This is not surprising since Tenney compiled the data for Butler's speech.

> Gold Mining Company. The country rock is granite. The gold ore is said to occur sporadically in quartz bodies, and its downward limit is usually indicated by copper stained quartz.
>
> Other properties in this district are the Smuggler Union group, the Eureka mine, and the Lutley group.[20]

A group of shafts and tunnels is situated on the boundary of LAME in T29N, R18W, Sections 8 and 17. According to the information of a ranger at Temple Bar, at least one of these mines was known as the Ruby Rose. The search of literature and archives failed to show this name. Artifacts at the site (metal outdoor furniture) suggest post-historic use although, of course, historic use is not precluded thereby.

As far as other possible historic sites are concerned, the Engineering and Mining Journal reported in 1892 that Robert Patterson, solicitor, had 22 claims in Gold Basin including the Schafer prospects, Prince Albert, and Desert Prospect. "Owing to the absence of the owners and the sale of principal claims, no real developing work has yet been done. Only three windlasses are to be found."[21] No coordinates are given and the location vis-a-vis LAME boundaries is therefore indeterminate.

Although this report is confined to properties within the boundaries of LAME, but lying above lake high water levels, brief mention might be made, for the record, of the Temple Bar Placers.

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20 F.C. Shrader, Mineral Deposits of the Cerbat Range, Black Mountains, and Grand Wash Cliffs, Mohave County, Arizona, U.S.G.S. Bulletin #397, Washington, G.P.O., 1909. The relevant locations are - Salt Springs Mine, T30N, 18W, S18; Eureka, T30N, R18W, S34; Smuggler Union, T30N, R18W, S30; and Lutley Group, T30N, R18W, S34.

21 EMJ, Vol. 54, 20-8-92, p. 181.

These were first mined in 1895 by a French company under Captain Delmar. Hydraulic pressure to wash gravels was obtained by the use of a water wheel between two barges which raised the water 250 feet. This may have been the operation to which J.E. Rose hauled supplies and fuel as late of 10-98.[22] A boom had been extended into the river for the purpose of capturing drift-wood to fire the boiler. The erratic supply of fuel that resulted prevented continuous operation and may have been a principal reason for the failure of the effort.

Again, for the record, we might mention that dry placering of gold took place in Gold Basin but the discovery of this source was in 1932, placing it beyond the historic period. Whether these placers were within LAME cannot be determined from the information available.[23]

Gold Butte Mining District (Nevada)

The Gold Butte Mining District is on a long tongue of land between Grand Wash Bay to the east and the Virgin Basin to the west. It is in the South Virgin Mountains and is dominated by the peak after which it is named. With the exception of the Marron Prospect, those of the district's mines that lie within LAME, are clustered on a south facing slope that fans out to Lake Mead between Temple Bar and Iceberg Canyon.

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22 M & S P, XCV1:8, 22-2-08, p. 242.

23 Eldred E. Wilson, Gold Placers and Placering in Arizona, Bureau of Geology and Mineral Technology Bulletin, 168, Reprinted 1978, pp. 35-37.

Road access was by way of the notorious Scanlon Dugway. All but the Union and Lakeshore Mines are an easy hike from the shores of the lake.

The ubiquitous and energetic Daniel Bonelli was the first to mine the district where, in 1873, he discovered mica and, by 1900 had reportedly shipped five tons of sheet mica.[24] Metal mining began in 1905 with the discovery of gold near Gold Butte by Frank Burgess. Copper and zinc were discovered by Bonelli, Syphus and Gentry in 1907 and small shipments were made from 1912 to 1918. Since 1918, gold has been the most important product mined.

The cluster of mines within LAME includes the Lakeshore (T21S, R70E, S5), the Union (T21S,R70E, S8), the Jumbo Prospect (T21S, R70E, S15), the Eureka (T21S, R70E, S14), the Joker (T21, R70E, S22), the Marron Tungsten Prospect (T20S, R71E, S18) and Lode Alsim (T21S, R70E, S14).

From a production point of view, the Lakeshore was unquestionably the most importatnt of these mines with an estimated total of $100,000 in gold. However, its entire production was post-historic (1934-1940). The mine's major interest stems from the use of Lake Mead for freighting ore, the only such case noted.

> The first freighter to make a trip on Boulder Lake is reported to have brought down a load of high-grade ore from claims located six miles from the Lakeshore. The ore was mined by O.W. Yates and A. Thompson, both of Las Vegas, Nevada, and Fred Gibson of Carson City.

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24 Longwell, et al, Geology and Mineral Deposits of Clark County, Nevada, Nevada Bureau of Mines, Bulletin #62, Reno, 1965, p. 126. See also Francis Church Lincoln, Mining Districts and Mineral of Nevada, Mackey School of Mines, Reno, 1923, p. 21, and Stanley Paher, Nevada Ghost Towns and Mining Camps, Howell-North Books, Berkeley, Cal., 1970, p. 288. The Bonelli site is outside LAME.

> The ore was hauled to the lake, put aboard one of the Six Companies, Inc., barges, and towed by a power boat belonging to James Cashman of Las Vegas.[25]

The Union Mine lies slightly lower and to the south of the Lakeshore, but Longwell reports that no production was recorded on it.[26] Neither was the Jumbo Prospect reported to show recorded production.[27] Indeed, remnants of this mine were extremely difficult to locate and, when found, proved to be only collapsed prospect holes.

From a visual and visitor impact point of view, the most interesting of this group of mines is the Eureka. The workings are one mile north of Lake Mead high on the spine of a ridge from which magnificant vistas are presented. It is reached by a stiff climb up a well engineered, narrow road. A tunnel and intercepting wye reach the ore body from below, while, from above, a stope reaches to the surface where the carefully constructed framing is visible. Surrounding this small mine is evidence of the miner's activity - crucibles, a crude furnance, pieces of drills, large caliber revolver shells and the victim of one of these, the carapace of a desert tortoise. On a bench, one hundred feet below, is the

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25 Mining Journal, 19:15, 30-12-35. It is interesting to note that pioneer names such as Yates and Gentry crop up in connection with these enterprises, and that members of these families still own and work property in the region.

26 Longwell, op. cit., p. 185. In spite of several attempts, the author was unable to make a site inspection of either the Lakeshore or the Union due to severe winter weather and the condition of the Scanlon Dugway. The other mines were reached by way of the lake.

27 Ibid., p. 185.

camp site littered with remnants, including a large wood stove:

> Buck's Stove and Range Co., St. Louis,
> 227 Buck's Brilliant 1890

It would appear that this mine was worked in a thorough, careful manner and that, whoever they were, the miners were professionals. But their identity is lost. All Longwell is able to tell us is this: "Ore reportedly shipped in past."[28]

Although it may have been active during the historic period, the Joker Mine shows strong evidence of post World War II activity. Considerable debris is scattered about, much of which, apparently welded on site, shows considerable ingenuity. Inscriptions on the concrete foundations for the separator and mill are dated 1966. All Longwell, publishing in 1965, can tell us is "Some ore probably milled on the property."[29]

Lode Alsim is about one quarter of a mile south of the Eureka campsite. The physical evidence consists of an inclined shaft, seven by seven feet square, and timbered at the surface. A wooden ladder is in place and a sieve mesh bucket lies to one side. A claim marker showed that the claim was filed by Roxton and Della Whitmore, GB Mining, on May 27, 1959.

The Marron Propsect lies several miles to the east of the others and was a tungsten claim. Longwell stated: "No production reported."[30]

As to district production, Hewett, et al, report:

> The district was discovered about 1905 and made

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28 Ibid., p. 183.

29 Ibid., p. 184.

30 Ibid., p. 184.

several shipments of copper ore in 1912-18. There was some prospecting of the gold lodes early in 1934. Recorded production, 1912-32, 337 tons of ore yielding 3.01 oz. Au, 209 oz. Aq, 136,620 lbs. Cu, 10,206 lbs. Pb, 15,386 lbs. Zn, valued in all at $29,351.[31]

Of this production, only the gold, and perhaps silver, might have come from the mines mentioned above. However, with the opening of the Lakeshore Mine in the 1930's, the situation improved. The mine extracted 21,195 tons of ore between 1937 and 1940 for a gold production of $51,510.[32]

The Katherine Mining District (Arizona)
The Katherine Mine and Mill

Location: Az, T21N, R21W, Sections 4, 5, 6

The complex of mines and the millsite which lie two miles to the east of Lake Mohave and some three and one-half miles to the north of Davis Dam is, from a historical perspective, the most important mining locale on the shores of the Lake Mead National Recreation Area. The district within which it lies is variously known as Union Pass,[33] the San Francisco District,[34] or the Katherine District,[35] which we shall use for sake of convenience.

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32 Bertrand Couch and Jay Carpenter, Nevada's Metal and Mineral Production, University of Nevada Bulletin No. 38, XXXV11, #4, 1943, p. 30.

33 Hewett, et al, Mineral Resources in the Region Around Boulder Dam, U.S.G.S. Bulletin, 871, p. 18.

34 R.L. Dimmick and Eugene Ireland, "Mining and Milling at the Katherine Gold Mine," Engineering and Mining Journal, Vol. 128, No. 18, April 30, 1927, p. 716.

35 Carl Lausen, Geology and Ore Deposits of the Oatman and Katherine Districts, Arizona, Arizona Bureau of Mines, Bulletin 131, p. 115.

According to Hewett,[36] the district was discovered in the late sixties and the Sheep Trail and Boulevard mines, to the east of the Katherine and outside LAME, "made a moderate early production." The Katherine location consisted of an outcrop of granite between the above-mentioned mines and the Colorado River to which their ore was transported for treatment at the Pyramid Mill.

> An ancient stage road ran over it (the Katherine location) for years, carrying gold seekers to and from every camp and 'digging' in the west. Why it was not exploited earlier is a question.[37]

Whatever the reason for the tardiness, the discovery was finally made in 1900 by John S. Bagg. Mr. Bagg named the mine for his sister and sold it in 1904 after working the mine to the 200 foot level.[38]

In the words of Lauson,[39]

> Both the Oatman and Katherine districts, like so many of the bonanza gold districts of the west, have had a checkered history. The spectacular character of some of the rich ore and the possibility of fortunes being made quickly appeal to the imaginative mind. Each new discovery led to a period of excitement during which many new claims were located, or old ones relocated; additional capital was brought in to try out new ventures; activity increased by leaps and bounds and prosperity reigned; but, in time, the excitement slowly subsided. As the value of the ore decreased or production dropped off, interest waned, and a period of stagnation set in. --The cycle is then complete, and may be repeated over and over again as new discoveries are made.

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36 Op. cit., p. 18.

37 F. LeRoi Thurmond, "The Mill of the Katherine Gold Mining Company, The Arizona Mining Journal, Vol. 1X, No. 11, October 30, 1925.

38 From interview notes on file in the Katherine District Ranger's Office. The date of the interview and the name of the interviewer are not recorded.

39 Op. cit., p. 14.

Such was certainly the case with the Katherine, for there, three distinct cycles may be identified, the first following immediately the discovery, the second in the twenties, and the third in the thirties.

After the mine's discovery, Bagg[40] began development work immediately under the corporate identity of the New Comstock Mining Company. Initially the ore was gold bearing only, but by 1902 new drifts were driven carrying 100 ounces of silver and $50 gold to the ton.[41] In 1903, early negotiations for sale to an eastern syndicate are reported, as are significantly lower ore values of $6 per ton.[42] The negotiations must have fallen through for, in July of the following year, S.C. Bagg is still the superintendent of the New Comstock Mines. Soon after, the Katherine reported a streak of ore that averaged $9 per ton.[43] By November of that year, the New Comstock properties had been bonded to H.C. Howard, et al, of San Francisco, California. This ended Bagg's association with the mine. Drifts were run from the 200 foot level and the shaft sunk to 300 feet.[44] The new ownership organized itself as the Arizona-Pyramid Gold Mining Company. "It installed a 22-horsepower gasoline hoist, compressor, and fan ventilator,

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40 Bagg's initials are reported as S.C. rather than John S. in all other references quoted.

41 Mining and Scientific Press, LXXXV:8, 23-8-02, p. 106.

42 M & S P, LXXXV11:24, 12-12-03, p. 393.

43 M & S P, LXXX1X:5, 30-7-04, p. 76.

44 M & S P, LXXX1X:20, 12-11-04, p. 330.

deepened the shaft, and was soon mining and milling systematically."[45]

Development and extraction continued under the new company with Lewis Hefer as superintendent. In 1907, it was reported that "some good ore" was found on the 300 foot level and a crosscut was being run on the 400 foot level to cut the same ore body.[46] It would appear that the New Comstock Company regained title to the property shortly thereafter for, in the Mining and Scientific Press of 13 June, 1908, we note the following:

> The suit of Nellie B. Kemper against the new Comstock Mining Co. has been compromised and a settlement effected that will result in the operation of the properties again. The company is the owner of the Katherine, the Sheeptrail group, and other mines in the part of the country west of Union Pass. It also owns the Pyramid 20-stamp mill in the Colorado River.[47]

During the first period the Katherine was less than a spectacular producer and no production was reported again until the second phase began in 1919.

According to Dimmick and Ireland, the first phase ended in 1906 since, even with $12 ore, profits were poor due to the high cost of wages, transportation and an inefficient amalgamation process at the Sheeptrail Stamp Mill on the river. The authors state that active exploration was resumed by the "original company," the Katherine Gold Mining Company of Delaware.[48] What Dimmick and

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45 F.C. Shrader, Mineral Deposits of the Cerbat Range, Black Mountains, and Grand Wash Cliffs, Mohave County, Arizona, U.S.G.S. Bulletin, No. 397, Washington, GPO, 1909, p. 205. Note that Shrader spells the Katherine with a "C" rather than a "K".

46 M & S P, XC1V:26, 29-6-07, p. 804.

47 M & S P, XCV1:24, 13-6-08, p. 789.

48 Dimmick and Ireland, op. cit., p. 716.

Ireland meant by the "original company" is clarified by Butler.[49]

> In 1921, the New Comstock Mining Company who still held title to the Katherine and Sheep Trail mines, west of Union Pass, decided to develop the Katherine vein. A subsidiary company, the Katherine Gold Mining Company, was organized, a new shaft sunk to the 600 foot level, a cyanide mill and diesel plant installed, and production started in 1925.

The decision to develop was made apparently as a result of promising data showing a 12-foot vein of $30 ore at the 300 foot level.[50]

Charles Sutro of San Francisco was the prime mover behind the thrust of 1921. Simultaneously, other claims and mines were developed the effort jointly feeding the mill later to be constructed. Numbering among Sutro's associates were A.J. Jennings who purchased the Katherine-Mohawk Extension, State Senator James Curtin of Kingman who, with others, acquired five claims to the east, and A.L. Degenhart who secured the Katherine-Mohawk group. A townsite was laid out and engineering, planning and development work was initiated.[51] This development work was facilitated by the sinking of a two-compartment shaft at the nearby Gold Chain property, and shaft work at the Katherine Extension was expedited by hoisting and compressor plants. On the basis of assays showing $10 gold and 2 to 15 oz. of silver per ton, the stockholders planned to finance

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49 Op. cit., p. 10.

50 M & S P, 1-11-19, p. 653.

51 M & S P, 23-4-21, p. 574.

a small mill and to sink the shaft to 700 feet.[52]

Excitement continued through the year as the Katherine Extension struck a 20-foot lode under shallow overburden and the Katherine-Mohawk Mining Company approached to within 600 feet of high grade ore of the Katherine.[53] By October, the Katherine was reporting samples of $32 ore at the 400 foot level.[54] The discoveries warranted consideration of a 300-ton mill at the site.[55]

During the summer of 1924, the Tom Reed Company of Oatman, having exhausted its ore, negotiated a 99 year lease to work the Katherine. The Katherine itself had been out of production for the last year and a condition of the lease was that the mine be rehabilitated and a mill be built. The Tom Reed's houses were taken down and rebuilt at Katherine. Prospects for valuable production were good with the vein being penetrated to the 600 foot level by shaft and winze, and diamond drilling entering the vein at 1,000 feet.[56]

Much activity had to be postponed because of the extreme heat by which the area is afflicted. However, at the end of the year plans had become action, the houses were being remodeled, and the site graded for the mill.[57]

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52 M & S P, 14-5-21.

53 M & S P, 11-6-21, p. 820.

54 M & S P, 29-10-21, p. 616.

55 M & S P, 10-9-21, p. 373.

56 Arizona Mining Journal, 15 July, 1924, p.9.

57 Arizona Mining Journal, 15-12-24, p.25.

Dimmick reported during the following summer that the mine was operating 24 hours a day with a daily output of 75 tons. Forty-five men were employed.[58] Production apparently increased significantly, for by December of 1929, Dimmick was making plans to increase the daily capacity of the reduction works from 220 to 500 tons. The property was estimated to have 200,000 tons of mill ore of excellent grade.[59]

According to George Brooks who was a mine foreman in 1926, one thousand dollars in gold was produced daily. Cyanide was used to remove the gold from the ore. The metal was then cast into bricks, one-third gold and two-thirds silver. One hundred men worked at the mine and mill and the town's population was 300 persons.[60]

The three compartment shaft was sunk to 700 feet in 1927 and, although this was below the level of the river, little infiltration occurred.[61] E.H. Robie, reporting in 1928, was able to state, "of the present producing mines in this part of Arizona, that of the Katherine Gold Mines Company is easily the most important."[62] The second glorious phase of the mine had reached its peak. The collapse of that year swept the mine along in its carnage and,

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58 Arizona Mining Journal, 15 July, 1925, p. 30.

59 Arizona Mining Journal, 15 December, 1926, p. 26.

60 Interview on file at Katherine Ranger Station. Name of interviewer and date of interview not provided.

61 Butler, op. cit., p. 9.

62 E.H. Robie, "Revisiting Arizona Mining Camps," Engineering and Mining Journal, Vol. 125, No. 13, p. 550.

by 1930, the uneasy desert wind banged the iron roofing in a melancholy, unheard dirge.

The post historic period will be touched upon lightly.

After the mill closed, Dimmick negotiated with the receiver for its opening.[63] He was apparently unsuccessful for in August, other parties negotiated a lease and began working the tailings.[64] By next month a bar of 1950 ounces, valued at $5,000, was sold.[65]

Early in 1932, a syndicate headed by Edward Thornton of Los Angeles acquired the holdings of the Katherine Gold Mining Company.[66] Thornton immediately began to arrange for an electric transmission line to the property to replace the diesel power plant.[67] Dimmick had surfaced again as the prospective plant manager.

According to Gardner,[68] the mill soon closed due to a lack of ore.

> E.F. Nieman and associates purchased the Katherine mill from the Federal receiver soon after it closed, formed the Standard Gold Mines Corporation, and began to ship ore from their Roadside mine on November 13, 1933. One year later a fire wiped out the crushing plant, power house, ore bin, head frame, and timber of the Katherine shaft down to the water level. The fire started in the diesel plant the day before it was planned to cut the electric power from the Utility Co. The plant was again put into operation on November 26, 1934.

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63 Mining Journal, Vol. XV, No. 4, 15-7-31, p. 21.

64 Mining Journal, Vol. XV, No. 6, 15-8-31, p. 19.

65 Mining Journal, Vol. XV, No. 7, 30-8-31, p. 20.

66 Mining Journal, Vol. XV, No. 16, 15-1-32, p. 18.

67 Mining Journal, Vol. XV, No. 18, 15-2-32, p. 21.

68 E.D. Gardner, Gold Mining and Milling in the Black Mountains, Western Mohave County, Arizona, U.S. Bureau of Mines, I.C. 6901, p. 42.

The mine and mill operated successfully until 1942 when L-208, the Federal Gold Mine Glosing Order, was issued to conserve manpower and strategic materials.

Although mention has been made already of the milling facilities associated with the mine, some recapitulation and elaboration may be appropriate. During the first phase of its production (1900 to 1906), ore from the Katherine was shipped to the old Sheeptrail Stamp Mill on the Colorado.[69] This was a 20-stamp mill and cyanide plant. Oil for its operation was carried by rail to Needles, California, thence upriver, 40 miles. In 1905, Katherine ore was reported being processed at the 12-stamp Pyramid Mill on the river which could handle 35 tons daily.[70] The inconsistency between mill size and mill name in the two reports is not resolvable on the basis of available information. The Pyramid Mill was fueled by wood (presumably driftwood). This was not available in reliable quantities and fuel oil was sought as a substitute.[71] Ore had been stockpiled at the Katherine awaiting resolution of the problem. Such, apparently, was not to be, for the Katherine faltered and lay dormant until 1919.

It was during the second phase - 1919 to 1925 - that the complex mill, the remains of which are still to be seen, was built. This is reported on in technical detail in the articles by Thurmond, and Dimmick and Ireland, already cited. A complex of structures

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69 Dimmick and Ireland, op. cit., p. 716.

70 M & S P, XC1:17, 21-10-05, p. 281.

71 M & S P, XC11:19, 12-5-06, p. 318.

covering an area of some two and one-half acres was built surrounding the main shaft at a cost of $95,000. Two 200 hp diesel generators and a compressor provided electric power and air pressure for mine and mill. The initial mill capacity of 75 tons daily was doubled in 1925 by the addition of a ball mill and a 360 horsepower diesel. As noted above, in 1934 a fire destroyed the mill and mine timbers and the operation was immediately rebuilt and powered by electricity provided by a public utility.

Although the mid-period working carried the shafts well below the level of the Colorado, Dimmick and Ireland stated that water penetration was not a problem other than 40 gallons per minute at the 600 foot level.[72] However, when the 900 foot level was worked in the thirties and early forties, water did penetrate the workings. According to Don Belding who worked at the mine during that time, the 900 foot level was called Hell's Kitchen because of warm water and fumes.[73] Another miner, Lon Ferra, stated that the water pressure forced the powder from behind the tampers and, for this reason, the mine could go no lower. Some of the mill's water requirements were met from the shaft but most came from a well sunk at the river. A five-inch main conveyed 100,000 gallons a day for two miles with a lift of 445 feet.

In the files at the Katherine Ranger Station is an interview with Emil "Andy" Anderson who worked at the Katherine as a tramp

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72 Dimmick and Ireland, op. cit., p. 718.

73 Interview on file, Katherine Ranger Station. No date or name of interviewer.

miner and mill man in 1921 and 1922. The handwritten notes give some insight into life and working conditions of the times.

> Everyone worked seven days per week in eight hour shifts which went around the clock. Salaries consisted of six dollars per day for miners and $5-1/2 for muckers. Graveyard shift slept in tunnels in summer with the rattlesnakes. He said they had to fight the snakes for a place to sleep when it was 128° outside.
>
> On payday after work the miners would go down to the Colorado River below the present site of Telephone Cove and ring a large bell or gong. The would summon a ferryboat which would come over from the small settlement of Tristate, Nevada, now under water. Tristate consisted of several mining buildings, store, homes and a casino and bar. There the miners spent their hard earned money on wine, wild women, song and the tables. The river was quite treacherous whirlpools and rushing water. Going over was bad but on the way back they didn't even notice the river.
>
> On the way back one day a gust of wind caught the hat of one of the inebriated miners and tossed it in the river. It just so happened that they were passing a submerged sandbar in the center of the rushing river. The drunk miner, not knowing what he was doing, jumped overboard, ran the length of the sandbar, retrieved his hat, and made it back to the ferry just in time before the boat passed the bar.
>
> On approximately the 20th of June, the miners would awaken to a loud, thunderous noise. The melt waters from the Rockies would raise the river close to 100 feet and create a noise that could be heard for miles.[74]

Production data from the mine are sketchy and incomplete. An early report stated that 600 tons of ore yielded $3,826 but the production run was not stated.[75] Shrader stated in 1909 that ore valued $6 to $7 in gold and silver per ton and that 5,000 tons had been milled.[76] Shrader goes on to say that the greater part

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74 Interviewed by Fred Young, 1970.

75 M & S P, LXXX1V:24, 14-6-02, p. 326.

76 Shrader, op. cit., p. 206.

of the ore was low grade. This, combined with the aforementioned difficulties in milling, undoubtedly accounts for the mine's long dormancy. Second period production was substantial, however. The report of George Brooks referred to above, stated a production figure of one thousand dollars of gold ore per day. This is consistent with Dimmick's figures given in Lauson. "--The gross production of the Katherine Mine has been about $2,000,000, and, from July, 1925, to 1930, when the mine closed, the production was slightly over $1,000,000."[77]

Las Vegas Mining District (Nevada)

As described by Jones:

> The Las Vegas manganese district embraces a small area in Clark County, Nev., on the south side of Las Vegas Wash, about 16 miles southeast of Las Vegas. The district is also about 8 miles west of a point in the great bend of the Colorado River, where it turns and flows south.
>
> The development of manganese deposits in the Las Vegas district was the result of the widespread publicity given during the European war to the necessity for the development of a supply of manganese ore in the United States and the high prices offered for the ores, which made the exploitation of domestic deposits, though remote from consuming centers, profitable. One of the most valuable deposits of the district is the Three Kids, which was located in the fall of 1917 by Edwards, Marrs and Jefferson of Las Vegas.[78]

The Three Kids was the most productive of a number of mines in the district. Only one, the Fannie Ryan (T21S, R63E, S36) lies within LAME however. And this mine, explored in 1941 and 1942, not only showed no recorded production, but was the subject of

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77 Lauson, op. cit., p. 118.

78 E.L. Jones, Deposits of Manganese in Nevada, U.S.G.S. Bulletin, 710, 1920, p. 222.

interest, apparently, only during the post historic period.[79]

Lost Basin Mining District (Arizona)

"The Lost Basin district is situated in the most northern part of the region examined. It comprises the belt lying between Haulpai (sic) Wash on the west and Pierce (sic) Mill Canyon on the east, and extending from Colorado River at the mouth of Grand Canyon southward through the Grand Wash Cliffs to a point 12 miles beyond Scanlon Ferry, near the latitude of Gold Basin. It has a length of 20 miles and a width of about 9 miles. It is reached by wagon road descending Hualpai Wash from Gold Basin to Colorado River at Scanlon Ferry."[80]

Shrader continues on to say that the district was discovered in 1886 and that considerable ore was taken out

> from time to time and treated in arrastres or milled, but the ground on the whole is little more than prospected. This is probably due to the lack of water. The nearest water supply is Colorado River at Scanlon Ferry, 8 miles to the north, whence water is now hauled at a cost of $2 a barrel.
>
> The principal gold properties are known as the Scanlon-Childers mines and are owned chiefly by Mike Scanlon, of Basin, and Cy Childers, of Kingman.[81]

Butler adds that

> several promising copper deposits are reported. Some development work has been done on them and a little

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79 Longwell, et al, Geology and Mineral Deposits of Clark County, Nevada, Mackay School of Mines, Bulletin 62, 1965, p. 199. McKelvey, et al, Preliminary Report on the Bedded Manganese of Lake Mead Region, Nevada & Arizona, U.S.G.S. Bulletin 948-D, 1949, p. 97.

80 F.C. Shrader, Mineral Deposits of the Cerbat Range, Black Mountain and Grand Wash Cliffs, Mohave County, Arizona, U.S.G.S. Bulletin 397, USGP, Washington, 1909, p. 150.

81 Ibid., p. 150.

ore was shipped in 1918.[82]

Tenney, writing in 1927, stated that the district was idle at that time.[83]

From the description given by Shrader, the location of the Scanlon-Childers mines is not clear. They would appear to be eight miles south of Scanlon Ferry which would place them close to the present LAME boundary. The nearest identifiable mine within LAME is the Golden Gate, approximately ten miles south of Scanlon Ferry. The only other information uncovered concerning the Scanlon-Childers' prospect was that it was taken over by the Lost Basin Mining Company in 1915.[84]

Two mines are shown on the USGS Garnet Mountain quadrangle. They are the Golden Gate (T30N, R17W, S32) and the Golden Mile (T29N, R17W, Sections 7 and 8). No documentary information regarding these came to light, although interesting physical evidence remains.

The Golden Gate is located at the intersection of two narrow canyons. There, the miners built two cabins and a corral of stone. Each of the cabins has a stone chimney but timbers and roofing have been removed. What would appear to be a water tower is placed a short distance up the side canyon.

The Golden Mile shows evidenee of longer and more recent

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82 Butler, op. cit., p. 28.

83 Tenney, op. cit., p. 366.

84 Wilson, Cunningham, and Butler, Arizona Lode Gold Mines and Gold Mining, Arizona Bureau of Mines, Bulletin 137, Tucson, Rev., 1967, p. 76.

occupancy, possibly of the thirties. A complex of living and working quarters remains. There are four structures - a bunkhouse, a mess, kitchen and family building, and two sheds. All are frame construction. The outside walls of the dwellings are sheathed in metal (commercial signs are used), and the roofs are corrugated iron with gutters. Windows are single hung sash with screens and inside walls are lined with cardboard cartons. Inside shelving and a kerosene refrigerator mark this as one of the more luxurious mining camps visited. Children's toys are scattered about. Several shafts and tunnels surround the site but without the elaborate headframes, tramways, etc., found in some other locations.

Other mines in the district are the Tungstake and Oro Rico. The Tungstake was staked in 1954 and and is therefore outside the scope of this study.[85] The Oro Rico is reported at T30N, R17W, S3 in the Arizona Department of Mineral Resources Data Files, but no other information is available.

Other than its connection with Mike Scanlon, of Scanlon Ferry and Scanlon Dugway fame, the Lost Basin District does not seem to have warranted much attention. Hewett stated that the lode mines "have never been highly productive." Recorded production, 1904-32, was a few shipments of ore containing gold, copper and silver, valued at less than $5,000.[86] Householder prepared a mine map of Mohave County which is undated but was probably late twenties or early thirties since it shows "Boulder Cañon Damsite Federal Project."[87]

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85 V.B. Dale, Tungsten Deposits of Gila, Yavapai, and Mohave Counties Arizona, U.S. Bureau of Mines, IC 8078, 1961, pp. 100-101.

86 Hewett, op. cit., p. 16.

87 And at the Boulder Canyon site rather than the actual Hoover Dam site, we should note.

He gives the Lost Basin production at $50,000. The possibility of error is allowed for by the following:

> NOTE: The estimated values shown here were furnished by interested parties and have been accepted as approximately accurate but not guaranteed.

It might be of some interest to note that in the Western Mines Reporter of May, 1926, there is an advertisement, part of which reads as follows:

> WANTED
> A GOLD MINE
>
> I have a number of inquiries for gold properties, also lead-silver mining properties, that will merit further development and which have a good chance to make producers.

The advertisement was placed by E. Ross Householder, Registered Mining Engineer.

The only other information garnered in the search for the Lost Basin was also on the same page of the same issue of the Western Mines Reporter.

> Manager L.V. Root of the Colorado River Gold Mines expects to receive a new compressor this coming week which will be quickly installed on the property of the company in Lost Basin.88

This is the kind of shoe that drops to confound historians. Was the other shoe the placer operation at Scanlon Ferry noted in the main report?[89] Or was it one of the mines discussed above about which we know so little?

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88 Western Mines Reporter, Vol. 1, No. 4, 25-5-26, p. 5. As an interesting historical footnote on the same page we note an advertisement by George A. Bonelli of Kingman advising that he repaired Swiss watches. Daniel Bonelli's Swiss heritage showed considerable cultural tenacity.

89 See Page V-24.

Minnesota Mining District (Arizona)

The Minnesota Mining District is an especially frustrating subject of study on a number of counts. Nothing can be found regarding the two identified mines lying therein, a group of mines of promising import took fourteen months to identify by name, the boundaries are elastic, and a mine by the name of Minnesota lies nearby enough to lure the investigator with false leads. Let us examine these questions in inverse order.

Butler,[90] talks of the Minnesota-Connor Mine in his address to the Kingman Chamber of Commerce. This, it turns out, is in Chloride which is some forty miles south of the Minnesota Mining District which encompasses the rugged terrain in the proximity of Hoover Dam. In 1898 the Engineering and Mining Journal reported that John Barry owned the Minnesota (no Connor attached), that it had a ten-stamp mill, that its ore was up to 400 oz. in silver.[91] Was this the Minnesota-Connor, the mystery mine discussed below, or yet some other?

In 1892 we find that the Gold Bug mine, south of Eldorado Pass, was in the Minnesota district, yet the Gold Bug was later the center of its own district.[92] When the EMJ reports on a discovery in 1891, thus:

> Report of Gold Discoveries in Minnesota District -- Mohave County Miner says that the good reports continue

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90 Op. cit., p. 10.

91 EMJ, Vol. 65, 16-4-98, p. 469.

92 EMJ, Vol. 54, 2-7-92, p. 13.

> to come, and that a number of miners and prospectors are flocking to the new fields. Valuable locations are being opened up. Gold specimens from there indicate that the strike is one of the richest that has been made for years in this country. The ledges are all well defined and have indications of being permanent. Two mills are in course of erection, one by the Golden Eagle Mine and the other by the Green Bay Mining Company, and extensive preparation for the successful operation of the mines are now in progress.[93]

Is it referring to the enlarged or the abbreviated version of the Minnesota District? We suspect the former since many claims came eventually to surround the Gold Bug, but few are located in the area to the north.

All this leaves us with little to go on as we pursue shaft and tunnel symbols on the Hoover Dam USGS quadrangle. There, in R22W, T31N, S6, we find extensive workings that include two main sets of workings complete with shafts, tunnels, hoists, tramways, chutes, loading platforms, rusty nails, rotten timbers and, lastly, an enigma cut into a rock:

Q L R
FEB
1878

All sources were searched, all knowledgeable authorities interrogated, and a knowledgeable Mohave County miner was flown over the site - all to no avail. The mine was finally identified in the lease files of LAME headquarters as the High Hope. This mine was, prior to the building of Hoover Dam, the most difficult mine to reach within the present boundaries of the Recreation Area with the exception of Copper Mountain. The material remains are solid and would have been difficult to transport prior to that time.

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93 EMJ, Vol. L11, 26-12-91, p. 731.

The use of steel, particularly in one of the chutes, suggests that operations took place in the thirties, but what of the inscription claiming to be of 1878? Was it a hoax? Was it associated with an earlier claim? Is is genuine but having nothing to do with mining?

We are no better off when we investigate the Old Pope Mine (T31N, R22W, S15) and the Cohenour (T31N, R21W, S18). In these cases, all we have is names. The physical evidence is slight, indeed only shafts penetrated by rickety wooden ladders in dangerous condition. Nothing besides remains. No clues on the ground or in the literature, nor in the archives.

We are left with Mr. Householder and his map. Therein he reports that the Minnesota Mining District produced $100,000 but of what we have no clue. And from what mines, we do not know. Perhaps the production, like that of the Lost Basin District, should be discounted by a factor of ten. The Cohenour, Old Pope, and the High Hope may have aggregated only $10,000 in production for had the figure been closer to $100,000, the story would have found its way into archive, literature, and local legend.

Newberry Mining District (Nevada)

The Newberry Mining District is the southernmost of those in the Nevada sector of the Recreation Area, and lies among rugged mountains opposite the Katherine Mining District in Arizona. Four mines were examined as having potential historical interest. These are the Empire (T30S, R65E, S22), the Homestake (T31S, R66E, S35), the White Rock (T30S, R65E, S26), and the Wiley Inspiration (T31S,

R66E, S34).

The Empire Mine lies one mile to the east of Camp Thurman and spreads over a series of levels from the floor of Empire Wash to several hundred feet above. All except the uppermost tunnel are reached by a steep, narrow road. Shafts, now filled with debris, were sunk in the sands and rock of the wash. The lowest tunnel, one hundred feet above, was apparently exhausted of ore and converted into living quarters. Higher, and around a switchback, are the remnants of cyanide leaching plant. Water lines to this indicate that a spring was nearby. A larger tunnel, with tramway rails leading to a waste pile, is higher yet and is reached by a narrow trail.

The earliest reference to the Empire Mine indicates that prospect work began in 1903.

