DEPARTMENT OF THE INTERIOR
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POROSITY, DEPTH, AND THERMAL-MATURITY DATA FOR SANDSTONES OF THE ANADARKO BASIN, OKLAHOMA, AND OTHER SELECTED LOCATIONS IN THE NORTHERN HEMISPHERE

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INTRODUCTION

This report is a compilation of sandstone-porosity, depth, and thermal maturity (R_o) data collected by the authors over several years, from many published and unpublished sources. Additional information, such as data locations and source, age of unit sampled, and references, is supplied where applicable. For well data, the operator, lease, field, and reservoir names, and formation thicknesses are also included.

The porosity data are from core-plug measurements, well logs, or thin-section point counts. R_o data are averages of direct measurements or estimated values using empirical R_o-depth curves. These data represent a comprehensive sampling of sandstones of diverse ages, geologic settings, diagenetic facies, and thermal histories, from numerous basins in the Northern Hemisphere (fig. 1). Thus, the porosity-R_o data presented here provide a preliminary reference framework of sandstones in general with which to compare local sandstone porosity data or to predict regional trends. These data are the basis for the interpretive papers cited in this report.

The data presented here are grouped into sets 1, 2, and 3; each set consists of tables A and B. The "A" tables locate, describe, and (or) identify the numerical data of the "B" tables, by using a cross reference key found in the first column of each table. In regard to size, format, geographic scope, and data sources and measurement methods, etc., the 3 data sets differ considerably. Although the data tables are for the most part self explanatory, several aspects warrant further attention. Therefore, each set is discussed individually in the following paragraphs.

TABLES 1A AND 1B

Table 1, the largest of the three data sets, represents sandstones from numerous basins in the Northern Hemisphere (fig.1) and many sources, both published and unpublished. The vast majority of individual porosity measurements (more than 8,000), from which the data of Table 1 are derived, are helium-porosimeter measurements of 1-inch core-plugs. Well-log and thin-section point-count data are also included, where noted.

The porosity data of Table 1 are not individual measurements, but are percentiles of a porosity distribution. Each porosity distribution is made from a group (suite) of individual measurements from a specific geologic interval and thermal-maturity setting. Each measurement suite is assigned a single R_o value (usually the average of measured values for that suite), and is described in terms of "box-diagram percentiles" (fig. 2; Cleveland, 1985) and the single highest porosity measurement. The percentiles, when plotted in the form of a box-diagram histogram (fig. 2), graphically represent the porosity distribution.

The reason for this type of presentation is twofold. First, because the number of porosity measurements for each suite varies significantly, some suites would carry more statistical weight simply because they are represented by more measurements (Schmoker and Hester, 1990). Second, by reporting porosity measurements as a distribution rather than as a single

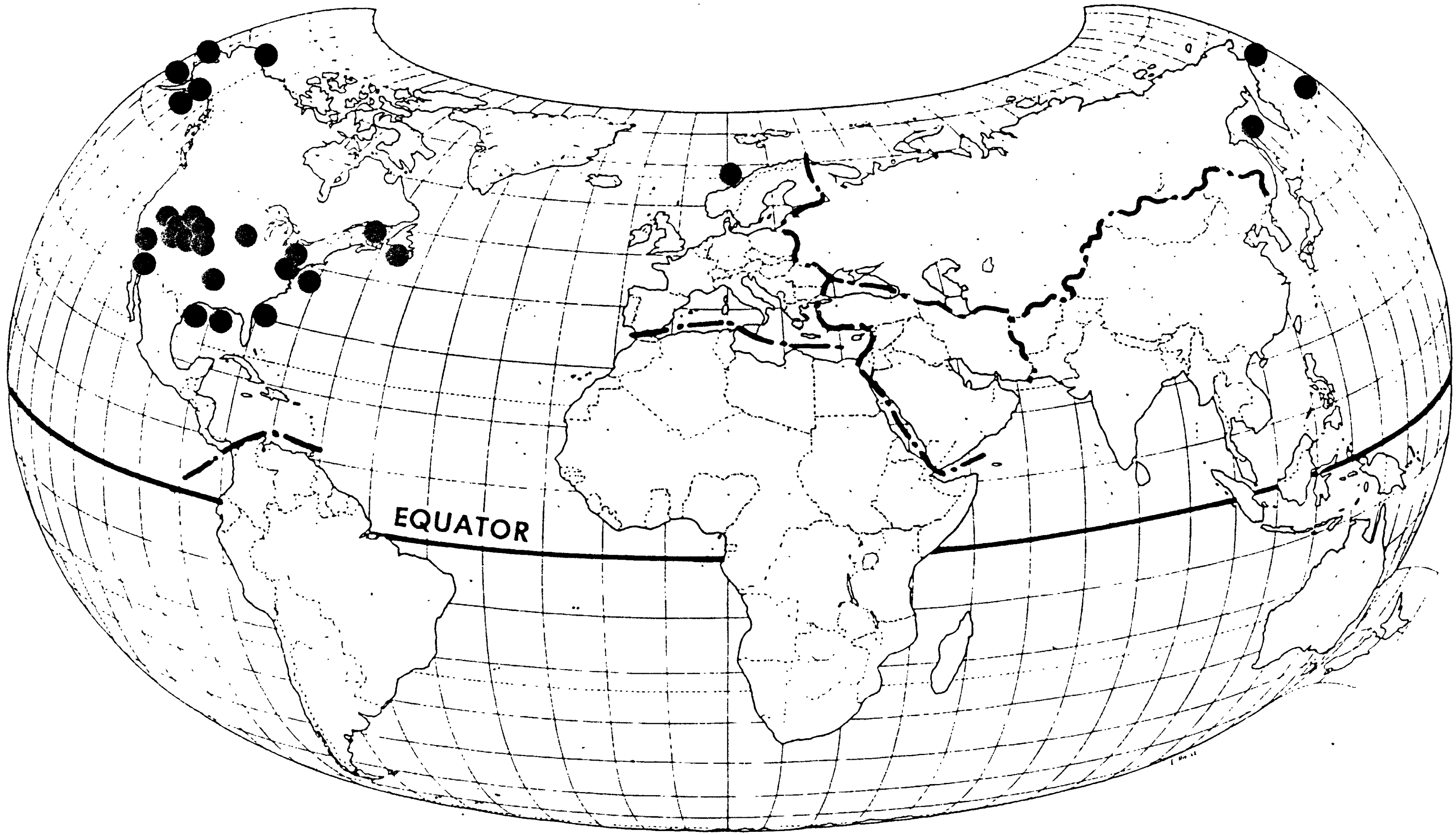

Figure 1. Map showing locations of box-diagram porosity data. Locations are listed in Table 1A.

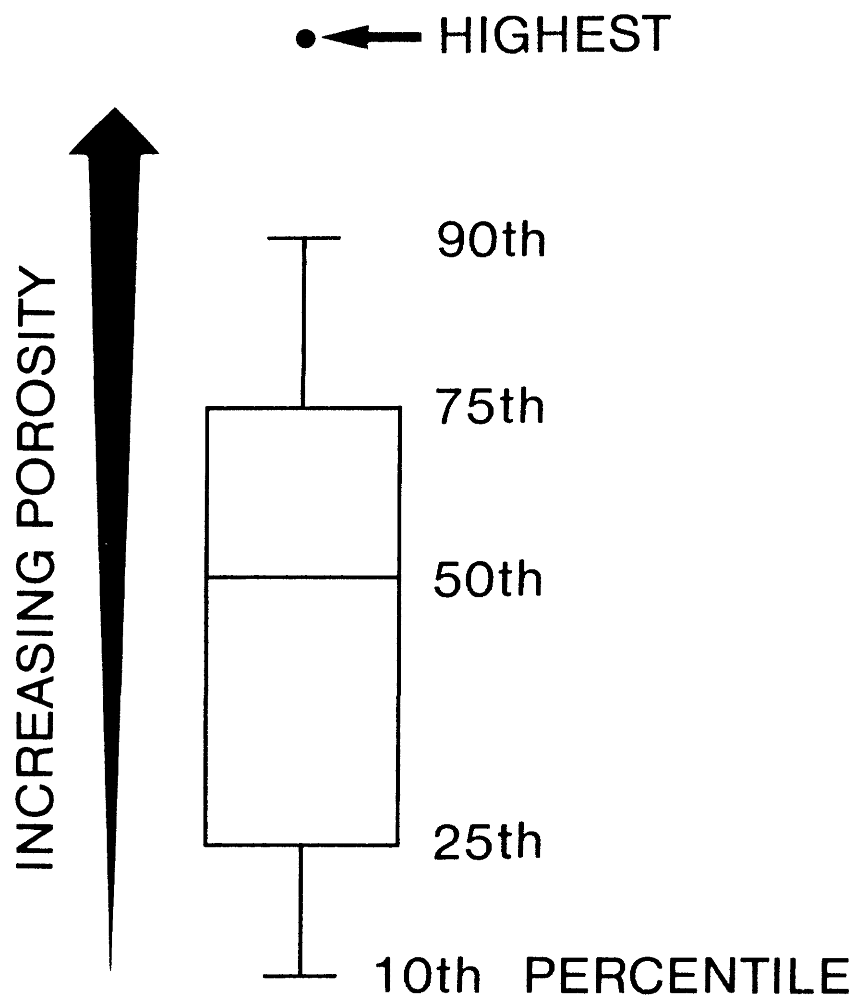

Figure 2. Box diagram (described by Cleveland 1985) illustrating data format of Table 1. Porosity distribution at each location is represented by 10th, 25th, 50th, 75th, and 90th porosity percentiles, and by single highest porosity measurement.

value, much information about porosity variability is retained. Porosity trends can then be treated as a function of thermal maturity (or depth) while also displaying the variability of each measurement suite (Schmoker and Higley, 1991). The source of the data, and the age and location of the sampled interval(s) are given in Table 1A. The 10th, 25th, 50th, 75th, and 90th, percentiles of the porosity distribution, the single highest porosity measurement, and the number of porosity measurements for each suite are given in Table 1B.

TABLES 2A AND 2B

Table 2 consists exclusively of well-log data from the central and southern Anadarko basin. These porosity data consist of more than 800 individual measurements representing more than 7,000 net ft of Paleozoic-age sandstone from 33 well locations in the central and southern Anadarko basin (fig. 3).

Sandstone is identified in each well, using compensated-neutron and formation-density logs run on limestone matrix, and is then subdivided into intervals of uniform log character. The neutron and density porosity of each interval (4 or more ft (1.2 m) thick) is averaged (fig. 4), and its true porosity determined using standard neutron-density crossplots. To exclude shaley sandstones from the data set, the shift of true porosity toward the "shale point" of the neutron-density crossplot is allowed only 2 porosity units.

R_o values are calculated for each sandstone interval using an empirical R_o-depth relationship developed for the Anadarko basin by Schmoker (1986). Well information is given in Table 2A; porosity, R_o, depth, unit thickness, and age are given in Table 2B.

TABLES 3A AND 3B

Table 3 consists of porosity measurements of 105 Paleozoic-age sandstone oil and gas reservoirs of the Anadarko basin, Oklahoma (fig. 3). These data are from published oil- and gas-field compilations referenced in this report.

R_o values are calculated as in the previous data set (Schmoker, 1986). Field and reservoir names, and approximate locations are given in Table 3A; porosity, depth, age, and R_o are given in Table 3B.

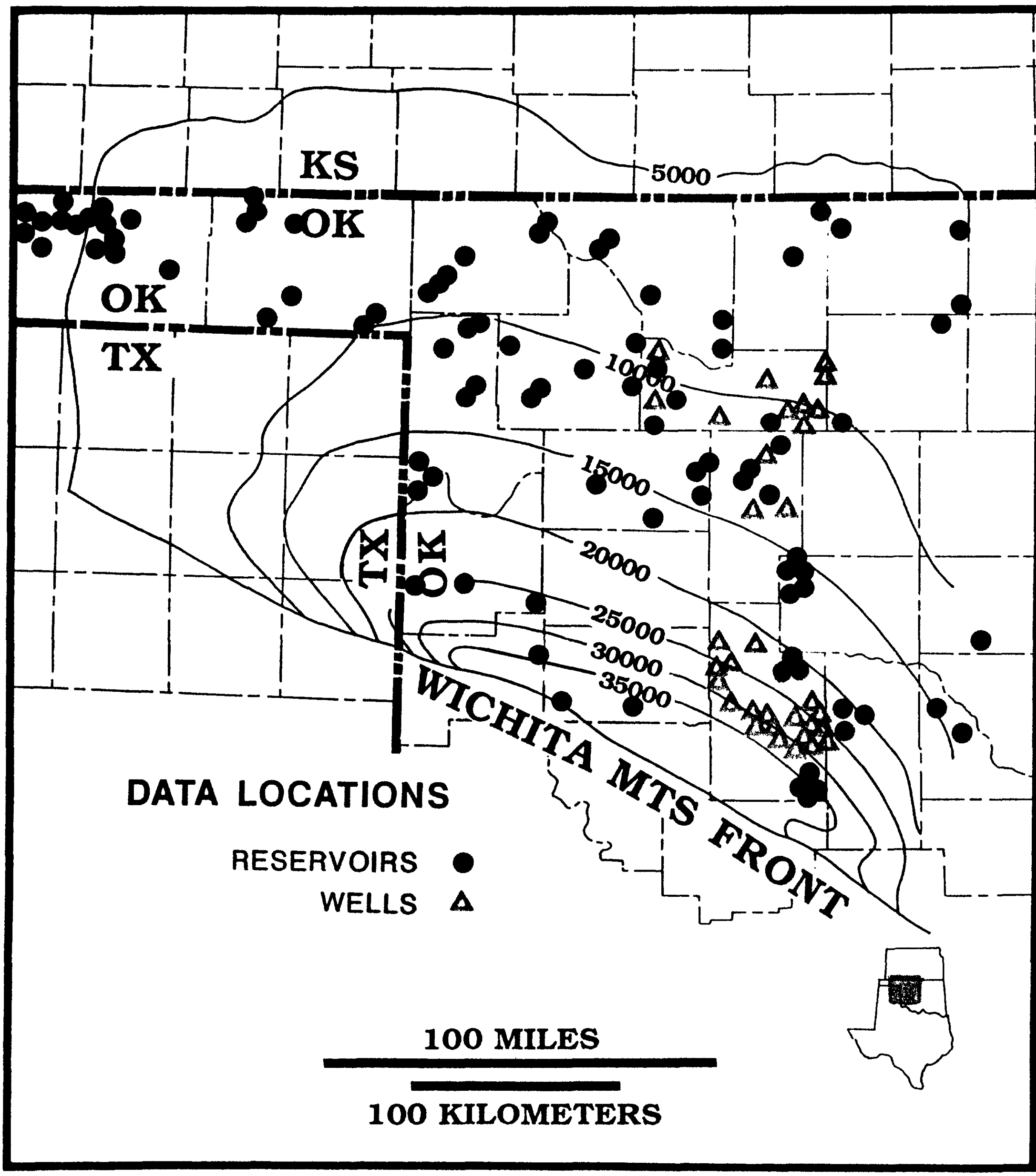

Figure 3. Map showing Anadarko basin total-sediment isopachs (ft) and data locations. Well locations are listed in Table 2A. Reservoir locations are listed in Table 3A.

