DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

Table 6. - Heavy minerals, in percent, in grab samples from Ludlow Member of Fort Union Formation (Paleocene) in Williston basin

[Total nonopaque minerals = 100 percent]

Sample No.	Stratigraphic interval below top of formation (feet)	Nonopaque minerals																			Total heavy-mineral fraction		Total number of nonopaque grains counted
		Garnet	Zircon	Augite	Hornblende	Tourmaline	Sphene	Rutile	Apatite	Biotite	Hypersthene	Staurolite	Sillimanite	Kyanite	Monazite	Chlorite	Epidote	Clinozoisite	Zoisite	Andalusite	Nonopaques	Opaques	
South Cave Hills, NE¼NE¼ sec. 28, T. 20 N., R. 4 E., Harding County, S. Dak.																							
CSD-4	10	56	14	0	0	11	0	0	0	8	0	0	0	0	0	3	3	5	0	0	56	44	37
60	45	55	6	1	0	8	3	0	0	11	0	1	0	0	0	4	8	2	0	1	63	37	169
37	70	50	2	0	1	7	4	1	0	17	0	3	0	0	0	3	8	0	1	3	--	--	130
41	90	68	1	0	3	6	1	0	0	8	0	1	0	0	0	5	5	0	1	1	67	33	111
58	100	57	0	0	5	9	3	0	0	13	0	0	0	0	0	10	3	0	0	0	30	70	38
63	118	77	1	0	0	3	3	1	0	5	0	1	0	0	0	1	4	1	1	2	73	27	176
64	165	62	1	0	1	7	2	1	0	1	0	0	0	0	0	17	7	0	1	0	61	39	83
80	185	38	0	0	1	6	2	0	0	35	0	1	0	0	0	10	5	1	0	1	62	38	124

BASIC ANALYTICAL AND WELL DATA
SUMMARIZED IN U.S. GEOLOGICAL SURVEY
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