> Eighteen miles southeast of Searchlight, and 7 to 10 miles from the Colorado River, is Newberry Mountain district, which, while as yet in the prospect stage, promises well. The principal development is being done by the Empire M. Co., headed by W.H. Fuller of Los Angeles, Cal., and owned mainly by Eastern Men. Superintendent A.A. Ross is sinking a shaft on the Mountain Jewel claim, in which water was found at 65 feet, and while it is being put down in high-grade ore, the water is interfering with operations. This water will be used to run a ten-stamp mill which they propose to erect in the summer. There are seventeen claims in this group. On three, the Tar Heel, Empire and Badger, for a distance of 4500 feet crops a ledge of high-grade quartz which is being opened up in several places by shaft and tunnel. It is so situated that the ore can be mined and milled at a lower cost.[94]

Development work at the mine continued at the mine through 1904.

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94 Mining and Scientific Press, Vol. LXXXV1, No. 20, 16-5-03, p. 312.

In February, water was struck at the 140 foot level in the Mountain Jewel.[95] In April, the millsite was reported surveyed and a 500 foot crosscut planned about it.[96] By later the same month, the mine had both good reports and a new superintendent.

> At a depth of 60 feet a body of high-grade ore is reported struck in the Golden Terra Mine of the Empire Com. M. Co., near Searchlight. The ore shows free gold, says Superintendent E.K. Weeds. The shaft is down 80 feet. The shaft will be sunk to the 100-foot level when a crosscut will be run to show width of the vein.[97]

At the same time, a new engine and blower were received for the tunnel.[98]

No further reports specific to the Empire show up for three years. In January of 1907, the Mining and Scientific Press published a small scale map of Nevada, which shows "Empire Camp" and nearby Camp Thurman (outside LAME) as the only mining properties worthy of note below Searchlight. Perhaps that is why the Empire was reported to have changed ownership only one month later.[99] An interesting hint is dropped at the end of the same year.

> Empire Gold Mines: During the installation of the new compressor most of the machinemen have been laid off. There is enough ore broken down

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95 M & S P, LXXXV111:7, 13-2-04, p. 120.

96 M & S P, LXXXV111:16, 16-4-04, p. 275.

97 M & S P, LXXXV111:18, 30-4-04, p. 305.

98 Engineering and Mining Journal, Vol. LXXV11, No. 16, 21-4-04, p. 661.

99 M & S P, XC1V:6, 9-2-07, p. 168.

to keep the mill busy until the men are put back to work.[100]

The use of the word "most" implies that the Empire had more than a few men on its payroll, which, in turn, suggests that it was a reasonably productive mine - at least for a while.

But shortly, the Empire began to fade. We find a report in June, 1909, that "the Empire is still tied up in litigation, with little prospect for an early settlement."[101] The prediction was apparently true, for it is not until 1912 that anything further surfaces. "A report has been made on the Empire Mine, and it is expected that work will open with plenty of pay-ore."[102]

This is the last we hear of the Empire. No production data are found in Couch and Carpenter's report of Nevada's mineral production. Nothing surfaces to help us locate the mill, determine its closing, or to tell us about the cyanide process that was used. Clearly, the Empire was worked after 1912, but nothing further can be reported.

The Homestake Mine lies across the river from the Katherine and was mentioned sometimes in connection with the Sheeptrail Mine which lay outside LAME to the east of the Katherine. One difficulty in researching the Homestake is that another, and apparently better known, Homestake Mine existed to the south of Kingman. The reader

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100 EMJ, Vol. LXXX1V, No. 24, 14-12-07, p. 1140.

101 M & S P, XCV111:23, 5-6-09, p. 773.

102 M & S P, 105:6, 10-8-12, p. 189.

may appreciate the diligent reporter's joy when, in the brown and decaying pages of a shortlived newspaper, the Western Mines Reporter, he came across the headline "'Goldie' Frank Davis to Develop Homestake." After the long search, here at last was a lengthy two column report, with dates, names, and history. Only to be deflated, of course, by the discovery that the wrong Homestake was the subject.

While the Nevada Homestake appears to have had a lengthy history, documentation is weak.

Vanderburg reports in 1937:

> The Homestake group of seven unpatented claims, owned by J.J. McDonald of Searchlight, Nev., lies in the southeast corner of Clark County, 9 miles north of Hiko Springs and 39 miles by road southeast of Searchlight. This mine was discovered by soldiers from Fort Mohave, Ariz., in the early sixties, and the remains of three steam plants on the ground indicate that it was exploited very early. In the early days the mine was equipped with a 20-stamp amalgamation mill. According to McDonald, production has been about $150,000. Since 1910 McDonald has worked the property intermittently on a small scale, employing one to three men. Selected ore averaging $40 per ton is hauled to Cottonwood Camp 18 miles north, where it is treated in a small mill that employs amalgamation and cyanidation.[103]

The intriguing story of the mine's discovery is left hanging but other details can be inserted into Vanderburg's broad picture. In the Engineering and Mining Journal of 1891, we find this report:

> SOUTH HOMESTAKE MINING COMPANY - This company, composed of St. Louis capitalists, is not now working. The purchase of new machinery is in contemplation. Pending the changes the company has leased its 20-stamp mill to the owners of the Old Abe Mine.[104]

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103 W. O. Vanderburg, Reconnaissance of Mining Districts in Clark County, Nevada. U.S. Bureau of Mines, Information Circular, 6964, p. 77.

104 EMJ, Vol. 98, 9-12-99, p. 709.

Unfortunately, there is not enough here to give us confidence that the reference is to the Homestake in question. We have the same problem in 1899. The names mentioned do not crop up elsewhere nor is there a location identifier offered.

Things begin to look a little better in 1900. Several reports come to us in that year. In June, we find "The Homestake Mill near Pyramid, on the Colorado, has started up. The main shaft is 369 feet deep. About a mile from the Homestake, on the Arizona side of the river, is the Sheeptrail mill,--"[105] The mill referred to by Vanderburg, the remains of which are still at the mine site, was clearly abandoned by 1900 in favor of a mill site at the river. Undoubtedly, a shortage of water near the workings prompted the change of locale. Some additional information on the mill comes from the Engineering and Mining Journal. The mill was of 20 stamps and a pumping plant supplied water both to mine and mill.[106] Later in 1900 we learn that "The New England and Arizona M. Co. will put in machine drills in the Sheeptrail and Homestake mines, Kingsman (sic)."[107] The conversion to machine (presumably pneumatic) drills would suggest that a promising enterprise was in prospect. But our confidence is shaken by the reference to Kingsman (sic). The proximity of the Sheeptrail and the subject Homestake would suggest that the coupling above refers to the Nevada Homestake. But the reference to Kingsman (Kingman) allows the

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105 M & S P, LXXX:22, 2-6-00, p. 613.

106 EMJ, Vol. LX1X, No. 29, 16-6-00, p. 720. Also M & S P, LXXX:26, 30-6-00, p. 738.

107 M & S P, LXXX1:25, 22-12-10, p. 598.

possibility of the other Homestake being the one to which reference is made.

No later references to the Nevada Homestake were found although the Kingman Homestake crops up now and again. The information found in Longwell (1962) only repeats that of Vanderburg (1937). Although the mine's remnants stimulates curiosity and the production would appear to have been respectable, the information regarding the early years lacks the solid documentation necessary to give confidence to any assertion of the property's historic merit.

Brief mention should be made of the White Rock Mine. The remnants of this property excite interest. It is reached by a stiff climb up a washed out road. Shortly before the site is reached, a bright gurgling stream is heard, the only live stream encountered in the entire Recreation Area. Watercress grows in clear pools, and small waterfalls crash down rock slides. Several structures, all of them collapsed, are found at the site. Two would appear to have been houses and the other a bunkhouse and kitchen. Two water tanks are in place and shafts penetrate the hillside. In one of them, a case of dynamite remains. Not a trace of this operation could be found in the literature.

The Wiley Inspiration Mine is near the Homestake. Remnants include a collapsed shed and a large, well constructed house of stone that burned out after World War II. Longwell states that the mine had 530 feet of underground workings but no production was was reported.[108]

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[108] Longwell, et al, op. cit., p. 200.

Searchlight Mining District (Nevada)

As with the Eldorado Mining District immediately to the north, the mining activities within the Searchlight Mining District that took place within the boundaries of the Lake Mead National Recreation Area, were largely incidental to the main thrust. In this case the activities were centered on the town of Searchlight and the Quartette Mine was the most significant. From it, a short-lived railroad passed through what is now the Recreation Area to a mill on the Colorado River.

The only mine within LAME about which any information could be found was the Camp Dupont group (T27S, R65E, S29). Lincoln, writing in 1923, stated that the Dupont Copper Ms. Co. owned 23 claims aggregating 410 acres, and that it contemplated developing its property in depth. "The company is incorporated in Arizona with a capital stock of 2,500,000 shares of $1 par value, of which 1,500,000 have been issued."[109] Longwell added:

> Twenty-three claims, including the Sazarac, Bornite, and Big Shot groups, comprise Camp Dupont. Considerable development work has been done on these claims but the only production reported was in 1936 when about 35 tons of ore were mined from the Big Shot group of two claims. Underground workings on this group consist of a 150 foot adit which follows a narrow gold-bearing vein--.[110]

This rather small return was preceded by effort and excitement stretching as far back as 1904. At that time "The Iyanough Mine at Camp Dupont, near Searchlight, is reported to have opened

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109 Francis Church Lincoln, Mining Districts and Mineral Resources of Nevada, Mackay School of Mines Bulletin, 1923.

110 Longwell, op. cit., p. 142.

up to 5 feet of high grade ore--.[111] The discovery of this group appears to have been made about 1900 for shipments were reported to have been made for four years.[112] Promising strikes and assays continued for several years and, in 1906, miners were waiting anxiously for completion of the railroad to Searchlight so that their costs of operation could be reduced.[113] The prospects were sufficiently encouraging to induce D.H. Jackson of the Golden Terra to install a whim "and put on three shifts of men sinking the new shaft, which is now 80 ft. deep."[114] Only one more report came in. A contract was let to drive a fifty foot adit on one of the claims.[115] After that short spurt following the turn of the century, the interest flared briefly again in the twenties and thirties. Couch and Carpenter do not list Dupont in their report on Nevada's mineral product.

Numerous shafts and tunnels in the vicinity testify to considerable activity. Field reconnaissance identified a number of campsites and, in one instance, a man-made cave of two rooms, complete with stove-pipe vented through the roof. The entire cave was blackened with oily soot suggesting that a coal oil fire

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111 M & S P, LXXX1X:9, 27-8-04, p. 147.

112 M & S P, LXXXV111:12, 19-3-04, p. 203.

113 M & S P, LC11:23, 2-6-06, p. 372.

114 M & S P, XC1V:6, 9-2-07, p. 168.

115 M & S P, XCV11:25, 19-12-08, p. 827.

had befallen the occupants. A shallow prospect hole was full of water and, leading to it, was a ditch to convey surface flow from several arroyos. This mine could not be identified. Only the name Rockefeller is found in this general area on the Nelson quadrangle and its location in Section 30 is two miles north of the cave that was investigated. No reference to the Rockefeller was found in the archives or literature.

Virgin River Mining District (Nevada)

Lincoln, writing in 1923, described this district as follows: "The Virgin River Salt District extends from St. Thomas S. along the Virgin River to its junction with the Colorado at the Arizona border."[116] Although Lincoln refers to this as a salt district, and although the district's salt mines were significant, other mineral deposits have also been worked.

Vanderburg described "large reserves of gypsum on the east side of the Virgin River, 10 miles below St. Thomas, Nev." He continues, "although the fact that these deposits were there has been known for many years, they have not been mined due to their inaccessibility and distance from market."[117]

The Virgin River Deposit (T20S, R67E, no section given) is a manganese deposit discovered by Daniel Bonelli "about 1900." No production has been recorded for it, undoubtedly due to its

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116 Francis Church Lincoln, Mining Districts and Mineral Resources of Nevada, Mackay School of Mines Bulletin, 1923.

117 W.O. Vanderburg, Reconnaissance of Mining Districts in Clark County, Nevada, U.S. Bureau of Mines, Inf. Circ. 6964, p. 67.

difficult access.[118] The Bauer-Dollery Deposit (T20S,R67E, no section given) is about two miles west of the Virgin River Deposit. No production has been recorded for this deposit either.[119]

Unquestionably, the most important mineral in the Virgin River Mining District is salt. The bulk of the deposits are now submerged by Lake Mead, although the Salvation Salt Mine (T17S, R68E, S27) and Big Cliff Salt Mine (T17S, R68E, S34) are above water. It is not known if these two deposits share historic significance with those that lined the river itself. However, remnants of what appears to be a wagon road are found in the area.

The best description is from Vanderburg:

> Remarkable deposits of rock salt are exposed on the cliffs along the west side of the Virgin River for a distance of 10 miles south from a point 4 miles above St. Thomas, Nev. These deposits have been acquired by the Federal government, since they will eventually be submerged as the water rises in the reservoir behind Boulder Dam.
>
> The salt beds were mined by a tribe of Indians living in the Virgin River Valley about 1,500 years ago. Evidence of this ancient mining activity may be seen on the walls or floors of a natural cave in one of the salt mountains 4 miles below St. Thomas. The Indians mined the salt by chipping circular channels with stone hammers and prying off the slabs. A number of stone hammers found in the cave by archeologists may be seen in the Lost City Museum, a short distance south of Overton, Nev.
>
> White men mined salt in this locality as far back as 1866 in order to supply salt for the chlorination mills in the Mineral Park district, Ariz., and the Eldorado Canyon district, Nev. Although the salt deposits are virtually inexhaustible, little has been produced because

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118 V.E. McKelvey, J.H. Wiese, and V.H. Johnson, Preliminary Report on the Bedded Manganese of Lake Mead Region, Nevada and Arizona, U.S.G.S. Bull. 948-D, 1949, p. 100. Also C.R. Longwell, et al, Geology and Mineral Deposits of Clark County Nevada, Mackay School of Mines, Bull. 62, 1965, pp. 138-199.

119 McKelvey, op. cit., p. 101. Longwell, op. cit., pp. 138-199.

> of transportation difficulties and distance from large markets in competition with other sources of supply.
>
> About 1932 some rock salt was shipped to Los Angeles by a company called the Virgin River Salt Co. Judging from the old workings, no large amount of salt was produced. For many years an average of about 200 tons of salt has been mined annually to satisfy local demands for stock purposes. This salt is very desirable for stock use because it weathers slowly.
>
> In February 1937 the Civilian Conservation Corps at Moapa, Nev., was engaged in hand-mining the salt for stock use. Several thousand tons of this salt will be mined and stored before the deposits are flooded.[120]

Jed Smith discovered and extracted salt from these deposits in 1826 and returned to them in 1827. In the Mining and Scientific Press of 1864 we find a report that may have referred to these deposits although the description does not adequately fit.

> Extensive discoveries of salt have been made during the past year, within five or eight miles of the bank of the river and about sixty miles north of the mines - the river being navigable between the two points for steamers of a light draught. This salt will eventually prove of great value in the working of the silver mines of this region. The discovery of coal has been reported in the same vicinity.[121]

As noted in the main report,[122] the salt was transported from the mines to El Dorado Canyon by such important traders as Albert Frehner, and Daniel Bonelli attempted to file on the deposits about the time of his death. Hewett notes that the salt "was used to treat silver ore in the Calico District, near Barstow."[123]

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120 Vanderburg, op. cit., p. 67.

121 Mining and Scientific Press, Vol. X111, #15, 2 April, 1864.

122 pp. 1-25, V-27.

123 Hewett, et al, Mineral Resources of the Region Around Boulder Dam, U.S.G.S. Bulletin, No. 871, 1936, p.97.

Jurisdiction over the mines was claimed for a brief span by the State of Arizona during the life of Pah-Ute County.

> Arizona lost one asset of large value in the transfer of Virgin River section to Nevada. Therein is an enormous salt deposit, locally called the Salt Mountain, though three such deposits are along the Virgin between St. Thomas and the Colorado River. One of them is described as cropping out along the foot of a high bluff of brown clay, exposed for 80 feet in height from the base of the hill, though the depth below its surface is unknown. The salt is obtained by blasting, as it is too hard to dig with picks. It is of excellent quality and remarkable purity. In early days, from this deposit was obtained the salt needed in southern Nevada, southwestern Utah and much of Arizona, steamers carrying it down the Colorado southward. W.H. Johnson was in early charge of the salt mines. His widow is a resident in Mesa.[124]

Salt production undoubtedly peaked early and coincided with down-river mining requirements during the nineteenth century. Apart from the reports of 1932 and 1937 noted above, only one other documentation was unearthed. The Mining and Scientific Press reported in 1903 - "The salt mines of the Virgin Valley, near Kingman, are being worked, says the Kingman Miner."[125] By whom, and for what purposes we are not told. Perhaps it was men in the employ of Preston Nutter who extracted the salt and packed it high into the prairies and forests of the Arizona Strip.

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124 James McClintock, Mormon Settlement in Arizona, Phoenix, 1921.

125 M & S P, LXXXV11:24, 12-12-03, p. 393.

BIBLIOGRAPHY

Arizona Mining Journal (Later the Mining Journal), various issues.

Butler, G.M. "History of Mining in Mohave County," The Mining Journal. 15 October, 1928.

Belshaw, Michael, Ph.D. Lake Mead National Recreation Area: Historical Resources Study, NPS. 1979.

Couch, Bertrand, and Jay Carpenter. Nevada's Metal and Mineral Production. University of Nevada Bulletin, #38. 1943.

Dale, V.B. Tungsten Deposits of Gila, Yavapai, and Mohave Counties, Arizona. U.S. Bureau of Mines, I.C. 8078. 1961.

Dimmick, R.L., and Eugene Ireland. "Mining and Milling at the Katherine Gold Mine," Engineering and Mining Journal. Vol. 128, No. 18. 30 April, 1927.

Elsing, Morris and Robert E.S. Heineman. Arizona Metal Production. Arizona Bureau of Mines, Bulletin #140. 15 February, 1936.

Engineering and Mining Journal, various issues.

Frehner, Merle. Transcribed Interview. 1978.

Hewett, D.F., Eugene Callaghan, B.N. Moore, T.B. Nolan, W.W. Rubey, W.T. Schaller. Mineral Resources of the Region Around Boulder Dam. U.S.G.S., Bulletin #871. U.S.G.P.O. Washington, D.C. 1936.

Hill, James J. "The Grand Gulch Mining Region, Mohave County, Arizona Contributions to Economic Geology. U.S.G.S., Bulletin #580. Washington, G.P.O. 1915.

Jones, E.L. Deposits of Manganese in Nevada. U.S.G.S., Bulletin #710. 1920.

Gardner, E.D. Gold Mining and Milling in the Black Mountains, Western Mohave County, Arizona. U.S. Bureau of Mines, I.C. 6901. 1936.

Howell, Harry E.W. Expressions of Harry Howell. Private Printing. Copies available from Mrs. Boyd C. Sutherland, 1025 West State, Lehi, Utah. No date.

Lausen, Carl. Geology and Ore Deposits of the Oatman and Katherine Districts, Arizona. Arizona Bureau of Mines, Bulletin #131. 1931.

Lincoln, Francis Church. Mining Districts and Mineral Resources of Nevada. Nevada Bureau of Mines, Bulletin #62. 1933.

Longwell, C.R., E.H. Pampeyan, Ben Bower, and R.J. Roberts. Geology and Mineral Deposits of Clark County, Nevada. Nevada Bureau of Mines, Bulletin #62. Reno. 1965.

McKelvey, V.E., J.H. Wiese, and V.H. Johnson. Preliminary Report on the Bedded Manganese of Lake Mead Region, Nevada and Arizona. U.S.G.S., Bulletin #948-D. 1949.

McClintock, James. Mormon Settlement in Arizona. Phoenix. 1921.

Mining and Scientific Press, various issues.

Robie, E.H. "Revisiting Arizona Mining Camps," Engineering and Mining Journal. Vol. 125, No. 13.

Shrader, F.C. Mineral Deposits of the Cerbat Range, Black Mountains, and Grand Wash Cliffs, Mohave County, Arizona. U.S.G.S., Bulletin #397. Washington, G.P.O. 1909.

Tenney, James Brand. History of Mining in Arizona. Tucson. 1927-29. (mimeographed)

Thurmond, F. LeRoi. "The Mill of the Katherine Gold Mining Company," The Arizona Mining Journal. Vol. 1X, No. 11. 30 October, 1925.

Vanderburg, W.O. Reconnaissance of Mining Districts in Clark County, Nevada. U.S. Bureau of Mines, Information Circular 6964.

Western Mines Reporter, various issues.

Wilson, Eldred D. Gold Placers and Placering in Arizona. Arizona Bureau of Mines, Bulletin #168. Reprinted 1978.

Wilson, E.D., J.B. Cunningham, and G.M. Butler. Arizona Lode Gold Mines and Gold Mining. Arizona Bureau of Mines, Bulletin #137. Tucson. Revised 1967.

APPENDIX A

List of Mines Within LAME Included in this Study

District	Name of Mine	State	Township	Range	Section
Bentley	Copper Mountain	Az	32N	10W	14,15
	Smith Prospect	Az	33N	15W	3
Black Canyon	Sandy Harris Placer	Az	29N	22W	29
	Two B's	Az	29N	22W	11
	Brunswick Gold Group	Az	28N	22W	24,25
Eldorado Canyon	1				
Eldorado Pass	Eldorado	Az	27N	22W	12,13
	Young	Az	27N	22W	1
	Jennie	Az	?	?	?
Gold Basin	Salt Springs	Az	30N	18W	18
	Eureka	Az	30N	18W	34
	Lutley Group	Az	30N	18W	34
	Smuggler Union	Az	30N	18W	30
	Ruby Rose	Az	29N	18W	8
	Temple Bar Placer	Az	32N	20W	16
Gold Butte	Eureka	Nev	21S	70E	14
	Joker	Nev	21S	70E	22
	Jumbo	Nev	21S	70E	15
	Lode Alsim	Nev	21S	70E	14
	Union	Nev	21S	70E	8
	Lakeshore	Nev	21S	70E	5
	Marron Prospect	Nev	20S	71E	18
Katherine	Katherine (and extensions)	Az	21N	21W	4,5,6
Las Vegas	Fannie Ryan	Nev	21S	63E	36
Lost Basin	Robeson and Joy	Az	30N	17W	14
	Gold Mile	Az	29N	17W	8
	Gold Gate	Az	30N	17W	32
	Oro Rico	Az	30N	17W	3
Minnesota	Old Pope	Az	31N	22W	15
	Cohenour	Az	31N	22W	18
	High Hope	Az	30N	22W	6

1 No unpatented, historic mines in this district within LAME.

District	Name of Mine	State	Township	Range	Section
Newberry	Homestake	Nev	31S	66E	35
	Empire	Nev	30S	65E	22
	White Rock	Nev	30S	65E	26
	Wiley Inspiration	Nev	31S	66E	34
Searchlight	Camp Dupont	Nev	27S	65E	29
Virgin River	Salvation	Nev	17S	68E	27
	Big Cliff	Nev	17S	68E	34
	Virgin River Deposit	Nev	20S	67E	?
	Bauer-Dollery	Nev	20S	67E	?

APPENDIX B

List of Mines Mentioned by Peplow but Excluded from this Study

District	Mine	Reason for Exclusion
Bentley	Grand Gulch	Outside
	Savanic	Outside
	Cunningham	Outside
	Bronze L	Outside
	Snyder	Outside
	Old Bonnie Tunnel	Outside
Black Canyon	Two B's	Post historic
Eldorado Canyon	Capitol	Patented
	Montana	Patented
	Briggs Capitol	Patented
	Wallace	Patented
	Nevada Eagle	Patented
	Techatticup	Outside
Eldorado Pass	Top of the World	Outside [1]
	Gold Bug	Outside [2]
	Mohave Gold	Outside [1]
	Golden Age	Outside
	Pope	Outside
	Mockingbird	Outside
	Mohave	Outside
	Dandy	Outside
	Golden West	Outside
	Weaver	Outside
	Kemple	Outside
	Pocahontas	Outside
	Von Deeman	Outside
	Liberty	Outside
Eldorado Pass	Porter	Outside
	Pilgrim	Outside
	Golden Door	Outside
	Klondike	Outside
	Dixie Gold	Outside
	Dixie Queen	Outside

1 Incorrect location cited in Peplow.

2 A number of mines included in this list are sometimes associated with the Gold Bug District.

District	Mine	Reason for Exclusion
Gold Basin	Rainy Day Claims	Post Historic
	Excelsior	Outside
	Eldorado	Outside
	OK	Outside
	Never-Get-Left	Outside
	Golden Rule	Outside
	Cyclopic	Outside
	Mascot	Outside
	Tungstake	Post Historic
Gold Butte	Windmill	Outside
	Whitmore	Outside
	Winona Group	Outside
	Nevada Mica	Outside
	Getchell	Outside
	Azure Ridge	Outside
Katherine	Pyramid	Under Water
	Gold Chain	Outside
	Big Four	Outside
	Katherine Revenue	Outside
	Katherine Victor	Outside
	Katherine Midway	Outside
	Golden Cycle	Outside
	Sheep Trail	Outside
	Boulevard	Outside
	Tyro	Outside
	Arabian	Outside
	Roadside	Outside
	Frisco	Outside [3]
	Black Dyke Group	Outside
Las Vegas	Boulder City	Outside
	White Eagle	Outside
	Stewart	Under Water
	Three Kids	Outside
	Lowney Association	Outside
	Las Vegas Group	Outside
	American Borax	Outside
	Simpot Silica	Outside
	Nevada Silica Sand	Outside
	Silica Sand Prospect	Outside
	Snoreen	Outside

[3] Federal/No Information Available.

(continuation of Appendix D) -2-

District	Mine	Reason for Exclusion
	Fannie Ryan	Outside
	Anniversary	Outside
Lost Basin	King Tut Placers	Outside and post historic
	Golden Basin Placers	Outside and post historic
	Robeson and Joy	Post historic
	Lone Jack	Outside
	Climax	Outside
	Blue Bird	Outside
	Lost Basin	Outside
	M and P Mica	Outside and post historic
Newberry	Jackdaw Group	Outside
	Cottonwood	Outside
	Juniper	Outside
	St. Louis	Outside
	Golden Rod	Outside
	Roman	Coordinates incomplete
	Potential	Coordinates incomplete
	Black Mountain Mining Co.	Outside
Searchlight	Goldenrod Group	Outside
Virgin River	Stewart Property	Under water
	Calico	Under water
	Black	Under water
	Benelli	Under water

(continuation of Appendix B) -3-

APPENDIX C

Supplemental Data on Specific Mines

Black Canyon District

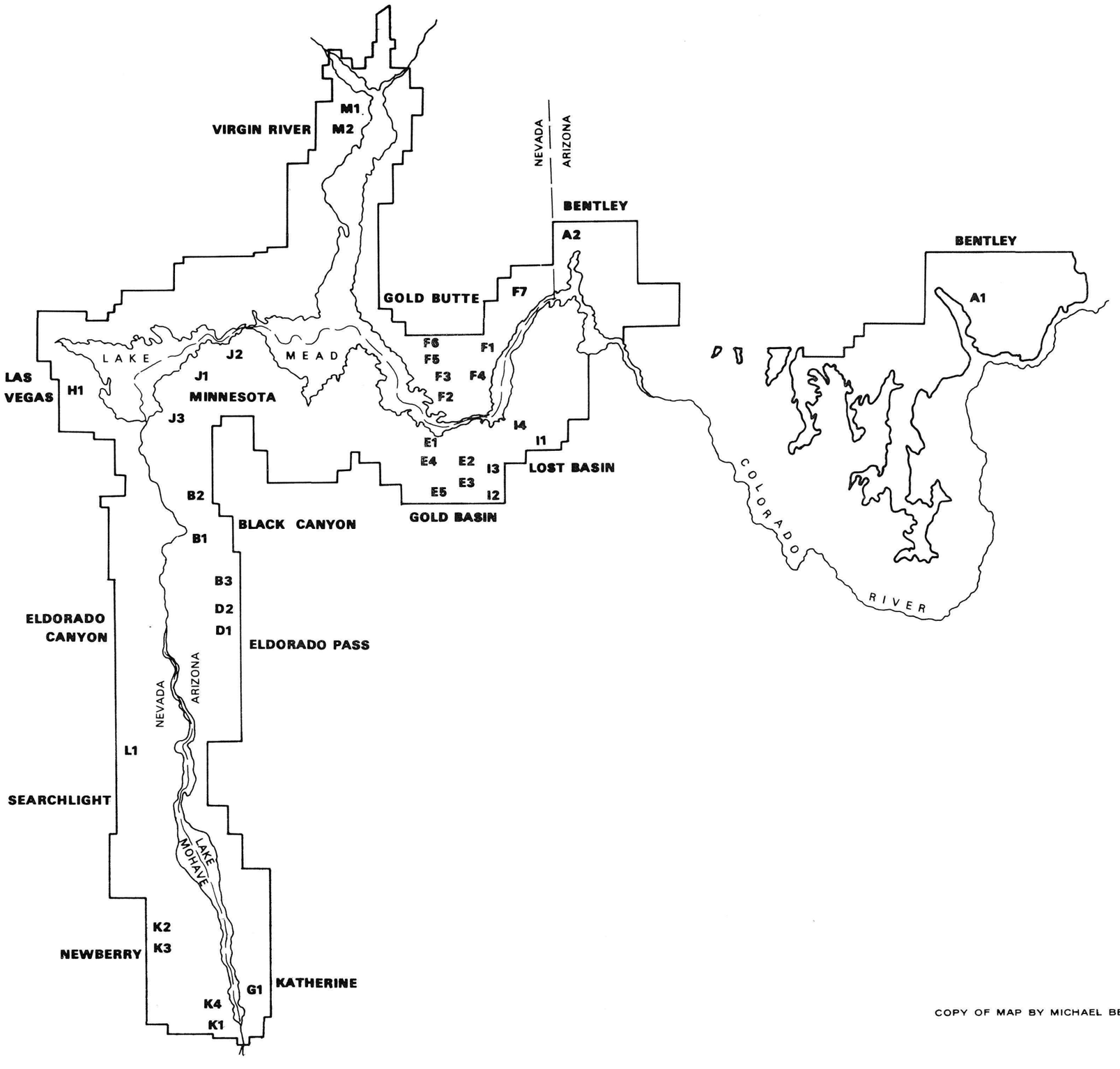
The claims noted herein were, when made, placed in the Minnesota District but lie within what later was defined as the Black Canyon District. Book references are to those in the Mohave County Recorders Office.

Gold Standard Claim Located by A.C. Lake, 1 January, 1904. Is an abandoned claim of Arlington owned by S.G. McKesson and J.B. Davis and adjoined the Gold Key claim. Had a shaft 75 feet deep with a 10 foot drift at the bottom. (Book S, p. 198.)

Brunswick Gold Claim Located by A.C. Lake, 1 January, 1904. "an abandoned claim of the original Brunswick owned by W.H. Lake, and has a shaft of about 30 ft. with a 10 ft. drift at the bottom, and also a shaft about 8 ft. and lately abandoned by S.C. McKesson and J.B. Davis known as the Arlington." (Book S, p. 200.)

Gold Key Claim Located by A.C. Lake, 1 January, 1902. "--about fifteen (15) miles in a northwesterly direction from White Hills and about nine (9) miles southeast of Crooked Rapids on the Colorado River. This is a location of an abandoned claim formerly known as the 'Montauk' located by Harvey Hubbs." (Book 3, p. 88.)

Gold Rod Claim Located by A.C. Lake, 1 January, 1902. Same descriptive coordinates as Gold Key. Formerly known as the "Jumbo" claim located by W.H. Lake. (Book 3, p. 87.)



MINE LOCATOR

A.	Bentley District	1.	Copper Mountain	Az T32N R10W S 14,15
		2.	Smith Prospect	Az T33N R15W S 3
B.	Black Canyon District	1.	Sandy Harris Placer	Az T29N R22W S 29
		2.	Two B's	Az T29N R22W S 11
		3.	Brunswick Gold Group	Az T28N R22W S 24,25
C.	Eldorado Canyon District		No mines included	
D.	Eldorado Pass District	1.	Eldorado	Az T27N R22W S 12,13
		2.	Young	Az T27N R22W S 1
E.	Gold Basin District	1.	Salt Springs	Az T30N R18W S 18
		2.	Eureka	Az T30N R18W S 34
		3.	Lutley Group	Az T30N R18W S 34
		4.	Smuggler Union	Az T30N R18W S 30
		5.	Ruby Rose	Az T29N R18W S 16
F.	Gold Butte District	1.	Eureka	Nev T21S R70E S 14
		2.	Joker	Nev T21S R70E S 22
		3.	Jumbo	Nev T21S R70E S 15
		4.	Lode Alsim	Nev T21S R70E S 14
		5.	Union	Nev T21S R70E S 8
		6.	Lakeshore	Nev T21S R70E S 5
		7.	Marron Prospect	Nev T20S R71E S 18
G.	Katherine District	1.	Katherine	Az T21N R21W S 4,5,6
H.	Las Vegas District	1.	Fannie Ryan	Nev T21S R63E S 36
I.	Lost Basin District	1.	Robeson and Joy	Az T30N R17W S 14
		2.	Golden Mile	Az T29N R17W S 8
		3.	Golden Gate	Az T30N R17W S 32
		4.	Oro Rico	Az T30N R17W S 3
J.	Minnesota District	1.	Old Pope	Az T31N R22W S 15
		2.	Cohenour	Az T31N R21W S 18
		3.	High Hope	Az T30N R22W S 6
K.	Newberry District	1.	Homestake	Nev T31S R66E S 35
		2.	Empire	Nev T30S R65E S 22
		3.	White Rock	Nev T30S R65E S 26
		4.	Wiley Inspiration	Nev T31S R66E S 34
L.	Searchlight District	1.	Camp Dugout	Nev T27S R65E S 29
M.	Virgin River	1.	Salvation	Nev T17S R68E S 27
		2.	Big Cliff	Nev T17S R68E S 34

N

0 ¼ ½ ¾ 1 MILE

0 500 1,000 1,500 KILOMETERS

MINES AND MINING DISTRICTS

LAKE MEAD NATIONAL RECREATION AREA

UNITED STATES DEPARTMENT OF THE INTERIOR-NATIONAL PARK SERVICE

COPY OF MAP BY MICHAEL BELSHAW

602 | 25000

DSC | MARCH 83

HISTORIC SITES WITHIN LAKE MEAD NATIONAL RECREATION AREA DEEMED INELIGIBLE FOR NATIONAL REGISTER NOMINATION

by
Nick Scrattish

for
Western Regional Office
National Park Service
San Francisco, California

CONTENTS

I. MINES

A. Golden Gate Mine

1. Location and Description

According to Belshaw the Golden Gate Mine is located "at the intersection of two narrow canyons"[1] in Section 32, T.30N., R.17W. on the U.S.G.S. Garnet Mountain, Arizona, fifteen minute quadrangle. Belshaw described the site as follows:

> There, the miners built two cabins and a corral of stone. Each of the cabins has a stone chimney but timbers and roofing have been removed. What would appear to be a water tower is placed a short distance up the side canyon.[2]

A careful inspection of the area by Jim Vanderford of the LAME staff and the author, on the morning of August 9, 1982, revealed that Belshaw's site is actually one-half mile southeast of the true location of the Golden Gate Mine. Map I.A.1, a portion of the Garnet Mountain quadrangle, shows only the general location. Illustration I.A.1, a view looking south, depicts the unobtrusive knoll in which the Golden Gate Mine diggings are actually located.

An inspection of the knoll reveals that over an unspecified period five tunnels were begun--each above its predecessor. Yet, only above the fifth and longest tunnel is there a sizable quantity of tailings (Illustration I.A.2). All of the tunnels followed or attempted to follow a seam of quartz. Physical evidence suggests that the first four tunnels located the seam but were unable to follow it. This is particularly evident with the third and fourth entries. Apparently, the fifth entry--some 250 feet above the first tunnel--was the most successful. The fifth entry penetrated the knoll for approximately 60 feet. It was

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1. Mike Belshaw, Mines and Mining Districts in the Lake Mead National Recreation Area. Supplement to Historic Resource Study, Lake Mead National Recreation Area (Denver: Denver Service Center, National Park Service, 1980), p. 37. Hereafter cited as Belshaw, Supplement, 1980.

