BELMONT (UDY) HOT SPRINGS

Robert Blackett Utah Geological Survey Cedar City, UT

> John W. Lund Geo-Heat Center



Overview of the Camperworld Hot Spring.

GEOLOGY

Belmont Hot Springs (a.k.a Udy Hot Springs) is located 1 mile (1.6 km) southwest of Plymouth in northeastern Box Elder County on the flood plain of the Malad River. The springs consist of about 50 orifices that form a roughly semicircular pattern on the western flank of the river. The springs flow from fractured Paleozoic limestone at a small escarpment between the flood plain and the higher terraces of the Malad River Valley. Water temperatures range from 93° to 125°F (34° to 52°C). A large lake containing several spring orifices is the most conspicuous feature of the springs, but a series of smaller orifices given names such as "Indian Pool," Morning Glory Hole," and "Mud Pots" are present south of the large lake. Water from all orifices drain directly into the Malad River. Development at the former Belmont Hot Springs Resort has modified the original springs (Murphy and Gwynn, 1979). The facility is now operated by Camperworld.

The Belmont Hot Springs system is situated between the Wasatch Range on the east and the West Hills to the west. The two ranges, different in terms of geology and structure, are separated by Basin and Range structures beneath the Malad River Valley (Murphy and Gwynn, 1979).

Dissolved constituents, like many other Wasatch Front valley springs, are mainly sodium and chloride ions with TDS values approaching 8,400 mg/L.

UTILIZATION

The Camperworld facility, with an existing mature nine-hole gold course on the property, also serves as one of the few hot deep SCUBA certification sites in the Western United States. The dive pool is 28 to 30 feet (8.5 to 9.1 m) deep and is around 90°F (32°C) in the winter; however, at 115 to 120°F (46 to 49°C) in the summer, the pool is too hot for diving during that period. The dive pool is also used to heat four homes through black plastic pipes submerged in the pool. The office building floor is heated from a well, that is current being redrilled. On this property you will also find a large swimming pool heated at 90°F (32°C) with additional hot tubs. This resort has all the necessary water, sewer, and electrical hookups for RV's, or great areas for tenting and family reunions. The former owners operated a commercial aquaculture facility, raising lobsters and crayfish for distribution out of the local area. The gate in the raising channel broke, thus the facility is not longer operated. The current managers are considering raising bass and tropical fish.

Udy Hot Springs was also on the Salt Lake Cutoff, an emigrant road from California to Salt Lake City. Members of the U.S. Mormon Battalion, after being discharged from the U.S. Army, traveled this route to Salt Lake City. The first group over this trail arrived in the city on September 28, 1848.



The Camperworld swimming pool.



The SCUBA dive pool with the heated residences on the hill.

REFERENCE

Murphy, P. J. and J. W. Gwynn, 1979. "Geothermal Investigations at Selected Thermal Systems of the Northern Wasatch Front, Weber and Box Elder Counties, Utah." Utah Geological and Mineral Survey Report of Investigations 141, Salt Lake City, UT.



One of the crayfish ponds.