

Honey Comb Gypsum Mine, Spring Mountains, Clark County Nevada

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Acknowledgement and Disclaimer

The information in this paper is taken largely from published and public sources. I have reproduced this material and present it pretty much as we found it, not trying to harmonize discrepancies in mine or geologic descriptions. I have changed verb tenses for readability and have used some paraphrase. I have expanded abbreviations or special characters with full text (e.g. feet instead of ft., inches instead of ") Italics indicate quotations. Authors of the original information are indicated at the end of each paragraph. Paragraphs without a citation are our own materials. The maps in this report have been compiled and rectified from digital and paper copies of original sources that were made at different scales and in different geographic projections. Therefore, many of the maps had to be adjusted or stretched. They do not fit perfectly. Most are accurate to within 100 feet, but reproduction and projection errors can be as much as 300 feet for some maps. PLSS means Public Land Survey System. That survey data was obtained from the U.S. Bureau of Land Management website.

MRDS, 2011, Mineral Resources Data System, U.S. Geological Survey, <https://mrdata.usgs.gov/mrds/>. This database relies on records that, in many cases, are inaccurate or imprecise. For example, if a report describes a mine as being in "Section 9", with no other information, MRDS plots the mine location in the center of the section. If a mine is reported in "SW ¼" of a section, MRDS plots the mine in the center of that SW quarter-section. Where I could confidently adjust a MRDS location of a mineral deposit to features identifiable in aerial photographs or topographic maps, I did so.

Help me make this report better. If you have any photographs, memories or reports for this mine that you can share, please send them to yosoygeologo@gmail.com so that I can incorporate that information and material into this paper.

LOCATION (MRDS, 2011)

T.22S R.60E Sec 07 36.04919 -115.3008

PREVIOUS NAMES

None known.

HISTORY AND OWNERSHIP

The Honey Comb mine is within the Arden District. This is what Longwell and others (1965:152-153) said about the Arden District:

West of Arden, on the east side of the Spring Mountains, the gypsum is in the Permian red beds and the overlying Toroweap and Kaibab Formations. (Moore, in Hewett and others, 1936, p. 167). The gypsum beds are commonly 5 to 15 feet thick, but locally may reach 75 feet in thickness. At a depth of 50 to 100 feet from the surface the gypsum passes into anhydrite. Gypsum has been mined since x925 in the hills near and east of Blue Diamond (fig. 20). Present production is chiefly from the upper (Harrisburg) member of tbc Kaibab Formation (Longwell and others, 1965:152-153).

This mine was serviced by a railroad from the Arden plaster mill and connected to the Los Angeles and Las Vegas railroad (Wilkerson and Vredenburg, 2023).

REGIONAL GEOLOGY

The regional geology of the central Spring Mountains is described in the overview paper for this report series. It can be accessed at

http://www.greggwilkerson.com/uploads/1/0/6/5/106585235/geology_and_mining_history_of_the_central_spring_mountains.pdf

MINE GEOLOGY

Gypsum beds in Harrisburg member of the Kaibab Formation (Longwell and others, 1965:153).

MAPPING

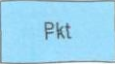
1:250,000

Longwell and others (1965) mapped the area of the Honey Comb mine as being in Undivided Kaibab, Toroweap and Coconino formations. (Pkt).



Figure 1. Portion of geologic map by Longwell and others, 1965. Open source for educational purposes. No copyright.

EROSIONAL UNCONFORMITY



Kaibab, Toroweap, and Coconino
Formations, and red beds, undivided

1:100,000

Page and others (2005) mapped the area of the Honey Comb mine as (Pkt) undivided Kaibab and Toroweap formations.

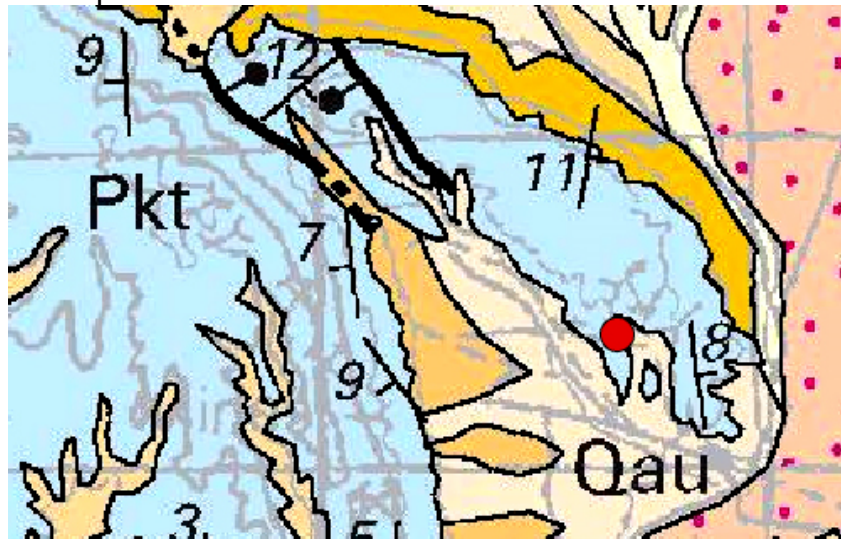


Figure 2. Portion of geologic map by Page and others, 2005. Open source for educational purposes. No copyright.

Pkt

Kaibab and Toroweap Formations, undivided (Lower Permian)

1:24,000

Carr and others (1995) and Carr and others (2000) mapped the area of the Honey Comb mine as being in (af) on the southwestern flank of Hill 3478. This area exposes Permian Fossil Mountain Member of the Kaibab Formation (Pkf), Woods Ranch Member of the Permian Toroweap Formation (Ptw) and Brady Canyon Member of the Toroweap Formation (Ptb). This map also shows the location of mine tailings (af, artificial fill).

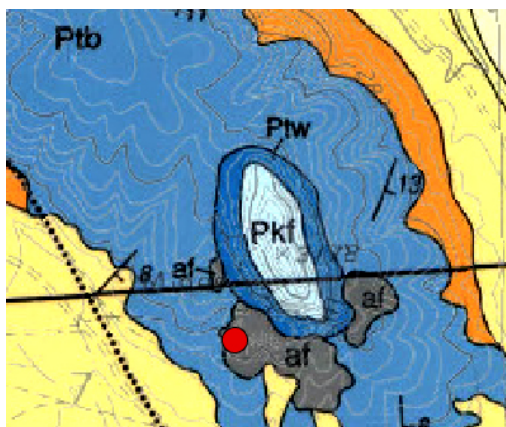


Figure 3. Portion of geologic map of Carr and others, 2000. Open source for educational purposes. No copyright.

Kaibab Formation (Permian)

Pkh **Harrisburg Member** Light-gray, tan, cream-colored, dolomicrite and cherty dolomicrite, dolomitic limestone, bedded gypsum, and gypsiferous red beds (shale and claystone) in lowermost part. Weathers light to medium gray. Maximum thickness is 75 m.

Pkf **Fossil Mountain Member** Medium-gray, thick, massive, cherty limestone, and cherty dolomitic limestone. Contains brachiopods, bryozoans, crinoids, and microbial limestone. Weathers light gray. Maximum thickness is 100 m.

Toroweap Formation (Permian)

Ptw **Woods Ranch Member** Tan, pink, red, and gray interbedded shale, dolomicrite, limestone, siltstone, shale, and interbedded impure gypsum. Weathers light reddish gray. Maximum thickness is 30 m.

Ptb **Brady Canyon Member of the Toroweap Formation (Permian)** Gray, pinkish-gray, and lavender-gray, massive dolomitic limestone and cherty dolomitic limestone. Contains brachiopods and pelecypods. Weathers light to medium gray. Maximum thickness is 90 m.