2. Ibid., p. 37.

Map I.A.1

General location of the Golden Gate Mine.

Map from a section of the Garnet Mountain, Arizona, 15' quandrangle.

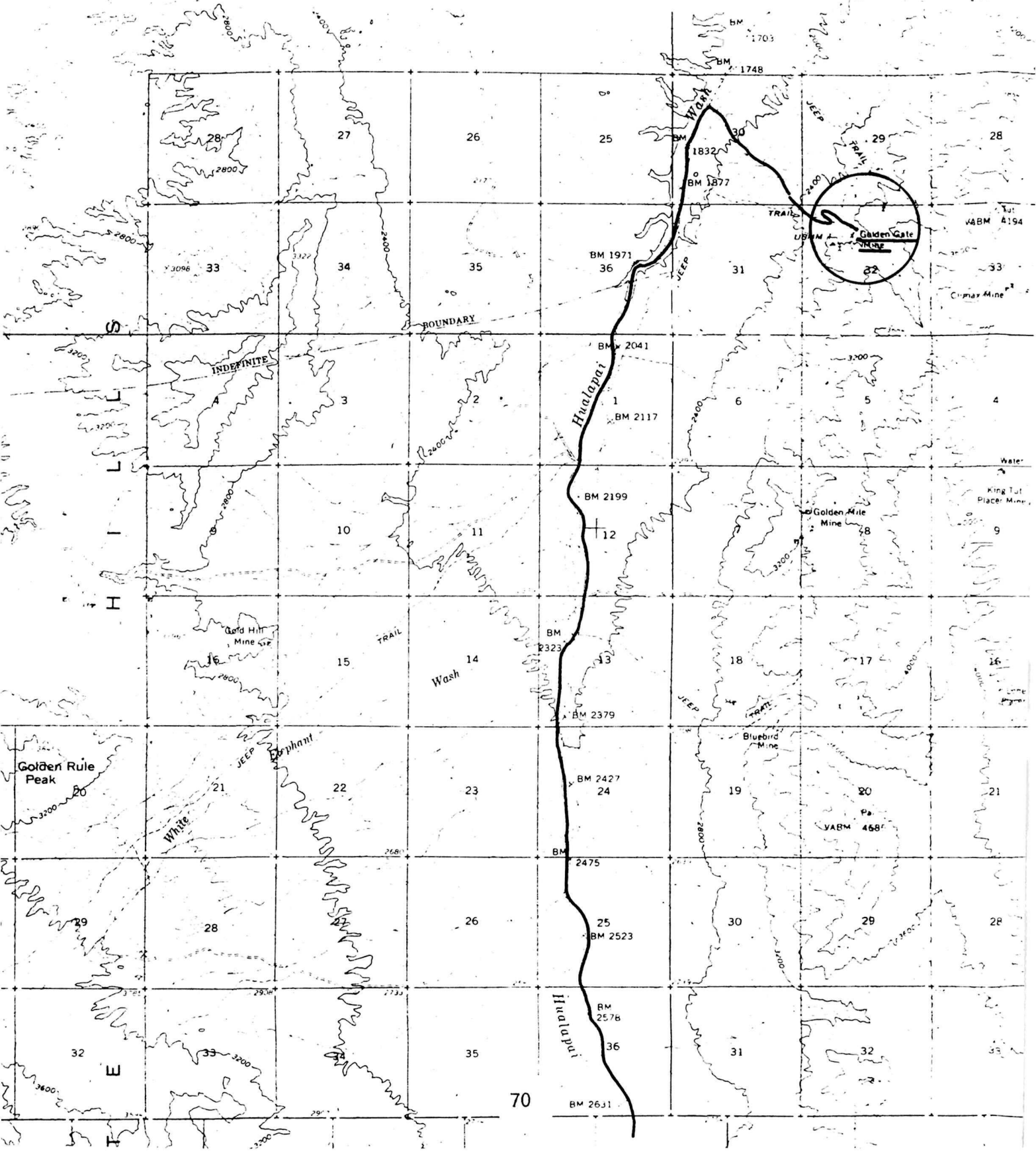

ILLUSTRATION I.A.1

Knoll in which the Golden Gate Mine diggings are located, looking south/southwest.

Photograph by Nick Scrattish, August 9, 1982.

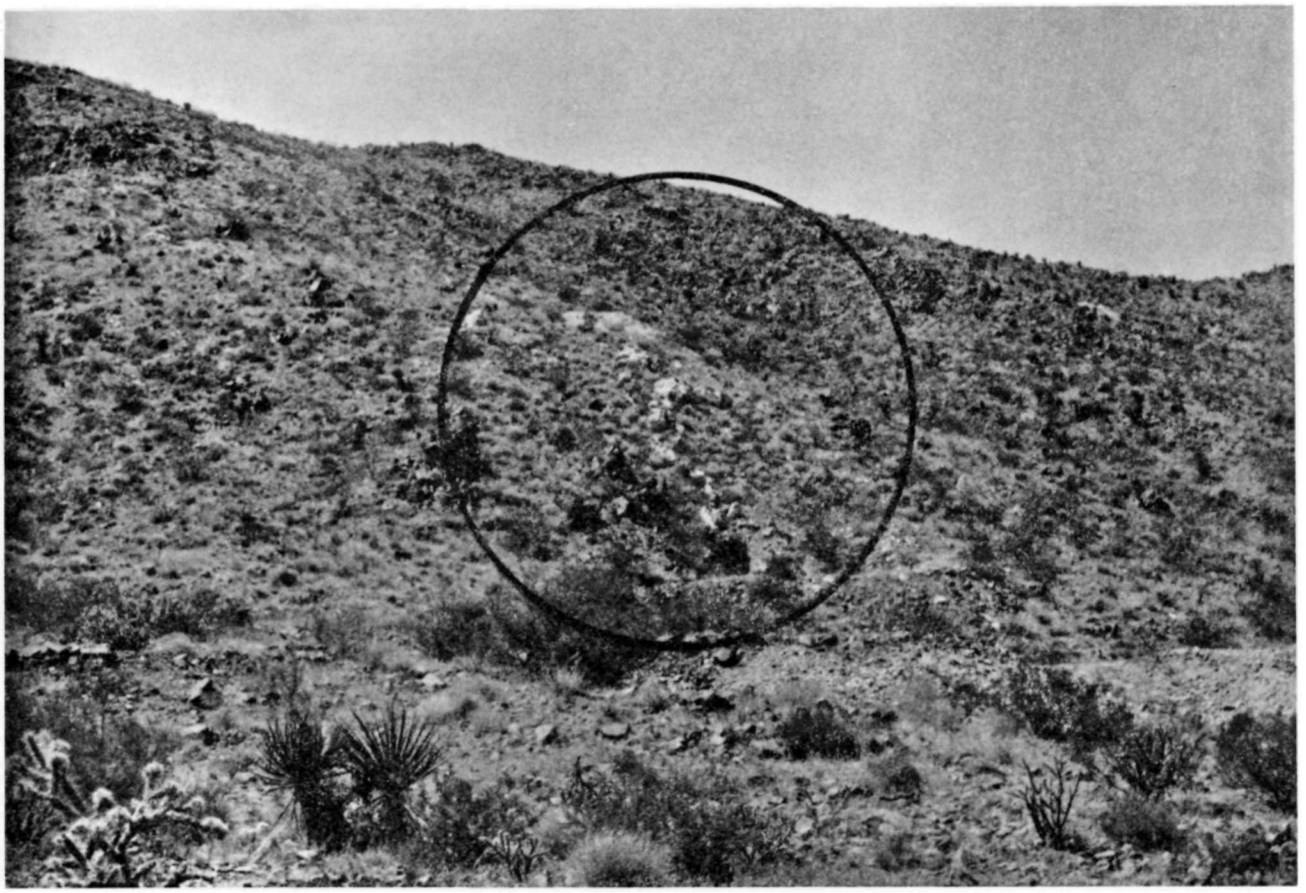

ILLUSTRATION I.A.2

Terrace with quartz tailings above the fifth tunnel, Golden Gate Mine, looking south.

Photograph by Nick Scrattish, August 9, 1982.

then intersected by a vertical shaft that appears to be about 75 feet deep. Past the vertical shaft the fifth entry continued on into the knoll for an unspecified distance. Cable strewn about the area implies some sort of hoisting device may have been used to lift buckets of ore from the fifth horizontal entry.

2. Available History

Roman Malach, the Mohave County historian, determined that in 1939 the mine had a 40-foot shaft, "at the bottom of which a crosscut had been driven for 50 feet." According to Malach the mine was discovered in 1934, and "the ore averaged $35.00 in gold per ton."[3] An inspection of documents on file with the Arizona Bureau of Geology and Mineral Technology reveals Malach got his information from an owner's mine report, dated June 28, 1939.[4] The document described "Operations Planned" as follows:

> This is a prospect that we are exploring. Work planned is to cut the lode at a depth of about 45' by cross-cutting. The face of the cut is 54' from the shaft and is at the hanging wall of the lode. One miner worked in this cross-cut alone for the last week and was not able to drive on into the ore-shoot.

Additional information in this owner's mine report indicates that the current owners were willing to "sell on a bond and lease to parties able to develop the property." Work at the mine had stopped because "one of the partners would not put up any more cash than was required to do the annual assessment work." A penciled notation on the owner's mine report indicates that the mine was unclaimed in August 1946. No legal description of the mine is on file with the assessor's office, Mohave County Courthouse.[5]

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3. Roman Malach, Mohave County Mines (Mohave County, Arizona, 1977), p. 43.

4. This document was filed with what was then the Arizona Department of Mineral Resources.

5. Verified by the author at the Mohave County Courthouse, Kingman, Arizona, on August 11, 1982.

Three references from The Weekly Arizona Miner mention a Golden Gate Mine in Mohave County, Arizona, between 1870 and 1882.[6] The first of these, dated Saturday, May 21, 1870, was in the periodical's "Mining Summary" (p.2, c.3): "A day or two ago, a party of men were [sic] sent over to the District [then Walker's District] to sink upon the Golden Gate lode, for its owner, Jesse Jackson." On Saturday, October 7, 1871, The Weekly Arizona Miner described the Golden Gate Mine in Mohave County as "merely a rich quartz lode, belonging to A.D. Johnson, who, by the way, was Captain of the steamer Cocopah" (p.2, c.2,3&4). Parenthetically, there were then 52 miners operating in Mohave County. The final of the three references from The Miner is dated Friday, March 3, 1882:

> Messers. Taft, Stoddard & Co. have re-commenced work on the Golden Gate tunnel. During the coming summer they will run the tunnel 250 or 300 feet in and along the vein. At present they have from 3½ to 4 feet of carbonate ore assaying well in gold and silver (p.2, c.3).

John F. Cahlan, a long-time Nevada newspaperman, remembered a Golden Gate Mine, but in his reminiscences described it without much precision:

> The old Golden Gate mine--up in the middle and back up there--in the old days had just a regular picture rock. In later years they put a mill in there. They had two or three mills, and a slope would slide down and cover things up. Then a mill was built lower down and they put in a tram.[7]

Cahlan's description indicates that there were once structures in the immediate vicinity of the mine. None now exist.

---

6. References located at the Charlotte Hall Historical Society, Prescott, Arizona.

7. John F. Cahlan, "Reminiscences of a Reno and Las Vegas, Nevada Newspaperman, University Regent, and Public-Spirited Citizen," oral history project, University of Nevada Library, Reno, University of Nevada System. Undated transcription is located at The Special Collections, University of Nevada, Las Vegas.

3. Significance and Eligibility Status

Available records for the Golden Gate Mine give no indication that it was ever a significant producer. It cannot even be determined, without recourse to historical archeology, whether or not the mine was highly developed. The 1939 mine owner's report cited above suggests that it was not. There is no evidence that the mine's methods of production were distinctive. This site clearly fails to qualify for nomination to the NRHP on the basis of either significance or integrity.

The LAME List of Classified Structures now lists three structures thought to have been associated with the Golden Gate Mine. These are described as follows:

1. rock house no. 1, GGM-1
2. rock house no. 2, GGM-2, and
3. a water tower, GGM-3

I have found no evidence to support the view that these structures were once associated with the Golden Gate Mine. Sketch Map I.A.1 and attendant photographs (Illustrations I.A.3-5) taken on August 9, 1982, show that there are three rock structures, not two. Inclusive of the water tower, four structures comprise the site. I recommend these structures be relabeled, pending identification of the site.

Belshaw's location of the Golden Gate Mine one-half mile southeast of the true mine site

SKETCH MAP I.A.1

Approximate relationship of structures that comprise the site one-half mile southeast of the Golden Gate Mine.

Sketch by Nick Scrattish
August 9, 1982.

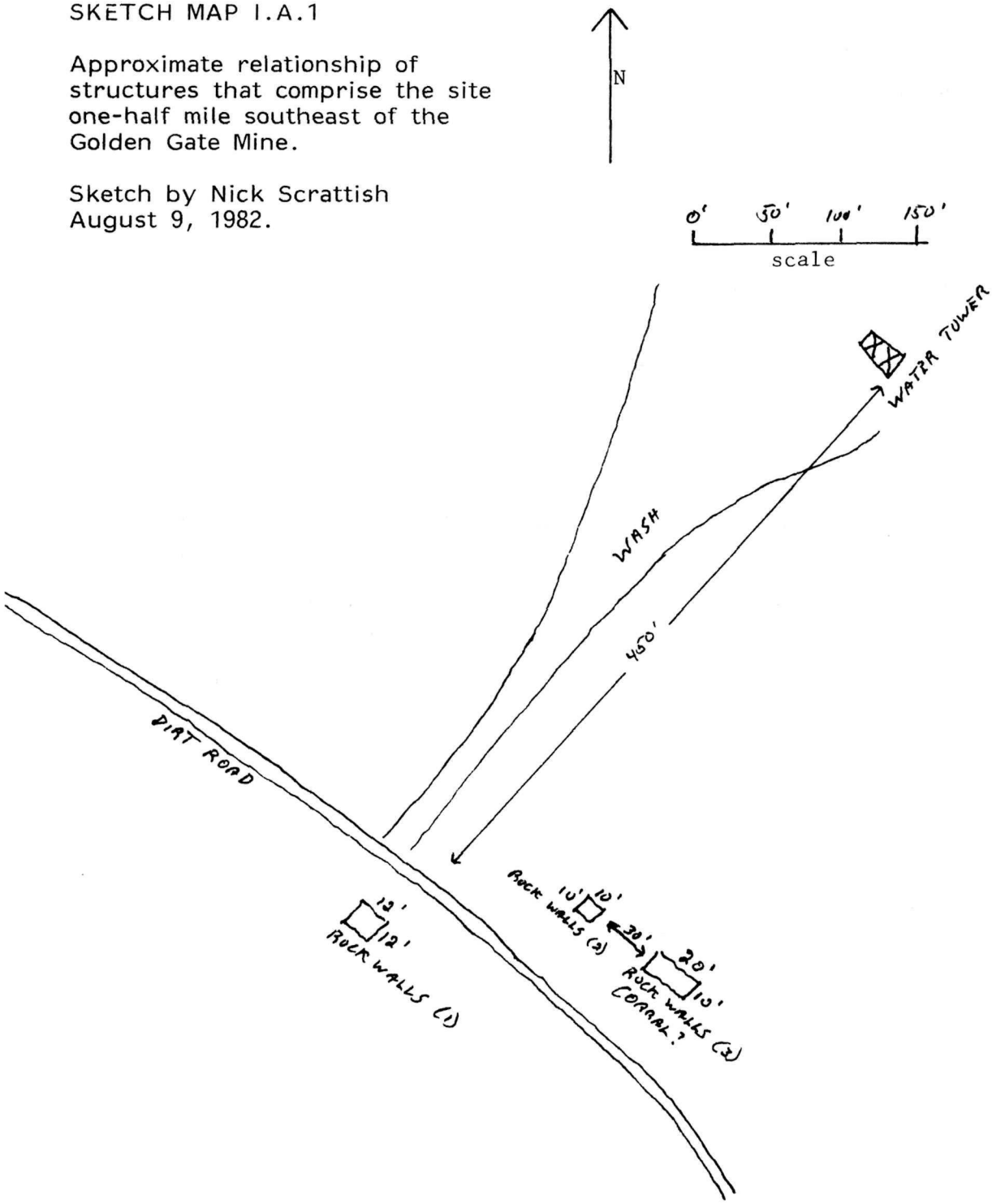

ILLUSTRATION I.A.3

Rock house (1), south side of dirt road, looking south.

Photograph by Nick Scrattish, August 9, 1982.

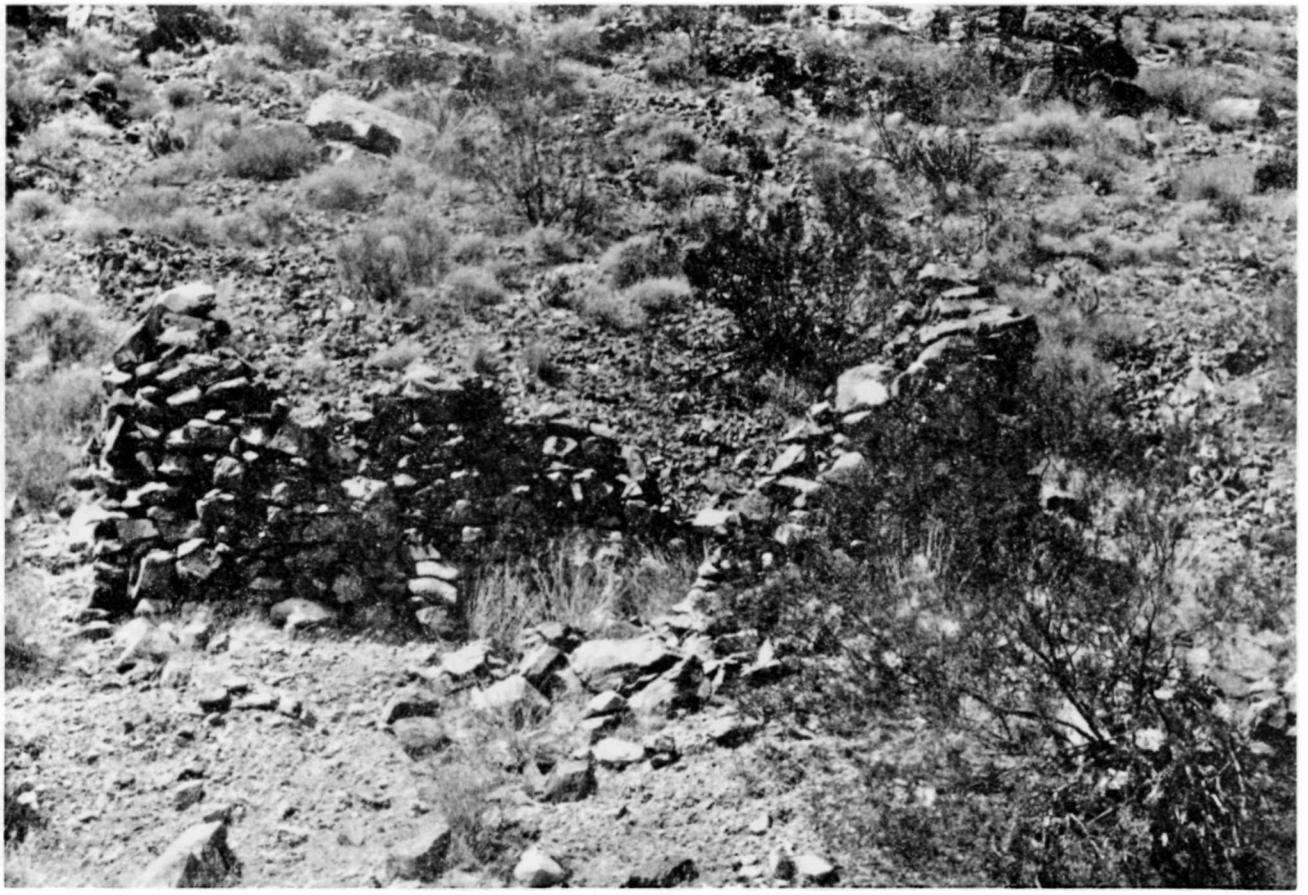

ILLUSTRATION I.A.4

Rock structures 2 and 3, north side of dirt road, looking north/northeast.

Photograph by Nick Scrattish, August 9, 1982.

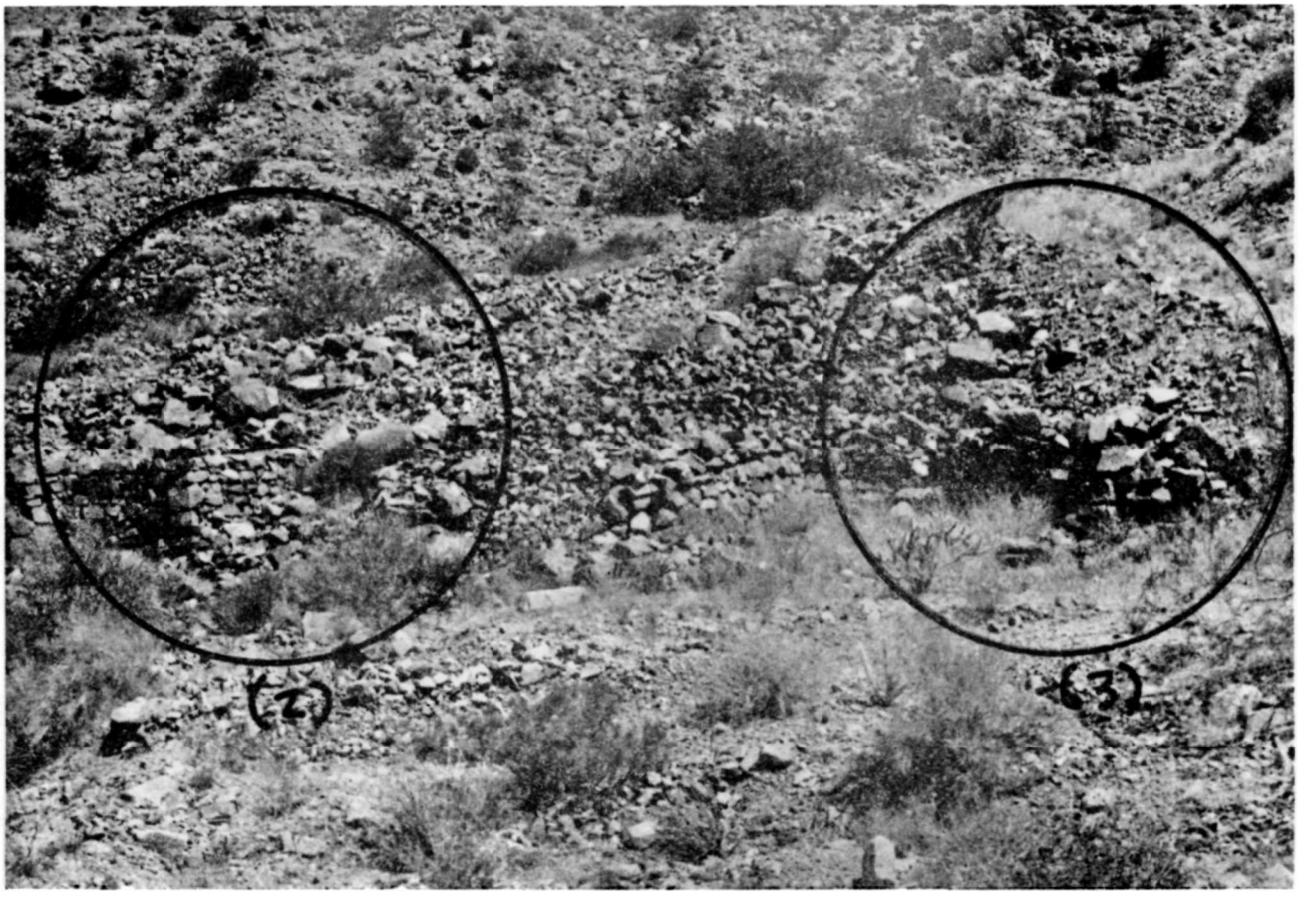

ILLUSTRATION I.A.5

Water tower, right side of wash (upper center of photograph), looking north/northeast.

Photograph by Nick Scrattish, August 9, 1982.

B. Golden Mile Mine

1. Location and Description

Golden Mile Mine is located in Sections 7 and 8, T.29N., R.17W. (Map I.B.1). Four standing frame buildings, a collapsed frame building, a stone building foundation, stone walls, and a vertical shaft now exist on the site. The relationship of these to one another is approximated on Sketch Map I.B.1. Illustration I.B.1 is a general view of the site looking south. Illustrations I.B.2-7 are closer views of the shaft, kitchen/family building, bunkhouse, refrigerator room/shower, privy, and collapsed mess and nearby foundation.

An inspection of the site by Jim Vanderford of the LAME staff and the author on August 9, 1982, revealed that physical evidence scattered about dates from as recently as the 1950s. A more detailed examination by a qualified historical archeologist would be necessary to determine, with any degree of accuracy, the earliest period of occupancy. I can only hazard a guess that this early period did not antedate the 1930s.

2. Available History, Significance, and Eligibility Status

Belshaw is correct that no documentary information regarding the Golden Mile Mine is available. Roman Malach does not include the mine in Mohave County Mines. A perusal of the Mining and Scientific Press, and Engineering and Mining Journal turned up no information regarding the site. No legal description of the mine is on file with the assessor's office, Mohave County Courthouse.[1] The total absence of information for the Golden Mile Mine strongly implies it was not significant either in terms of production or technique. This site fails to qualify for nomination to the NRHP based on the criterion of significance.

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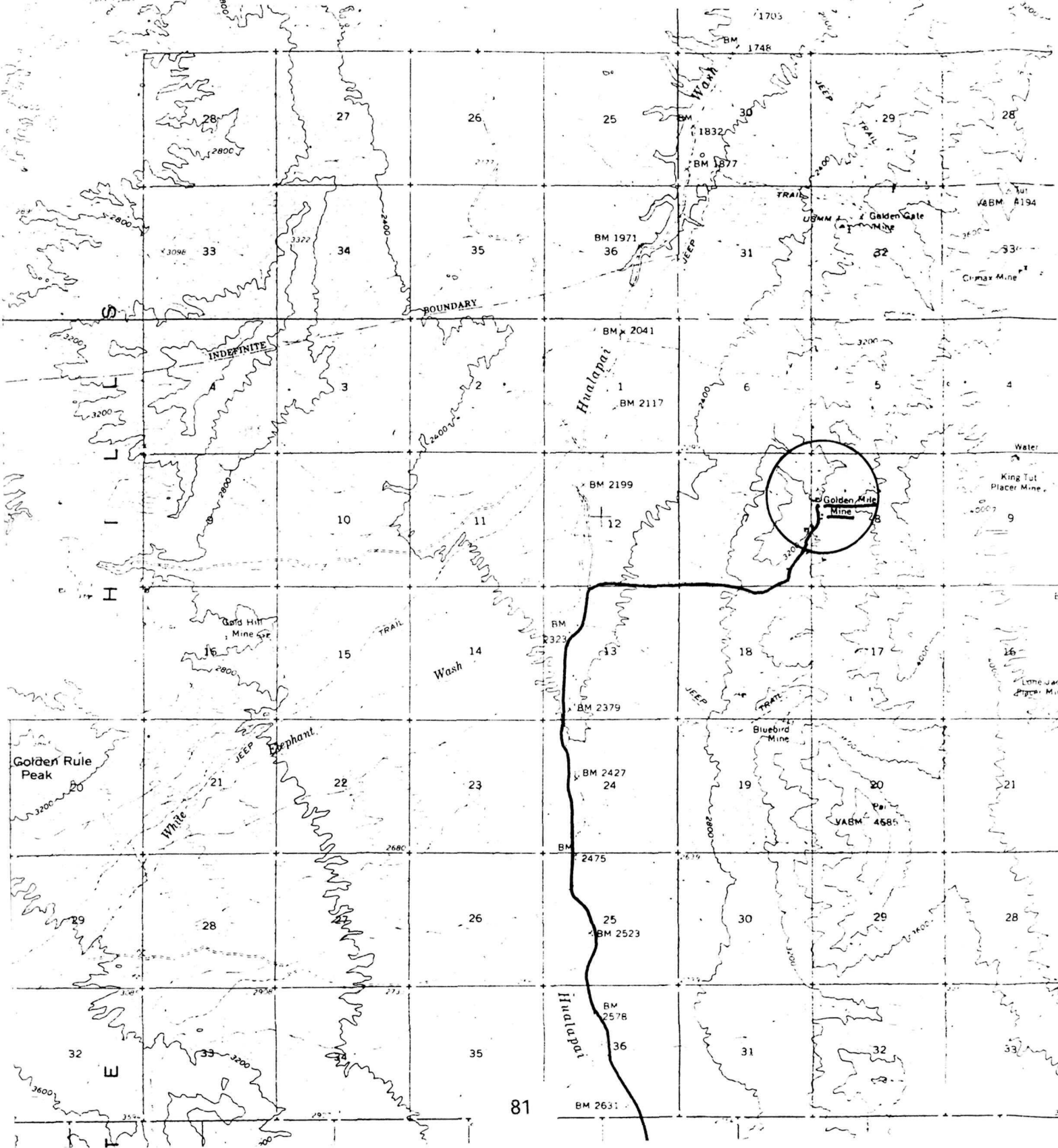
1. Verified by the author at the Mohave County Courthouse, August 11, 1982.

Map I.B.1

Location of the Golden Mile Mine.

Map from a section of the Garnet Mountain, Arizona, 15' quadrangle.



SKETCH MAP I.B.1

Approximate relationship of buildings and structures that comprise the Golden Mile Mine site.

Sketch by Nick Scrattish
August 9, 1982.

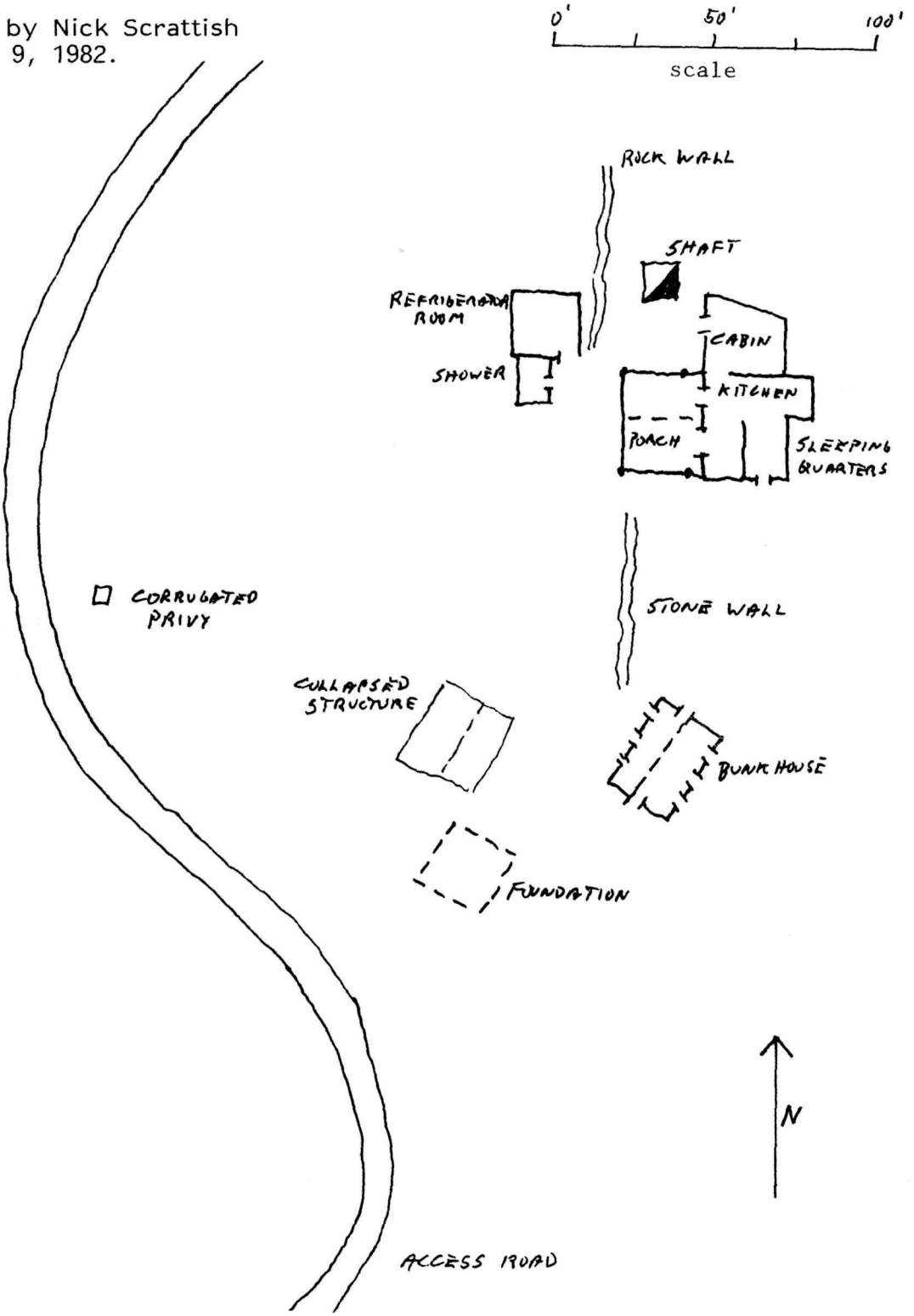


ILLUSTRATION I.B.1

General view of the Golden Mile Mine site, looking south.

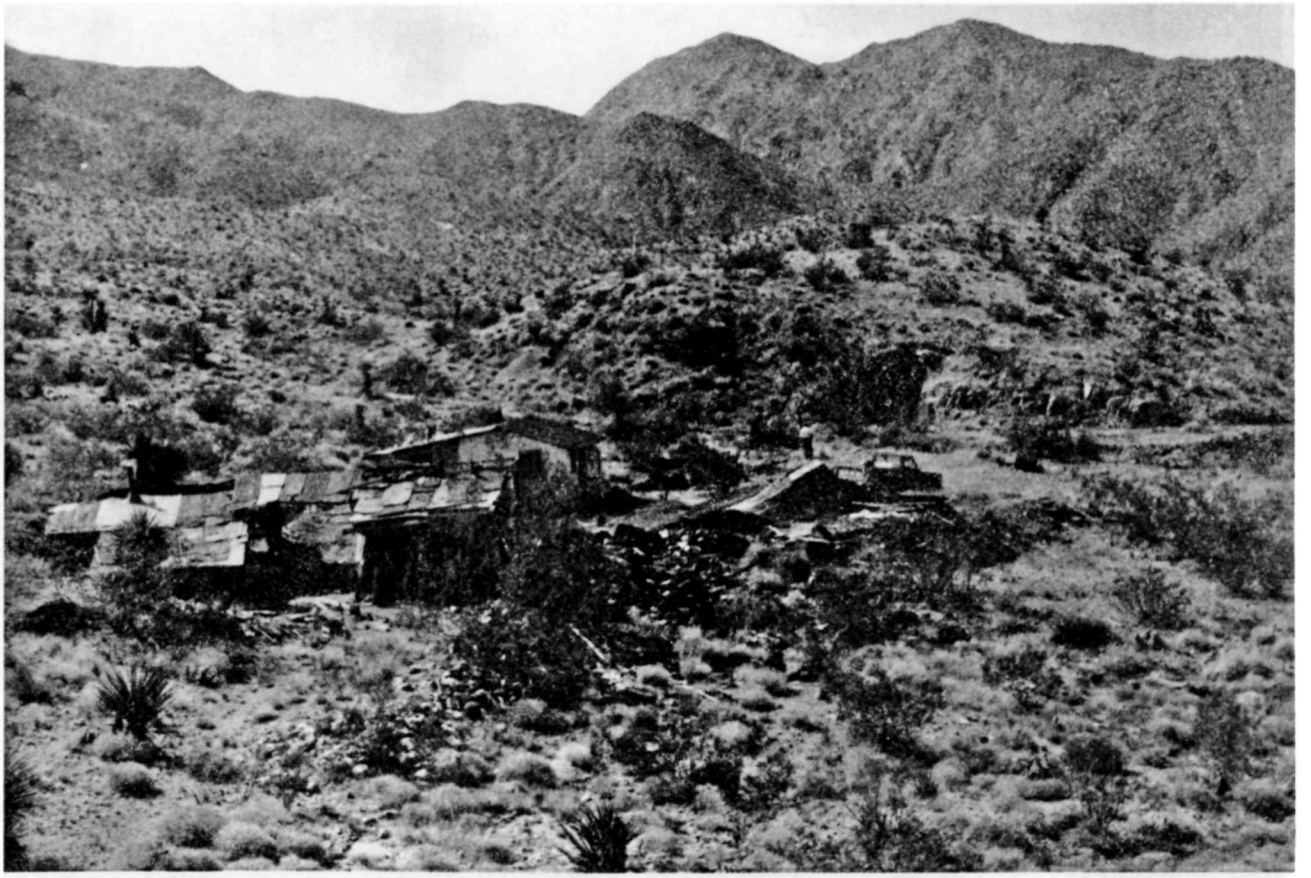


ILLUSTRATION I.B.2

Shaft (foreground), Golden Mile Mine site, looking southwest.

