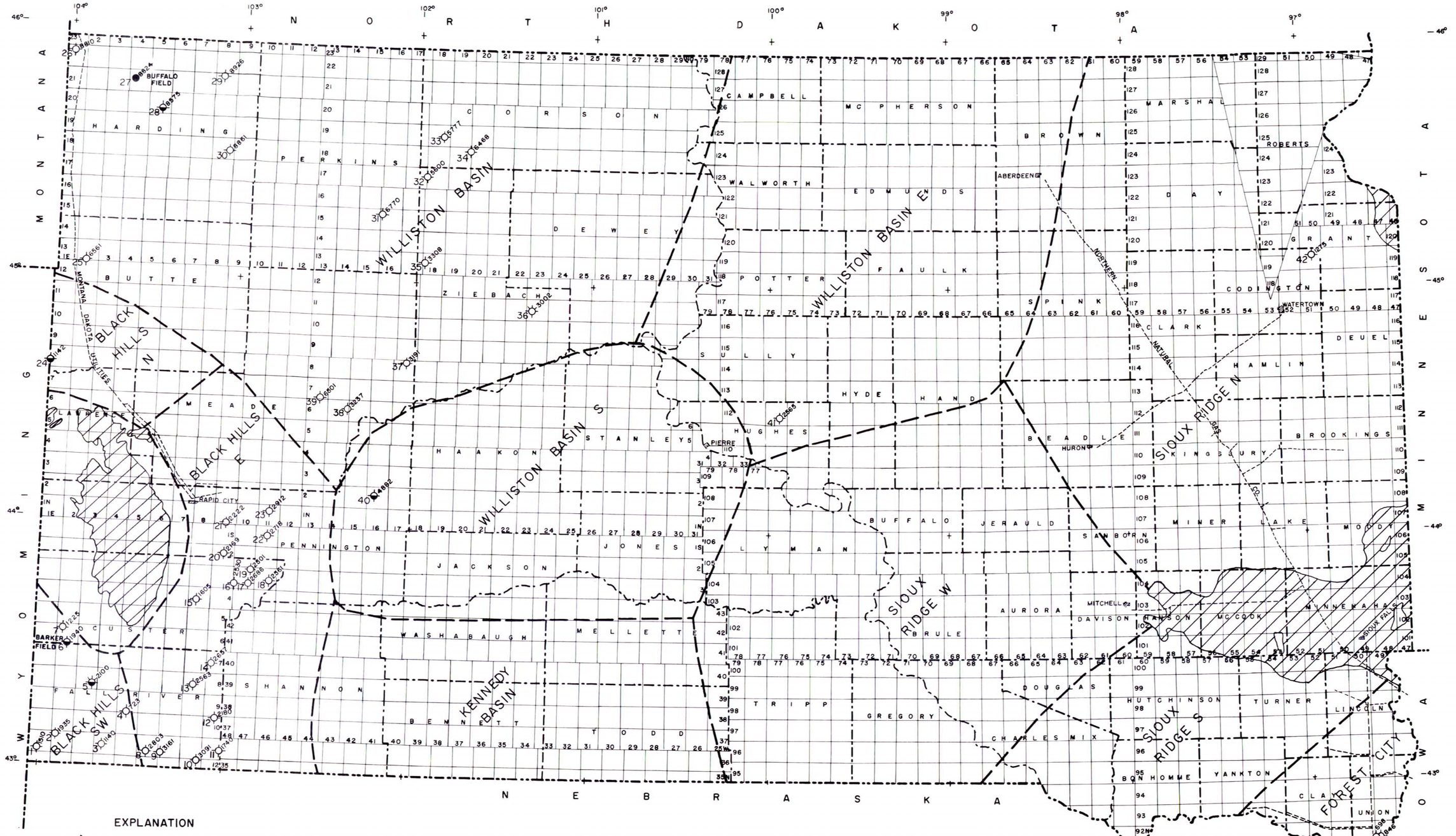
SOUTH DAKOTA GEOLOGICAL SURVEY
ALLEN F. AGNEW, STATE GEOLOGIST

STATE OF SOUTH DAKOTA
JOE FOSS, GOVERNOR

OIL AND GAS INVESTIGATIONS
MAP I



Oil and Gas Tests in South Dakota, 1957

Compiled by Allen F. Agnew
AUGUST 1958

Drafted by G. E. Kroger

Oil and Gas Developments in South Dakota, 1957

by

Allen F. Agnew

Exploration during 1957 continued at the same rate as in 1956, through the completion of forty-four tests with a total of 156,491 feet of drilling. Most of the holes were in the Williston Basin and the Black Hills fringe. None of the Williston Basin tests reached the Precambrian; only nine topped the Red River, and two did not go deeper than the Newcastle sandstone. Most of the tests around the Black Hills likewise stopped short, in the Fall River sandstone. The third producing well of the Buffalo field was completed in July. Oil production in 1957 from this field, and from the one producing well in the Barker field in the southern Black Hills was approximately 55,000 bbl. The State Geological Survey completed and published the results of a magnetometer survey in Harding and Perkins counties.

In the following tabulation most of the tops are from electric and radioactivity logs, except where noted otherwise; (s = samples). Company tops are given except where the writer differs with them (A = Agnew top). For information in "Remarks" column, see explanation following.

Explanation of Remarks Column

A Cored 1600-90; 1825-1935.
B Cored 658-779; 955-1029; 1065-1140.
C Cable tools.
D Oil odor 1640-50; 1698-1710. Gas odor 2038-44. Cable tools.
E Oil stains 880-5, 900-17, 935-42, 1415-20, 1435-45, 1452-60, 1465-73. Core 1429-69.