MINERALOGY

Gypsum, impure.

DEVELOPMENT

Quarry and tailings indicate past production.

REFERENCES

Bradley, W. G., 1932, Methods and costs of mining and crushing gypsum at the mine of the Blue Diamond Corporation, Ltd., Arden, Nevada: U.S. Bur. Mines Information Circular 6615.

Carr, Michel D., 1980, Upper Jurassic to Lower Cretaceous(?) synorogenic sedimentary rocks in the southern Spring Mountains, Nevada, *Geology*, Geological Society of America, (1980) 8 (8): 385-389. See [https://doi.org/10.1130/0091-7613\(1980\)8<385:UJTLCS>2.0.CO;2](https://doi.org/10.1130/0091-7613(1980)8<385:UJTLCS>2.0.CO;2)

Carr, Michel. D., 1978, Structure and stratigraphy of the Goodsprings district, southern Spring Mountains, Nevada: Ph.D. dissertation, Rice University, Houston, Texas, 155p.

Carr, Michel D., 1980, Upper Jurassic to Lower Cretaceous(?) synorogenic sedimentary rocks in the southern Spring Mountains, Nevada: *Geology*, v. 8, p. 385-389.

Carr, Michel D., 1983, Geometry and structural history of the Mesozoic thrust belt in the Goodsprings district, southern Spring Mountains, Nevada, *Geological Society of America Bulletin*, (1983) 94 (10): 1185-1198. See [https://doi.org/10.1130/0016-7606\(1983\)94<1185:GASHOT>2.0.CO;2](https://doi.org/10.1130/0016-7606(1983)94<1185:GASHOT>2.0.CO;2)

Carr, M.D., 1992, [Bedrock geologic map of the Blue Diamond NE 7.5' quadrangle, Clark County, Nevada](#): U.S. Geological Survey, Open-File Report OF-92-363, scale 1:24,000.

Carr, M.D., and Donnell-Canan, Cheryl, 1992, [Bedrock geologic map of the Blue Diamond SE 7.5' quadrangle, Clark County, Nevada](#): U.S. Geological Survey, Open-File Report OF-92-177, scale 1:24,000.

Carr, Michael D and John C. Pinkerton, 1987, Geologic Map of the Goodsprings District, Southern Spring Mountains, Clark County, Nevada, U.S. Geological Survey, Map MF 1514.

Carr, M.D., McDonnell-Canan, Cheryl, and Weide, D.L., 2000, **Geologic map of the Blue Diamond SE quadrangle, Nevada**, Nevada Bureau of Mines and Geology, Map 123, 1:24,000

Hewett, D. F., Callaghan, Eugene, Moore, B. N., Nolan, T. B., Rubey, W. W., and Schaller, W. T., 1936, Mineral resources of the region around Boulder Dam: U.S. Geol. Survey Bulletin 871.

Ivosevic, S.W., 1972, Field Examination of the Five Star Lead Property, Emerald District, Clark County, Nevada, Nevada Bureau of Mines and Geology, Mining District Open Files.

Jones, J.C. and E.W Stone, 1920, Arden, in Stone, R. W., and others, 1920, Gypsum deposits of the United States: U.S. Geological Survey Bulletin 697:155-158.

Lincoln, F. C., 1923, Mining districts and mineral resources of Nevada: Nevada Newsletter Publishing Company, Reno, Nevada.

Longwell, C. R., Pampeyen, E. H., Bowyer, B., Roberts, R. J., 1965 , Geology and Mineral Deposits of Clark County, Nevada, Nevada Bureau of Mines and Geology, Bulletin 62, p. 186

Minobras, 1973, Nevada Industrial Minerals, 1973, p.10, 12, 35.

Moore, B. N., 1936, Arden, in Hewett, D. F., Callaghan, Eugene, Moore, B. N., Nolan, T. B., Rubey, W. W., and Schaller, W. T., 1936, Mineral resources of the region around Boulder Dam: U.S. Geol. Survey Bulletin 871.

Murphy, Thomas D, 1954, Silica resources of Clark County, Nevada, Nevada Bureau of Mines and Geology Bulletin 55, 43 p. See p. 5 and Fig. 2.

Nevada Division of Mines Inspection (NDM), 1991, Directory of Nevada Mine Operations Active During Calendar Year 1990, 60 p.

Page, W.R., Lundstrom, S.C., Harris, A.G., Langenheim, V.E., Workman, J.B., Mahan, S.A., Paces, J.B., Dixon, G.L., Rowley, P.D., Burchfiel, B.C., Bell, J.W., and Smith, E.I., 2005, Geologic and geophysical maps of the Las Vegas 30' x 60' quadrangle, Clark and Nye Counties, Nevada, and Inyo County, California, U.S. Geological Survey, Scientific Investigations Map SIM-2814.

U.S. Bureau of Mines (USBOM), 1932, Information Circular 6615, 11 p.

U.S. Bureau of Mines (USBOM), 1937, Information Circular 6964, pp. 1-15, 73, 81

U.S. Bureau of Mines (USBOM), 1950, Information Circular 7555, 21 p.

Vandenberg, 1937, Reconnaissance of mineral districts in Clark County, Nevada, USGS Information Circular 6964, P. 54

Wilkerson, Gregg, 2019, Southern Spring Mountains (a.k.a. Goodsprings) Mining District, Clark County, Nevada and San Bernardino County, California. In David Miller, editor, Exploring ends of eras in the eastern Mojave Desert, Proceedings of the 2019 Desert Symposium, Desert Symposium Inc., pp. 104-112.

Wilkerson, Gregg, 2024a, Geology and Mining History of the Central Spring Mountains, Clark County, Nevada; <http://www.greggwilkerson.com/spring-mnts-central.html>

Wilkerson, Gregg, 2024b, Geologic Mosaic for the Central Spring Mountains, Clark County, Nevada;
<http://www.greggwilkerson.com/geological-mosaic.html>

Wilkerson, Gregg and Larry Vredenburgh, 2024, Railroads and mining in the Mojave Desert and southwestern Great Basin, California and Nevada, in *Get your kicks: Trails across the Mojave*, David M. Miller and Stephen M. Rowland, editors, 2024 Desert Symposium Field Guide and Proceedings April 2024, Desert Symposium, Inc.; p. 47-69.

Workman, J.B., Menges, C.M., Page, W.R., Taylor, E.M., Ekren, E.B., Rowley, P.D., Dixon, G.L., Thompson, R.A., and Wright, L.A., 2002, Geologic map of the Death Valley ground-water model area, Nevada and California, U.S. Geological Survey, Miscellaneous Field Studies Map MF-2381-A, 1:250,000