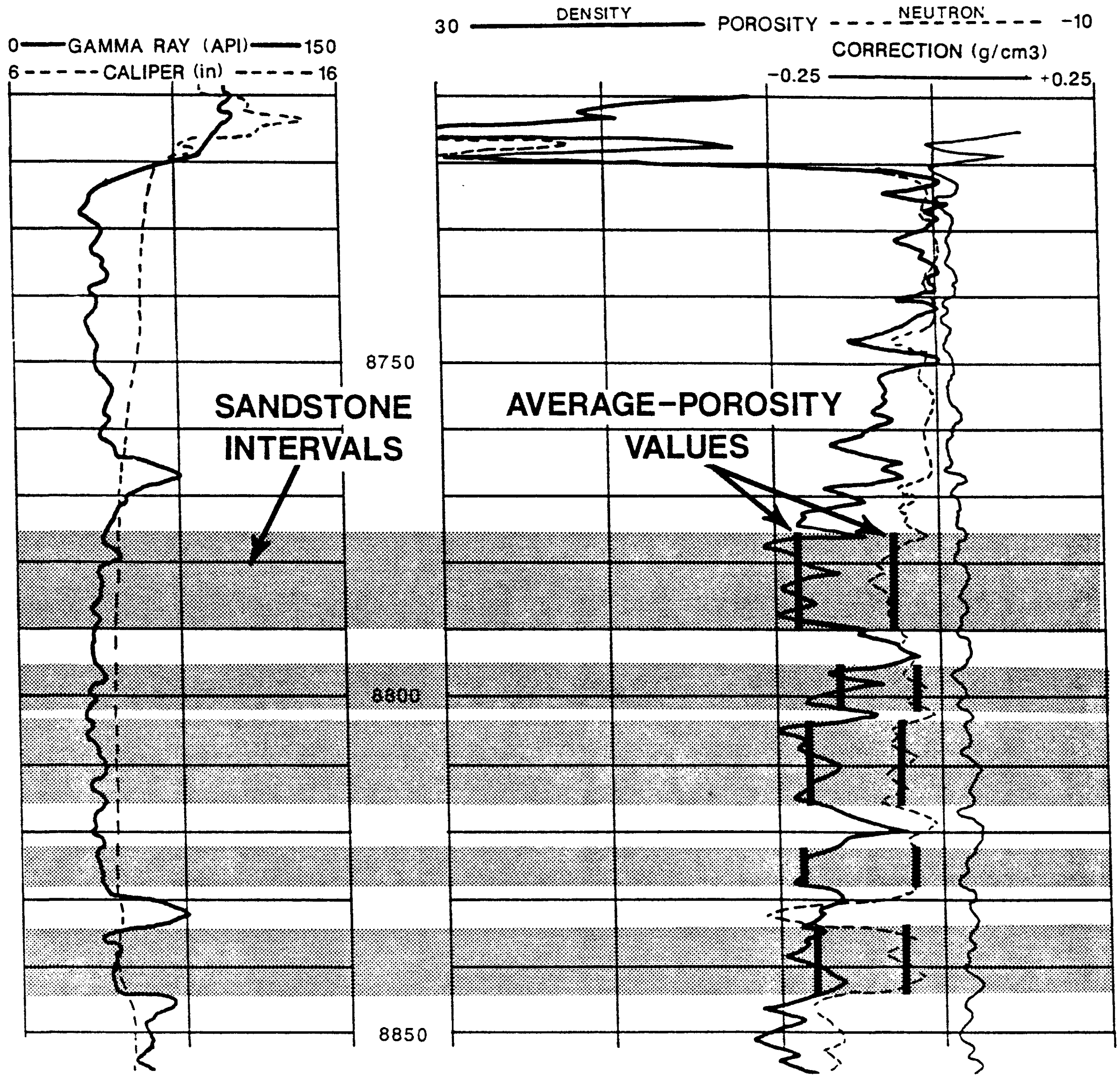

Figure 4. Compensated neutron-formation density logs showing typical examples of sandstone intervals. Logs are from L.G. Williams Oil Company, Inc., 1-18 Allred, Sec.18,T.9N.,R.13W.

Table 1A. DESCRIPTION OF BOX-DIAGRAM POROSITY DATA SET

[[1]Data-identification number refers to table 1B; [2]core-plug measurements unless otherwise noted; [3]see reference list.]

Data ID[1]	Identification[2] (source[3])	Age	Location
1	El Paso Natural Gas well, 1-Wagon Wheel (authors' data)	Tertiary and Cretaceous	Green River basin, Wyoming, Sec.5, T.30N.,R.108W.
2	Dakota Sandstone, Bridger Lake field (Ben E. Law, 1987, written commun.)	Cretaceous	North flank of Uinta Mountains, Utah
3	J sandstone (Schmoker and Higley, 1991)	Cretaceous	Denver basin, Colorado
4	COST GE-1 well (Amato and Bebout, 1978; Scholle, 1979)	Cretaceous	Georgia embayment, offshore eastern Florida
5	COST B-2 well (Scholle, 1977)	Cretaceous	Baltimore Canyon Trough, offshore New Jersey
6	Unspecified sandstones from several wells (method unknown, interpreted and modified by Bostick, 1979)	Cenozoic and Cretaceous	Northern Sakhalin Island, USSR
7a	Nugget Sandstone	Jurassic and Triassic	Overthrust belt, northern Utah
b	Tuscarora Sandstone	Silurian	Valley and Ridge Province, Pennsylvania
c	Bromide Formation (7a, b, and c are all point-count data, Houseknecht, 1988)	Ordovician	Central Oklahoma Platform
8	Canning Formation (Kenneth J. Bird, 1987, written commun.)	Cretaceous and early Tertiary	North Slope, Alaska
9	Thomson sand (Kenneth J. Bird, 1987, written commun.)	Cretaceous	North Slope, Alaska

Table 1A. (continued)

Data ID[1]	Identification[2] (source[3])	Age	Location
10	Mobile-Texaco Citnalta I-59 well (sonic-log data, Schmidt and McDonald, 1979; Issler, 1984)	Cretaceous and Jurassic	Scotian Shelf, offshore eastern Canada
11	Almond Formation (Ben E. Law, 1988, written commun.)	Cretaceous	Green River basin, Wyoming
12	COST 1 well (Turner, 1983a)	Oligocene and Eocene	Norton Sound, Alaska
13	COST 2 well (Turner, 1983b)	Oligocene and Eocene	Norton Sound, Alaska
14	COST 1 well (Turner, 1984a)	Miocene	Navarin basin, Bering Sea, Alaska
15	COST 1 well (Turner, 1984b)	Pliocene and Eocene	St. George basin, Bering Sea, Alaska
16	COST 2 well (Turner, 1984c)	Pliocene and Eocene; Jurassic	St. George basin, Bering Sea, Alaska
17	COST 1 well (Wills and others, 1978; Magoon, 1986)	Cretaceous-Jurassic	Lower Cook Inlet, Alaska
18	Kodiak Shelf Stratigraphic Test Wells 1 and 2 (Turner, 1987)	Eocene	Kodiak Shelf, western Gulf of Alaska
19	COST 1 well (Turner, 1988)	Miocene, Oligocene, and Eocene	North Aleutian Shelf, Bering Sea, Alaska
20	Hibernia Formation (point-count data, Brown and others, 1989)	Cretaceous and Jurassic	Jeanne d'Arc basin, Grand Banks of Newfoundland
21	Norphlet Formation (point-count data, McBride and others, 1987)	Jurassic	Gulf Coast basin, Mississippi and Alabama
22	Norphlet Formation (Honda, 1981)	Jurassic	Gulf Coast basin, Alabama

Table 1A. (continued)

Data ID[1]	Identification[2] (source[3])	Age	Location
23	Paleogene Arkoses (highest and average values only, Helmold and Van de Kamp, 1984)	Oligocene, Eocene, and Paleocene	Santa Ynez Mountains, California
24	Cerro Prieto geothermal field (density-log data, Barker, 1979, Lyons and Van de Kamp, 1980)	Pleistocene and Pliocene	Colorado River delta, Baja California, Mexico
25	Norphlet Formation (highest values only, Dixon and others, 1989)	Jurassic	Gulf Coast basin, southwest Alabama and vicinity
26	Amoco M.G. 1-Eischeid well (authors' log data) Co., Iowa, Sec.6, T.83N.,R.35W.	Cambrian and Precambrian	Midcontinent Rift System, Carroll
27	Upper Minnelusa Formation (authors' log data)	Permian	West Mellott field, Powder River basin, Wyoming, T.52N., R.68W.
28	Fangst Group of Heidrum field (Harris, 1989)	Jurassic	Haltenbanken area, offshore, mid-Norway
29	Well H-22, Venture field (mixed log and core data, Mudford and Best, 1989)	Cretaceous and Jurassic	Scotian Shelf (Sable Island), offshore eastern Canada
30	Upper Minnelusa, B sand (James, 1989)	Permian	Hawk Point field, Powder River basin, Wyoming
31	Upper Minnelusa (point-count data, Schenk, 1990, written commun.)	Permian	Deep Reno area, Powder River basin, Wyoming
32	Tuscher and Farrer Formations, Exxon, 1-Wilkin Ridge well Pitman and others, 1988)	Cretaceous	Central Uinta basin, Utah

Table 1A. (continued)

Data ID[1]	Identification[2] (source[3])	Age	Location
33a	Green River Formation	Eocene	Uinta basin, Utah
b	Weber Formation	Pennsylvanian and Permian	Uinta basin, Utah
c	Wasatch Formation	Eocene	Uinta basin, Utah
d	Castlegate Sandstone	Cretaceous	Uinta basin, Utah
e	Mesaverde Group (33a, b, c, d, and e, are all authors' data; Anders, 1990)	Cretaceous	Uinta basin, Utah
34	Miocene sandstones (mixed log and core data, Taylor, 1990)	Miocene	Corsair trend, Brazos area, offshore Texas Gulf Coast
35	Louden Properties, Good, Lahr, and Kaufman well (Streib, 1981; Laughrey and Harper, 1986)	Devonian	Appalachian basin, Pennsylvania
36a	Castlegate Sandstone	Cretaceous	Book Cliffs area, Grand County, Utah
b	Blackhawk Formation (36a and b are from Exxon Production Research Company 2-Sego Canyon well; Wendlandt and Bhuyan, 1990; R.C. Johnson, 1990, written commun.)	Cretaceous	Book Cliffs area, Grand County, Utah
37a	Wasatch Formation	Tertiary and Cretaceous	Uinta basin, Utah
b	Tuscher Formation	Tertiary and Cretaceous	Uinta basin, Utah
c	Neslen Formation	Tertiary and Cretaceous	Uinta basin, Utah
d	Blackhawk Formation (37a, b, c, and d are all from Colorado Interstate Gas Exploration, 21-Natural Buttes well; J.K. Pittman, 1990, written commun.)	Tertiary and Cretaceous	Uinta basin, Utah

Table 1A. (continued)

Data ID[1]	Identification[2] (source[3])	Age	Location
38	Green River Formation of Pariette Bench field (Pitman and others, 1982)	Eocene	Uinta basin, Utah
39	Mesaverde Group, Pacific Gas Trans. Co., 1-7 Federal-Natural well (authors' data)	Cretaceous	Uinta basin, Uintah Co., Utah, Sec.7, T.11S.,R.21E.
40	Green River-Wasatch Formations, Havenstride Oil Co., 72X-22B well (authors' data)	Eocene	Uinta basin, Uintah Co., Utah, Sec.22, T.9S.,R.20E.
41	Cozzette sandstone member of Iles Formation, marine lower part of Mesaverde Group, Celeron Oil and Gas Co., 35-1 Porter Mountain Federal well (authors' data; Johnson and Nuccio, 1986)	Cretaceous	Piceance Creek basin, Mesa Co., Colorado, Sec.35,T.9S.,R.92W.
42	Mancos "B", CER Corp., PTS 22-12 Federal well (authors' data; Johnson and Nuccio, 1986)	Cretaceous	Piceance Creek basin, Rio Blanco Co., Colorado, Sec.12, T.1N.,R.99W.
43	Non-marine upper part of Mesaverde Group, Twin Arrow, 4-14 C and K well (authors' data; Johnson and Nuccio, 1986)	Cretaceous	Piceance Creek basin, Rio Blanco Co., Colorado, Sec.14, T.3S.,R.101W.
44	Non-marine upper part of Mesaverde Group, CER Geonuclear, RBE-01 and RB-MHF-3 wells (authors' data; Hansley and Johnson, 1980; Johnson and Nuccio, 1986)	Cretaceous	Piceance Creek basin, Rio Blanco Co., Colorado, Sec.14, T.3S.,R.98W., and Sec.11,T.3S.,R.98W., respectively

Table 1A. (continued)

Data ID[1]	Identification[2] (source[3])	Age	Location
45a	Cozzette sandstone	Cretaceous	Piceance Creek basin
b	Cocoran sandstone	Cretaceous	Piceance Creek basin
c	Rollins sandstone (45a, b, and c are all marine lower part of Mesaverde Group, CER Corp., MWX wells 1, 2, and 3; authors' data; Bostick and Freeman, 1984)	Cretaceous	Piceance Creek basin (all wells are in Garfield Co., Colorado, Sec.34, T.6S.,R.94W.
46	Non-marine upper part of Mesaverde Group, CER Corp. MWX wells 1, 2, and 3 (authors' data; Bostick and Freeman, 1984)	Cretaceous	Piceance Creek basin, Garfield Co., Colorado, Sec.34, T.6S.,R.94W.
47	Ellesmerian sequence (sonic-log porosity, Van de Kamp, 1988)	Jurassic, Triassic, and Permian	North Slope of Alaska
48	Sussex Sandstone Member of Cody Shale (Debra K. Higley, 1991, written commun.)	Cretaceous	Powder River basin, Wyoming

Table 1B. BOX-DIAGRAM POROSITY PERCENTILES

[[1]Data-identification number from table 1A; [2]single highest porosity measurement; [3]ft x 1000; [4]equivalent vitrinite reflectance (%); [5]number of porosity measurements.]