F Lost circ. & hole, 1211-25.
G Lost circ. & hole, 3105.
H Cored 2150-91, 2250-2368, 2580-2655.
I Cored 2165-2245, 2327-71, 2611-86.
J Cored 1975-2000, 2075-2105.
K Cored 1712-37, 1860-72, 2121-6.
L Cored 1785-1921, 2121-2229.
M Bleeding core, 1095-1115; 93% W, 6% O. Cored 1115-42, no show.
N Cored 6541-61.
O Cored 8447-8641. DST 8564-8641; 3088' salt water.
P Cored 8610-69, stain. DST 8607-69; 20BO, 4BO & WCM, 1BM & OCW. FP210-740#, SIP 3495-3100#, HP4670#. Cored 8669-8720, stain. DST 8669-8720, 2 BGCM. FP 75-170#, SIP 2285-3350#, HP4670#. Cored 8720-73, stain. Perf. 8672-8700, acidized. Perf. 8608-24, acidized. Swabbed 19BO 2½ BW. Comp. 144BOPD, 59BWPD, 29% cut. G/O 71. Grav. 32.4.

Explanation of Remarks Column (Cont'd)

Q Cored 8325-15, show. DST 8315-65, 15' oil, 1225' O & MCW. DST 8364-8461, 320' salty WCM. DST 8458-8519, 4160' brackish water.
R DST 8684-8716, 850' SW, tr O. DST 8768-8817, 180' SW, tr O.
S DST 8157-8214, 330' OCM, DST 8240-8340, 1100' MW, 3470 FW.
T DST 5124-5250, 2475' salt water. DST 5278-5325, 3335' S water, 1100' MCW. DST 6576-6617, 2700' FW.
U DST 5488-5600, 5920' MCW, S odor.
V Cored 2870-3025. DST 2914-52, 2654' brackish water.
W Cored 2635-2754. DST 1660-1775, 218' GCM & W DST 2690-2754, 2200' brackish water.
X Cored 2800-2976.
Y Cored 2060-2234, 2818-3009, 3138-3232.
Z Oil show 4796. Cored 4803-14. DST 4789-97; 540' FW, oil show. DST 6262-6; 6155' FW.
AA Cored 4341-4441; bleeding 4372-5, 4430-1. Lost circ. 4876-80. Cored 4880-2. Lost circ. & hole 4882-2½.
BB Oil stains 1560-90, 1870-87. Cored 1887-1924, 1997-2002, 2009-25, 2127-53.
CC Cable tools, 0-1040.
DD Lost hole due to twist off. Oil-sat sh 500-4.