MAPS

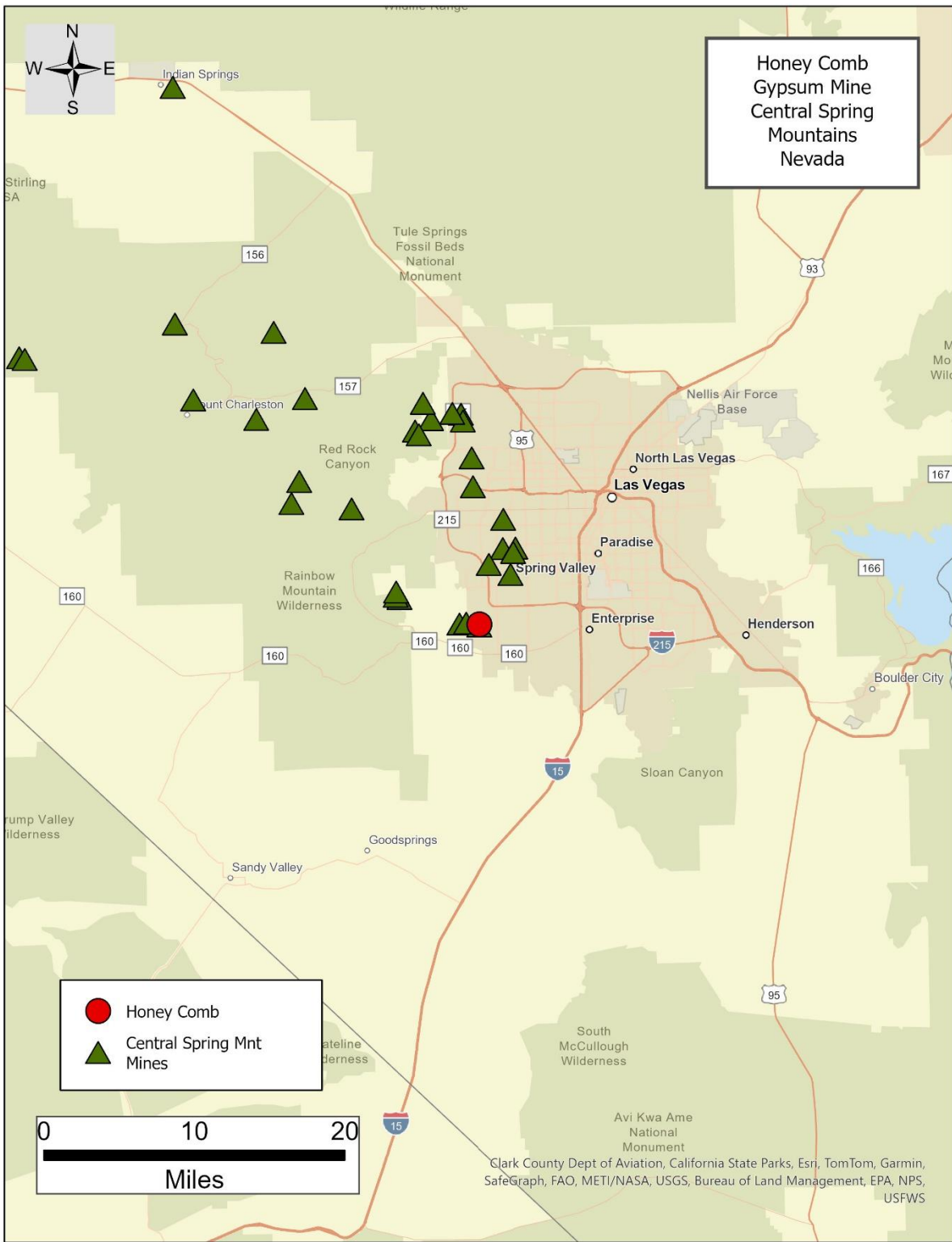


Figure 4. Location map for the Honey Comb Mine. Open source for educational purposes. No copyright.

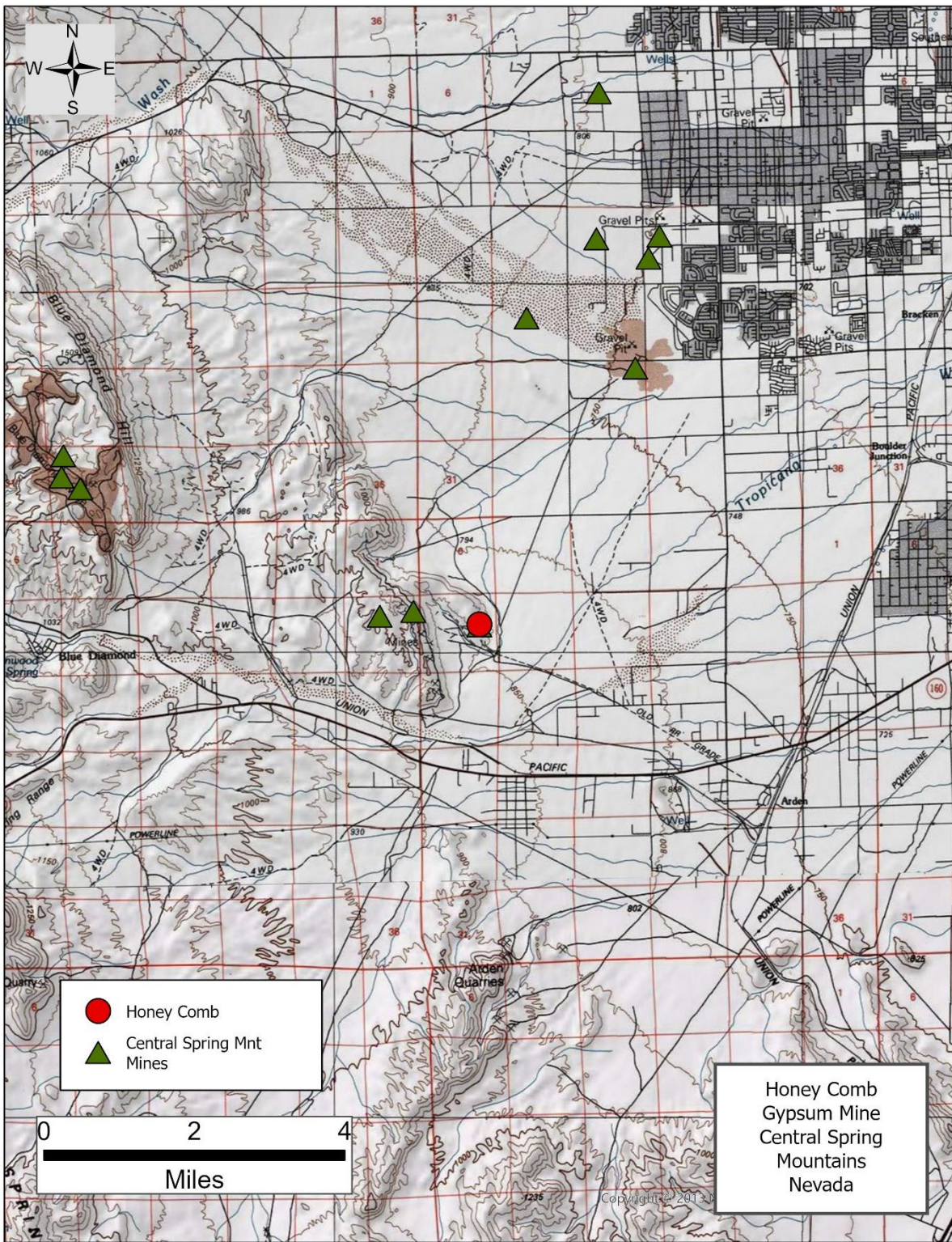


Figure 5. Regional topographic map of the Honey Comb Mine. . Open source for educational purposes. No copyright.

