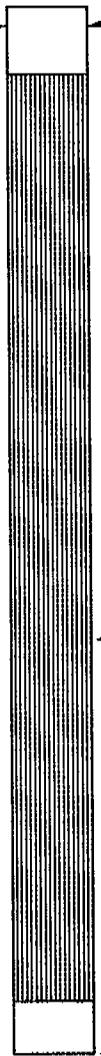


	Lahontan GeoScience, Inc. Well Abandonment Log	Project: Water Well Closures in Dixie Valley	Project No.: NASF: 03140
		Contract No.: lic 49162	Sheet 1 of 1
Location (TRS): T. 21N, R. 35E, Sec. 18, NW¼, SW¼		Location (Lat/Lon): 39° 41.222' N, 118° 05.861' W	Elevation: 3403 ft

Permit No.: none	Well Log: none	Measured Depth: 203 ft	Perf. Date: 10/23/03
Borehole Dia.: unknown	Casing Size: 10", Steel	Measured Casing Size: 10", Steel	Plug Date: 10/30/03
Borehole Depth: unknown	Casing Depth: unknown	Static Water Level: Flowing	Supervised by: J. R. Humphrey
Perforations at time of construction: unknown		Additional Perforations: 10 - 193 ft	Driller: W. E. Knoblock

AB2213

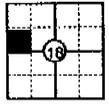
Depth (feet)	Lithology	Detail	Well Construction	
	*Recorded at time of drilling		*Recorded at time of drilling	Abandonment
0	No well log available			Well flowing at surface
50				plug date: 10/30/03 vol. of cement = 6.0 cu. yds nominal density = 18.6 lbs./gal.
100				Additional perforations: 10 - 193 ft 5 perms per foot
150				Measured Depth = 203 ft
200				

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T. 21N, R. 35E,
Sec. 18, NW¼, SW¼



a surface seal from 0 to 30 feet bgs was interpreted from refusal of the knife to penetrate the casing.

The well was abandoned on November 20, 2003, by placing 249 feet of 2-inch diameter poly pipe to the bottom of the hole and pumping neat cement grout to the land surface. Approximately 6 cubic yards of grout weighing about 18 lbs/gal were placed in the well. The amount of grout used was 331 percent of the cylindrical well volume. Subsequent to grouting the well the casing was cut down to land surface.

Well 80A

Well 80A was located in NW¼, SE¼, section 18, 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 used for crop irrigation. The 10-inch diameter steel casing was measured to a depth of 320 feet bgs. At the time of abandonment the static water level was at ground surface although it was clear that the well had been flowing at one time.

An attempt to pull the casing failed. The upper 3 feet of casing broke in an area of heavy corrosion while preparing to pull. Perforation of the casing was completed on October 28, 2003. The presence of a screened interval from 172 to 315 feet was interpreted from the lack of resistance to the mills knife. Additional perforations (5 per foot) were cut into the casing from 10 to 168 feet.

Well abandonment took place on October 30, 2003, by placing 311 feet of 2-inch diameter steel pipe in the well and pumping neat cement grout to the land surface. Approximately 8 cubic yards of grout weighing about 18 lbs/gal were placed in the well. The amount of grout used was 124 percent of the cylindrical well volume.

Well 81A

Well 81A was located in SW¼, NW¼, section 18, 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 being used to fill a stock pond. The 10-inch diameter steel casing was measured to a depth of 203 feet bgs. At the time of abandonment the well was flowing at a rate of about 10 gpm.

No obstructions, debris, or foreign materials were found in this well. An attempt to pull the casing failed. Perforation of the casing was performed on October 23, 2003. Using the mills knife 5 perforations per foot were cut into the casing from 10 to 193 feet.

The well was abandoned on October 30, 2003, by placing 185 feet of 2-inch diameter steel pipe in the well and pumping neat cement grout to the land surface. Approximately 6 cubic yards of grout weighing about 18 lbs/gal were

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

Well 81D

Well 81D was located in SE¼, NW¼, 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 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 SE¼, NW¼, 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