Schlumberger

SCHLUMBERGER WELL SERVICES
5000 GULF FREEWAY, P.O. BOX 2175
HOUSTON, TEXAS 77001, (713) 928-2511

PLEASE REPLY TO
2000 CLASSEN CENTER - STE. # 124 E
OKLAHOMA CITY, OKLAHOMA 73106

May 4, 1973

Anadarko Production Company
300 N. Lincoln
Liberal, Kansas

Gentlemen:

Enclosed are the computed results of CORIBAND on your Kimzey "A" #1, Stevens County, Kansas. This presentation consists of a computed log and tabular listing.

Parameters used for this analysis are listed on the log heading.

Potential hydrocarbon production exists in the following zones:

ZONE	POROSITY	WATER SATURATION	PERMEABILITY	REMARKS
3071'-3077'	11-17%	47-74%	0- 7.5 md.	Water Cut
3044'-3051	10-19%	44-65%	1.48-12.69 md.	Water Cut
3010'-3012'	7-9 %	55-73%	.03-.13 md.	Water Cut
2999'-3004'	9-12%	38-88%	.09-.88 md.	Water Cut
2958'-2960'	10%	55-60%	.24-.32 md.	Water Cut
2944'-2946'	12%	61%	.7-.9 md.	Water Cut
2809'-2830'	8-18%	55-72%	.08-10.04 md.	Water Cut
2750'-2795'	10-18%	16-38%	1-100 md.	
2700'-2722'	15% Avg.	20% Avg.	10 md. Avg.	
2690'-2700'	6-10%	48-61%	.09-.31 md.	
2641'-2670'	8-14%	26-64%	.05-6.79 md.	
2634'-2641'	6- 9%	51-64%	.02-.13 md.	
2604'-2616'	6-13%	37-68%	.02-1.74 md.	

Thank you for allowing us to perform a CORIBAND on your well. We believe this information will be beneficial in its evaluation, and if further information is desired, please contact us.

SINCERELY,

SCHLUMBERGER WELL SERVICES

L. M. Holley
Senior Sales Engineer

LMH/ma

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

June 4, 1973

REPLY TO
8 N. W. 42ND ST.
OKLAHOMA CITY, OKLA.
73118

Anadarko Production Company
P. O. Box 351
Liberal, Kansas 67901

Attn: Mr. Harper C. High

Subject: Core Analysis Data
Kimzey "A" No. 1 Well
Panoma Field
Stevens County, Kansas
CLI File No. CP-1-7798

Gentlemen:

The Council Grove formation was diamond cored from 2895 to 3156 feet in the Kimzey "A" No. 1 Well. The cores were preserved in plastic bags at the well-site and shipped to the Oklahoma City laboratory where the accompanying Core-Gamma Surface Log was recorded to aid correlation with downhole electrical surveys.

Full-diameter core samples were analyzed from each foot of the recovered intervals (shale excluded) and the data are presented on pages one through five of this report.

The cores have been slabbed and color photographs of the slabs were made and have been sent to you in Liberal. The larger portion of the core remains at the Oklahoma City laboratory awaiting additional instructions.

We are pleased to have been of service.

Very truly yours,

CORE LABORATORIES, INC.

Dale E. Boyle
Manager, Core Analysis Services

DEB:es

9 cc - Addressee

CORE ANALYSIS RESULTS

Company ANADARKO PRODUCTION COMPANY Formation COUNCIL GROVE File CP-1-7798
Well KIMZEY "A" NO. 1 Core Type DIAMOND Date Report 4-16-73
Field PANOMA Drilling Fluid STARCH Analysts BOYLE
County STEVENS State KANSAS Elev. Location C NE/4 SEC. 1-T34S-R38W

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, VUGGY-VGY, FRACTURED-FRAC, LAMINATION-LAM, STYLOLITIC-STY, SLIGHTLY-, VERY-V/, WITH-W/

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS		POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE		GRAIN DENS.	SAMPLE DESCRIPTION AND REMARKS
		PERM. MAX.	PERM. 90°		OIL	TOTAL WATER		
	WHOLE-CORE ANALYSIS							
	2895-96							Sh
1	2896-97	0.1	<0.1	1.4	0.0	76.9	2.70	Lm,anhy
2	97-98	0.1	<0.1	3.7	0.0	81.8	2.74	Lm,anhy
3	98-99	0.3	0.1	5.5	0.0	69.4	2.79	Lm,anhy
4	99-00	0.3	0.3	8.8	0.0	62.1	2.76	Lm,anhy
5	2900-01	343	0.1	9.7	0.0	65.4	2.71	Lm,chty,anhy,vert frac
6	01-02	0.2	0.2	5.8	0.0	86.5	2.71	Lm,anhy,chty
7	02-03	0.1	0.1	8.7	0.0	75.9	2.70	Lm,anhy,chty
8	03-04	1.4	0.2	9.6	0.0	89.7	2.74	Lm,anhy,chty,vert frac
9	04-05	0.1	<0.1	8.9	0.0	80.5	2.68	Lm,anhy,chty
10	05-06	0.2	0.1	9.7	0.0	89.0	2.70	Lm,anhy,chty
11	06-07	0.1	0.1	9.0	0.0	91.4	2.70	Lm,anhy,chty
12	07-08	0.4	0.4	10.5	0.0	72.9	2.64	Lm,w/cht incl
13	08-09	0.1	0.1	6.3	0.0	89.1	2.70	Lm,chty
14	09-10	0.4	0.3	11.0	0.0	89.3	2.69	Lm,anhy,chty
15	10-11	0.4	0.3	8.1	0.0	60.8	2.70	Lm,anhy,chty
16	11-12	0.1	<0.1	5.6	0.0	57.3	2.70	Lm,anhy
17	12-13	0.1	0.1	6.7	0.0	58.2	2.70	Lm,anhy,v/chty
18	13-14	0.2	0.2	12.9	0.0	72.3	2.72	Lm,anhy
19	14-15	0.3	0.1	10.9	0.0	75.3	2.71	Lm,anhy
20	15-16	0.3	0.2	9.6	0.0	68.6	2.76	Lm,anhy
21	16-17	0.4	0.3	7.1	0.0	70.9	2.70	Lm,anhy,chty
22	17-18	0.3	0.3	6.1	0.0	58.3	2.70	Lm,anhy
23	18-19	<0.1	<0.1	9.5	0.0	83.2	2.71	Lm,anhy,v/slty
24	19-20	0.1	<0.1	9.4	0.0	89.1	2.70	Lm,v/slty
25	20-21	0.1	0.1	6.2	0.0	86.5	2.67	Slt,v/lmy
26	21-22	0.1	0.1	8.0	0.0	63.8	2.70	Lm
27	22-23	0.4	0.2	11.2	0.0	69.5	2.68	Slt,lmy,sdy
28	23-24	3.2	3.1	12.8	0.0	42.2	2.68	Slt,lmy,sdy
29	24-25	1.6	0.6	7.6	0.0	67.4	2.68	Slt,lmy
30	25-26	0.1	0.1	7.8	0.0	78.0	2.68	Slt,lmy,shy
31	26-27	<0.1	<0.1	7.6	0.0	91.4	2.69	Slt,lmy,shy,anhy
32	27-28	0.1	<0.1	6.0	0.0	90.1	2.70	Slt,lmy,anhy
33	28-29	0.1	0.1	5.3	0.0	56.9	2.68	Slt,lmy,anhy
34	29-30	0.4	0.2	6.1	0.0	70.3	2.68	Slt,lmy,anhy
35	30-31	0.8	0.4	7.0	0.0	88.1	2.68	Slt,lmy,shy
36	31-32	<0.1	<0.1	10.2	0.0	94.1	2.72	Slt,lmy,shy
37	32-33	3.4	0.4	5.5	0.0	53.4	2.68	Slt,lmy,anhy
38	33-34	0.1	<0.1	3.1	0.0	78.2	2.67	Slt,lmy,anhy
39	2934-35	0.3	0.1	9.3	0.0	84.1	2.67	Slt,lmy