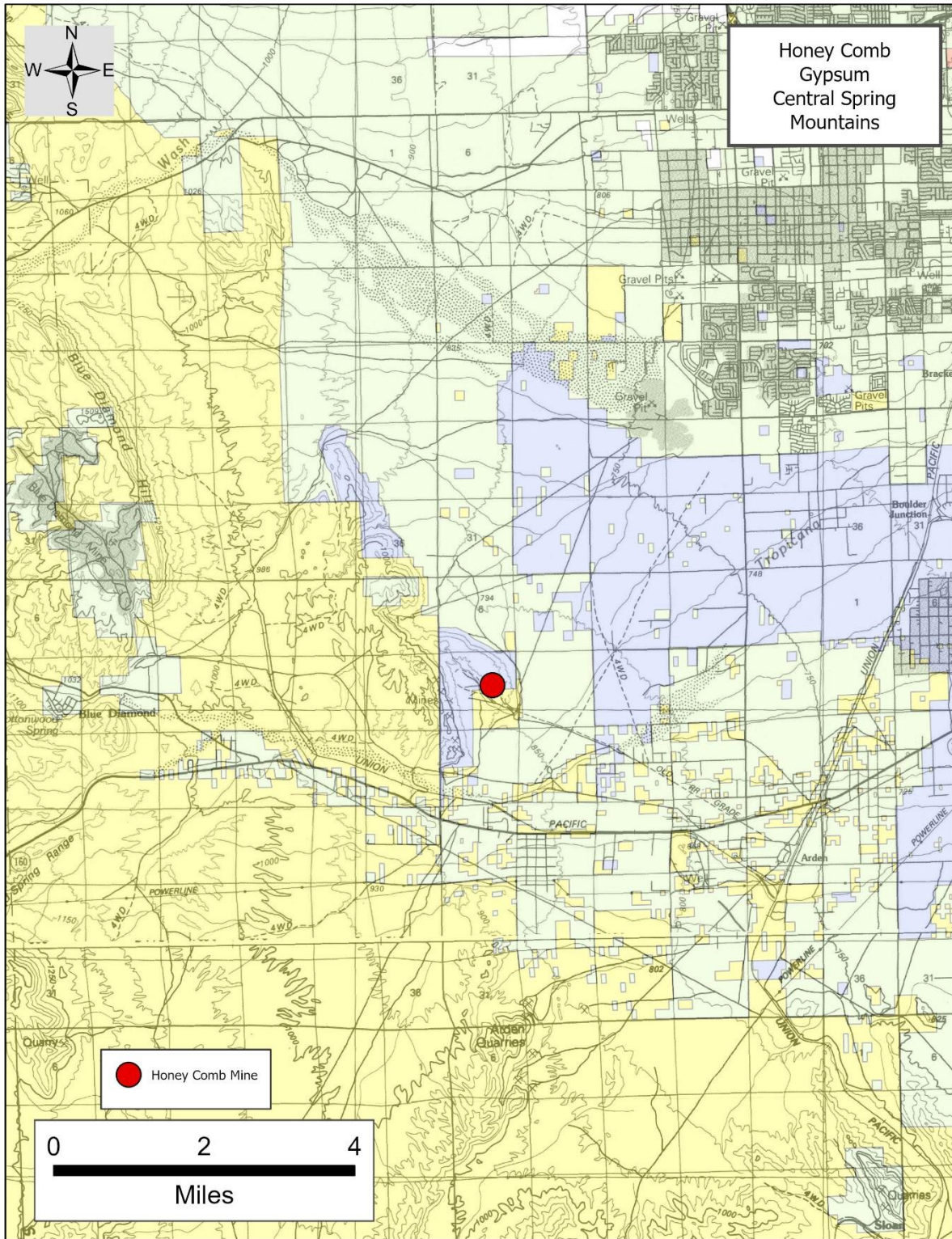


Figure 6. Land status map of the Honey Comb Mine. Green is U.S. Forest Service. Yellow is U.S. Bureau of Land Management. Blue is private land. . Open source for educational purposes. No copyright.

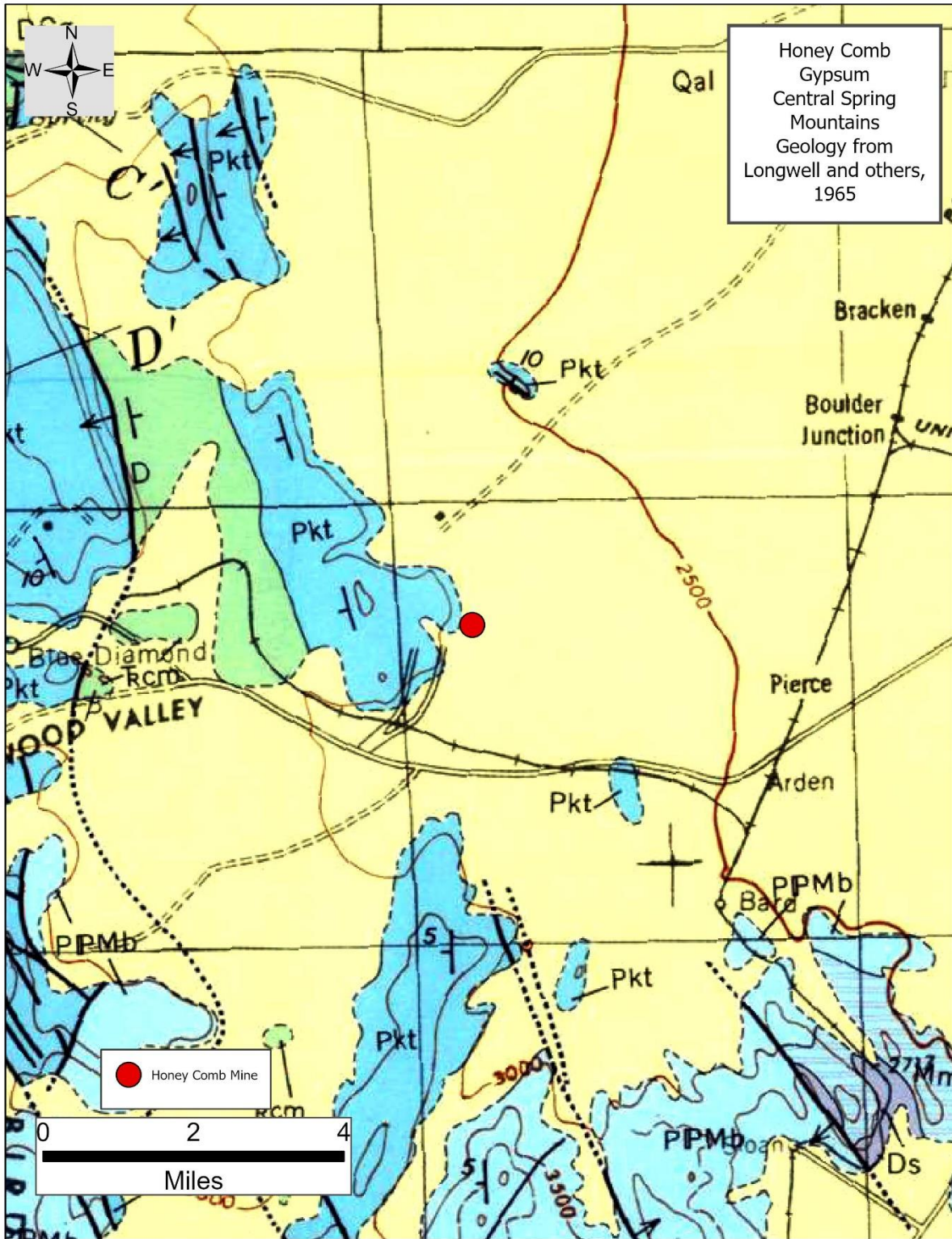


Figure 7. Regional geologic map of the area surrounding the Honey Comb Mine. . Open source for educational purposes. No copyright.

