

Basin 128

NOI 57742

Churchill Co.

Well Log # 91757



Lahontan GeoScience, Inc.

Well Abandonment Log

Project: Water Well Closures in Dixie Valley

Project No.: NASF: 03140

Sheet 1 of 1

Contract No: 49162

Boring No.: 081D

Location (TRS): T. 21N, R. 35E, Sec. 24, NW 1/4, SE 1/4

Location (Lat/Lon): 39° 41.219' N, 118° 5.441' W

Elevation: 3404 ft

Permit No.: none	Well Log: none	Measured Depth: 135 ft	Perf. Date: -
Borehole Dia.: unknown	Casing Size: 3", steel	Measured Casing Size: 3", steel	Plug Date: 11/20/03
Borehole Depth: unknown	Casing Depth: unknown	Static Water Level: Flowing	Supervised by: J. R. Humphrey
Perforations at time of construction: unknown	Additional Perforations: None	Driller: W. E. Knoblock	

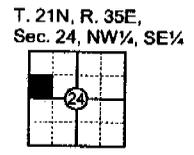
AB2213

Depth (feet)	Lithology	Detail	Well Construction	
	*Recorded at time of drilling		*Recorded at time of drilling	Abandonment
0	No well log available			Well flowing at surface 2" inner pipe of unknown depth Casing break at about 10 ft bgs causing flow to surface from outside casing  Plug date: 11/20/03 vol. of cement = 2.0 cu. yds nominal density = 18.6 lbs./gal.  Waiver No. R-454
50				
100				
				Measured Depth = 135 ft

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placed in the well. The amount of grout used was 146 percent of the cylindrical well volume.

#### Well 81D

Well 81D was located in SE $\frac{1}{4}$ , NW $\frac{1}{4}$ , section 24, T21N, R<sup>24</sup>35E. A search of the records archived at the Carson City office of DWR failed to identify a log that could be confidently associated with this well. This well was probably used as a domestic supply. The 3-inch diameter steel casing was measured to a depth of 135 feet bgs. The well contained a 2-inch diameter inner liner of unknown depth. At the time of abandonment the well was flowing at a rate of about 5 gpm. A temporary plug was installed on the well to control the flow prior to closure. After installation it was noted that water was flowing outside the casing to the surface, indicating a casing break at depth. The placement of the inner liner could have been an attempt to repair a break in the 3-inch casing.

The presence of the inner liner precluded an attempt to pull the casing. The small diameter of the well precluded the use of the mills knife to perforate the casing. A waiver from NAC 534.420-5(b) was requested from DWR to allow sealing in place. Waiver number R-454 was received on November 12, 2003, approving this approach.

The well was abandoned on November 20, 2003, by placing 135 feet of 1-inch diameter poly pipe in the well and pumping neat cement grout to the land surface. Approximately 2 cubic yards of grout weighing about 18 lbs/gal were placed in the well. As the level of the grout approached 10 feet bgs it was observed flowing outside the casing, confirming the approximate location of the break. The amount of grout used was 1833 percent of the cylindrical well volume, indicating that the grout thoroughly permeated the formation around the well. Subsequent to grouting the well the casing was cut down to land surface.

#### Well 81E

Well 81E was located in SE $\frac{1}{4}$ , NW $\frac{1}{4}$ , section 24, T21N, R35E. A search of the records archived at the Carson City office of DWR failed to identify a log that could be confidently associated with this well. This well was probably used for pasture irrigation. The 4-inch diameter steel casing was measured to a depth of 70 feet bgs. At the time of abandonment the static water level was at 10 feet bgs although it was apparent that the well was flowing at the surface recently.

Obstructions, debris, and/or foreign materials were found in this well. Compressed air and a jetting tool were used to clear the casing down to 70 feet bgs. Sand, gravel, decaying wood, and other unidentified material were ejected from the hole. The exposed section of the casing was deteriorating and an attempt to pull the casing caused the upper portion to deform. The small diameter of the well precluded the use of the mills knife to perforate the casing. A waiver from NAC 534.420-5(b) was requested from DWR to allow sealing in