

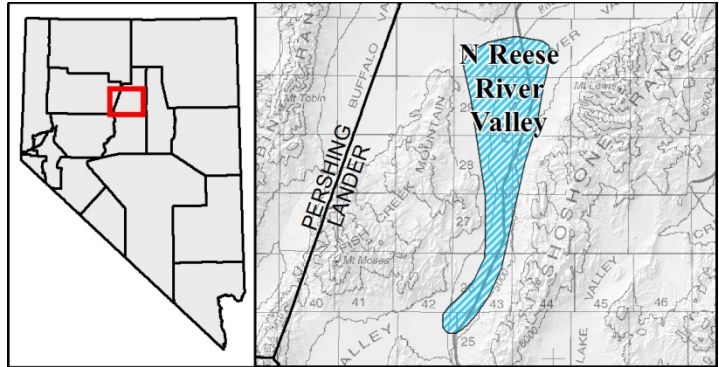
Site Description

North Reese River Valley

(updated 2014)

Geologic setting:

N. Reese River valley is located within north central Nevada and approximately 30 kilometers to the southwest of Battle Mountain. The valley is bordered by the Shoshone range to the east and the Fish Creek Mountains to the west and southwest. The geology of the surrounding mountains have been identified as being composed of Paleozoic silicics and volcanics, unconformably overlain by the Antler Sequence. Stony Point Hot Springs are hosted in an Ordovician-era outcrop of siliceous and volcanic material, overlain by Miocene-era basalt flows and rhyolitic intrusives (Stewart et al., 1977).



Geothermal features:

Hot Springs Ranch ([Map](#)): Springs in Sec. 23,26, T27N, R43E have reported temperatures of 50-54°C (Waring, 1919; Hose and Taylor, 1974; Crosthwaite, 1963; Lamke and Moore, 1965). The estimated reservoir temperature using the silica geothermometer is 92°C (Mariner and others, 1974). The water is believed to be heated by deep circulation along a fault that passes through the area (Waring, 1919). At least 11 springs are present, and the spring deposits are travertine.

Mound Springs: Springs in Sec. 7, T28N, R44E have reported temperatures of 32-43.3°C (Trexler et al, 1981; Waring, 1965; Great Basin Groundwater Geochemical Database). The highest estimated reservoir temperature using a quartz (no steam) geothermometer is 92°C (White, per. comm.) A 2008 NBMG sampling trip noted the spring flows through a buried pipe to an algae-filled trough then continues into a grassy area (the pipe and trough are likely the same ones mentioned by D.E. White in the GEOTHERM Geochemical Database, sampled in 1950).

Leasing information:

Geothermal Technical Partners held a non-competitive lease on 3839 acres in 2009, but relinquished the lease in 2010. Mustang Geothermal Corp. holds 3,660 acres in the area around Mound Springs. These were leased in the 2010 non-competitive lease sale and expire in 2020.

Bibliography:

[Crosthwaite, E.G., 1963, Ground-Water Appraisal of Antelope and Middle Reese River Valleys, Lander County, Nevada: State of Nevada Department of Conservation and Natural Resources Ground-Water Resources - Reconnaissance Series Report 19, 30 p.](#)

Great Basin Groundwater Geochemical Database, Nevada Bureau of Mines and Geology: <http://www.nbm.unr.edu/Geothermal/GeochemDatabase.html>.

Site Description

[Hose, R.K., and Taylor, B.E., 1974, Geothermal Systems of Northern Nevada: U.S. Geological Survey Open-File Report 74-271, 27 p.](#)

Lamke, R.D., and Moore, D.O., 1965, Interim Inventory of Surface-Water Resources of Nevada: Nevada Department Conservation and National Resources, Water Resources Bulletin 30, 39 p.

Mariner, R.H., Rapp, J.B., Willey, L.M., and Presser, T.S., 1974, Chemical Composition and Estimated Minimum Thermal Reservoir Temperatures of the Principal Hot Springs of Northern and Central Nevada: U.S. Geological Survey Open-File Report 74-1066, 32 p.

Stewart, J.H., McKee, E.H, and Stager, H.K., 1977, Geology and mineral deposits of Lander County, Nevada, Nevada Bureau of Mines and Geology Bulletin 88, University of Nevada, Reno, 106 p.

[Trexler, D.T., Koenig, B.A., Ghusn, G. Jr., Flynn, T., and Bell, E.J., 1982, Low-to-moderate-temperature geothermal resource assessment for Nevada: areas specific studies, Pumpnickel Valley, Carlin and Moana: United States Department of Energy Geothermal Energy Report DOE/NV/10220-1 \(DE82018598\).](#)

U.S. Geological Survey, 1983, GEOTHERM database, <http://www.nbmg.unr.edu/geothermal/geochemdata/geotherm.htm>.

[Waring, G.A., 1919, Ground Water in Reese River Basin and Adjacent Parts of the Humboldt River Basin, Nevada: U.S. Geological Survey Water Supply Paper 425-D, 129 p.](#)

[Waring, G.A., 1965, Thermal springs in the United States and other countries of the world, U.S. Geological Survey, Professional Paper 492.](#)