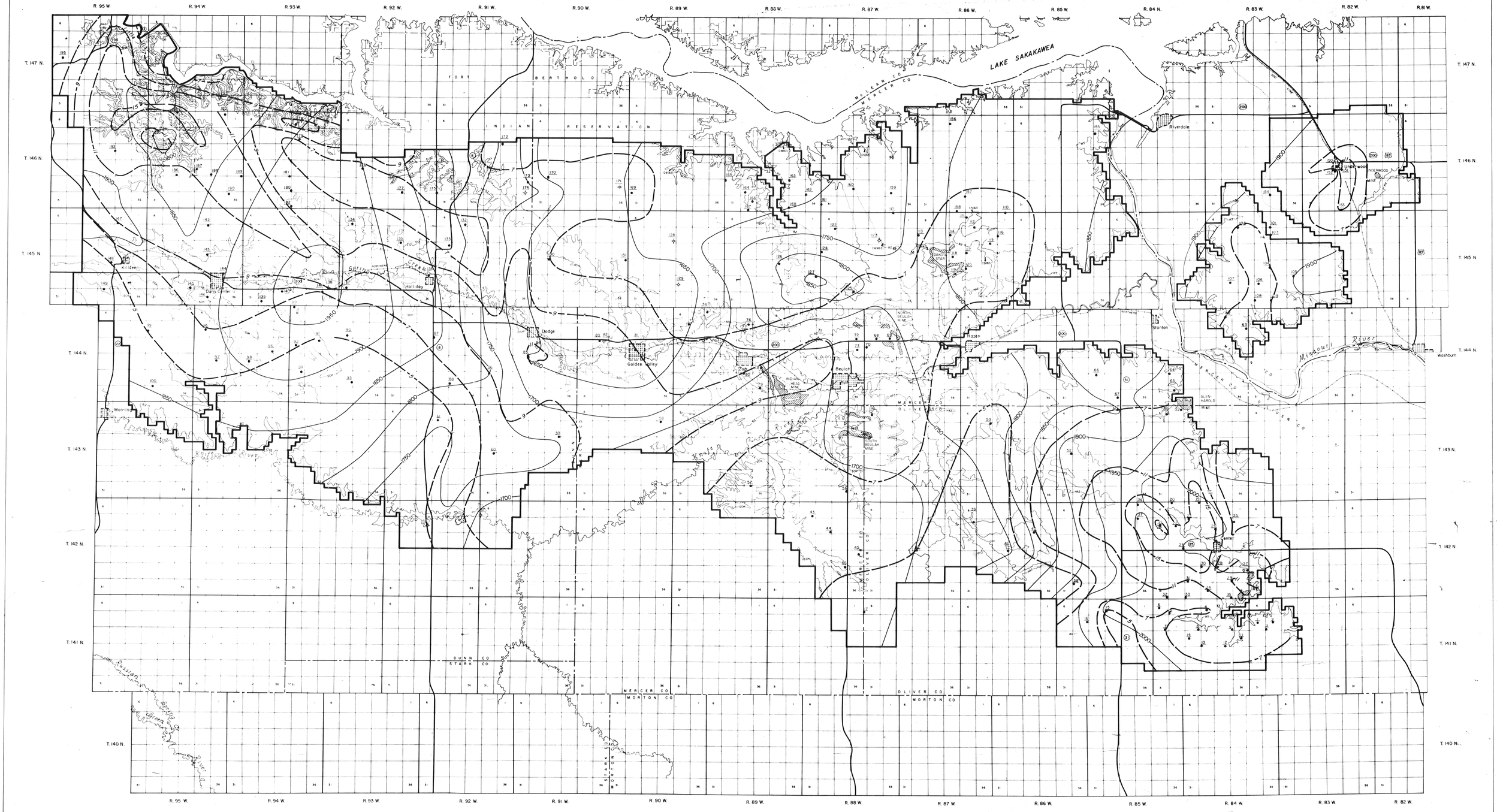
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

