

13-15-2002

CORE ANALYSIS RESULTS

Company AMOCO PRODUCTION COMPANY Formation COUNCIL GROVE File CP-1-7599
 Well MYLER GAS UNIT NO. 2 Core Type DIAMOND 3 1/2" Date Report 6-12-72
 Field PANOMA (COUNCIL GROVE) Drilling Fluid WATER BASE MUD Analysts BOYLE
 County STANTON State KANSAS Elev. 3209' GL Location C-E 1/2 SEC. 29-29S-39W

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 - FN MEDIUM - MED COARSE - CSE	CRYSTALLINE - XLN GRAIN - GRN GRANULAR - GRNL	BROWN - BRN GRAY - GY UGGY - VGY	FRACTURED - FRAC LAMINATION - LAM STYLOLITIC - STY	SLIGHTLY - SL VERY - V/ WITH - W/
SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		SAMPLE DESCRIPTION AND REMARKS	
		PERM. MAX.	PERM. 90°		OIL	TOTAL WATER		

WHOLE-CORE ANALYSIS

SAMPLE NUMBER	DEPTH FEET	PERM. MAX.	PERM. 90°	POROSITY PER CENT	OIL	TOTAL WATER	SAMPLE DESCRIPTION AND REMARKS
1	2559-60	0.1*		5.9			Lm, shy, vert frac
2	60-61	<0.1*		4.3			Lm, shy, vert frac
3	61-62	<0.1*		5.1			Lm, shy, vert frac
4	62-63	<0.1*		5.2			Lm, shy, vert frac
5	63-64	<0.1*		5.9			Lm, shy, vert frac
6	64-65	<0.1*		5.7			Lm, shy, vert frac
7	65-66	0.1*		8.7			Lm, v/shy, vert frac
8	66-67	<0.1*		8.5			Lm, v/shy, vert frac
9	67-68	0.1*		8.0			Lm, v/shy, silty, anhy, vert frac
10	68-69	0.1	<0.1	10.1			Siltstone, lmy
11	69-70	<0.1	<0.1	7.7			Siltstone, lmy, anhy
12	70-71	0.2	0.1	13.4			Siltstone, lmy
13	71-72	0.3	0.1	14.5			Siltstone, lmy
14	72-73	0.5	0.5	14.5			Siltstone, lmy
15	73-74	0.5	0.4	16.4			Siltstone, lmy
16	74-75	0.2	0.1	14.7			Siltstone, lmy
17	75-76	0.1	0.1	13.4			Siltstone, lmy
18	76-77	<0.1	<0.1	10.2			Siltstone, lmy, anhy
19	77-78	0.2	0.2	12.3			Siltstone, lmy, anhy
20	78-79	0.1	0.1	10.3			Siltstone, lmy, anhy
21	79-80	<0.1	<0.1	6.5			Siltstone, lmy, anhy
22	80-81	<0.1	<0.1	6.5			Siltstone, lmy, anhy
23	81-82	<0.1	<0.1	7.6			Siltstone, lmy
24	82-83	<0.1	<0.1	7.2			Siltstone, lmy, shy
25	83-84	<0.1	<0.1	11.3			Siltstone, lmy, shy
26	84-85	<0.1	<0.1	7.4			Siltstone, lmy, shy
27	85-86	<0.1	<0.1	6.9			Lm, shy
28	86-87	17	16	20.4			Dol, sucrosic
29	87-88	12	10	18.7			Dol, sucrosic
30	88-89	1.8	1.8	11.7			Dol, sucrosic, anhy
31	89-90	4.1	3.6	14.2			Dol, sucrosic, anhy
32	90-91	2.0	1.9	14.2			Dol, lmy, sucrosic
33	91-92	0.4	0.2	8.0			Lm, sucrosic
34	92-93	0.2	<0.1	5.3			Lm, shy
35	93-94	0.1	<0.1	7.7			Lm, v/shy
36	94-95	0.1	<0.1	8.5			Lm, v/shy
37	95-96	0.1	0.1	8.4			Lm, v/shy
38	96-97	0.1	0.1	12.1			Lm, v/shy, silty
39	97-98	<0.1	<0.1	4.1			Lm, v/shy
40	2598-99	<0.1	<0.1	1.2			Lm, sl/shy