W E L L D A T A

Well No.	Name	Location	Completed	Altitude	Niobrara	Greenhorn	Newcastle	Fall River	Piper Ls.	Minnekahta	Minnelusa	Mission Canyon	Lodgepole	Devonian	Silurian	Stony Mt.	Red River	Winnipeg Sand	Precambrian	Remarks	T.D.	Well No.
1	Raymond #1 Mitchell	SWSW-28-11S-1E	7/5	4005GR	189	740	1358A	-	-	-	-	-	-	-	-	-	-	-	-	-	1510	1
2	Phillips #1 Govt B	SWSW-5-11S-2E	3/20	4082DF	2070A	1000	1627	1856	-	-	-	-	-	-	-	-	-	-	-	A	1935	2
3	Phillips #1 Madsen	SENW-21-11S-4E	2/27	3483GR	-	117	785A	1051	-	-	-	-	-	-	-	-	-	-	-	B	1140	3
4	Trusteed-Whitcher #1 Rosenquist	NESE-33-9S-5E	6/14	3601GR	-	-	-	442	-	-	-	-	-	-	-	-	-	-	-	C	723	4
5	B & W #1 Gull	SWNE-26-8S-3E	8/3	3800GR	-	-	-	-	-	1325	1505	-	-	-	-	-	-	-	-	D	2100	5
6	Kucera #2A Coffing	NENW-34-6S-2E	11/11	4101GR	-	-	-	-	-	570	687	1860	-	-	-	-	-	-	-	E	1940	6
7	Bl. Hills Drlg. #2 Rothleutner	NENE-8-6S-2E	8/22	4091KB	-	-	-	-	-	538	620	-	-	-	-	-	-	-	-	F	1225	7
8	Gary #1 Lounsberry	SWNE-28-11S-6E	11/18	3753KB	1222	1864	2476	2752	-	-	-	-	-	-	-	-	-	-	-	-	2803	8
9	Gary #1 Pettegrew	SWSE-30-11S-7E	12/1	3560KB	1627	2261	2821	3110	-	-	-	-	-	-	-	-	-	-	-	-	3161	9
10	Gary #1 Kimblom	SWNE-2-12S-8E	11/7	3613KB	1705	2339	2894	-	-	-	-	-	-	-	-	-	-	-	-	G	3105	10
11	Raymond #1 Goodnick	NWSW-23-11S-9E	4/30	3328GR	436	1074	1651	-	-	-	-	-	-	-	-	-	-	-	-	-	1740	11
12	Gary #1 White	SENW-3-10S-9E	10/18	3071KB	596	1264	1831	2106	-	-	-	-	-	-	-	-	-	-	-	-	2180	12
13	Gary #1 Rasmussen	NENE-21-8S-8E	10/11	3242KB	1035	1694	2271	2526	-	-	-	-	-	-	-	-	-	-	-	-	2566	13
14	Phillips #1 Govt A	SENW-20-7S-9E	2/16	3227GR	1090A	1755A	-	2568	-	-	-	-	-	-	-	-	-	-	-	H	2655	14
15	Gary #1 Young	SENW-21-4S-8E	10/3	3465KB	166	660	1271	1540	-	-	-	-	-	-	-	-	-	-	-	-	1605	15
16	Gary #1 Wilsey	NWSW-30-5S-10E	9/27	3017KB	935	1619	2189	2471	-	-	-	-	-	-	-	-	-	-	-	-	2530	16
17	Phillips #1 Govt	SENW-26-3S-10E	1/26	3018GR	1045A	1727	2095	2583	-	-	-	-	-	-	-	-	-	-	-	I	2686	17
18	Gary #1 O'Neill	SWNW-23-3S-11E	9/19	2804KB	872	1656	2194	2510	-	-	-	-	-	-	-	-	-	-	-	-	2561	18
19	Gary #1 Bohling	SENE-2-3S-10E	9/9	2864KB	833	1559	2162	2430	-	-	-	-	-	-	-	-	-	-	-	J	2500	19
20	Gary #1 Herrington	NWNW-15-2S-9E	8/30	3083KB	513	1208	1854	2117	-	-	-	-	-	-	-	-	-	-	-	K	2170	20
21	Phillips #3 Dunn	NWSW-34-1N-9E	1/11	2945GR	460A	1215	1862	2139	-	-	-	-	-	-	-	-	-	-	-	L	2229	21
22	Gary #1 Hopkins	SWSW-15-1N-11E	8/20	2869KB	924	1780A	2371	2664	-	-	-	-	-	-	-	-	-	-	-	-	2717	22
23	Gary #1 Boydston	SWSW-10-1N-11E	8/6	2912KB	1000	1872A	2471	2766	-	-	-	-	-	-	-	-	-	-	-	-	2819	23