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS MAX.	90°	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	TOTAL WATER	GRAIN DENS.	SAMPLE DESCRIPTION AND REMARKS
40	2935-36	0.1	<0.1	12.0	0.0	89.8	2.72	Lm,shy,anhy,slty
41	36-37	<0.1	<0.1	7.2	0.0	90.1	2.73	Lm,shy,anhy,slty
42	37-38	<0.1	<0.1	8.6	0.0	87.0	2.73	Lm,shy,anhy,slty
43	38-39	<0.1	<0.1	7.9	0.0	88.7	2.72	Lm,shy,sl/anhy,slty
	39-41							Sh,anhy
44	41-42	0.1	<0.1	8.3	0.0	97.2	2.82	Lm,shy,anhy
45	42-43	0.1	0.1	4.4	0.0	53.8	2.70	Lm
46	43-44	0.2	0.1	4.2	0.0	65.4	2.70	Lm
47	44-45	481	0.1	2.5	0.0	77.4	2.73	Lm,vert frac
48	45-46	0.1	0.1	2.8	0.0	78.8	2.75	Lm,anhy,vert frac
49	46-47	273	<0.1	1.7	0.0	75.0	2.70	Lm,vert frac
50	47-48	<0.1	<0.1	6.8	0.0	86.3	2.76	Lm,shy,anhy
51	48-49	<0.1	<0.1	7.6	0.0	90.5	2.76	Lm,v/shy,anhy
52	49-50	<0.1	<0.1	9.5	0.0	89.9	2.77	Lm,v/shy,anhy
53	50-51	<0.1	<0.1	7.6	0.0	91.0	2.74	Lm,shy,anhy
54	51-52	<0.1	<0.1	0.7	0.0	80.0	2.68	Lm,anhy
55	52-53	17	<0.1	2.4	0.0	88.6	2.68	Lm,shy,vert frac
	53-55							Sh
56	55-56	0.1	0.1	4.6	0.0	76.1	2.68	Lm
57	56-57	0.3	0.2	5.1	0.0	65.1	2.69	Lm
58	57-58	0.9	0.8	12.9	0.0	69.5	2.74	Lm,anhy
59	58-59	0.6	0.3	14.3	0.0	62.2	2.71	Lm,sl/anhy,chty
60	59-60	<0.1	<0.1	1.5	0.0	74.1	2.68	Lm,shy
61	60-61	<0.1	<0.1	1.6	0.0	75.0	2.68	Lm,shy
62	61-62	<0.1	<0.1	4.5	0.0	83.6	2.68	Lm,shy,sl/anhy
63	62-63	<0.1	<0.1	7.3	0.0	87.9	2.72	Lm,anhy
64	63-64	<0.1	<0.1	5.7	0.0	84.7	2.68	Lm,shy,anhy
65	64-65	<0.1	<0.1	6.6	0.0	85.5	2.68	Lm,shy,anhy
66	65-66	<0.1	<0.1	7.5	0.0	91.5	2.69	Lm,shy,anhy
67	66-67	<0.1	<0.1	7.3	0.0	90.5	2.69	Lm,shy,anhy
68	67-68	<0.1	<0.1	7.7	0.0	81.3	2.72	Lm,shy,anhy
69	68-69	<0.1	<0.1	5.0	0.0	84.3	2.70	Lm,shy,anhy
70	69-70	<0.1	<0.1	4.1	0.0	86.0	2.68	Lm,shy,anhy
71	70-71	<0.1	<0.1	3.6	0.0	81.8	2.68	Lm,shy,anhy
72	71-72	0.1	0.1	2.6	0.0	69.0	2.67	Lm,shy,anhy
73	72-73	0.1	0.1	4.8	0.0	86.7	2.68	Lm,shy,anhy
74	73-74	0.1	<0.1	2.8	0.0	72.0	2.68	Lm,shy,anhy
75	74-75	0.1	<0.1	3.5	0.0	78.0	2.69	Lm,shy
76	75-76	0.1	0.1	9.6	0.0	90.7	2.70	Lm,shy
77	76-77	0.1	0.1	8.4	0.0	90.1	2.73	Lm,shy
78	77-78	0.1	0.1	3.7	0.0	88.9	2.68	Lm,shy
79	78-79	<0.1	<0.1	4.8	0.0	89.2	2.76	Lm,shy
80	79-80	<0.1	<0.1	2.1	0.0	84.6	2.68	Lm,shy
81	80-81	<0.1	<0.1	1.2	0.0	73.7	2.69	Lm,shy
82	81-82	<0.1	<0.1	1.8	0.0	73.1	2.68	Lm,sl/shy
83	82-83	<0.1	<0.1	1.6	0.0	77.3	2.68	Lm
84	2983-84	<0.1	<0.1	8.6	0.0	83.5	2.74	Lm,shy,slty,vert frac

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS MAX.	90°	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	TOTAL WATER	GRAIN DENS.	SAMPLE DESCRIPTION AND REMARKS
85	2984-85	<0.1	<0.1	12.4	0.0	80.8	2.72	Lm,shy,slty,vert frac
	85-88							Sh
86	88-89	0.2	0.1	9.2	0.0	87.5	2.77	Slt,lmy,v/anhy
87	89-90	0.1	<0.1	4.5	0.0	88.2	2.68	Slt,lmy,v/anhy
88	90-91	0.2	<0.1	4.0	0.0	81.1	2.68	Slt,lmy,v/anhy
89	91-92	0.1	<0.1	5.0	0.0	83.8	2.69	Slt,lmy,v/anhy
90	92-93	0.1	<0.1	9.6	0.0	87.7	2.71	Slt,lmy,v/anhy
91	93-94	<0.1	<0.1	4.5	0.0	85.2	2.70	Slt,lmy,v/anhy
92	94-95	0.2	0.1	8.8	0.0	78.7	2.72	Slt,lmy,anhy
93	95-96	0.1	0.1	5.5	0.0	83.1	2.74	Slt,lmy,anhy
94	96-97	0.1	<0.1	4.5	0.0	85.1	2.73	Lm,anhy,chty
95	97-98	0.1	0.1	8.4	0.0	74.0	2.74	Lm,anhy,chty
96	98-99	11.0	0.1	4.3	0.0	83.3	2.78	Lm,vert frac
97	99-00	0.6	0.4	7.9	Tr	57.5	2.76	Lm,anhy,chty
98	3000-01	5.7	2.4	13.3	Tr	66.0	2.73	Lm,anhy,chty
99	01-02	11.0	2.6	17.3	Tr	60.7	2.72	Lm,anhy,chty,vert frac
100	02-03	0.5	0.4	7.7	Tr	59.0	2.70	Lm,anhy,chty
101	03-04	<0.1	<0.1	4.0	0.0	82.5	2.68	Lm,anhy,chty
102	04-05	0.1	0.1	3.7	Tr	55.9	2.70	Lm,sl/shy
103	05-06	0.4	0.4	3.3	0.0	82.4	2.70	Lm,sty
104	06-07	0.1	<0.1	4.1	Tr	45.2	2.66	Lm
105	07-08	0.2	0.1	3.6	Tr	58.7	2.70	Lm
106	08-09	0.1	0.1	4.7	Tr	74.2	2.68	Lm
107	09-10	0.3	0.3	11.3	Tr	87.4	2.73	Lm
108	10-11	0.8	0.7	14.3	Tr	71.8	2.70	Lm
109	11-12	0.8	0.7	7.7	Tr	77.6	2.68	Lm
110	12-13	1.8	0.1	3.5	Tr	55.6	2.68	Lm
	13-21							Sh
111	21-22	0.1	<0.1	2.2	0.0	93.8	2.70	Lm,shy
112	22-23	<0.1	<0.1	0.9	0.0	87.5	2.72	Lm,sl/shy
113	23-24	801	0.1	1.9	0.0	73.9	2.70	Lm,vert frac
114	24-25	0.1	0.1	3.5	Tr	67.0	2.70	Lm
115	25-26	<0.1	<0.1	3.6	0.0	81.5	2.72	Lm,w/anhy incl
116	26-27	0.1	0.1	3.4	Tr	49.5	2.70	Lm
117	27-28	0.2	0.1	4.3	Tr	48.5	2.66	Lm
118	28-29	0.9	0.6	13.6	Tr	71.9	2.70	Lm,anhy
119	29-30	1.4	0.5	6.4	Tr	82.6	2.71	Lm,anhy
120	30-31	0.1	<0.1	2.6	0.0	77.8	2.71	Lm
121	31-32	0.1	0.1	1.2	0.0	75.0	2.71	Lm
122	32-33	<0.1	<0.1	5.4	0.0	92.6	2.72	Lm,v/shy
	33-43							Sh
123	43-44	<0.1	<0.1	2.3	0.0	85.7	2.75	Lm
124	44-45	2.7	1.2	12.0	Tr	84.8	2.74	Lm,dol,anhy
125	45-46	6.0	4.1	18.1	Tr	83.7	2.86	Dol,anhy
126	46-47	2.4	1.9	18.0	Tr	83.5	2.86	Dol,anhy
127	47-48	5.5	5.2	20.9	Tr	84.4	2.87	Dol,anhy
128	3048-49	2.1	1.7	17.1	0.0	84.7	2.84	Dol,anhy