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CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

DALLAS, TEXAS

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Well MYLER GAS UNIT NO. 2

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	
41	2599-00	<0.1	<0.1	1.7			Lm, shy
42	2600-01	<0.1	<0.1	6.0			Lm, v/shy
	01-02						Sh, gy, lmy
43	02-03	<0.1	<0.1	5.3			Lm, shy
44	03-04	0.1	<0.1	5.4			Lm, vert frac
45	04-05	<0.1	<0.1	1.7			Lm, sl/shy, vert frac
46	05-06	<0.1	<0.1	6.4			Lm, v/shy
	06-12						Sh, lmy, blk
47	12-13	<0.1	<0.1	9.6			Lm, v/shy
48	13-14	<0.1	<0.1	2.6			Lm, v/shy
49	14-15	<0.1	<0.1	4.4			Lm, v/shy
	15-17						Sh, lmy, blk
50	17-18	<0.1	<0.1	9.7			Lm, v/shy
51	18-19	<0.1	<0.1	5.2			Lm, v/shy
52	19-20	<0.1	<0.1	5.6			Lm, v/shy
53	20-21	<0.1	<0.1	4.9			Lm, v/shy
54	21-22	<0.1	<0.1	6.8			Lm, v/shy
	22-29						Sh, red, lmy
55	29-30	1.4	0.8	13.1			Siltstone, lmy, anhy
56	30-31	0.3	0.1	11.8			Siltstone, lmy
57	31-32	0.1	0.1	9.0			Siltstone, lmy
58	32-33	0.1	0.1	9.8			Siltstone, lmy
59	33-34	0.1	0.1	9.0			Siltstone, lmy
60	34-35	0.1	0.1	9.1			Siltstone, lmy
61	35-36	0.1	0.1	9.2			Siltstone, lmy
	36-39						Sh, red, lmy
62	39-40	<0.1	<0.1	4.1			Siltstone, lmy, shy
63	40-41	0.1	0.1	5.8			Lm, silty
64	41-42	0.3	0.2	7.0			Lm, silty
65	42-43	0.1	0.1	5.7			Lm, shy
66	43-44	0.1	<0.1	6.3			Lm, v/shy
67	44-45	0.1	<0.1	6.2			Lm, shy
68	45-46	0.1	<0.1	6.5			Lm, shy
69	46-47	<0.1	<0.1	4.6			Lm, shy
70	47-48	<0.1	<0.1	2.2			Lm, sl/shy
71	48-49	<0.1	<0.1	1.2			Lm, shy
72	49-50	<0.1	<0.1	2.4			Lm, shy
73	50-51	<0.1	<0.1	4.6			Lm, v/shy
74	51-52	<0.1	<0.1	2.6			Lm, shy
75	52-53	<0.1	<0.1	1.3			Lm
76	53-54	0.1	0.1	10.1			Siltstone, lmy, shy
77	54-55	0.1	0.1	8.7			Siltstone, lmy, shy
78	55-56	0.1	0.1	12.1			Siltstone, sl/lmy, shy
79	56-57	0.3	0.1	13.4			Siltstone, sl/lmy, shy
80	57-58	0.2	0.2	6.2			Siltstone, lmy, sl/shy
81	58-59	0.1	<0.1	6.4			Siltstone, lmy, shy
	59-61						Lost core
	2661-69						Sh, red, lmy

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CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

