Idaho GL025025

ARTESIAN CITY PROJECT (Formerly Twin Falls Project)

Objectives:

To develop a conceptual model for the thermal waters in the Artesian City area, in order to evaluate exploration methods for low temperature geothermal systems. The project area will include T11 to 14S and R18 to 21E (see attached map).

Procedures:

1. Map the northern half of the Rock Creek Hills (South Hills) at a reconnaissance scale to identify major faults, fault block orientations, and stratigraphic units.

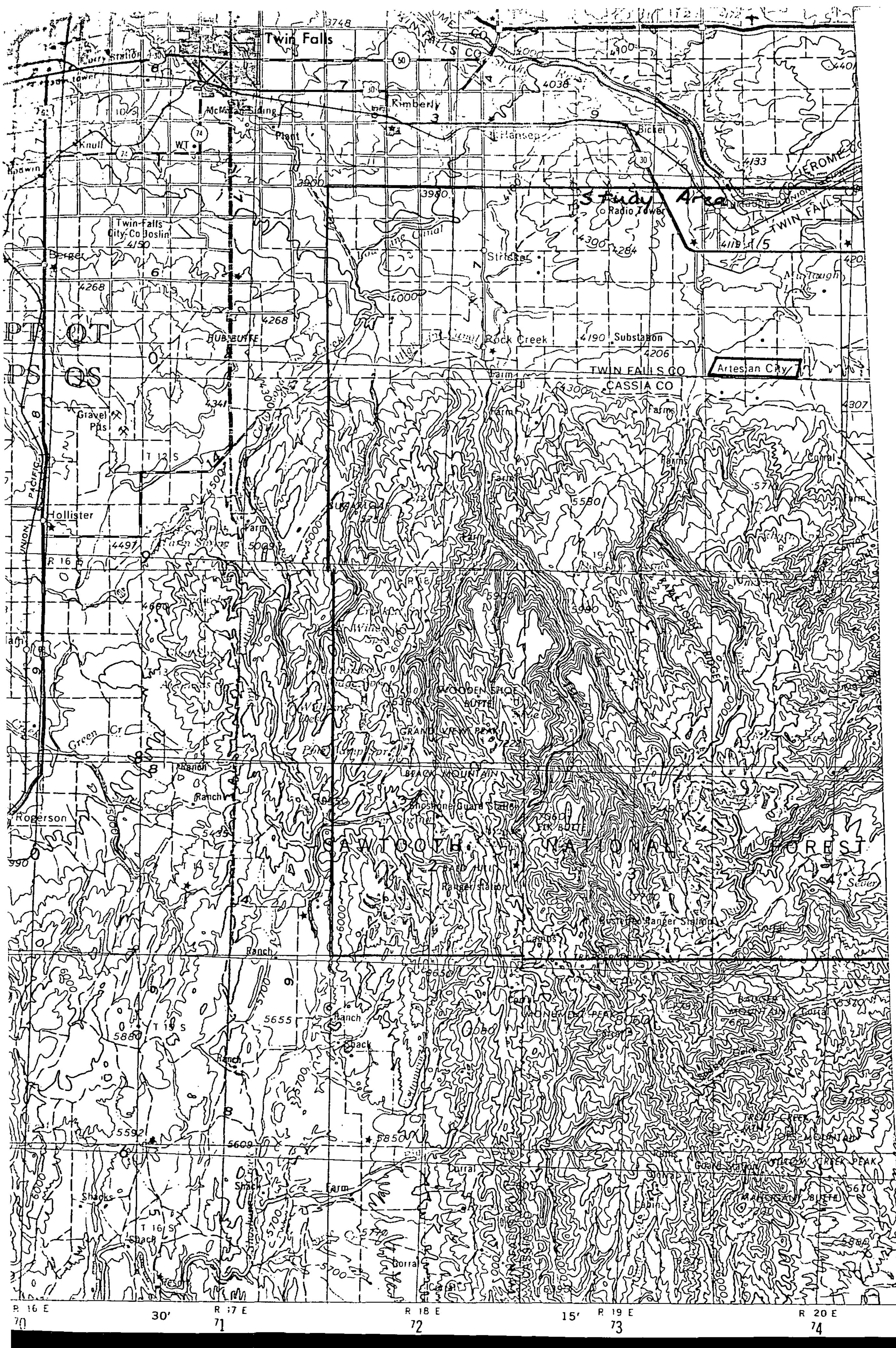
2. Utilize open file well completion and water level data to characterize the geothermal systems and identify permeable units and structures that modify flow patterns within and along the margins of the Rock Creek Hills excluding aquifers in the basalts of the Snake River Plain.

3. Compare existing water quality data with supplemental analyses where needed from springs and wells from the study area to help identify recharge areas for thermal water systems and areas of mixing with cold waters. Any sampling done will reconnaissance in nature to fill in data points in and around the higher temperature areas. We will apply chemical geothermometers to new and existing data and generate isotope data from the new samples to compliment the water quality data.

4. Synthesize these data to produce a conceptual model of a portion of the low temperature geothermal system within and surrounding the Rock Creek Hills. This will allow us to propose the most efficient exploration methodology for this system, and, by implication, for other low-to-moderate temperature geothermal systems with characteristics similar to the Artesian City system.

Personnel:

D. L. Nielson - Project Manager
E. M. Struhsacker - Project Coordinator - Geology
R. M. Capuano - Geochemistry
C. Smith - Geophysics, Hydrology
M. Bullett - Literature compilation and sampling



Twin Falls
Kimberly
Hansen
Bickel
Study Area
Radio Tower
Stricker
Rock Creek
Substation
TWIN FALLS CO
CASSIA CO
Artesian City
Berger
HUB BUTTE
Gravel Pits
Hollister
Green Cr
Rogerson
WOODEN SHOE BUTTE
GRAND VIEW PEAK
BLACK MOUNTAIN
Shoshone Guard Station
SAWTOOTH NATIONAL FOREST
Ranger Station
R 16 E
30'
R 17 E
R 18 E
15'
R 19 E
R 20 E