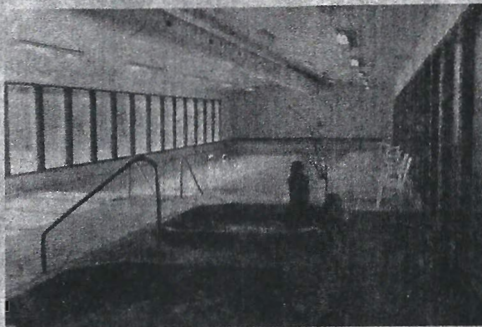


CHENA SPRINGS HOT

Fairbanks, Alaska Founded in 1905



Early History and Geology

Located 60 miles northeast of Fairbanks, Chena Hot Springs became famous for curing crippled prospectors of their aches and pains as long ago as 1905. Robert and Thomas Swan had learned that a U.S. Geological Survey crew, in 1904, had seen stream rising from a valley somewhere on the upper Chena River. The surveyors concluded that it had to be from a hot springs but did not investigate further. Robert Swan looking for a place where he could ease the pain he suffered from rheumatism, set out in a boat loaded with supplies, in search of the hot springs. Over one month, after leaving Fairbanks, he and his brother arrived at the North Fork of the Chena and poled up that tributary to the mouth of Monument Creek. They ascended Monument Creek a short way, and found the hot springs on August 5, 1905. By 1911, the property boasted a stable,

bathhouse and twelve small cabins for visitors. The resort was on its way to becoming one of the premier resorts of Interior Alaska, and a favorite getaway spot for world-weary residents of Fairbanks.

In 1912 the trail to the springs took only twenty hours actual traveling time, which was in excellent condition for dog mushing and "even passable for bicycles." Regular runs between Fairbanks and the resort via the "Hot Springs Stage" with "comfortable four-horse double rigs making round trips every ten days" was established. Until the trail had been improved in 1911, it took anywhere from one to three weeks to reach the springs from Fairbanks, depending on the weather and road conditions. Travel by horse-drawn rigs had shortened the trip to two and half days through a stretch of country populated by four roadhouse keepers who

made their living feeding and housing the passengers.

As the fame of the hot springs spread, Alaska's delegate to Congress, James Wickersham, asked the Department of Agriculture to analyze the waters. The Bureau of Chemistry analyzed three pints and concluded that the water was "different from any American hot springs which we have examined." The principal characteristics of the Chena Hot Spring waters consisted of its content of sulfate, chloride and bicarbonate of sodium. In fact, it was very similar to the waters of the Felsenquelle, one the famous springs at Carlsbad in Bohemia.

Chena Hot Springs resort enjoys a clean, healthy and beautiful natural environment and continues to welcome people from all over the world to bathe in the curative powers of the hot waters.

CHENA HOT SPRINGS

The warmth of Alaska is yours...
at Chena Hot Springs



Water Analysis (Values in ppm where applicable)

Constituent Year	A 1912	B 1917	C 1972	D 1992
Silica (SiO ₂)	72.0	77.0	85.0	88.4
Iron (Fe)	-	1.2 ^a	-	<MDL
Aluminum (Al)	.028	-	-	-
Calcium (Ca)	2.9	2.3	1.3	2.75
Magnesium (Mg)	0.2	1.2	0.13	<MDL
Sodium (Na)	107.0	97.0 ^b	110.0	107
Potassium (K)	trace	-	3.3	-
Carbonate (CO ₃)	-	0.0	-	28.0
Bicarbonate (HCO ₃)	116.0	118.0	114.7	89.0
Sulfate (SO ₄)	89.0	78.0	68.0	56.1
Chloride (Cl)	35.0	26.0	28.9	-
Nitrate (NO ₃)	trace	-	-	-
Lithium (Li)	trace	-	.03	-
Fluoride (F)	-	-	18.6	-
Boric acid (NH ₃ BO ₃ aq)	-	-	7.4	-
Ammonia (NH ₃ aq)	-	-	2.7	-
Total dissolved solids at 180 C	-	363 ^c	388	-
pH	-	-	9.14 @ 57 C	9.8 @ 25 C

^aFe₂O₃ + Al₂O₃

^bCalculated

^cBy summation with bicarbonate
computed as carbonate

- A. Sample collected in 1912 by P.J.B. LeBlanc; analyzed by J.B. Reed, Bureau of Chemistry, U.S. Dept. of Agriculture (Waring, 1917).
- B. Sample collected August 5, 1917 by Robert Chamberlain; analyzed by R.B. Dole and Alfred A. Chambers (Waring, 1917).
- C. Sample collected in August, 1972 by I. Barnes; analyzed by the Division of Water Resources, U.S. Geological Survey.
- D. Sample collected February 26, 1992 by F.W. Rose; analyzed by Northern Testing Laboratories, Inc.; reported by J.H. Johnson.