ILLUSTRATION I.B.3

Kitchen/family building, Golden Mile Mine site, looking northeast.

Photograph by Nick Scrattish, August 9, 1982.

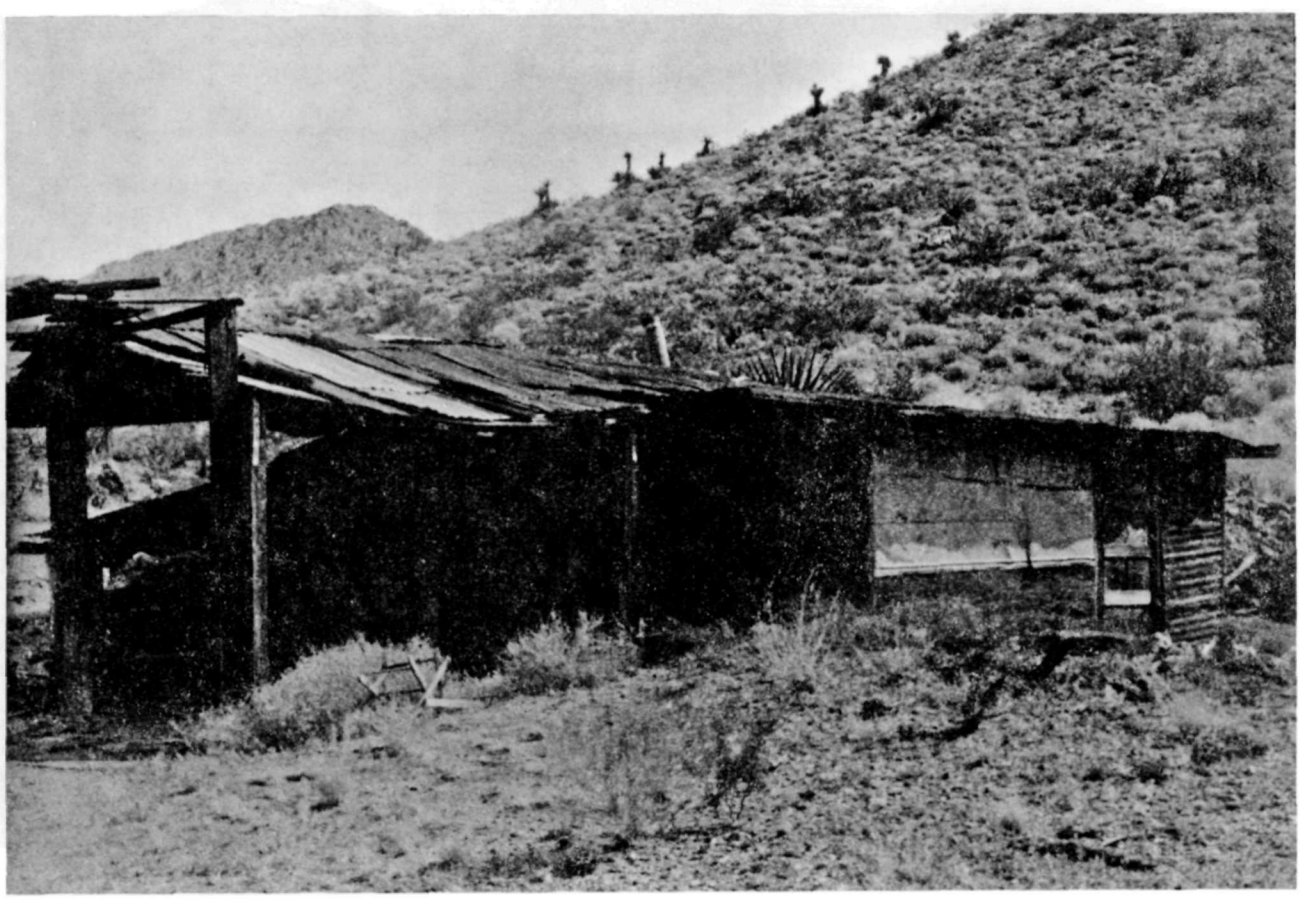


ILLUSTRATION I.B.4

Bunkhouse, Golden Mile Mine site, looking east.

Photograph by Nick Scrattish, August 9, 1982.

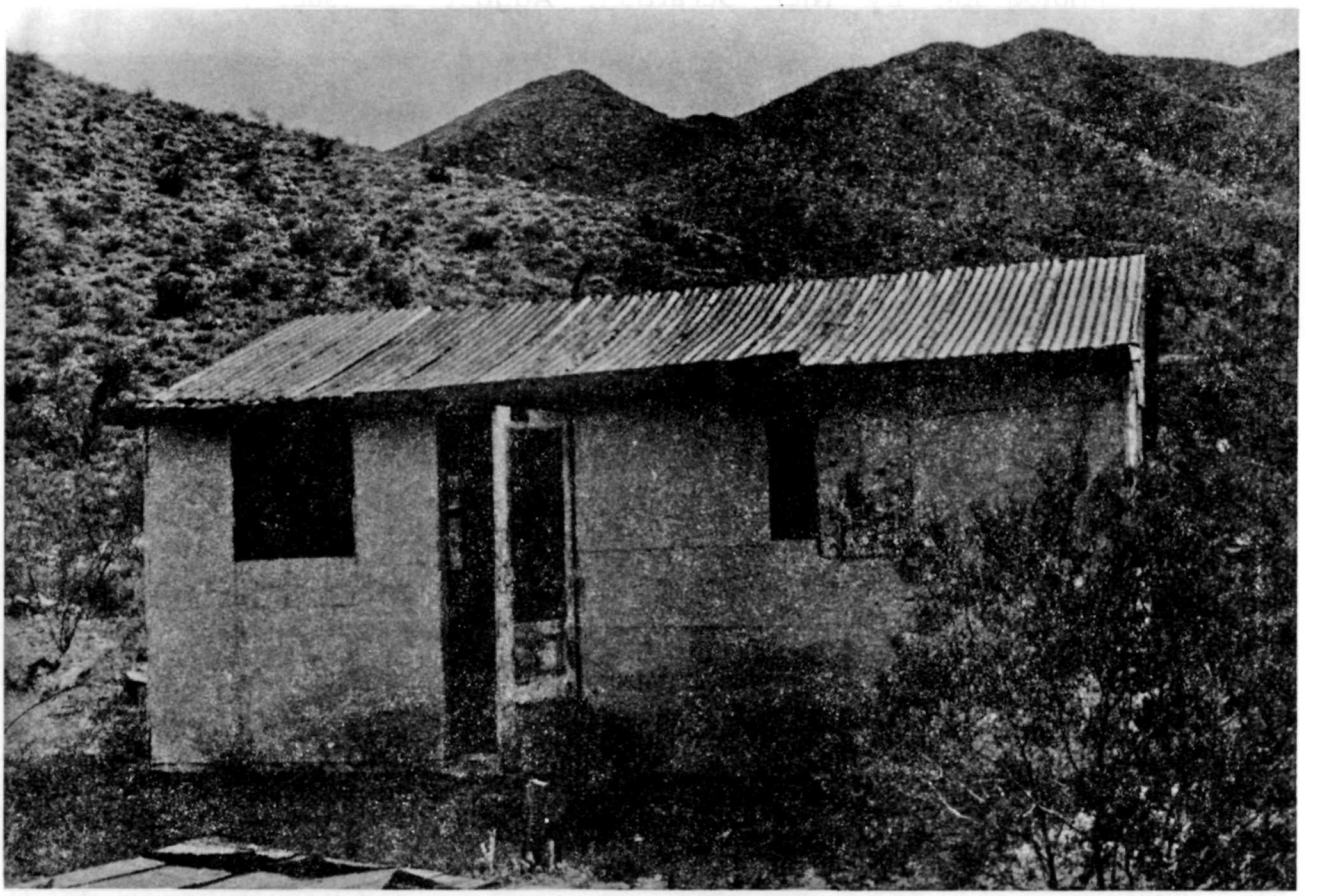


ILLUSTRATION I.B.5

Refrigerator room/shower, Golden Mile Mine site, looking north.

Photograph by Nick Scrattish, August 9, 1982.

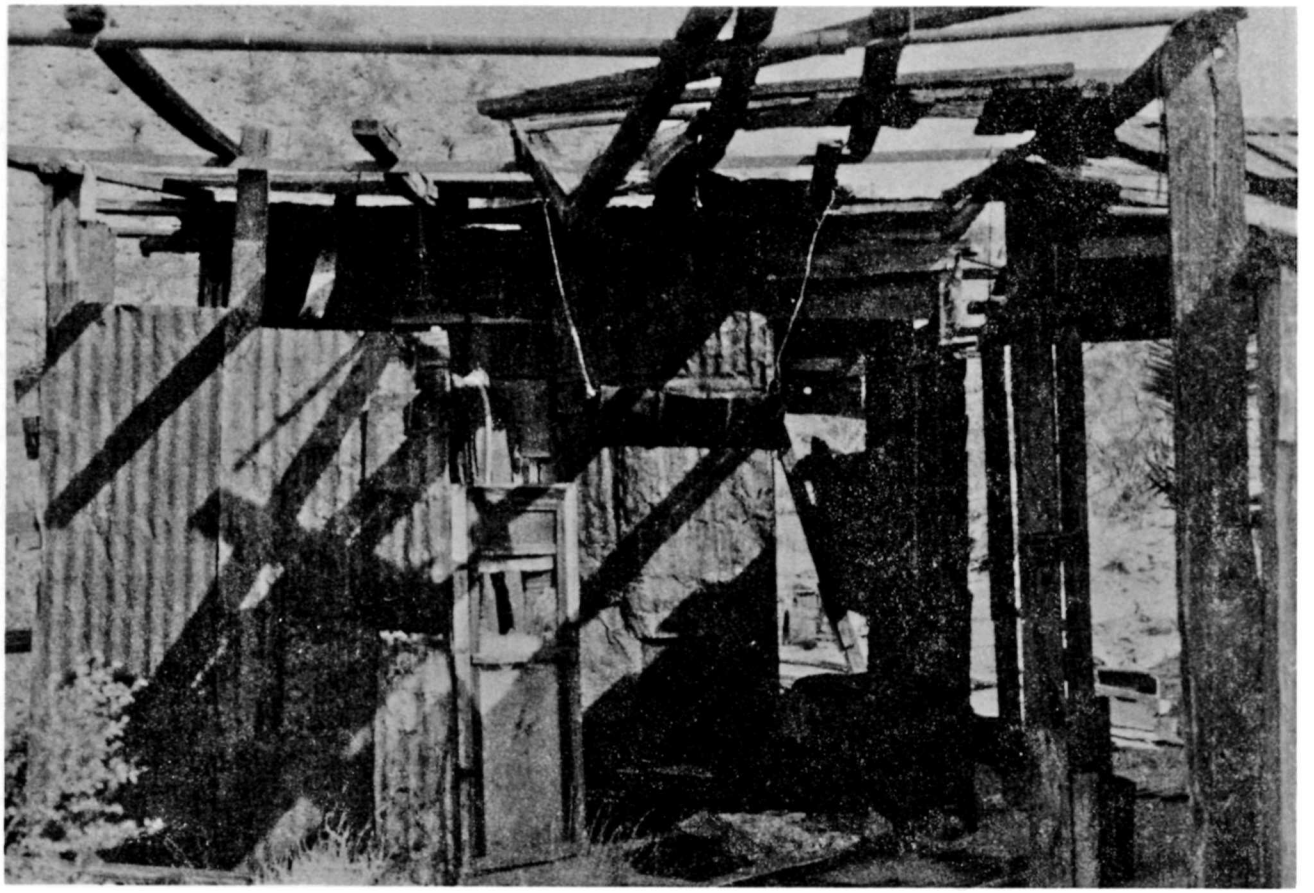


ILLUSTRATION I.B.6

Corrugated metal privy, Golden Mile Mine site, looking north/northwest.

Photograph by Nick Scrattish, August 9, 1982.

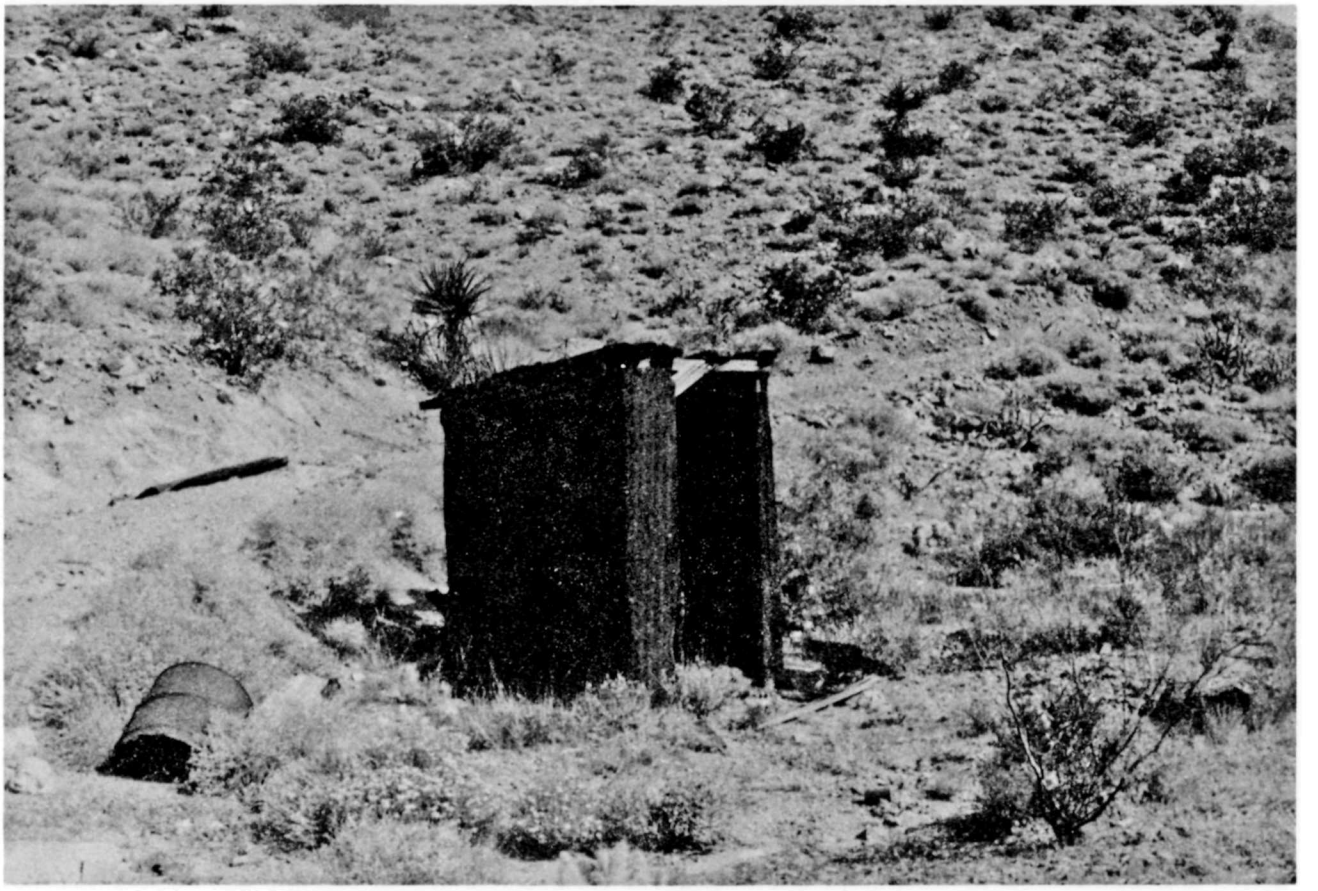


ILLUSTRATION I.B.7

Collapsed building with stone foundation in foreground, Golden Mile Mine site, looking north/northeast.

Photograph by Nick Scrattish, August 9, 1982.

II. ROADS

A. Bonelli Ferry Road

1. Original Locations

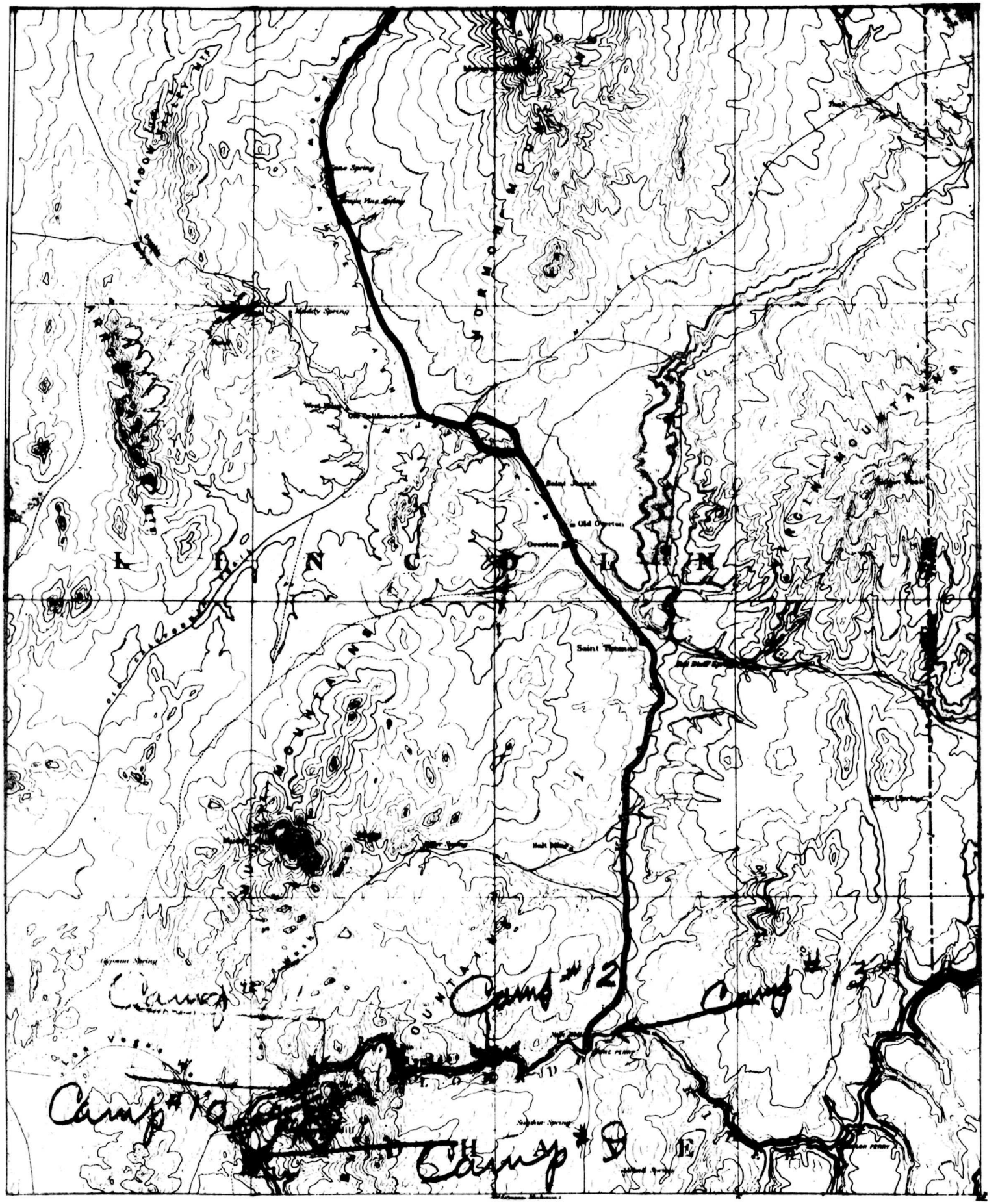
Within the present boundaries of LAME, the original road south to Bonelli Ferry lies under the waters of Lake Mead's Overton Arm. The U.S.G.S. quadrangle sheet for St. Thomas, first published in April 1886 and reprinted in 1916 (Map II.A.1), shows that from the north the ferry road entered the park at about the midpoint of the northern boundary of Section 25, T.16S., R.67E. As the old quadrangle makes clear, the ferry road ran at a southeast diagonal through the settlement of St. Thomas. It then followed the western bank of the Virgin River to the ferry itself.[1]

L.A. Fleming's map of the area, published in 1967, indicates the Bonelli Ferry Road north of Junction City (Rioville) crossed the Virgin several times between St. Thomas and the Colorado River. Fleming's map, included in this assessment as Map II.A.2, reinforces the view that the road to Call's Landing, downriver from the Bonelli Ferry, branched off from the ferry road that paralleled the Virgin River. As the 1916 reprint of the St. Thomas quadrangle shows, the Callville Road led west and southwest to the Colorado River via the Salt Mine, Bitter Spring, and Callville Wash. This implies that a significant sector of the old Bonelli Ferry Road running along the Virgin was, even earlier, part of the Callville Road. Call's Landing was abandoned no later than June 1869.[2]

---

1. "From the north the road from St. Thomas came down the west side of the Virgin River to near Echo Wash where a crossing was made and continued to Bonelli's ranch. The road then descended to the river a little east of the house itself." Melvin T. Smith, "The Colorado River: Its History in the Lower Canyon Area" (Ph.D. diss., Brigham Young University, 1972). Hereafter cited as Smith, 1972.

2. L.A. Fleming, "The Settlements on the Muddy, 1865 to 1871: 'A Godforsaken Place,'" Utah Historical Quarterly (Spring 1967), v. 35, n. 2, p. 154.



Map II.A.1

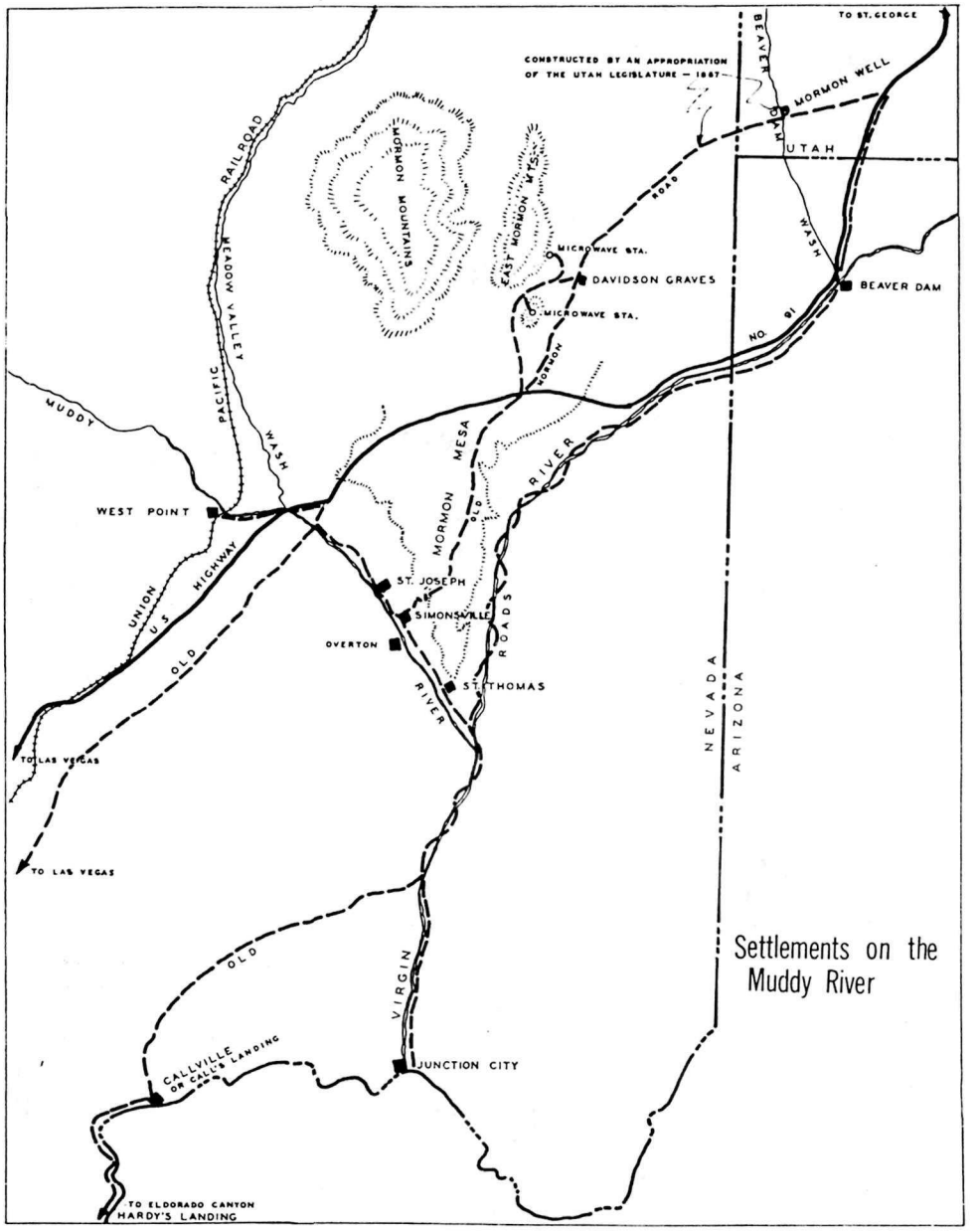
The St. Thomas quadrangle, first published by the U.S.G.S. in April 1886, and reprinted in 1916.

Map courtesy of the Arizona State Historical Society, Tucson, Arizona.

Map II.A.2

L.A. Fleming's map of "Settlements on the Muddy River."

Map courtesy of the Utah Historical Quarterly (Spring 1967), v. 35, n. 2.



After Daniel Bonelli bought Stone's Ferry in 1877 he moved the ferry site about 2 miles upstream. Henceforth the ferry was usually referred to as Bonelli Ferry[3] (Illustration II.A.1). This ferry remained in operation to about the turn of the century. During the period 1877-1900 a settlement developed at the ferry, called Junction City or Junctionville--but most often Rioville. A post office operated at Rioville from November 2, 1881, to June 30, 1906.[4]

A map of the now-inundated Bonelli Ferry area, prepared for the Department of the Interior's Bureau of Reclamation in 1980, shows the spatial relationship of several historic sites near the ferry.[5] The map is included in this assessment as Map II.A.3. For purposes of this assessment the map is noteworthy. It indicates that prior to Bonelli's relocation of Stone's Ferry, the Stone's Ferry Road south of the Colorado followed the Detrital Wash. Aerial photographs of the wash are included in the assessment, looking north to the southern extremity of present-day Bonelli Bay (Illustration II.A.2), and south (Illustration II.A.3) to the park's southern boundary in this area (i.e., southern boundary, Section 36, T.30N., R.67E.). Belshaw cites the Detrital Wash as the west fork of the original Bonelli Ferry Road.[6] In fact the west fork now within the park was more likely to the northwest, running from present-day Bonelli Landing to the southern boundary of Section 35, T.30N., R.67E. This

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3. Walter R. Averett, Directory of Southern Nevada Place Names (printed by the author, 1963), p. 13. Hereafter cited as Averett, 1963.

4. Ibid., p. 13.

5. Historical and Architectural Resources within the Lower Colorado River System, 4 vols. (San Diego: WESTEC Services, Inc., 1980). Volume four of the report is a map supplement consisting of 43 maps. These cover the Lower Colorado region from Lee's Ferry to the border of Sonora, Mexico. Report hereafter cited as WESTEC, 1980. I am indebted to James Maxon, Regional Archeologist, Lower Colorado Region, BOR, for a microfiche copy of the report.

6. Mike Belshaw and Ed Peplow, Historic Resource Study, Lake Mead National Recreation Area (Denver: Denver Service Center, National Park Service, 1980), p. 196. Hereafter cited as Belshaw, 1980.

ILLUSTRATION II.A.1

Bonelli Ferry, looking upstream.

Stanton Survey photograph, 1890. Photograph courtesy of the Utah State Historical Society.

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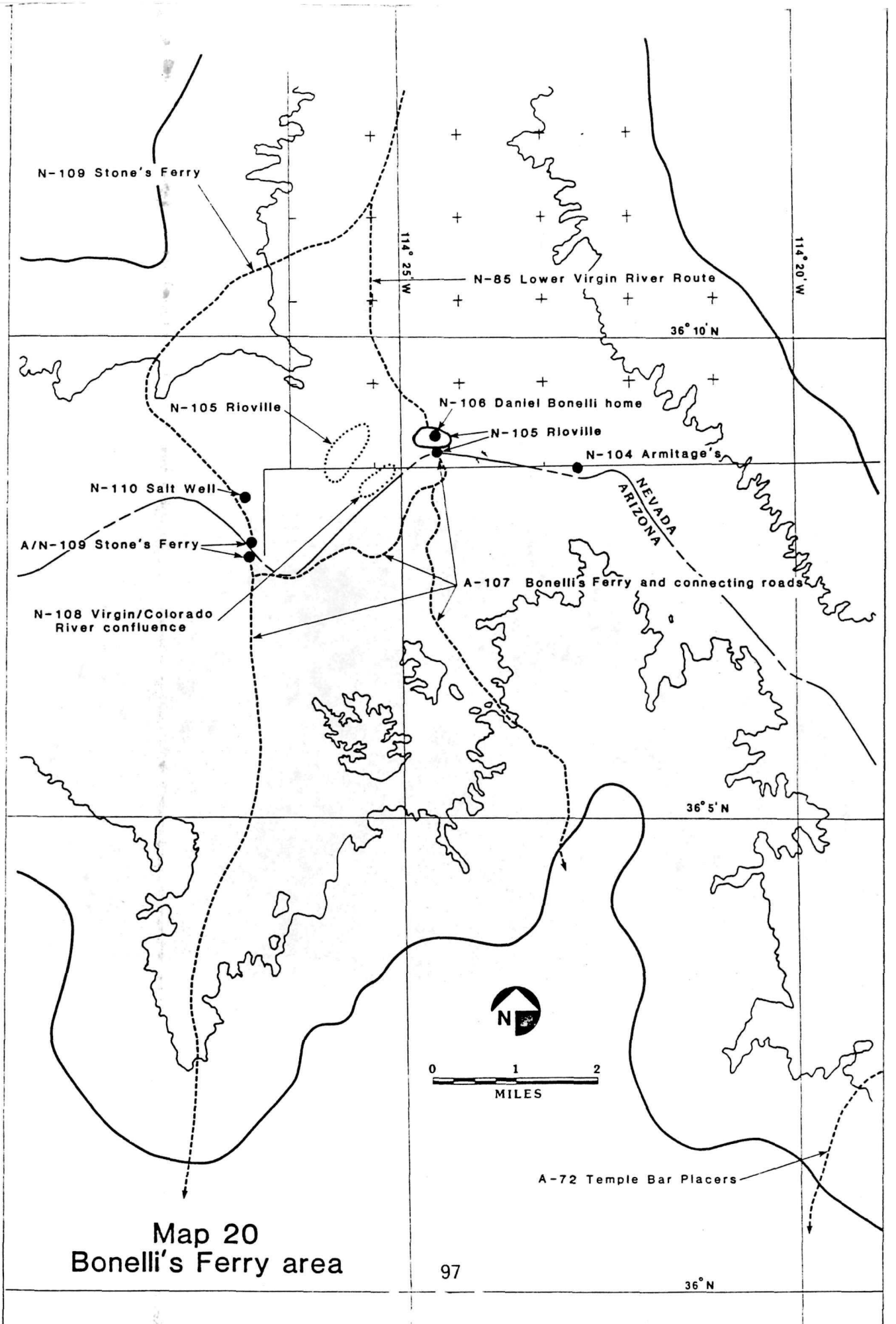
MAP II.A.3

Bonelli Ferry area.

Map from Historical and Architectural Resources within the Lower Colorado River System, volume 4, map 20.

