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Density data for drill cores from wells in the National Petroleum Reserve in Alaska

by

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Nearly 900 density measurements were made on core and core fragments from many of the test wells drilled in the Naval Petroleum Reserve in Alaska (NPRA) and are summarized in the tables in this report. Many of these data will also be made available on a magnetic tape to be distributed by:

National Geophysical Data Center
325 Broadway, E/GC, Dept. CN-P
Boulder, Colorado, 80303

The measurements were initiated to obtain density data to be used in gravity modeling along gravity and seismic profiles obtained within the Reserve. However, the NPRA exploration program was terminated both before this modeling began and before the density analysis was complete. The gravity data were released as simple Bouguer anomalies (Gutman, 1980) and terrain-corrected data (Barnes, 1982).

The density measurements were made on cores from 38 wells (Figure 1) that were available in Menlo Park between 1981 and 1983. Thin sections were also prepared for almost all the core intervals on which density measurements were made, and are now available for non-destructive examination at the Alaska Geologic Materials Center, P.O. Box 772116, Eagle River, Alaska, 99577. A listing of most of these thin-sections and instructions for obtaining their loan were reported by Bowsher and others (1981).

At the time of density measurement and thin-section preparation, Gibson and Morin made brief descriptions of the lithologies and wetting characteristics of most of the specimens. These descriptions have been slightly modifed, edited and abbreviated to fit within the 29-character space provided in the attached tables. Formation identification of the stratigraphic intervals was initially made by Tailleur, was later modified at the time of the thin-section report by Bowsher and others (1981), and has now been revised to conform to that of Bird (1988). For example, Tailleur initially divided the Colville Group into S and H units; Bowsher and others (1981) then called the S unit the Prince Creek Formation, and the H unit part of a more extensive Seabee Formation; and finally Bird (1988) considered the S unit Colville sandstone, and the H unit Colville shale as shown in this report. However, the present tabulation contains some of the nomenclature used in the earlier stratigraphic descriptions, such as identification of possibly productive sands and the separation of the Torok Formation into upper and lower units.

All density measurements were made by Morin, who used an electronic balance to compare specimen weights in air and water. Porosity and friability influenced many measurements and caused the greatest problems in the younger and shallower rock units. Most of these problems are noted as parts of the lithologic descriptions. No special efforts were made to obtain dry-specimen (water jacketed) or thoroughly saturated (by prior evacuation) densities.

The well cores came from four phases of petroleum exploration in Arctic Alaska which began with the study of Naval Petroleum Reserve Number 4 between

1944 and 1953 and ended with the Geological Survey's exploration of the National Petroleum Reserve in Alaska between 1977 and 1981. This exploration included 126 wells and test holes of which cores from only 38 wells were available for the density measurements. Furthermore, most of the coring was intended to either test possible production horizons or to assist stratigraphic correlation. Thus a large proportion of the coring was concentrated on permeable horizons in deeper portions of the wells. Densities in permeable and possibly productive rocks tend to be lower than less porous rocks of similar lithology, and depth of burial tends to decrease porosity and increase the sample densities. The data should thus be used with caution for gravity models and similar studies.

Other sources of NPRA density data are the gamma-gamma density logs which were obtained in many wells. Such data were studied by Gutman and others (1982) and Weiland (1989), both of whom used caliper-log data to select measurement spots with minimal hole enlargement (zero caliper response). Gutman and others (1982) used log data from 25 wells of which 18 were the same as those on which core-density measurements were made. Weiland probably studied logs from a larger number of NPRA wells. Gamma-gamma data are not available for about 10 of the early wells, which were drilled during the NPR-4 exploration; but these were cored and used for density measurements in this compilation. Both Gutman and others (1982) and Weiland (1989) divided their well-log data into nine fairly similar density units, but the core density data are divided into 18 rock units making comparison of results difficult. However, Gutman and others (1982, Fig. 15) compared a preliminary summary of the core data means with the gamma-gamma results, which showed that the core densities of Kingak and younger rock units were higher than those obtained from the well logs. Most of the core samples of these units were obtained at greater depths than the well-log densities, and this difference probably explains the discrepancy in the younger units although other factors may have contributed. Further comparison between core densities and gamma-gamma densities may yield useful data. The well-log data do provide a more extensive and systematic sampling than the cores. Both Gutman and others (1982) and Weiland (1989) used the gamma-gamma data to establish relationships between density and depth of burial, and Gutman and others (1982) prepared contours of the variation of formation density with location.

Perhaps similar or at least comparative results can be obtained from the core density data, which have been organized into files suitable for computer sorting and analysis. The data are here presented in five tables, the purposes of which are described below along with comments on their use:

Table 1 provides basic data about the wells which were used in the study of core densities. Most of the information is derived from Bird (1988, Table 15.2) except that the depths given are those of the shallowest and deepest density samples in the well. The data are arranged alphabetically by well name with directions and first names reduced to single character symbols and initials. Furthermore, the number 1 was omitted from all well names in which successor wells with later numbers were not drilled at the same location. The KB elevation is that of the Kelley bushing (or derrick floor) above sea level and is the elevation from which sample depths were measured. The GR elevation is the height of the Kelly bushing above the ground surface, so the depth of burial is the sample depth minus the GR elevation. Additional well facts can be obtained from Bird's table 15.2. The data in this table are included as file 1 on the magnetic tape of core-density data, so that pertinent parts may be combined with the core-density information and used for additional computer sorting, plotting and analysis.

Table 2 is designed to show the numbers of density measurements made on cores from each well and how many samples were measured from each rock or formation unit.

Table 3 is an initial summary of the density data for each rock unit arranged in approximate order of geologic age. The depth data are provided primarily to show the sampling environment and to warn the user that burial depth of some units may have a significant effect on the measured results. The density data show both the range of results, their mean value and their standard deviation. Formation ages were obtained from Bird (1988, Table 15.1). The wide ranges of measured densities suggest that further analysis of the results is desirable to establish relationships between density and factors such as depth and location.

Table 4 lists the data sorted by well name and depth. Separate pages have been used for each well or pairs of wells, which are again sorted in alphabetical order of well name. Some sample depths were recorded as fractional portions of feet, although cable stretch and other factors make such precision questionable. However, this precision may be useful in conjunction with the core number and box number data to later recover the exact sample location. For samples from the Avak well only core numbers and depth range were available, so a mean depth is followed by the letter M. This letter should not be read in the tape format below.

Table 5 rearranges the same data, listing the measurements of each rock unit on separate or successive pages. Data for individual horizons identified in the initial unit selection are listed at the end of data for that rock unit.

The digital tape includes only Table 1 and Table 4 in two unlabeled ascii files with the data listed exactly as shown in the tables without their header lines. A user may thus combine the two tables for further analysis of the data. The format of File 1 (table 1) is:

Columns	Contents	Format
1-14	Well name	A14
15-26	API No.	A12
27-29	Latitude degrees	F3.0
30-35	Latitude minutes	F6.2
36-39	Longitude degrees	F4.0
40-45	Longitude minutes	F6.2
46-54	Finish date	A9
55-60	Kelly bushing elev	F6.0
61-64	Height above ground	F4.0
65-72	Minimum sample depth	F8.1
73-80	Maximum sample depth	F8.1

The format of File 2 (Table 4) is:

Columns	Contents	Format
1-14	Well name	A14
15-20	Core/box number	A6
21-36	Rock unit	A16
37-43	Depth (feet)	F5.0, 2x
44-49	Specific gravity	F6.2
50-80	Lithology	A31

Appending data from at least part of File 1 to those in File 2 should provide files for additional computer sorting and analysis.

References Cited

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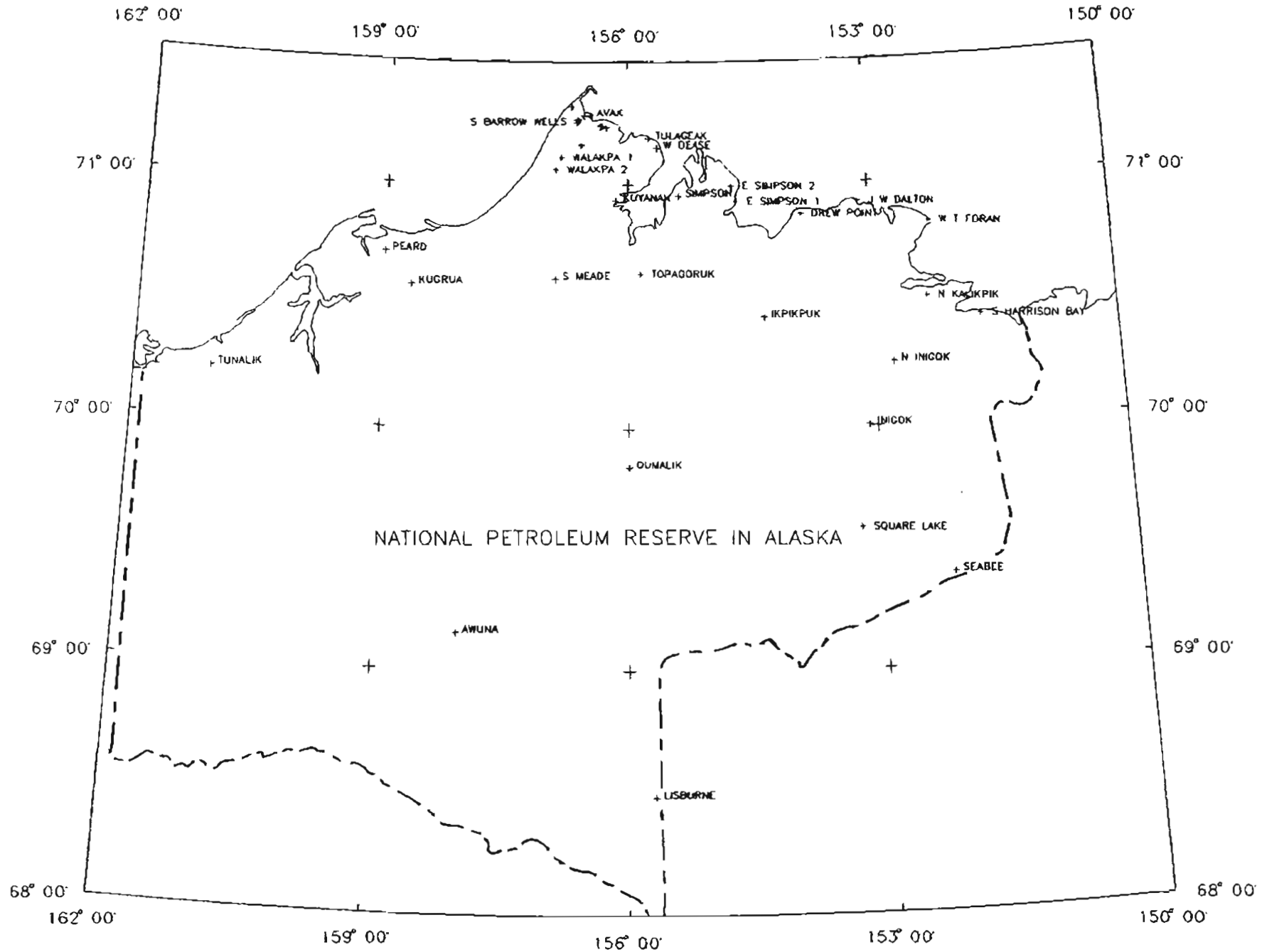

Figure 1. Map of core-density wells

Table 1.--Data for wells used in core density measurements

WELL NAME	API WELL NO.	LATITUDE	LONGITUDE	FINISH DATE	ELEVATIONS KB	ELEVATIONS GR	SAMPLED DEPTHS MIN	SAMPLED DEPTHS MAX
AVAK	50-023-10013	71 15.03	156 28.10	1/14/52	17	16	582.	4010.
AWUNA	50-155-20001	69 09.20	158 01.02	6/20/81	1125	26	2450.2	6028.0
DREW POINT	50-279-20002	70 52.78	153 54.00	3/13/78	39	23	4130.	7901.
E SIMPSON 1	50-279-20005	70 55.07	154 37.08	4/10/79	30	16	2679.	7599
E SIMPSON 2	50-279-20007	70 58.72	154 40.43	3/15/80	40	17	2380.5	7346.
IKPIKPUK	50-279-20004	70 27.33	154 19.88	2/28/80	52	20	2930	15465.
INIGOK	50-279-20003	70 00.28	153 05.95	5/22/79	163	28	2637.7	20092.
J W DALTON	50-279-20006	70 55.23	153 08.25	8/01/79	37	18	3503.	9359.
KUGRUA	50-163-20003	70 35.22	158 39.72	5/29/78	85	20	7202.	11031.
KUYANAK	50-163-20003	70 55.88	156 03.88	3/31/81	28	27	4969.	6689.
LISBURNE	50-137-20003	68 29.05	155 41.60	6/02/80	1862	28	1557.	16996.5
N INIGOK	50-103-20017	70 15.45	152 45.97	4/04/81	166	30	6852.	10168.3
N KALIKPIK	50-103-20011	70 30.55	152 22.07	4/14/78	40	25	3812.	7395.
OUMALIK	50-119-10005	69 50.30	155 59.40	4/23/50	194	18	8090.9	11852.
PEARD	50-301-20002	70 42.93	159 00.05	4/17/79	103	28	3042.1	10225.
S BARROW 1	50-023-10009	71 19.20	156 42.27	11/11/48	18	13	3042.	3553.
S BARROW 2	50-023-10010	71 15.82	156 38.05	4/05/50	35	11	1995.	2440.
S BARROW 3	50-023-10011	71 09.77	156 34.73	4/05/50	44	13	201.	2879.
S BARROW 6	50-023-10015	71 15.73	156 36.88	3/24/64	40	18	2346.	2360.
S BARROW 9	50-023-20003	71 16.07	156 36.88	4/15/70	29	16	2017.	2444.
S BARROW 12	50-023-20006	71 14.23	156 20.27	5/04/74	38	12	1966.	2285.
S BARROW 13	50-023-20008	71 15.23	156 37.66	1/17/77	40	18	2163.	2525.
S BARROW 16	50-023-20010	71 16.95	156 32.78	2/16/78	30	22	2395.	2395.
S BARROW 17	50-023-20011	71 14.02	156 15.57	4/13/79	33	26	2020.	2345.
S BARROW 18	50-023-20017	71 14.38	156 18.68	10/14/80	30	23	1360.2	1760.5
S BARROW 19	50-023-20012	71 14.48	156 20.03	5/16/78	30	20	1331.	2245.
S HARRISON BAY	50-103-20007	70 25.48	151 43.87	2/08/77	45	20	10613.	10625.
S MEADE	50-163-20001	70 36.90	156 53.40	1/22/79	60	20	3010.	9324.7
SEABEE	50-287-20007	69 22.82	152 10.52	4/15/80	322	28	5399.	14591.
SIMPSON	50-279-10032	70 57.20	155 21.87	6/09/68	29	14	5464.	7002.
SQUARE LAKE	50-119-10007	69 34.00	153 18.00	4/18/52	340	16	239.	3279.
TOPAGORUK	50-279-10033	70 37.50	155 53.60	9/28/51	42	14	6510.	10228.
TULAGEAK	50-023-20018	71 11.37	155 44.02	3/21/81	27	17	2940.	4006.9
TUNALIK	50-301-20001	70 12.35	161 04.15	1/70/80	110	30	3284.	17890.
W DEASE	50-023-20014	71 09.55	155 37.75	3/26/80	24	19	605.	4151.
W T FORAN	50-103-20010	70 49.93	152 18.18	4/24/77	39	26	7545.	8283.
WALAKPA 1	50-023-20013	71 05.97	156 53.07	2/07/80	50	19	257.	3666.
WALAKPA 2	50-023-20019	71 03.00	156 57.17	2/15/81	61	17	2611.	3750.