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS MAX.	90°	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	TOTAL WATER	GRAIN DENS.	SAMPLE DESCRIPTION AND REMARKS
129	3049-50	0.2	0.2	9.0	0.0	87.9	2.81	Dol,anhy
130	50-51	0.1	0.1	6.7	0.0	84.1	2.74	Lm,anhy,slty
131	51-52	0.1	<0.1	6.1	0.0	84.9	2.70	Slt,lmy,shy
	52-54							Sh,sl/lmy
132	54-55	<0.1	<0.1	7.2	0.0	86.4	2.70	Slt,lmy,shy
133	55-56	0.2	0.1	4.5	0.0	65.0	2.70	Slt,lmy
134	56-57	0.1	0.1	5.1	0.0	72.9	2.70	Slt,lmy
	57-59							Sh,lmy
135	59-60	<0.1	<0.1	0.4	0.0	60.0	2.70	Lm
136	60-61	0.1	0.1	3.8	Tr	74.4	2.70	Lm
137	61-62	0.1	0.1	3.5	Tr	60.7	2.70	Lm
138	62-63	0.1	0.1	2.1	Tr	70.4	2.73	Lm
139	3063-64	<0.1	<0.1	1.9	0.0	73.9	2.70	Lm,w/few cht incl
140	64-65	<0.1	<0.1	3.6	0.0	83.7	2.73	Lm,silty
	65-70							Sh
141	70-71	0.9	0.6	7.9	Tr	86.9	2.72	Lm,anhy
142	71-72	2.2	1.5	9.5	Tr	87.5	2.73	Lm,anhy
143	72-73	0.1	0.1	7.3	Tr	83.1	2.73	Lm,anhy
144	73-74	<0.1	<0.1	9.6	0.8	76.4	2.72	Lm,anhy
145	74-75	5.2	4.7	15.2	0.7	89.1	2.74	Lm,sl/dol,anhy
146	75-76	3.9	3.3	22.6	0.6	92.2	2.74	Lm,sl/dol,anhy,gyp
147	76-77	1.1	1.0	22.7	0.6	94.6	2.74	Lm,sl/dol,gyp
148	77-78	1.6	1.5	20.5	Tr	93.5	2.71	Lm,dol
149	78-79	1.5	1.2	23.6	Tr	92.0	2.80	Dol,sl/anhy
150	79-80	1.4	1.4	21.9	Tr	92.6	2.77	Lm,dol
151	80-81	0.6	0.2	24.9	Tr	93.0	2.81	Dol,sl/anhy,gyp
152	81-82	0.1	<0.1	14.5	Tr	88.3	2.74	Lm,dol
153	82-83	0.1	<0.1	17.1	Tr	88.4	2.74	Lm,sl/dol,sl/gyp,sl/chty
154	83-84	<0.1	<0.1	12.5	0.7	79.3	2.72	Lm,sl/gyp,sl/chty
155	84-85	<0.1	<0.1	13.4	0.7	84.9	2.78	Lm,dol,gyp
156	85-86	<0.1	<0.1	11.0	0.9	82.9	2.77	Lm,dol,gyp
157	86-87	<0.1	<0.1	3.2	0.0	71.7	2.70	Lm,slty
158	87-88	<0.1	<0.1	1.6	0.0	68.7	2.71	Lm,sl/slty
159	88-89	<0.1	<0.1	2.7	0.0	79.1	2.70	Lm,sl/shy,slty
160	89-90	<0.1	<0.1	7.2	0.0	89.5	2.73	Lm,v/shy,v/slty
161	90-91	<0.1	<0.1	4.1	0.0	87.9	2.72	Lm,shy,slty
162	91-92	<0.1	<0.1	5.8	0.0	88.1	2.71	Lm,shy,slty
163	92-93	<0.1	<0.1	4.1	0.0	88.1	2.72	Lm,sl/shy,slty
	3093-3112							Sh
164	12-13	<0.1	<0.1	6.2	0.0	81.2	2.73	Lm,sl/shy,sl/slty
165	13-14	0.4	<0.1	7.6	0.0	81.6	2.71	Lm,shy,sl/slty
166	14-15	<0.1	<0.1	2.8	0.0	69.0	2.73	Lm,anhy,gyp
167	15-16	0.8	0.7	8.6	Tr	86.7	2.78	Lm,dol,anhy,gyp
168	16-17	0.3	0.3	8.0	Tr	80.5	2.78	Lm,dol
169	17-18	8.5	<0.1	3.8	0.0	76.5	2.70	Lm,sl/shy,sl/anhy,slty,vert frac
170	18-19	<0.1	<0.1	2.3	0.0	78.8	2.72	Lm,sl/shy,slty
171	3119-20	<0.1	<0.1	1.6	0.0	76.2	2.69	Lm,sl/anhy,sl/slty,gyp

CORE ANALYSIS RESULTS

SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MILLIDARCYS MAX.	90°	POROSITY PER CENT	RESIDUAL SATURATION PER CENT PORE OIL	TOTAL WATER	GRAIN DENS.	SAMPLE DESCRIPTION AND REMARKS
172	3120-21	<0.1	<0.1	1.5	0.0	73.1	2.70	Lm,sl/anhy,chty,gyp
173	21-22	<0.1	<0.1	5.1	0.0	88.2	2.75	Lm,v/shy,v/slty
174	22-23	<0.1	<0.1	3.0	0.0	82.2	2.72	Lm,shy,slty
175	23-24	<0.1	<0.1	5.2	0.0	83.6	2.74	Lm,shy,slty
176	24-25	<0.1	<0.1	1.1	0.0	66.7	2.71	Lm,shy,slty
177	25-26	<0.1	<0.1	1.4	0.0	69.2	2.71	Lm,sl/shy,slty
178	26-27	<0.1	<0.1	2.1	0.0	70.6	2.71	Lm,sl/shy,slty
179	27-28	<0.1	<0.1	6.0	0.0	86.2	2.75	Lm,v/shy,slty
180	28-29	<0.1	<0.1	1.7	0.0	77.8	2.71	Lm,shy,slty
181	29-30	0.4	<0.1	4.0	0.0	75.0	2.75	Lm,sl/dol,chty
182	30-31	<0.1	<0.1	2.5	0.0	75.8	2.74	Lm,sl/dol,v/chty
183	31-32	0.7	0.6	14.1	0.0	87.7	2.72	Lm,chty
184	32-33	<0.1	<0.1	4.8	0.0	74.6	2.67	Lm,shy,slty
185	33-34	<0.1	<0.1	6.0	0.0	71.2	2.68	Lm,shy,slty
186	34-35	<0.1	<0.1	5.8	0.0	87.0	2.68	Lm,shy,slty
187	35-36	<0.1	<0.1	6.8	0.0	86.1	2.67	Lm,shy,slty
188	36-37	<0.1	<0.1	5.5	0.0	86.2	2.67	Lm,shy,slty
189	37-38	<0.1	<0.1	7.2	0.0	87.4	2.67	Lm,shy,slty
	38-47							Sh
190	47-48	<0.1	<0.1	0.7	0.0	72.7	2.69	Lm,shy,slty
	48-49							Sh
191	49-50	<0.1	<0.1	8.6	0.0	88.0	2.74	Lm,v/shy,v/slty
	50-51							Sh
192	51-52	<0.1	<0.1	4.3	0.0	85.7	2.74	Lm,shy,slty
193	52-53	0.1	<0.1	3.2	0.0	80.0	2.74	Lm,sl/shy,sl/slty
194	53-54	<0.1	<0.1	3.8	0.0	70.2	2.67	Lm
195	54-55	2.0	<0.1	7.0	0.0	87.7	2.70	Lm
196	3155-56	2.0	1.4	14.0	0.0	90.6	2.73	Lm,sl/dol

CORE LABORATORIES, INC. CORELAB *Petroleum Reservoir Engineering*

COMPANY ANADARKO PRODUCTION COMPANY FIELD PANOMA FILE CP-1-7798

WELL KIMZEY "A" NO. 1 COUNTY STEVENS DATE 4-28-73

LOCATION C NE/4 SEC. 1-T34S-R38W STATE KANSAS ELEV. 3167' GL

CORE-GAMMA CORRELATION

VERTICAL SCALE: 5" = 100'

CORE-GAMMA SURFACE LOG

(PATENT APPLIED FOR)