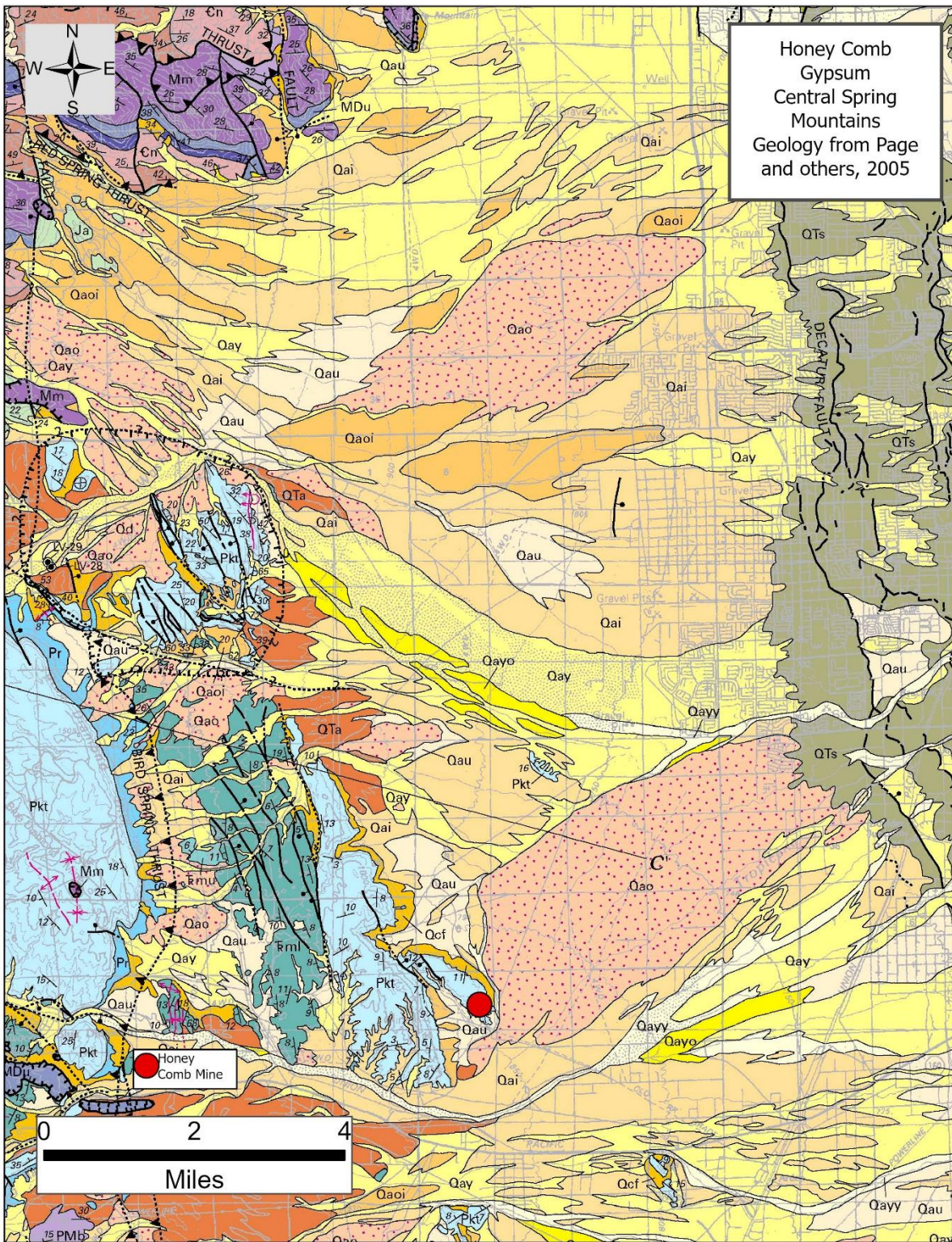


Figure 8. Regional geologic map of the area surrounding the Honey Comb Mine. . Open source for educational purposes. No copyright.

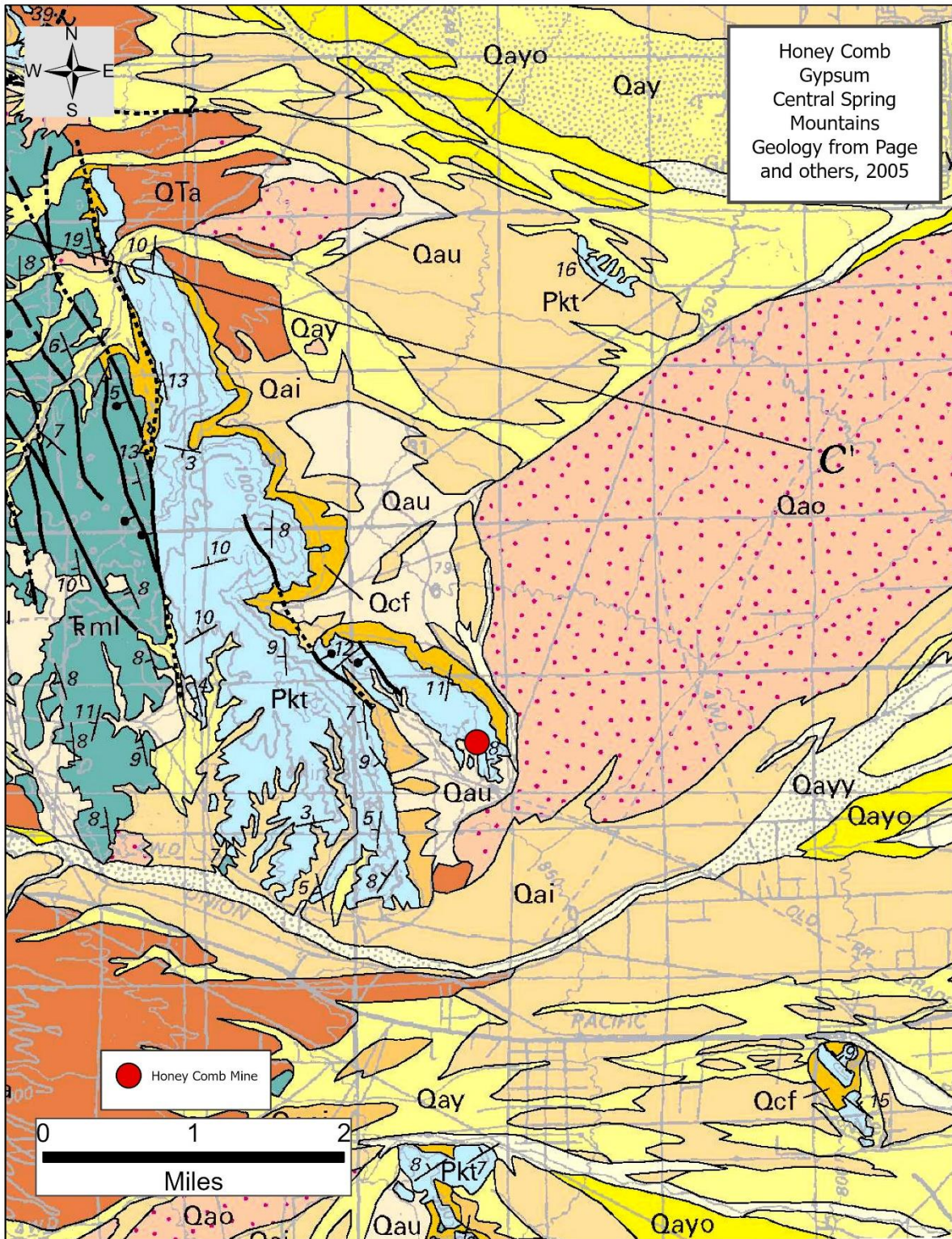


Figure 9. Area geologic map of the Honey Comb Mine. . Open source for educational purposes. No copyright.