24	Jack-O-Lee #1 Fishel	SWSW-19-8N-1E	9/19	3462GR	-	-	-	-	-	930	?1080	-	-	-	-	-	-	-	-	M	1142	24
25	Superior #1-33 Indian Cr. Unit	NESW-33-13N-2E	12/9	3239KB	-	1873	-	2995	-	4483	4620	5285	5681	5965	-	-	6178	6496	-	N	6561	25
26	Mobil #F21-9-G Willett	SENW-9-22N-1E	6/23	3059KB	2840	3400	4090	4423	5353	5965	6067	6870A	7470	7885	8136	8374	8530	-	-	O	8810	26
27	Shell #32-17 Graves	SWNE-17-21N-4E	7/6	3121KB	-	3472	4161	4428	5381	5993	-	6918	7455	7968	8130	8405	8569	-	-	P	8824	27
28	Shell #32-27 Govt	SWNE-27-20N-5E	1/11	2984GR	2853A	3388	4042	4312	5215	5762	5900	6725A	7191	-	7928	8161	8312	-	-	Q	8575	28
29	Shell #14-4 Johnson	SWSW-4-21N-8E	3/13	2802DF	2975A	3576A	-	4412A	5305A	5723	5863	6850	7288	7837	8190A	8505	8664	-	-	R	8926	29
30	Shell #41-23 State	NENE-23-18N-8E	4/28	3037DF	2955A	3475	4065A	4347	5156	5629	5774	6625	7000A	7545	7815	8152A	8788A	-	-	S	8861	30
31	Shell #22-7 Bastian	SENW-7-15N-16E	2/13	2469DF	1886A	2713	3263	3504	3918	4183	4316	5087	5494	6049	6280	6384	6518	-	-	T	6770	31
32	Shell #14-18 Dreis	SWSW-18-17N-18E	5/8	2558KB	2052A	2855	-	3622	4005	4185	4321	5138	5534	-	-	-	-	-	-	U	5600	32
33	Shell #11-23 Govt	NWNW-23-19N-18E	5/9	2384DF	1942A	2771	-	3547	3948	4140	4300	5090	5494	-	-	-	-	-	-	-	5775	33
34	Shell #22-12 Evridge	SENW-12-18N-19E	3/21	2228DF	1642A	2502A	?	3270	3605	3790A	3924A	4695	5078	5647A	5907A	6043A	6188A	-	-	-	6468	34
35	Phillips #1 Nelson	NWSE-18-13N-18E	5/15	2372DF	1600A	2384	2916	3179	-	-	-	-	-	-	-	-	-	-	-	V	3305	35
36	Phillips #1 State	SENW-20-11N-23E	5/31	2447DF	1431A	2163	2685	2956	-	-	-	-	-	-	-	-	-	-	-	W	3002	36
37	Phillips #1 Richardson	SWSW-3-8N-17E	5/4	2510DF	1518A	2298	2816	3112	-	-	-	-	-	-	-	-	-	-	-	X	3190	37
38	Phillips #1 Norris	NWSE-13-6N-14E	4/20	2607DF	1581A	2310	2838	3132	-	-	-	-	-	-	-	-	-	-	-	Y	3237	38
39	Phillips #1 Ferguson A	NESE-34-7N-13E	12/22	2787DF	1576A	2350	2902	3155	-	3987	4107	-	-	5667	5752	-	6100A	6266	-	Z	6500	39
40	Atlantic #1 Knoll-State	SWNW-16-2N-16E	10/22	2865KB	1645	2436	2915	3218	-	3808	3954	-	-	-	-	-	-	-	-	AA	4882	40
41	Ohio #1 Reinschmidt	NENE-27-112N-76W	3/21	1760KB	490	954	1330	-	-	-	-	-	-	-	-	-	1997	-	2560	BB	2565	41
42	Match #1 Drake	NESW-10-119N-51W	7/20	1900GR	790	?900	?1025	1110	-	-	-	-	-	-	-	-	-	-	1266	CC	1275	42
43	Wagner #1 Peterson	SWSW-30-92N-49W	5/17	1135GR	-	-	-	154	-	-	305	-	-	-	-	-	-	545	-	DD	698	43
44	Wagner #1 Blanchard	SWNE-29-92N-49W	6/3	1170GR	-	10	-	70	-	-	355	-	-	-	-	-	-	640	840	-	846	44