GAMMA RAY

RADIATION INCREASE →

COREGRAPH

TOTAL WATER

PERCENT TOTAL WATER

80 60 40 20

K/10 PERMEABILITY

MILLIDARCYS

100 50 10 5 1

POROSITY

PERCENT

20 10

OIL SATURATION

PERCENT PORE SPACE

0 20 40 60 80

2895

2900

2950

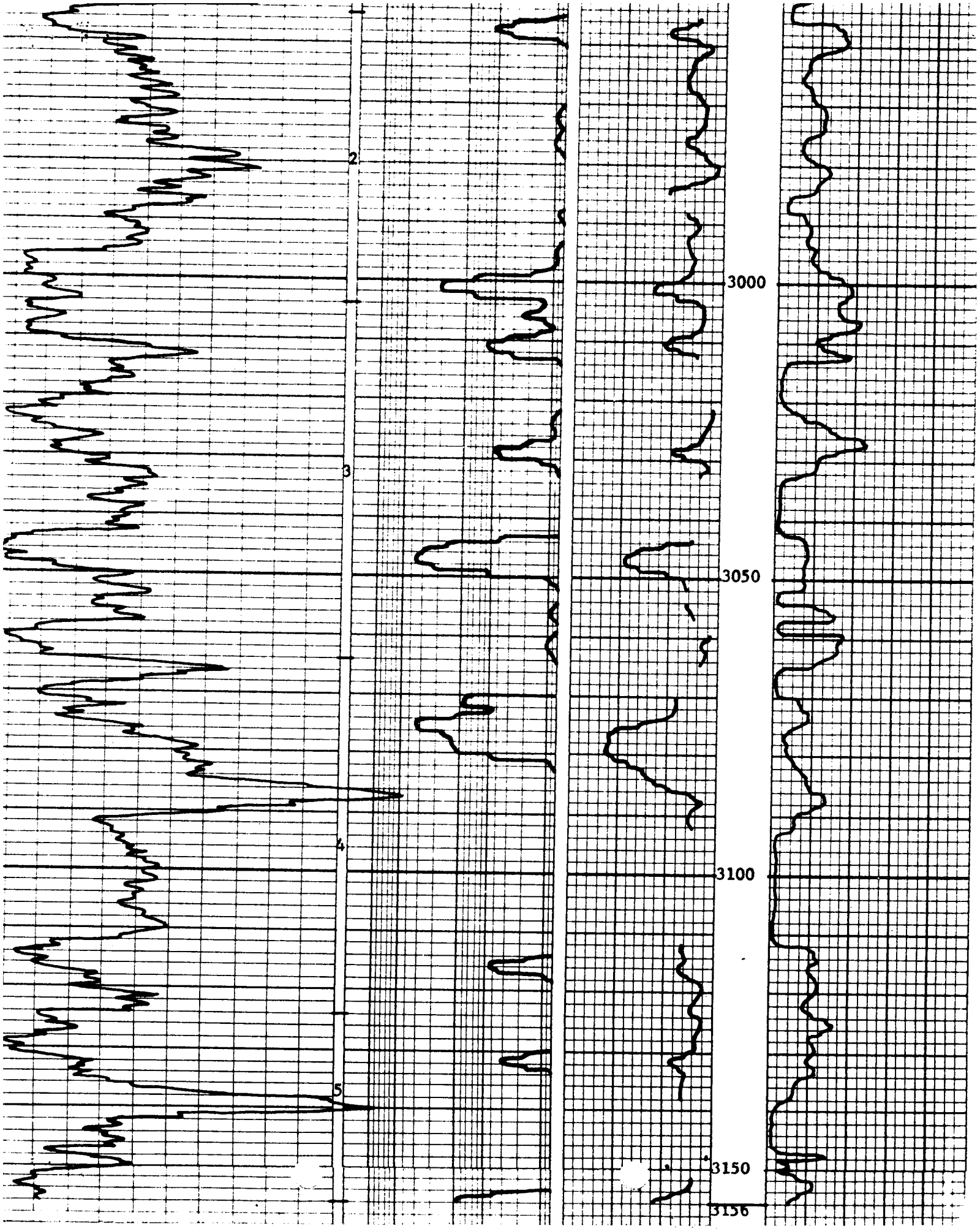
2
3
4
5
3000
3050
3100
3150
3156

Table 2

BASIC ROCK PROPERTIES
1-A Kimzey
SRS 2372B/RSH 3720

Sample	Depth (ft)	Permeability to Gas (md)	Porosity (%BV)	Grain Density (g/cc)	Bulk Density (g/cc)
S 349	2918.1	0.010	6.4	2.70	2.53
S 350	2919.4	**	-	-	-
S 351	2920.6	0.046	6.7	2.68	2.50
S 352	2921.1	0.028	6.6	2.66	2.49
S 353	2922.5	3.09	11.8	2.65	2.33
S 354	2923.3	7.07	12.0	2.64	2.33
S 355	2924.6	0.026	9.7	2.68	2.42
S 356	2925.3	0.011	9.8	2.70	2.44
S 357	2926.2	**	-	-	-
S 358	2927.6	0.009	7.6	2.69	2.49
S 359	2928.5	0.008	8.0	2.70	2.49
S 360	2929.4	0.011	8.2	2.74	2.51
S 361	2930.1	0.008	8.5	2.70	2.47
S 362	2931.2	0.008	6.5	2.67	2.50
S 363	2932.5	0.013	4.3	2.74	2.62
S 364	2933.6	0.233	13.4	2.75	2.38
S 365	2934.6	0.108	14.4	2.72	2.33
S 366	2935.5	0.042	12.2	2.69	2.36
S 367	2936.5	**	-	-	-
S 368	2937.1	**	9.1	2.74	2.49
S 369	2938.2	1.30 *	8.3	2.75	2.52
S 370	2939.2	0.555*	13.2	2.68	2.33
S 372	2940.2	0.018	7.4	2.75	2.55
S 373	2941.4	0.001	2.6	2.73	2.66
S 374	2942.8	0.017	6.6	2.71	2.53
S 375	2943.7	0.043	6.5	2.71	2.54
S 376	2944.6	0.023	5.2	2.72	2.58
S 377	2945.9	0.047	6.0	2.77	2.60
S 378	2946.6	0.006	4.2	2.73	2.61
S 379	2947.4	0.006	7.8	2.77	2.56
S 380	2948.7	0.001	9.4	2.79	2.53
S 381	2949.9	0.309*	10.2	2.79	2.50
S 382	2951.5	0.001	1.6	2.69	2.65
S 383	2952.6	0.001	4.0	2.69	2.58
S 384	2953.6	0.015	5.8	2.69	2.53
S 385	2954.8	25.5 *	8.0	2.74	2.52
S 386	2955.9	0.244	6.7	2.71	2.53
S 387	2956.5	0.037	6.4	2.69	2.52
S 388	2957.4	2.83	13.3	2.70	2.34
S 389	2958.3	2.93	13.9	2.71	2.34

* Sample contains fracture(s). Permeability to gas may be anomalously high
** Broken/non-cylindrical sample. Permeability to gas indeterminable

Table 2

BASIC ROCK PROPERTIES
1-A Kimzey
SRS 2372B/RSH 3720

Sample	Depth (ft)	Permeability to Gas (md)	Porosity (%BV)	Grain Density (g/cc)	Bulk Density (g/cc)
S 390	2959.1	3.52	13.0	2.69	2.34
S 391	2960.3	0.001	5.5	2.67	2.52
S 392	2961.2	0.001	4.5	2.68	2.55
S 393	2962.9	0.021	7.3	2.66	2.46
S 394	2963.9	0.067	8.3	2.72	2.50
S 395	2964.9	1.51 *	10.1	2.71	2.44
S 396	2965.5	136. *	10.6	2.71	2.42
S 397	2994.5	**	-	-	-
S 398	2995.6	0.005	1.0	2.69	2.66
S 399	2996.2	0.293	7.6	2.74	2.53
S 400	2997.7	0.647	11.1	2.69	2.39
S 401	2998.4	2.60	8.5	2.72	2.49
S 402	2999.3	18.0	13.3	2.72	2.36
S 403	3000.8	28.7	18.6	2.69	2.19
S 404	3001.5	9.40	15.6	2.70	2.28
S 405	3002.5	0.212	7.4	2.69	2.50
S 406	3003.3	0.006	5.2	2.74	2.60
S 407	3004.8	0.005	3.8	2.70	2.60
S 408	3005.5	0.015	4.4	2.70	2.58
S 409	3006.2	0.018	5.9	2.70	2.54
S 410	3007.4	0.017	4.2	2.70	2.59
S 411	3008.4	0.033	6.0	2.70	2.53
S 412	3009.6	0.944	13.1	2.69	2.34
S 413	3010.2	0.579	13.4	2.69	2.33
S 414	3011.6	0.186	10.3	2.70	2.42
S 415	3012.7	0.003	5.6	2.71	2.56
S 416	3013.2	0.001	2.5	2.70	2.63
S 417	3014.5	**	-	-	-
S 418	3043.6	0.006	3.7	2.76	2.66
S 419	3044.4	3.57	12.8	2.71	2.36
S 420	3045.5	18.2	18.0	2.86	2.35
S 421	3046.7	4.58	17.0	2.81	2.34
S 422	3047.7	21.2	18.7	2.86	2.32
S 423	3048.8	24.4	19.7	2.86	2.30
S 424	3049.8	1.53	15.7	2.81	2.37
S 425	3050.9	0.601	13.7	2.81	2.43
S 426	3051.2	0.818*	6.0	2.69	2.53
S 427	3052.1	0.001	5.9	2.72	2.56
S 428	3069.9	0.004	2.7	2.70	2.63
S 429	3070.5	0.017	4.9	2.70	2.57