Table 2. Number of density samples in each well and rock unit

WELL NAME	NUMBER OF: DENSITIES	NUMBER OF: ROCK UNITS	COLVILLE	NANUSHUK	UPPER TOROK	LOWER TOROK	OKPIKRUAK	PEBBLE SHALE	PEBBLE SKIN GRAVEL	SAGAVANIRKTOK	SHUBUTHLUK	KUVIKLUK	ETIVLUK	ESCHOOKA	LISBURNE	ENDICOTT	BASEMENT
AVAK	29	3						10	12								7
AWUNA	6	2			1	5											
DREW POINT	26	6			2	3			2	3	8		6				2
E SIMPSON 1	22	5			1	2			7	3	2		7				
E SIMPSON 2	31	6		3	3			2		3			9			11	
IKPIKPUK	57	10		6	3	5		3	2		6		19		6	4	3
INIGOK	57	8		4	4	7			7		4		5	3	18	5	
J W DALTON	32	6		3	7			1					15		5		1
KUGRUA	6	3				1							4		1		
KUYANAK	36	4						24	7	4							
LISBURNE	49	4					12					7			28	2	
N INIGOK	9	3				3		3			3						
N KALIKPIK	18	3			4			8	6								
OUMALIK	22	2			3	16		3									
PEARD	25	8		2	4	1		1	6		4		3	3			1
S BARROW 1	17	3						15	1								1
S BARROW 2	9	2							6	3							
S BARROW 3	13	5			2	1		3	12	4							1
S BARROW 6	2	1							2								
S BARROW 9	12	2						6	6								
S BARROW 12	24	3							11		9						4
S BARROW 13	14	3						5	8								1
S BARROW 16	1	1															1
S BARROW 17	21	3							11		8						2
S BARROW 18	7	3			2			4	1								
S BARROW 19	16	3			5			4			7						
S HARRISON BAY	4	1													4		
S MEADE	31	6		1	4			6	11		2	7					
SEABEE	13	2			1	6		6									
SIMPSON	13	5		1				1	3	1	4						4
SQUARE LAKE	40	2	21	19													
TOPAGORUK	36	5				1		1	4				24			2	
TULAGEAK	20	5						2	9	3	4						2
TUNALIK	66	8		9	12			4	22		2		8	3		6	
W DEASE	21	5			5			2	9		4						1
W T FORAN	12	2									6				6		1
WALAKPA 1	40	5			2			20	13		4						1
WALAKPA 2	19	2						11	8								

Table 3.--Statistical summary of rock unit depths and densities

Rock unit	Geologic age	Number	Depths - feet Min.	Max.	Mean	Densities, g/cc Min.	Max.	Mean	Std. Dev.
COLVILLE	Late Cretaceous	21	239	1084	589	2.13	2.83	2.36	0.14
Sandstone	Late Cretaceous	16	239	667	498	2.13	2.83	2.35	0.16
Shale	Late Cretaceous	5	705	1084	878	2.38	2.44	2.42	0.03
NANUSHUK	Cretaceous	44	1655	5561	2886	2.09	2.70	2.46	0.14
TOROK, upper	Early Cretaceous	66	201	10502	4754	2.06	2.66	2.47	0.14
TOROK, lower	Early Cretaceous	57	3993	12037	7995	2.37	2.68	2.57	0.07
PEBBLE SHALE	Early Cretaceous	129	582	11852	3933	2.13	3.27	2.50	0.17
OKPIKRUAK	E. Cret. & L. Jur.	10	1557	5354	3374	2.57	2.66	2.62	0.03
KINGAK	E. Cret. & Jurassic	179	1388	14591	5138	2.03	3.07	2.49	0.17
J Shale	E. Cret. & Jurassic	38	7162	12591	10380	2.48	2.78	2.58	0.05
Sands	E. Cret. & Jurassic	18	2100	7867	6394	2.21	3.00	2.65	0.21
SAG RIVER	Triassic	66	2200	8869	5140	1.90	2.83	2.45	0.19
SHUBLIK	Triassic	48	2610	12276	6822	1.84	2.81	2.59	0.14
ETIVLUK	Jurassic to Penn.	15	6219	15339	11065	2.54	2.79	2.67	0.07
Otuk	Jurassic & Triassic	7	11163	11173	11168	2.58	2.75	2.65	0.06
IVISHAK	Triassic	103	7499	16260	10125	2.21	2.83	2.62	0.12
Kavik	Triassic	15	9585	16260	12655	2.67	2.74	2.69	0.02
ECHOOKA	Permian	13	9498	16949	13345	2.55	2.96	2.72	0.11
LISBURNE	Permian to Miss.	65	8042	17890	12857	2.42	3.03	2.69	0.09
ENDICOTT	Permian to Devonian	32	7167	20092	10535	2.23	2.78	2.57	0.12
Kayak Shale	Mississippian	1			10228			2.63	
Kekiktuk	Mississippian	5	19360	20092	19510	2.57	2.65	2.61	0.03
BASEMENT	Devonian & older	35	2260	15465	5374	2.07	2.81	2.63	0.15

Table 4a.--Density data sorted by wells (Avak and Awuna)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
AVAK	3	PEBBLE SHALE	582 M	2.30	SILTY SHALE
AVAK	4	PEBBLE SHALE	802 M	2.42	SILTY SHALE
AVAK	5	PEBBLE SHALE	1008 M	2.40	SILTY SHALE
AVAK	6	PEBBLE SHALE	1026 M	2.41	SILTY SHALE
AVAK	7	PEBBLE SHALE	1045 M	2.41	SILTY SHALE
AVAK	11	PEBBLE SHALE	1226 M	2.37	SILTY SHALE
AVAK	12	PEBBLE SHALE	1247 M	2.44	SILTY SHALE
AVAK	13	PEBBLE SHALE	1268 M	2.35	SILTY SHALE
AVAK	16	PEBBLE SHALE	1339 M	2.40	SILTY SHALE
AVAK	17	KINGAK	1388 M	2.45	SILTSTONE
AVAK	21	KINGAK	1563 M	2.27	SILTSTONE
AVAK	24	KINGAK	1645 M	2.33	SILTSTONE
AVAK	24	KINGAK	1675 M	2.41	SILTSTONE
AVAK	28	KINGAK	1742 M	2.16	SILTSTONE
AVAK	29	KINGAK	1759 M	2.37	SILTSTONE
AVAK	30	KINGAK	1773 M	2.21	SILTSTONE
AVAK	34	KINGAK	1844 M	2.34	SILTSTONE
AVAK	41	KINGAK	2017 M	2.43	SILTSTONE
AVAK	44	KINGAK	2063 M	2.30	SILTSTONE
AVAK	46	KINGAK	2172 M	2.43	SILTSTONE
AVAK	50	KINGAK	2289 M	2.29	SILTSTONE & PEBBLES
AVAK	52	BASEMENT	2321 M	2.07	ARGILLITE, SMALL PIECES
AVAK	55	BASEMENT	2598 M	2.58	ARGILLITE
AVAK	57	BASEMENT	2863 M	2.44	ARGILLITE, SMALL PIECES
AVAK	58	BASEMENT	2997 M	2.43	ARGILLITE, SMALL PIECES
AVAK	59	BASEMENT	3152 M	2.45	ARGILLITE, SMALL PIECES
AVAK	62	BASEMENT	3576 M	2.61	ARGILLITE, SMALL PIECES
AVAK	64	BASEMENT	4010 M	2.67	ARGILLITE, SMALL PIECES
AWUNA	1/1	TOROK, UPPER	2450.2	2.55	SILTY SHALE
AWUNA	1/2	TOROK, LOWER	3667.5	2.61	SILTY SHALE
AWUNA	2	TOROK, LOWER	3666.5	2.53	FINE SANDSTONE
AWUNA	2/3	TOROK, LOWER	3676.	2.62	SILTY SHALE W/SLICKENSIDES
AWUNA	3	TOROK, LOWER	6014.	2.68	SILTSTONE
AWUNA	3	TOROK, LOWER	6021.	2.66	SILTY SHALE W/SLICKENSIDES
AWUNA	3	TOROK, LOWER	6028.	2.68	SILTY SHALE

Table 4b.--Density data sorted by wells (Drew Point)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
DREW POINT	1	TOROK, UPPER	4130.	2.37	SILTY SHALE
DREW POINT	1	TOROK, UPPER	4136.	2.40	MUDDY SHALE
DREW POINT	2	TOROK, LOWER	5530.	2.54	FINE CROSSBEDDED SAND
DREW POINT	3	TOROK, LOWER	5903.5	2.50	VERY FINE CALCAREOUS SAND
DREW POINT	3	TOROK, LOWER	5908.2	2.54	SILTY SHALE
DREW POINT	4	KINGAK-SAND	6924.5	2.62	SILTY SHALE
DREW POINT	5	KINGAK-SAND	6936.5	2.60	SILTY SHALE
DREW POINT	7	SAG RIVER	6979.	2.59	SILTY SHALE
DREW POINT	7	SAG RIVER	6994.	2.48	SILTY SHALE
DREW POINT	7	SAG RIVER	7005.	2.83	FINE CALCAREOUS SAND
DREW POINT	8	SHUBLIK	7093.	2.60	CALCAREOUS SILTY SHALE
DREW POINT	9	SHUBLIK	7352.3	2.58	SILTY SHALE
DREW POINT	9	SHUBLIK	7366.2	2.59	SLIGHTLY CALC SILTY SHALE
DREW POINT	9	SHUBLIK	7374.	2.58	SILTY SHALE
DREW POINT	9	SHUBLIK	7376.	2.59	SLIGHTLY CALC SILTY SHALE
DREW POINT	10	SHUBLIK	7545.5	2.67	LIMESTONE
DREW POINT	10	SHUBLIK	7563.	2.62	SILTY SHALE W/MICA, CALC FIL
DREW POINT	10	IVISHAK	7572.	2.63	SILTY SHALE W/PEBBLES
DREW POINT	11	IVISHAK	7573.	2.75	SILTY SHALE W/PEBBLES
DREW POINT	11	IVISHAK	7574.2	2.59	SILTY SHALE
DREW POINT	11	IVISHAK	7575.2	2.73	SILTY SHALE
DREW POINT	12	IVISHAK	7627.4	2.52	SILTY SHALE
DREW POINT	14	IVISHAK	7803.	2.43	FINE SANDY SHALE
DREW POINT	14	IVISHAK	7813.	2.45	OIL STAINED FINE SAND
DREW POINT	15	BASEMENT	7882.	2.74	ARGILLITE
DREW POINT	15	BASEMENT	7901.	2.75	ARGILLITE

Table 4c.--Density data sorted by wells (E Simpson 1 & 2)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
E SIMPSON #1	1/2	NANUSHUK	2679.	2.22	CLAY SHALE POROUS & FRIABLE
E SIMPSON #1	4/1	TOROK, LOWER	5123.	2.56	SHALE
E SIMPSON #1	4/2	TOROK, LOWER	5129.	2.37	SLIGHTLY CALC FINE SANDSTONE
E SIMPSON #1	5	SAG RIVER	6815.	2.59	MUDSTONE
E SIMPSON #1	5	SAG RIVER	6817.6	2.59	SANDSTONE
E SIMPSON #1	5/3	SAG RIVER	6825.	2.51	SANDSTONE
E SIMPSON #1	5	SAG RIVER	6828.	2.61	MUDSTONE
E SIMPSON #1	5	SAG RIVER	6840.2	2.68	SANDSTONE
E SIMPSON #1	5	SAG RIVER	6850.	2.53	SANDSTONE
E SIMPSON #1	5	SAG RIVER	6857.5	2.77	MUDSTONE
E SIMPSON #1	6	SAG RIVER	6898.	2.57	MUDSTONE
E SIMPSON #1	6	SAG RIVER	6898.5	2.67	FOSSILIFEROUS SANDSTONE
E SIMPSON #1	6	SAG RIVER	6902.	2.55	SANDSTONE POROUS
E SIMPSON #1	7/1	SHUBLIK	7426.	2.64	CALCAREOUS SANDSTONE
E SIMPSON #1	7/2	SHUBLIK	7436.	2.68	SANDSTONE-CALCAREOUS
E SIMPSON #1	8/7	IVISHAK	7499.	2.67	CONGLOMERATE POROUS
E SIMPSON #1	8	IVISHAK	7508.	2.62	CONGLOMERATE VERY POROUS
E SIMPSON #1	9	IVISHAK	7565.5	2.59	MED SANDSTONE POROUS
E SIMPSON #1	9	IVISHAK	7567.5	2.46	SANDSTONE COAL INTERBEDS POR
E SIMPSON #1	9	IVISHAK	7581.	2.56	FINE SANDSTONE POROUS
E SIMPSON #1	9	IVISHAK	7588.	2.61	SANDSTONE & CONGLOMERATE POR
E SIMPSON #1	9	IVISHAK ?	7591.	2.75	SHALE SLIGHTLY POROUS
E SIMPSON #1	10	BASEMENT	7729.	2.70	SHALE-ARGILLITE
E SIMPSON #2	1/1	NANUSHUK	2380.5	2.17	MUDSTONE,FALLS APART & POROUS
E SIMPSON #2	1/2	NANUSHUK	2389.	2.37	MEDIUM SANDSTONE, VERY POROUS
E SIMPSON #2	1/4	NANUSHUK	2399.5	2.39	MUDDY SANDSTONE, POROUS
E SIMPSON #2	2/1	TOROK, UPPER	6059.	2.51	FINE SANDSTONE BLK INTERBEDS
E SIMPSON #2	2/2	TOROK, UPPER	6065.	2.41	MEDIUM SANDSTONE
E SIMPSON #2	2/4	TOROK, UPPER	6073.5	2.52	FINE SANDSTONE & MUDSTONE
E SIMPSON #2	3/1	PEBBLE SHALE	6342.	2.58	BLACK SHALE W/PYRITE NODULES
E SIMPSON #2	3/5	PEBBLE SHALE	6366.	2.58	BLACK SHALE W/CHERT PEBBLES
E SIMPSON #2	4/1	SAG RIVER	6705.5	2.54	FINE SANDSTONE-POROUS
E SIMPSON #2	4/4	SAG RIVER	6726.5	2.52	FINE SANDSTONE, POROUS
E SIMPSON #2	4/5	SAG RIVER	6733.	2.49	FINE SANDSTONE, POROUS
E SIMPSON #2	5/1	ENDICOTT	7167.	2.43	FINE SANDSTONE
E SIMPSON #2	5/2	ENDICOTT	7174.	2.60	GOUGED FINE SND-MUDSHALE,POR
E SIMPSON #2	5/2	ENDICOTT	7174.5	2.23	MED SNDSTN-SMELL LIKE KEROS
E SIMPSON #2	5/3	ENDICOTT	7182.	2.36	COARSE SANDSTONE, POROUS
E SIMPSON #2	5	ENDICOTT	7182.3	2.58	SANDY-MUDDY SHALE
E SIMPSON #2	5	ENDICOTT	7186.5	2.63	SILTY SHALE
E SIMPSON #2	5	ENDICOTT	7190.5	2.45	MED SANDSTONE,POROUS
E SIMPSON #2	5	ENDICOTT	7191.2	2.31	GOUGED SILTY SHALE W/COAL
E SIMPSON #2	5	ENDICOTT	7196.	2.62	SILTY SHALE
E SIMPSON #2	6	ENDICOTT	7201.2	2.49	SILTY SHALE W/COAL & PYRITE
E SIMPSON #2	6	ENDICOTT	7203.	2.53	SILTSTONE
E SIMPSON #2	6/5	ENDICOTT	7221.5	2.60	GOUGED MUDDY SHALE
E SIMPSON #2	7/1	ENDICOTT	7253.	2.41	COARSE SANDSTONE, POROUS
E SIMPSON #2	7/2	ENDICOTT	7259.	2.42	COARSE SANDSTONE, POROUS
E SIMPSON #2	7/4	ENDICOTT	7268.	2.61	SILTY SHALE
E SIMPSON #2	8/1	ENDICOTT	7297.	2.57	SILTSTONE
E SIMPSON #2	8/3	ENDICOTT	7310.	2.62	SILTSTONE
E SIMPSON #2	8/6	ENDICOTT	7324.5	2.60	SILTSTONE
E SIMPSON #2	8/7	ENDICOTT	7331.	2.56	GOUGED SILTSTONE
E SIMPSON #2	8/10	ENDICOTT	7346.	2.63	SILTSTONE, POROUS

