

CHAPTER 5

AN INSTITUTIONAL ANALYSIS
OF DEVELOPMENT AT
BIG CREEK HOT SPRINGS

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Institutional Development Process

The development of geothermal energy at Big Creek Hot Springs will require close cooperation between Republic Geothermal, Inc., Noranda Mining, Inc., Salmon National Forest officials, and the Bureau of Land Management. The impacts of developing a binary cycle power plant must include the potential effects of plant construction, electric power transmission, and disposal of the thermal water.

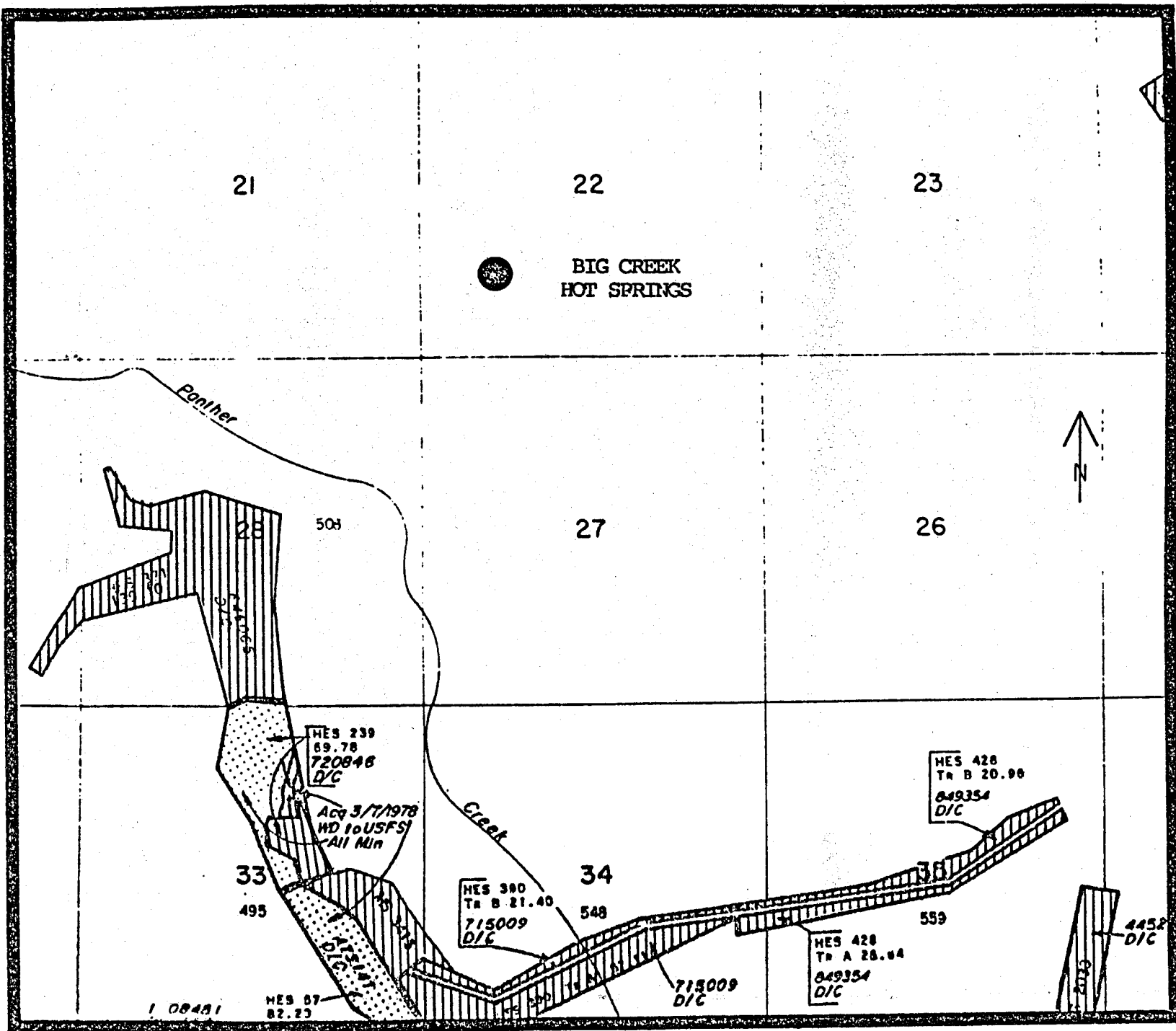
Resource Ownership

The land containing Big Creek Hot Springs is part of the Salmon National Forest. Much of the area is unsurveyed and remote, although not roadless. Figure 1 shows that portion of the Master Title Plat for T. 23 N., R. 18 E., containing Big Creek Hot Springs. This figure shows the location of federal and private interests; there are no state interests in the area. Exploration on any parcel of land which has federal ownership or a federal geothermal reservation will require a geothermal lease from the Bureau of Land Management. Because the area has not been classified by the U.S. Geological Survey as a Known Geothermal Resource Area (KGRA), federal geothermal resources can be leased to the first qualified applicant applying for a lease. Exploration drilling on any parcels under state ownership or parcels under private or municipal lands within the area requires permission from the landowner and the appropriate permits from the State of Idaho.

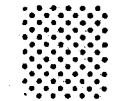
The probable drilling site outlined in the EG&G preliminary engineering study is located on Salmon National Forest land. Republic Geothermal, Inc., has lease applications covering the Big Creek area. These are shown below.

FIGURE 1

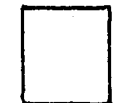
MINERAL OWNERSHIP AND RESERVATIONS



Private Surface & Mineral Estates



Private Surface/Federal Mineral Estates



Federal Surface & Mineral Estates

#	Order of Processing	Legal Description	Acreage
I-15975	8-30-79	T23N, R18E Sec. 14, 15, 22, 23	2560
I-15976	8-30-79	T23N, R18E Sec. 21, 27, 28	1788
I-15977	8-30-79	T23N, R18E Sec. 16, 26	1280

I-15975 covers the section containing the springs.

As of September 1, 1980, the Bureau of Land Management (BLM) had not acted to pre-adjudicate these lease applications.

The probable binary power plant site outlined in the preliminary EG&G study is also located on federal forest land. As such, the proposed plant would be subject to the Power Plant Siting Regulations administered by the BLM.

The proposed transmission lines would run thirteen (13) miles along Panther Creek where they would tie-in to the existing Idaho Power grid serving Blackbird mine and the town of Cobalt. Due to the pattern of land ownership along Panther Creek, transmission system development would utilize normal right-of-way procedures on federal lands, and easement acquisition techniques on private land.

Wilderness Status of Big Creek Hot Springs

Big Creek Hot Springs is outside of the wilderness boundary established by the River of No Return Wilderness Bill. As such, Forest Service multiple-use regulations apply to the site. However, the area between Big Creek Hot Springs and the Blackbird Cobalt Mine is included as part of the Clear Creek Special Mining Management Zone defined by the Wilderness Bill. Acceptable activities in the special management zone include exploration,

development and mining of cobalt and associated (in the same ore body) minerals. The intent of this provision of the bill is to allow any activities necessary for the development of cobalt. If the development of areas within the Special Mining Management Zone are necessary for the geothermal project (for transmission lines, power plant sites, etc.), then the generation of geothermal power at Big Creek must be defined as critical to the development of the Blackbird Cobalt Mine.