

CORE ANALYSIS RESULTS

Company AMOCO PRODUCTION COMPANY Formation COUNCIL GROVE File CP-1-7665
 Well BURDEN GAS UNIT NO. 2 Core Type DIAMOND Date Report 9-15-72
 Field PANOMA Drilling Fluid WATER BASE MUD Analysts BOYLE
 County KEARNY State KANSAS Elev. 3140' Location SEC. 35-26S-38W

Lithological Abbreviations

SAND - SD SHALE - SH LIME - LM	DOLOMITE - DOL CHERT - CH GYPSUM - GYP	ANHYDRITE - ANHY CONGLOMERATE - CONG FOSSILIFEROUS - FOSS	SANDY - SDY SHALY - SHY LIMY - LMY	FINE - FNE MEDIUM - MED COARSE - CSE	CRYSTALLINE - XLN GRAIN - GRN GRANULAR - GRNL	BROWN - BRN GRAY - GY VUGGY - VGY	FRACTURED - FRAC LAMINATION - LAM STYLOLITIC - STY	SLIGHTLY - SL VERY - V/ WITH - W/
SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS	
		PERM. MAX.	PERM. 90°		OIL	TOTAL WATER		

WHOLE-CORE ANALYSIS

	2665-70						Siltstone
1	2670-71	<0.1	<0.1	8.3	0.0	89.3	Siltstone, sl/lmy, shy
2	71-72	<0.1	<0.1	6.4	0.0	87.7	Siltstone, lmy, shy
3	72-73	0.1	<0.1	5.9	0.0	83.3	Sd, lmy, silty
4	73-74	<0.1	<0.1	8.7	0.0	88.7	Sd, lmy, silty
5	74-75	<0.1	<0.1	10.0	0.0	87.0	Sd, lmy, silty
6	75-76	<0.1	<0.1	10.5	0.0	92.4	Sd, lmy, silty
7	76-77	<0.1	<0.1	11.9	0.0	91.2	Sd, lmy, silty
8	77-78	<0.1	<0.1	12.6	0.0	91.0	Sd, lmy, silty
9	78-79	<0.1	<0.1	12.1	0.0	90.7	Sd, lmy, silty
10	79-80	<0.1	<0.1	9.7	0.0	91.3	Sd, lmy, v/silty
	80-81						Sh
11	81-82	<0.1	<0.1	6.8	0.0	86.0	Siltstone, lmy, shy
12	82-83	<0.1	<0.1	8.3	0.0	87.9	Siltstone, lmy, sl/shy
13	83-84	<0.1	<0.1	8.4	0.0	86.3	Siltstone, lmy, sl/shy
	84-85						Sh
14	85-86	<0.1	<0.1	9.2	0.0	92.0	Siltstone, shy
15	86-87	<0.1	<0.1	9.0	0.0	90.3	Siltstone, shy
16	87-88	4.0	3.9	24.8	0.0	73.3	Dol, chalky
17	88-89	<0.1	<0.1	7.5	0.0	66.1	Lm
18	89-90	<0.1	<0.1	5.4	0.0	57.6	Lm
19	90-91	<0.1	<0.1	4.1	0.0	53.3	Lm, sl/anhy
20	91-92	<0.1	<0.1	1.8	0.0	63.6	Lm, dse, sl/shy
21	92-93	<0.1	<0.1	2.4	0.0	81.5	Lm, dse, sl/shy
	93-96						Sh
22	96-97	<0.1	<0.1	1.7	0.0	64.7	Lm, dse
23	97-98	<0.1	<0.1	1.6	0.0	60.0	Lm, dse
24	98-99	<0.1	<0.1	2.5	0.0	76.5	Lm, dse, sl/shy
	99-2701						Sh
25	2701-02	<0.1	<0.1	2.7	0.0	81.3	Lm, dse, sl/shy
26	02-03	<0.1	<0.1	1.8	0.0	60.9	Lm, dse
27	03-04	<0.1	<0.1	2.4	0.0	79.2	Lm, dse, sl/shy
28	04-05	<0.1	<0.1	2.6	0.0	80.0	Lm, dse, shy
29	05-06	<0.1	<0.1	3.0	0.0	83.3	Lm, dse, shy
30	06-07	<0.1	<0.1	3.9	0.0	84.0	Lm, dse, shy
31	07-08	<0.1	<0.1	1.3	0.0	64.3	Lm, dse
32	08-09	<0.1	<0.1	2.5	0.0	80.0	Lm, dse, shy
	09-13						Sh
33	13-14	<0.1	<0.1	2.2	0.0	78.9	Lm, dse, shy
34	2714-15	<0.1	<0.1	1.5	0.0	78.6	Lm, dse, sl/shy