Table 4d.--Density data sorted by wells (Ikpikpuk)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
IKPIKPUK	1/1	NANUSHUK	2930.	2.31	MUDDY SHALE, VERY FRIABLE
IKPIKPUK	1/2	NANUSHUK	2936.	2.33	MUDDY SHALE, VERY FRIABLE
IKPIKPUK	1/3	NANUSHUK	2939.	2.27	SILTY SHALE
IKPIKPUK	1/4	NANUSHUK	2947.	2.31	MUDDY SHALE,CRUMBLES WHEN WET
IKPIKPUK	1/5	TOROK	2950.5	2.40	MUDDY SHALE,CRUMBLES WHEN WET
IKPIKPUK	1/6	TOROK	2960.5	2.39	MUDDY SHALE,CRUMBLES WHEN WET
IKPIKPUK	2/1	TOROK, UPPER	3787.	2.45	SILTY SHALE
IKPIKPUK	2/3	TOROK, UPPER	3799.5	2.47	SILTY SHALE
IKPIKPUK	2/5	TOROK, UPPER	3810.	2.48	SILTY SHALE
IKPIKPUK	3/1	TOROK, LOWER	5690.5	2.60	SILTY SHALE
IKPIKPUK	3/2	TOROK, LOWER	5697.	2.58	SILTY SHALE
IKPIKPUK	4/1	TOROK, LOWER	7136.	2.62	SILTY SHALE
IKPIKPUK	4/2	TOROK, LOWER	7138.	2.37	SANDSTONE
IKPIKPUK	4/2	TOROK, LOWER	7141.5	2.61	SILTY SHALE
IKPIKPUK	5/1	PEBBLE SHALE	7369.	2.60	PEBBLE SHALE
IKPIKPUK	5/1	PEBBLE SHALE	7374.	2.60	PEBBLE SHALE
IKPIKPUK	5/2	PEBBLE SHALE	7374.5	2.62	BLACK SHALE/SILTY INTERBEDS
IKPIKPUK	6/1	KINGAK-J SHALE	7495.	2.60	BLACK SHALE
IKPIKPUK	6/2	KINGAK-J SHALE	7501.	2.56	BLACK SHALE
IKPIKPUK	7/1	SHUBLIK	10270.5	2.59	FOSSILIFEROUS SHALE
IKPIKPUK	7/2	SHUBLIK	10274.5	2.66	FOSSILIFEROUS SHALE
IKPIKPUK	7/3	SHUBLIK	10283.5	2.59	FOSSILIFEROUS SHALE
IKPIKPUK	7/4	SHUBLIK	10289.	2.59	FOSSILIFEROUS SHALE
IKPIKPUK	7/5	SHUBLIK	10294.5	2.66	FOSSILIFEROUS SHALE
IKPIKPUK	7/6	SHUBLIK	10300.	2.67	FOSSILIFEROUS SHALE
IKPIKPUK	8/1	IVISHAK	10619.5	2.59	FINE-GRAN SANDSTONE, V POROUS
IKPIKPUK	8/2	IVISHAK	10621.	2.76	FINE-GRAN SANDSTONE, V POROUS
IKPIKPUK	8/3	IVISHAK	10629.	2.52	FINE-GRAIN MASSIVE SANDSTONE
IKPIKPUK	8/4	IVISHAK	10633.5	2.67	FINE-GRAIN SANDSTONE, IMPERM
IKPIKPUK	8/5	IVISHAK	10639.5	2.62	FINE-GRAIN SANDSTONE MUD LEN
IKPIKPUK	8/6	IVISHAK	10647.5	2.64	FINEGRAIN SANDSTONE, POR, PER
IKPIKPUK	9/1	IVISHAK	10815.	2.63	FINEGRAIN SANDSTONE, POR, PER
IKPIKPUK	9/2	IVISHAK	10820.	2.59	FINEGRAIN SANDSTONE, POROUS
IKPIKPUK	9/2	IVISHAK	10823.	2.51	MEDIUM-GRAINED SANDSTONE
IKPIKPUK	9/3	IVISHAK	10824.	2.59	SANDSTONE POORLY SORTED, POR
IKPIKPUK	9/3	IVISHAK	10828.	2.60	SANDSTONE POORLY SORTED, POR
IKPIKPUK	9/4	IVISHAK	10830.5	2.68	FINEGRAIN SANDSTONE/MUD LENS
IKPIKPUK	9/4	IVISHAK	10833.5	2.57	FINE-GRAINED SANDSTONE
IKPIKPUK	9/5	IVISHAK	10838.5	2.67	FINEGRAIN SANDSTONE/MUD PODS
IKPIKPUK	10/1	IVISHAK, KAVIK	11108.	2.69	SILTSTONE (ARGILLITE)
IKPIKPUK	10/2	IVISHAK, KAVIK	11118.	2.69	SILTSTONE (ARGILLITE)
IKPIKPUK	10/3	IVISHAK, KAVIK	11120.	2.69	SILTSTONE (ARGILLITE)
IKPIKPUK	10/4	IVISHAK, KAVIK	11126.	2.69	SILTSTONE (ARGILLITE)
IKPIKPUK	10/5	IVISHAK, KAVIK	11135.	2.71	SILTSTONE (ARGILLITE)
IKPIKPUK	11/1	LISBURNE	11719.	2.69	SEMI SCHISTOSE META SED
IKPIKPUK	11/1	LISBURNE	11724.	2.67	CALCITE (FOSSILS) POROUS
IKPIKPUK	12/1	LISBURNE	12746.	2.71	META-SED
IKPIKPUK	12/2	LISBURNE	12749.	2.70	SEMI SCHISTOSE MED SED
IKPIKPUK	12/2	LISBURNE	12753.	2.66	META-SED
IKPIKPUK	13/1	ENDICOTT	14971.5	2.78	RED META MUDSTONE
IKPIKPUK	13/1	ENDICOTT	14976.5	2.72	RED BRECCIATED QUARTZITE
IKPIKPUK	13/2	ENDICOTT	14977.5	2.71	META BRECCIATED SANDSTONE
IKPIKPUK	13/2	ENDICOTT	14983.	2.69	RED BEDDED QUARTZITE
IKPIKPUK	13/2	ENDICOTT	14985.5	2.68	RED MASSIVE QUARTZITE
IKPIKPUK	14/1	BASEMENT	15421.	2.75	FRACTURED QUARTZITE
IKPIKPUK	16/1	BASEMENT	15465.	2.67	FRACTURED QUARTZITE
IKPIKPUK	16/1	BASEMENT	15465.	2.64	FRACTURED QUARTZITE

Table 4e. Density data sorted by wells (Inigok)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
INIGOK	1/1	NANUSHUK	2637.7	2.55	VERY FINE SANDSTONE
INIGOK	1/3	NANUSHUK	2649.	2.40	SILTSTONE
INIGOK	1/6	NANUSHUK	2661.	2.47	SANDY SHALE
INIGOK	2/2	NANUSHUK	3084.	2.54	FINE SANDSTONE, VERY POROUS
INIGOK	3/1	TOROK, UPPER	4212.	2.48	SILTY SHALE
INIGOK	4/1	TOROK, UPPER	5006.	2.55	SILTY SHALE
INIGOK	4	TOROK, UPPER	5007.5	2.55	SILTSTONE
INIGOK	5/1	TOROK, UPPER	7059.8	2.60	SILTY SHALE
INIGOK	5/2	TOROK, LOWER	7064.3	2.61	SILTY SHALE
INIGOK	6/1	TOROK, LOWER	8216.	2.68	FINE SANDSTONE, POROUS
INIGOK	6/2	TOROK, LOWER	8220.	2.59	SANDY SHALE
INIGOK	6/3	TOROK, LOWER	8227.4	2.66	FINE SANDSTONE, POROUS
INIGOK	6/4	TOROK, LOWER	8231.5	2.57	FINE SANDSTONE, POROUS
INIGOK	6/5	TOROK, LOWER	8236.6	2.49	V FINE SANDY SHALE W/SOME TAR
INIGOK	7	TOROK, LOWER	8851.8	2.63	BLACK SHALE W/PYRITE
INIGOK	8/2	KINGAK-J SHALE	9342.1	2.55	SILTY SHALE
INIGOK	8	KINGAK-J SHALE	9345.	2.55	SILTY SHALE
INIGOK	9/1	KINGAK-J SHALE	9448.7	2.58	SILTY SHALE
INIGOK	9/2	KINGAK-J SHALE	9455.8	2.57	SILTY SHALE
INIGOK	11/1	KINGAK-J SHALE	10998.	2.61	FINE SILTY SHALE W/PEBBLES
INIGOK	12/1	KINGAK-J SHALE	11707.	2.56	BLACK SILTY SHALE
INIGOK	12/2	KINGAK-J SHALE	11710.	2.56	BLACK SILTY SHALE
INIGOK	13/1	SHUBLIK	12273.5	2.57	BANDED SILTY SHALE
INIGOK	13/1	SHUBLIK	12276.5	2.61	SAND LENS IN FOSSILIFEROUS SH
INIGOK	14/1	IVISHAK	12500.	2.71	SILTY SHALE
INIGOK	14/5	IVISHAK	12529.	2.70	SILTY SHALE
INIGOK	15/2	IVISHAK	12711.	2.66	LT GREY, FINE GRAN ARGILLITE
INIGOK	15/4	IVISHAK	12730.	2.70	BANDED SILTY SHALE
INIGOK	16/3	IVISHAK, KAVIK	13469.	2.74	FINE SILTY SHALE
INIGOK	16/1	IVISHAK, KAVIK	13485.	2.71	BANDED SILTY SHALE
INIGOK	16/6	IVISHAK, KAVIK	13508.	2.71	SILTY SHALE
INIGOK	17	ECHOOKA	13842.	2.67	SILTY SHALE
INIGOK	17	ECHOOKA	13848.	2.68	SILTY SHALE
INIGOK	17	ECHOOKA	13849.5	2.78	LIMESTONE
INIGOK	17/5	ECHOOKA	13855.5	2.96	SILTY SHALE
INIGOK	17	ECHOOKA	13865.	2.72	LIMEY SHALE
INIGOK	17	ECHOOKA	13873.	2.67	SILTY SHALE W/LIMESTONE LENS
INIGOK	18	LISBURNE	14021.5	2.71	LIMEY SHALE W/SHELL FRAGMENTS
INIGOK	18	LISBURNE	14037.	2.71	SILTY SHALE W/SOME CALCITE
INIGOK	18	LISBURNE	14040.4	2.67	LIMESTONE
INIGOK	18	LISBURNE	14042.	2.71	BLACK LIMESTONE W/WHITE INCLU
INIGOK	18	LISBURNE	14049.	2.68	SILTY SHALE W/CALCITE
INIGOK	18	LISBURNE	14059.8	2.71	LIMESTONE
INIGOK	18	LISBURNE	14065.6	2.71	LIMESTONE
INIGOK	19	LISBURNE	15186.5	2.73	LIMESTONE
INIGOK	19	LISBURNE	15193.	2.74	BLACK SILTY SHALE W/LIMESTONE
INIGOK	19	LISBURNE	15210.	2.72	LIMESTONE
INIGOK	20	LISBURNE	16194.8	2.73	LIMESTONE
INIGOK	20	LISBURNE	16197.3	2.69	LIMESTONE
INIGOK	21	LISBURNE	17058.5	2.77	SILTY SHALE
INIGOK	21	LISBURNE	17069.5	2.72	LIMESTONE
INIGOK	21	LISBURNE	17081.	2.70	SILTY SHALE-LIMESTONE
INIGOK	22	ENDICOTT, KEKIK.	19360.	2.57	
INIGOK	22	ENDICOTT, KEKIK.	19363.4	2.59	
INIGOK	22	ENDICOTT, KEKIK.	19366.5	2.65	
INIGOK	22	ENDICOTT, KEKIK.	19369.	2.60	
INIGOK	23	ENDICOTT, KEKIK.	20092.	2.62	BLACK SILTY SHALE