* Sample contains fracture(s). Permeability to gas may be anomalously high
** Broken/non-cylindrical sample. Permeability to gas indeterminable

Table 2

BASIC ROCK PROPERTIES
1-A Kimzey
SRS 2372B/RSH 3720

Sample	Depth (ft)	Permeability to Gas (md)	Porosity (%BV)	Grain Density (g/cc)	Bulk Density (g/cc)
S 430	3071.6	9.77	10.8	2.70	2.41
S 431	3072.7	0.302	8.5	2.70	2.47
S 432	3073.7	0.135	13.1	2.76	2.40
S 433	3074.5	0.472	14.9	2.73	2.32
S 434	3075.5	209.	24.1	2.71	2.06
S 435	3076.3	23.0	24.5	2.71	2.04
S 436	3077.1	10.9	24.3	2.71	2.06
S 437	3078.1	8.24	22.0	2.71	2.11
S 438	3079.2	2.81	24.1	2.76	2.10
S 439	3080.6	38.0	25.5	2.79	2.08
S 440	3081.4	2.89	17.3	2.72	2.25
S 441	3082.9	1.74	18.1	2.73	2.24
S 442	3083.9	0.968	16.2	2.73	2.28
S 443	3084.3	1.47	15.4	2.74	2.32
S 444	3085.5	0.956	15.8	2.73	2.30
S 445	3086.5	0.046	8.4	2.72	2.49
S 446	3087.8	0.005	3.1	2.74	2.65
S 447	3088.6	0.134*	5.1	2.75	2.61

* Sample contains fracture(s). Permeability to gas may be anomalously high
** Broken/non-cylindrical sample. Permeability to gas indeterminable

****

ANADARKO PRODUCTION COMPANY
KINZEY A NO. 1
PANOMA
STEVENS
KANSAS
APRIL 28, 1973
NEW ORLEANS LOG COMPUTING CENTER N-2147

****

PRESENTATION PROGRAM
VERSION 9
06/01/72

CORIBAND JOB

DISCRIMINATION MADE ON LISTING IS FROM VSH 50

PERMEABILITY IS COMPUTED FROM AN EQUATION OF THE TYPE

$$\frac{C * POR^{6.000}}{2.000^{SW}}$$

MAXIMUM LIMIT OF SW IN EQUATION IS 50

MINIMUM LIMIT OF SW IN EQUATION IS 10

THE CONSTANT USED IN THE PERM EQUATION IS 250.

DEPTH FEET	PERM.TO OIL-GAS (INDEX)	WATER SAT. %	POROSITY TOTAL %	POROSITY SEC. %	MATRIX DENSITY GM/CC	SHALE VOLUME %	CUMULATIVE INTEGRATIONS PAR-FT	CUMULATIVE INTEGRATIONS HC-FT
2590.0	.11	100	6.1	.0	2.93	44	41.55	14.46
2591.0	.00	100	4.3	.9	2.91	40	41.49	14.46
2592.0	.10	100	2.3	2.3	2.84	42	41.45	14.46
2593.0	.00	78	2.7	2.7	2.81	50	41.43	14.46
2602.0	.07	100	8.1	1.1	2.97	47	41.11	14.43
2603.0	.03	95	7.0	.2	2.97	45	41.03	14.43
2604.0	.06	64	7.9	3.1	2.92	46	40.95	14.43
2605.0	1.74	52	13.8	.0	2.92	20	40.87	14.39
2606.0	.24	72	9.9	.0	2.85	0	40.73	14.33
2607.0	.02	68	6.7	.0	2.79	0	40.65	14.31
2608.0	.21	37	8.9	.4	2.79	0	40.57	14.28
2609.0	.10	46	8.3	.0	2.77	4	40.48	14.23
2610.0	.05	60	7.7	.0	2.77	5	40.40	14.19
2611.0	.08	57	8.3	.0	2.76	5	40.33	14.16
2612.0	.09	59	8.4	.0	2.76	4	40.24	14.12
2613.0	.09	51	8.4	.0	2.78	5	40.16	14.09
2614.0	.17	47	9.2	.0	2.81	5	40.07	14.04
2615.0	.09	60	8.4	.0	2.81	7	39.98	14.00
2616.0	.02	78	6.6	.0	2.81	8	39.90	13.97
2617.0	.01	82	5.4	.0	2.80	14	39.84	13.95
2618.0	.01	100	5.4	.0	2.83	19	39.78	13.95
2619.0	.00	100	4.8	.0	2.85	17	39.73	13.95
2620.0	.01	100	5.3	.0	2.86	17	39.68	13.95
2621.0	.00	100	4.7	.0	2.85	16	39.63	13.95
2622.0	.00	100	4.2	.0	2.84	15	39.59	13.95
2623.0	.00	100	3.2	.0	2.87	20	39.54	13.95
2624.0	.00	100	3.9	.0	2.92	20	39.51	13.95
2625.0	.00	100	4.3	.2	2.93	20	39.47	13.95
2626.0	.00	100	4.2	.0	2.95	22	39.43	13.95
2627.0	.00	100	4.9	.9	2.96	18	39.39	13.95
2628.0	.00	100	3.2	.2	2.92	21	39.34	13.95
2629.0	.00	100	2.8	1.3	2.89	28	39.31	13.95
2630.0	.00	100	2.4	2.4	2.96	37	39.23	13.95
2631.0	.00	97	1.8	1.8	2.99	44	39.26	13.95
2632.0	.00	96	3.4	1.4	2.94	37	39.24	13.95
2633.0	.00	100	4.3	.0	2.88	29	39.20	13.95
2634.0	.02	94	6.4	.0	2.84	17	39.16	13.95
2635.0	.08	64	8.2	.0	2.82	16	39.08	13.93
2636.0	.14	60	9.1	.0	2.83	11	39.00	13.90
2637.0	.13	56	9.0	.0	2.83	6	38.91	13.87
2638.0	.13	53	9.0	.0	2.82	10	38.82	13.82
2639.0	.12	56	8.8	1.2	2.79	17	38.73	13.78
2640.0	.06	55	7.9	.8	2.80	14	38.64	13.75
2641.0	.05	51	7.6	.3	2.81	8	38.57	13.71
2642.0	1.27	29	11.0	.4	2.83	0	38.45	13.66
2643.0	4.12	27	13.0	1.7	2.84	0	38.37	13.63

