MINERAL NUMBER:	16468	6906	
DATE OF COLLECTION:	8-5-80	8-23-68	
pH	7.1	6.75	
dissolved solids	405.	380.	mg/liter
total solids	405.	380.	mg/liter
soluble iron	16.	19.	mg/liter
total iron	16.	19.	mg/liter
SiO_2	40.	47.	mg/liter
alkalinity as $CaCO_3$ P	none.	none.	mg/liter
alkalinity as $CaCO_3$ T	250.	246.	mg/liter
hardness as $CaCO_3$	329.	292.	mg/liter
K	1.5	2.9	mg/liter
Na	9.7	8.8	mg/liter
Ca	82.	74.4	mg/liter
Mg	23.	25.8	mg/liter
Mn	0.57	0.72	mg/liter
NO_3	<0.1	1.8	mg/liter
F	0.3	0.3	mg/liter
Cl	9.0	14.	mg/liter
SO_4	45.	46.	mg/liter
HCO_3	305.	300.	mg/liter
CO_3	none.	none.	mg/liter
As	0.03	.	mg/liter
Ba	0.3	.	mg/liter
Cd	<0.001	.	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	0.05	.	mg/liter
Ni	.	.	mg/liter
Sr	.	.	mg/liter
Al	.	.	mg/liter
gross alpha	0.5	.	picocuries/liter
Ra^{226}	.	.	picocuries/liter
Ra^{228}	.	.	picocuries/liter
gross beta	4.	.	picocuries/liter
Sr^{90}	.	.	picocuries/liter
specific conductance	560.	570.	micromhos
temperature	.	14.	degrees C

MUNICIPALITY: Elk Horn 1340 COUNTY: Shelby (83) 165

WELL NUMBER: 9

LOCATION: NW, NE, NE, NE, Sec. 11, T. 78 N., R. 37 W. 1 mile S. and 570' W. of Elk Horn, Ia.

ELEVATION: 1250' ± 5' topo TOPOGRAPHIC MAP: Elk Horn 7½'

TOTAL DEPTH: 42' DIAMETER: 42" TYPE: drilled
CONTRACTOR: Layne - Western DATE COMPLETED: 6- - 1967
CASING SCHEDULE: 5'-37' of 10" steel, clay grouted 15' x 16" thick gravel packed
5' stainless steel screen

S.W.L.: P.L.: PUMPING RATE:
dd. 17' (1967) 39 gpm (1967)

PUMP CAPACITY: submersible 20 gpm

MAIN WATER: glacial clay & sand UNIT: Alluvium 111ALVM
GEOLOGY:

REMARKS: date completed also reported spring, 1967.
analysis available for 1985

MUNICIPAL AUTHORITY: Elk Horn Municipal Waterworks Lavern Frederickson, Supt.
712-764-5051 P.O. Box 98
Elk Horn, Ia. 51531

WATER USE: ,57,155 avg gpd (2-7-79--1-32-80) max gpd ,160,000 (- -)
POPULATION SERVED: ,736 POPULATION EQUIVALENT (@ 100 gpcd): ,872

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

TREATMENT: A, Fp, Cs, zeolite) V, potassium permanganate, post-chlorination