Table 4f.--Density data sorted by wells (J W Dalton & Kugrua)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
J W DALTON	1	NANUSHUK	3503.	2.09	MUDSTONE, VERY POROUS
J W DALTON	1	NANUSHUK	3514.	2.22	MUDSTONE, VERY POROUS
J W DALTON	1	NANUSHUK	3529.	2.20	MUDSTONE, VERY POROUS
J W DALTON	2	TOROK, UPPER	4667.4	2.34	V FINE SANDSTONE, SILTY SHALE
J W DALTON	2	TOROK, UPPER	4681.	2.33	FINE SANDY SHALE, POROUS
J W DALTON	2	TOROK, UPPER	4689.	2.41	FINE SANDY SHALE, PYROBITUMEN
J W DALTON	2	TOROK, UPPER	4690.5	2.29	FINE SAND & SILTY SHALE, POR
J W DALTON	2	TOROK, UPPER	4694.5	2.37	SILTY SHALE
J W DALTON	3	TOROK, LOWER	5609.	2.46	SILTY SHALE
J W DALTON	4	TOROK, LOWER	6585.	2.52	SILTY SHALE
J W DALTON	5	PEBBLE SHALE	7525.	2.50	BLACK SILTY SHALE W/QUARTZ
J W DALTON	6	IVISHAK	7970.	2.25	OIL STAINED MED SAND
J W DALTON	6	IVISHAK	7973.	2.34	MEDIUM SANDSTONE, POROUS
J W DALTON	6	IVISHAK	7990.	2.37	COARSE SAND W/PEBBLES
J W DALTON	6	IVISHAK	7993.	2.32	OIL STAINED MED SAND
J W DALTON	6	IVISHAK	7996.	2.33	OIL STAINED MED SAND
J W DALTON	6	IVISHAK	7996.5	2.37	OIL STAINED MED SAND
J W DALTON	6	IVISHAK	7997.5	2.71	SILTY SHALE
J W DALTON	7	IVISHAK	8072.	2.67	CLAY SHALE
J W DALTON	7	IVISHAK	8073.	2.45	PEBBLE CONG W/COARSE SAND CEM
J W DALTON	7	IVISHAK	8074.	2.40	FINE SAND W/PEBBLES
J W DALTON	9	IVISHAK	8134.	2.36	MED SANDSTONE
J W DALTON	9	IVISHAK	8137.5	2.36	MED SAND W/SMALL PEBBLES,POR
J W DALTON	10	IVISHAK	8173.5	2.31	FINE SANDSTONE, POROUS
J W DALTON	10	IVISHAK	8194.	2.21	FINE SANDY SHALE W/LAYER COAL
J W DALTON	10	IVISHAK	8199.	2.43	FINE SANDY SHALE
J W DALTON	11	LISBURNE	8319.	2.48	OIL SOAKED CALC FINE SAND
J W DALTON	11	LISBURNE	8331.	2.65	FINE CALCAREOUS SANDSTONE
J W DALTON	12	LISBURNE	8520.	2.49	TAR STAINED FINE CALC SAND
J W DALTON	12	LISBURNE	8534.5	2.49	FINE CALCAREOUS SAND
J W DALTON	12	LISBURNE	8539.5	2.64	RED SILTY SHALE
J W DALTON	13	BASEMENT	9359.	2.74	ARGILLITE
KUGRUA	1/1	KINGAK	7202.	2.59	SILTSTONE
KUGRUA	2/1	IVISHAK	10480.	2.69	ARGILLITE
KUGRUA	2/2	IVISHAK	10487.	2.69	ARGILLITE-SLATE
KUGRUA	2/3	IVISHAK	10498.	2.67	ARGILLITE-SLATE
KUGRUA	2/4	IVISHAK	10503.5	2.69	ARGILLITE-SLATE
KUGRUA	3/1	ECHOOKA	11031.	2.70	FINE SANDSTONE-ARGILLITE

Table 4g.--Density data sorted by wells (Kuyanak)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
KUYANAK	1	PEBBLE SHALE	4969.	2.59	SILTY SHALE
KUYANAK	1	PEBBLE SHALE	5029.	2.53	SILTY SHALE
KUYANAK	2	PEBBLE SHALE	5069.	2.52	SILTY SANDSTONE
KUYANAK	2	PEBBLE SHALE	5069.5	2.52	CONGLOMERATE
KUYANAK	2	PEBBLE SHALE	5072.5	2.51	CONGLOMERATE
KUYANAK	2	PEBBLE SHALE	5073.	3.27	SILICIFIED SHALE SLICKENSIDED
KUYANAK	2	PEBBLE SHALE	5074.	2.57	SILTY SHALE-FELL APART WET
KUYANAK	3	PEBBLE SHALE-SND	5095.	2.66	FINE SANDSTONE
KUYANAK	3	PEBBLE SHALE-SND	5099.7	2.54	FINE SANDSTONE
KUYANAK	3	PEBBLE SHALE-SND	5104.1	2.62	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5111.	2.42	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5114.5	2.59	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5116.	2.44	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5118.7	2.50	FINE SANDSTONE, POROUS
KUYANAK	3	PEBBLE SHALE-SND	5120.	2.70	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5124.	2.44	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5128.	2.44	FINE SANDSTONE
KUYANAK	3	PEBBLE SHALE-SND	5133.	2.48	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5136.	2.39	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5138.	2.56	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5144.5	2.53	FINE SANDSTONE
KUYANAK	3	PEBBLE SHALE-SND	5151.	2.39	FINE SANDSTONE, VERY POROUS
KUYANAK	4	PEBBLE SHALE-SND	5163.	2.64	FINE SANDSTONE, VERY POROUS
KUYANAK	4	PEBBLE SHALE-SND	5164.	2.66	MED-FINE SAND, POROUS
KUYANAK	4	KINGAK	5164.5	2.65	CONGLOMERATE
KUYANAK	4	KINGAK-SAND	5164.5	2.72	SILTSTONE W/PYRITE NODULE
KUYANAK	4	KINGAK	5168.	2.56	
KUYANAK	4	KINGAK	5173.	2.60	SILTSTONE
KUYANAK	5	KINGAK-SAND	6204.	2.65	VERY FINE SANDSTONE
KUYANAK	5	KINGAK-SAND	6209.	2.60	SILTSTONE
KUYANAK	5	KINGAK-SAND	6220.	2.56	SILTSTONE
KUYANAK	6	SAG RIVER	6254.5	2.55	SILTSTONE, VERY POROUS
KUYANAK	6	SAG RIVER	6260.5	2.76	SILTSTONE
KUYANAK	6	SAG RIVER	6281.	2.48	GREENISH FOSSILIF SILTSTONE
KUYANAK	6	SAG RIVER	6308.	2.60	SILTSTONE
KUYANAK	7	BASEMENT	6689.	2.71	ARGILLITE

Table 4h.--Density data sorted by wells (Lisburne)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
LISBURNE	1/1	OKPIKRUAK	1557.	2.64	FINE GRAIN SILTSTONE/SML BUB
LISBURNE	2/1	OKPIKRUAK	2075.	2.63	PEBBLE CONG-NO BUBBLES
LISBURNE	2/2	OKPIKRUAK	2083.	2.61	PEBBLE CONG-NO BUBBLES
LISBURNE	2/3	OKPIKRUAK	2090.5	2.62	PEBBLE CONG,SILTSTONE-NO BUB
LISBURNE	3/1	OKPIKRUAK	2991.	2.61	SILTSTONE-NO BUBBLES
LISBURNE	3/2	OKPIKRUAK	2998.	2.63	SILTSTONE-NO BUBBLES
LISBURNE	4/1	OKPIKRUAK	3904.	2.60	META PEBBLE CONG-FALLS APART
LISBURNE	5/1	OKPIKRUAK	5343.	2.64	META SILTSTONE-FALLS APART
LISBURNE	5/2	OKPIKRUAK	5350.	2.57	META SILTSTONE-FALLS APART
LISBURNE	5/3	OKPIKRUAK	5354.	2.66	META?SANDSTONE & SILTSTONE
LISBURNE	6/2	ETIVLUK	6219.	2.65	META-SILTSTONE? NO BUBBLES
LISBURNE	6/1	ETIVLUK	6224.	2.63	META SILTSTONE-NO BUBBLES
LISBURNE	7/6	LISBURNE	8042.	2.51	SILTSTONE-NO BUBBLES
LISBURNE	7/5	LISBURNE	8046.5	2.78	DOLOMITE?
LISBURNE	7/4	LISBURNE	8053.	2.64	DOLOMITE?
LISBURNE	7/3	LISBURNE	8057.	2.78	DOLOMITE?
LISBURNE	7/2	LISBURNE	8062.5	2.75	DOLOMITE?
LISBURNE	7/1	LISBURNE	8067.	2.62	DOLOMITE?? LIGHT BUBBLES
LISBURNE	8/2	ETIVLUK	8732.	2.54	META SILTSTONE
LISBURNE	8/1	ETIVLUK	8738.	2.69	META SED
LISBURNE	9/3	LISBURNE	9732.	2.64	META SED
LISBURNE	9/2	LISBURNE	9733.	2.65	META SED
LISBURNE	9/2	LISBURNE	9738.	2.69	DOLOMITE
LISBURNE	10/1	ETIVLUK	11163.3	2.62	DOLOMITE
LISBURNE	10/1	ETIVLUK	11165.2	2.75	META SED
LISBURNE	10/1	ETIVLUK	11166.5	2.69	META SED
LISBURNE	10/2	ETIVLUK	11168.	2.69	META SED
LISBURNE	10/2	ETIVLUK	11169.5	2.62	META SED W/CALCITE VEINS
LISBURNE	10/2	ETIVLUK	11170.8	2.60	META SED W/CALCITE VEINS
LISBURNE	10/2	ETIVLUK	11172.5	2.58	META SED W/CALCITE VEINS
LISBURNE	11/1	LISBURNE	11686.5	2.79	META SILTSTONE
LISBURNE	11/1	LISBURNE	11689.	2.71	FRAC META SANDSTONE GRANULAR
LISBURNE	12/1	ETIVLUK	13603.	2.72	
LISBURNE	12/2	ETIVLUK	13608.	2.71	
LISBURNE	13/1	LISBURNE	13859.	2.69	
LISBURNE	13/1	LISBURNE	13863.	2.66	
LISBURNE	13/2	LISBURNE	13869.	2.68	
LISBURNE	14/1	ETIVLUK	15329.	2.71	BUBBLES
LISBURNE	14/2	ETIVLUK	15339.	2.79	
LISBURNE	16/1	LISBURNE	15656.	2.73	BUBBLES
LISBURNE	17/1	LISBURNE	15905.	2.68	
LISBURNE	18/1	LISBURNE	16305.	2.80	
LISBURNE	18/2	LISBURNE	16312.5	2.76	BUBBLES
LISBURNE	18/3	LISBURNE	16318.	2.78	
LISBURNE	18/3	LISBURNE	16321.5	3.03	DOLOMITE
LISBURNE	19/1	LISBURNE	16860.	2.66	
LISBURNE	19/2	LISBURNE	16870.	2.67	
LISBURNE	20/1	LISBURNE	16983.	2.68	
LISBURNE	20/2	LISBURNE	16996.5	2.68	

Table 4i.--Density data sorted by wells (N Inigok & N Kalikpik)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
N INIGOK	3	TOROK, LOWER	6852.	2.63	GREY LAYERED SILTY SHALE
N INIGOK	3	TOROK, LOWER	6855.	2.62	GREY LAYERED SILTY SHALE
N INIGOK	3	TOROK, LOWER	6864.	2.62	GREY LAYERED SILTY SHALE
N INIGOK	4	PEBBLE SHALE	7490.	2.49	BLACK SILTY SHALE W/QUARTZ
N INIGOK	4	PEBBLE SHALE	7499.5	2.51	BLACK SILTY SHALE W/QUARTZ
N INIGOK	4	PEBBLE SHALE	7501.	2.51	BLACK SILTY SHALE W/QUARTZ
N INIGOK	6	SHUBLIK	10162.	2.58	BLACK LIMESTONE W/FOSSILS
N INIGOK	6	SHUBLIK	10167.	2.61	BLACK LIMESTONE W/FOSSILS
N INIGOK	6	SHUBLIK	10168.3	2.66	BLACK LIMESTONE
N KALIKPIK	1/1	TOROK, UPPER	3812.	2.35	GREY MUDDY SHALE
N KALIKPIK	2/1	TOROK, UPPER	4997.	2.50	GREY SHALE FALLS APART
N KALIKPIK	3/1	TOROK, UPPER	5871.	2.56	GREY SHALE
N KALIKPIK	4/2	TOROK, UPPER	6707.	2.60	BLACK SHALE&FINE X-BED SNDSTN
N KALIKPIK	5/1	PEBBLE SHALE	6993.5	2.52	BLACK SHALE W/QUARTZ FLOATERS
N KALIKPIK	5/2	PEBBLE SHALE	6996.2	2.53	BLACK SHALE W/QUARTZ FLOATERS
N KALIKPIK	6/3	PEBBLE SHALE	7039.	2.48	BLACK SHALE W/QUARTZ FLOATERS
N KALIKPIK	7/1	PEBBLE SHALE	7052.5	2.83	BLK & BRWN SHALE W/PYRITE
N KALIKPIK	7/5	PEBBLE SHALE	7074.	2.88	IRONSTAIN BLK SHALE, MUD LEN
N KALIKPIK	7/11	PEBBLE SHALE	7103.5	2.54	BLACK SHALE W/SMALL PEBBLES
N KALIKPIK	9/1	PEBBLE SHALE	7138.	2.55	BROWN SHALE W/PYRITE
N KALIKPIK	10/3	PEBBLE SHALE	7154.7	2.57	BROWNISH BLACK SHALE
N KALIKPIK	11/1	KINGAK-J SHALE	7162.5	2.58	BLACK SHALE W/SML MUD LENSES
N KALIKPIK	12/1	KINGAK-J SHALE	7164.	2.56	BLACK SHALE W/SML MUD LENSES
N KALIKPIK	13/1	KINGAK-J SHALE	7166.5	2.57	BLACK SHALE W/SML MUD LENSES
N KALIKPIK	14/1	KINGAK-J SHALE	7168.5	2.57	BLACK SHALE W/SML MUD LENSES
N KALIKPIK	15/2	KINGAK-J SHALE	7206.	2.57	BLACK SHALE W/SML MUD LENSES
N KALIKPIK	17/1	KINGAK-J SHALE	7395.	2.58	SHALE W/CONCRET & SML MUD LEN