DEPTH FEET	PERM.TR OIL-GAS (INDEX)	WATER SAT. %	POROSITY TOTAL %	POROSITY SEC. %	MATRIX DENSITY GM/CC	SHALE VOLUME %	CUMULATIVE INTEGRATIONS PER-FT	CUMULATIVE INTEGRATIONS HC-FT
2644.0	4.52	27	13.3	1.8	2.83	0	38.23	13.48
2645.0	5.43	26	13.5	1.6	2.83	0	38.10	13.39
2646.0	6.37	25	13.9	2.6	2.83	0	37.96	13.29
2647.0	6.79	25	14.0	3.2	2.82	0	37.83	13.19
2648.0	5.77	25	13.5	2.7	2.82	0	37.69	13.08
2649.0	3.92	26	12.8	2.1	2.82	0	37.55	12.98
2650.0	2.83	28	12.2	1.6	2.82	0	37.43	12.89
2651.0	1.69	32	12.0	.3	2.83	0	37.31	12.81
2652.0	1.13	35	11.5	.0	2.82	0	37.19	12.73
2653.0	.97	36	11.1	.3	2.80	0	37.07	12.66
2654.0	1.23	31	11.1	1.9	2.79	0	36.96	12.58
2655.0	2.70	26	12.0	2.2	2.77	0	36.85	12.50
2656.0	4.99	27	13.5	1.5	2.78	0	36.73	12.41
2657.0	3.97	31	13.6	.6	2.80	0	36.59	12.32
2658.0	1.37	36	11.9	.0	2.81	0	36.46	12.23
2659.0	.31	41	9.7	.0	2.82	0	36.34	12.15
2660.0	.04	52	7.5	.0	2.83	0	36.25	12.10
2661.0	.04	59	7.4	.0	2.84	0	36.18	12.07
2662.0	.06	58	7.8	.0	2.82	0	36.11	12.04
2663.0	.32	41	9.8	.7	2.80	0	36.02	12.01
2664.0	.76	42	11.4	.9	2.79	0	35.92	11.95
2665.0	1.04	45	12.3	.0	2.79	0	35.80	11.88
2666.0	.41	50	10.9	.0	2.80	0	35.69	11.82
2667.0	.30	60	10.3	.0	2.81	0	35.58	11.77
2668.0	.26	64	10.0	.0	2.83	0	35.48	11.73
2669.0	.21	64	9.7	.0	2.85	6	35.38	11.69
2670.0	.19	63	9.5	.0	2.83	7	35.28	11.66
2671.0	.05	86	7.7	.0	2.83	11	35.19	11.63
2672.0	.01	100	6.0	.0	2.84	12	35.12	11.62
2673.0	.01	100	5.9	.0	2.83	5	35.06	11.62
2674.0	.01	100	5.3	.0	2.81	9	35.00	11.62
2675.0	.00	93	4.0	3.7	2.82	26	34.95	11.62
2685.0	.08	100	8.2	.0	2.94	40	34.48	11.60
2686.0	.23	79	9.8	7.5	2.80	44	34.39	11.60
2687.0	.41	67	10.9	3.5	2.65	45	34.28	11.57
2688.0	.56	87	11.4	.0	2.67	38	34.17	11.54
2689.0	.14	100	9.0	.0	2.78	21	34.06	11.53
2690.0	.09	95	8.5	.0	2.85	0	33.97	11.53
2691.0	.09	61	8.5	1.3	2.83	0	33.89	11.52
2692.0	.17	48	9.3	1.3	2.83	0	33.80	11.48
2693.0	.31	56	10.3	.0	2.85	0	33.71	11.43
2694.0	.14	68	9.1	.0	2.86	2	33.61	11.39
2695.0	.07	67	8.0	.0	2.84	0	33.52	11.37
2696.0	.04	54	7.4	1.0	2.81	0	33.44	11.34
2697.0	.02	51	6.5	.0	2.80	0	33.37	11.30
2698.0	.01	56	6.1	.0	2.79	0	33.30	11.27

DEPTH FEET	PERM.TA OIL-GAS (INDEX)	WATER SAT. %	POROSITY TOTAL %	POROSITY SEC. %	MATRIX DENSITY GM/CC	SHALE VOLUME %	CUMULATIVE INTEGRATIONS PAR-FT	CUMULATIVE INTEGRATIONS HC-FT
2699.0	.12	51	6.8	.0	2.78	0	33.24	11.25
2700.0	.12	38	8.1	.5	2.76	0	33.17	11.21
2701.0	.77	26	9.7	2.4	2.72	0	33.09	11.15
2702.0	3.34	24	12.1	2.9	2.69	0	32.98	11.08
2703.0	10.28	21	13.9	3.1	2.69	0	32.86	10.98
2704.0	13.75	17	13.7	3.5	2.68	0	32.72	10.87
2705.0	18.37	15	14.0	2.7	2.70	0	32.58	10.76
2706.0	17.21	18	14.6	1.0	2.72	0	32.44	10.64
2707.0	21.32	22	16.0	.0	2.72	0	32.29	10.52
2708.0	21.86	22	16.1	.0	2.73	0	32.13	10.39
2709.0	17.37	18	14.5	1.4	2.73	0	31.97	10.27
2710.0	8.94	17	12.7	1.3	2.72	0	31.83	10.18
2711.0	5.45	19	12.3	1.5	2.73	0	31.71	10.05
2712.0	6.24	20	12.7	3.0	2.73	0	31.59	9.95
2713.0	6.55	25	13.8	1.5	2.72	0	31.46	9.85
2714.0	5.79	28	14.0	1.3	2.74	0	31.32	9.75
2715.0	5.41	22	12.9	2.2	2.74	0	31.18	9.65
2716.0	3.34	24	12.2	2.1	2.72	0	31.05	9.55
2717.0	12.16	23	14.9	2.4	2.72	0	30.92	9.45
2718.0	17.58	29	17.0	2.6	2.71	0	30.77	9.34
2719.0	12.05	37	17.3	.0	2.73	0	30.60	9.22
2720.0	16.20	37	18.2	.0	2.74	0	30.42	9.11
2721.0	5.38	43	16.1	.0	2.74	10	30.25	9.00
2722.0	1.13	54	12.9	.7	2.69	26	30.09	8.92
2723.0	.32	53	10.4	3.1	2.66	38	29.97	8.86
2749.0	2.09	65	14.2	.0	2.68	28	28.92	8.73
2750.0	5.86	44	16.7	.9	2.66	14	28.77	8.67
2751.0	5.61	38	15.4	2.0	2.66	8	28.61	8.58
2752.0	4.03	36	14.4	1.4	2.67	10	28.45	8.48
2753.0	2.06	38	13.0	2.3	2.67	18	28.32	8.39
2754.0	3.35	36	13.9	1.6	2.65	18	28.18	8.31
2755.0	3.68	37	14.2	2.6	2.65	29	28.04	8.22
2756.0	1.40	37	12.1	1.3	2.65	39	27.91	8.14
2757.0	2.38	37	13.2	.3	2.65	33	27.78	8.06
2758.0	7.69	33	15.5	1.8	2.65	22	27.65	7.97
2759.0	13.09	30	16.3	2.4	2.65	17	27.49	7.87
2760.0	25.13	27	17.7	1.5	2.65	10	27.32	7.75
2761.0	31.45	27	18.4	.0	2.65	7	27.14	7.62
2762.0	12.00	29	16.1	.0	2.67	11	26.96	7.49
2763.0	2.40	34	12.9	.0	2.69	12	26.81	7.39
2764.0	1.02	35	11.3	.0	2.72	7	26.69	7.31
2765.0	.65	31	10.0	.0	2.74	0	26.58	7.23
2766.0	1.36	21	10.0	.0	2.70	0	26.48	7.16
2767.0	4.68	20	12.2	.0	2.69	0	26.37	7.08
2768.0	10.36	19	13.7	.0	2.69	0	26.25	6.98
2769.0	15.56	20	14.7	.0	2.69	0	26.11	6.87

DEPTH FEET	PERM.TO OIL-GAS (INDEX)	WATER SAT. %	POROSITY TOTAL %	POROSITY SEC. %	MATRIX DENSITY GM/CC	SHALE VOLUME %	CUMULATIVE INTEGRATIONS POR-FT	CUMULATIVE INTEGRATIONS HC-FT
2770.0	15.32	19	14.5	.0	2.69	0	25.96	6.75
2771.0	19.86	17	14.5	2.1	2.68	0	25.82	6.64
2772.0	16.85	16	13.9	2.9	2.68	7	25.67	6.51
2773.0	18.00	16	14.1	5.2	2.66	11	25.53	6.40
2774.0	35.26	15	15.7	4.7	2.69	6	25.39	6.28
2775.0	33.80	15	15.5	5.2	2.69	10	25.23	6.15
2776.0	14.89	16	13.8	3.6	2.67	13	25.08	6.02
2777.0	38.62	15	15.7	2.1	2.66	6	24.94	5.90
2778.0	101.08	14	17.9	.7	2.67	7	24.77	5.76
2779.0	49.57	17	16.9	.0	2.67	15	24.59	5.61
2780.0	29.10	18	15.7	.3	2.68	21	24.43	5.47
2781.0	23.11	16	14.7	2.7	2.68	19	24.27	5.34
2782.0	30.33	14	14.8	4.6	2.66	17	24.13	5.22
2783.0	25.28	17	15.3	3.4	2.65	19	23.98	5.09
2784.0	13.67	19	14.3	2.6	2.65	25	23.83	4.97
2785.0	10.35	19	13.7	2.3	2.65	21	23.69	4.86
2786.0	13.04	19	14.0	2.4	2.65	13	23.55	4.75
2787.0	7.04	20	13.1	1.8	2.66	17	23.41	4.64
2788.0	2.44	24	11.6	1.8	2.65	25	23.28	4.54
2789.0	6.48	23	13.4	2.3	2.65	19	23.16	4.45
2790.0	9.81	21	14.0	2.7	2.65	14	23.03	4.34
2791.0	6.17	24	13.5	2.7	2.65	12	22.89	4.24
2792.0	9.01	26	14.7	3.0	2.65	11	22.75	4.13
2793.0	6.29	28	14.2	2.4	2.65	15	22.61	4.03
2794.0	8.88	28	15.1	3.7	2.65	22	22.45	3.93
2795.0	2.79	37	13.6	.8	2.65	31	22.31	3.82
2796.0	.77	48	11.9	.9	2.65	40	22.18	3.74
2797.0	.89	47	12.1	1.7	2.65	39	22.06	3.68
2798.0	1.05	49	12.6	.7	2.65	35	21.94	3.62
2799.0	.36	62	10.6	.0	2.65	34	21.82	3.56
2800.0	.05	77	7.7	.6	2.66	42	21.72	3.53
2809.0	.19	80	9.5	1.9	2.73	43	21.22	3.44
2810.0	2.31	59	14.5	.0	2.79	20	21.12	3.42
2811.0	10.04	53	18.5	.0	2.81	3	20.96	3.35
2812.0	.89	72	12.4	.0	2.73	4	20.79	3.28
2813.0	.21	68	9.7	.4	2.71	12	20.67	3.25
2814.0	.07	69	8.1	1.0	2.69	20	20.58	3.22
2815.0	.07	61	8.1	1.8	2.67	25	20.50	3.19
2816.0	.12	55	8.8	1.5	2.65	28	20.42	3.16
2817.0	.14	57	9.0	1.4	2.65	29	20.33	3.12
2818.0	.26	56	10.1	.6	2.65	21	20.24	3.08
2819.0	.44	51	11.0	.0	2.65	18	20.13	3.03
2820.0	.29	54	10.2	.2	2.65	20	20.02	2.98
2821.0	.16	56	9.3	.5	2.65	24	19.92	2.94
2822.0	.26	55	10.1	.0	2.65	18	19.83	2.90
2823.0	.22	59	9.8	.0	2.65	23	19.73	2.85