Data ID[1]	10th	25th	50th	75th	90th	High[2]	Depth[3]	R_e[4]	Data Points[5]
	Porosity Percentiles								
1	7.5	8.7	11.5	16.5	18.2	20.4	5.0	0.23	48
1	4.4	5.4	7.2	10.8	13.4	13.8	7.1	0.52	17
1	6.7	9.1	11.2	12.4	13.4	16.0	7.3	0.56	44
1	5.1	8.2	11.0	12.5	13.7	14.9	8.1	0.66	75
1	4.3	5.3	6.9	9.0	10.6	13.6	8.9	0.78	76
1	5.7	7.3	8.7	10.2	11.2	13.0	10.2	0.96	93
1	3.2	3.7	4.8	6.8	8.4	10.8	11.0	1.07	72
1	4.3	5.2	6.3	7.9	10.5	12.8	13.1	1.37	84
1	1.4	2.1	3.2	4.4	5.1	5.4	14.9	1.62	9
1	3.0	3.6	4.2	4.7	5.0	6.4	16.1	1.78	33
2	4.5	6.6	9.8	13.2	15.3	20.5	15.5	0.59	326
3	10.5	12.0	14.5	16.5	18.0	20.1	5.8	0.59	26
3	10.0	12.5	18.0	20.5	22.0	25.0	5.0	0.41	32
3	14.0	16.0	20.5	21.0	21.5	22.1	5.1	0.45	9
3	12.5	16.0	19.5	21.0	23.0	23.5	4.8	0.50	8
3	10.0	12.5	17.0	19.0	21.0	22.9	5.9	0.52	60
3	17.0	18.0	19.5	21.0	22.5	22.6	5.3	0.53	18
3	8.0	10.0	15.5	19.5	20.0	20.3	5.8	0.57	9
3	6.5	9.5	13.5	17.5	18.0	21.7	6.2	0.57	18
3	7.0	10.5	13.5	19.5	21.0	24.4	6.4	0.58	18
3	11.5	15.0	16.5	18.0	19.5	23.6	5.1	0.61	24
3	13.5	14.0	15.0	16.0	18.0	19.0	5.6	0.61	10
3	18.0	20.0	23.0	26.0	26.5	28.0	4.3	0.62	25
3	9.0	13.5	16.5	18.5	19.5	21.2	6.5	0.62	21
3	11.0	12.0	13.5	14.5	15.0	15.8	6.8	0.62	15
3	13.5	16.0	18.0	20.5	23.0	24.9	5.6	0.63	32
3	14.5	16.0	18.0	20.0	21.5	24.8	6.3	0.63	97
3	8.0	8.5	11.0	12.5	16.0	18.6	7.5	0.64	19
3	8.0	9.5	10.5	12.0	13.5	16.4	7.9	0.65	47
3	5.5	10.5	14.0	16.0	17.5	19.7	6.2	0.67	41
3	9.5	11.0	12.0	13.5	14.0	15.3	6.5	0.80	45
3	6.0	8.0	9.5	11.0	11.5	12.0	7.4	0.80	50
3	5.0	6.5	8.5	9.0	11.5	11.5	7.4	0.81	21
3	10.5	11.0	12.0	13.0	14.0	15.8	7.3	0.82	45
3	5.5	7.5	10.0	11.0	11.5	11.7	7.8	0.82	12

Table 1B. (continued)

Data ID[1]	Porosity Percentiles 10th	25th	50th	75th	90th	High[2]	Depth[3]	R_{θ}[4]	Data Points[5]
3	5.5	7.0	9.5	12.5	14.5	18.6	8.3	0.82	45
3	7.5	10.0	12.5	15.0	18.5	20.8	6.8	0.68	37
3	6.0	7.0	7.5	8.5	9.0	9.1	8.7	0.90	10
3	5.0	7.0	8.5	9.5	10.0	11.1	7.5	1.07	28
3	4.5	6.0	7.0	10.5	14.5	15.3	7.8	1.10	30
3	2.2	3.5	6.0	8.0	9.5	10.6	7.6	1.14	57
3	2.6	5.0	7.5	9.5	11.0	15.5	8.0	1.14	54
4	6.2	11.5	18.5	23.3	25.6	29.5	8.4	0.43	44
4	4.7	6.2	12.0	18.2	19.9	21.0	9.5	0.62	34
4	4.2	6.1	9.5	13.7	15.8	18.5	10.6	0.75	33
5	22.6	28.2	32.8	35.8	39.7	41.0	5.5	0.40	13
5	22.1	30.8	33.2	34.2	37.9	38.0	6.5	0.43	11
5	11.2	16.5	18.9	22.8	26.6	29.3	8.5	0.49	42
5	6.1	8.7	13.0	17.3	23.8	28.0	9.2	0.52	32
5	8.4	12.5	19.0	23.9	27.6	32.5	9.7	0.54	38
5	16.3	16.7	18.0	20.0	20.6	21.0	10.5	0.56	8
5	6.6	11.3	12.5	14.0	19.5	19.5	11.5	0.60	16
5	4.8	8.4	10.3	12.0	19.4	20.0	12.6	0.66	16
5	4.4	7.2	11.1	13.0	14.7	16.4	13.6	0.73	40
5	5.4	6.6	8.2	9.6	10.6	11.0	14.7	0.80	17
6	17.9	20.2	22.5	23.8	29.4	33.0	----	0.30	9
6	17.3	19.8	23.5	26.8	27.8	34.0	----	0.35	13
6	11.2	13.5	18.0	23.5	24.8	28.0	----	0.39	26
6	6.2	8.2	12.0	20.2	21.9	29.0	----	0.44	22
6	7.1	8.4	11.5	20.5	23.7	27.0	----	0.50	23
6	5.6	7.8	11.0	17.0	22.2	25.0	----	0.55	26
6	4.6	6.2	8.8	12.8	13.8	15.0	----	0.61	13
6	3.0	4.8	6.5	8.5	11.8	13.0	----	0.66	11
7a	1.6	3.3	5.6	8.2	10.3	13.0	8.7	1.04	69
b	0.6	1.7	3.6	6.0	8.5	18.4	11.0	1.55	111
c	0.2	0.5	0.9	1.7	2.6	5.5	0.1	4.50	88
8	13.6	14.5	17.0	19.5	21.4	21.6	11.6	0.57	12
8	10.8	13.2	16.0	18.5	20.4	23.1	12.6	0.60	26
8	10.8	12.2	18.1	19.8	22.2	22.8	11.7	0.66	17
9	16.4	19.5	23.5	25.0	26.2	26.6	13.8	0.61	8

Table 1B. (continued)

Data ID[1]	Porosity Percentiles 10th	25th	50th	75th	90th	High[2]	Depth[3]	R_o[4]	Data Points[5]
9	12.0	13.5	14.7	15.8	19.0	21.8	12.9	0.72	10
10	24.8	29.6	31.7	33.3	34.4	35.5	5.5	0.34	13
10	22.6	24.3	26.0	33.8	34.2	34.5	7.1	0.40	11
10	17.7	20.0	21.7	22.5	25.3	26.0	8.3	0.46	12
10	10.5	14.6	15.1	16.0	18.5	19.0	9.8	0.53	10
10	11.6	13.3	15.1	16.8	20.4	23.5	11.0	0.60	11
10	6.5	7.4	9.7	14.7	20.4	21.0	12.4	0.69	11
10	5.3	6.5	7.5	8.2	10.7	11.5	13.8	0.79	8
11	3.4	4.1	4.9	5.9	7.4	7.9	9.9	0.82	13
11	4.7	8.2	10.2	11.4	12.0	12.4	13.1	1.30	44
11	8.2	9.2	10.3	12.1	13.3	14.0	12.4	1.20	39
11	12.4	14.2	17.2	18.2	18.7	18.9	7.5	0.60	13
11	3.1	3.9	4.7	6.3	7.7	10.0	9.1	0.80	23
11	2.5	4.4	5.6	6.5	7.0	7.6	11.9	1.60	30
11	11.1	12.8	14.1	15.2	16.0	17.1	7.0	0.59	21
11	12.6	14.1	14.7	15.7	16.7	17.5	6.8	0.71	32
11	2.7	3.9	7.0	11.9	14.8	17.7	6.6	0.73	92
11	7.8	10.4	12.3	13.4	15.8	16.1	8.4	0.70	25
11	8.0	10.6	13.4	15.0	17.5	19.2	6.9	0.75	40
11	2.2	3.1	3.9	4.9	5.8	6.2	8.6	0.84	17
11	5.3	6.1	7.7	9.6	10.6	11.0	11.0	0.76	21
11	1.5	3.1	3.6	4.2	5.0	5.7	9.1	0.80	20
11	5.3	6.2	6.6	7.1	7.7	9.1	12.5	1.64	63
11	3.2	4.2	6.2	9.1	12.0	16.3	10.6	1.12	91
11	1.6	2.2	3.0	4.8	7.4	8.1	14.3	1.34	29
11	4.5	6.8	8.5	9.6	10.5	11.5	13.7	1.64	15
11	15.6	16.9	20.2	21.7	22.6	23.2	4.5	0.67	26
11	20.1	20.9	22.2	23.5	24.0	25.6	4.5	0.57	23
11	17.3	18.2	20.2	21.5	23.4	23.9	4.8	0.68	18
11	7.0	9.3	11.4	12.5	13.1	15.2	9.0	0.65	90
11	14.3	14.8	17.5	20.6	21.4	21.4	5.8	0.62	13
11	10.3	12.4	13.5	14.9	15.9	16.7	4.6	0.60	13
12	7.8	8.9	9.8	10.8	11.5	12.3	10.9	0.69	68
13	14.9	17.2	20.8	21.9	28.1	28.5	7.0	0.41	9
13	8.4	11.2	13.0	15.2	16.6	17.5	8.3	0.47	14

Table 1B. (continued)

Data ID1	10th	25th	50th	75th	90th	High[2]	Depth[3]	R_o[4]	Data Points[5]
	Porosity Percentiles								
13	7.6	9.6	11.0	11.8	12.5	12.8	13.4	1.25	31
14	28.9	30.1	32.5	35.4	37.1	37.3	4.3	0.33	9
15	30.8	32.2	33.6	42.2	43.9	47.1	3.4	0.46	48
15	35.5	36.4	37.1	38.2	40.2	40.8	4.1	0.50	15
15	24.7	26.2	28.4	29.9	31.1	36.6	5.7	0.58	101
15	5.3	12.7	27.2	30.8	31.1	33.8	6.8	0.64	22
15	16.2	17.5	20.5	22.3	23.4	24.5	7.9	0.72	53
15	14.6	15.6	17.6	19.0	20.2	22.7	9.7	0.85	50
15	4.1	8.9	13.2	15.5	20.9	25.0	10.3	0.92	11
16	34.8	36.8	37.7	38.8	39.5	41.3	4.1	0.27	26
16	24.9	27.6	28.8	29.9	30.5	30.6	5.2	0.30	9
16	18.3	18.7	22.9	24.0	25.9	26.2	7.6	0.37	12
16	14.0	21.6	22.4	22.7	23.8	24.6	8.5	0.40	14
16	7.6	9.6	17.2	18.4	18.9	23.3	9.5	0.43	13
16	13.5	15.6	18.6	20.6	21.4	22.0	10.1	0.47	40
16	11.3	12.4	13.2	13.6	14.8	15.9	10.6	0.50	32
16	12.6	13.1	13.6	13.8	14.1	14.5	11.8	0.57	27
16	6.6	10.5	12.2	12.9	13.5	14.3	12.5	0.61	36
16	4.5	5.0	6.7	8.7	9.4	10.2	14.2	0.74	18
16	1.9	2.6	3.4	3.9	5.0	5.0	14.6	0.79	9
17	8.6	10.4	12.8	17.7	19.4	19.5	5.4	0.39	15
17	2.4	2.8	3.2	3.5	4.5	6.7	7.1	0.45	27
17	0.6	1.4	2.2	2.9	3.2	3.4	9.3	0.55	17
17	2.0	2.3	2.6	3.3	3.9	4.4	12.4	0.69	31
18	2.0	3.7	5.4	5.9	6.2	6.6	8.1	0.58	32
18	17.4	19.2	20.3	23.2	25.4	25.9	10.3	0.54	9
19	34.3	34.4	34.9	35.4	36.2	36.7	5.2	0.32	9
19	26.5	28.5	30.0	31.4	33.2	33.6	6.0	0.34	17
19	24.4	25.8	27.7	31.6	32.8	33.4	8.1	0.38	20
19	26.8	29.3	30.7	31.2	31.6	31.8	8.6	0.40	16
19	10.0	17.2	17.8	19.3	21.0	29.0	10.0	0.45	35
19	6.4	13.8	18.2	19.7	21.8	24.1	11.1	0.50	10
19	2.0	6.9	9.3	10.7	11.2	12.5	15.4	0.82	12
19	7.3	7.4	8.3	12.4	13.1	13.6	16.7	1.02	8
20	4.9	10.4	14.8	17.2	20.3	22.0	12.5	0.55	37