Table 4j.--Density data sorted by wells (Oumalik & Peard)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
OUMALIK	75	TOROK, UPPER	8090.	2.56	SHALE
OUMALIK	76	TOROK, UPPER	8284.	2.59	INTERBEDDED SHALE
OUMALIK	77	TOROK, UPPER	8492.	2.56	FINE GRAIN SHALE FALLS APART
OUMALIK	78	TOROK, LOWER	8691.	2.58	INTERBEDDED SHALE
OUMALIK	79	TOROK, LOWER	8917.	2.57	SILTSTONE
OUMALIK	82	TOROK, LOWER	9278.	2.43	SANDSTONE BUBBLES
OUMALIK	83/1	TOROK, LOWER	9537.	2.59	SILTY SHALE
OUMALIK	83/1	TOROK, LOWER	9542.	2.49	SANDSTONE
OUMALIK	83/2	TOROK, LOWER	9544.	2.49	SANDSTONE
OUMALIK	83/3	TOROK, LOWER	9552.	2.59	SANDSTONE
OUMALIK	84/1	TOROK, LOWER	9825.	2.58	FINE GRAIN SHALE
OUMALIK	84/1	TOROK, LOWER	9829.	2.58	SILTY SHALE SOME SOFT SPOTS
OUMALIK	84/2	TOROK, LOWER	9840.	2.60	INTERBEDDED SHALE
OUMALIK	85/1	TOROK, LOWER	10014.	2.54	SANDSTONE
OUMALIK	85/1	TOROK, LOWER	10019.	2.60	FINE SANDSTONE
OUMALIK	85/2	TOROK, LOWER	10029.	2.60	SANDSTONE
OUMALIK	86	TOROK, LOWER	10233.	2.57	SANDSTONE
OUMALIK	86	TOROK, LOWER	10253.	2.59	SHALE
OUMALIK	87	TOROK, LOWER	10453.	2.58	SANDSTONE
OUMALIK	88	TOROK, LOWER	10669.	2.51	FINE GRANULAR SHALE
OUMALIK	89	PEBBLE SHALE	10992.	2.44	FINE GRANULAR SHALE
OUMALIK	90	PEBBLE SHALE	11852.	2.70	SANDSTONE
PEARD	1/1	TOROK, UPPER	3042.	2.46	SANDY-SILTY SHALE,BROKE IN 2
PEARD	1/3	TOROK, UPPER	3044.	2.46	SANDY SHALE, POROUS
PEARD	2	TOROK, UPPER	4289.	2.57	MUDSTONE
PEARD	3	TOROK, UPPER	5413.8	2.42	X-BEDDED FINE SANDSTONE,POR
PEARD	3/2	TOROK, UPPER	5417.	2.47	MED SANDSTONE, POROUS
PEARD	3/2	TOROK, UPPER	5419.	2.56	FINE SANDSTONE W-SILTSTN INC
PEARD	5/2	TOROK, LOWER	6125.6	2.62	SILTSTONE
PEARD	6	PEBBLE SHALE	6408.	2.69	MUDSTONE, FALLS APART
PEARD	7	KINGAK-SAND 2	7843.8	2.72	SANDY SILTSTONE
PEARD	7	KINGAK-SAND 2	7848.5	2.81	SILTY SANDY SHALE W/ORGANICS
PEARD	7	KINGAK-SAND 2	7854.2	2.67	SILTY SHALE, POROUS
PEARD	7	KINGAK-SAND 2	7859.8	2.85	SILTSTONE, POROUS
PEARD	7	KINGAK-SAND 2	7862.8	2.94	SILTSTONE, POROUS
PEARD	7	KINGAK-SAND 2	7866.7	2.92	SILTY SHALE
PEARD	8	KINGAK	8284.8	2.64	SILTY SHALE-ARGILLITE
PEARD	9	SAG RIVER	8451.	2.58	SILTY SHALE W/ORGANICS,POROUS
PEARD	9	SAG RIVER	8457.9	2.61	SILTSTONE W/PLANT DEBRIS?
PEARD	9	SAG RIVER	8473.	2.60	SILTY SHALE-ARGILLITE
PEARD	10	IVISHAK	8980.	2.68	SILTY SHALE
PEARD	10	IVISHAK	8993.7	2.67	SILTY SHALE
PEARD	10	IVISHAK	9001.5	2.63	SILTY SHALE
PEARD	11	ECHOOKA	9498.	2.89	FINE SANDSTONE W/SML PEBBLES
PEARD	11	ECHOOKA	9500.5	2.79	FINE SANDSTONE W/SML PEBBLES
PEARD	11	ECHOOKA	9505.4	2.55	FINE SANDSTONE, POROUS
PEARD	12	BASEMENT	10225.	2.81	ARGILLITE-SLATE

Table 4k.--Density data sorted by wells (S Barrow 1,2,3,6)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
S BARROW	#1 9	PEBBLE SHALE	3042.	2.48	GREY SILTSTONE
S BARROW	#1 14	PEBBLE SHALE	3069.	2.48	GREY SHALE
S BARROW	#1 19	PEBBLE SHALE	3083.	2.46	GREY SHALE
S BARROW	#1 24	PEBBLE SHALE	3105.2	2.45	BLACK SILTY SHALE
S BARROW	#1 24	PEBBLE SHALE	3106.5	2.44	GREY SILTY SHALE
S BARROW	#1 24	PEBBLE SHALE	3115.	2.67	FINE SANDY SHALE POROUS
S BARROW	#1 28	PEBBLE SHALE	3153.	2.49	BLACK SILTY SHALE
S BARROW	#1 28	PEBBLE SHALE	3153.3	2.25	FINE SANDSTONE POROUS
S BARROW	#1 28	PEBBLE SHALE	3158.5	2.56	GREY SILTSTONE
S BARROW	#1 30	PEBBLE SHALE	3181.5	2.49	GREY SHALE
S BARROW	#1 31	PEBBLE SHALE	3193.	3.24	CHERT (?)
S BARROW	#1 31	PEBBLE SHALE	3196.	2.48	SILTY SHALE (LAYERED)
S BARROW	#1 31	PEBBLE SHALE	3196.4	2.61	FINE SANDY SHALE POROUS
S BARROW	#1 34	PEBBLE SHALE	3227.3	2.52	GREY SILTSTONE
S BARROW	#1 35	PEBBLE SHALE	3238.	2.51	SILTSTONE
S BARROW	#1 37	KINGAK	3330.	2.56	FINE SANDSTONE POROUS
S BARROW	#1 52	BASEMENT	3553.	2.65	ARGILLITE
S BARROW	#2 34/1	PEBBLE SHALE	1955.	2.42	MUDSTONE
S BARROW	#2 39	PEBBLE SHALE	2020.	2.41	SILTY SHALE
S BARROW	#2 40	PEBBLE SHALE	2060.	2.43	MUDSTONE
S BARROW	#2 43	PEBBLE SHALE	2111.	2.39	MUDSTONE
S BARROW	#2 52	PEBBLE SHALE	2254.	2.39	FINE SANDSTONE POROUS
S BARROW	#2 55	PEBBLE SHALE	2287.	2.21	MED SANDSTONE POROUS
S BARROW	#2 58	KINGAK	2332.	2.17	MED-FINE SANDSTONE
S BARROW	#2 60	KINGAK	2356.	2.37	SILTY SHALE
S BARROW	#2 65	KINGAK	2440.	2.43	FINE SANDSTONE
S BARROW	#3 1	TOROK, UPPER	201.	2.09	FINE SANDSTONE, VERY POROUS
S BARROW	#3 3	TOROK, UPPER	403.	2.26	SILTY SHALE
S BARROW	#3 6	TOROK, LOWER	993.	2.38	SILTSTONE
S BARROW	#3 9	PEBBLE SHALE	1406.	2.35	SILTY SHALE
S BARROW	#3 11	PEBBLE SHALE	1613.	2.43	BLACK SILTSTONE
S BARROW	#3 12	PEBBLE SHALE	1625.	2.35	BLACK SHALE
S BARROW	#3 13	KINGAK	1740.	2.24	SILTSTONE
S BARROW	#3 19	KINGAK	2030.	2.80	SILTSTONE SILICEOUS
S BARROW	#3 23	KINGAK	2100.	2.41	SILTSTONE
S BARROW	#3 26	KINGAK	2170.	2.42	SILTY SHALE
S BARROW	#3 29	SAG RIVER	2200.	2.44	SILTSTONE
S BARROW	#3 32	SAG RIVER	2268.5	2.47	
S BARROW	#3 35	SAG RIVER	2300.	2.39	MUDSTONE
S BARROW	#3 36	SAG RIVER	2320.	2.42	SILTSTONE
S BARROW	#3 39	SAG RIVER	2363.	2.43	SILTSTONE
S BARROW	#3 41	SAG RIVER	2410.	2.32	FINE SANDSTONE, POROUS
S BARROW	#3 45	SAG RIVER	2468.	2.45	SILTSTONE
S BARROW	#3 53	SAG RIVER	2590.	2.34	SANDY SILTSTONE
S BARROW	#3 55	SHUBLIK	2610.	2.55	SILTY SHALE,SLIGHTLY POROUS
S BARROW	#3 57	SHUBLIK	2639.	2.65	CALCAREOUS SANDSTONE, POROUS
S BARROW	#3 63	SHUBLIK	2738.	2.68	CALCAREOUS SANDSTONE, POROUS
S BARROW	#3 66	SHUBLIK	2779.	2.49	CALCAREOUS SANDSTONE, POROUS
S BARROW	#3 73	BASEMENT	2879.	2.59	ARGILLITE
S BARROW	#6 1	KINGAK-SAND	2346.	2.27	FINE SANDSTONE, POROUS
S BARROW	#6 1	KINGAK-SAND	2360.	2.21	FINE SANDSTONE, POROUS

Table 41.--Density data sorted by wells (S Barrow 9,12,13,16)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
S BARROW #9	2	PEBBLE SHALE	2017.	2.41	SILTSTONE
S BARROW #9	3	PEBBLE SHALE	2042.	2.49	SILTY SHALE
S BARROW #9	4	PEBBLE SHALE	2061.	2.42	SILTY SHALE
S BARROW #9	5	PEBBLE SHALE	2098.	2.45	SILTY SHALE
S BARROW #9	6	PEBBLE SHALE	2365.	2.46	PEBBLE SHALE
S BARROW #9	6	PEBBLE SHALE	2372.	3.10	SILICIFIED SHALE OR ARGILLITE
S BARROW #9	7	KINGAK	2384.	2.45	FINE SANDSTONE, POROUS
S BARROW #9	7	KINGAK	2401.	2.34	FINE SANDSTONE, POROUS
S BARROW #9	7	KINGAK	2404.	2.56	FINE SANDSTONE
S BARROW #9	7	KINGAK	2413.	2.20	FINE SANDSTONE
S BARROW #9	8	KINGAK	2434.	2.29	FINE SANDSTONE, POROUS
S BARROW #9	8	KINGAK	2444.	2.25	FINE SANDSTONE, POROUS
S BARROW #12	1	KINGAK	1966.	2.28	V FINE SANDY SILTSTONE,POROUS
S BARROW #12	1	KINGAK	1981.	2.17	VERY FINE SANDSTONE, POROUS
S BARROW #12	2	KINGAK	1988.	2.13	VERY FINE SANDSTONE, POROUS
S BARROW #12	2	KINGAK	2000.	2.19	VERY FINE SANDSTONE, POROUS
S BARROW #12	2	KINGAK	2003.5	2.27	SILTSTONE
S BARROW #12	3	KINGAK	2021.	2.21	FINE SILTY SANDSTONE, POROUS
S BARROW #12	3	KINGAK	2037.	2.20	MED SANDSTONE
S BARROW #12	4	KINGAK	2056.	2.97	MED SANDSTONE (SILICEOUS?)
S BARROW #12	4	KINGAK	2072.	2.25	SILTSTONE
S BARROW #12	5	KINGAK	2081.5	3.07	FINE SILICEOUS SANDSTONE
S BARROW #12	5	KINGAK	2093.	2.40	SILTY SHALE
S BARROW #12	6	KINGAK	2168.5	2.42	SANDY SILTSTONE
S BARROW #12	6	KINGAK	2180.	2.37	MUDDY SHALE
S BARROW #12	7	KINGAK	2196.	2.31	SILTY SHALE
S BARROW #12	7	SAG RIVER	2202.5	2.49	MED GRAIN CALCAREOUS SANDSTN
S BARROW #12	7	SAG RIVER	2209.	2.44	SILTSTONE, POROUS
S BARROW #12	7	SAG RIVER	2213.5	2.04	BLOCKY SANDSTONE
S BARROW #12	8	SAG RIVER	2234.	2.29	OIL STAINED FINE SANDSTONE
S BARROW #12	8	SAG RIVER	2246.	2.20	OIL STAINED FINE SANDSTN-CALC
S BARROW #12	9	BASEMENT	2260.	2.60	SILTSTONE, SLIGHTLY POROUS
S BARROW #12	9	BASEMENT	2264.	2.75	SLATE
S BARROW #12	9	BASEMENT	2272.	2.76	SLATE
S BARROW #12	9	BASEMENT	2273.	2.73	SLATE
S BARROW #12	9	BASEMENT	2285.	2.76	ARGILLITE
S BARROW #13	1	PEBBLE SHALE	2163.	2.44	SILTSTONE, FRIABLE
S BARROW #13	1	PEBBLE SHALE	2173.	2.43	SILTSTONE, POROUS & FRIABLE
S BARROW #13	1	PEBBLE SHALE	2184.	2.48	FINE SANDY SHALE,FRIABLE
S BARROW #13	1	PEBBLE SHALE	2188.	2.49	MUDSTONE
S BARROW #13	2	PEBBLE SHALE	2208.	2.48	GOUGED MUDSTONE
S BARROW #13	3	KINGAK	2291.	2.39	FINE SANDY SHALE, POR, FRIAB
S BARROW #13	3	KINGAK	2303.	2.36	FINE SANDSTONE, POROUS
S BARROW #13	3	KINGAK	2312.	2.30	FINE SANDSTONE, POROUS
S BARROW #13	4	KINGAK	2323.	2.51	SILTSTONE
S BARROW #13	4	KINGAK	2331.	2.42	FINE SANDY SHALE, POROUS
S BARROW #13	4	KINGAK	2341.	2.20	FINE SANDSTONE, POROUS, FRIAB
S BARROW #13	5	KINGAK	2412.	2.31	FINE SANDY SHALE, POR, FRIAB
S BARROW #13	5	KINGAK	2422.	2.41	FINE SANDSTONE,POROUS,V FRIAB
S BARROW #13	6	BASEMENT	2525.	2.23	BLACK ARGILLITE
S BARROW #16	1	BASEMENT	2395.	2.53	

Table 4m.--Density data sorted by wells (S Barrow 17,18,19)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
S BARROW #17	1	KINGAK	2020.	2.03	FINE SANDSTONE, POROUS
S BARROW #17	1	KINGAK	2096.	2.79	V FINE SANDSTONE (SILTSTONE)
S BARROW #17	1	KINGAK	2099.	2.29	FINE SANDSTONE
S BARROW #17	1	KINGAK	2103.	2.07	FINE SANDSTONE, POROUS
S BARROW #17	1	KINGAK	2118.	2.39	FINE SANDSTONE, POROUS
S BARROW #17	1	KINGAK	2126.	2.33	FINE SANDSTONE, POROUS
S BARROW #17	2	KINGAK	2128.	2.13	
S BARROW #17	2	KINGAK	2130.	2.37	FINE SANDSTONE, POROUS
S BARROW #17	2	KINGAK	2136.	2.43	FINE SANDSTONE, POROUS
S BARROW #17	2	KINGAK	2142.	2.37	FINE SANDSTONE, POROUS
S BARROW #17	2	KINGAK	2149.	2.48	FINE SANDSTONE
S BARROW #17	4	SAG RIVER	2323.	2.41	FINE SANDSTONE OIL STAINED
S BARROW #17	4	SAG RIVER	2325.	2.29	FINE SANDSTONE OIL STAINED
S BARROW #17	4	SAG RIVER	2328.	2.26	OIL SOAKED FINE SANDSTONE
S BARROW #17	4	SAG RIVER	2334.	2.17	FINE SANDSTONE OIL STAINED
S BARROW #17	4	SAG RIVER	2335.	2.30	CALCAREOUS SAND, POROUS
S BARROW #17	4	SAG RIVER	2337.	2.18	
S BARROW #17	4	SAG RIVER	2338.	2.43	VERY CALCAREOUS SANDSTONE
S BARROW #17	4	SAG RIVER	2343.	2.49	FOSSIL FRAGMENTS
S BARROW #17	4	BASEMENT	2344.	2.52	CALCAREOUS SAND
S BARROW #17	4	BASEMENT	2345.	2.72	ARGILLITE
S BARROW #18	1	TOROK, UPPER	1360.2	2.43	MUDSTONE MELTS
S BARROW #18	2	TOROK, UPPER	1391.	2.06	SILTY SHALE
S BARROW #18	3	KINGAK	1704.	2.48	SILTY SHALE
S BARROW #18	3	KINGAK	1713.	2.48	SILTSTONE POROUS
S BARROW #18	3	KINGAK	1733.	2.42	SILTY SHALE
S BARROW #18	3	KINGAK	1754.5	2.44	DARK PEBBLE SHALE, FRIABLE
S BARROW #18	3	KINGAK	1760.5	2.47	MUDSTONE, FRIABLE
S BARROW #19	1	TOROK, UPPER	1331.	2.41	MUDSTONE
S BARROW #19	1/2	TOROK, UPPER	1336.	2.40	SILTSTONE
S BARROW #19	1	TOROK, UPPER	1346.	2.41	SOFT CLAY SHALE
S BARROW #19	1	TOROK, UPPER	1352.5	2.25	SILTY SHALE(LAYERED), POROUS
S BARROW #19	1	TOROK, UPPER	1354.3	2.27	SILTY SHALE
S BARROW #19	2	KINGAK	2044.	2.41	FINE SANDSTONE, POROUS
S BARROW #19	2/2	KINGAK	2047.	2.45	FINE SANDSTONE, SLIGHTLY POR
S BARROW #19	2	KINGAK	2054.3	2.35	FINE SANDSTONE, POROUS
S BARROW #19	2	KINGAK	2064.5	2.44	SILTSTONE,SLIGHTLY POROUS
S BARROW #19	3	SAG RIVER	2209.	2.40	FINE CALCAREOUS SANDSTONE
S BARROW #19	4	SAG RIVER	2220.	2.35	CALCAREOUS SANDSTONE
S BARROW #19	4	SAG RIVER	2225.	2.14	OILY SANDSTONE
S BARROW #19	5	SAG RIVER	2230.	2.32	CALCAREOUS SANDSTONE
S BARROW #19	5	SAG RIVER	2231.	2.08	VERY OIL SOAKED
S BARROW #19	5	SAG RIVER	2235.	2.21	OILY SANDSTONE
S BARROW #19	5	SAG RIVER	2245.	2.19	OILY SANDSTONE POROUS