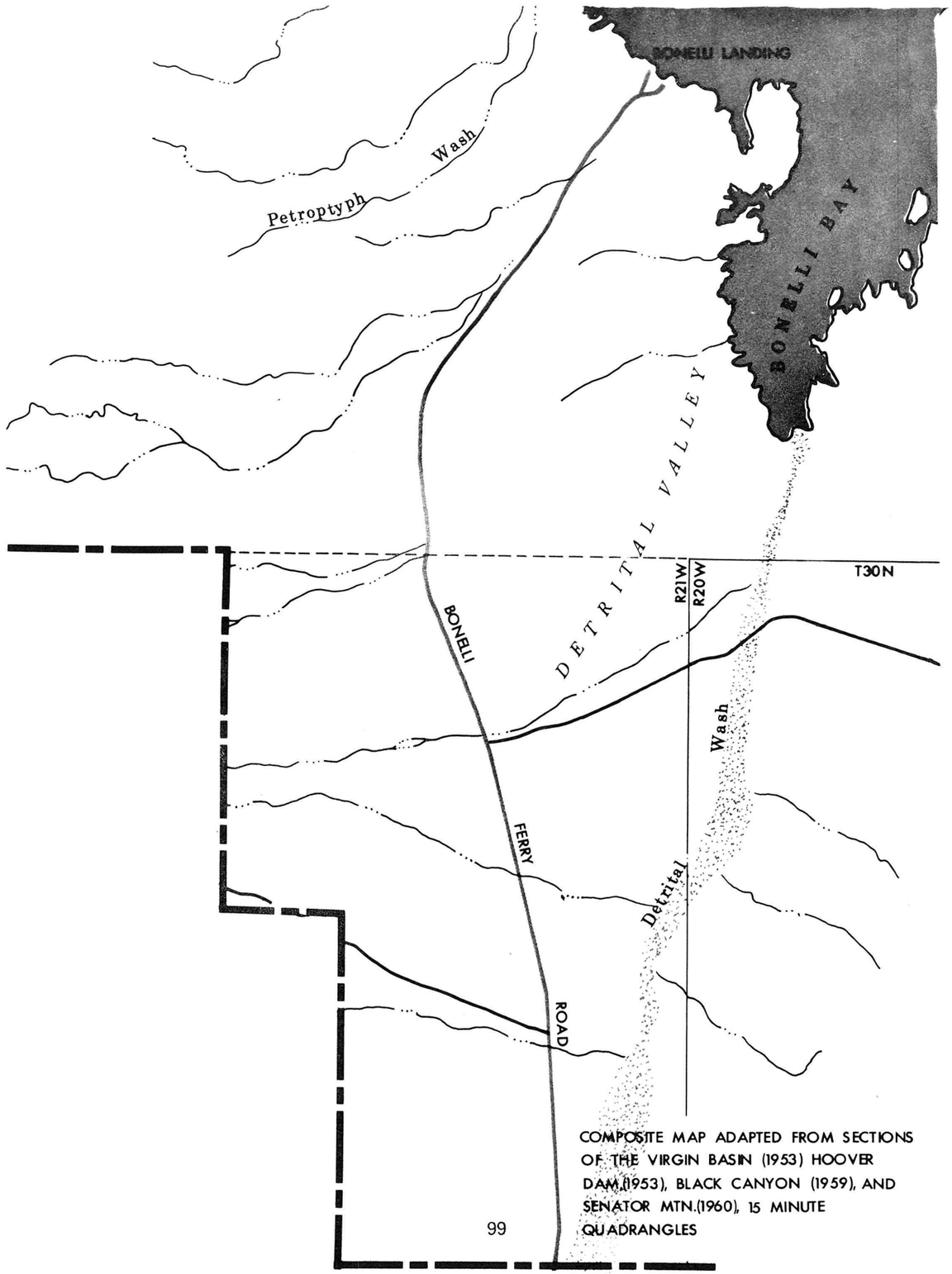


Map 20
Bonelli's Ferry area

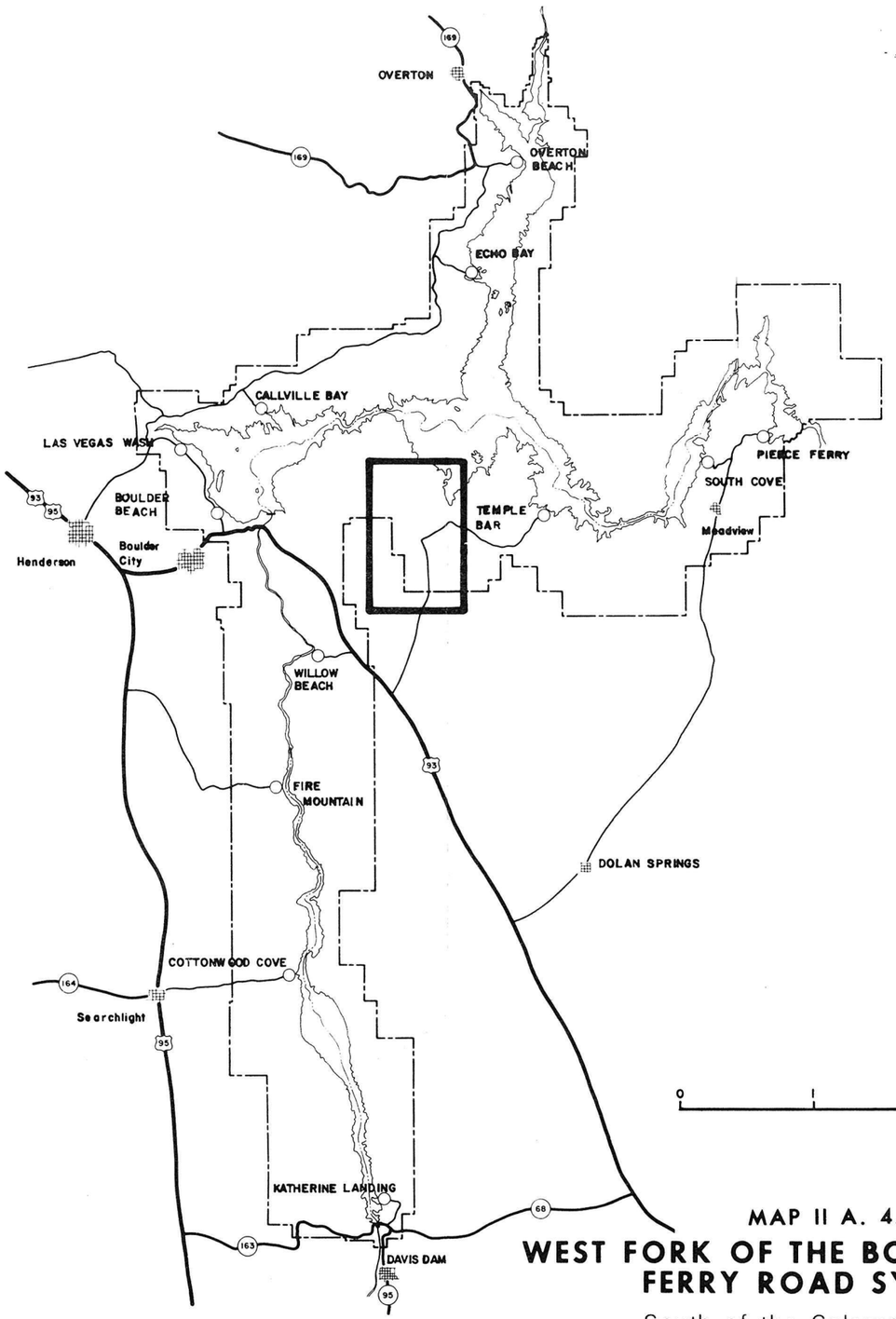
ILLUSTRATION II.A.2

Detrital Wash, looking north to Bonelli Bay.

Photograph by Nick Scrattish, July 2, 1982.



COMPOSITE MAP ADAPTED FROM SECTIONS OF THE VIRGIN BASIN (1953) HOOVER DAM,(1953), BLACK CANYON (1959), AND SENATOR MTN.(1960), 15 MINUTE QUADRANGLES



MAP II A. 4.

WEST FORK OF THE BONELLI FERRY ROAD SYSTEM

South of the Colorado River

LAKE MEAD NATIONAL RECREATION AREA

UNITED STATES DEPARTMENT OF THE INTERIOR/NATIONAL PARK SERVICE

602 | 40073
APR 83 | DSC

West Gypsum Bay

BIG GYPSUM LEDGES

BONELLI FERRY ROAD

COLORADO RIVER

TEMPLE BASIN

LAKE MEAD

HILLS

NATIONAL

RECREATION AREA

WHITE

T30N

TEMPLE BAR

Temple Wash

LANDING STRIP

Trail

Rapids Wash

COMPOSITE MAP ADAPTED FROM SECTIONS OF THE VIRGIN BASIN AND SENATOR MOUTAIN 15 MINUTE QUADRANGLES

OVERTON

OVERTON BEACH

ECHO BAY

CALLVILLE BAY

LAS VEGAS WASH

BOULDER BEACH

Henderson

Boulder City

TEMPLE BAR

PIERCE FERRY

SOUTH COVE

Meadview

WILLOW BEACH

FIRE MOUNTAIN

ARIZONA NEVADA

DOLAN SPRINGS

COTTONWOOD COVE

SEARCHLIGHT

LAKE MOHAVE

KATHERINE LANDING

DAVIS DAM

0 1 2 MILES

N

MAP II A. 5.

EAST FORK OF THE BONELLI FERRY ROAD SYSTEM

South of the Colorado River

LAKE MEAD NATIONAL RECREATION AREA

UNITED STATES DEPARTMENT OF THE INTERIOR/NATIONAL PARK SERVICE

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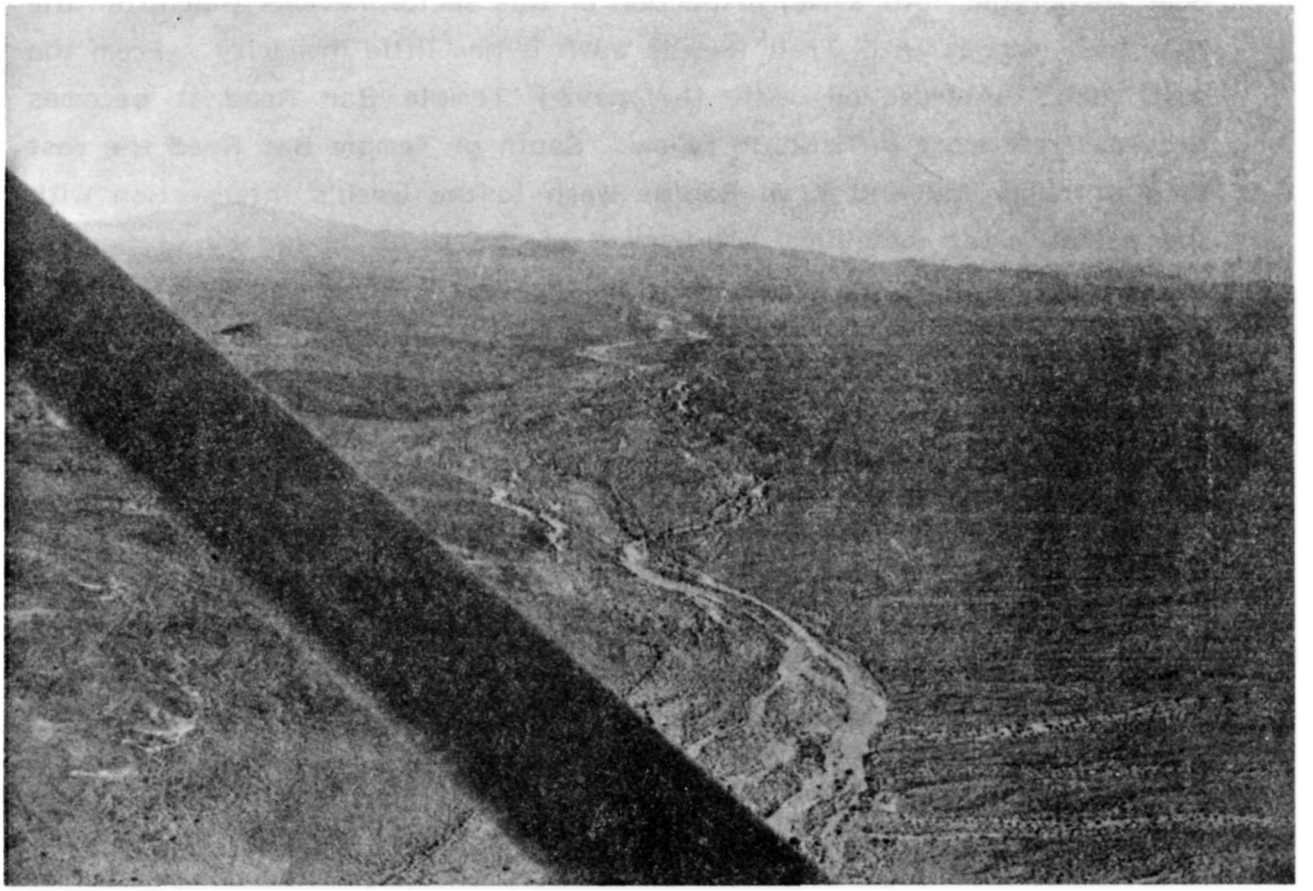
APR 83| DSC

ILLUSTRATION II.A.3

Detrital Wash, looking south to the southern boundary of LAME.

Photograph by Nick Scrattish, July 2, 1982.



sector of the old Bonelli Road can be traced by using four U.S.G.S. fifteen minute quadrangles. A composite of the four is included in this assessment as Map II.A.4.

Nowadays the northern terminus of the east fork of the Bonelli Ferry Road south of Lake Mead can be matched to the southern extremity of the East Gypsum Bay inlet on the U.S.G.S. Virgin Basin fifteen minute quadrangle. This quadrangle was prepared in 1953 and revised in 1970. It shows that in Townships 21 and 22 S., R.68E., the east fork became a jeep trail to its intersection with the Temple Bar Road, approximately 3 miles southwest of the present-day Temple Bar boat anchorage. An aerial inspection of this sector reveals that after the jeep trail merges with Trail Rapids Wash it has little integrity. From the east fork's intersection with the paved Temple Bar Road it becomes progressively more difficult to follow. South of Temple Bar Road the east fork probably followed Trail Rapids Wash to the wash's intersection with the park's south boundary (mid-point of the south boundary of Section 19, T.30N., R.19W.).[7] The route of the east fork is represented on a composite of the Virgin Basin and Senator Mountain quadrangles (Map II.A.5).

2. History and Significance

Available evidence indicates that for the period 1877-1900 the Bonelli Ferry Road was an important one crossing the Colorado River west of Lee's Ferry. The west fork of the Bonelli road system south of the Colorado was used as a supply line for hay, fruits, vegetables, salt, and manpower to White Hills, Cerbat, Chloride, Hackberry, and nearby Arizona camps.[8] In a more general sense the Bonelli Ferry Road

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7. This area was inspected by the author and Jim Vanderford of the LAME staff by airplane on July 2, 1982.

8. Arizona State Historic Property Inventory for Bonelli Ferry and Connecting Roads, A-107 in v. 2 of WESTEC, 1980.

connected isolated Arizona communities with St. George via St. Thomas.[9] Melvin Smith has demonstrated that mines and their needs provided more permanent support for the viability of Bonelli Ferry and its roads than Mormon traffic.[10]

3. Eligibility Status

Admittedly the Bonelli Ferry Road is of regional and probably interregional significance. Nevertheless, the criterion of integrity presents problems for NRHP nomination status. All of the Bonelli system north of Lake Mead is submerged. South of Lake Mead the east fork of the Bonelli Ferry Road is virtually impossible to verify with a reasonable degree of accuracy. The west fork, south of Lake Mead, is identifiable on the ground, for it still provides public access to Bonelli Bay, but it has been severely impacted through years of use. Approximately 6 miles of this road has been widened and graded, and the rest has been paved.

The purpose of nomination and preservation of any portion of a historic road or trail is not to commemorate or preserve a route, but to preserve a tangible example of the form of an old horse trail, wagon road, plank road, puncheon road, or early paved road. From that perspective, the Bonelli Ferry Road lacks sufficient integrity for nomination to the NRHP. The northern portion of the road has been completely submerged, the east fork of the south portion cannot be verified, and the west fork has been reshaped through widening, grading, and paving to the point that it no longer bears any meaningful resemblance to its historical form.

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9. A stage route was established as early as 1877, with the distance from the mouth of Virgin to Prescott calculated at 203 miles. Smith, 1972, p. 432 and source cited.

10. Ibid., p. 425.

B. Pearce Ferry Road

1. Original Locations

Within the present boundaries of LAME the original Pearce Ferry Road south to Lake Mead is delineated on a composite (Map II.B.1) of the U.S.G.S. seven and one-half minute quadrangles for Gyp Hills, Arizona, and Snap Canyon West, Arizona, both of which were prepared in 1971. This route is based on one found to Pearce Ferry between 36°0' and 36°30' on the U.S.G.S. sixty minute reconnaissance map for Mt. Trumball, first published in March 1892 and reprinted in May 1913 (Map II.B.2).

In his 1980 study Belshaw described the route of the Pearce Ferry Road from St. George, Utah, to the old Pearce Ferry landing as follows:

> The route that eventually evolved left St. George to climb the dugway up Mokiac Canyon to Wolf Hole, thence to Grand Wash down which it passed until it intercepted Pigeon Wash, which was followed to Tasi Wash. From Tasi Wash, the trail crossed a bench to Snap Canyon, near the mouth of which another bench was crossed leading to Pearce Wash.[1]

A map of the now-inundated Pearce Ferry area, prepared for the BOR in 1980, shows the spatial relationship of several historic sites near the ferry (Map II.B.3). This map indicates that south of the Colorado River the Pearce Ferry Road followed Grapevine Wash to its intersection with the park's south boundary (mid-point, south boundary, Section 8, T.30N., R.16W.). Available information, inclusive of David Kimball's 1879 account,[2] strongly implies the ferry road south of the river did follow Grapevine Wash west of Grapevine Mesa. A composite (Map II.B.4) of the U.S.G.S. fifteen minute quadrangle sheets for Iceberg Canyon, Arizona (1953), and Garnet Mountain, Arizona (1960), delineates the probable route of the original Pearce Ferry Road from Lake Mead south to the park's south boundary.

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1. Belshaw, 1980, p. 134.

2. Deseret News (Salt Lake City), March 24, 1880, cited by Smith, 1972, pp. 392-93, and Belshaw, 1980, pp. 138-39.

2. History and Significance

Melvin Smith has determined that between 1862 and 1877 sectors of what later became the Pearce Ferry Road were traversed by Jacob Hamblin (1862-63), Erastus Snow (1868), and the George M. Wheeler survey party (1871).[3] Harrison Pearce established the ferry landing in December 1876 at the request of the Mormon Church. The 1880 Eckhoff and 1892 Smith maps labeled it the "Colorado Crossing."[4] Harrison Pearce was never able to build the ferry landing into a successful enterprise. In 1883 Pearce requested the church to release him from his call. Shortly afterward he settled with his son in Taylor, Arizona. The Pearce Ferry Road's principal significance is that between 1877 and 1883 it comprised a north-south route connecting Mormon settlements to the north of the Colorado River with towns and mines south of the river. Mormon settlers in southern Utah, particularly residents of St. George, did sometimes cross the Colorado at Pearce Ferry to visit parts of Arizona.[5] Mining developments south of the Colorado also generated temporary interest in the crossing.[6] North of the Colorado, Tassi Springs--within LAME's boundaries--was one of the three most reliable sources of water and feed for users of the road. The springs are emphasized with a box on Map II.B.1. Illustration II.B.1 is a recent aerial view of the area.

3. Eligibility Status

The Pearce Ferry Road is clearly of historical significance at least on the local and possibly on the regional level, but unfortunately lacks integrity. The purpose of nomination and preservation of any portion of a historic road or trail is not to commemorate or preserve a route, but to preserve a tangible example of the form of an old horse

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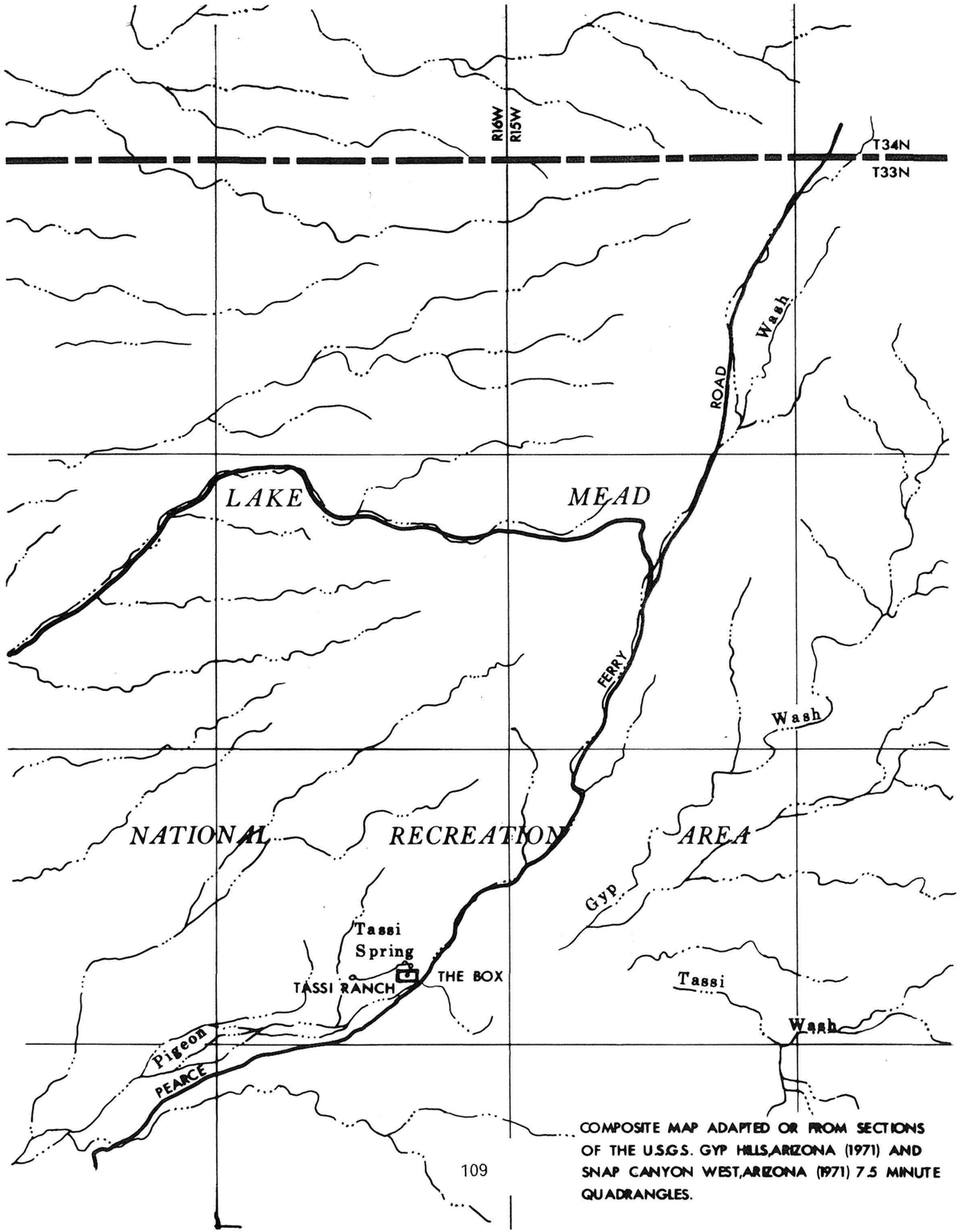
3. Smith, 1972, pp. 379-83.

4. William C. Barnex, Arizona Place Names (Tucson, Arizona: University of Arizona Press, 1960), p. 331.

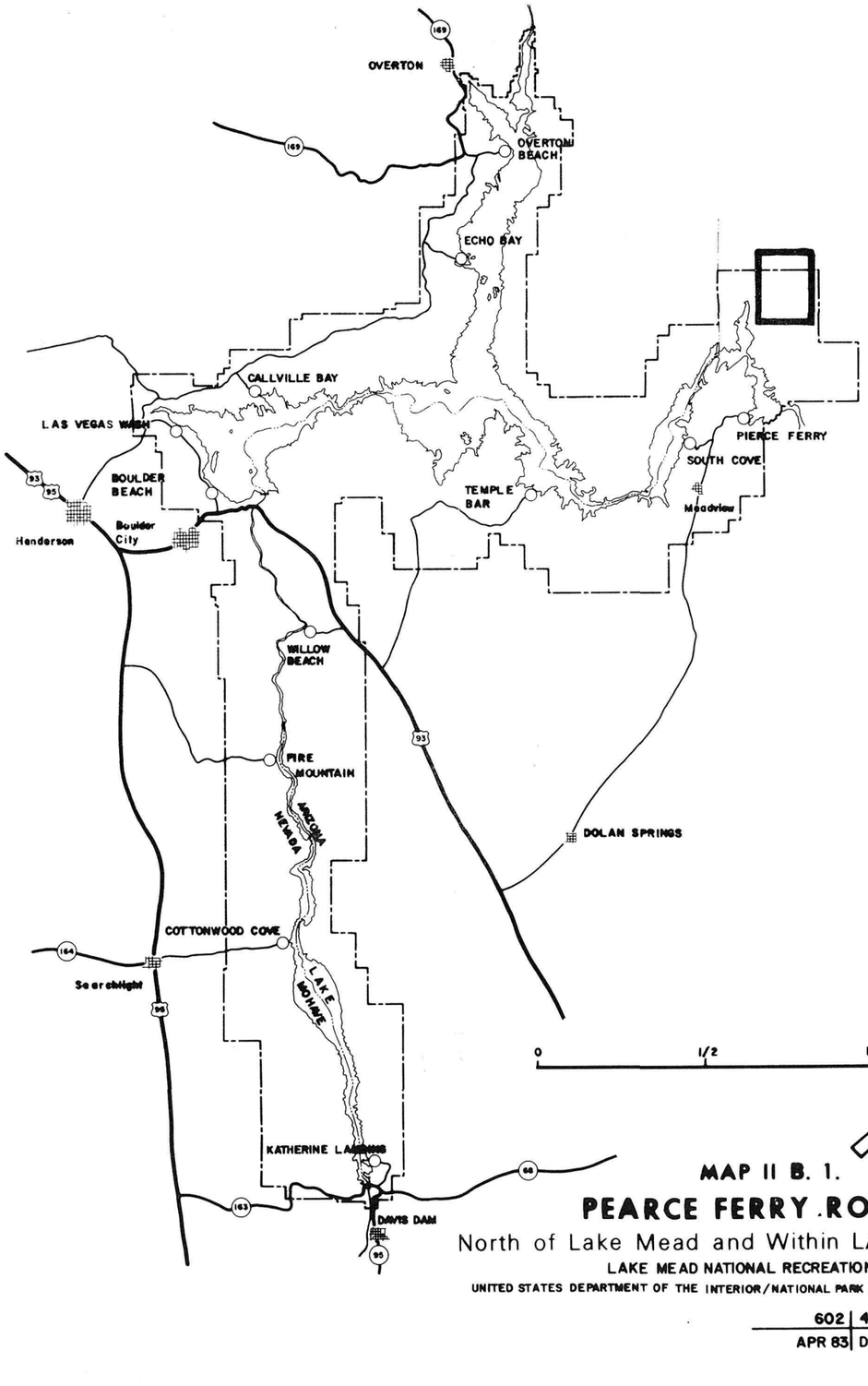
5. Church of Latter Day Saints Manuscript Histories, MS f 682#6, Arizona, Church of Latter Day Saints Archives, Salt Lake City, Utah.

6. Belshaw, 1980, p. 40.

trail, wagon road, plank road, puncheon road, or early paved road. From that perspective, the Pearce Ferry Road lacks integrity because it has been thoroughly bulldozed, widened, deepened, rerouted in minor fashion, and so reshaped that it bears no resemblance today to the old 19th century wagon road it once was. Lacking integrity, it therefore fails to qualify for nomination to the National Register of Historic Places.



COMPOSITE MAP ADAPTED OR FROM SECTIONS OF THE U.S.G.S. GYP HILLS, ARIZONA (1971) AND SNAP CANYON WEST, ARIZONA (1971) 7.5 MINUTE QUADRANGLES.



MAP II B. 1.

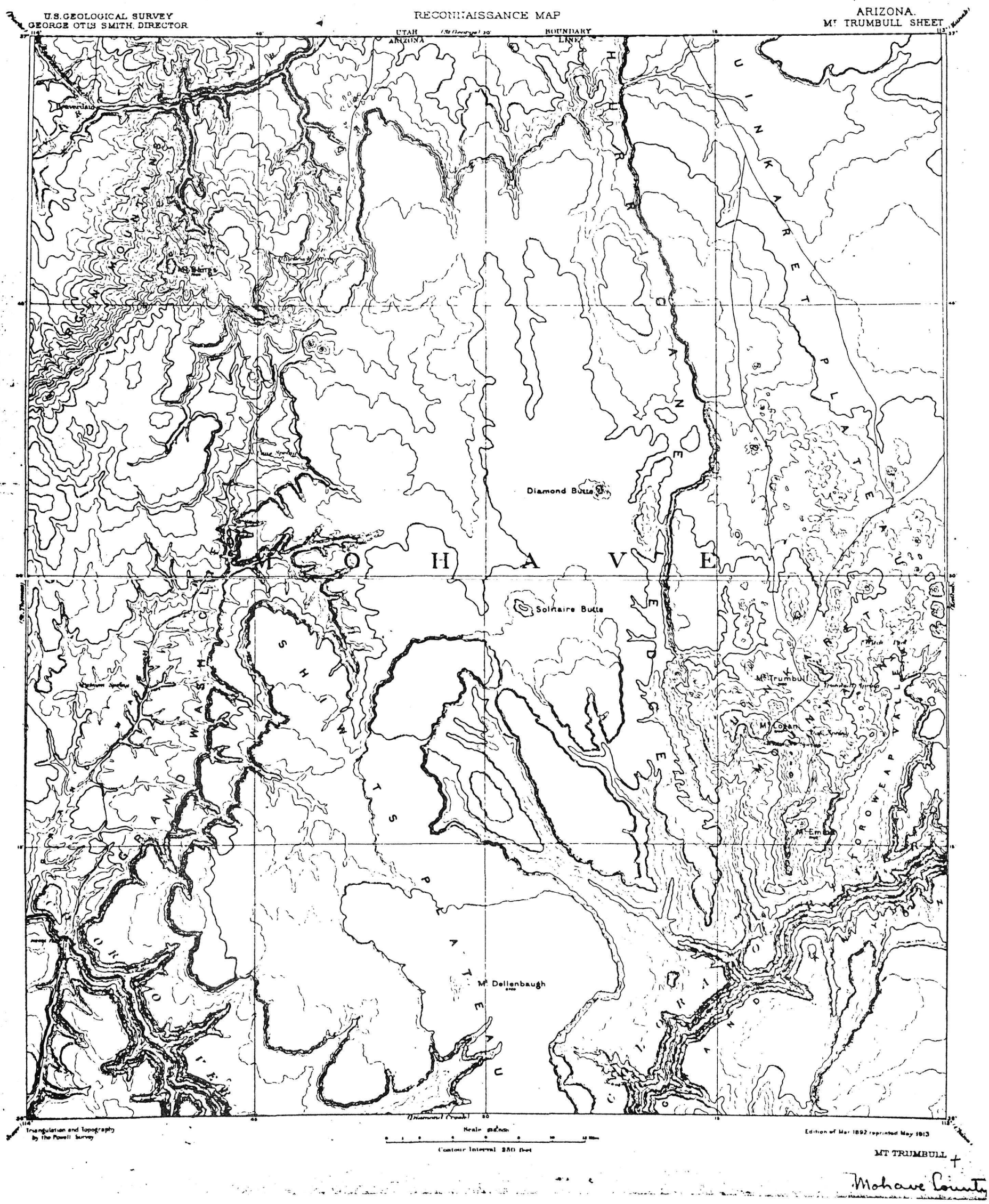
PEARCE FERRY ROAD

North of Lake Mead and Within LAME

LAKE MEAD NATIONAL RECREATION AREA

UNITED STATES DEPARTMENT OF THE INTERIOR/NATIONAL PARK SERVICE

602 | 40072
APR 83 | DSC



MAP II.B.2

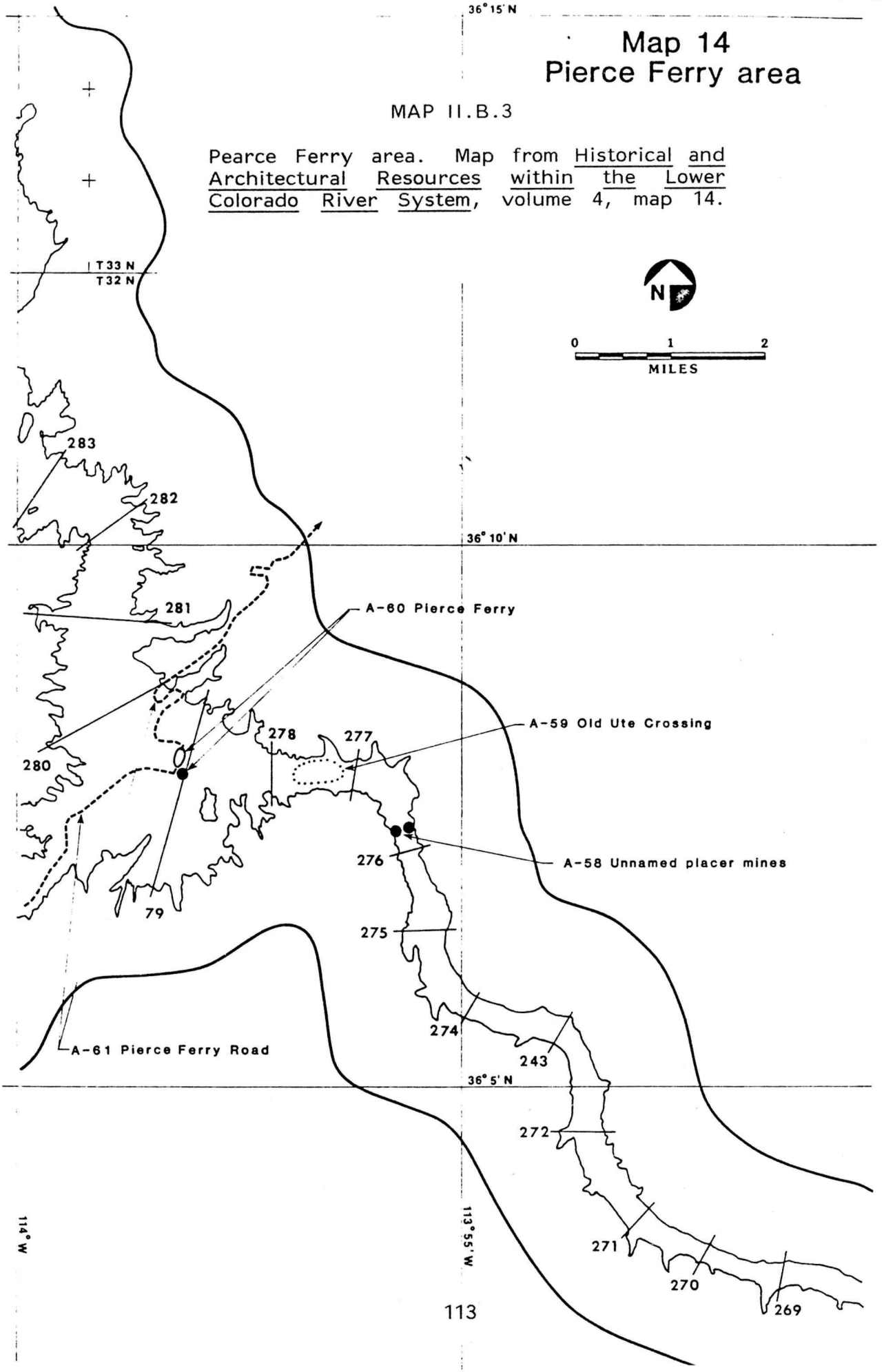
The Mt. Trumball 60' quadrangle, first published by the U.S.G.S. in March 1892 and reprinted in May 1913.

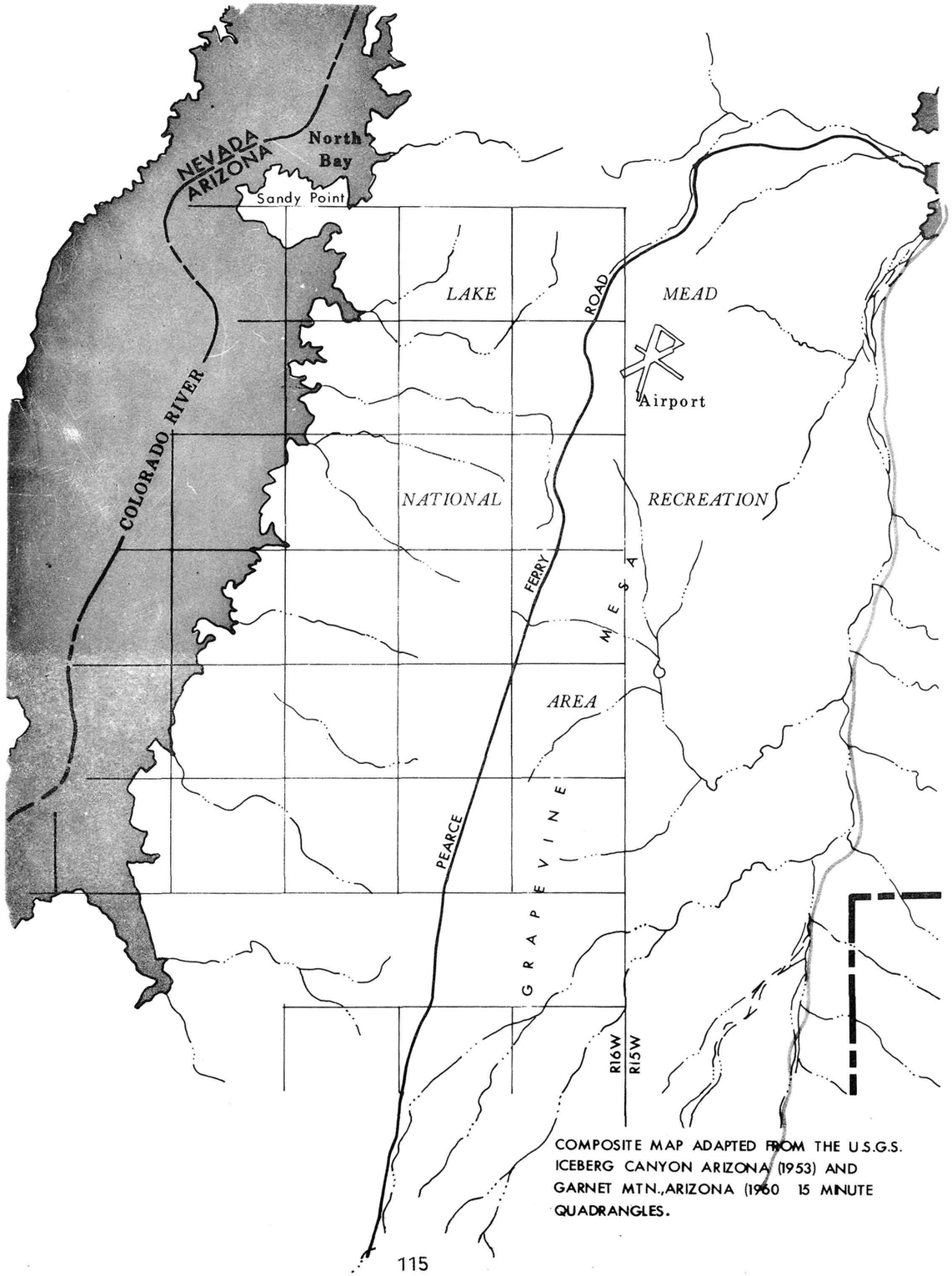
Map courtesy of the Arizona State Historical Society, Tucson, Arizona.