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CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

DALLAS, TEXAS

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CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYs		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
		MAX.	90°		OIL	TOTAL WATER	
35	2715-16	<0.1	<0.1	2.1	0.0	78.3	Lm, dse, sl/shy
36	16-17	<0.1	<0.1	1.4	0.0	66.7	Lm, dse
37	17-18	<0.1	<0.1	1.2	0.0	58.3	Lm, dse
	18-28						Sh
38	28-29	<0.1	<0.1	4.8	0.0	80.0	Lm, shy, silty
39	29-30	<0.1	<0.1	6.3	0.0	78.5	Sd, lmy, v/silty
40	30-31	<0.1	<0.1	5.9	0.0	76.2	Sd, v/lmy, silty
41	31-32	<0.1	<0.1	5.5	0.0	69.2	Sd, v/lmy, silty
42	32-33	0.1	0.1	7.4	0.0	62.5	Sd, lmy, silty
43	33-34	0.2	<0.1	8.9	0.0	77.9	Sd, lmy, silty
44	34-35	<0.1	<0.1	5.6	0.0	69.1	Sd, lmy, silty
45	35-36	0.1	0.1	7.9	0.0	73.9	Sd, lmy, silty
46	36-37	<0.1	<0.1	10.8	0.0	85.5	Siltstone, lmy, shy
47	37-38	<0.1	<0.1	7.5	0.0	87.0	Siltstone, lmy, shy
48	38-39	<0.1	<0.1	7.3	0.0	86.9	Siltstone, lmy, shy
49	39-40	<0.1	<0.1	4.1	0.0	77.4	Lm, dol
50	40-41	<0.1	<0.1	1.2	0.0	64.3	Lm, dse
51	41-42	<0.1	<0.1	3.0	0.0	50.0	Lm, dse
52	42-43	<0.1	<0.1	3.1	0.0	78.1	Lm, anhy
53	43-44	<0.1	<0.1	4.3	0.0	77.5	Lm, anhy
54	44-45	<0.1	<0.1	3.6	0.0	80.5	Lm, anhy
55	45-46	<0.1	<0.1	1.5	0.0	78.9	Lm, dse, sl/shy
56	46-47	<0.1	<0.1	2.8	0.0	81.3	Lm, dse, shy
57	47-48	<0.1	<0.1	3.2	0.0	83.9	Lm, dse, shy
58	48-49	<0.1	<0.1	0.8	0.0	62.5	Lm, dse
59	49-50	<0.1	<0.1	2.5	0.0	85.7	Lm, dse, sl/shy
60	50-51	<0.1	<0.1	6.7	0.0	89.8	Siltstone, lmy, shy
	51-59						Sh
61	59-60	<0.1	<0.1	11.7	Tr	89.9	Siltstone, shy
62	60-61	<0.1	<0.1	11.3	Tr	84.4	Siltstone, sl/lmy, shy
63	61-62	<0.1	<0.1	8.1	0.0	91.9	Siltstone, lmy, shy
64	62-63	<0.1	<0.1	3.6	0.0	73.9	Lm, sl/shy
65	63-64	<0.1	<0.1	3.6	0.0	81.8	Lm, sl/shy
66	64-65	<0.1	<0.1	2.4	0.0	55.5	Lm, dse
67	65-66	<0.1	<0.1	2.2	0.0	57.1	Lm, dse
68	66-67	<0.1	<0.1	3.7	0.0	50.0	Lm, dse
69	67-68	<0.1	<0.1	2.4	0.0	60.9	Lm, dse
70	68-69	<0.1	<0.1	2.4	0.0	66.7	Lm, dse
71	69-70	<0.1	<0.1	7.9	0.0	85.7	Siltstone, lmy, shy
	70-71						Sh
72	71-72	<0.1	<0.1	8.7	0.0	88.0	Siltstone, lmy, shy
73	72-73	<0.1	<0.1	7.4	0.0	81.7	Siltstone, lmy, shy
74	73-74	<0.1	<0.1	6.8	0.0	85.6	Siltstone, lmy, shy
75	74-75	<0.1	<0.1	7.6	0.0	82.1	Siltstone, lmy
76	75-76	<0.1	<0.1	6.9	0.0	83.8	Siltstone, lmy
	76-77						Sh
77	77-78	<0.1	<0.1	7.7	0.0	86.7	Siltstone, lmy
78	2778-79	<0.1	<0.1	4.8	0.0	75.6	Sd, lmy, shy, silty