Table 4n.--Density data sorted by wells (S Harrison Bay,S Meade,Seabee)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
S HARRISON BAY2/1		LISBURNE	10613.	2.72	GREY LIMESTONE
S HARRISON BAY2/2		LISBURNE	10619.	2.72	GREY LIMESTONE
S HARRISON BAY2/2		LISBURNE	10621.	2.70	GREY LIMESTONE
S HARRISON BAY2/3		LISBURNE	10625.	2.71	GREY LIMESTONE
S MEADE	1	NANUSHUK	3010.	2.57	SILTSTONE
S MEADE	3	TOROK, UPPER	4950.	2.62	SILTY SHALE
S MEADE	3	TOROK, UPPER	4958.6	2.62	SILTY SHALE W/SLICKENSIDES
S MEADE	4	TOROK, UPPER	5993.	2.65	SILTSTONE
S MEADE	4	TOROK, UPPER	6002.5	2.65	SILTSTONE
S MEADE	5	KINGAK-J SHALE	7503.	2.59	SILTY SHALE
S MEADE	6	KINGAK	8492.	2.71	SILTY SHALE
S MEADE	6	KINGAK	8498.	2.70	SILTY SHALE
S MEADE	6	KINGAK	8501.	2.66	SILTY SHALE
S MEADE	6	KINGAK	8507.	2.67	SILTY SHALE
S MEADE	6	KINGAK	8513.	2.66	SILTY SHALE
S MEADE	8	SAG RIVER	8820.4	2.47	SILTSTONE
S MEADE	8	SAG RIVER	8823.	2.45	SILTSTONE, POROUS
S MEADE	8	SAG RIVER	8823.5	2.54	SILTSTONE, POROUS
S MEADE	8	SAG RIVER	8835.2	2.57	SILTSTONE, POROUS
S MEADE	8	SAG RIVER	8840.2	2.49	SILTSTONE, POROUS
S MEADE	8	SAG RIVER	8847.1	2.49	SILTSTONE
S MEADE	8	SAG RIVER	8851.2	2.55	SILTSTONE, POROUS
S MEADE	8	SAG RIVER	8857.1	2.67	SILTSTONE (META?,ARGILLITE?)
S MEADE	8	SAG RIVER	8859.6	2.68	ARGILLITE
S MEADE	8	SAG RIVER	8864.7	2.68	LIMESTONE
S MEADE	8	SAG RIVER	8869.6	2.69	SILTSTONE (META?)
S MEADE	9	SHUBLIK	9047.9	2.81	LIMESTONE
S MEADE	9	SHUBLIK	9047.9	2.68	LIMESTONE
S MEADE	10	IVISHAK	9307.6	2.75	LAYERED SILTY SHALE
S MEADE	10	IVISHAK	9310.	2.66	ARGILLITE
S MEADE	10	IVISHAK	9311.	2.65	ARGILLITE
S MEADE	10	IVISHAK	9313.6	2.67	ARGILLITE
S MEADE	10	IVISHAK	9314.6	2.70	LAYERED SILTY SHALE
S MEADE	10	IVISHAK	9318.8	2.66	ARGILLITE
S MEADE	10	IVISHAK	9324.7	2.66	WACKE W/LARGE PYRITE INCLUS
SEABEE	1/2	TOROK, UPPER	5399.	2.37	GOUGED SANDSTONE
SEABEE	3/6	TOROK, LOWER	10072.	2.64	SILTSTONE
SEABEE	3/5	TOROK, LOWER	10073.8	2.67	SILTY SHALE
SEABEE	3	TOROK, LOWER	10088.	2.64	FINE SANDSTONE
SEABEE	3/2	TOROK, LOWER	10091.	2.58	SILTSTONE
SEABEE	3/1	TOROK, LOWER	10095.	2.60	SILTSTONE
SEABEE	3/1	TOROK, LOWER	10096.3	2.64	SILTSTONE
SEABEE	5/1	TOROK, LOWER	12012.8	2.58	FINE SANDY SHALE
SEABEE	5/1	TOROK, LOWER	12014.3	2.60	SILTY SHALE
SEABEE	5	TOROK, LOWER	12037.	2.58	SILTY SHALE
SEABEE	6/1	KINGAK	13214.	2.51	GREY SILTSTONE W/QUARTZ
SEABEE	6/3	KINGAK	13224.	2.53	SILTY SHALE-ARGILLITE
SEABEE	3/7	KINGAK	14591.	2.51	BLACK SILTY SHALE W/PEBBLES

Table 4o.--Density data sorted by wells (Simpson, Square Lake)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
SIMPSON	23/0	PEBBLE SHALE	5464.	2.55	SILTY SHALE
SIMPSON	23/1	KINGAK	5677.	2.59	MUDSTONE
SIMPSON	23/1	KINGAK	5684.	2.59	MUDSTONE
SIMPSON	23/2	KINGAK	5867.5	2.57	MUDSTONE
SIMPSON	23/5	SAG RIVER	6183.	2.51	CALCAREOUS SILTSTONE, POROUS
SIMPSON	23/7	SHUBLIK	6304.5	2.64	CALCAREOUS MUDSTONE
SIMPSON	23/8	SHUBLIK	6316.	2.65	CALCAREOUS MUDSTONE
SIMPSON	24/0	SHUBLIK	6356.	2.63	MUDSTONE, SLIGHTLY CALCAREOUS
SIMPSON	24/3	SHUBLIK	6485.	2.64	CALCAREOUS SILTY SHALE
SIMPSON	24/4	BASEMENT	6557.	2.68	GREEN ARGILLITE
SIMPSON	24/7	BASEMENT	6796.	2.68	GREEN ARGILLITE
SIMPSON	24/8	BASEMENT	6896.	2.70	RED & GREEN ARGILLITE
SIMPSON	24/9	BASEMENT	7002.	2.72	RED & GREEN ARGILLITE
SQUARE LAKE	2	COLVILLE SANDSTN	239.	2.29	SANDY SILTSTONE
SQUARE LAKE	2	COLVILLE SANDSTN	245.	2.34	SANDY SILTSTONE
SQUARE LAKE	3	COLVILLE SANDSTN	264.	2.83	LIMESTONE
SQUARE LAKE	3	COLVILLE SANDSTN	271.	2.35	SILTY SHALE
SQUARE LAKE	4	COLVILLE SANDSTN	469.	2.36	SILTY SHALE
SQUARE LAKE	5	COLVILLE SANDSTN	517.	2.52	FINE SANDSTONE (IRON STAIN?)
SQUARE LAKE	5/2	COLVILLE SANDSTN	527.	2.26	FINE SANDSTONE
SQUARE LAKE	5/2	COLVILLE SANDSTN	532.	2.42	SILTY SHALE
SQUARE LAKE	7	COLVILLE SANDSTN	570.	2.32	MED SANDSTONE
SQUARE LAKE	7	COLVILLE SANDSTN	577.	2.32	MED SANDSTONE
SQUARE LAKE	7	COLVILLE SANDSTN	588.	2.37	SILTY SHALE
SQUARE LAKE	9	COLVILLE SANDSTN	608.	2.17	
SQUARE LAKE	9	COLVILLE SANDSTN	612.5	2.26	MED SANDSTONE, POROUS
SQUARE LAKE	10	COLVILLE SANDSTN	634.	2.22	MED SANDSTONE
SQUARE LAKE	11/1	COLVILLE SANDSTN	651.	2.36	SILTY SHALE
SQUARE LAKE	11/2	COLVILLE SANDSTN	667.	2.13	FINE SANDSTONE W/PYROBITUMEN
SQUARE LAKE	13	COLVILLE SHALE	705.	2.38	VERY FINE SANDSTONE
SQUARE LAKE	13	COLVILLE SHALE	706.	2.41	SILTY SHALE
SQUARE LAKE	15	COLVILLE SHALE	943.	2.44	SILTY SHALE
SQUARE LAKE	15	COLVILLE SHALE	955.	2.41	SILTSTONE
SQUARE LAKE	17	COLVILLE SHALE	1084.	2.44	SILICEOUS SILTY SHALE
SQUARE LAKE	22	NANUSHUK	1655.5	2.55	MED GRAIN SANDSTONE, POROUS
SQUARE LAKE	22	NANUSHUK	1664.5	2.53	IRON-STAINED MED SNDSTN, POR
SQUARE LAKE	25	NANUSHUK	1702.	2.44	FINE SANDSTONE, CROSS BEDDED
SQUARE LAKE	25	NANUSHUK	1713.	2.48	SILTY SHALE
SQUARE LAKE	26	NANUSHUK	1731.	2.70	FINE MICA SANDSTONE W/STAINS
SQUARE LAKE	27	NANUSHUK	1745.5	2.63	X-BEDDED V FINE GRAIN SNDSTN
SQUARE LAKE	30	NANUSHUK	1818.	2.49	MED SANDSTONE
SQUARE LAKE	30	NANUSHUK	1822.	2.56	JUMBLED MUDSTONE
SQUARE LAKE	31	NANUSHUK	1841.	2.65	FINE SANDSTONE
SQUARE LAKE	36	NANUSHUK	1940.	2.44	VERY FINE GRAINED SANDSTONE
SQUARE LAKE	36	NANUSHUK	1940.5	2.56	VERY FINE GRAINED SANDSTONE
SQUARE LAKE	36	NANUSHUK	1943.	2.47	FINE LAYERED SANDSTONE
SQUARE LAKE	43	NANUSHUK	2849.	2.60	SILTY SHALE
SQUARE LAKE	44	NANUSHUK	3027.	2.56	FINE SANDSTONE, POROUS
SQUARE LAKE	45	NANUSHUK	3058.	2.57	FINE SANDSTONE, POROUS
SQUARE LAKE	46	NANUSHUK	3103.	2.50	FINE SANDSTONE
SQUARE LAKE	49	NANUSHUK	3239.	2.42	FINE SANDSTONE
SQUARE LAKE	49	NANUSHUK	3259.	2.52	FINE SANDSTONE, POROUS
SQUARE LAKE	50	NANUSHUK	3279.	2.50	FINE SANDSTONE

Table 4p.--Density data sorted by wells (Topagoruk & Tulugeak)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
TOPAGORUK	55	TOROK, LOWER	6510.	2.63	MUDSTONE
TOPAGORUK	57	PEBBLE SHALE	6849.	2.53	
TOPAGORUK	63	KINGAK-SAND 2	7805.	3.00	META-SED? SLIGHTLY POROUS
TOPAGORUK	64	KINGAK-SAND 2	7831.5	2.64	
TOPAGORUK	65	KINGAK-SAND 2	7847.	2.60	SLIGHTLY POROUS
TOPAGORUK	67	KINGAK	8106.	2.63	
TOPAGORUK	71	IVISHAK	9416.	2.53	FINE SANDSTONE
TOPAGORUK	71	IVISHAK	9425.	2.53	
TOPAGORUK	73	IVISHAK	9434.	2.70	
TOPAGORUK	73	IVISHAK	9434.5	2.66	
TOPAGORUK	73	IVISHAK	9435.	2.63	QUARTZITE
TOPAGORUK	73	IVISHAK	9440.	2.63	
TOPAGORUK	73	IVISHAK	9445.2	2.63	
TOPAGORUK	73/6	IVISHAK	9450.	2.62	
TOPAGORUK	76/3	IVISHAK	9469.7	2.67	
TOPAGORUK	76	IVISHAK	9490.	2.70	
TOPAGORUK	77	IVISHAK	9507.	2.77	
TOPAGORUK	77	IVISHAK	9510.	2.72	MUDSTONE
TOPAGORUK	77	IVISHAK	9516.	2.72	ARGILLITE?
TOPAGORUK	77	IVISHAK	9517.	2.75	
TOPAGORUK	77	IVISHAK	9519.	2.68	
TOPAGORUK	77	IVISHAK	9521.5	2.69	GREYWACKE
TOPAGORUK	78/1	IVISHAK	9537.	2.60	CONGLOMERATE SLIGHTLY POROUS
TOPAGORUK	78	IVISHAK	9538.	2.70	ARGILLITE
TOPAGORUK	79	IVISHAK	9541.	2.56	FINE SANDSTONE
TOPAGORUK	79	IVISHAK	9555.	2.59	FINE SANDSTONE
TOPAGORUK	80	IVISHAK	9562.	2.83	ARGILLITE
TOPAGORUK	80	IVISHAK, KAVIK	9585.5	2.69	ARGILLITE
TOPAGORUK	81	IVISHAK, KAVIK	9592.5	2.67	ARGILLITE
TOPAGORUK	81	IVISHAK, KAVIK	9597.	2.67	ARGILLITE
TOPAGORUK	82	ENDICOTT	9816.	2.67	FINE GRAINED RED SILTSTONE
TOPAGORUK	85	ENDICOTT, KAYAK	10228.	2.63	GREYWACKE
TULAGEAK	1	PEBBLE SHALE	2940.	2.42	SILTY PEBBLE SHALE
TULAGEAK	1	PEBBLE SHALE	2945.	2.39	SILTY PEBBLE SHALE, FRIABLE
TULAGEAK	1	KINGAK	2948.8	2.45	SILTSTONE
TULAGEAK	1	KINGAK	2950.	2.69	VERY CALCAREOUS SILTSTONE
TULAGEAK	1	KINGAK	2952.	2.32	SILTSTONE
TULAGEAK	1	KINGAK	2955.	2.33	SILTSTONE
TULAGEAK	1	KINGAK	2961.2	2.42	SILTSTONE
TULAGEAK	1	KINGAK	2967.3	2.41	SILTSTONE, FRIABLE
TULAGEAK	1	KINGAK	2970.	2.46	SILTSTONE, VERY POROUS
TULAGEAK	1	KINGAK	2973.	2.43	SILTSTONE
TULAGEAK	1	KINGAK	2977.	2.45	SILTSTONE
TULAGEAK	2	SAG RIVER	3784.	2.25	OIL- OR IRON-STAIN SILTSTONE
TULAGEAK	2	SAG RIVER	3785.	2.10	SILTSTONE
TULAGEAK	2	SAG RIVER	3794.	1.90	CALCAREOUS SILTSTONE,POROUS
TULAGEAK	2	SHUBLIK	3800.	2.54	SILTSTONE
TULAGEAK	2	SHUBLIK	3805.	2.39	SILTSTONE, POROUS
TULAGEAK	2	SHUBLIK	3805.	2.57	CALCAREOUS SILTSTONE,SL POR
TULAGEAK	2	SHUBLIK	3810.	2.48	SLIGHTLY CALCAREOUS SILTSTONE
TULAGEAK	3	BASEMENT	4005.	2.64	SLICKENSIDED META SED
TULAGEAK	3	BASEMENT	4006.9	2.61	SLICKENSIDED META SED, QUARTZ