DEPTH FEET	PERM. TP OIL-GAS (INDEX)	WATER SAT. %	POROSITY TOTAL %	POROSITY SEC. %	MATRIX DENSITY GM/CC	SHALE VOLUME %	CUMULATIVE INTEGRATIONS POR-FT	CUMULATIVE INTEGRATIONS HC-FT
2824.0	.24	61	9.9	.2	2.65	22	19.53	2.81
2825.0	.09	70	8.4	.5	2.65	26	19.54	2.78
2826.0	.09	65	8.4	.6	2.65	23	19.45	2.75
2827.0	.11	59	8.7	1.4	2.65	26	19.37	2.72
2828.0	.19	56	9.6	2.2	2.67	25	19.28	2.69
2829.0	.48	58	11.1	2.0	2.68	25	19.18	2.64
2830.0	.49	67	11.2	1.4	2.70	26	19.07	2.60
2831.0	.50	70	11.2	.1	2.73	18	18.96	2.56
2832.0	.16	79	9.3	.4	2.73	22	18.85	2.53
2833.0	.09	75	8.4	.6	2.71	24	18.76	2.52
2834.0	.10	77	8.6	.2	2.74	21	18.68	2.49
2835.0	.14	71	9.1	.5	2.74	20	18.59	2.47
2836.0	.15	79	9.2	1.3	2.71	25	18.50	2.45
2837.0	.08	85	8.3	.3	2.71	23	18.41	2.43
2838.0	.03	94	7.0	.0	2.73	25	18.33	2.42
2839.0	.02	99	6.5	1.2	2.74	31	18.26	2.42
2840.0	.02	100	6.6	1.2	2.74	30	18.19	2.42
2841.0	.02	100	6.6	.2	2.72	26	18.13	2.42
2842.0	.02	100	6.7	1.7	2.70	31	18.06	2.42
2843.0	.03	100	6.8	1.3	2.71	27	17.99	2.42
2844.0	.05	99	7.6	.0	2.73	24	17.92	2.42
2845.0	.08	97	8.2	.0	2.74	22	17.85	2.42
2846.0	.06	100	7.9	.0	2.75	20	17.76	2.42
2847.0	.14	76	9.1	.0	2.75	15	17.68	2.41
2848.0	.12	87	8.8	.0	2.75	18	17.59	2.39
2849.0	.13	95	9.0	.0	2.78	17	17.50	2.38
2850.0	.18	88	9.5	.0	2.76	22	17.41	2.37
2851.0	.22	86	9.8	.0	2.75	25	17.31	2.36
2852.0	.13	94	8.9	.0	2.76	30	17.22	2.35
2853.0	.03	97	7.0	.0	2.74	39	17.13	2.35
2854.0	.01	100	5.6	.0	2.74	40	17.07	2.35
2855.0	.01	100	5.7	.9	2.73	38	17.01	2.35
2856.0	.00	100	4.6	.9	2.70	42	16.95	2.35
2857.0	.02	69	6.6	.0	2.72	39	16.91	2.34
2858.0	.07	86	8.1	.0	2.75	32	16.84	2.32
2859.0	.05	96	7.6	.0	2.73	33	16.76	2.32
2860.0	.03	95	6.9	.0	2.73	39	16.68	2.31
2861.0	.04	96	7.2	.0	2.75	40	16.62	2.31
2862.0	.03	100	6.8	.0	2.77	43	16.54	2.31
2863.0	.01	100	5.9	.0	2.76	46	16.48	2.31
2865.0	.01	100	5.6	.5	2.70	47	16.36	2.31
2870.0	.00	100	5.0	.0	2.78	39	16.18	2.30
2871.0	.01	100	5.8	.0	2.76	22	16.12	2.30
2872.0	.01	100	5.2	.0	2.76	12	16.07	2.30

DEPTH FEET	PERM.TO OIL-GAS (INDEX)	WATER SAT. %	POROSITY TOTAL %	POROSITY SEC. %	MATRIX DENSITY GM/CC	SHALE VOLUME %	CUMULATIVE INTEGRATIONS PAR-FT	CUMULATIVE INTEGRATIONS HC-FT
2873.0	.00	100	1.9	.0	2.75	19	16.02	2.30
2874.0	.00	100	.0	.0	2.75	39	16.01	2.30
2875.0	.00	100	.0	.0	2.67	38	16.01	2.30
2876.0	.00	100	1.6	.2	2.66	34	16.00	2.30
2877.0	.00	100	2.3	1.2	2.65	35	15.99	2.30
2878.0	.00	100	3.4	2.0	2.65	37	15.96	2.30
2879.0	.00	100	4.5	2.6	2.65	46	15.92	2.30
2898.0	.07	99	8.1	.0	2.84	40	15.28	2.29
2899.0	.62	95	11.6	.0	2.89	11	15.20	2.29
2900.0	1.34	80	13.2	3.2	2.92	0	15.06	2.26
2901.0	.07	99	8.2	.4	2.79	0	14.95	2.25
2902.0	.05	61	7.7	.0	2.72	0	14.87	2.25
2903.0	.12	66	8.9	.0	2.71	6	14.79	2.21
2904.0	.04	80	7.4	1.4	2.70	19	14.70	2.19
2905.0	.07	92	8.0	.3	2.69	23	14.63	2.18
2906.0	.37	77	10.7	.6	2.71	21	14.54	2.17
2907.0	.39	76	12.4	.9	2.72	20	14.43	2.14
2908.0	.37	96	11.5	.1	2.73	23	14.31	2.12
2909.0	.95	77	12.5	1.5	2.71	18	14.19	2.11
2910.0	1.04	76	12.7	1.9	2.71	19	14.07	2.08
2911.0	.37	96	10.7	1.2	2.68	29	13.94	2.06
2912.0	.30	98	10.3	2.7	2.70	36	13.84	2.05
2913.0	.11	100	8.8	1.2	2.70	38	13.74	2.05
2914.0	.07	100	8.2	.7	2.71	33	13.66	2.05
2915.0	.10	100	8.6	1.2	2.70	26	13.57	2.05
2916.0	.26	83	10.1	.3	2.72	18	13.48	2.05
2917.0	.10	90	8.5	1.1	2.71	25	13.38	2.03
2918.0	.01	100	5.5	3.7	2.66	43	13.30	2.03
2925.0	.10	99	8.6	.5	2.65	44	12.94	2.00
2936.0	.01	100	5.5	.7	2.65	50	12.41	1.96
2944.0	.69	90	11.9	.0	2.88	30	11.96	1.96
2945.0	.90	61	12.4	5.1	2.90	16	11.84	1.94
2946.0	.01	100	5.3	4.1	2.74	23	11.73	1.90
2947.0	.00	91	1.3	1.3	2.69	36	11.69	1.90
2948.0	.00	100	2.8	1.3	2.74	19	11.68	1.90
2949.0	.00	100	2.8	1.3	2.76	23	11.65	1.90
2950.0	.00	100	3.2	.1	2.77	31	11.62	1.90
2958.0	.01	97	6.1	2.5	2.76	50	11.51	1.89

