

MUNICIPALITY: Elk Horn

1340 COUNTY: Shelby (83)

165

WELL NUMBER: 10

200' N. of stream

LOCATION: NE, NE, SE, NE, NE, Sec. 11, T. 28 N., R. 37 W. 1 mile S. of Elk Horn

ELEVATION: 1235' ± 5' topo

TOPOGRAPHIC MAP: Elk Horn 7 1/2'

TOTAL DEPTH: 45'

DIAMETER: 56"

TYPE: drilled

CONTRACTOR: Layne - Western

DATE COMPLETED: 5 - - 1968

CASING SCHEDULE: 2'-40' of 10" steel, clay grouted 15', 23" thick
5' stainless steel screen

S.W.L.:

P.L.:

PUMPING RATE:

d.d. 22'

66 gpm (1968)

1/4 hr. 53 gpm. (1977)

PUMP CAPACITY: submersible 50 gpm.

MAIN WATER: glacial sands & clays UNIT: Alluvium IIIALVM

GEOLOGY:

REMARKS:

analysis available for 1987

MUNICIPAL AUTHORITY: Elk Horn Municipal Waterworks

712-764-5051

P.O. Box 98

Elk Horn, Ia. 51531

Lavern Frederickson, Supt.

WATER USE: 57, 155 avg gpd (2-7-79--1-22-80) max gpd 160,000 (- -)

POPULATION SERVED: 740 POPULATION EQUIVALENT (@ 100 gpcd): 872

1954 Elk Horn derives its water from wells # 79-1, 10 (this well), 9, 8, 6

TREATMENT: A, Fp, Cs, realite, V, potassiumpermanganate, post-chlorination

MINERAL NUMBER: 13019 6907
 DATE OF COLLECTION: 1-25-77 8-23-68

	pH	7.05	6.85	
	dissolved solids	414.	400.	mg/liter
	total solids	414.	400.	mg/liter
	soluble iron	15.	18.	mg/liter
	total iron	15.	18.	mg/liter
	SiO ₂	36.	40.	mg/liter
	alkalinity as CaCO ₃ P	none.	none.	mg/liter
	alkalinity as CaCO ₃ T	285.	272.	mg/liter
	hardness as CaCO ₃	393.	310.	mg/liter

	K	2.1	1.8	mg/liter
	Na	9.0	9.4	mg/liter
	Ca	100.	81.6	mg/liter
	Mg	28.	25.8	mg/liter
	Mn	0.91	0.97	mg/liter
	NO ₃	<0.1	1.4	mg/liter
	F	0.3	0.2	mg/liter
	Cl	16.	12.	mg/liter
	SO ₄	49.	36.	mg/liter
	HCO ₃	318.	332.	mg/liter
	CO ₃	none.	none.	mg/liter

	As	0.01	.	mg/liter
	Ba	0.5	.	mg/liter
	Cd	<0.01	.	mg/liter
	Cr	<0.01	.	mg/liter
	Cu	<0.01	.	mg/liter
	Pb	<0.01	.	mg/liter
	Hg	<0.001	.	mg/liter
	Se	<0.01	.	mg/liter
	Ag	<0.01	.	mg/liter
	Zn	0.09	.	mg/liter
	Ni	.	.	mg/liter
	Sr	.	.	mg/liter
	Al	.	.	mg/liter

	gross alpha	5.1	.	picocuries/liter
	Ra ²²⁶	0.87	.	picocuries/liter
	Ra ²²⁸	.	.	picocuries/liter
	gross beta	1.	.	picocuries/liter
	Sr ⁹⁰	.	.	picocuries/liter

	specific conductance	650.	600.	micromhos
	temperature	9.	14.	degrees C