Table 1B. (continued)

Data ID1	10th	25th	50th	75th	90th	High[2]	Depth[3]	R_o [4]	Data Points[5]
	Porosity Percentiles								
21	1.0	2.2	6.8	9.4	15.0	16.0	16.2	1.56	26
21	7.1	9.8	10.8	11.5	14.9	15.0	19.9	2.02	12
21	0.7	0.9	1.3	3.5	18.7	19.0	21.4	2.25	8
21	1.3	3.5	10.5	13.0	19.7	20.0	22.4	2.40	8
22	7.2	8.2	9.8	11.8	14.4	16.9	18.6	1.66	27
22	10.2	11.3	13.1	13.9	15.0	15.4	18.5	1.64	32
22	7.0	10.5	12.4	13.9	15.1	18.0	18.5	1.64	240
23	----	----	22.1	----	----	34.0	----	0.29	---
23	----	----	16.1	----	----	26.4	----	0.42	---
23	----	----	14.4	----	----	21.3	----	0.65	---
23	----	----	13.7	----	----	32.9	----	0.35	---
23	----	----	7.7	----	----	9.3	----	0.59	---
23	----	----	8.3	----	----	12.3	----	0.73	---
23	----	----	3.8	----	----	7.2	----	1.80	---
23	----	----	2.6	----	----	6.7	----	2.58	---
23	----	----	9.4	----	----	10.7	----	0.86	---
23	----	----	11.0	----	----	12.3	----	0.30	---
23	----	----	3.9	----	----	5.5	----	0.80	---
23	----	----	1.5	----	----	1.7	----	1.50	---
23	----	----	2.5	----	----	3.1	----	2.50	---
24	12.6	13.8	15.7	18.2	19.2	24.0	6.4	2.00	34
24	6.1	7.2	10.7	12.0	13.4	14.5	8.3	2.35	24
24	18.9	26.2	29.5	31.4	38.1	39.0	5.4	2.85	34
24	26.1	27.8	28.8	29.3	30.2	30.5	3.6	0.45	16
24	21.1	23.8	25.0	26.8	27.4	28.0	4.5	0.56	12
24	33.9	34.4	36.0	37.4	38.2	40.0	0.9	0.31	18
24	33.7	34.4	35.9	36.9	37.6	38.0	2.0	0.40	18
24	32.6	33.5	36.0	37.2	38.3	39.0	3.0	0.50	12
25	----	----	----	----	----	27.6	12.5	0.74	---
25	----	----	----	----	----	22.9	13.6	0.81	---
25	----	----	----	----	----	23.7	14.9	0.94	---
25	----	----	----	----	----	19.5	15.3	1.16	---
25	----	----	----	----	----	16.6	15.5	1.18	---
25	----	----	----	----	----	24.0	15.6	1.19	---
25	----	----	----	----	----	20.0	15.7	1.20	---

Table 1B. (continued)

Data ID1	Porosity Percentiles 10th	25th	50th	75th	90th	High[2]	Depth[3]	R_o[4]	Data Points[5]
25	----	----	----	----	----	19.4	15.9	1.22	---
25	----	----	----	----	----	22.2	16.0	1.23	---
25	----	----	----	----	----	24.8	16.2	1.26	---
25	----	----	----	----	----	23.5	16.3	1.28	---
25	----	----	----	----	----	19.7	17.0	1.40	---
25	----	----	----	----	----	26.0	17.1	1.42	---
25	----	----	----	----	----	27.0	17.2	1.43	---
25	----	----	----	----	----	16.0	18.0	1.56	---
25	----	----	----	----	----	24.0	18.1	1.58	---
25	----	----	----	----	----	24.2	18.4	1.62	---
25	----	----	----	----	----	19.6	18.5	1.64	---
25	----	----	----	----	----	21.0	18.6	1.66	---
25	----	----	----	----	----	10.9	19.3	2.27	---
25	----	----	----	----	----	9.0	20.3	2.60	---
25	----	----	----	----	----	15.1	20.9	2.77	---
25	----	----	----	----	----	15.8	21.0	2.82	---
25	----	----	----	----	----	16.7	21.1	2.86	---
25	----	----	----	----	----	16.3	21.2	2.89	---
25	----	----	----	----	----	16.1	21.4	2.96	---
25	----	----	----	----	----	20.0	21.6	3.04	---
25	----	----	----	----	----	19.0	21.7	3.07	---
25	----	----	----	----	----	21.1	21.8	3.11	---
25	----	----	----	----	----	20.7	21.9	3.15	---
25	----	----	----	----	----	21.1	22.0	3.19	---
25	----	----	----	----	----	18.0	22.1	3.22	---
25	----	----	----	----	----	15.8	22.3	3.28	---
25	----	----	----	----	----	13.0	22.5	3.33	---
25	----	----	----	----	----	7.1	22.6	3.38	---
25	----	----	----	----	----	6.3	22.8	3.48	---
26	0.8	1.2	2.1	2.6	3.7	5.0	13.5	1.66	46
26	1.2	1.5	2.0	2.8	3.8	6.0	16.9	2.34	42
26	3.1	3.4	4.0	4.3	4.7	5.5	7.0	0.84	21
26	4.4	5.0	5.9	6.9	8.1	10.0	5.7	0.70	20
26	12.8	13.5	14.1	14.7	15.3	18.0	4.0	0.61	22
26	15.3	16.0	17.1	18.4	22.4	27.5	3.0	0.55	37

Table 1B. (continued)

Data ID1	10th	25th	50th	75th	90th	High[2]	Depth[3]	R_o[4]	Data Points[5]
	Porosity Percentiles								
27	7.0	10.0	12.0	17.5	21.5	----	7.2	0.59	20
28	26.8	30.1	32.6	34.5	35.9	39.0	8.1	0.40	87
29	24.4	25.0	29.5	30.0	30.6	31.0	6.3	0.40	8
29	22.8	24.5	27.5	28.5	30.2	31.0	7.8	0.45	8
29	18.5	21.5	23.0	24.2	24.7	25.0	8.8	0.50	10
29	14.2	16.2	17.5	18.8	21.5	22.0	10.7	0.58	14
29	6.1	9.7	12.5	18.5	22.9	23.5	12.8	0.71	11
29	9.3	9.8	11.2	11.9	13.1	14.0	14.4	0.80	9
29	10.5	13.2	16.1	18.2	20.5	21.0	15.5	0.90	25
29	13.3	15.9	19.5	22.6	23.8	25.0	16.1	0.95	27
29	12.9	16.1	18.2	21.2	24.6	26.0	16.4	0.99	38
29	9.0	9.9	11.5	14.6	15.9	16.0	17.1	1.04	11
29	10.0	10.8	11.7	13.2	14.0	14.5	17.6	1.10	10
30	4.3	6.2	9.0	10.4	11.5	18.0	11.4	0.92	8
31	0.4	1.0	2.9	9.8	14.6	23.0	15.2	1.50	37
32	2.8	5.1	5.6	6.2	6.7	6.9	10.3	0.74	15
32	4.6	5.7	6.5	7.0	7.7	8.0	10.8	0.84	55
32	1.2	1.5	2.0	2.8	4.5	4.9	11.2	0.94	10
33a	1.1	2.1	3.0	4.5	6.6	7.8	8.2	0.68	24
a	5.3	7.0	9.6	11.2	12.8	18.5	5.6	0.49	138
a	5.9	8.0	8.7	10.0	10.8	11.3	5.3	0.48	28
a	1.2	2.2	2.8	3.7	4.8	5.2	5.3	0.48	12
a	2.3	2.9	3.7	6.0	9.6	10.8	5.3	0.48	24
a	3.9	6.0	9.3	13.9	16.5	22.2	5.4	0.45	213
b	2.0	2.4	2.8	3.2	3.5	4.2	14.6	1.70	33
b	9.6	11.0	12.6	13.4	13.9	15.2	3.3	0.48	16
c	2.1	2.8	4.8	9.5	11.4	17.9	5.5	0.58	121
d	7.8	8.4	9.4	11.2	11.8	12.0	8.2	0.91	35
e	1.5	2.0	2.4	4.8	7.6	9.1	19.3	2.40	13
e	2.8	5.0	6.6	7.7	8.4	9.6	8.3	0.83	45
34	16.4	22.8	24.2	27.2	30.0	30.5	7.8	0.40	9
34	12.4	15.8	19.0	20.1	21.6	22.5	10.5	0.58	9
34	12.4	13.9	17.0	19.1	22.6	25.5	12.4	0.78	19
34	7.0	9.2	12.8	17.9	20.7	21.5	13.3	0.92	25
34	8.3	11.5	12.8	14.5	16.9	18.5	14.2	1.10	16

Table 1B. (continued)

Data ID1	10th	Porosity Percentiles 25th	50th	75th	90th	High[2]	Depth[3]	R_θ[4]	Data Points[5]
34	5.9	11.5	14.2	16.8	18.3	20.5	14.8	1.22	24
34	4.8	8.8	12.0	14.4	15.4	16.5	15.6	1.40	13
34	8.6	10.6	12.9	14.2	15.1	17.5	16.0	1.54	21
34	9.0	11.2	15.7	19.8	21.6	24.5	16.4	1.65	39
34	13.2	16.2	21.2	25.9	27.4	28.5	17.0	1.85	33
35	1.5	4.2	6.5	8.7	9.9	10.0	2.8	1.85	35
36a	9.4	15.1	18.2	20.6	21.6	22.4	0.7	0.56	33
b	14.3	18.1	19.9	21.3	22.2	23.3	0.7	0.57	33
37a	2.4	3.0	3.8	4.7	5.4	5.4	4.5	0.56	11
b	1.8	5.5	6.5	8.0	10.2	10.8	6.4	0.75	8
c	2.7	3.8	5.8	6.8	8.6	9.0	7.5	0.83	14
d	3.2	4.2	7.0	9.2	10.3	10.3	8.5	0.95	14
38	5.2	6.6	10.2	12.9	14.7	15.8	4.9	0.47	37
38	6.8	8.8	9.9	14.2	16.2	16.2	4.9	0.47	15
39	5.4	6.5	7.5	8.2	9.6	10.3	7.0	0.79	24
39	4.4	5.6	8.2	8.7	9.1	9.2	7.7	0.87	19
40	7.2	8.8	11.5	14.6	16.2	16.6	6.2	0.62	15
41	8.2	8.4	8.6	9.1	9.8	9.9	8.2	1.33	9
41	5.2	5.8	6.8	7.5	8.5	9.3	8.2	1.33	20
41	3.0	3.5	4.2	5.0	5.3	5.4	8.2	1.33	24
42	4.6	4.9	5.1	5.5	5.7	5.9	11.7	1.80	26
42	3.7	3.9	4.7	5.5	5.6	5.6	11.7	1.80	12
42	4.6	4.9	5.1	5.4	5.6	5.7	11.8	1.80	12
42	4.7	4.8	5.0	5.3	5.5	7.3	11.8	1.80	17
43	13.0	16.6	19.4	21.2	22.5	24.6	1.1	0.54	50
44	4.2	5.4	6.9	8.0	9.5	10.9	6.2	0.97	25
44	5.0	6.1	8.1	9.0	11.1	12.4	6.0	0.93	29
45a	3.5	5.6	6.2	6.9	7.6	8.9	7.9	2.08	81
b	2.2	3.9	4.6	5.3	5.9	6.0	8.1	2.16	15
c	3.8	5.1	5.9	7.4	7.9	8.0	7.5	1.89	13
46	2.8	4.6	5.7	6.9	7.7	9.5	4.3	0.88	51
46	5.6	6.1	6.9	7.4	8.6	9.7	4.6	0.93	26
46	4.2	4.6	5.0	5.6	6.0	8.1	4.7	0.96	23
46	4.3	6.0	6.9	7.6	8.3	9.2	4.8	1.00	28
46	4.0	5.1	6.4	7.9	9.1	11.1	4.9	1.02	74

Table 1B. (continued)