Open-File Report 77-481
PLATE 5



DRILL HOLE INFORMATION

Identification number	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Coal surface elevation	2020	2029	2029	2030	2022	2014	2030	2030	1998	2010	2033	2030	2026	2020
Coal thickness	C 5	C 9	C 10	C 9	C 6	C 9	C 17	C 10	C 10	C 9	C 10	C 9	C 9	C 8
Identification number	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Coal surface elevation	2005	1964	2020	2000	2006	1985	2026	2020	1995	1986	2000	1993	1997	2019
Coal thickness	C 5	C 10	C 25	C 17	C 12	C 19	C 15	C 17	C 10	C 6	C 24	C 13	C 10	C 10
Identification number	30	31	32	33	34	35	36	37	38	41	42	47	48	49
Coal surface elevation	2010	2026	2030	2029	2010	2027	1998	2007	1910	1745	1704	1690	1740	1920
Coal thickness	C 10	C 11	C 9	C 10	C 11	C 13	C 16	C 16	C 4	C 4	C 5	C 8	C 5	C 8
Identification number	50	51	52	53	54	57	58	60	61	62	63	64	65	66
Coal surface elevation	1920	1850	1924	1760	1752	1965	1765	1786	1795	1925	1910	1905	1935	1868
Coal thickness	C 8	C 9	C 8	C 4	C 7	C 6	C 10	C 8	C 8	C 7	C 8	C 9	C 5	C 6

EXPLANATION

- BOUNDARY OF STUDY AREA
- COAL CROP LINE-Letters indicate name of bed[2]
- OUTCROP MEASUREMENT-Letters indicate name of bed[1,2]
- ABANDONED MINE
- STRIP MINE
- OIL WELL
- DRILL HOLE-Showing identification number
- STRUCTURE CONTOUR LINE-Contour interval 50 feet
- COAL ISOPACH LINE-On lower bench where bed splits-Contour interval varies
- LOCATION OF MEASURED SECTION

[1] All measurements in feet (to convert to meters, multiply by 0.3048)
[2] HT-HT Butte bed, BZ-Beulah-Zap bed, HAZ-Hazen bed, SCH-Schoolhouse bed

STRUCTURE CONTOUR AND COAL ISOPACH MAP OF HT BUTTE BED

KNIFE RIVER AREA

DUNN, McLEAN, MERCER AND OLIVER COUNTIES, NORTH DAKOTA

SCALE 1:126 720

1 0 1 2 3 4 5 6 7 8 9 10 MILES

1 0 1 2 3 4 5 6 7 8 9 10 KILOMETERS

DATUM IS MEAN SEA LEVEL

DRILL HOLE INFORMATION (CONTINUED)

Identification number	67	71	77	81	82	86	88	89	90	93	94	95	96
Coal surface elevation	1890	1700	1720	1606	1602	1669	1640	1800	1869	1890	1907	1940	1900	1905
Coal thickness	C 5	C 9	C 7	C 9	C 30	C 61	C 31	C 9	C 8	C 9	C 7	C 7	C 9	C 8
Identification number	107	108	109	110	111	112	114	115	120	123	127	130	135	136
Coal surface elevation	1926	1946	1967	1630	1720	1883	1670	1620	1880	1860	1830	1860	1940	1970
Coal thickness	C 5	C 9	C 7	C 8	C 6	C 5	C 6	C 5	C 7	C 6	C 6	C 10	C 8	C 9
Identification number	141	147	160	166	181	182	183	186	188	189	194	172	173	174
Coal surface elevation	1995	1910	1880	1920	1923	1920	1909	1900	1940	1796	1703	1640	1735	1739
Coal thickness	C 7	C 9	C 5	C 10	C 23	C 6	C 11	C 2	C 6	C 6	C 8	C 5	C 6	C 8
Identification number	175	176	178	179	182	183	185	186	191	192	196	195		
Coal surface elevation	1840	1900	1865	1908	1820	1835	1800	1820	1890	1890	1870	1870		
Coal thickness	C 8	C 5	C 52	C 7	C 20	C 16	C 8	C 10	C 19	C 22	C 23	C 6		

THIS REPORT HAS NOT BEEN EDITED FOR CONFORMITY WITH GEOLOGICAL SURVEY EDITORIAL STANDARDS OR STRATIGRAPHIC NOMENCLATURE.