

Table 3.--Chemical analyses of water from the Minnelusa Formation and the Pahasapa Limestone in the vicinity of Newcastle, Wyo.

[Results in parts per million. Analyses by U.S. Geological Survey, except where indicated otherwise.]

No. on map (fig. 1)	Owner	Date of collection	Principal geologic source	Depth (feet)	Temperature (°F)	Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Boron (B)	Dissolved solids (residue on evaporation 180°C)	Hardness as CaCO ₃		pH
																		Calcium, magnesium	Non-carbonate	
a ₁	City of Newcastle	1/ 7/50	Pahasapa Limestone	2,638	.....	9.0	.....	54	33	6.9	.....	34	5.0	.....	.....	.....	290	335	.....	.....
1	.....do.....	3/16/62	.....do.....	2,638	79	13	0.03	63	28	4.1	291	38	1.2	0.3	0.9	0.03	291	274	35	7.7
b ₂	.....do.....	1/26/54	.....do.....	3,028	.....	.....	.....	.....	.....	5.4	.....	.....	.....	.4	.....	.....	440	332	.....	7.6
2	.....do.....	3/16/62	.....do.....	3,028	86	14	.04	76	32	7.2	268	105	1.8	.4	.9	.01	386	322	102	7.4
3	Siyux Oil Co.	.....do.....	.....do.....	3,073	81	14	.06	76	33	8.7	257	117	2.5	.4	1.0	.02	405	327	116	7.4
4	L. W. Carlson	3/16/62	.....do.....	2,738	79	13	.07	62	29	4.7	289	37	1.4	.3	.9	.01	288	273	36	7.4
4	.....do.....	.....do.....	Minnelusa Formation	1,950	74	10	.62	604	161	36	127	1,980	19	.9	2.1	.15	3,220	2,170	2,070	7.4
5	LAK Ranch	12/10/47	Pahasapa Limestone	1,300	58	7.6	0	55	13	45	300	27	2.8	.7	1.8	0.14	298	191	0	7.2
5	.....do.....	.....do.....	Minnelusa Formation	1,010	57	5.0	.05	474	84	37	222	1,310	11	1.8	2.2	.....	2,020	1,530	1,350	7.2
6	F. Martens	.....do.....	Lower part of Minnelusa(?) Formation	1,178	60	11	.05	58	9.8	43	306	16	1.8	.5	1.5	.1	290	185	0	7.1
7	.....do.....	.....do.....	Upper part of Minnelusa Formation	720	58	6.0	.05	504	142	37	136	1,720	3.8	2.4	1.8	.....	2,480	1,840	1,730	7.5
(c)	Black Hills Power & Light Co.	.....do.....	Pahasapa Limestone	2,592	76	5.6	.05	70	19	20	296	47	1.2	.6	1.0	.07	346	252	9	7.1

^a Analysis by South Dakota School of Mines.

^b Analysis by Wyoming Department of Public Health.

^c Well at Osage, about 10 miles west of mapped area.