File CP-1-7599 Page No. 3
Well MYLER GAS UNIT NO. 2

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	
82	2669-70	8.1	0.7	16.1			Siltstone, shy
83	70-71	<0.1	<0.1	2.7			Lm
84	71-72	4.1	0.1	5.5			Lm, vert frac
85	72-73	13	0.1	4.1			Lm, vert frac
86	73-74	<0.1	<0.1	4.9			Lm
87	74-75	1.1	<0.1	7.9			Lm
88	75-76	4.3	0.1	6.4			Lm
89	76-77	0.1	0.1	5.1			Lm
90	77-78	0.1	0.1	4.5			Lm
91	78-79	0.1	<0.1	7.1			Siltstone, lmy
92	79-80	<0.1	<0.1	10.1			Siltstone, sl/lmy
93	80-81	0.1	<0.1	9.8			Siltstone, lmy
94	81-82	0.1	0.1	9.6			Siltstone, sl/lmy
95	82-83	0.1	0.1	9.8			Siltstone, lmy
96	83-84	0.1	0.1	9.1			Siltstone, lmy
97	84-85	<0.1	<0.1	8.1			Siltstone, lmy
	85-86						Sh, silty, red, lmy
98	86-87	0.2	0.1	11.8			Siltstone, lmy
99	87-88	<0.1	<0.1	7.7			Siltstone, lmy
100	88-89	<0.1	<0.1	6.9			Siltstone, lmy
101	89-90	<0.1	<0.1	7.6			Siltstone, lmy
102	90-91	<0.1	<0.1	8.5			Siltstone, lmy
	91-94						Sh, red, lmy
103	94-95	<0.1	<0.1	2.1			Lm
104	95-96	<0.1	<0.1	4.1			Lm, shy
	96-97						Sh, red, lmy
105	97-98	<0.1	<0.1	6.7			Siltstone, lmy
106	98-99	<0.1	<0.1	8.8			Siltstone, lmy
107	99-00	0.2	0.2	10.5			Siltstone, lmy
108	2700-01	0.1	0.1	8.4			Siltstone, lmy
109	01-02	0.1	<0.1	4.2			Siltstone, lmy
110	02-03	0.1	0.1	8.5			Siltstone, lmy
111	03-04	0.1	0.1	6.7			Siltstone, lmy
112	04-05	<0.1	<0.1	8.8			Siltstone, lmy
113	05-06	0.3	0.2	13.5			Siltstone, lmy
114	06-07	0.9	0.9	15.8			Siltstone, lmy
115	07-08	0.1	0.1	9.9			Siltstone, lmy
116	08-09	0.1	0.1	7.8			Siltstone, lmy
117	09-10	<0.1	<0.1	9.2			Siltstone, lmy
118	10-11	<0.1	<0.1	8.3			Siltstone, lmy
	11-12						Sh, red, lmy
119	12-13	1.1	0.4	9.8			Lm, vert frac
120	13-14	19	1.8	7.5			Lm, stylolitic, vert frac
121	14-15	0.2	<0.1	2.6			Lm, vert frac
122	15-16	0.2	0.1	12.2			Dol, siltstone, shy
	16-22						Sh, red, lmy
123	2722-23	<0.1	<0.1	3.0			Lm, sl/shy

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CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