Table 4q.--Density data sorted by wells (Tunalik)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
TUNALIK	1/2	NANUSHUK	3284.	2.48	FINE SANDSTONE W/MUD INCLUS
TUNALIK	1/2	NANUSHUK	3288.5	2.53	MUDSTONE
TUNALIK	1	NANUSHUK	3296.	2.39	MUDSTONE
TUNALIK	1/5	NANUSHUK	3308.	2.54	SILTY SHALE
TUNALIK	2	NANUSHUK	3825.3	2.57	MUDSTONE
TUNALIK	2	NANUSHUK	3826.8	2.56	MUDSTONE, CRUMBLED AWAY
TUNALIK	3/1	NANUSHUK	5557.6	2.58	INTERBEDDED SAND AND SILT
TUNALIK	3/2	NANUSHUK	5559.5	2.61	FINE SANDSTONE,POROUS
TUNALIK	3/2	NANUSHUK	5561.	2.54	FINE SANDSTONE,POROUS
TUNALIK	4	TOROK, UPPER	6507.	2.56	FINE SANDSTONE,POROUS
TUNALIK	4	TOROK, UPPER	6510.	2.59	SILTY SHALE
TUNALIK	5/1	TOROK, UPPER	7870.	2.62	SILTY SHALE
TUNALIK	5	TOROK, UPPER	7877.5	2.62	BEDDED SAND & SILT
TUNALIK	6	TOROK, UPPER	8787.4	2.64	SILTY SHALE
TUNALIK	6	TOROK, UPPER	8795.	2.64	SHALE INTERBED FINE SAND&SILT
TUNALIK	6	TOROK, UPPER	8803.	2.64	SILTSTONE
TUNALIK	6	TOROK, UPPER	8808.5	2.64	SILTY SHALE
TUNALIK	7/1	TOROK, UPPER	10472.	2.66	SILTSTONE
TUNALIK	7/3	TOROK, UPPER	10490.	2.66	MUDSTONE
TUNALIK	7/4	TOROK, UPPER	10496.	2.65	SILTY SHALE
TUNALIK	7	TOROK, UPPER	10502.	2.66	SILTSTONE
TUNALIK	8/1	PEBBLE SHALE	10674.	2.52	BLACK SILTY SHALE W/QUARTZ
TUNALIK	8/2	PEBBLE SHALE	10680.	2.68	BLACK SILTY SHALE
TUNALIK	8/3	PEBBLE SHALE	10687.5	2.64	BLACK SILTY SHALE
TUNALIK	8/5	PEBBLE SHALE	10701.	2.62	BLACK SILTY SHALE W/PYRITE
TUNALIK	9/1	KINGAK-J SHALE	10910.	2.56	SILTSTONE, POROUS
TUNALIK	9/2	KINGAK-J SHALE	10922.	2.56	SILTSTONE
TUNALIK	9/3	KINGAK-J SHALE	10922.	2.58	SILTSTONE
TUNALIK	9/3	KINGAK-J SHALE	10928.	2.57	SILTSTONE
TUNALIK	9/4	KINGAK-J SHALE	10934.	2.56	SILTSTONE
TUNALIK	9	KINGAK-J SHALE	10934.	2.57	SILTSTONE
TUNALIK	9	KINGAK-J SHALE	10935.	2.65	FINE SANDSTONE
TUNALIK	9	KINGAK-J SHALE	10936.5	2.78	SANDSTONE
TUNALIK	9	KINGAK-J SHALE	10937.	2.56	FINE SANDSTONE
TUNALIK	9	KINGAK-J SHALE	10940.	2.50	FINE SANDSTONE
TUNALIK	10/4	KINGAK-J SHALE	11678.	2.60	LAYERED FINE SAND & SILT
TUNALIK	10	KINGAK-J SHALE	11684.	2.56	SILTY SHALE
TUNALIK	10	KINGAK-J SHALE	11690.	2.64	SILTY SHALE W/SLICKENSIDES
TUNALIK	10/4	KINGAK-J SHALE	11693.	2.60	SILTY SHALE
TUNALIK	11/1	KINGAK-J SHALE	12573.	2.58	SILTY SHALE
TUNALIK	11/2	KINGAK-J SHALE	12574.2	2.56	MUDSTONE
TUNALIK	11/2	KINGAK-J SHALE	12577.	2.58	BLOCKY SAND & SILTSTONE
TUNALIK	11/3	KINGAK-J SHALE	12582.	2.48	FINE SANDSTONE
TUNALIK	11/3	KINGAK-J SHALE	12583.	2.56	FINE SANDY SHALE
TUNALIK	11/3	KINGAK-J SHALE	12585.	2.57	BLOCKY SAND & SHALE (ARGIL?)
TUNALIK	11/4	KINGAK-J SHALE	12588.	2.53	SLICKENSIDED SILTY SHALE
TUNALIK	11/4	KINGAK-J SHALE	12591.	2.59	ARGILLITE
TUNALIK	12	IVISHAK	14847.	2.74	SILTSTONE
TUNALIK	12	IVISHAK	14855.	2.68	SHALE W/CHERT "BLOBS"
TUNALIK	13	IVISHAK	15411.	2.65	SILTY SHALE
TUNALIK	13	IVISHAK	15420.	2.68	LAYERED FINE SAND & SHALE
TUNALIK	13	IVISHAK	15421.	2.66	SILTY SHALE
TUNALIK	13	IVISHAK	15427.	2.65	SILTY SHALE
TUNALIK	14	IVISHAK, KAVIK	16237.	2.68	SILTY SHALE
TUNALIK	14	IVISHAK, KAVIK	16240.	2.69	LAYERED SHALE

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
TUNALIK	14	IVISHAK, KAVIK	16255.	2.68	SILTY SHALE
TUNALIK	14	IVISHAK, KAVIK	16260.	2.69	SILTY SHALE
TUNALIK	15	ECHOOKA	16931.	2.66	SILTSTONE (ARGILLITE)
TUNALIK	15	ECHOOKA	16943.	2.67	SILTSTONE
TUNALIK	15	ECHOOKA	16949.	2.67	SILTSTONE
TUNALIK	16	LISBURNE	17136.	2.68	LIMESTONE
TUNALIK	16	LISBURNE	17144.	2.68	LIMESTONE
TUNALIK	17	LISBURNE	17281.	2.66	ARGILLITE
TUNALIK	18	LISBURNE	17865.	2.74	META-SED?
TUNALIK	18	LISBURNE	17887.	2.76	META-SED W/SLICKENSIDES
TUNALIK	18	LISBURNE	17890.	2.76	META-SED

Table 4r.--Density data sorted by wells (W Dease & W T Foran)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
W DEASE	1/2	TOROK, UPPER	605.	2.18	MUDSTONE
W DEASE	1/3	TOROK, UPPER	626.	2.20	MUDSTONE, POROUS
W DEASE	2/1	TOROK, UPPER	1099.5	2.50	FINE SANDSTONE
W DEASE	3/1	TOROK, UPPER	1905.	2.46	SILTSTONE
W DEASE	3	TOROK, UPPER	1916.	2.40	FINE SANDSTONE
W DEASE	4/2	PEBBLE SHALE	2959.	2.45	BLACK SILTY SHALE
W DEASE	4/4	PEBBLE SHALE	2974.6	2.46	BLACK SILTY SHALE W/PYRITE
W DEASE	5/1	KINGAK	3701.	2.38	FINE SANDSTONE
W DEASE	5	KINGAK	3715.	2.29	FINE SANDSTONE
W DEASE	5	KINGAK	3721.	2.43	FINE SANDSTONE
W DEASE	6	KINGAK	3752.	2.48	FINE SANDSTONE
W DEASE	6	KINGAK	3780.	2.52	SILTY SHALE
W DEASE	6	KINGAK	3786.2	2.61	FINE SANDSTONE (GREYWACKE)
W DEASE	7	KINGAK	3794.	2.53	LAYERED SILTSTONE
W DEASE	7	KINGAK	3817.	2.24	FINE SANDSTONE
W DEASE	7	KINGAK	3823.	2.63	FINE SANDSTONE W/PEBBLES
W DEASE	8	SHUBLIK	3912.5	2.68	FINE SANDSTONE W/FOSSILS
W DEASE	8	SHUBLIK	3921.	2.70	FINE SANDSTONE W/FOSSILS,POR
W DEASE	8	SHUBLIK	3960.	2.75	GREENISH GREYWACKE, POROUS
W DEASE	9	SHUBLIK	4000.4	2.75	PEBBLE CONGLOMERATE, POROUS
W DEASE	10	BASEMENT	4151.	2.67	ARGILLITE
W T FORAN	1/2	SHUBLIK	7545.	1.84	VERY FINE SANDSTONE
W T FORAN	1/2	SHUBLIK	7547.	2.44	CALCAREOUS SILTY SHALE
W T FORAN	1/2	SHUBLIK	7550.	2.54	CALCAREOUS SILTY SHALE
W T FORAN	1/3	SHUBLIK	7552.	2.50	CALCAREOUS SILTY SHALE
W T FORAN	1/3	SHUBLIK	7553.	2.61	LIMESTONE
W T FORAN	1/3	SHUBLIK	7556.	2.51	SILTY SHALE LIMEY
W T FORAN	2/1	LISBURNE	8254.	2.60	CONGLOMERATE W/CALCITE CEMENT
W T FORAN	2/1	LISBURNE	8258.	2.65	CALCAREOUS SANDSTONE
W T FORAN	2/2	LISBURNE	8262.	2.42	FINE SANDSTONE
W T FORAN	2/2	LISBURNE	8266.	2.71	FINE SANDSTONE ??
W T FORAN	2/3	LISBURNE	8273.	2.65	LIMESTONE
W T FORAN	2/4	LISBURNE	8283.	2.50	CALCAREOUS SANDSTONE W/SILICA

Table 4s.--Density data sorted by wells (Walakpa 1)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
WALAKPA #1	1/1	TOROK, UPPER	257.	2.34	BROWN SILTY SHALE,MELTS
WALAKPA #1	1/4	TOROK, UPPER	273.	2.31	FINE SANDSTONE, POROUS DISINT
WALAKPA #1	4	PEBBLE SHALE	1844.	2.40	BLACK SILTY SHALE
WALAKPA #1	4	PEBBLE SHALE	1864.5	3.00	BROWN LIMESTONE W/CALC VEIN
WALAKPA #1	4/9	PEBBLE SHALE	1882.	2.42	BLACK SILTY SHALE
WALAKPA #1	5/1	PEBBLE SHALE	1983.	2.44	BLACK SILTY SHALE W/QUARTZ
WALAKPA #1	5/	PEBBLE SHALE	2009.	2.43	BLACK SILTY SHALE W/QUARTZ
WALAKPA #1	5/8	PEBBLE SHALE-SND	2020.5	2.47	BLACK SILTY SHALE, QTZ PEB
WALAKPA #1	5/9	PEBBLE SHALE-SND	2025.6	2.48	BLACK SILTY SHALE QTZPEB
WALAKPA #1	6/1	PEBBLE SHALE-SND	2061.	2.43	BLACK SILTY SHALE
WALAKPA #1	6/1	PEBBLE SHALE-SND	2062.5	2.44	PEBBLE SANDSTONE
WALAKPA #1	6/1	PEBBLE SHALE-SND	2063.3	2.39	PEBBLE CONGLOMERATE, POROUS
WALAKPA #1	6/1	PEBBLE SHALE-SND	2064.8	2.13	PEBBLE CONGL W/FINE SAND MTRX
WALAKPA #1	6	PEBBLE SHALE	2066.	2.39	
WALAKPA #1	6	PEBBLE SHALE	2069.	2.48	
WALAKPA #1	6/2	PEBBLE SHALE-SND	2070.	2.23	FINE SANDSTONE, POROUS
WALAKPA #1	6	PEBBLE SHALE	2071.	2.40	
WALAKPA #1	6	PEBBLE SHALE	2074.	2.34	
WALAKPA #1	6	PEBBLE SHALE	2077.	2.43	
WALAKPA #1	6/4	PEBBLE SHALE-SND	2081.	2.44	SILTSTONE
WALAKPA #1	6	PEBBLE SHALE	2084.	2.43	
WALAKPA #1	6	PEBBLE SHALE	2087.	2.42	
WALAKPA #1	6	KINGAK	2090.5	2.42	
WALAKPA #1	6	KINGAK	2093.	2.37	
WALAKPA #1	68	KINGAK-SAND 1	2100.	2.40	BLACK SILTSTONE
WALAKPA #1	6	KINGAK	2105.	2.37	
WALAKPA #1	6	KINGAK	2111.	2.39	
WALAKPA #1	7/1	KINGAK	2810.	2.50	SILTY SHALE
WALAKPA #1	8/1	KINGAK	2937.	2.53	SILTY SHALE
WALAKPA #1	8	KINGAK	2961.5	2.54	SILTY SHALE
WALAKPA #1	8/10	KINGAK	2985.	2.51	SILTSTONE
WALAKPA #1	9	KINGAK	2992.	2.48	SILTSTONE
WALAKPA #1	9	KINGAK	3017.5	2.49	SANDY SILTSTONE, POROUS
WALAKPA #1	10	KINGAK	3060.	2.40	FINE SANDSTONE
WALAKPA #1	10	KINGAK	3091.	2.45	SANDY SILTSTONE
WALAKPA #1	11	SHUBLIK	3371.5	2.67	FOSSILIFEROUS LIMESTONE
WALAKPA #1	11	SHUBLIK	3394.5	2.62	SILTY SHALE
WALAKPA #1	11	SHUBLIK	3397.	2.59	SILTY SHALE
WALAKPA #1	11/9	SHUBLIK	3405.4	2.57	CALCAREOUS SILTSTONE
WALAKPA #1	12	BASEMENT	3666.	2.74	ARGILLITE

