3.0 DESCRIPTION OF THE FACILITIES

The Nichols Ranch In-Situ Recovery (ISR) Project is divided into **three** units, the Nichols Ranch Unit, the Hank Unit, **and the Jane Dough Unit**. The Nichols Ranch Unit encompasses approximately 1,120 acres of land, the Hank Unit area encompasses approximately 2,250 acres of land, and the Jane Dough Unit encompasses approximately 3,680 acres. The project units will contain all of the proposed operations. The major surface facilities in the **Nichols Ranch and Hank Units** include the central processing plant, satellite plant, wellfields, and deep disposal wells. The injection and production proposed wellfield and disturbance area for Nichols Ranch Unit will contain approximately 113 acres, and Hank Unit will contain approximately 155 acres. The deep disposal wells will be designed such that there will be adequate disposal capacity for the various phases of operation (i.e. Production, Production and Restoration, and Restoration. For this application a disposal estimate of 100 gpm flow rate for each has been used and each disposal well will have a maximum injection pressure less than the fracture pressure of the formation. **The Jane Dough Unit only includes wellfields and the injection and production proposed wellfield and disturbance area for Jane Dough Unit will contain approximately 101 acres.**

3.1 IN SITU RECOVERY PROCESS AND EQUIPMENT

Uranerz plans to mine the Nichols Ranch Unit (Township 43N, Range 76 West, Sections 7, 8, 17, 18, and 20), Hank Unit (Township 44N, Range 75 West, Sections 30 and 31; Township 43N, Range 75 West, Sections 5, 6, 7 and 8) and the Jane Dough Unit (Township 43 North, Range 76 West, portions of Sections 20, 21, 27, 28, 29, 30, 31, 32, 33, and 34) ore zones using the in-situ recovery (ISR) extraction method. This is the same method that is used by Power Resources Inc. (PRI) at the Smith-Highland mine in the southern Powder River Basin and is the same method used by COGEMA (AREVA) at the nearby Christensen Ranch site.

The ore zones at the Nichols Ranch Unit, the Hank Unit, and **Jane Dough** Unit will be divided into individual production areas where injection and recovery wells will be installed. As typical with the above mentioned commercial operations, the wells will be arranged in 4-spot, 5-spot or 7-spot patterns. In some situations, a line-drive pattern or staggered line-drive pattern may be employed. Horizontal and vertical excursion monitor wells will be installed at each wellfield as dictated by geologic and hydro-geologic parameters, and as approved by the Wyoming Department of Environmental Quality - Land Quality Division and the United States Nuclear Regulatory Commission. The facilities will be constructed according to acceptable engineering practices.

3.2 SITE FACILITIES LAYOUT

The Nichols Ranch Unit will consist of a complete processing plant including auxiliary facilities such as office, change room, laboratory, maintenance, and deep disposal well. The processing plant will have the capability of concentrating the wellfield recovery solution obtained from wells installed in the Nichols Ranch Unit ore zone. Figure 3-1 (see map pocket) is a site facility diagram of the Nichols Ranch Unit This figure shows the location of the major surface facilities. **The Jane Dough Unit will only contain wellfields as the uranium will be processed at the Central Processing Plant located in the Nichols Ranch Unit.**

In addition, the Nichols Ranch Unit processing facility will have excess installed capacity to process uranium loaded resin or yellowcake slurry from the Hank Unit Satellite plant. The accumulated uranium values from both ore zones will then be processed into a dry yellowcake concentrate, packaged in approved 55 gallon steel drums, and trucked off site for conveyance to the licensed uranium conversion facility of choice. At the Hank Unit there will be a plant building, maintenance building, and deep disposal well. A site facility diagram showing the major surface buildings for the Hank Unit is presented in Figure 3-2 (see map pocket).

3.2.1 Nichols Ranch Unit – Central Processing Plant

At the Nichols Ranch Unit processing facility, most of the process equipment will be housed in an approximate 150 x 250 ft metal building with eave heights less than 50 ft. The major process equipment is shown in Figure 3-3 (see map pocket), with some of the bulk chemical storage tanks located outside of the process building. The major equipment inside the process building will be the ion exchange circuit, the lixiviant make-up circuit, the elution/ precipitation circuit, and the yellowcake drying facility. During restoration, the water treatment system for aquifer restoration will also be located in the process building.

The yellowcake drying and drumming facilities will be located at one end of the process building. Due to the height of the dust abatement equipment, the building's eave height is approximately 40 ft at this end. A yellowcake storage area will be located adjacent to the yellowcake drying and packaging area. This will be an enclosed, heated area approximately