DALLAS, TEXAS

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Well MYLER GAS UNIT NO. 2

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	
124	2723-24	6.7	0.1	7.2			Lm, sl/vuggy
125	24-25	<0.1	<0.1	3.3			Lm
126	25-26	0.2	0.1	10.4			Lm, pp vugs
127	26-27	0.2	0.1	7.2			Lm, pp vugs
128	27-28	0.1	0.1	7.1			Lm, pp vugs, sl/anhy, vert frac
129	28-29	60	7.6	6.3			Lm, shy, stylolitic, vert frac
130	29-30	0.1	<0.1	7.1			Lm, anhy
131	30-31	<0.1	<0.1	5.9			Lm, anhy
132	31-32	1.3	0.1	9.3			Dol, pp vugs, anhy, vert frac
133	32-33	4.9	0.1	7.9			Dol, pp vugs, vert frac
134	33-34	0.1	0.1	7.5			Lm, chalky
135	34-35	0.1	0.1	7.3			Lm, chalky
136	35-36	<0.1	<0.1	3.1			Lm, sl/shy
137	36-37	<0.1	<0.1	3.1			Lm
	37-65						Sh, red, silty, lmy
138	65-66	0.1	0.1	3.7			Lm, shy, stylolitic
139	66-67	<0.1	<0.1	3.1			Lm, stylolitic
140	67-68	<0.1	<0.1	4.7			Lm
141	68-69	0.1	<0.1	5.2			Lm, few vugs
142	69-70	<0.1	<0.1	5.8			Lm, few pp vugs
143	70-71	0.4	0.3	10.7			Lm, chalky
144	71-72	12	0.1	5.6			Lm, vert frac
145	72-73	<0.1	<0.1	3.1			Lm, shy
146	73-74	<0.1	<0.1	1.1			Lm
147	74-75	<0.1	<0.1	2.2			Lm, sl/shy
148	75-76	<0.1	<0.1	1.5			Lm, shy
149	76-77	<0.1	<0.1	2.4			Lm, sl/shy
150	77-78	<0.1	<0.1	2.6			Lm, sl/shy
151	78-79	<0.1	<0.1	1.1			Lm, shy
152	79-80	<0.1	<0.1	0.9			Lm, shy
153	80-81	<0.1	<0.1	0.5			Lm, sl/shy
154	81-82	<0.1*		9.9			Lm, v/shy
155	82-83	<0.1	<0.1	1.6			Lm, sl/shy
156	83-84	<0.1	<0.1	0.7			Lm
157	84-85	<0.1	<0.1	0.8			Lm, vert frac
158	85-86	<0.1	<0.1	1.1			Lm
159	86-87	<0.1	<0.1	1.3			Lm, shy
160	87-88	<0.1	<0.1	1.7			Lm, shy
161	88-89	<0.1	<0.1	3.3			Lm, shy
162	89-90	<0.1	<0.1	0.7			Lm
163	90-91	<0.1	<0.1	2.6			Lm, shy
	91-93						Sh, gy, lmy
164	93-94	0.1	<0.1	3.1			Lm
165	94-95	<0.1	<0.1	5.1			Lm
166	95-96	<0.1	<0.1	5.2			Lm
167	96-97	<0.1	<0.1	1.8			Lm, congl
168	2797-98	<0.1	<0.1	4.7			Lm, dol, congl

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CORE LABORATORIES, INC.
 Petroleum Reservoir Engineering
 DALLAS, TEXAS

File CP-1-7599 Page No. 5

Well MYLER GAS UNIT NO. 2

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	
	2798-2808						Sh, red, silty, lmy
169	2808-09	<0.1	<0.1	7.4			Siltstone, lmy
170	09-10	<0.1	<0.1	7.4			Siltstone, lmy
171	10-11	0.1	<0.1	10.5			Siltstone, sl/lmy
172	11-12	<0.1	<0.1	8.3			Siltstone, sl/lmy
173	12-13	<0.1	<0.1	8.7			Siltstone, sl/lmy
174	13-14	<0.1	<0.1	9.0			Siltstone, sl/lmy
175	14-15	0.1	0.1	12.4			Siltstone, sl/lmy
176	15-16	0.1	0.1	10.5			Siltstone, sl/lmy
177	16-17	0.1	<0.1	9.7			Siltstone, sl/lmy
	2817-18						Sh, red, sl/lmy