Map 14
Pierce Ferry area

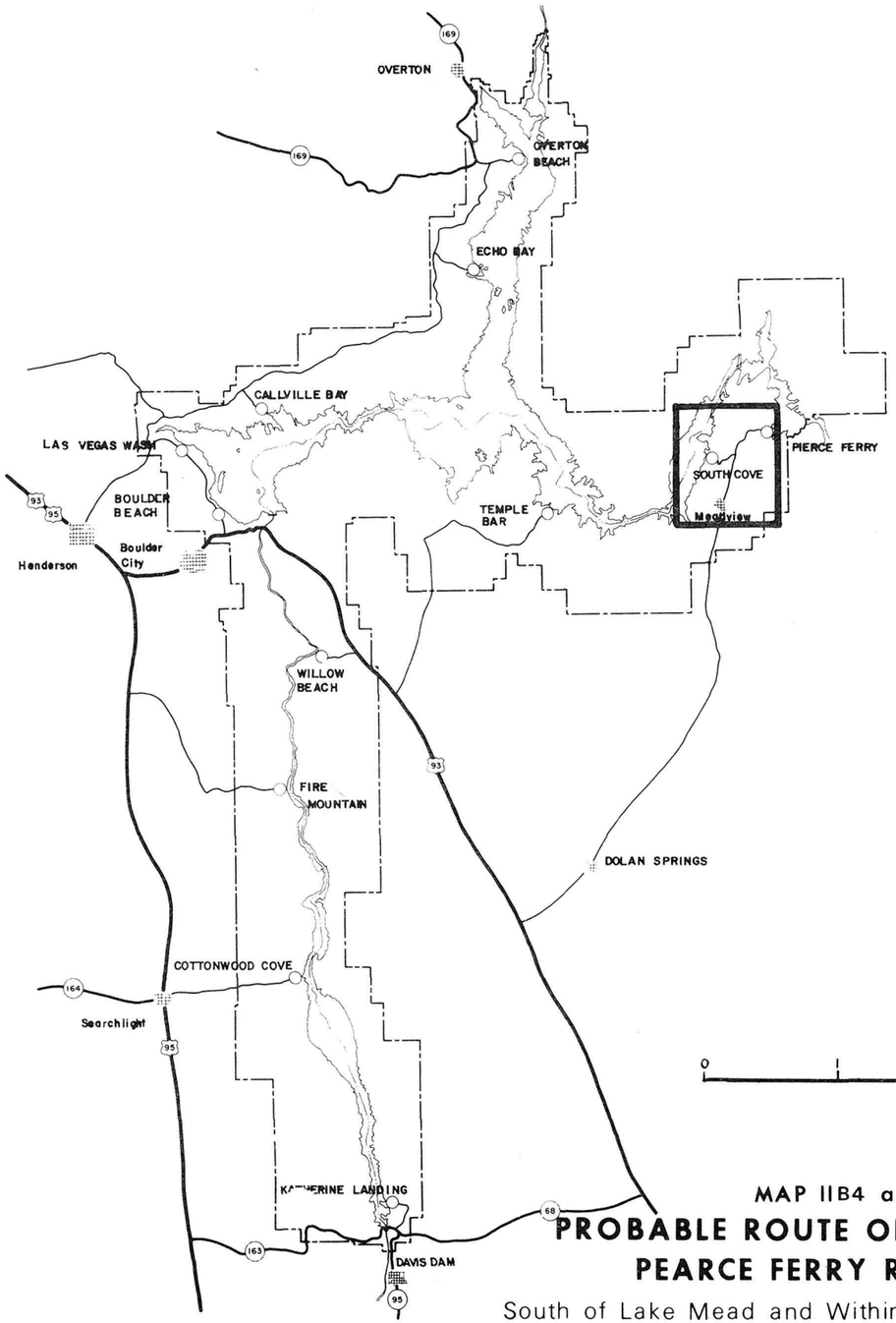
MAP II.B.3

Pearce Ferry area. Map from Historical and Architectural Resources within the Lower Colorado River System, volume 4, map 14.





COMPOSITE MAP ADAPTED FROM THE U.S.G.S. ICEBERG CANYON ARIZONA (1953) AND GARNET MTN., ARIZONA (1960 15 MINUTE QUADRANGLES.



0 2 MILES

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MAP IIB4 a.

PROBABLE ROUTE OF THE PEARCE FERRY ROAD

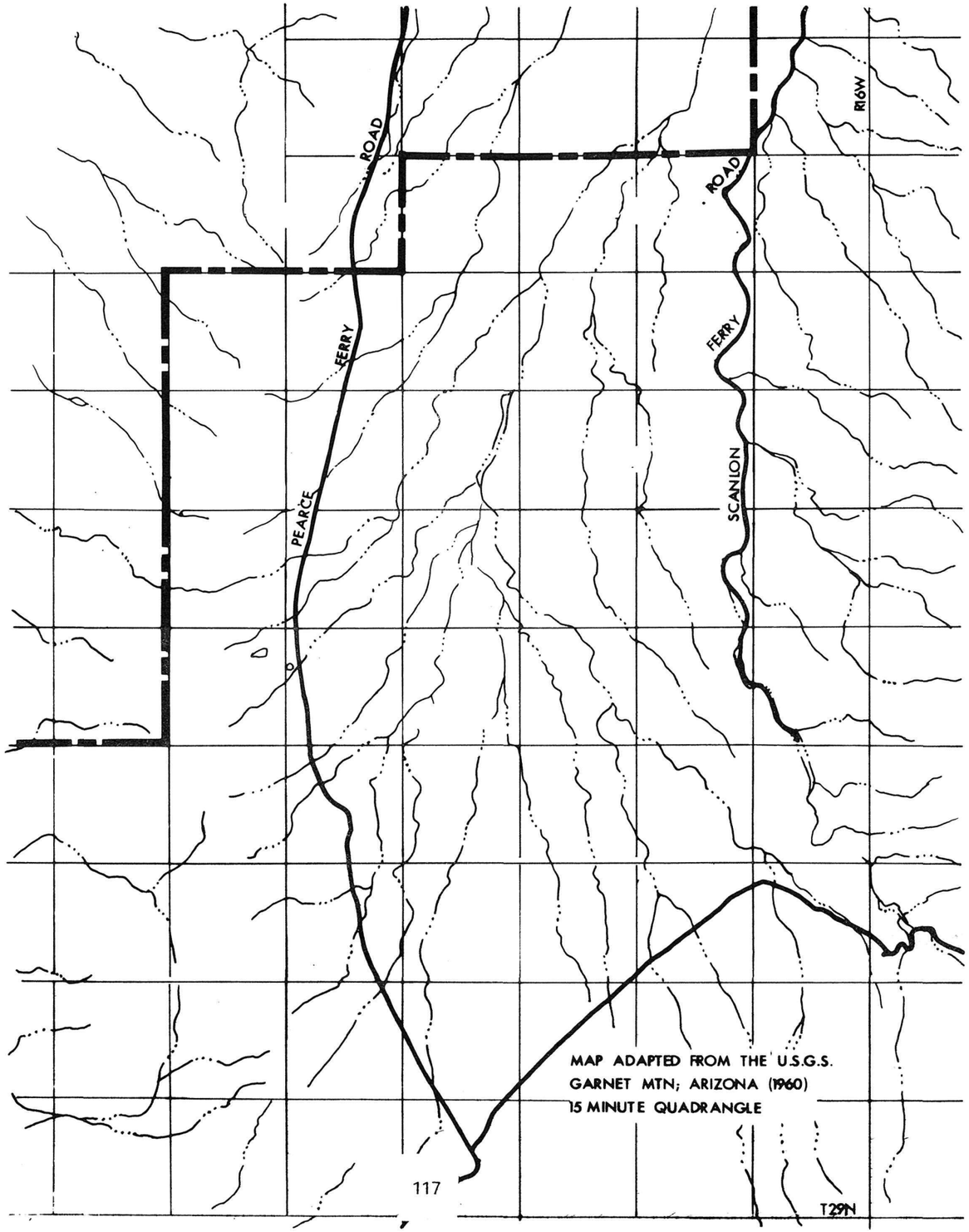
South of Lake Mead and Within LAME

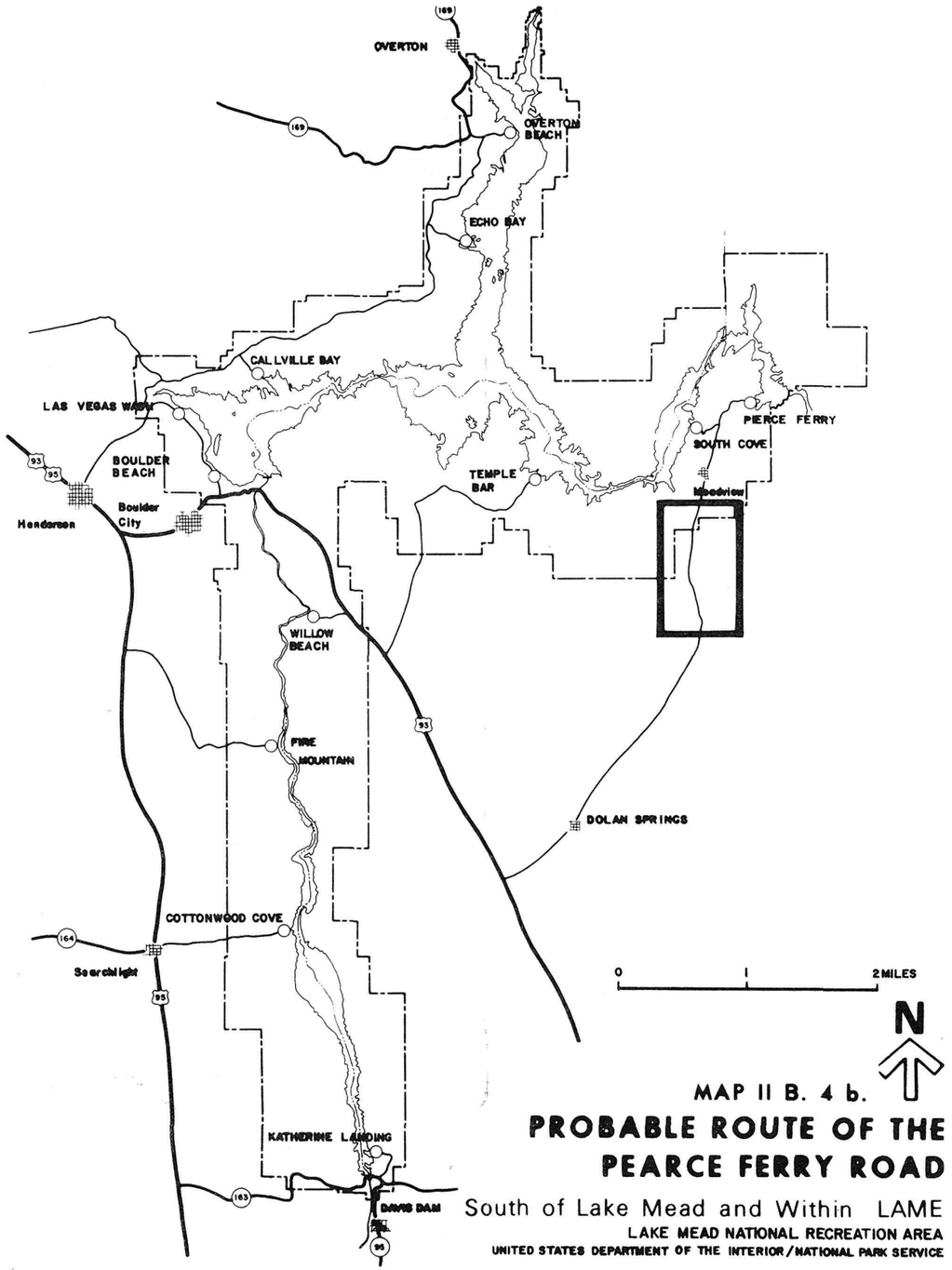
LAKE MEAD NATIONAL RECREATION AREA

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

602 | 40074

APR 83 | DSC





MAP II B. 4 b.

PROBABLE ROUTE OF THE PEARCE FERRY ROAD

South of Lake Mead and Within LAME

LAKE MEAD NATIONAL RECREATION AREA

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

602 | 40071
APR 83 | DSC

ILLUSTRATION II.B.1

Tassi Springs (upper right) and existing Pearce Ferry Road, looking north to the springs.

Photograph by Nick Scrattish, July 2, 1982.

C. Scanlon Ferry Road

1. Original Locations

Within the present boundaries of LAME the probable route of the Scanlon Ferry Road south to Lake Mead--inclusive of the Scanlon Dugway--is delineated on an adaptation of a section of the U.S.G.S Iceberg Canyon, Arizona-Nevada fifteen minute quadrangle (Map II.C.1). The dugway crosses the park's northern boundary (cross-hatched area, Map II.C.1)--the northern boundary of Section 32, T.20S., R.70E. According to Melvin Smith,

> by the mid-eighties most traffic into the Grand Wash area probably swung west as it neared the Colorado to descend to the river at Scanlon's Ferry. A second route from the Gold Hills led directly south down Scanlon Dugway. . . . On the south an easy ascent was made from the river into Hualapai Wash for travel to the White Hills or points south.[1]

Map II.C.2, a section of the U.S.G.S. Garnet Mountain, Arizona, fifteen minute quadrangle, delineates the probable route of the Scanlon Ferry Road south to LAME's south boundary in this area (south boundary, Section 12, T.29N., R.18W.). A map of the now inundated Scanlon Ferry area, prepared for the BOR in 1980, shows the spatial relationship of several historic sites near the ferry (Map II.C.3).

2. History and Significance

William C. Barnes indicated that in 1881 Mike Scanlon, a prospector in the White Hills, established his ferry and a ranch nearby.[2] Scanlon probably traveled to the river for water, and visualized the north bank's potential for a homesite. The Scanlon ranch produced diverse

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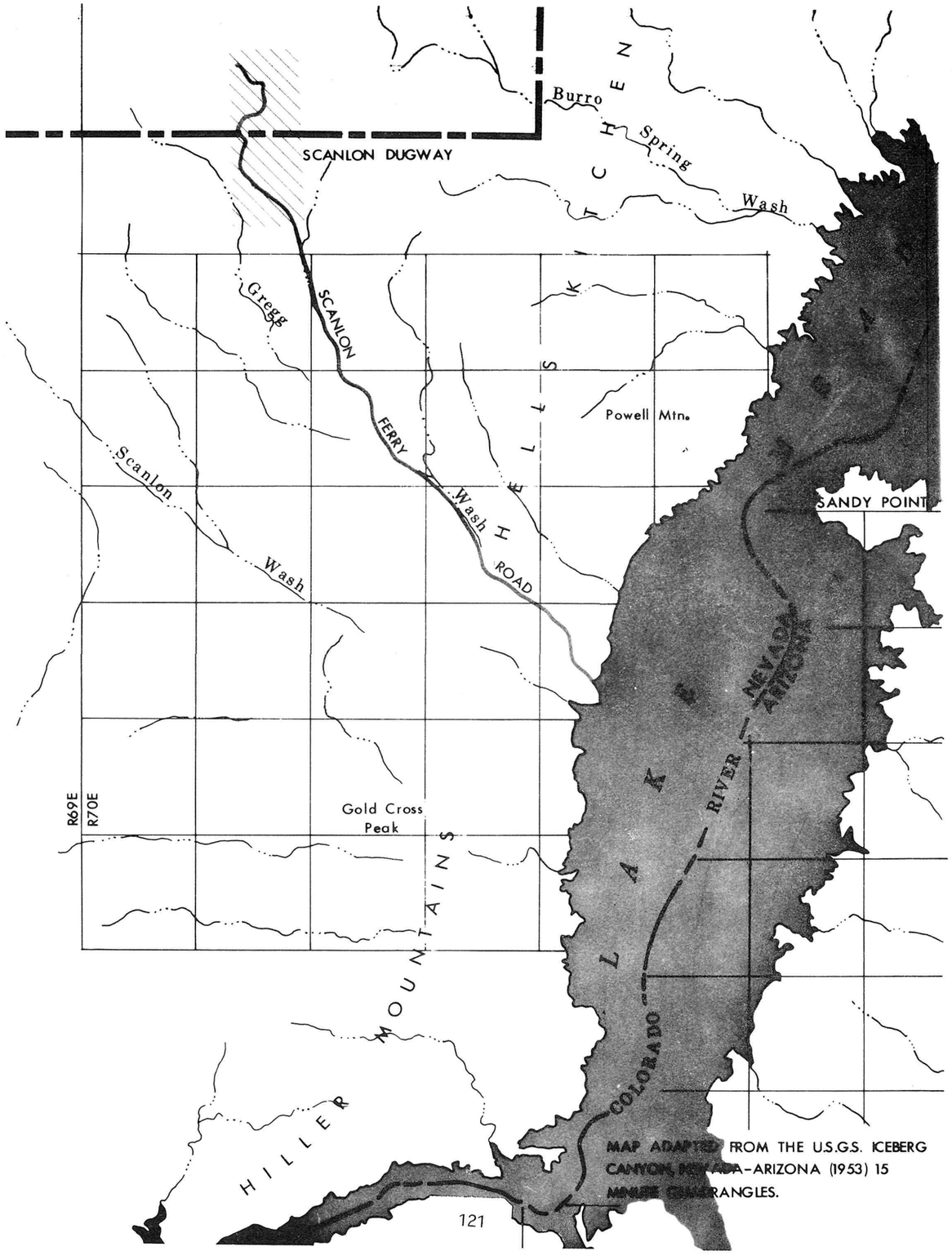
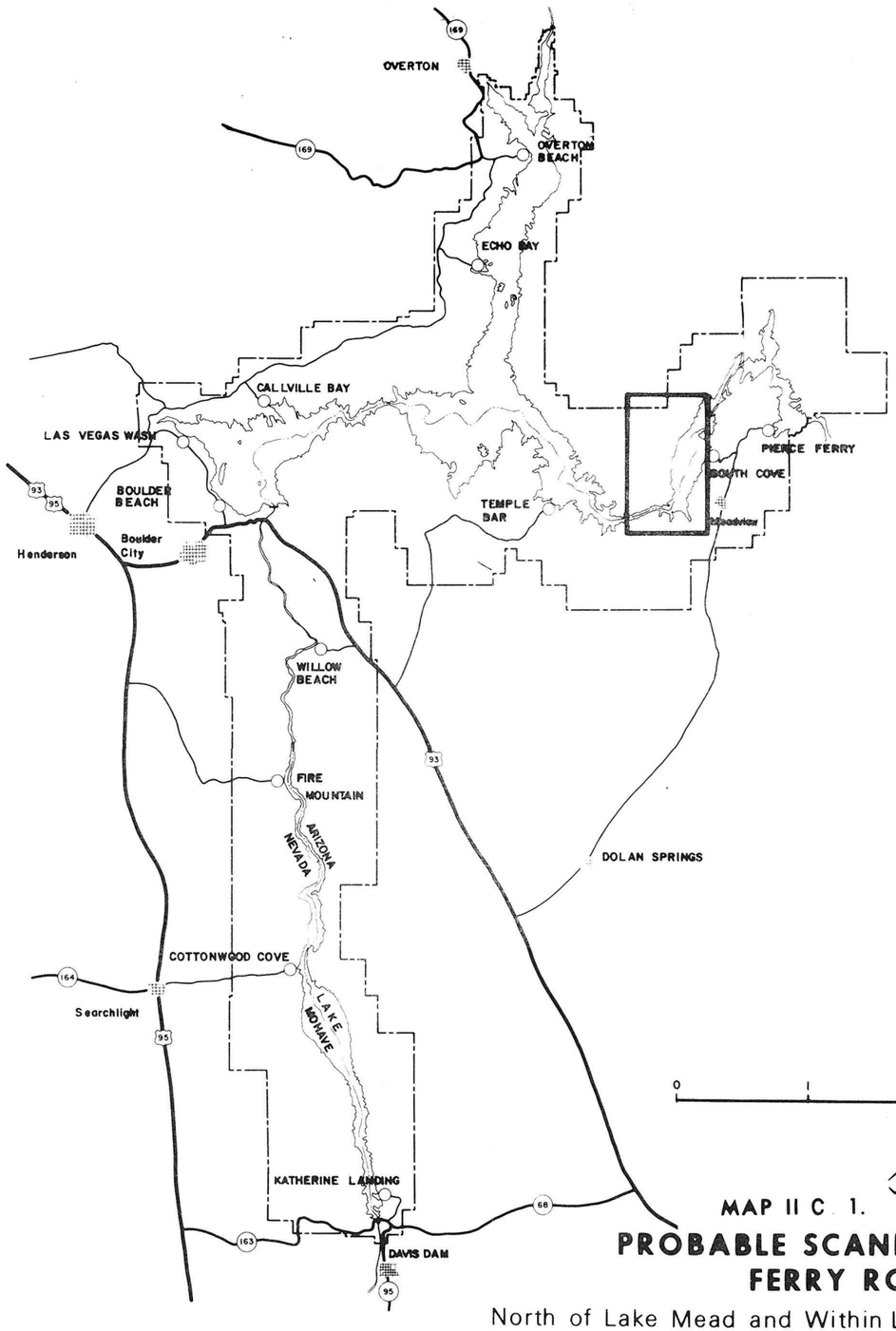
1. Smith obtained this information on March 19, 1968, from Walter Iverson, in an interview conducted at Iverson's Washington, Utah, residence. See Smith, 1972, p. 406.

2. Barnes, 1960, pp. 211 and 222. Cited by Smith, 1972, p. 407. See also Averett, 1963, pp. 16 and 34.



MAP ADAPTED FROM THE U.S.G.S. ICEBERG CANYON, NEVADA-ARIZONA (1953) 15 MINUTE QUADRANGLES.



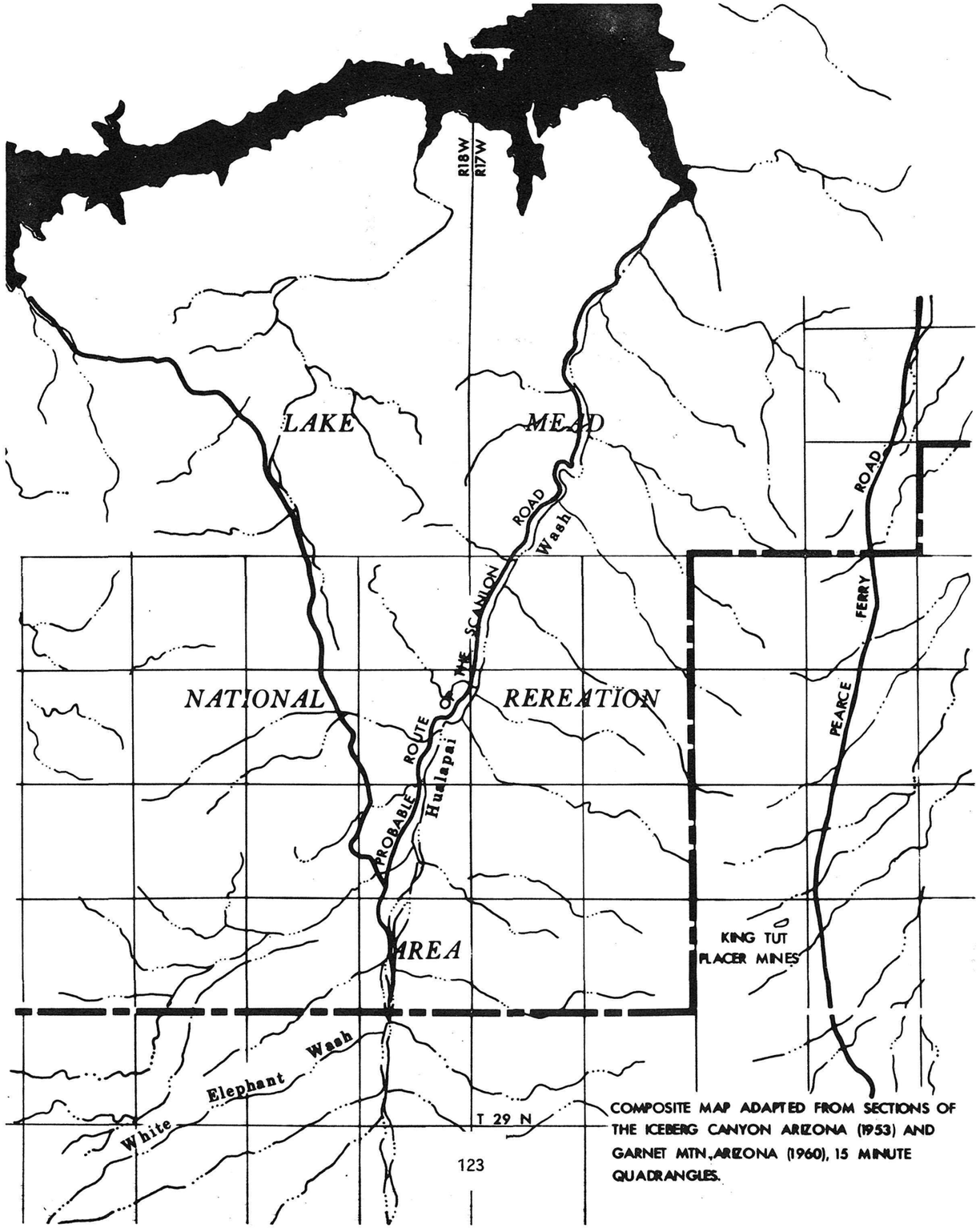
MAP II C 1.

PROBABLE SCANLON FERRY ROAD

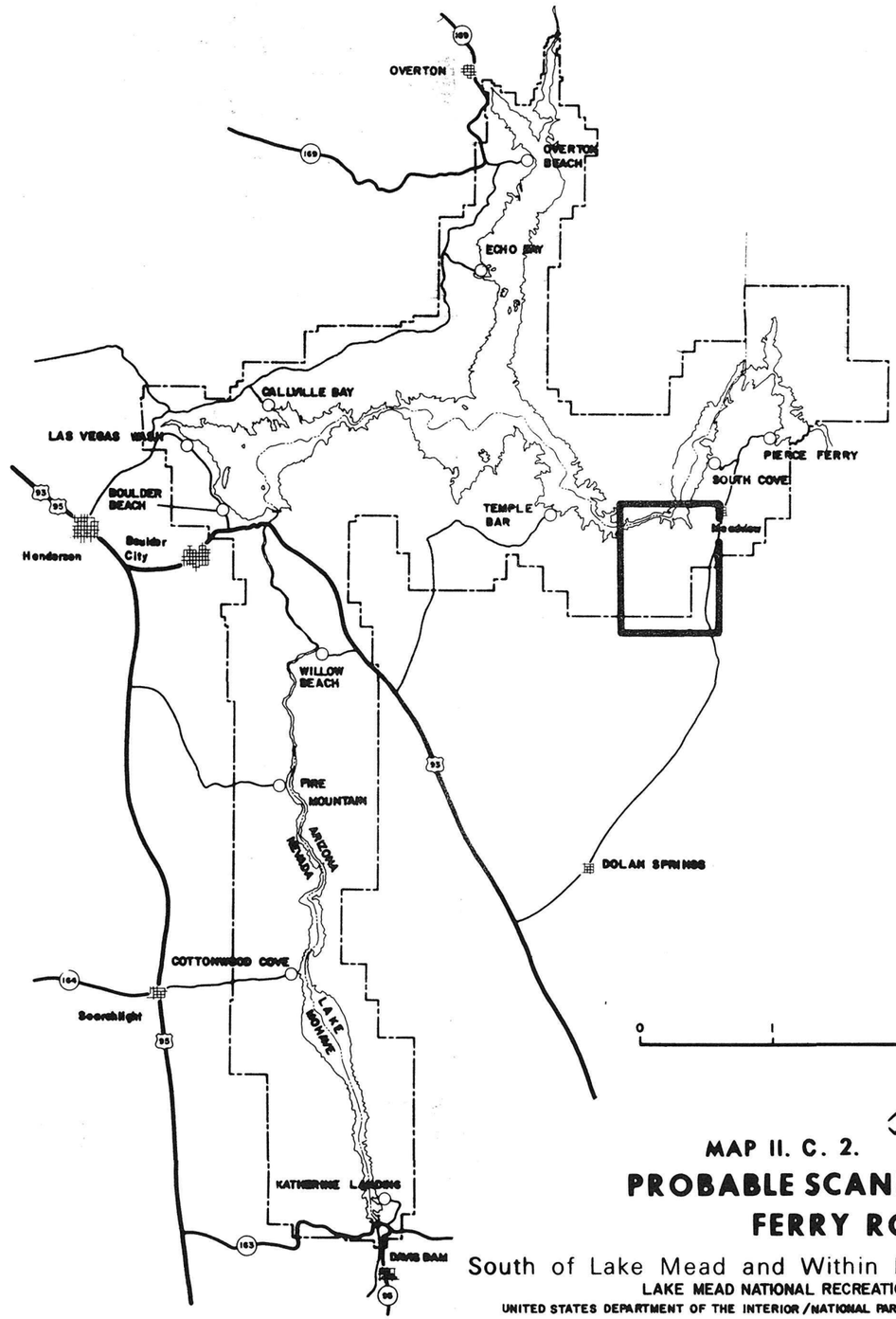
North of Lake Mead and Within LAME
(Inclusive of the Scanlon Dugway)

LAKE MEAD NATIONAL RECREATION AREA
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

602 | 40070
APR 83 | DSC



COMPOSITE MAP ADAPTED FROM SECTIONS OF THE ICEBERG CANYON ARIZONA (1953) AND GARNET MTN., ARIZONA (1960), 15 MINUTE QUADRANGLES.



MAP II. C. 2.

PROBABLE SCANLON FERRY ROAD

South of Lake Mead and Within LAME

LAKE MEAD NATIONAL RECREATION AREA

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

602| 40069
APR 83| DSC

fruits, including grapes, pomegranates, figs, and dates.[3] Scanlon may have established his ferry due, in part, to the inadequate services of Pearce Ferry.[4]

It was Scanlon, at an unknown date, who built the 2-mile dugway across Sections 29 and 32, T.20S., R.70E. Illustration II.C.1 is a view looking south toward Lake Mead. The photograph suggests the dugway's precipitous descent north into Jumbo Basin. Illustration II.C.2 permits a view to the south/southwest. Illustration II.C.3 is a full view of the dugway to the west. Belshaw noted that the dugway is "severely eroded and extremely hazardous."[5]

Use of the Scanlon Ferry and ferry road north of the Colorado was, from Scanlon's time, essentially local. Unlike the Bonelli and Pearce ferry roads, the Scanlon Ferry Road principally facilitated the transit of miners and their supplies to either side of the Colorado River. This traffic peaked in the 1890s when the White Hills in Arizona boomed. Smith and Belshaw have asserted that either in 1890 or 1893 Preston Nutter drove a large herd of cattle across Scanlon Ferry to the north side.[6] About 1923 George Hartman drove horses and cattle from Hackberry across the river at Scanlon Ferry to his home range.[7] It should be emphasized these drives were isolated events.

About 1900 Scanlon sold his ferry to Tom Gregg, who had been operating another ferry a short distance from Scanlon.[8] In November 1909 the Julius F. Stone river expedition reported Pearce Ferry

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3. Smith, 1972, p. 407.

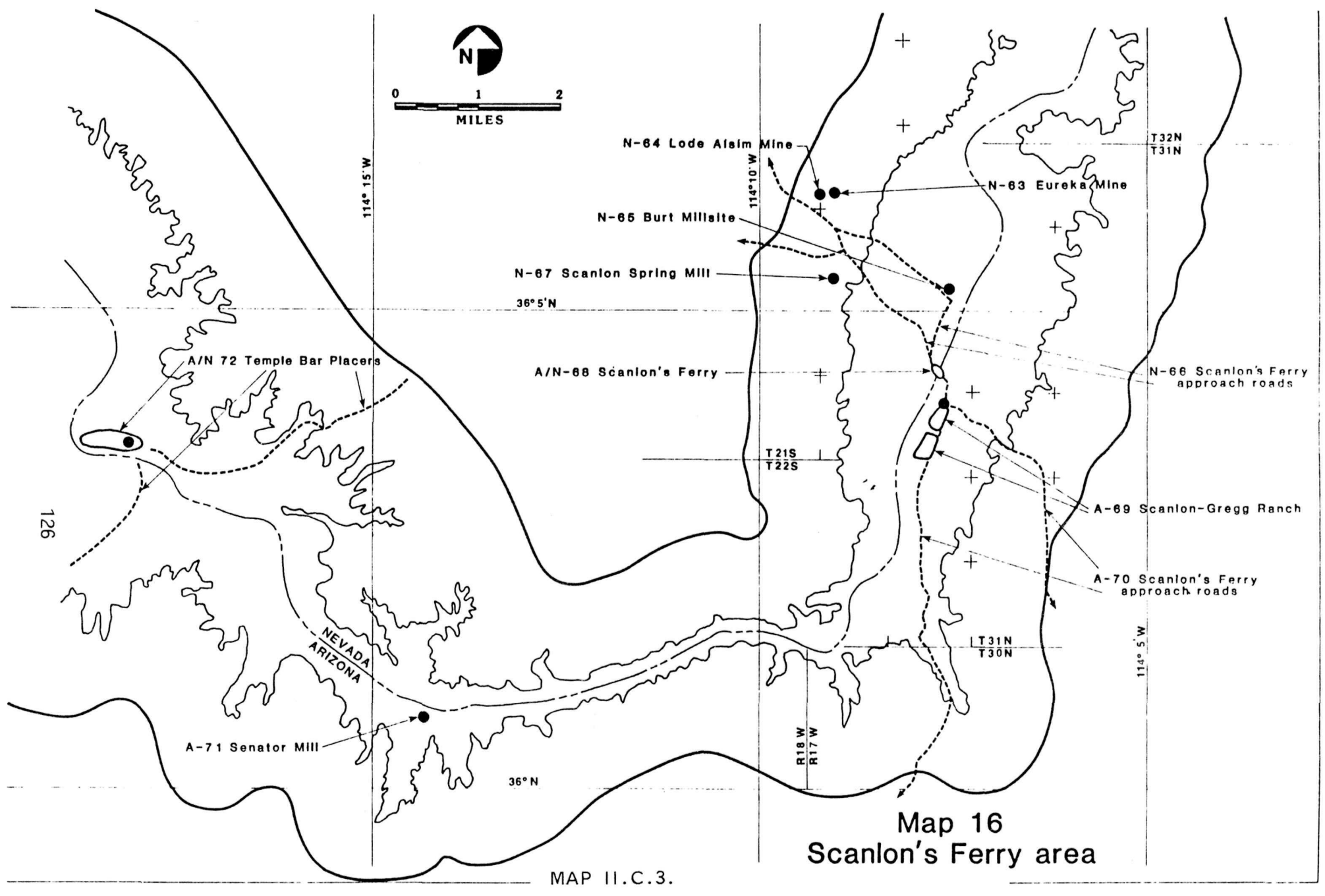
4. Ibid., p. 406.

