

Eunice Brine Well No. 1 Description (6/10/2020):

A Discharge Permit Renewal application for an Underground Injection Control (UIC) Class III Solution Mining Injection Well (BW-2) or "State 'Eunice' Brine Well No. 1" (API# 30-025-26884) located at U.L.: O, Sec. 34, Township 21 South, Range 71 East, 630 FSL, 2427 FEL, Latitude N 32.42983° Longitude W -103.15015°, NMPM, Lea County, has been submitted. The plan is to produce high density "Brine Fluids" used in the drilling of oil and gas wells in New Mexico. The water table is at about 505 ft. below ground level.

An assemblage of existing cemented casing strings are set as follows: 1) 7-inch conductor casing with casing shoe is set at 1450 ft. below ground level (bgl) ; and 2) 5-1/2 inch liner is cemented inside conductor casing at 1,375 ft. bgl. with a well TD of 1,818 ft. bgl. Injection tubing 2-7/8 inch is set to a depth of 1,544 ft. bgl. within the cemented liner. The top of the salt formation is at about 1,320 ft. bgl.

Fresh groundwater will be injected into the tubing at an average operating injection rate of 20 - 40 gpm at an injection pressure from 200 - 250 psig below a permitted maximum surface injection pressure (MSIP) of 280 psig. Brine fluid quality is about 300,000 TDS and will be produced through the "backside" or casing annulus (between the tubing and casing) to surface. The construction and design of this brine well utilizes a "normal-flow" scheme where freshwater is injected via tubing into the salt cavern with production of brine through casing to surface. Fresh ground water zones are protected by steel and cement to surface. Based on the brine well construction relative to the natural geology of salt formation(s), the morphology of the salt cavern is anticipated to be within acceptable standards.