Data ID1	Porosity Percentiles 10th	25th	50th	75th	90th	High[2]	Depth[3]	R_o[4]	Data Points[5]
46	5.9	7.0	8.1	9.0	10.7	11.1	5.0	1.04	28
46	6.6	7.3	8.1	9.2	9.6	9.6	5.1	1.05	13
46	4.8	5.2	6.1	7.3	7.8	8.1	5.6	1.21	19
46	5.0	6.6	7.4	8.5	9.7	11.0	5.7	1.23	49
46	4.7	5.7	6.8	7.6	8.5	9.3	5.8	1.30	42
46	6.0	6.4	7.3	8.4	8.9	9.3	6.1	1.36	13
46	4.8	6.8	7.8	8.2	10.0	11.6	6.3	1.42	10
46	3.5	5.2	6.8	7.6	8.2	8.7	6.4	1.46	93
46	5.2	6.3	7.1	7.7	8.0	9.1	6.5	1.49	74
46	6.0	7.2	9.6	10.5	11.3	12.2	7.1	1.73	54
46	4.8	6.2	7.0	7.7	8.4	8.6	7.3	1.80	40
47	----	----	----	----	----	14.0	----	0.30	---
47	----	----	----	----	----	23.0	----	0.34	---
47	----	----	----	----	----	21.0	----	0.40	---
47	----	----	----	----	----	28.0	----	0.41	---
47	----	----	----	----	----	28.6	----	0.42	---
47	----	----	----	----	----	27.0	----	0.45	---
47	----	----	----	----	----	31.0	----	0.47	---
47	----	----	----	----	----	32.0	----	0.53	---
47	----	----	----	----	----	35.0	----	0.55	---
47	----	----	----	----	----	28.0	----	0.56	---
47	----	----	----	----	----	14.0	----	0.58	---
47	----	----	----	----	----	17.0	----	0.60	---
47	----	----	----	----	----	14.0	----	0.64	---
47	----	----	----	----	----	13.0	----	0.65	---
47	----	----	----	----	----	9.0	----	0.68	---
47	----	----	----	----	----	13.0	----	0.70	---
47	----	----	----	----	----	14.0	----	0.72	---
47	----	----	----	----	----	8.0	----	0.80	---
47	----	----	----	----	----	7.0	----	0.82	---
47	----	----	----	----	----	18.0	----	1.60	---
47	----	----	----	----	----	13.5	----	2.00	---
48	10.5	11.5	13.1	14.0	15.4	17.3	7.2	0.52	43
48	5.7	8.2	11.4	14.0	16.8	21.8	8.1	0.58	225
48	3.8	4.9	6.3	8.1	9.8	13.9	10.0	0.76	364

TABLE 2A. LIST OF ANADARKO BASIN WELLS FROM WHICH LOG POROSITY DATA WERE OBTAINED. [[1]Well number refers to table 2B; [2]location (section, township, and range), operator, and well name are as shown on well-log headers.]

Well[1]	Location[2]	Operator[2]	Well Name[2]
1	Sec.21,T.8N.,R.12W.	Sohio Petroleum	1-21 Stockton
2	Sec.1,T.7N.,R.12W.	Sohio Petroleum	1-1 Cay
3	Sec.24,T.10N.,R.13W.	Helmerich and Payne	1 Phifer
4	Sec.32,T.8N.,R.9W.	Sohio Petroleum	1-32 Harper
5	Sec.29,T.7N.,R.9W.	Shell Oil	1-29 Bruer
6	Sec.25,T.7N.,R.11W.	Helmerich and Payne	1-25 Charles Adams
7	Sec.18,T.9N.,R.13W.	L.G. Williams Inc	1-18 Allred
8	Sec.19,T.10N.,R.13W.	Hadson Petroleum Corp	1-19 Adams
9	Sec.10,T.8N.,R.13W.	Dyco Petroleum Corp	1-10 Moses Caley
10	Sec.6,T.7N.,R.9W.	Cotton Petroleum Corp	1 Mary
11	Sec.18,T.8N.,R.9W.	Cotton Petroleum Corp	1-A Cox
12	Sec.28,T.8N.,R.11W.	GHK	1-28 Didier
13	Sec.33,T.8N.,R.10W.	Sanguine LTD	1 Griffitis
14	Sec.13,T.7N.,R.10W.	Shell Oil	1-13 Moore
15	Sec.26,T.7N.,R.9W.	Sanguine LTD	1 Mae West
16	Sec.4,T.7N.,R.11W.	Sohio Petroleum	1-4 Nikkel
17	Sec.10,T.7N.,R.9W.	Cotton Petroleum Corp	1-10 Kvasnica
18	Sec.26,T.7N.,R.10W.	Davis Oil	1-26 J.D. Miles
19	Sec.19,T.11N.,R.13W.	Lear Pet. Expl. Inc	1-19 Horn
20	Sec.25,T.11N.,R.12W.	Cotton Petroleum Corp	1-A Dorsey
21	Sec.10,T.16N.,R.12W.	Davis Oil	1 Pickett
22	Sec.7,T.16N.,R.10W.	Bogert Oil	1-7 Bernhardt
23	Sec.4,T.18N.,R.11W.	Bogert Oil	1-4 Henry
24	Sec.34,T.22N.,R.9W.	Arapaho Petroleum	2-34 Cottons
25	Sec.3,T.21N.,R.9W.	Berry Petroleum	1-3 Perry
26	Sec.19,T.20N.,R.9W.	Western Pacific Pet.	1-1 Patterson
27	Sec.16,T.21N.,R.11W.	Ladd Petroleum Corp	4 Shiddell
28	Sec.31,T.20N.,R.13W.	Nobel Operating Inc	2 Sholters
29	Sec.25,T.20N.,R.10W.	Bogert Oil	1-25 Frank
30	Sec.36,T.20N.,R.10W.	Cuesta Energy Corp	1-36 Seelke
31	Sec.28,T.20N.,R.10W.	Prime Energy Corp	1-28 Bierig
32	Sec.21,T.22N.,R.16W.	Shell Oil	2-21 Foster
33	Sec.16,T.20N.,R.16W.	TXO Production Corp	1-A Hoskin

Table 2B. ANADARKO BASIN WELL-LOG POROSITY DATA

[[1]Well number from table 2A; [2]ft; [3]thickness of data interval (ft); [4]log-derived porosity (%); [5]equivalent vitrinite reflectance (%); [6]age code (1=Lower Paleozoic, 2=Pennsylvanian, 3=Permian).]

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]	Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
1	7531	5	11.0	0.77	2	2	10956	8	4.2	1.07	2
1	7608	6	2.8	0.78	2	2	10988	18	2.0	1.08	2
1	8658	12	6.0	0.86	2	2	11196	16	6.0	1.10	2
1	8672	4	5.6	0.86	2	2	11982	8	6.0	1.19	2
1	8696	4	6.0	0.86	2	2	12048	4	4.5	1.19	2
1	8700	4	7.6	0.86	2	2	13338	5	5.1	1.35	2
1	8704	12	6.2	0.86	2	2	18626	16	4.8	2.27	2
1	8716	8	6.8	0.86	2	2	18642	8	4.1	2.27	2
1	8736	10	6.0	0.87	2	2	18686	14	6.3	2.28	2
1	8746	8	5.2	0.87	2	2	18726	4	2.6	2.29	2
1	8754	10	6.0	0.87	2	2	18950	10	4.4	2.34	2
1	8770	6	5.8	0.87	2	2	18966	8	3.8	2.34	2
1	9586	6	5.0	0.94	2	2	18977	7	3.0	2.34	2
1	9595	5	6.0	0.94	2	2	18986	12	7.3	2.35	2
1	11056	12	4.5	1.08	2	2	19080	12	3.0	2.37	2
1	11068	4	8.0	1.09	2	2	19099	4	3.4	2.37	2
1	11074	6	6.2	1.09	2	2	19102	6	4.7	2.37	2
1	12668	4	5.2	1.27	2	2	19108	12	3.0	2.37	2
1	12672	8	7.3	1.27	2	2	19120	8	4.2	2.38	2
1	12698	12	7.3	1.27	2	2	19128	10	4.6	2.38	2
1	15062	4	6.8	1.60	2	2	19736	8	4.8	2.52	2
1	18792	4	3.0	2.30	2	2	19750	4	5.0	2.53	2
1	18800	4	3.0	2.30	2	2	19754	4	4.3	2.53	2
1	19116	6	3.0	2.38	2	2	20280	4	4.0	2.66	2
1	19618	10	8.0	2.50	2	2	20298	4	4.8	2.67	2
1	19628	8	6.5	2.50	2	3	5136	10	18.1	0.61	4
1	20806	6	4.2	2.80	2	3	5182	6	17.0	0.61	4
1	20852	6	5.1	2.81	2	3	5294	16	17.1	0.62	4
1	20866	6	7.9	2.82	2	3	5364	10	17.2	0.62	4
2	5454	12	24.8	0.63	2	3	6190	12	16.0	0.68	2
2	6003	4	8.3	0.66	2	3	6410	4	13.7	0.69	2
2	7246	12	11.5	0.75	2	3	6424	10	14.8	0.69	2
2	7894	8	13.1	0.80	2	3	6442	6	15.0	0.69	2
2	8930	4	5.3	0.88	2	3	6448	6	11.8	0.69	2
2	10950	6	2.5	1.07	2	3	7176	8	11.9	0.74	2

Table 2B. (continued)

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
3	7184	12	13.5	0.74	2
3	8420	10	4.9	0.84	2
3	8436	8	5.1	0.84	2
3	9586	10	6.0	0.94	2
3	10442	10	1.5	1.02	2
3	10488	4	3.5	1.03	2
3	10508	12	7.6	1.03	2
3	10520	16	6.7	1.03	2
3	11410	6	6.3	1.12	2
3	12162	6	7.1	1.21	2
3	15190	6	7.2	1.90	3
3	15444	4	3.8	1.93	3
3	15476	8	4.3	1.93	3
3	19186	10	5.0	2.39	1
3	19196	10	4.0	2.40	1
3	19210	4	5.6	2.40	1
3	19214	8	4.0	2.40	1
3	19224	6	4.1	2.40	1
4	4280	4	21.8	0.56	4
4	4350	8	23.9	0.56	4
4	4362	6	23.0	0.57	4
4	4496	6	20.6	0.57	4
4	4603	5	22.8	0.58	4
4	4704	4	20.8	0.58	4
4	5132	8	20.1	0.61	4
4	6354	4	17.8	0.69	2
4	6424	4	16.7	0.69	2
4	6434	4	16.6	0.69	2
4	6732	14	18.0	0.71	2
4	7118	10	16.9	0.74	2
4	7130	4	12.5	0.74	2
4	7502	4	11.5	0.77	2
4	7650	16	15.1	0.78	2
4	7751	13	13.5	0.79	2
4	8570	4	9.0	0.85	2
4	8818	10	7.2	0.87	2
4	8828	10	4.9	0.87	2
4	9118	4	12.0	0.90	2
4	9658	34	6.5	0.95	2
4	9696	4	4.2	0.95	2
4	9704	8	4.2	0.95	2
4	11298	4	2.5	1.11	2
4	11966	8	4.0	1.19	2
4	12020	12	4.2	1.19	2
4	12034	4	3.3	1.19	2
4	12460	4	6.0	1.24	2
4	12478	12	5.1	1.25	2
4	12492	4	7.0	1.25	2
4	12556	10	6.0	1.26	2
4	12566	8	5.1	1.26	2
4	12574	4	8.6	1.26	2
4	12700	6	4.8	1.27	2
4	12870	4	4.5	1.29	2
4	14640	6	11.3	1.54	2
4	16624	12	9.0	1.86	2
4	16636	16	7.3	1.87	2
5	4172	4	24.9	0.56	4
5	4406	8	24.1	0.57	4
5	4948	16	23.1	0.60	4
5	4994	6	24.2	0.60	4
5	5330	6	20.6	0.62	4
5	5398	4	21.8	0.63	4
5	5530	12	21.5	0.63	2
5	5716	4	22.8	0.65	2
5	5810	8	21.8	0.65	2
5	5842	6	19.3	0.65	2
5	5930	4	17.8	0.66	2
5	5944	4	18.7	0.66	2
5	5950	10	16.0	0.66	2
5	6028	12	17.2	0.67	2

Table 2B. (continued)

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
5	6054	4	19.2	0.67	2
5	6058	7	19.9	0.67	2
5	6134	8	19.7	0.67	2
5	6156	6	19.6	0.67	2
5	6206	6	22.3	0.68	2
5	6212	6	20.0	0.68	2
5	6289	7	21.4	0.68	2
5	6408	8	19.3	0.69	2
5	6544	8	15.2	0.70	2
5	6592	4	16.9	0.70	2
5	6746	5	2.8	0.71	2
5	6784	10	15.3	0.72	2
5	7000	6	16.8	0.73	2
5	7028	12	19.3	0.73	2
5	7070	8	1.7	0.74	2
5	7384	4	8.7	0.76	2
5	7596	4	14.5	0.77	2
5	7600	6	17.3	0.78	2
5	7630	6	16.2	0.78	2
5	7636	4	12.5	0.78	2
5	7640	4	17.8	0.78	2
5	7700	14	16.2	0.78	2
5	7714	6	14.0	0.78	2
5	7720	10	16.2	0.78	2
5	7766	6	1.7	0.79	2
5	8276	4	6.7	0.83	2
5	8588	4	3.5	0.85	2
5	8592	14	8.1	0.85	2
5	8656	4	8.0	0.86	2
5	8796	10	10.8	0.87	2
5	8806	10	11.1	0.87	2
5	8818	6	13.5	0.87	2
5	8830	10	10.1	0.87	2
5	9646	16	6.8	0.95	2
5	9664	4	7.8	0.95	2
5	9668	4	9.2	0.95	2
5	9672	10	7.0	0.95	2
5	9682	12	7.0	0.95	2
5	9694	10	7.9	0.95	2
5	9708	6	7.6	0.95	2
5	9714	10	5.8	0.95	2
5	9724	8	7.6	0.95	2
5	9732	6	4.5	0.95	2
5	9746	10	5.9	0.95	2
5	9804	18	6.3	0.96	2
5	10002	6	4.4	0.98	2
5	10008	12	5.7	0.98	2
5	11137	4	2.7	1.09	2
5	11141	9	4.0	1.09	2
5	11150	6	2.2	1.09	2
5	11161	6	5.0	1.10	2
5	11167	5	2.1	1.10	2
5	11206	6	5.6	1.10	2
5	11434	4	2.0	1.13	2
5	11436	6	6.0	1.13	2
5	11450	10	3.6	1.13	2
5	11474	6	4.6	1.13	2
5	12120	6	5.0	1.20	2
5	12152	8	4.1	1.21	2
5	12194	6	2.3	1.21	2
5	12560	6	7.2	1.26	2
5	12566	6	8.3	1.26	2
5	12950	6	4.9	1.30	2
5	16748	6	4.3	1.89	2
5	16754	5	3.2	1.89	2
5	16788	4	5.9	1.89	2
5	16796	6	4.3	1.90	2
5	16866	6	5.5	1.91	2
5	16872	4	1.7	1.91	2
5	16878	10	2.1	1.91	2