DEPTH FEET	PERM.TO OIL-GAS (INDEX)	WATER SAT. %	POROSITY TOTAL %	POROSITY SEC. %	MATRIX DENSITY GM/CC	SHALE VOLUME %	CUMULATIVE INTEGRATIONS PAY-FT	CUMULATIVE INTEGRATIONS HC-FT
2959.0	.32	55	10.4	3.5	2.75	13	11.43	1.88
2960.0	.24	60	9.9	.0	2.73	1	11.33	1.83
2961.0	.11	77	8.8	.0	2.73	2	11.23	1.80
2962.0	.01	100	5.5	.0	2.72	12	11.15	1.79
2963.0	.00	100	3.6	.8	2.70	24	11.10	1.79
2964.0	.00	100	5.0	.0	2.69	35	11.06	1.79
2965.0	.01	100	5.6	.0	2.68	50	11.01	1.79
2973.0	.01	100	5.3	.0	2.75	48	10.54	1.76
2974.0	.01	100	5.3	.0	2.72	46	10.49	1.76
2975.0	.01	100	5.5	.0	2.70	43	10.43	1.76
2976.0	.01	95	6.2	.5	2.70	42	10.38	1.76
2991.0	.27	90	10.1	.0	2.80	38	9.93	1.72
2992.0	.02	100	6.3	.0	2.74	36	9.83	1.71
2993.0	.00	100	3.3	.0	2.71	36	9.78	1.71
2994.0	.00	100	3.1	.0	2.70	42	9.75	1.71
2995.0	.00	100	3.9	.0	2.76	45	9.72	1.71
2996.0	.01	100	6.1	.0	2.77	42	9.68	1.71
2997.0	.16	96	9.3	.0	2.79	26	9.61	1.71
2998.0	.23	88	9.9	.0	2.81	4	9.52	1.71
2999.0	.23	73	9.9	.0	2.79	0	9.42	1.69
3000.0	.19	62	9.5	1.5	2.76	0	9.32	1.66
3001.0	.09	65	8.5	1.3	2.73	0	9.22	1.63
3002.0	.51	38	10.3	2.0	2.69	0	9.14	1.59
3003.0	.88	62	12.3	.0	2.72	0	9.02	1.52
3004.0	.41	88	10.9	.0	2.76	0	8.90	1.49
3005.0	.03	100	7.0	.0	2.75	1	8.80	1.48
3006.0	.00	100	4.7	.0	2.73	12	8.74	1.48
3007.0	.01	100	6.0	.5	2.73	9	8.69	1.48
3008.0	.01	100	5.9	1.6	2.72	6	8.63	1.48
3009.0	.01	93	5.5	1.2	2.72	6	8.57	1.48
3010.0	.03	70	7.2	2.0	2.73	0	8.52	1.48
3011.0	.13	55	8.9	1.4	2.74	0	8.44	1.45
3012.0	.13	73	8.9	.3	2.73	15	8.35	1.41
3021.0	.04	100	7.3	1.7	2.73	49	8.01	1.37
3022.0	.01	100	5.3	.0	2.71	41	7.95	1.37
3023.0	.17	89	9.3	.0	2.79	17	7.89	1.37
3024.0	.60	76	11.6	1.6	2.81	3	7.79	1.35
3025.0	.03	100	7.2	.0	2.80	0	7.68	1.34
3026.0	.00	100	4.8	.0	2.77	0	7.62	1.34
3027.0	.00	100	4.0	.0	2.76	0	7.57	1.34
3028.0	.00	100	2.9	.3	2.71	12	7.53	1.34
3029.0	.00	67	3.8	2.2	2.68	23	7.50	1.33

DEPTH FEET	PERM.TO OIL-GAS (INDEX)	WATER SAT. %	POROSITY TOTAL %	POROSITY SEC. %	MATRIX DENSITY GM/CC	SHALE VOLUME %	CUMULATIVE INTEGRATIONS POR-FT	CUMULATIVE INTEGRATIONS HC-FT
3030.0	.01	93	5.4	.7	2.73	16	7.46	1.32
3031.0	.00	100	5.0	.0	2.76	21	7.41	1.32
3032.0	.00	100	3.8	.1	2.75	34	7.36	1.32
3033.0	.00	100	1.2	1.2	2.70	47	7.33	1.32
3044.0	.20	77	9.6	.7	2.73	44	7.00	1.30
3045.0	4.75	59	16.3	.0	2.82	13	6.89	1.27
3046.0	4.55	55	16.2	1.0	2.86	0	6.73	1.20
3047.0	1.48	44	13.0	4.1	2.82	0	6.57	1.13
3048.0	3.42	56	15.5	1.7	2.87	0	6.44	1.06
3049.0	12.69	65	19.2	7.7	2.98	0	6.26	.98
3050.0	4.85	57	16.4	3.9	2.94	2	6.07	.91
3051.0	.51	100	11.3	.5	2.84	17	5.91	.84
3052.0	.03	100	7.0	.7	2.80	39	5.80	.84
3061.0	1.64	89	13.7	.0	2.94	27	5.42	.84
3062.0	2.58	67	14.9	9.8	2.97	2	5.30	.83
3063.0	.01	100	5.4	.0	2.76	0	5.15	.77
3064.0	.00	100	4.3	.6	2.74	9	5.10	.77
3065.0	.01	100	5.4	1.2	2.74	16	5.06	.77
3066.0	.02	100	6.6	1.1	2.69	38	5.00	.77
3071.0	6.91	61	17.4	.0	2.99	13	4.69	.77
3072.0	4.35	47	15.9	.0	2.87	0	4.51	.69
3073.0	.60	83	11.6	3.7	2.77	0	4.35	.61
3074.0	.47	89	11.1	3.7	2.76	10	4.24	.56
3075.0	1.01	74	12.6	3.3	2.77	16	4.13	.52
3076.0	5.54	56	16.8	5.2	2.79	7	3.99	.47
3077.0	8.29	47	17.6	6.3	2.75	6	3.82	.40
3078.0	7.47	70	17.6	3.0	2.75	11	3.64	.31
3079.0	4.08	100	15.9	.4	2.79	20	3.47	.27
3080.0	1.64	100	13.7	2.2	2.74	31	3.31	.27
3081.0	.27	100	10.1	3.4	2.70	49	3.18	.27
3085.0	2.17	80	14.3	2.2	2.77	5	2.92	.27
3086.0	.51	100	11.2	2.4	2.74	17	2.79	.25
3087.0	.05	100	7.7	1.7	2.74	32	2.68	.25
3088.0	.01	100	6.1	.3	2.78	26	2.61	.25
3089.0	.01	100	5.8	1.4	2.77	14	2.55	.25
3090.0	.00	100	5.4	2.3	2.73	29	2.50	.25
3091.0	.00	100	4.9	.1	2.78	34	2.47	.25
3092.0	.01	100	5.9	.0	2.78	42	2.41	.25

DEPTH FEET	PERM.TO OIL-GAS (INDEX)	WATER SAT. %	POROSITY TOTAL %	POROSITY SEC. %	MATRIX DENSITY GM/CC	SHALE VOLUME %	CUMULATIVE INTEGRATIONS PAY-FT	CUMULATIVE INTEGRATIONS HC-FT
3113.0	.67	100	11.8	.6	2.95	41	1.56	.20
3114.0	6.44	76	17.2	.0	2.93	9	1.43	.19
3115.0	6.68	63	17.3	.0	2.99	0	1.26	.15
3116.0	.10	94	8.5	.0	2.82	0	1.10	.10
3117.0	.02	95	6.6	.2	2.77	0	1.02	.08
3118.0	.02	100	6.5	.0	2.77	0	.98	.08
3119.0	.00	100	5.0	.0	2.77	0	.89	.08
3120.0	.00	100	4.4	.0	2.76	0	.85	.08
3121.0	.00	100	4.1	.0	2.77	1	.80	.08
3122.0	.00	100	3.2	.0	2.78	18	.76	.08
3123.0	.00	100	3.9	.5	2.77	27	.73	.08
3124.0	.00	100	4.1	.0	2.78	29	.69	.08
3125.0	.00	100	3.9	.0	2.78	23	.65	.08
3126.0	.00	100	2.9	.0	2.78	21	.61	.08
3127.0	.00	100	2.1	.0	2.73	21	.59	.08
3128.0	.00	100	2.7	.0	2.73	16	.56	.08
3129.0	.00	100	3.1	.6	2.73	22	.54	.08
3130.0	.02	100	6.3	.0	2.74	6	.50	.08
3131.0	.03	65	6.9	.0	2.72	0	.44	.07
3132.0	.10	58	8.6	3.3	2.73	0	.36	.04
3133.0	.23	85	9.8	3.0	2.75	0	.27	.01
3134.0	.04	100	7.3	.1	2.76	15	.18	.00
3135.0	.01	100	5.5	1.0	2.73	34	.11	.00
3136.0	.29	92	10.3	.0	2.80	17	.05	.00