5. Belshaw, 1980, p. 142.

6. Smith says 2,200 head in 1890, p. 408; Belshaw 5,000 head in 1893, p. 141.

7. Belshaw, 1980, p. 196.

8. Barnes, 1960, p. 211. Cited by Smith, 1972, p. 409.



MAP II.C.3.

Scanlon Ferry area. Map from Historical and Architectural Resources within the Lower Colorado River System, volume 4, map 16.

ILLUSTRATION II.C.1

Scanlon Dugway, looking south to Lake Mead.

Photograph by Nick Scrattish, July 2, 1982.

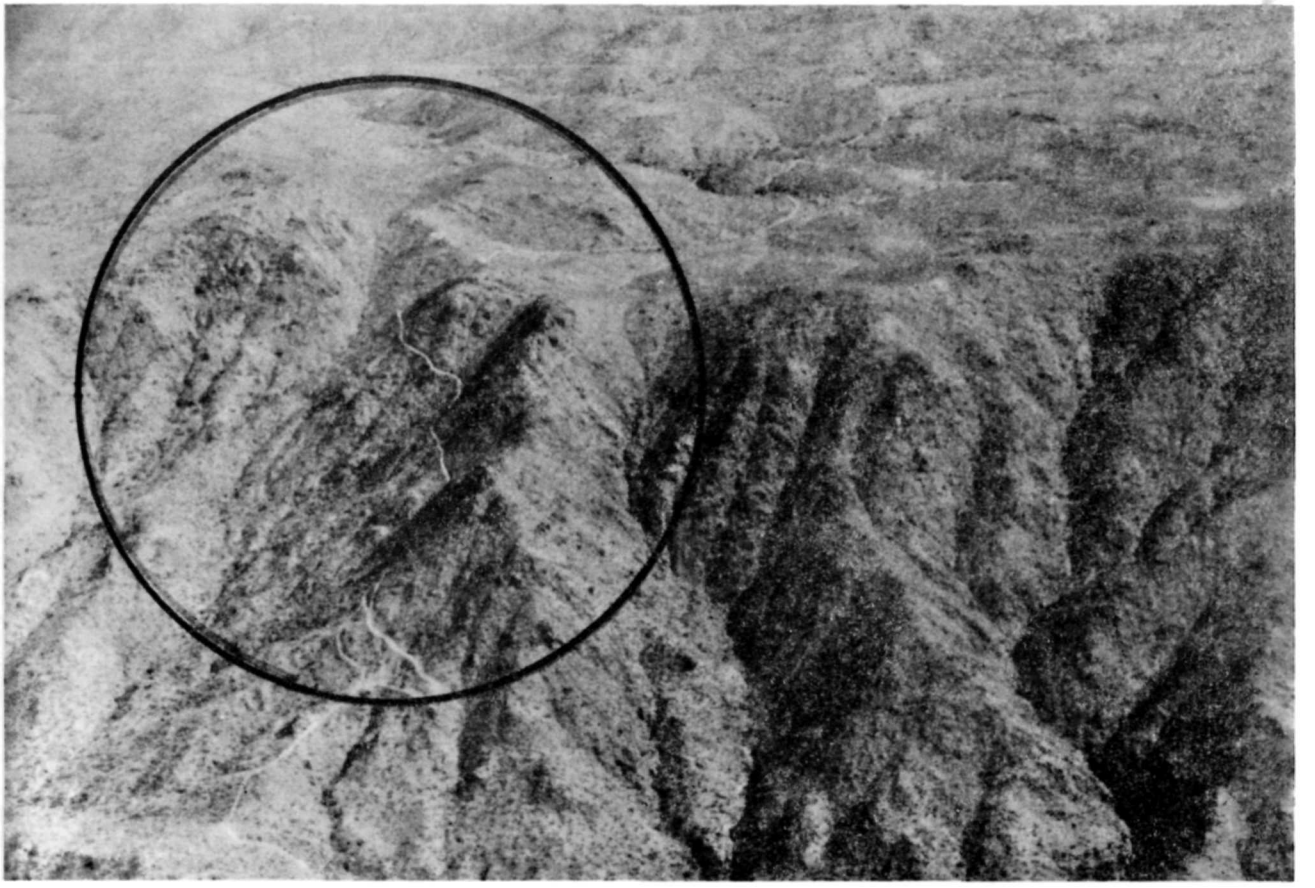


ILLUSTRATION II.C.2

Scanlon Dugway, looking south/southwest.

Photograph by Nick Scrattish, July 2, 1982.

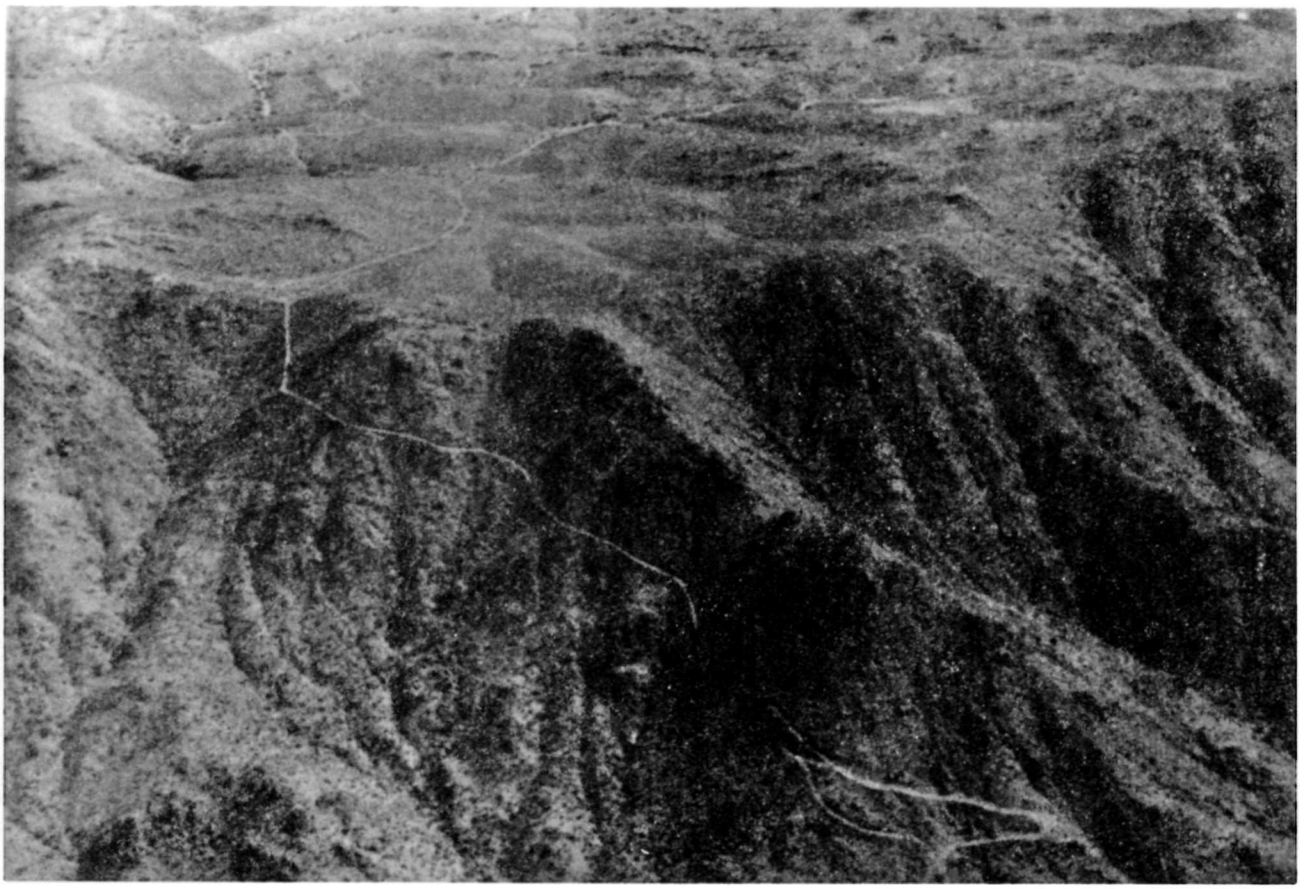
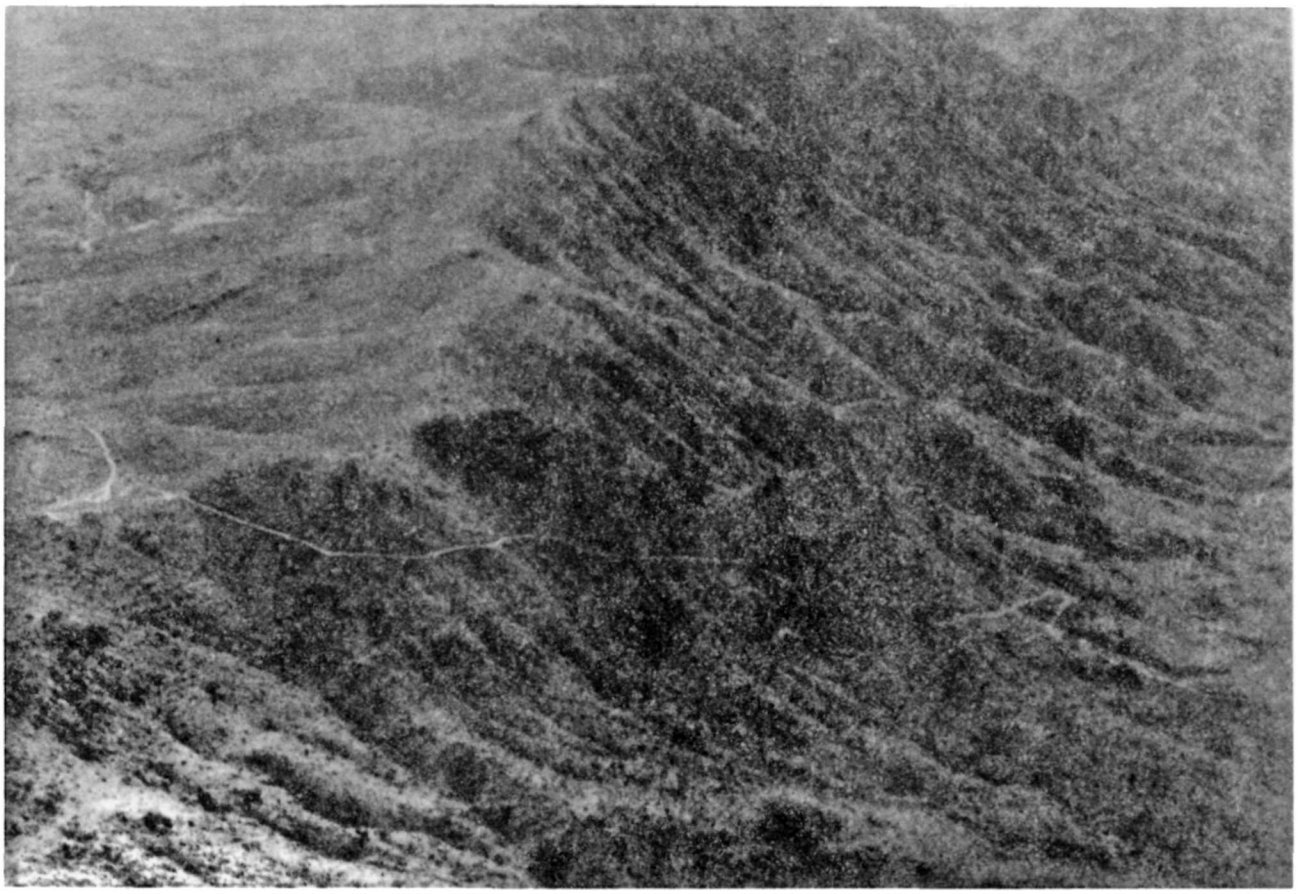


ILLUSTRATION II.C.3

Scanlon Dugway, looking west.

Photograph by Nick Scrattish, July 2, 1982.



was then abandoned.[9] Smith has pointed out the expedition may have mistaken Pearce Ferry for Scanlon Ferry.[10] According to Merle Frehner traffic along the Scanlon Ferry Road dried up after 1912.[11]

3. Eligibility Status

Although the Scanlon Ferry Road and the Scanlon Dugway probably meet the criteria for evaluation for local significance, the road as a whole lacks integrity for the same reasons as the Pearce Ferry Road--it has been so modernized by bulldozing that it no longer resembles the wagon road it once was. However, the 2-mile section of the road known as the "Scanlon Dugway" should either be nominated or submitted for a formal determination of eligibility. This section, too, has problems with integrity in that it is badly eroded and has been subject to some grading with a modern Caterpillar. But the very nature of the road and the topography it traverses has limited that modernization and has not changed the spectacular character and obvious difficulty of construction of the dugway. In other words, that 2-mile section, despite some alteration, probably possesses sufficient original character and sufficient integrity to qualify it for the National Register and should be nominated or a formal determination sought.

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9. Julius F. Stone, Canyon Country (New York: Putnam's Sons, 1932), p. 103.

10. Smith, 1972, pp. 403 and 410.

11. Nick Scrattish interview with Merle Frehner, July 3, 1982.

III. MISCELLANEOUS SITES

A. Pearce Ferry Seismic Station

1. Location and Description

This site is located at the eastern edge of the Iceberg Canyon, Arizona-Nevada, fifteen minute quadrangle. The site's approximate center is one-half mile due north of the Pearce Ferry boat anchorage (Map III.A.1). Sketch Map III.A.1 shows the spatial relationship of the site's two buildings and equipment platforms. Illustrations III.A.1-5 are recent views of them. Specifications and drawings for the buildings were issued by the Department of the Interior's BOR in February 1940.[1]

2. History, Significance, and Eligibility Status

Pearce Ferry seismic station began operating in December 1940 and was abandoned during 1943. The Overton, Nevada, seismic station also began operating in December 1940. These stations were preceded, in 1937, by an installation in the basement of the BOR's district headquarters building in Boulder City, Nevada. Use of the Pearce Ferry station was short-lived because of exigencies caused by World War II. The Pearce Ferry station was not reopened.[2] I recommend against nominating it to the NRHP because it was far less important than the Boulder City station, which monitored induced earthquake activity as the result of the filling of Lake Mead, and because of the short duration of its operation.

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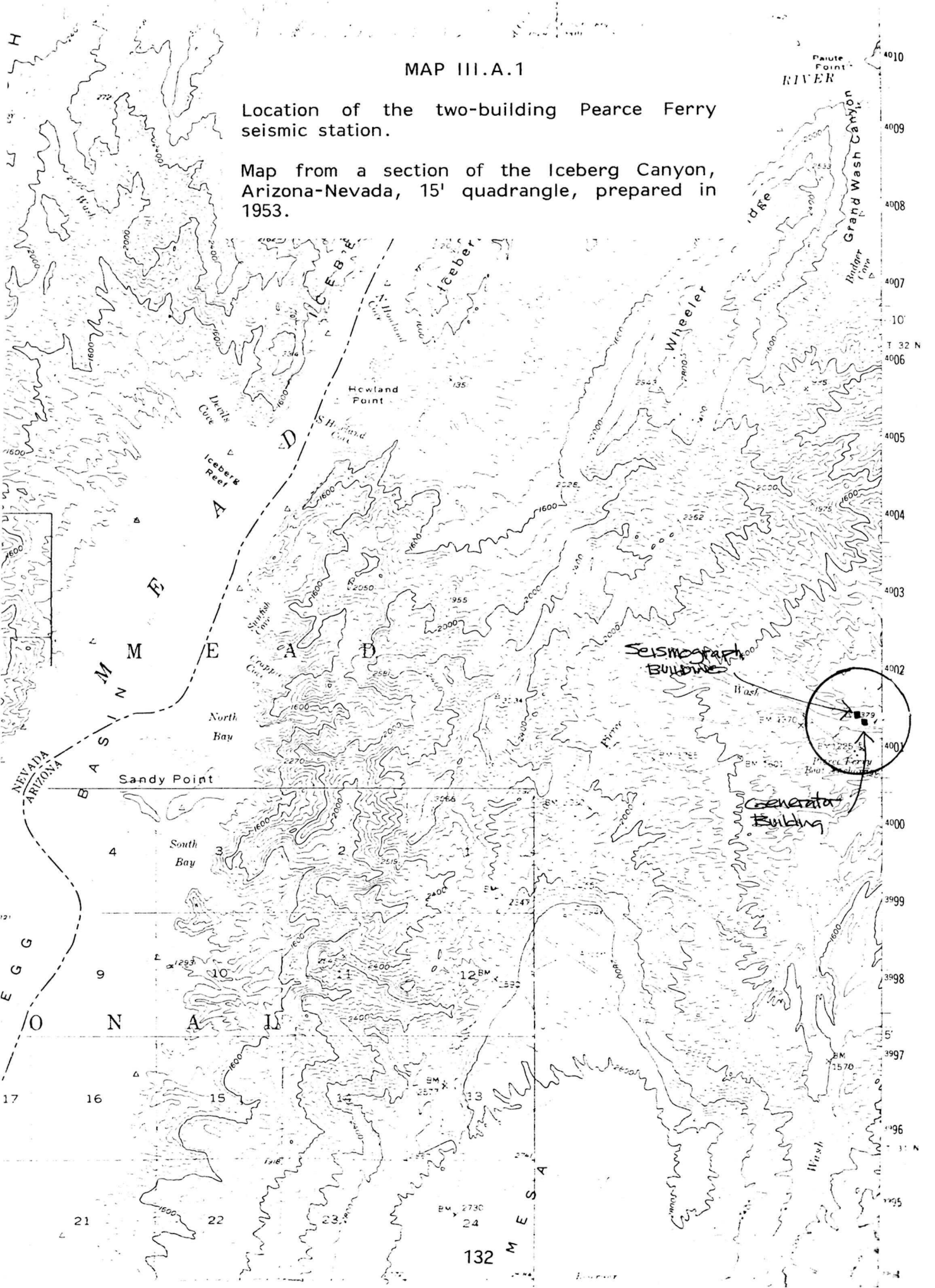
1. Scrattish interview with Birdsall J. Morrill, March 31, 1982. Mr. Morrill was a career geologist with the U.S.G.S. He spent several years working in the area of Lake Mead. While there, in the 1950s, he was told by Dr. D.S. Carder of the U.S. Coast and Geodetic Survey about the Pearce Ferry seismic station's origins and length of operation.

2. Ibid.

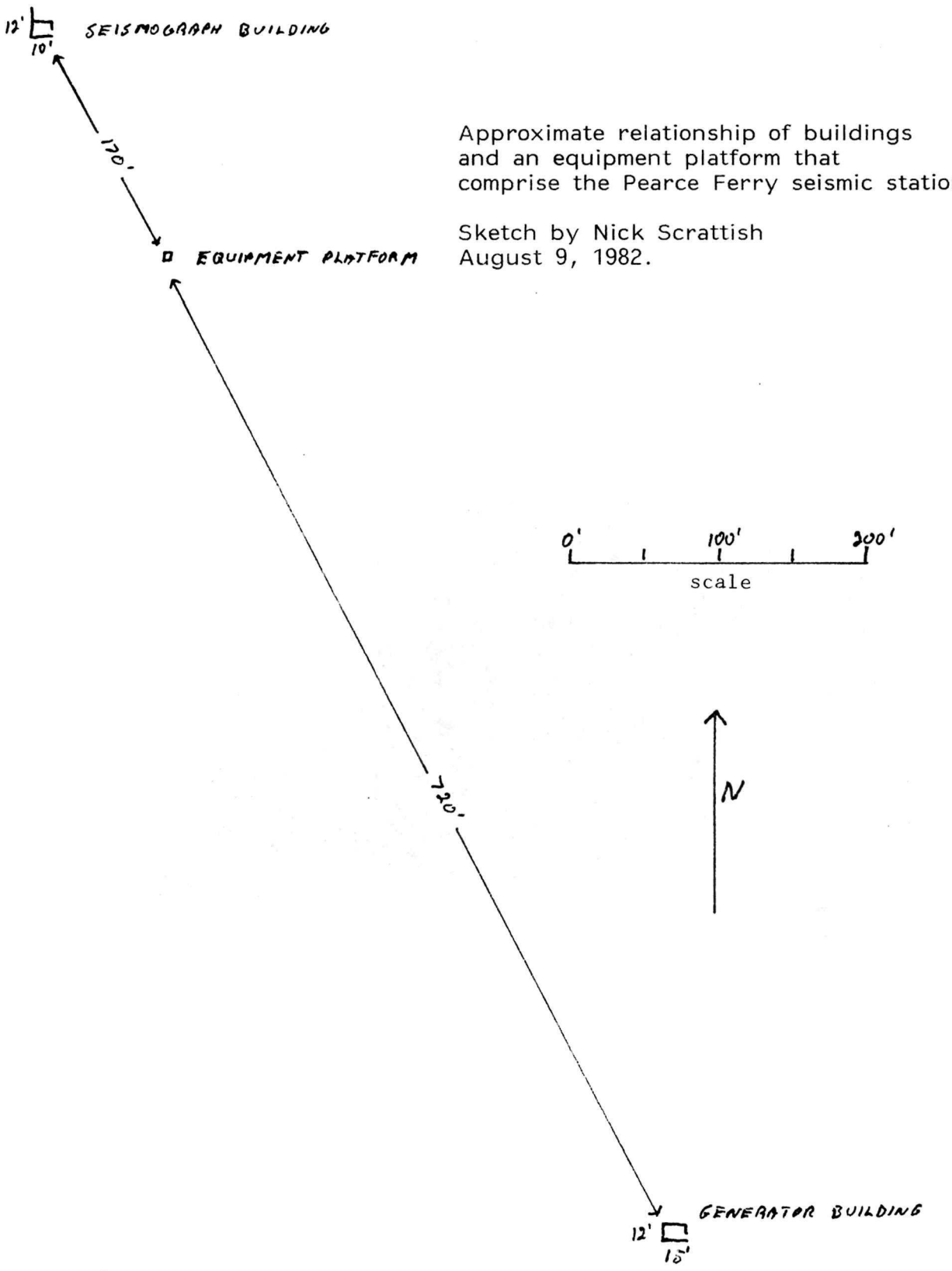
MAP III.A.1

Location of the two-building Pearce Ferry seismic station.

Map from a section of the Iceberg Canyon, Arizona-Nevada, 15' quadrangle, prepared in 1953.



SKETCH MAP III.A.1



Approximate relationship of buildings and an equipment platform that comprise the Pearce Ferry seismic station.

Sketch by Nick Scrattish
August 9, 1982.

ILLUSTRATION III.A.1

Pearce Ferry seismic building, looking southwest.

Photograph by Nick Scrattish, August 9, 1982.

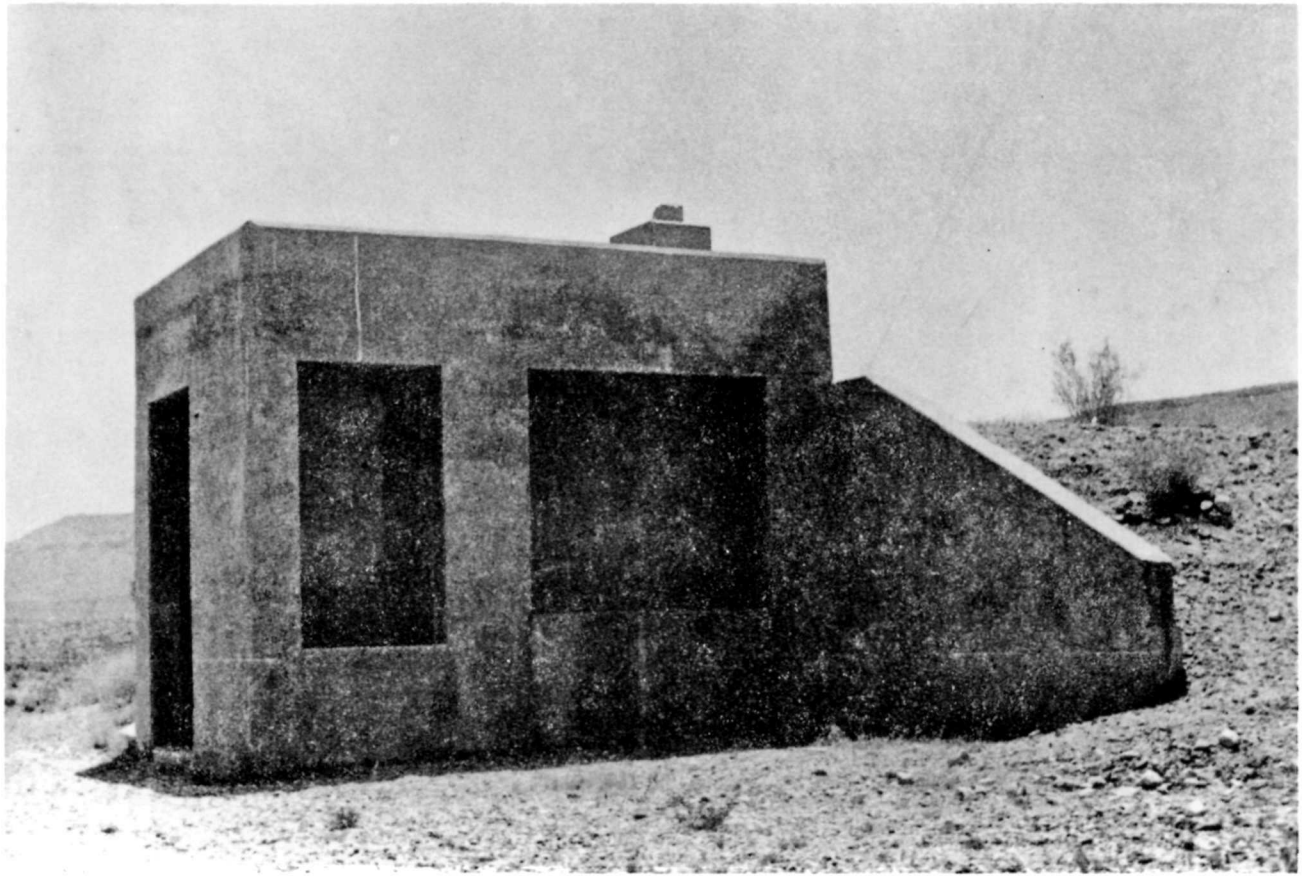


ILLUSTRATION III.A.2

Vault, Pearce Ferry seismic building, looking west.

Photograph by Nick Scrattish, August 9, 1982.

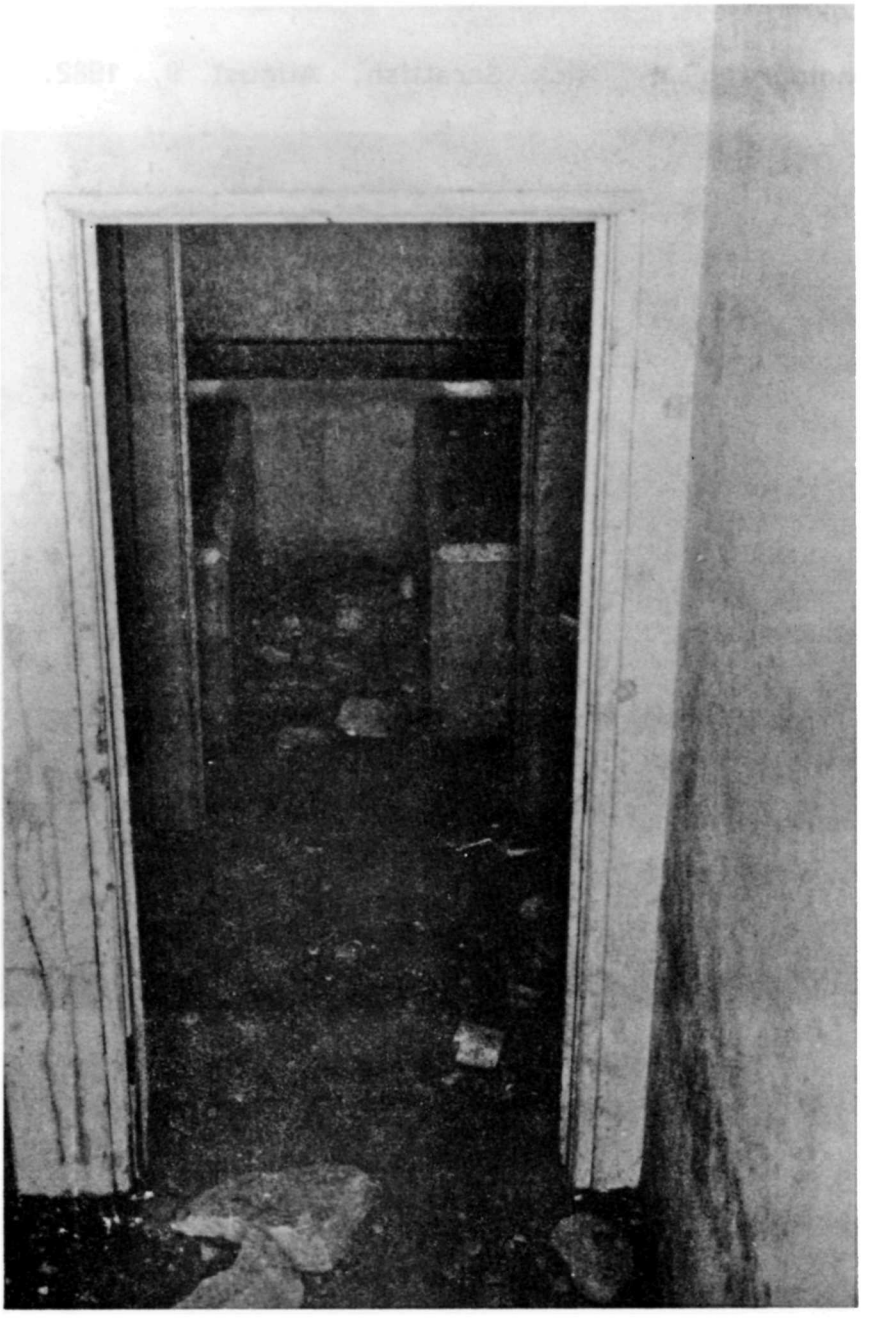


ILLUSTRATION III.A.3

Equipment platform, Pearce Ferry seismic station, looking west.

Photograph by Nick Scrattish, August 9, 1982.

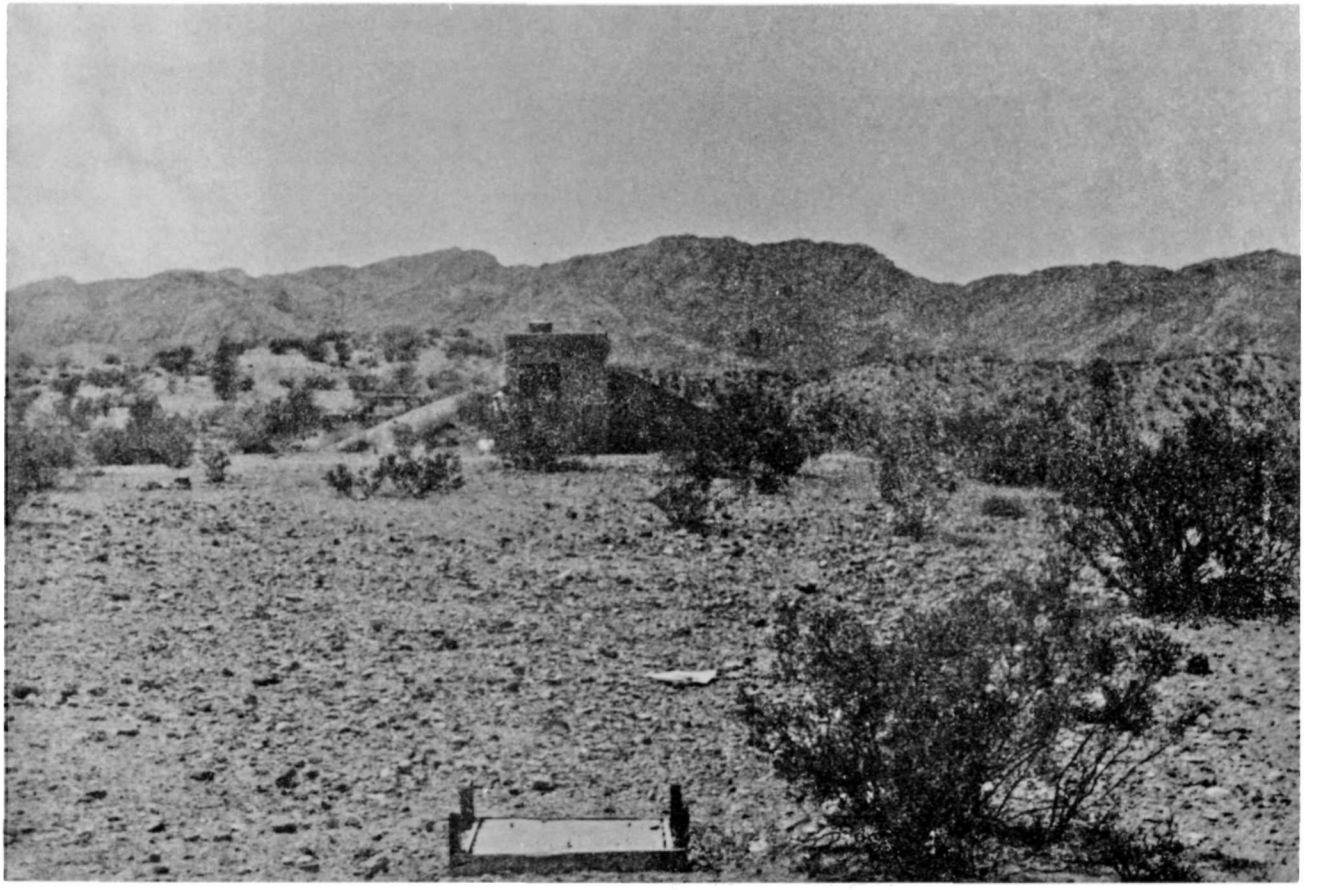


ILLUSTRATION III.A.4

Generator building, Pearce Ferry seismic station, looking west.

Photograph by Nick Scrattish, August 9, 1982.