Table 2B. (continued)

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
5	16896	10	2.0	1.91	2
5	17122	6	4.0	1.96	2
5	17204	4	2.8	1.97	2
5	17208	6	6.0	1.97	2
5	17214	4	3.5	1.97	2
5	17218	6	6.7	1.98	2
5	17226	4	3.4	1.98	2
5	17228	10	4.9	1.98	2
5	17238	4	2.9	1.98	2
5	17326	12	3.8	2.00	2
6	3700	6	4.7	0.53	4
6	4796	14	23.0	0.59	2
6	4834	12	21.2	0.59	2
6	4940	12	17.1	0.60	2
6	4995	4	20.0	0.60	2
6	5072	8	18.0	0.61	2
6	5420	14	18.0	0.63	2
6	5644	8	17.1	0.64	2
6	5748	6	20.0	0.65	2
6	5754	6	20.8	0.65	2
6	5760	6	17.1	0.65	2
6	6180	8	18.9	0.68	2
6	6188	8	17.7	0.68	2
6	6260	4	14.0	0.68	2
6	6308	18	1.7	0.68	2
6	6916	14	19.2	0.73	2
6	7394	6	14.0	0.76	2
6	7430	8	12.2	0.76	2
6	7456	4	11.4	0.76	2
6	7462	8	13.0	0.76	2
6	7470	10	15.1	0.77	2
6	7480	10	13.0	0.77	2
6	7492	10	12.3	0.77	2
6	7644	12	14.0	0.78	2
6	8126	14	13.7	0.82	2

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
6	8144	12	12.0	0.82	2
6	9684	8	6.3	0.95	2
6	9692	6	3.7	0.95	2
6	9700	10	7.0	0.95	2
6	9714	6	5.3	0.95	2
6	9750	6	5.7	0.96	2
6	9878	12	4.3	0.97	2
6	11120	10	5.0	1.09	2
6	11186	10	0.5	1.10	2
6	11196	18	5.8	1.10	2
6	11330	4	2.2	1.11	2
6	11338	14	2.0	1.11	2
6	11358	18	1.6	1.12	2
6	11376	8	2.8	1.12	2
6	11384	10	8.6	1.12	2
6	11394	14	5.1	1.12	2
6	12136	8	5.6	1.20	2
6	12834	10	5.2	1.29	2
6	13360	18	4.7	1.36	2
6	14260	16	5.1	1.48	2
6	14658	22	5.7	1.54	2
6	18242	6	3.3	2.18	2
6	18272	10	3.3	2.19	2
6	18364	14	3.7	2.21	2
6	19496	6	3.8	2.47	2
6	19588	6	4.0	2.49	2
6	19616	8	4.1	2.49	2
6	19628	4	5.0	2.50	2
6	19686	14	4.3	2.51	2
6	19700	8	5.6	2.52	2
7	6162	8	15.0	0.67	2
7	6720	10	12.3	0.71	2
7	6964	10	14.0	0.73	2
7	6981	4	14.2	0.73	2
7	7296	12	13.0	0.75	2

Table 2B. (continued)

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
7	7762	12	10.2	0.79	2
7	7774	6	11.2	0.79	2
7	7786	8	12.4	0.79	2
7	7794	8	11.0	0.79	2
7	8776	12	6.1	0.87	2
7	8796	8	3.4	0.87	2
7	8804	12	5.1	0.87	2
7	8822	6	5.1	0.87	2
7	8834	10	4.9	0.87	2
7	13848	6	4.7	1.42	2
7	13886	6	3.2	1.43	2
7	18892	8	5.3	2.32	2
7	20366	8	4.3	2.68	2
8	8598	10	7.2	0.85	2
8	8614	10	5.8	0.86	2
8	9994	6	5.8	0.98	2
8	10000	12	6.3	0.98	2
8	10012	8	7.8	0.98	2
8	10020	6	6.8	0.98	2
8	10028	8	7.5	0.98	2
8	10036	14	6.1	0.98	2
8	15790	4	4.9	1.97	3
8	17636	14	3.2	2.19	3
8	18258	8	3.2	2.27	3
8	18426	8	3.2	2.29	3
8	18774	14	2.3	2.34	3
9	7644	10	11.0	0.78	2
9	7700	6	11.2	0.78	2
9	7706	10	10.4	0.78	2
9	10492	10	4.0	1.03	2
9	11606	10	6.7	1.14	2
9	14100	4	6.7	1.46	2
10	8122	14	17.3	0.82	2
10	8340	6	6.2	0.83	2
10	8346	8	4.3	0.83	2

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
10	8354	6	5.2	0.83	2
10	8544	10	8.3	0.85	2
10	8564	12	8.3	0.85	2
10	8580	6	12.0	0.85	2
10	8592	6	8.6	0.85	2
10	10810	6	2.7	1.06	2
10	11088	10	6.0	1.09	2
10	11436	4	4.4	1.13	2
10	11742	10	5.0	1.16	2
10	11776	12	6.3	1.16	2
10	11790	8	5.9	1.17	2
10	11798	12	5.5	1.17	2
10	12218	4	5.0	1.21	2
10	12252	6	4.7	1.22	2
10	12376	4	4.3	1.23	2
10	13524	4	5.0	1.38	2
10	13962	10	8.1	1.44	2
10	13975	10	9.0	1.44	2
10	13987	5	8.7	1.44	2
10	14310	6	6.5	1.49	2
10	14320	4	6.3	1.49	2
10	16212	4	6.3	1.79	2
10	17566	16	18.2	2.31	1
10	17584	8	18.3	2.32	1
10	17592	6	17.0	2.32	1
10	17598	10	18.2	2.32	1
10	17624	8	17.5	2.33	1
10	17644	4	17.2	2.34	1
10	17896	6	13.6	2.42	1
11	8488	4	8.8	0.84	2
11	8536	5	12.2	0.85	2
11	9422	8	6.3	0.93	2
11	9438	10	9.8	0.93	2
11	9448	14	10.9	0.93	2
11	9462	8	6.8	0.93	2

Table 2B. (continued)

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
11	9472	4	13.4	0.93	2
11	9818	16	5.0	0.96	2
11	10562	8	7.2	1.03	2
11	10578	10	5.8	1.04	2
11	11918	8	3.8	1.18	2
11	11928	10	4.5	1.18	2
11	12140	4	4.5	1.21	2
11	12144	6	7.2	1.21	2
11	12522	10	5.1	1.25	2
11	12546	10	4.7	1.25	2
11	12566	4	5.1	1.26	2
11	12974	4	6.7	1.31	2
11	14220	4	4.9	1.48	2
11	15520	8	10.8	1.67	2
11	15528	10	9.3	1.68	2
11	15580	6	7.0	1.68	2
11	15596	6	9.4	1.69	2
11	15650	6	5.0	1.70	2
11	15662	14	4.5	1.70	2
11	15744	8	5.0	1.71	2
11	15986	12	6.3	1.75	2
11	17040	6	17.0	2.15	1
11	17052	16	17.2	2.16	1
11	17080	14	17.0	2.17	1
11	17094	18	17.0	2.17	1
11	17334	12	16.0	2.24	1
12	16595	5	3.0	1.86	2
12	17333	6	6.8	2.00	2
12	17339	5	4.9	2.00	2
12	17350	8	3.5	2.00	2
12	17372	5	3.3	2.01	2
12	17380	4	3.7	2.01	2
12	17408	4	3.0	2.01	2
12	17538	8	2.4	2.04	2
12	17824	4	4.7	2.10	2
12	17842	4	5.5	2.10	2
13	9818	8	10.0	0.96	2
13	9834	4	11.6	0.96	2
13	11124	10	4.8	1.09	2
13	11140	6	3.7	1.09	2
13	11408	8	4.1	1.12	2
13	12154	6	4.2	1.21	2
13	12202	10	3.7	1.21	2
13	12218	6	3.7	1.21	2
13	14178	4	3.0	1.47	2
13	16716	4	5.7	1.88	2
13	16742	13	5.4	1.89	2
13	16864	6	4.2	1.91	2
13	16904	8	4.2	1.92	2
13	16912	12	3.0	1.92	2
13	17096	18	4.1	1.95	2
13	17152	14	3.0	1.96	2
13	17166	6	5.7	1.97	2
13	17174	10	3.7	1.97	2
13	17776	4	5.1	2.09	2
13	17780	6	5.3	2.09	2
13	17808	5	5.0	2.09	2
14	4118	8	23.2	0.55	4
14	4438	8	22.2	0.57	4
14	4534	6	22.6	0.58	4
14	4934	8	21.4	0.60	4
14	4963	7	21.8	0.60	4
14	4974	5	22.2	0.60	4
14	5354	18	20.3	0.62	2
14	5896	4	18.0	0.66	2
14	6022	6	17.2	0.66	2
14	6116	8	18.8	0.67	2
14	6238	6	19.5	0.68	2
14	6248	4	19.2	0.68	2
14	6256	6	18.0	0.68	2

Table 2B. (continued)

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
14	6306	16	2.2	0.68	2
14	6542	8	17.9	0.70	2
14	6998	8	16.1	0.73	2
14	7360	8	13.9	0.76	2
14	7372	4	13.9	0.76	2
14	7542	10	13.1	0.77	2
14	7572	6	11.3	0.77	2
14	7644	20	14.0	0.78	2
14	7668	6	15.8	0.78	2
14	8554	6	6.7	0.85	2
14	8702	6	7.0	0.86	2
14	8712	16	7.2	0.86	2
14	8734	22	8.3	0.87	2
14	8760	10	8.9	0.87	2
14	8770	8	7.0	0.87	2
14	11044	6	4.2	1.08	2
14	11054	6	6.0	1.08	2
14	11062	12	4.0	1.09	2
14	12020	6	9.4	1.19	2
14	12026	8	7.2	1.19	2
14	12050	6	8.7	1.19	2
14	12070	10	7.0	1.20	2
14	12156	4	4.1	1.21	2
14	13722	6	4.0	1.41	2
14	13750	8	6.3	1.41	2
14	13770	4	4.9	1.41	2
14	13792	4	5.6	1.42	2
14	13810	6	5.5	1.42	2
14	13832	6	7.0	1.42	2
14	15586	8	5.2	1.69	2
14	15594	7	6.2	1.69	2
14	16640	8	3.9	1.87	2
14	16672	9	3.8	1.87	2
14	16694	6	4.3	1.88	2
14	16708	6	5.5	1.88	2
14	16752	6	1.9	1.89	2
14	16762	10	2.7	1.89	2
14	16778	6	2.6	1.89	2
14	17020	6	3.2	1.94	2
14	17036	5	3.2	1.94	2
14	17041	17	3.0	1.94	2
14	17062	8	8.1	1.95	2
14	17070	4	5.0	1.95	2
14	17882	12	3.7	2.11	1
14	18740	8	16.2	2.70	1
14	18753	7	17.9	2.71	1
14	18760	14	17.0	2.71	1
14	18778	14	15.5	2.72	1
15	7798	14	15.9	0.79	2
15	7812	10	18.5	0.79	2
15	7824	16	17.0	0.79	2
15	8452	10	17.1	0.84	2
15	8878	4	8.8	0.88	2
15	8900	6	8.0	0.88	2
15	8906	4	9.8	0.88	2
15	8912	8	7.3	0.88	2
15	8950	8	9.7	0.88	2
15	8958	16	8.1	0.88	2
15	9624	10	9.6	0.94	2
15	9638	12	6.8	0.94	2
15	9650	20	8.3	0.95	2
15	9670	6	6.5	0.95	2
15	9682	22	7.0	0.95	2
15	9704	18	6.1	0.95	2
15	9722	12	6.9	0.95	2
15	9734	16	5.2	0.95	2
15	9750	10	6.2	0.96	2
15	9760	10	6.8	0.96	2
15	9770	10	7.5	0.96	2
15	9836	10	6.2	0.96	2

Table 2B. (continued)