PRELIMINARY REPORT

* DENOTES PLUG PERMEABILITY

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Small Core

Lab. No. 4540

Date 9-13-73

Core Analysis Data Record

Well Myler Gas dnit #2

Field Panoma Council Grove

State Kansas

Sample Number	Depths	Description	Permeability-Millidarcys		Effective Porosity	Saturation % Pore		Grain Density
			Horizontal	Vertical		Oil	Water	
1	2568-69	Fr	8.07		11.3			2.70
2	2569-70		.09		7.6			2.65
3	2570-71		.35		13.3			2.67
4	2571-72		.55		13.9			2.63
5	2572-73		.86		15.4			2.64
6	2573-74		2.43		17.5			2.67
7	2574-75		.83		15.1			2.69
8	2575-76		.46		14.5			2.68
9	2576-77		1.65		10.6			2.69
10	2577-78		.67		6.7			2.69
11	2578-79		.70		11.0			2.73
12	2579-80		1.24		7.6			2.68
13	2580-81		.07		7.1			2.68
14	2581-82		<.05		7.8			2.69
15	2582-83		.11		8.3			2.68
16	2583-84	Disintegrated						
17	2584-85		.70		10.2			2.83
18	2629-30	Fr	3495.		15.7			2.65
19	2630-31		.71		17.3			2.66
20	2631-32		.11		7.9			2.67
21	2632-33		2.94		10.0			2.73
22	2633-34		.73		10.0			2.67
23	2634-35		.20		10.5			2.66
24	2635-36		.15		10.0			2.67
25	2653-54		<.05		1.3			2.68
26	2654-55		10.5		5.6			2.62

Small Core

Lab. No. 4540

Date 9-13-73

Core Analysis Data RecordWell Myler Gas Unit #2 Field Panoma Council Grove State Kansas

Sample Number	Depths	Description	Permeability-Millidarcys		Effective Porosity	Saturation % Pore		Grain Density
			Horizontal	Vertical		Oil	Water	
27	2655-56		.05		8.8			2.65
28	2656-57		35.5		13.8			2.67
29	2657-58		.14		5.0			2.69
30	2658-59		.74		6.5			2.67
31	2678-79		.14		13.6			2.74
32	2679-80		.15		13.2			2.74
33	2680-81		.09		12.0			2.72
34	2681-82		.07		10.1			2.70
35	2682-83		.42		9.6			2.71
36	2683-84		.35		11.3			2.71
37	2684-85		.17		10.1			2.70
38	2685-86		<.05		10.1			2.71
39	2686-87		183.		18.8			2.68
40	2687-88		.06		10.2			2.70
41	2688-89		.07		9.0			2.72
42	2689-90		.09		9.9			2.70
43	2690-91		<.05		9.5			2.70
44	2697-98		50.1		8.9			2.66
45	2698-99		.43		14.3			2.73
46	2699-2700		.20		14.0			2.73
47	2700-01		.07		8.2			2.69
48	2701-02		.20		7.7			2.69
49	2702-03		.16		8.7			2.67
50	2703-04	Disintegrated						
51	2704-05		<.05		9.7			2.72
52	2705-06		.38		12.8			2.68

Small Core

0000 14
 Log No. 100-1004
 Sub. No. 100
 Date 1-20-39

Core Analysis Data Form

Well Gas Unit
 Tyler #2 29-29-39

Field Panoma

State Kansas

Sample Number	Depths	Description	Permeability-Millidarcys		Effective Porosity	Saturation % Pore		Grav. Dens.
			Horizontal	Vertical		Oil	Water	
A	2641-42	LM	.05		7.0			2.69
B	2642-43	LM	.25		7.8			2.72
C	2643-44	LM	< .05		7.3			2.68
D	2644-45	LM	.16		7.4			2.68
E	2645-46	LM	.23		8.5			2.68
F	2646-47	LM	< .05		5.3			2.68
G	2647-48	LM	< .05		4.3			2.68
H	2648-49	LM	< .05		2.1			2.69
I	2649-50	LM	< .05		1.8			2.67
J	2650-51	LMXFR	3.34		4.3			2.69
K	2651-52	LM	< .05		2.4			2.66
L	2652-53	LM	< .05		2.2			2.68
M	2653-54	SH	< .05		1.8			2.68
N								
O								
P	cc: J. A. Momper							
Q	J. Wilson							
R	M. S. Kraemer							
S								
T								
U								
V								
W								
X								
Y								
Z								

D. M. B...