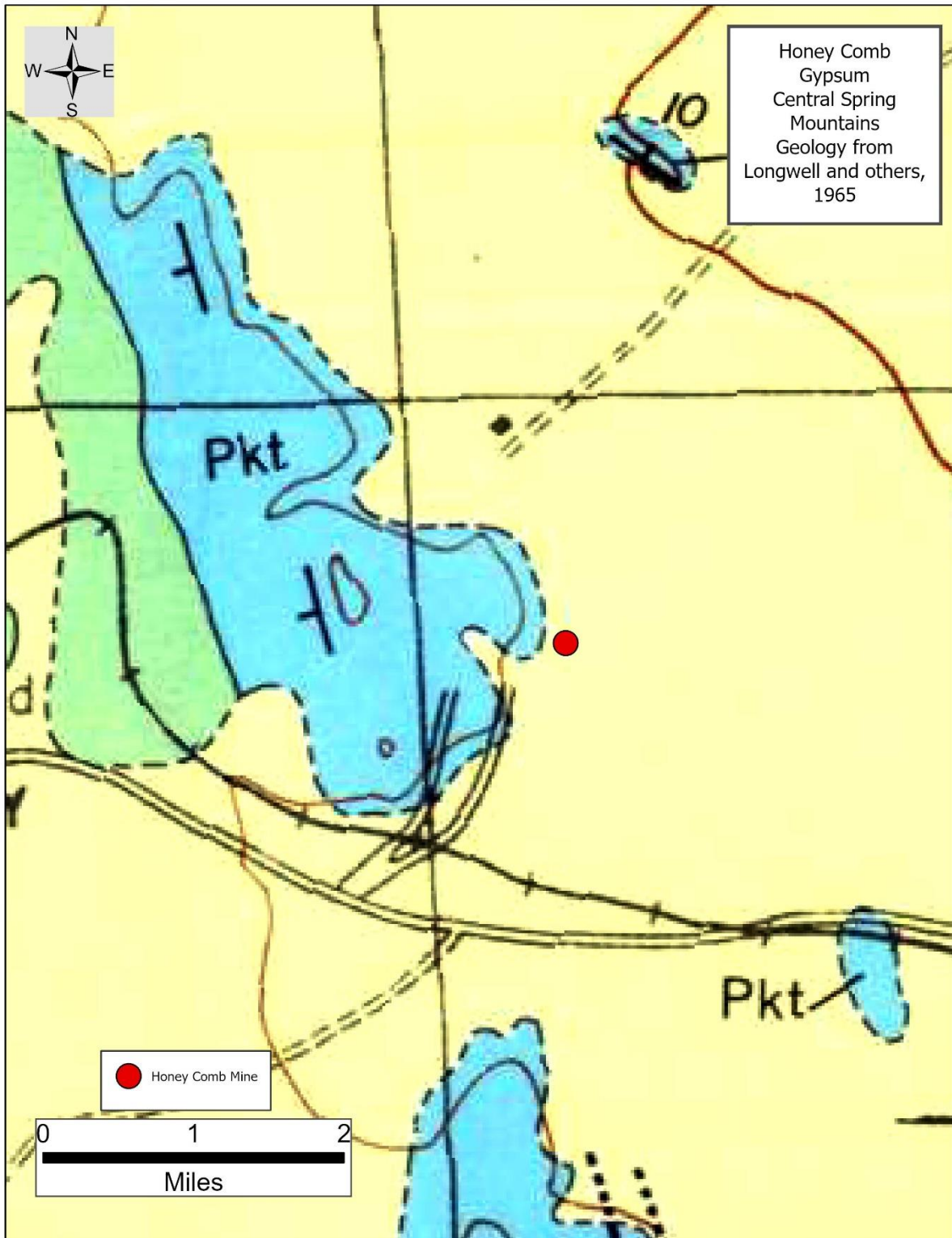


Figure 10. Area topographic map of the Honey Comb Mine. . Open source for educational purposes. No copyright.

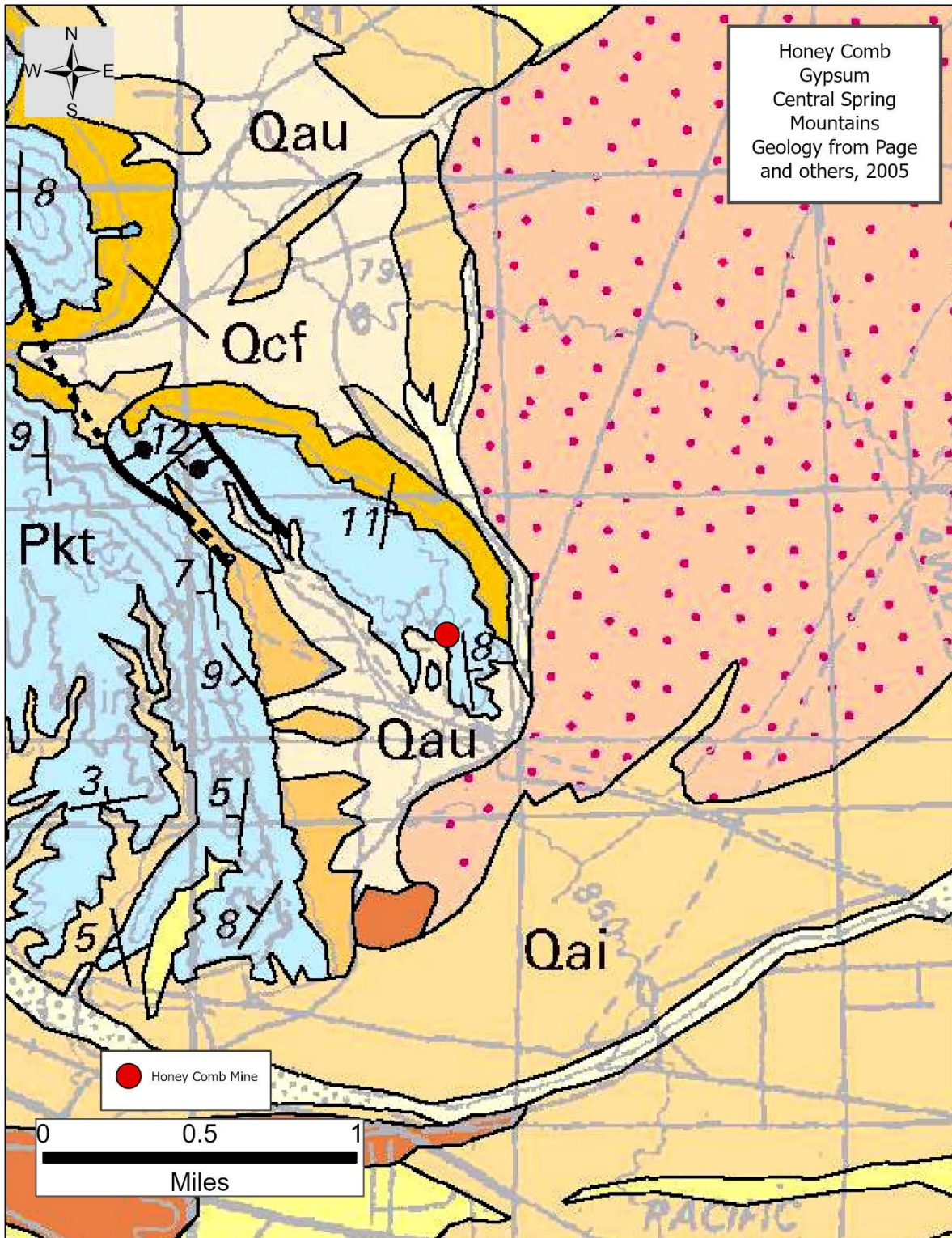


Figure 11. Site topographic map of the Honey Comb Mine. . Open source for educational purposes. No copyright.