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
15	9846	16	7.0	0.96	2
15	9862	8	7.7	0.97	2
15	9870	12	5.5	0.97	2
15	10674	20	7.0	1.05	2
15	11241	5	3.9	1.10	2
15	11476	10	5.8	1.13	2
15	12160	14	6.0	1.21	2
15	12180	12	7.1	1.21	2
15	12566	8	6.3	1.26	2
15	15829	11	6.7	1.73	2
15	16448	14	5.7	1.83	2
15	16508	10	4.2	1.84	2
15	16518	16	6.2	1.85	2
15	16784	8	6.2	1.89	2
15	16834	18	5.5	1.90	2
15	16856	16	6.2	1.91	2
15	16944	4	6.0	1.92	2
15	16972	8	4.8	1.93	2
15	16984	6	3.8	1.93	2
15	17382	8	8.3	2.01	2
15	17686	4	9.2	2.07	2
15	18012	10	8.0	2.13	2
15	18046	10	5.4	2.14	2
15	18082	4	4.8	2.15	2
15	18090	8	5.5	2.15	2
15	18134	6	7.0	2.16	2
15	18206	14	7.9	2.17	2
15	18238	8	9.0	2.18	2
16	6268	4	15.4	0.68	2
16	6759	5	12.8	0.71	2
16	6799	5	15.1	0.72	2
16	6846	8	14.6	0.72	2
16	7296	6	12.8	0.75	2
16	8942	6	5.0	0.88	2
16	8948	6	8.7	0.88	2
16	9062	22	5.9	0.89	2
16	9090	22	6.0	0.90	2
16	9174	6	4.5	0.90	2
16	11286	12	9.2	1.11	2
16	11694	8	6.5	1.15	2
16	11718	8	6.5	1.16	2
16	12274	6	5.0	1.22	2
16	12502	4	7.1	1.25	2
16	17120	4	3.1	1.96	2
16	18296	9	4.5	2.19	2
17	8326	12	4.0	0.83	2
17	8558	6	7.0	0.85	2
17	8578	4	11.7	0.85	2
17	8584	6	15.7	0.85	2
17	8598	6	11.9	0.85	2
17	8608	8	13.0	0.85	2
17	8864	16	6.7	0.88	2
17	8880	6	8.5	0.88	2
17	8886	14	8.8	0.88	2
17	8900	8	9.9	0.88	2
17	9276	6	6.8	0.91	2
17	9282	14	7.7	0.91	2
17	9296	6	7.6	0.91	2
17	9316	12	7.0	0.92	2
17	9328	22	6.5	0.92	2
17	9350	12	6.8	0.92	2
17	9388	18	6.7	0.92	2
17	9406	14	7.9	0.92	2
17	9424	14	8.0	0.93	2
17	9438	10	6.9	0.93	2
17	9546	16	6.5	0.93	2
17	9562	10	5.8	0.94	2
17	9740	4	4.0	0.95	2
17	10934	8	3.4	1.07	2
17	11792	8	6.6	1.17	2

Table 2B. (continued)

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
17	11810	12	6.8	1.17	2
17	11828	18	6.3	1.17	2
17	12268	8	6.0	1.22	2
17	12436	6	5.1	1.24	2
17	12446	4	5.9	1.24	2
17	13522	8	8.9	1.38	2
17	15494	6	4.0	1.67	2
17	15514	4	3.2	1.67	2
17	15522	6	4.2	1.68	2
17	15744	4	4.5	1.71	2
17	16210	4	4.2	1.79	2
17	16354	4	5.9	1.81	2
17	16376	4	5.1	1.82	2
17	16404	4	5.1	1.83	2
17	16412	8	4.0	1.83	2
17	16430	8	4.5	1.83	2
17	16452	10	4.0	1.83	2
17	16466	18	3.9	1.84	2
17	16484	14	4.0	1.84	2
17	16502	14	4.5	1.84	2
17	16524	8	5.9	1.85	2
18	8414	4	10.2	0.84	2
18	8468	6	11.3	0.84	2
18	8848	12	13.5	0.88	2
18	9860	4	7.2	0.97	2
18	9868	8	9.4	0.97	2
18	9876	8	11.7	0.97	2
18	9884	7	14.4	0.97	2
18	9900	14	9.4	0.97	2
18	9914	10	9.9	0.97	2
18	9931	7	9.3	0.97	2
18	10338	10	5.7	1.01	2
18	11262	8	3.0	1.11	2
18	11270	4	7.0	1.11	2
18	11274	22	5.7	1.11	2
18	11296	22	6.3	1.11	2
18	11318	12	6.0	1.11	2
18	11352	12	7.0	1.12	2
18	12264	8	5.5	1.22	2
18	12276	6	7.0	1.22	2
18	12292	8	5.5	1.22	2
18	12310	6	4.8	1.23	2
18	12318	16	6.7	1.23	2
18	12334	8	5.0	1.23	2
18	12342	6	3.5	1.23	2
18	12822	4	14.0	1.29	2
18	12908	6	9.3	1.30	2
18	13016	4	5.8	1.31	2
18	13464	6	4.6	1.37	2
18	14204	18	4.5	1.47	2
18	14230	4	4.2	1.48	2
18	14234	10	5.9	1.48	2
18	14256	4	5.0	1.48	2
18	14262	6	5.0	1.48	2
18	14274	8	5.3	1.48	2
18	14286	16	4.5	1.49	2
18	14302	12	5.3	1.49	2
18	14334	4	6.0	1.49	2
18	14354	4	6.1	1.50	2
18	14362	10	6.1	1.50	2
18	14372	8	7.2	1.50	2
18	14608	8	6.2	1.53	2
18	17616	4	4.6	2.05	2
18	17680	6	4.2	2.07	2
18	17810	8	3.6	2.09	2
18	17824	8	3.7	2.10	2
18	17832	8	4.1	2.10	2
18	17840	14	3.2	2.10	2
18	17854	12	3.8	2.10	2
18	17866	8	4.2	2.10	2

Table 2B. (continued)

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
18	18076	4	3.9	2.15	2
18	18177	11	5.0	2.17	2
18	18188	8	4.3	2.17	2
18	19008	12	5.0	2.35	2
18	19024	11	4.7	2.35	2
19	8102	8	8.4	0.81	2
19	8692	12	3.7	0.86	2
19	8704	8	4.1	0.86	2
19	8746	10	5.5	0.87	2
19	8760	8	6.2	0.87	2
19	9864	8	7.0	0.97	2
19	9872	4	3.8	0.97	2
19	9876	10	6.9	0.97	2
19	10334	10	3.1	1.01	2
19	10344	6	4.7	1.01	2
19	10350	6	5.9	1.01	2
19	10502	16	5.1	1.03	2
19	10776	8	5.3	1.06	2
19	10788	10	5.6	1.06	2
19	10976	8	7.1	1.08	2
19	12626	6	9.0	1.26	2
19	12632	8	10.1	1.26	2
19	12645	9	10.2	1.27	2
19	15432	6	4.5	1.93	3
19	15596	4	7.0	1.95	3
19	15692	8	5.1	1.96	3
20	8042	4	10.8	0.81	2
20	8068	4	5.2	0.81	2
20	8396	5	7.7	0.84	2
20	9180	4	4.2	0.90	2
20	9188	4	5.0	0.90	2
20	9532	6	4.9	0.94	2
20	10102	4	4.9	0.99	2
20	12490	6	10.7	1.25	2
20	12498	6	10.8	1.25	2
20	12510	6	10.1	1.25	2
20	13788	6	6.0	1.76	2
20	13932	6	4.5	1.77	3
20	14072	6	6.9	1.78	3
21	6348	4	17.8	0.69	2
21	6352	8	16.0	0.69	2
21	6360	8	17.6	0.69	2
21	6370	8	17.2	0.69	2
21	6384	6	5.1	0.69	2
21	6534	10	12.5	0.70	2
21	7111	6	9.6	0.74	2
21	7134	5	7.3	0.74	2
21	8934	10	2.7	0.88	2
21	10814	4	5.1	0.94	1
21	10890	4	3.7	0.95	1
21	10902	4	4.2	0.95	1
21	10994	4	5.1	0.96	1
22	6925	4	11.0	0.73	2
22	6932	4	10.4	0.73	2
22	10070	6	7.1	0.85	1
22	10156	6	2.3	0.86	1
22	10166	8	2.0	0.86	1
22	10178	12	2.3	0.86	1
22	10210	10	1.6	0.86	1
22	10220	6	2.3	0.86	1
22	10238	14	2.1	0.87	1
22	10276	8	1.6	0.87	1
22	10284	6	2.5	0.87	1
22	10352	16	1.3	0.88	1
22	10396	10	1.9	0.88	1
22	10440	10	1.7	0.89	1
22	10634	8	1.2	0.91	1
22	10944	8	0.0	0.95	1
22	10952	5	0.2	0.95	1
22	10960	4	0.3	0.95	1

Table 2B. (continued)

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
22	10968	6	0.1	0.96	1
22	10978	10	0.0	0.96	1
22	11178	12	0.3	0.98	1
22	11190	4	2.0	0.98	1
22	11220	6	1.0	0.99	1
22	11226	15	0.2	0.99	1
22	11253	6	1.7	0.99	1
22	11268	5	0.7	0.99	1
22	11275	5	0.9	1.00	1
22	11406	4	0.8	1.01	1
23	5513	7	16.8	0.63	2
23	5531	11	17.1	0.63	2
23	5544	4	19.2	0.63	2
23	6054	6	14.6	0.67	2
23	6060	8	15.9	0.67	2
23	7350	9	9.1	0.76	2
23	8522	6	3.5	0.69	1
23	8534	4	4.2	0.69	1
23	8538	4	5.7	0.69	1
23	8542	8	5.0	0.69	1
23	8557	5	7.8	0.69	1
23	8578	14	4.4	0.69	1
23	9148	10	6.0	0.75	1
23	9158	8	5.2	0.75	1
23	9166	4	7.1	0.75	1
24	7654	6	5.0	0.61	1
24	7802	4	4.2	0.63	1
24	7888	6	3.1	0.63	1
24	7938	6	2.3	0.64	1
24	8016	4	9.4	0.64	1
24	8036	8	6.0	0.65	1
24	8052	6	9.7	0.65	1
24	8064	6	9.5	0.65	1
25	6455	5	4.9	0.69	2
25	7997	7	4.2	0.64	1

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
25	8039	5	5.5	0.65	1
26	7527	4	4.9	0.60	1
26	7694	6	3.6	0.62	1
26	7710	8	4.3	0.62	1
26	7860	6	3.6	0.63	1
26	7916	8	5.2	0.63	1
26	8634	4	5.5	0.70	1
26	8674	6	6.9	0.70	1
26	8680	10	5.2	0.70	1
26	8690	5	7.2	0.70	1
26	8710	6	4.0	0.71	1
26	8716	7	1.5	0.71	1
26	8723	12	8.0	0.71	1
26	8735	17	6.0	0.71	1
26	8752	14	11.9	0.71	1
26	8766	10	14.2	0.71	1
26	8776	7	10.3	0.71	1
26	8783	7	13.0	0.71	1
26	8790	11	7.4	0.71	1
26	8801	7	9.2	0.71	1
26	8808	12	11.8	0.72	1
26	8820	8	9.6	0.72	1
26	8828	10	7.0	0.72	1
26	8838	8	6.1	0.72	1
26	8846	12	7.0	0.72	1
27	8498	16	4.4	0.69	1
27	8516	14	5.0	0.69	1
27	8530	6	6.9	0.69	1
27	8546	8	7.0	0.69	1
27	8554	8	6.6	0.69	1
27	8566	6	3.9	0.69	1
27	8572	16	9.4	0.69	1
27	8592	10	5.2	0.70	1
27	8602	8	7.3	0.70	1
27	8612	8	8.0	0.70	1

Table 2B. (continued)

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
27	8622	12	7.0	0.70	1
28	9370	10	5.8	0.77	1
29	5528	8	19.3	0.63	2
29	5996	12	16.6	0.66	2
29	6010	4	15.7	0.66	2
29	6620	10	3.0	0.70	2
29	6630	8	5.7	0.71	2
29	6638	12	3.5	0.71	2
29	6704	8	2.3	0.71	2
29	6712	10	4.3	0.71	2
29	7039	5	7.0	0.73	2
29	7298	6	2.5	0.75	2
29	7542	6	4.7	0.60	1
29	7624	12	5.7	0.61	1
29	7648	12	3.2	0.61	1
29	7740	8	3.6	0.62	1
29	7752	4	4.3	0.62	1
29	7770	6	3.0	0.62	1
29	7778	16	3.2	0.62	1
29	7794	18	4.2	0.62	1
29	7812	36	3.5	0.63	1
29	7848	18	4.3	0.63	1
29	7866	16	4.5	0.63	1
29	7882	18	3.1	0.63	1
29	7900	12	2.7	0.63	1
29	7918	6	2.8	0.64	1
29	7936	22	3.5	0.64	1
29	7970	8	2.8	0.64	1
29	7985	7	1.9	0.64	1
29	8558	6	3.4	0.69	1
29	8604	8	1.4	0.70	1
29	8704	12	2.8	0.71	1
29	8716	6	5.5	0.71	1
29	8756	20	5.5	0.71	1
29	8814	16	7.5	0.72	1
29	8834	12	3.1	0.72	1
29	8848	22	10.6	0.72	1
29	8870	18	9.4	0.72	1
29	8888	8	13.0	0.72	1
29	8896	8	15.1	0.72	1
30	7058	4	8.4	0.74	2
30	7966	8	4.3	0.64	1
30	7974	6	3.3	0.64	1
30	8020	4	3.2	0.64	1
30	8116	8	3.1	0.65	1
30	8838	12	3.5	0.72	1
30	8860	4	10.0	0.72	1
30	8864	10	5.7	0.72	1
30	8874	6	7.0	0.72	1
30	8884	20	1.6	0.72	1
30	8912	4	4.6	0.73	1
30	8916	14	6.5	0.73	1
30	8946	10	13.8	0.73	1
30	8962	5	6.2	0.73	1
30	8967	9	10.1	0.73	1
30	8976	10	8.2	0.73	1
31	7666	4	6.8	0.61	1
31	7744	20	3.3	0.62	1
31	7764	22	4.2	0.62	1
31	7786	7	5.0	0.62	1
31	7793	5	6.0	0.62	1
31	7894	26	5.1	0.63	1
31	7928	22	5.3	0.64	1
31	8048	4	3.5	0.65	1
31	8165	9	3.4	0.66	1
31	8176	10	4.5	0.66	1
31	8968	16	7.1	0.73	1
31	8988	10	2.2	0.73	1
32	6326	7	16.2	0.68	2
32	6352	4	14.7	0.69	2

Table 2B. (continued)

Well[1]	Depth[2]	DZ[3]	POR[4]	R_o[5]	AG[6]
32	6768	4	10.7	0.71	2
32	7184	4	3.5	0.58	1
32	7188	8	5.9	0.58	1
32	7882	4	5.8	0.63	1
32	7944	4	3.5	0.64	1
33	6193	5	14.3	0.68	2
33	10231	13	3.8	0.87	1
33	10246	8	4.0	0.87	1

TABLE 3A. LIST OF ANADARKO BASIN OIL AND (OR) GAS RESERVOIRS FROM WHICH HYDROCARBON-RESERVOIR POROSITY DATA WERE OBTAINED.