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CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCS		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS
		MAX.	90°		OIL	TOTAL WATER	
79	2779-80	<0.1	<0.1	5.1	0.0	73.8	Sd, lmy, silty
80	80-81	<0.1	<0.1	4.4	0.0	65.9	Sd, lmy, silty
81	81-82	0.2	<0.1	9.1	0.0	92.7	Sd, lmy, shy, silty
82	82-83	<0.1	<0.1	5.8	0.0	81.2	Sd, sl/lmy, silty
83	83-84	<0.1	<0.1	9.7	0.0	87.7	Sd, lmy, silty
84	84-85	<0.1	<0.1	7.3	0.0	86.3	Sd, lmy, silty
85	85-86	<0.1	<0.1	3.8	0.0	80.4	Sd, lmy, silty
86	86-87	<0.1	<0.1	8.9	0.0	83.7	Siltstone, sl/lmy, shy
87	87-88	<0.1	<0.1	11.4	0.0	88.7	Siltstone, lmy, shy
88	88-89	<0.1	<0.1	4.9	0.0	92.9	Lm, sl/shy
89	89-90	<0.1	<0.1	3.6	0.0	75.0	Lm
90	90-91	<0.1	<0.1	4.4	0.0	75.6	Lm
91	91-92	<0.1	<0.1	9.7	0.0	88.0	Lm
92	92-93	1.1	0.3	9.9	0.0	90.0	Sd, lmy, silty
93	93-94	0.1	<0.1	11.6	0.0	88.1	Sd, lmy, silty
94	94-95	0.1	<0.1	9.6	0.0	87.8	Sd, lmy, silty
95	95-96	0.1	0.1	8.9	0.0	83.7	Sd, lmy, v/silty
96	96-97	<0.1	<0.1	8.4	0.0	89.7	Sd, sl/lmy, silty
97	97-98	<0.1	<0.1	7.3	0.0	83.3	Sd, sl/lmy, silty
98	98-99	0.1	<0.1	12.3	0.0	85.8	Sd, lmy, silty
99	99-00	0.7	0.6	13.7	0.0	84.0	Sd, lmy, silty
100	2800-01	1.1	1.1	15.9	0.0	87.6	Sd, lmy, silty
101	01-02	0.3	0.2	14.5	0.0	89.0	Sd, lmy, silty
102	02-03	<0.1	<0.1	11.7	0.0	86.5	Sd, lmy, silty
103	03-04	<0.1	<0.1	8.5	0.0	84.6	Sd, lmy, silty
104	04-05	<0.1	<0.1	9.9	0.0	69.1	Sd, lmy, v/silty
105	2805-06	<0.1	<0.1	13.3	0.0	79.2	Siltstone, sl/lmy, shy