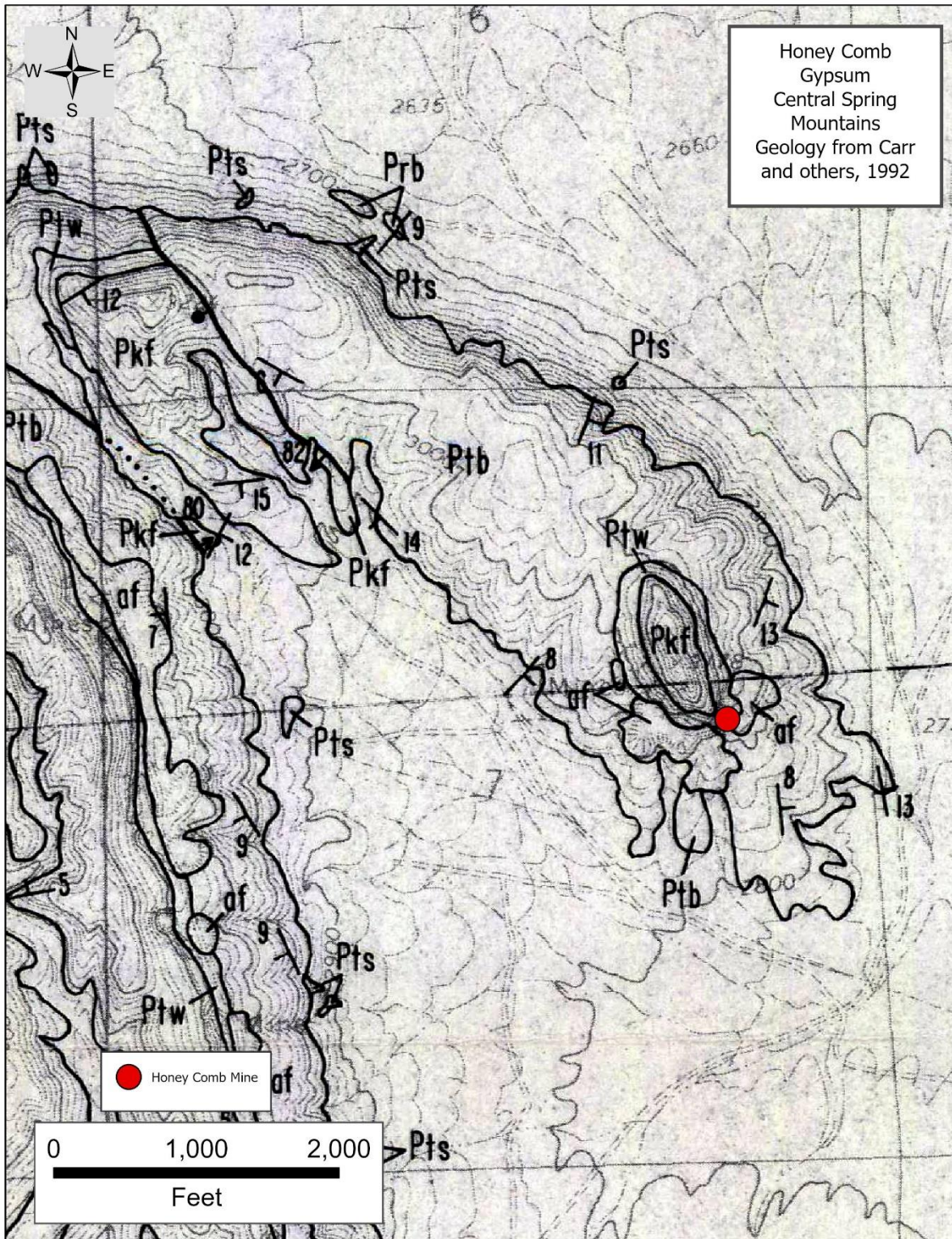


Figure 12. Site geologic map of the Honey Comb Mine. . Open source for educational purposes. No copyright.

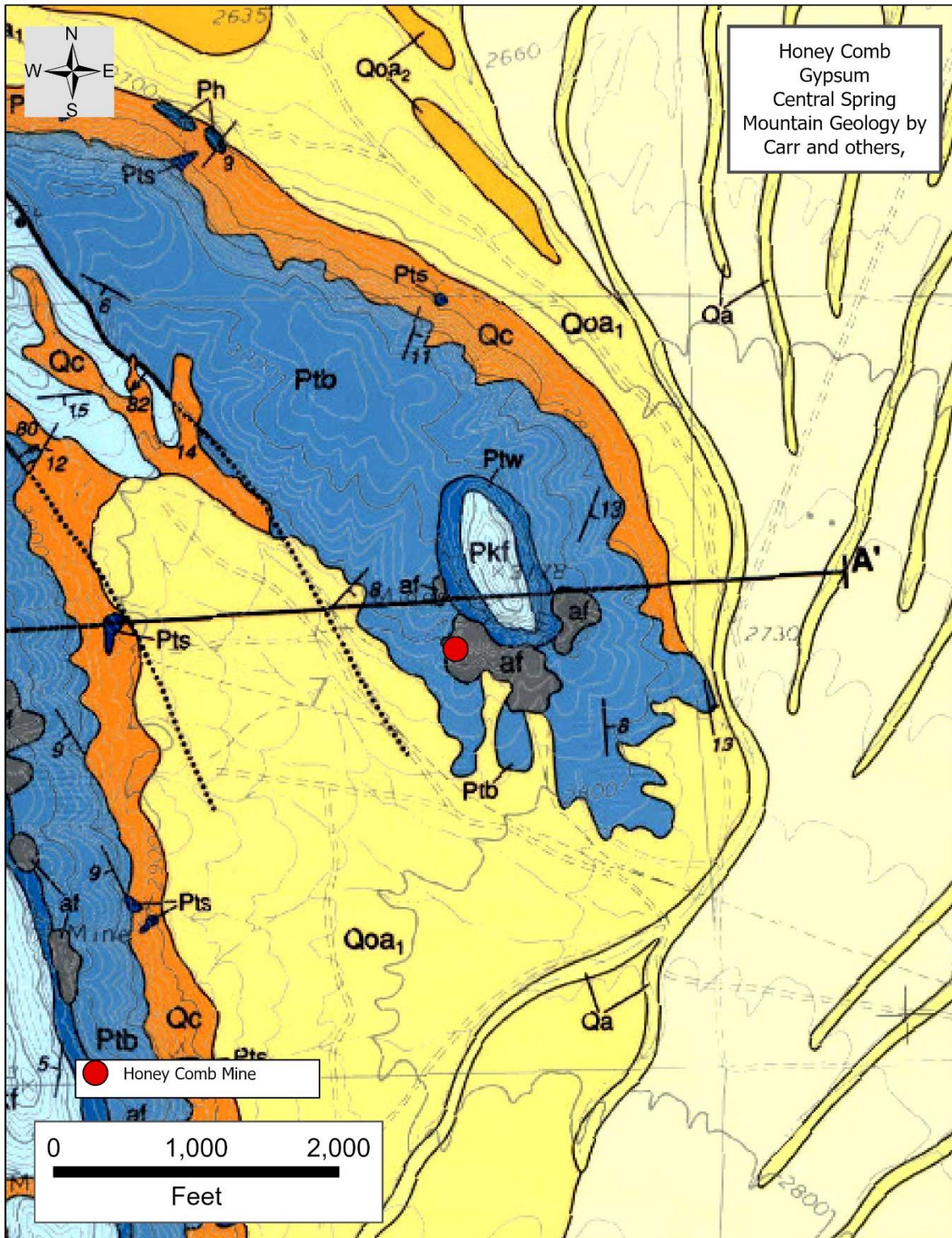


Figure 13. Site geologic map of the Honey Comb Mine. . Open source for educational purposes. No copyright.