[[1]Reservoir number refers to table 3B; [2]reference code (a=Berg and others, 1974; b=Cramer and others, 1963; c=Harrison and Routh, 1981; d=NRG, 1985; e=Pipes, 1980); [3]center of field; [4]from references cited in second column.]

RES[1]	REF[2]	Approximate Location[3]	Field Name[4]	Reservoir Name[4]
1	b,d	T.27N.,R.18W.	Avard, N.W.	Tonkawa
2	d	T.27N.,R.18W.	Avard, N.W.	Desmoinesian
3	d	T.10N.,R.10W.	Binger and East	Middle Marchand
4	b	T.10N.,R.10W.	Binger-Cogar	Lower Marchand
5	e	T.10N.,R.10W.	Binger, East	Upper Marchand
6	d	T.17N.,R.26W.	Bishop	Tonkawa
7	e	T.16N.,R.26W.	Bishop	Tonkawa
8	d	T.1N.,R.22ECM	Camrick Area	Morrow
9	d	T.12N.,R.21W.	Carpenter	Morrow
10	d	T.5N.,R.11ECM	Carthage Dist., N.E.	Morrow
11	d	T.5N.R.11ECM	Carthage Gas Area	Morrow
12	d	T.23N.,R.17W.	Cedardale, N.E.	Missourian
13	b	T.22N.,R.17W.	Cedardale	Cottage Grove
14	c	T.5N.,R.9W.	Cement (all areas)	Fortuna
15	c	T.5N.,R.9W.	Cement (all areas)	Noble Olson
16	c	T.6N.,R.9W.	Cement (all areas)	Fortuna
17	c	T.5N.,R.9W.	Cement (all areas)	Hoxbar
18	c	T.5N.,R.9W.	Cement (all areas)	Fortuna
19	c	T.5N.,R.9W.	Cement (all areas)	Noble Olson
20	c	T.5N.,R.9W.	Cement (all areas)	Wade
21	c	T.5N.,R.9W.	Cement (all areas)	Medrano
22	d	T.6N.,R.9W.	Cement (all areas)	Wolfcampian
23	d	T.6N.,R.9W.	Cement (all areas)	Missourian
24	a	T.13N.,R.10W.	Calumet	Morrow
25	a	T.18N.,R.14W.	Canton, S.W.	Morrow
26	a	T.18N.,R.12W.	Carleton, N.E.	Atoka-Morrow
27	a	T.18N.,R.12W.	Carleton, N.E.	Morrow
28	b	T.23N.,R.25W.	Catesby-Chaney	Morrow
29	d	T.27N.,R.9W.	Cherokita Trend	Cherokee
30	b	T.27N.,R.10W.	Cherokee, N.E.	Cherokee

Table 3A. (continued)

RES[1]	REF[2]	Approximate Location[3]	Field Name[4]	Reservoir Name[4]
31	d	T.23N.,R.13W.	Cheyenne Valley	Desmoinesian
32	b	T.21N.,R.15W.	Cheyenne Valley	Red Fork
33	d,e	T.13N.,R.24W.	Cheyenne, West	Upper Morrow
34	d	T.8N.,R.8W.	Chickasha, N.W.	Missourian
35	b	T.5N.,R.3W.	Criner-Payne	Bromide
36	a	T.7N.,R.3W.	Dribble, North	Red Fork
37	d	T.10N.,R.21W.	Elk City	Missourian
38	d	T.2N.,R.23ECM	Elmwood	Morrow
39	d	T.4N.,R.10ECM	Eva, N.W.	Cherokee
40	d	T.5N.,R.23ECM	Forgan, South	Morrow
41	d	T.21N.,R.24W.	Gage, South	Morrow
42	d	T.20N.,R.24W.	Gage, South	Morrow
43	a	T.13N.,R.10W.	Geary	Morrow
44	b	T.8N.,R.17W.	Gotebo Area, North	Springer
45	d	T.6N.,R.21ECM	Greenough, West	Desmoinesian
46	d	T.3N.,R.17ECM	Hardesty, North	Morrow
47	d	T.18N.,R.26W.	Higgins, South	Morrow
48	a	T.17N.,R.11W.	Hitchcock	Atoka
49	d	T.24N.,R.4W.	Hunter, South	Layton
50	e	T.24N.,R.4W.	Hunter, South	Misener
51	d	T.5N.,R.9ECM	Keys Area	Morrow
52	b	T.5N.,R.9ECM	Keys	Keys
53	b	T.26N.,R.25W.	Laverne	Hoover
54	b	T.26N.,R.25W.	Laverne	Tonkawa
55	b	T.26N.,R.25W.	Laverne	Morrow
56	b	T.18N.,R.18W.	Lenora	Morrow
57	b	T.5N.,R.21ECM	Light Gas Area	Upper Morrow
58	b	T.5N.,R.21ECM	Light Gas Area	Basal Morrow
59	d	T.1N.,R.26ECM	Logan, South	Morrow
60	d	T.1N.,R.26ECM	Logan, South	Tonkawa
61	d	T.28N.,R.21W.	Lovedale	Morrow
62	d	T.28N.,R.21W.	Lovedale	Tonkawa
63	b	T.24N.,R.24W.	Luther Hill	Lower Tonkawa
64	b	T.24N.,R.24W.	Luther Hill	Lower Morrow
65	b,d	T.28N.,R.3W.	Mayflower, N.W.	Red Fork

Table 3A. (continued)

RES[1]	REF[2]	Approximate Location[3]	Field Name[4]	Reservoir Name[4]
66	e	T.8N.,R.7W.	Minco, S.W.	Springer
67	b	T.27N.,R.24W.	Mocane-Laverne	Morrow
68	d	T.5N.,R.15ECM	Mouser	Morrow
69	a	T.7N.,R.8W.	Norge and Verden, N.W.	Marchand
70	a	T.24N.,R.13W.	Oakdale, N.W.	Red Fork
71	d	T.17N.,R.14W.	Oakwood, North	Morrow
72	a	T.18N.,R.14W.	Oakwood, N.W.	Morrow
73	b	T.15N.,R.7W.	Okarche, North	Manning
74	d	T.20N.,R.11W.	Okeene, N.W.	Red Fork
75	b	T.19N.,R.11W.	Okeene, N.W.	Red Fork
76	c	T.11N.,R.2W.	Oklahoma City	Prue
77	c	T.11N.,R.2W.	Oklahoma City	Wilcox
78	d	T.5N.,R.13ECM	Postle	Morrow
79	d	T.5N.,R.13ECM	Postle	Cherokee
80	c	T.4N.,R.13ECM	Postle-Hough	Upper Cherokee
81	c	T.5N.,R.13ECM	Postle-Hough	Upper Morrow
82	c	T.4N.,R.14ECM	Postle-Hough	Upper Morrow
83	c	T.4N.,R.14ECM	Postle-Hough	Morrow
84	d	T.16N.,R.16W.	Putnam	Desmoinesian
85	a	T.13N.,R.26W.	Reydon, W. and N.W.	Upper Morrow
86	d	T.25N.,R.4W.	Rich Valley	Mississippian
87	d	T.25N.,R.4W.	Rich Valley	Simpson
88	b	T.25N.,R.4W.	Rich Valley Area	Wilcox
89	d	T.5N.,R.12ECM	Richland, Central, N.	Morrow
90	d	T.25N.,R.3W.	Saltfork, S.E.	Skinner
91	b	T.20N.,R.16W.	Seiling, N.E.	Cottage Grove
92	d	T.8N.,R.20W.	Sentinel, West	Granite wash
93	d	T.21N.,R.21W.	Sharon, West	Morrow
94	a	T.21N.,R.21W.	Sharon, West	Sharon
95	d	T.20N.,R.8W.	Sooner Trend	Desmoinesian
96	d	T.5N.,R.10ECM	Sturgis, East	Morrow
97	d	T.23N.,R.22W.	Tangier	Morrow
98	d	T.28N.,R.8W.	Wakita Trend	Cherokee
99	a	T.8N.,R.4W.	Washington, E.	Osborne
100	d	T.14N.,R.10W.	Watonga-Chickasha	Morrow

Table 3A. (continued)

RES[1]	REF[2]	Approximate Location[3]	Field Name[4]	Reservoir Name[4]
101	d	T.14N.,R.10W.	Watonga-Chickasha	Springer
102	d	T.14N.,R.10W.	Watonga-Chickasha	Atoka
103	b,d	T.25N.,R.16W.	Waynoka, N.E.	Cottage Grove
104	d	T.22N.,R.19W.	Woodward, S.E.	Morrow
105	d	T.29N.,R.17W.	Yellowstone	Simpson

TABLE 3B. ANADARKO BASIN HYDROCARBON-RESERVOIR POROSITY DATA

[[1]Reservoir number from table 3A; [2]average reservoir porosity cited in references (%); [3]ft; [4]age code (1=Lower Paleozoic, 2=Pennsylvanian, 3=Permian); [5]equivalent vitrinite reflectance (%).]

RES[1]	POR[2]	Depth[3]	AG[4]	R_θ[5]
1	14.0	4800	2	0.59
2	12.0	5361	2	0.62
3	8.5	9817	2	0.96
4	9.5	9840	2	0.96
5	8.5	9930	2	0.97
6	12.0	7700	2	0.78
7	12.0	7950	2	0.80
8	12.7	6376	2	0.69
9	9.0	17002	2	1.93
10	14.0	4456	2	0.57
11	15.0	4496	2	0.57
12	13.0	6133	2	0.67
13	15.0	6360	2	0.69
14	19.2	2000	3	0.45
15	19.2	2035	3	0.45
16	22.0	2200	3	0.46
17	17.1	2400	2	0.47
18	10.0	2450	3	0.47
19	20.2	3400	3	0.52
20	10.0	3850	2	0.54
21	16.5	5826	2	0.65
22	18.1	1900	3	0.45
23	14.5	7056	2	0.74
24	11.5	8769	2	0.87
25	10.0	8850	2	0.88
26	15.0	8335	2	0.83
27	10.0	8475	2	0.84
28	14.0	8150	2	0.82
29	17.0	4880	2	0.59
30	17.0	5170	2	0.61
31	12.0	6307	2	0.68
32	12.0	7100	2	0.74
33	14.7	15090	2	1.61
34	10.0	8884	2	0.88
35	15.0	9715	1	0.81

RES[1]	POR[2]	Depth[3]	AG[4]	R_θ[5]
36	11.0	9608	2	0.94
37	16.8	8800	2	0.87
38	16.0	7651	2	0.78
39	14.0	4022	2	0.55
40	13.0	6430	2	0.69
41	10.7	5080	2	0.61
42	12.0	9640	2	0.95
43	11.0	10420	2	1.02
44	13.5	5670	2	0.64
45	10.0	4636	2	0.58
46	16.0	6269	2	0.68
47	7.0	11920	2	1.18
48	15.0	8082	2	0.81
49	10.7	5455	2	0.63
50	10.7	6150	1	0.50
51	16.0	4253	2	0.56
52	16.0	4700	2	0.58
53	18.0	4285	2	0.56
54	18.0	5500	2	0.63
55	14.0	7200	2	0.75
56	10.0	10390	2	1.02
57	15.0	6150	2	0.67
58	13.0	6450	2	0.69
59	14.5	8256	2	0.83
60	14.0	5967	2	0.66
61	11.0	6088	2	0.67
62	10.0	5009	2	0.60
63	17.0	5850	2	0.65
64	14.0	7700	2	0.78
65	20.0	4534	2	0.58
66	18.0	12470	2	1.24
67	12.0	6260	2	0.68
68	17.5	6380	2	0.69
69	10.0	10270	2	1.00
70	10.5	6460	2	0.69

Table 3B. (continued)

RES[1]	POR[2]	Depth[3]	AG[4]	R_o[5]
71	13.0	9066	2	0.89
72	13.0	9425	2	0.93
73	9.5	7900	1	0.63
74	11.0	7132	2	0.74
75	11.0	7200	2	0.75
76	13.6	6360	2	0.69
77	18.0	5750	1	0.48
78	15.7	6039	2	0.67
79	20.0	5423	2	0.63
80	20.0	5485	2	0.63
81	15.4	6100	2	0.67
82	16.0	6150	2	0.67
83	15.7	6500	2	0.70
84	7.5	8652	2	0.86
85	13.0	14900	2	1.58
86	16.9	5176	1	0.44
87	11.5	5816	1	0.48
88	11.5	5832	1	0.48
89	17.0	5526	2	0.63
90	14.4	4942	2	0.60
91	13.5	6940	2	0.73
92	17.0	5600	2	0.64
93	14.0	9038	2	0.89
94	13.0	9125	2	0.90
95	13.0	5620	2	0.64
96	16.0	4267	2	0.56
97	8.0	8337	2	0.83
98	13.5	4700	2	0.58
99	12.5	8500	2	0.85
100	10.5	8179	2	0.82
101	18.0	11192	2	1.10
102	15.0	9668	2	0.95
103	15.0	5472	2	0.63
104	13.6	8233	2	0.82
105	13.7	5936	1	0.49

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