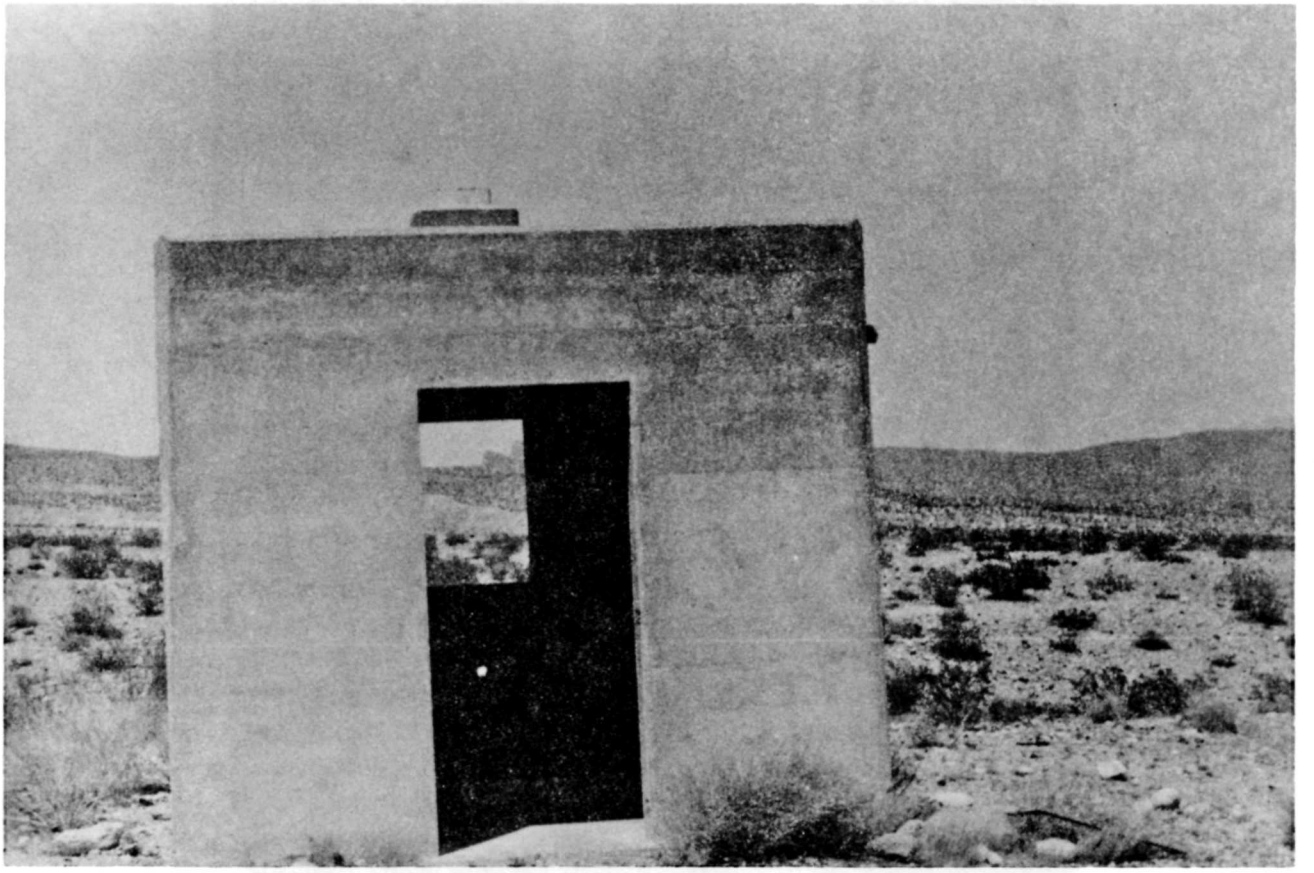
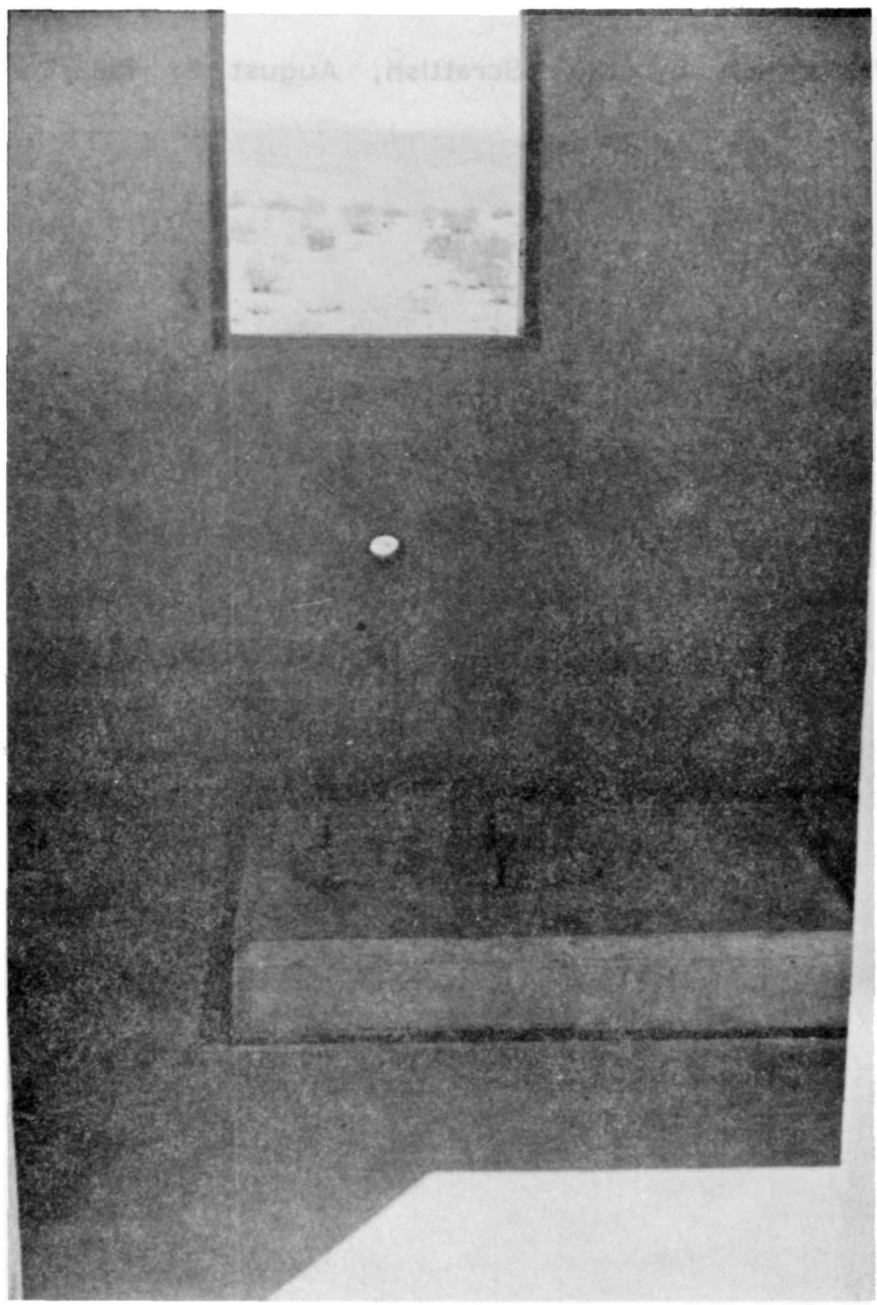


ILLUSTRATION III.A.5

Interior, generator building, looking west.

Photograph by Nick Scrattish, August 9, 1982.



B. Pine Valley Cabin

1. Location and Description

The Pine Valley cabin is located in the upper third of Section 10, T.31N., R.11W. Map III.B.1, a portion of the Whitmore Point Southwest seven and one-half minute quadrangle, lists the site as "Waring Ranch." Sketch Map III.B.1 is a description of the cabin made on June 29, 1982. Available evidence indicates this 19 by 22 foot building was erected about 1909. According to Mack Miller, the cabin was never completed:

> It doesn't have a chimney in it. Doesn't have a fireplace cause the two old men that were making it, building it, they got in a fight and they split.[1]

The Pine Valley cabin is built of horizontal logs with notched corner joints. Logs are chinked with adobe. Illustration III.B.4, an interior view of the cabin's northeast corner, shows the logs were squared by hand with an adze. Only the cabin's front wall has squared surfaces on the interior and exterior (Illustration III.B.2). An inspection of the interior reveals the cabin's earth floors were never finished. Pole frames were fitted with 1 by 12 inch nailers for shakes. The shingles now on the building appear to be redwood replacements. Just how long or whether the Pine Valley cabin was used for human habitation is moot. Physical evidence indicates the building has been used to store hay. The cabin has seriously deteriorated for lack of maintenance. This is particularly evident with respect to the bottom logs, the entire west wall, and the roof's south slope.

2. Available History, Significance, and Eligiblity Status

According to Belshaw, in November 1926 George Howard Pemberton filed an entry for the half-section surrounding the cabin. On March 6, 1931, the patent was issued to a "Smith and Faulkner," who may

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1. Mike Belshaw interview with Mack Miller, December 26, 1977. Cited in Belshaw, 1980, p. 178.

have been Pemberton's agents in Phoenix, Arizona. Belshaw also uncovered evidence that about 1930 J.D. Waring and Pemberton may have had a dispute over the Pine Valley patent. Waring later purchased the property.[2] Given the dearth of available information for the site, it cannot be maintained the cabin is even of local significance. Pemberton and Waring likely used the cabin as nothing more than a line shack and/or storage place for fodder.

Notwithstanding its hewn logs, the Pine Valley cabin does not have an unusual degree of structural distinctiveness. It is not, properly speaking, a representative building of its kind. Indeed, available physical evidence strongly implies the building was never completed for human habitation. I strongly recommend against nominating the Pine Valley cabin to the NRHP. I further recommend that expensive restorative work on the building not be undertaken.

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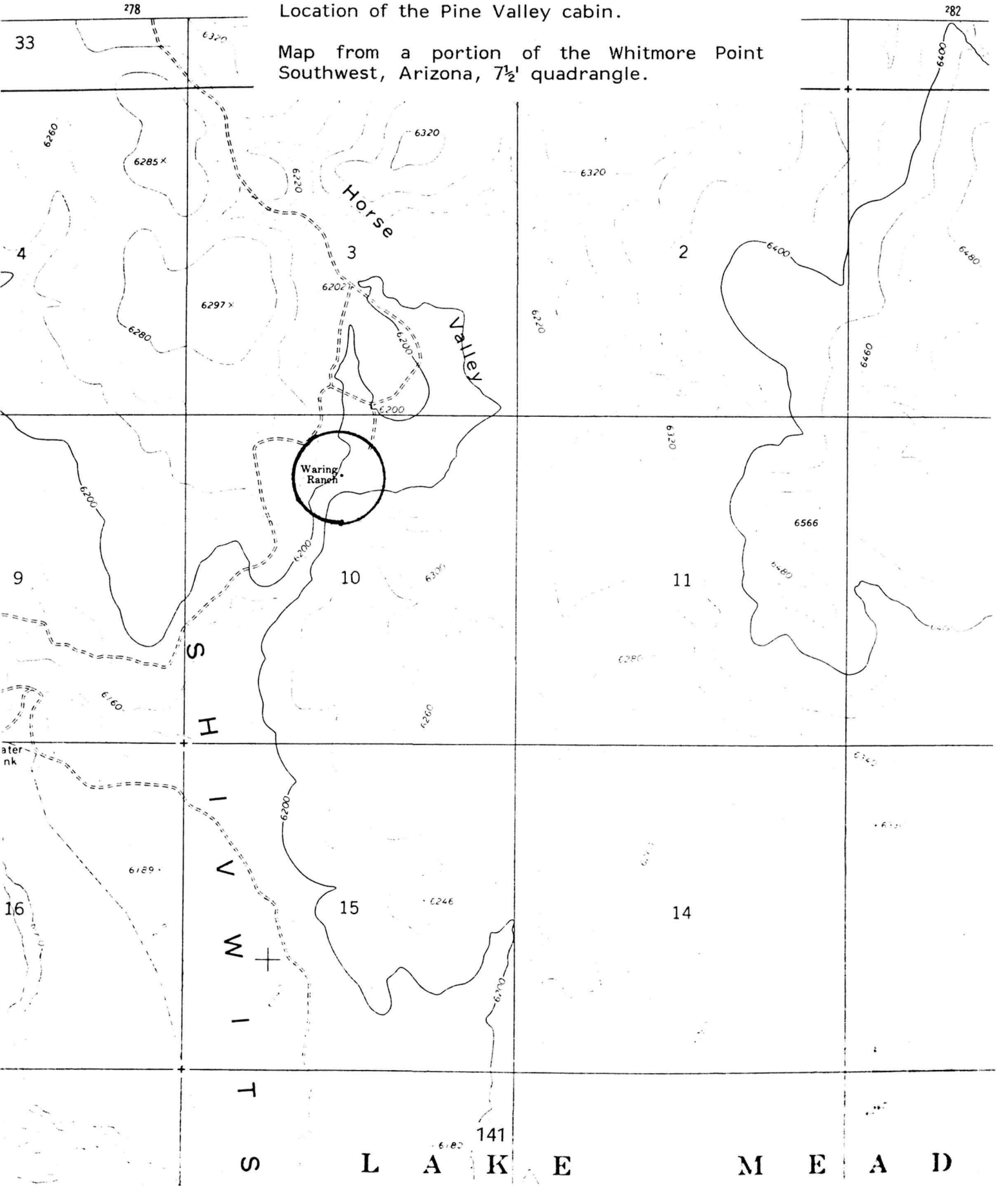
2. Belshaw, 1980, p. 178.

MAP III.B.1

Location of the Pine Valley cabin.

Map from a portion of the Whitmore Point Southwest, Arizona, 7½' quadrangle.



SKETCH MAP III.B.1

The Pine Valley cabin and its relationship to nearby structures.

Sketch by Nick Scrattish, June 29, 1982.

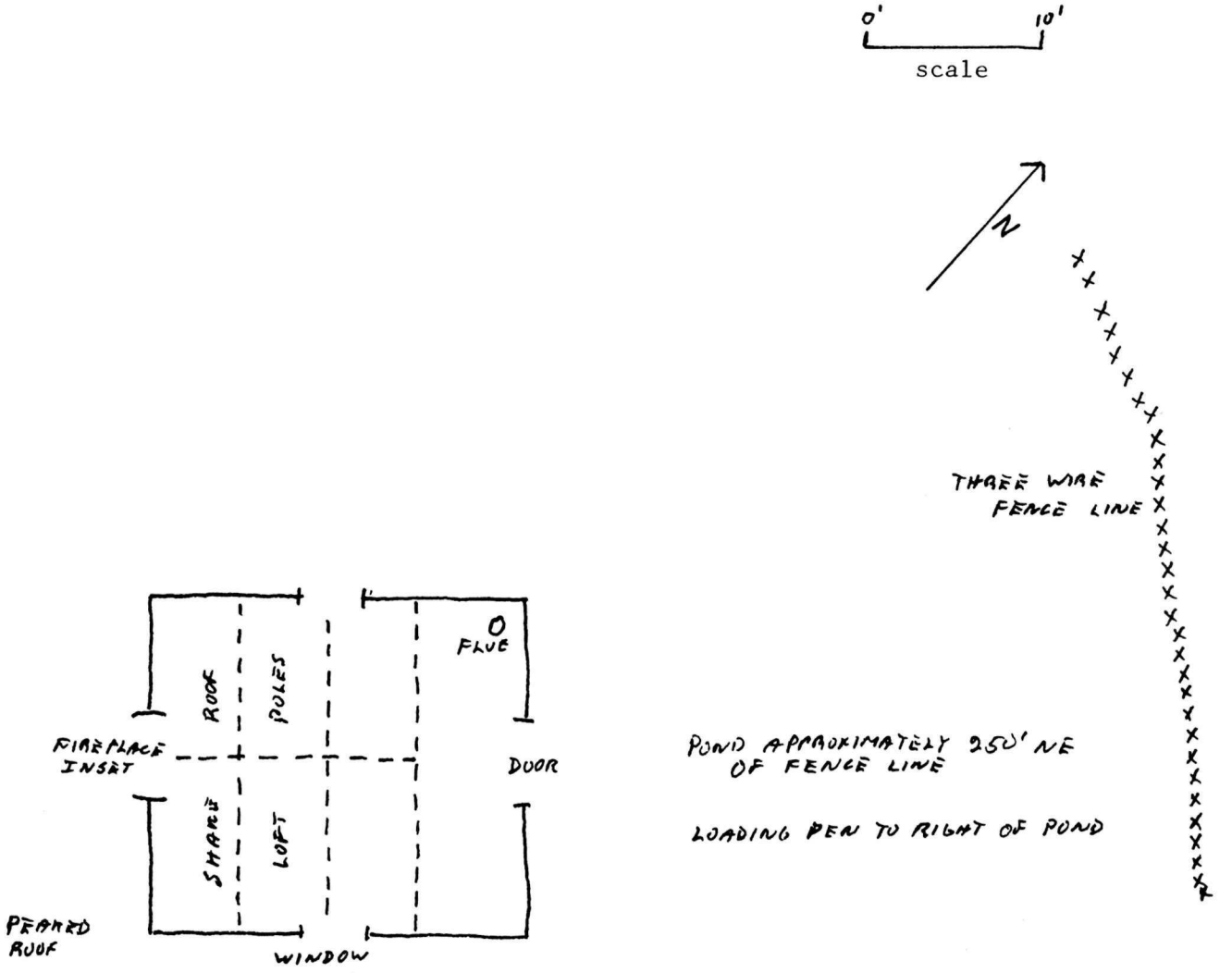


ILLUSTRATION III.B.1

The Pine Valley cabin, looking south/southwest.

Photograph by Nick Scrattish, June 29, 1982.

ILLUSTRATION III.B.2

The Pine Valley cabin, looking north/northwest.

Photograph by Nick Scrattish, June 29, 1982.

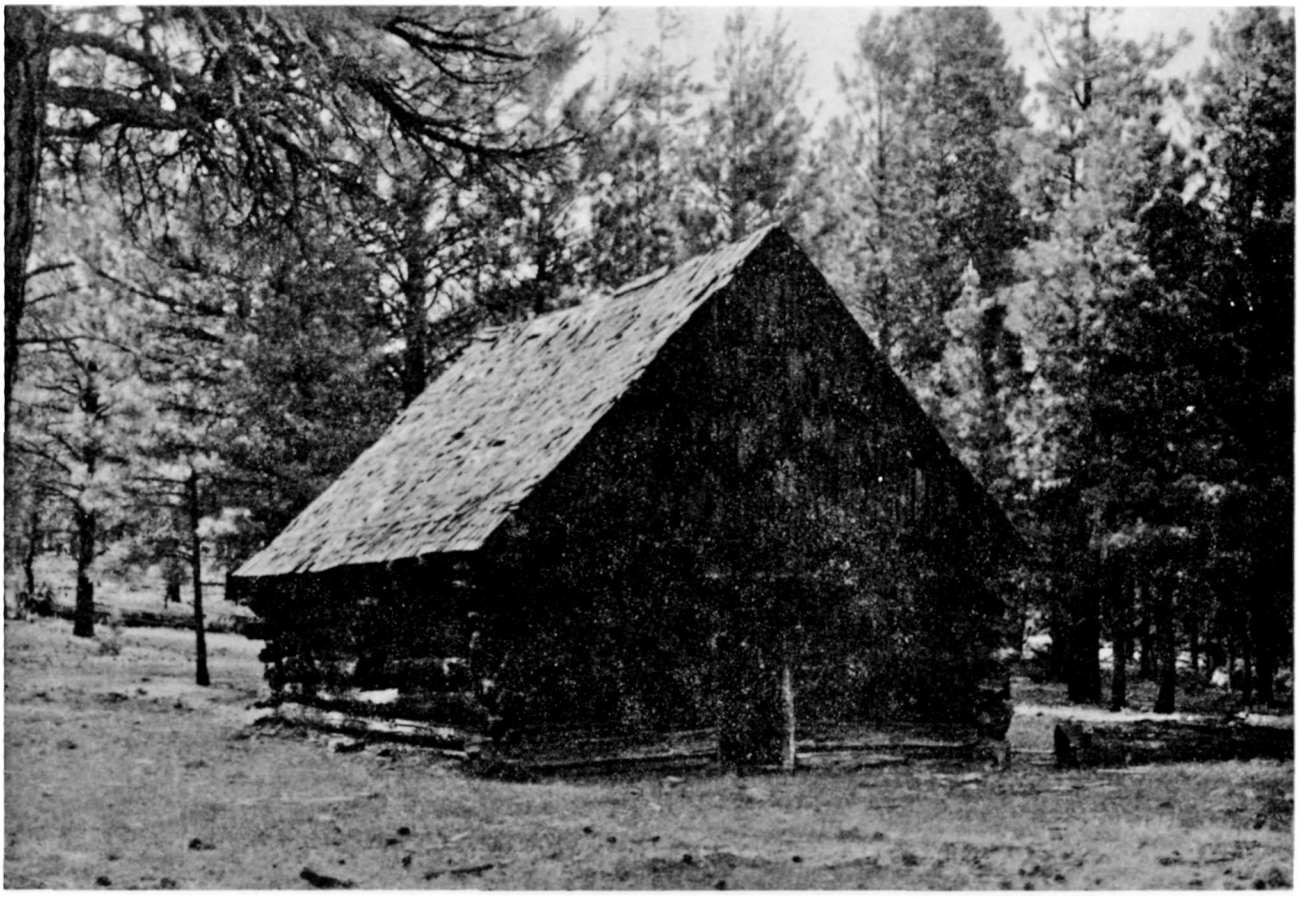


ILLUSTRATION III.B.3

The Pine Valley cabin, looking east.

Photograph by Nick Scrattish, June 29, 1982.

ILLUSTRATION III.B.4

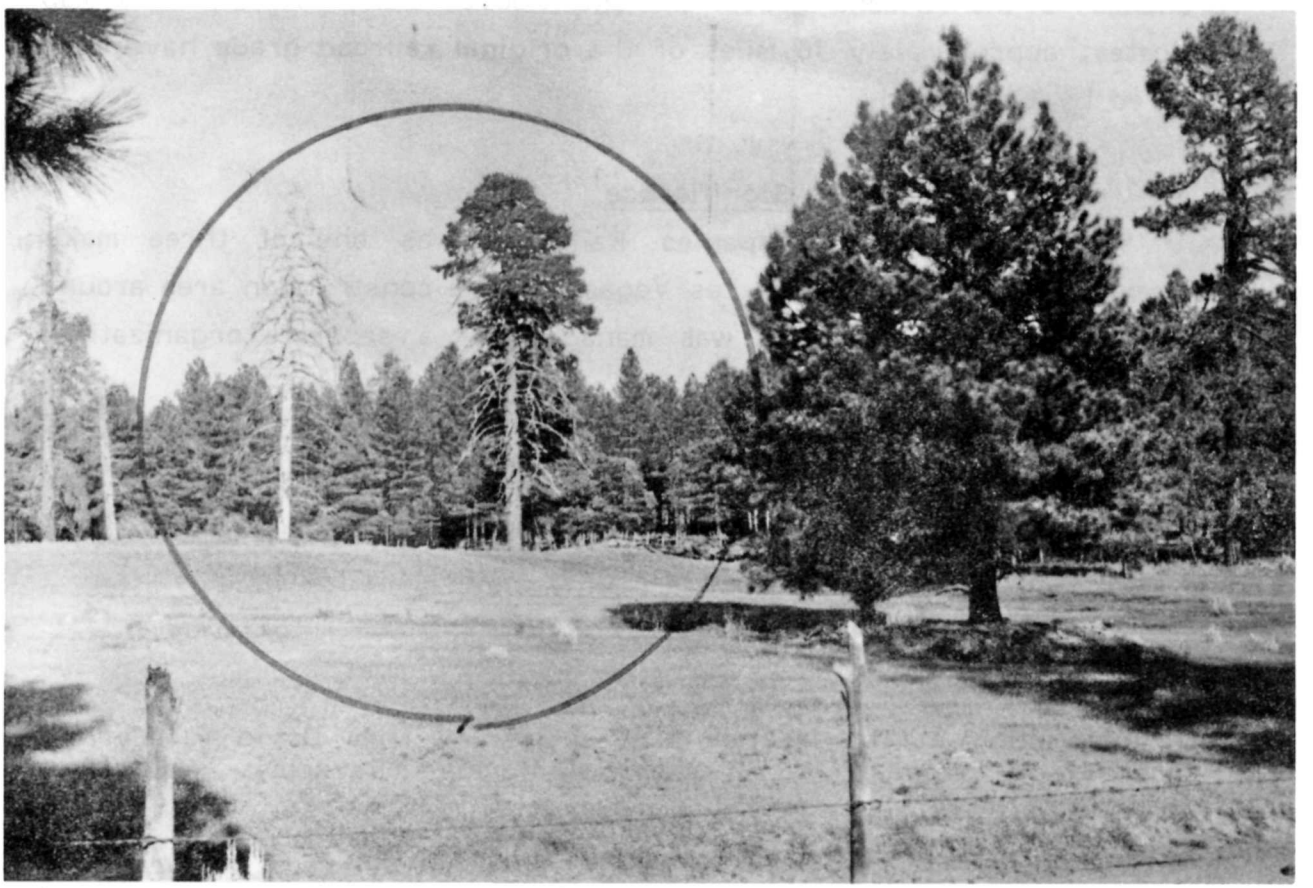
Interior of Pine Valley cabin, northeast corner.

Photograph by Nick Scrattish, June 29, 1982.

ILLUSTRATION III.B.5

Pond and chute to its right, east of Pine Valley cabin.

Photograph by Nick Scrattish, June 29, 1982.



C. Six Companies Railroad Grade

1. Existing Grade/Original Grade

Within the present boundaries of LAME disrupted sectors of the Six Companies Railroad grade are found, from north to south, in Sections 15, 22, 23, and 26, T.22S., R.64E. Map III.C.1 delineates these disrupted sectors, on an adaption of a portion of the U.S.G.S. Boulder Beach, Arizona-Nevada, seven and one-half minute quadrangle, prepared in 1970. Map III.B.2 is from David F. Myrick's Railroads of Nevada and Eastern California. This map shows that from its junction with the U.S. Government Railroad grade at Lawler, the Six Companies Railroad grade originally comprised about 19 miles of track--inclusive of branches to the Arizona gravel pit and Hoover Dam. As Myrick's map indicates, approximately 16 miles of the original railroad grade have been covered by Lake Mead.

2. History and Significance[1]

The Six Companies Railroad[2] was one of three major segments of trackage between Las Vegas and the construction area around Hoover Dam. Each segment was managed by a separate organization:

1. Union Pacific Railroad (LA & SL)--from Boulder Junction (near Las Vegas) to an interchange yard and wye at a point called Summit (later Boulder City)--22.71 miles

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1. Information in this section was abstracted from David F. Myrick, Railroads of Nevada and Eastern California (Berkeley, California: Howell-North, 1963), pp. 734-52.

2. "On March 11, 1931, the contract [for construction of Hoover Dam] was awarded to a corporation known as Six Companies, Inc.; their bid of $48,890,995 was $5,000,000 under the next lower bid. Six Companies, Inc. was a combination of six different organizations: W.A. Bechtel, San Francisco, and Henry J. Kaiser, Oakland, California (Bechtel-Kaiser) participated to the extent of 30%; Utah Construction Co., Ogden, Utah--20%; MacDonald & Kahn Co., Los Angeles, California--20%; Morrison-Knudsen Co., Boise, Idaho--10%; Pacific Bridge Co., Portland, Oregon--10%; and the J.F. Shea Co., Portland, Oregon--10%." Ibid., p. 738.

Lake Mead Marina

PYRAMID ISLAND

LAKE MEAD

Filtration Plant

Six Company RR Grade

Lake Mead Lodge

Outdoor Theater

BOULDER BEACH

Boulder Beach Campground

Trailer Park

Hemenway Harbor

T 22 S

Old Wash Railroad Grade

Lakeshore Road

Hemenway Campground

Boat Ramp

Old Hemenway Railroad Grade

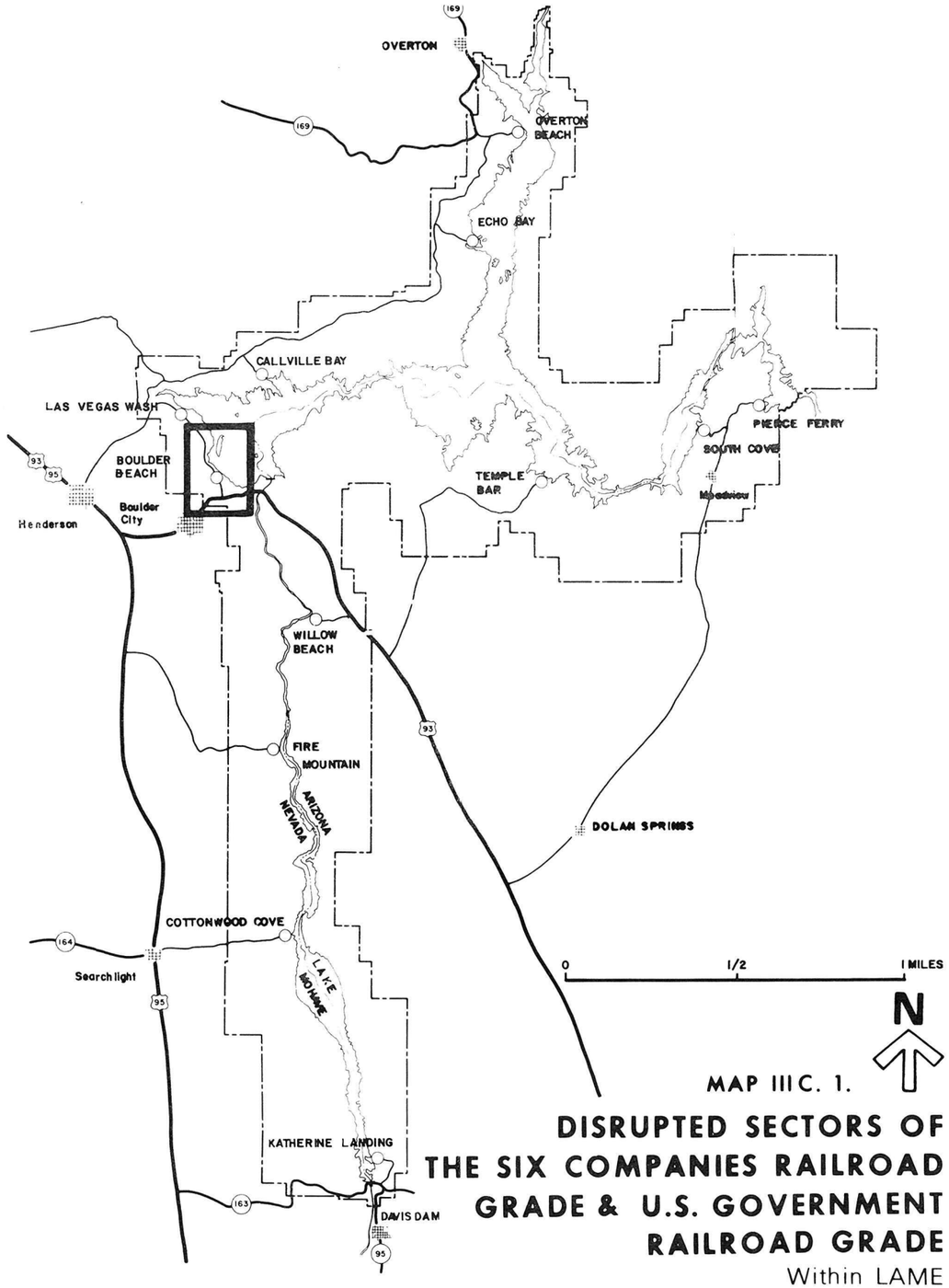
Visitor Center

R 64 E

466

93

MAP ADAPTED FROM THE U.S.G.S. BOULDER BEACH (1970) 7.5 MINUTE QUADRANGLES



MAP III C. 1.

DISRUPTED SECTORS OF THE SIX COMPANIES RAILROAD GRADE & U.S. GOVERNMENT RAILROAD GRADE

Within LAME

LAKE MEAD NATIONAL RECREATION AREA

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

602	40068
APR 83	DSC

2. U.S. Government Construction Railroad--from Summit downhill to the Himix (High Level Concrete Mixing) Plant on a bluff overlooking the dam site--6.7 air miles but ten miles of railroad grade.

3. Six Companies Railroad--to branch off the Government Railroad at Government Junction (Lawler), run seven miles north and then east to Gravel Plant (Three Way Junction), there splitting into two branches--one upriver to the source of supplies at the Arizona Gravel Deposits (7.3 miles), and the other to the Lomix (Low Level Concrete Mixing) Plant and the dam face, downriver to the southeast (4.8 miles)--distance, 19.1 miles.

The John Phillips Construction Company of San Francisco constructed the line. Work began in June 1931. The laying of track commenced in September 1931.

The primary significance of the Six Companies Railroad is that without it and the other two segments, Hoover Dam could not have been built. That sector of the U.S. Government grade identifiable within LAME boundaries is delineated on Map III.C.1.

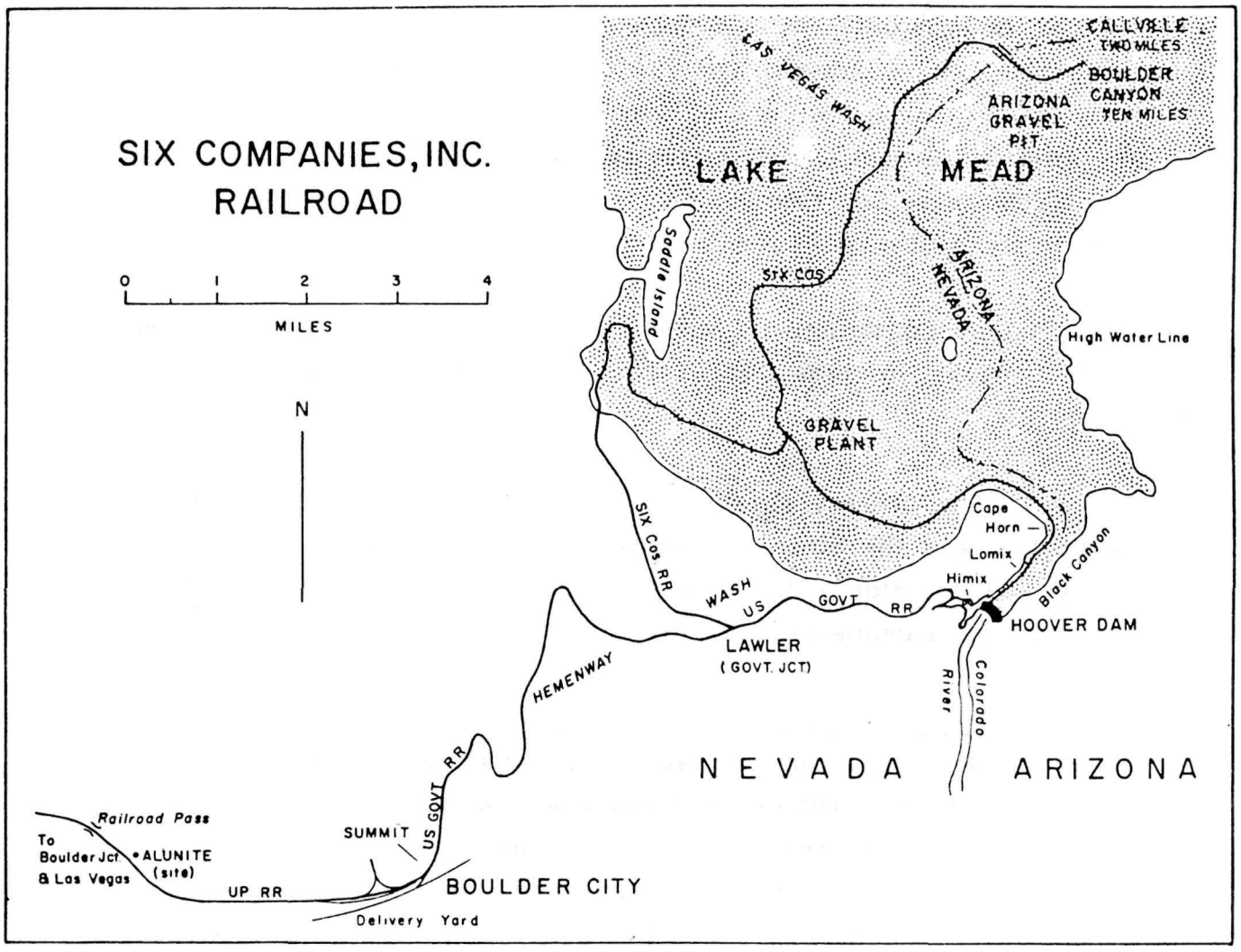
3. Eligiblity Status

Notwithstanding its significant role in the construction of Hoover Dam, the Six Companies Railroad grade within LAME clearly fails to meet the NRHP's criterion of integrity. Only about 2.6 miles of the original 19-mile line are identifiable. From the standpoint of engineering and performance, it is the 16-mile network submerged in Lake Mead that was the most distinctive. In other words, the identifiable remains of the Six Companies Railroad grade are the least significant. I strongly recommend against nomination of the remains of the Six Companies Railroad grade within LAME to the NRHP.

MAP III.C.2

Original layout of the Six Companies Railroad grade.

Map from David F. Myrick's Railroads of Nevada and Eastern California.



As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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