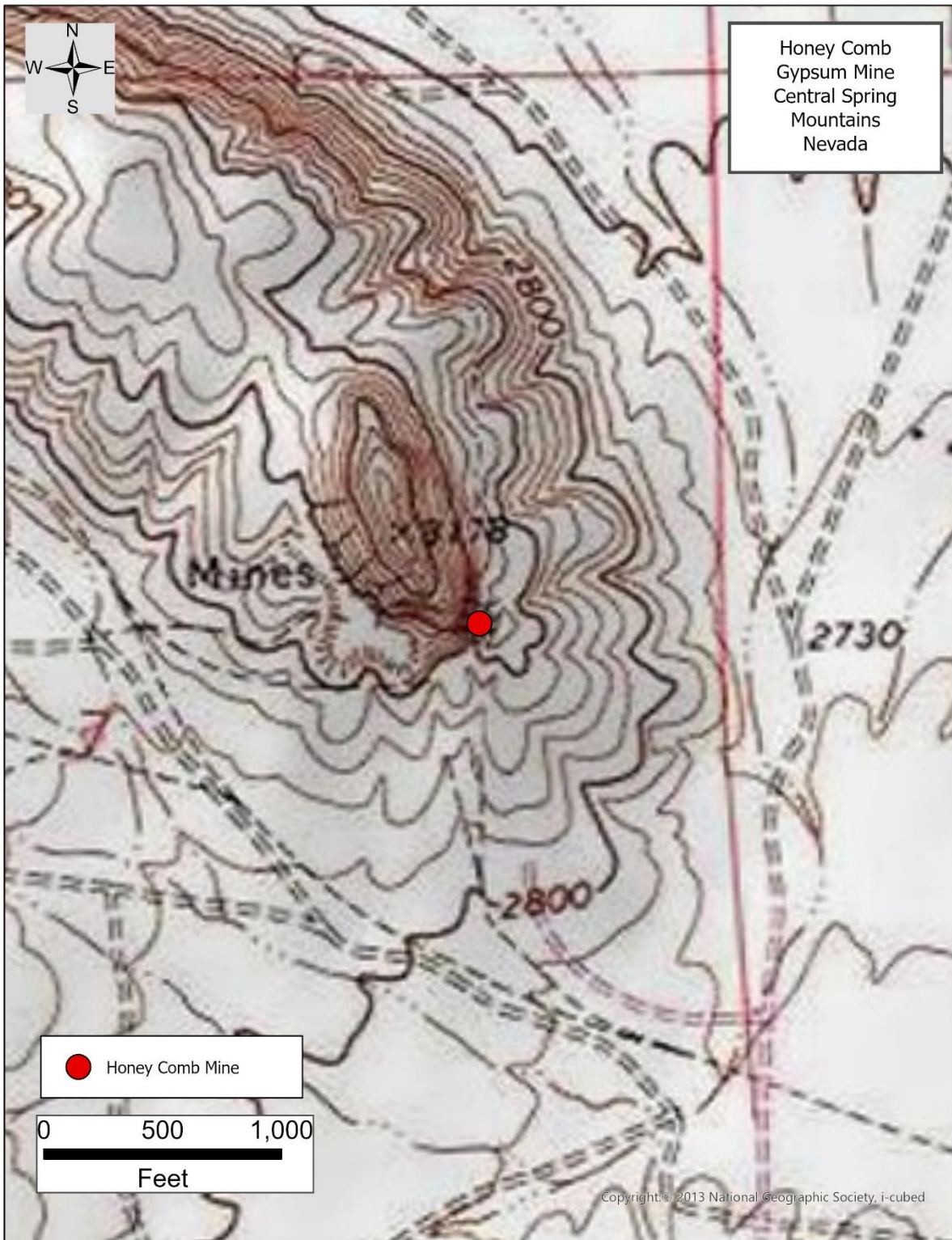


Figure 14. Site topographic map of the Honey Comb Mine. . Open source for educational purposes. No copyright.

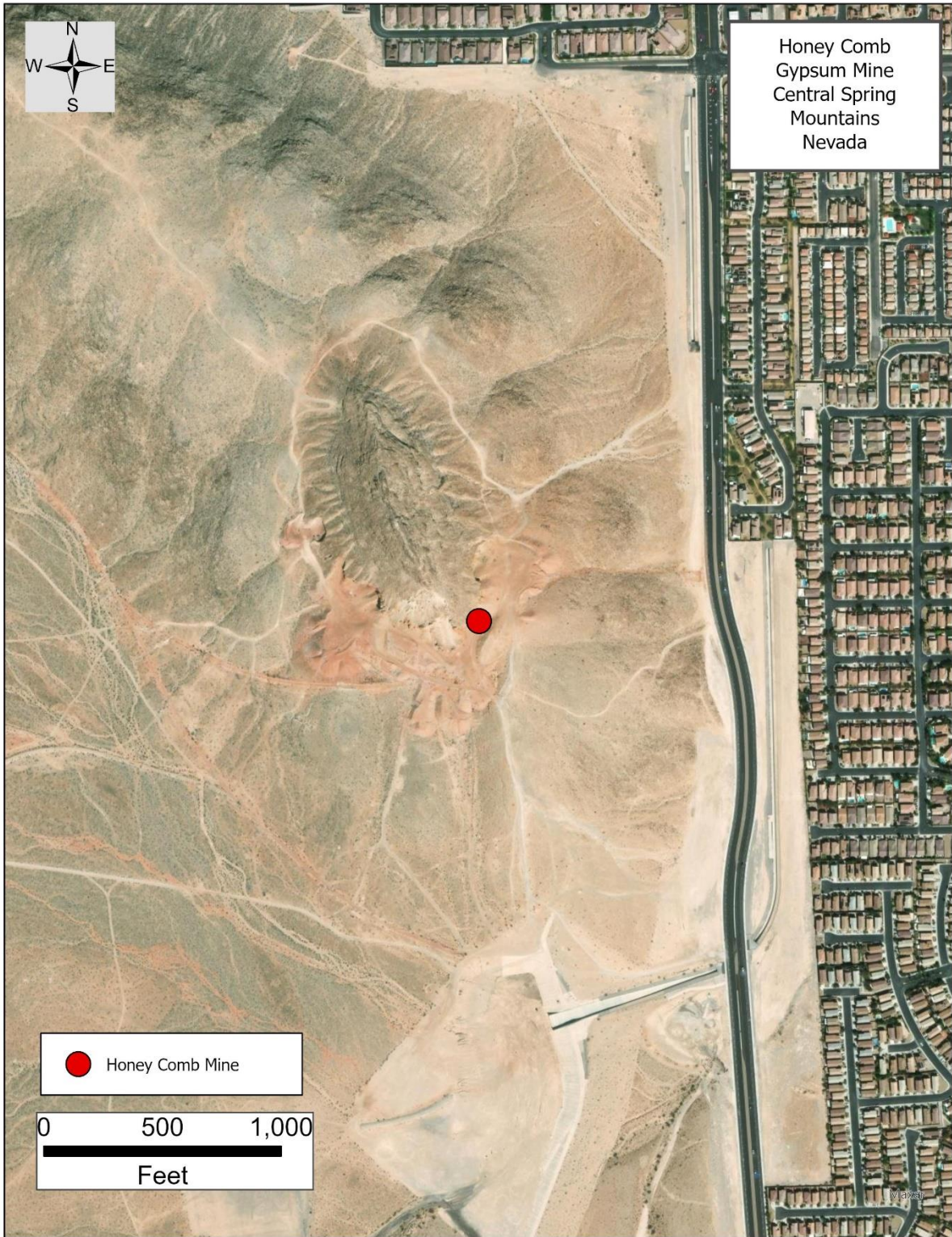


Figure 15. Aerial photograph of the Honey Comb Mine. . Open source for educational purposes. No copyright.