Table 4t.--Density data sorted by wells (Walakpa 2)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
WALAKPA #2	1	PEBBLE SHALE	2611.	2.35	
WALAKPA #2	1	PEBBLE SHALE	2614.	2.34	
WALAKPA #2	1	PEBBLE SHALE	2617.	2.29	
WALAKPA #2	1	PEBBLE SHALE	2620.	2.36	
WALAKPA #2	1	PEBBLE SHALE	2623.5	2.35	
WALAKPA #2	1	PEBBLE SHALE	2626.	2.45	
WALAKPA #2	1	PEBBLE SHALE	2629.	2.35	
WALAKPA #2	1	PEBBLE SHALE	2632.	2.29	
WALAKPA #2	1	PEBBLE SHALE	2635.	2.73	
WALAKPA #2	1	PEBBLE SHALE	2638.	2.62	
WALAKPA #2	1	PEBBLE SHALE	2639.	2.71	
WALAKPA #2	2	KINGAK	2985.	2.34	SILTY SHALE, FRIABLE
WALAKPA #2	2	KINGAK	2990.	2.46	FINE SANDY SHALE
WALAKPA #2	2	KINGAK	2993.4	2.57	FINE SILTY, SANDY SHALE
WALAKPA #2	2	KINGAK	3002.	2.69	FINE SANDSTONE
WALAKPA #2	3	KINGAK	3690.	2.50	FINE SANDY SHALE
WALAKPA #2	3	KINGAK	3743.8	2.48	FINE SANDY SHALE
WALAKPA #2	3	KINGAK	3745.3	2.58	FINE SANDY SHALE
WALAKPA #2	3	KINGAK	3749.7	2.58	FINE SANDY SHALE

Table 5a.--Density data sorted by rock unit (Colville)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
SQUARE LK	2	COLVILLE SANDSTN	239.	2.29	SANDY SILTSTONE
SQUARE LK	2	COLVILLE SANDSTN	245.	2.34	SANDY SILTSTONE
SQUARE LK	3	COLVILLE SANDSTN	264.	2.83	LIMESTONE
SQUARE LK	3	COLVILLE SANDSTN	271.	2.35	SILTY SHALE
SQUARE LK	4	COLVILLE SANDSTN	469.	2.36	SILTY SHALE
SQUARE LK	5	COLVILLE SANDSTN	517.	2.52	FINE SANDSTONE (IRON STAIN?)
SQUARE LK	5/2	COLVILLE SANDSTN	527.	2.26	FINE SANDSTONE
SQUARE LK	5/2	COLVILLE SANDSTN	532.	2.42	SILTY SHALE
SQUARE LK	7	COLVILLE SANDSTN	570.	2.32	MED SANDSTONE
SQUARE LK	7	COLVILLE SANDSTN	577.	2.32	MED SANDSTONE
SQUARE LK	7	COLVILLE SANDSTN	588.	2.37	SILTY SHALE
SQUARE LK	9	COLVILLE SANDSTN	608.	2.17	
SQUARE LK	9	COLVILLE SANDSTN	612.5	2.26	MED SANDSTONE, POROUS
SQUARE LK	10	COLVILLE SANDSTN	634.	2.22	MED SANDSTONE
SQUARE LK	11/1	COLVILLE SANDSTN	651.	2.36	SILTY SHALE
SQUARE LK	11/2	COLVILLE SANDSTN	667.	2.13	FINE SANDSTONE W/PYROBITUMEN
SQUARE LK	13	COLVILLE SHALE	705.	2.38	VERY FINE SANDSTONE
SQUARE LK	13	COLVILLE SHALE	706.	2.41	SILTY SHALE
SQUARE LK	15	COLVILLE SHALE	943.	2.44	SILTY SHALE
SQUARE LK	15	COLVILLE SHALE	955.	2.41	SILTSTONE
SQUARE LK	17	COLVILLE SHALE	1084.	2.44	SILICEOUS SILTY SHALE

Table 5b.--Density data sorted by rock unit (Nanushuk)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
E SIMPSON #1	1/2	NANUSHUK	2679.	2.22	CLAY SHALE POROUS & FRIABLE
E SIMPSON #2	1/1	NANUSHUK	2380.5	2.17	MUDSTONE,FALLS APART & POROUS
E SIMPSON #2	1/2	NANUSHUK	2389.	2.37	MEDIUM SANDSTONE, VERY POROUS
E SIMPSON #2	1/4	NANUSHUK	2399.5	2.39	MUDDY SANDSTONE, POROUS
IKPIKPUK	1/1	NANUSHUK	2930.	2.31	MUDDY SHALE, VERY FRIABLE
IKPIKPUK	1/2	NANUSHUK	2936.	2.33	MUDDY SHALE, VERY FRIABLE
IKPIKPUK	1/3	NANUSHUK	2939.	2.27	SILTY SHALE
IKPIKPUK	1/4	NANUSHUK	2947.	2.31	MUDDY SHALE,CRUMBLES WHEN WET
INIGOK	1/1	NANUSHUK	2637.7	2.55	VERY FINE SANDSTONE
INIGOK	1/3	NANUSHUK	2649.	2.40	SILTSTONE
INIGOK	1/6	NANUSHUK	2661.	2.47	SANDY SHALE
INIGOK	2/2	NANUSHUK	3084.	2.54	FINE SANDSTONE, VERY POROUS
J W DALTON	1	NANUSHUK	3503.	2.09	MUDSTONE, VERY POROUS
J W DALTON	1	NANUSHUK	3514.	2.22	MUDSTONE, VERY POROUS
J W DALTON	1	NANUSHUK	3529.	2.20	MUDSTONE, VERY POROUS
S MEADE	1	NANUSHUK	3010.	2.57	SILTSTONE
SQUARE LK	22	NANUSHUK	1655.5	2.55	MED GRAIN SANDSTONE, POROUS
SQUARE LK	22	NANUSHUK	1664.5	2.53	IRON-STAINED MED SNDSTN, POR
SQUARE LK	25	NANUSHUK	1702.	2.44	FINE SANDSTONE, CROSS BEDDED
SQUARE LK	25	NANUSHUK	1713.	2.48	SILTY SHALE
SQUARE LK	26	NANUSHUK	1731.	2.70	FINE MICA SANDSTONE W/STAINS
SQUARE LK	27	NANUSHUK	1745.5	2.63	X-BEDDED V FINE GRAIN SNDSTN
SQUARE LK	30	NANUSHUK	1818.	2.49	MED SANDSTONE
SQUARE LK	30	NANUSHUK	1822.	2.56	JUMBLED MUDSTONE
SQUARE LK	31	NANUSHUK	1841.	2.65	FINE SANDSTONE
SQUARE LK	36	NANUSHUK	1940.	2.44	VERY FINE GRAINED SANDSTONE
SQUARE LK	36	NANUSHUK	1940.5	2.56	VERY FINE GRAINED SANDSTONE
SQUARE LK	36	NANUSHUK	1943.	2.47	FINE LAYERED SANDSTONE
SQUARE LK	43	NANUSHUK	2849.	2.60	SILTY SHALE
SQUARE LK	44	NANUSHUK	3027.	2.56	FINE SANDSTONE, POROUS
SQUARE LK	45	NANUSHUK	3058.	2.57	FINE SANDSTONE, POROUS
SQUARE LK	46	NANUSHUK	3103.	2.50	FINE SANDSTONE
SQUARE LK	49	NANUSHUK	3239.	2.42	FINE SANDSTONE
SQUARE LK	49	NANUSHUK	3259.	2.52	FINE SANDSTONE, POROUS
SQUARE LK	50	NANUSHUK	3279.	2.50	FINE SANDSTONE
TUNALIK	1/2	NANUSHUK	3284.	2.48	FINE SANDSTONE W/MUD INCLUS
TUNALIK	1/2	NANUSHUK	3288.5	2.53	MUDSTONE
TUNALIK	1	NANUSHUK	3296.	2.39	MUDSTONE
TUNALIK	1/5	NANUSHUK	3308.	2.54	SILTY SHALE
TUNALIK	2	NANUSHUK	3825.3	2.57	MUDSTONE
TUNALIK	2	NANUSHUK	3826.8	2.56	MUDSTONE, CRUMBLED AWAY
TUNALIK	3/1	NANUSHUK	5557.6	2.58	INTERBEDDED SAND AND SILT
TUNALIK	3/2	NANUSHUK	5559.5	2.61	FINE SANDSTONE,POROUS
TUNALIK	3/2	NANUSHUK	5561.	2.54	FINE SANDSTONE,POROUS

Table 5c.--Density data sorted by rock unit (Torok, Upper)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
AWUNA	1/1	TOROK, UPPER	2450.2	2.55	SILTY SHALE
DREW POINT	1	TOROK, UPPER	4130.	2.37	SILTY SHALE
DREW POINT	1	TOROK, UPPER	4136.	2.40	MUDDY SHALE
E SIMPSON #2	2/1	TOROK, UPPER	6059.	2.51	FINE SANDSTONE BLK INTERBEDS
E SIMPSON #2	2/2	TOROK, UPPER	6065.	2.41	MEDIUM SANDSTONE
E SIMPSON #2	2/4	TOROK, UPPER	6073.5	2.52	FINE SANDSTONE & MUDSTONE
IKPIKPUK	1/5	TOROK, UPPER	2950.5	2.40	MUDDY SHALE,CRUMBLES WHEN WET
IKPIKPUK	1/6	TOROK, UPPER	2960.5	2.39	MUDDY SHALE,CRUMBLES WHEN WET
IKPIKPUK	2/1	TOROK, UPPER	3787.	2.45	SILTY SHALE
IKPIKPUK	2/3	TOROK, UPPER	3799.5	2.47	SILTY SHALE
IKPIKPUK	2/5	TOROK, UPPER	3810.	2.48	SILTY SHALE
INIGOK	3/1	TOROK, UPPER	4212.	2.48	SILTY SHALE
INIGOK	4/1	TOROK, UPPER	5006.	2.55	SILTY SHALE
INIGOK	4	TOROK, UPPER	5007.5	2.55	SILTSTONE
INIGOK	5/1	TOROK, UPPER	7059.8	2.60	SILTY SHALE
J W DALTON	2	TOROK, UPPER	4667.4	2.34	V FINE SANDSTONE, SILTY SHALE
J W DALTON	2	TOROK, UPPER	4681.	2.33	FINE SANDY SHALE, POROUS
J W DALTON	2	TOROK, UPPER	4689.	2.41	FINE SANDY SHALE, PYROBITUMEN
J W DALTON	2	TOROK, UPPER	4690.5	2.29	FINE SAND & SILTY SHALE, POR
J W DALTON	2	TOROK, UPPER	4694.5	2.37	SILTY SHALE
N KALIKPIK	1/1	TOROK, UPPER	3812.	2.35	GREY MUDDY SHALE
N KALIKPIK	2/1	TOROK, UPPER	4997.	2.50	GREY SHALE FALLS APART
N KALIKPIK	3/1	TOROK, UPPER	5871.	2.56	GREY SHALE
N KALIKPIK	4/2	TOROK, UPPER	6707.	2.60	BLACK SHALE&FINE X-BED SNDSTN
OUMALIK	75	TOROK, UPPER	8090.	2.56	SHALE
OUMALIK	76	TOROK, UPPER	8284.	2.59	INTERBEDDED SHALE
OUMALIK	77	TOROK, UPPER	8492.	2.56	FINE GRAIN SHALE FALLS APART
PEARD	1/1	TOROK, UPPER	3042.	2.46	SANDY-SILTY SHALE,BROKE IN 2
PEARD	1/3	TOROK, UPPER	3044.	2.46	SANDY SHALE, POROUS
PEARD	2	TOROK, UPPER	4289.	2.57	MUDSTONE
PEARD	3	TOROK, UPPER	5413.8	2.42	X-BEDDED FINE SANDSTONE,POR
PEARD	3/2	TOROK, UPPER	5417.	2.47	MED SANDSTONE, POROUS
PEARD	3/2	TOROK, UPPER	5419.	2.56	FINE SANDSTONE W-SILTSTN INC
S BARROW #3	1	TOROK, UPPER	201.	2.09	FINE SANDSTONE, VERY POROUS
S BARROW #3	3	TOROK, UPPER	403.	2.26	SILTY SHALE
S BARROW #18	1	TOROK, UPPER	1360.2	2.43	MUDSTONE MELTS
S BARROW #18	2	TOROK, UPPER	1391.	2.06	SILTY SHALE
S BARROW #19	1	TOROK, UPPER	1331.	2.41	MUDSTONE
S BARROW #19	1/2	TOROK, UPPER	1336.	2.40	SILTSTONE
S BARROW #19	1	TOROK, UPPER	1346.	2.41	SOFT CLAY SHALE
S BARROW #19	1	TOROK, UPPER	1352.5	2.25	SILTY SHALE(LAYERED), POROUS
S BARROW #19	1	TOROK, UPPER	1354.3	2.27	SILTY SHALE

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
S MEADE	3	TOROK, UPPER	4950.	2.62	SILTY SHALE
S MEADE	3	TOROK, UPPER	4958.6	2.62	SILTY SHALE W/SLICKENSIDES
S MEADE	4	TOROK, UPPER	5993.	2.65	SILTSTONE
S MEADE	4	TOROK, UPPER	6002.5	2.65	SILTSTONE
SEABEE	1/2	TOROK, UPPER	5399.	2.37	GOUGED SANDSTONE
TUNALIK	4	TOROK, UPPER	6507.	2.56	FINE SANDSTONE,POROUS
TUNALIK	4	TOROK, UPPER	6510.	2.59	SILTY SHALE
TUNALIK	5/1	TOROK, UPPER	7870.	2.62	SILTY SHALE
TUNALIK	5	TOROK, UPPER	7877.5	2.62	BEDDED SAND & SILT
TUNALIK	6	TOROK, UPPER	8787.4	2.64	SILTY SHALE
TUNALIK	6	TOROK, UPPER	8795.	2.64	SHALE INTERBED FINE SAND&SILT
TUNALIK	6	TOROK, UPPER	8803.	2.64	SILTSTONE
TUNALIK	6	TOROK, UPPER	8808.5	2.64	SILTY SHALE
TUNALIK	7/1	TOROK, UPPER	10472.	2.66	SILTSTONE
TUNALIK	7/3	TOROK, UPPER	10490.	2.66	MUDSTONE
TUNALIK	7/4	TOROK, UPPER	10496.	2.65	SILTY SHALE
TUNALIK	7	TOROK, UPPER	10502.	2.66	SILTSTONE
W DEASE	1/2	TOROK, UPPER	605.	2.18	MUDSTONE
W DEASE	1/3	TOROK, UPPER	626.	2.20	MUDSTONE, POROUS
W DEASE	2/1	TOROK, UPPER	1099.5	2.50	FINE SANDSTONE
W DEASE	3/1	TOROK, UPPER	1905.	2.46	SILTSTONE
W DEASE	3	TOROK, UPPER	1916.	2.40	FINE SANDSTONE
WALAKPA #1	1/1	TOROK, UPPER	257.	2.34	BROWN SILTY SHALE,MELTS
WALAKPA #1	1/4	TOROK, UPPER	273.	2.31	FINE SANDSTONE, POROUS DISINT

Table 5d.--Density data sorted by rock unit (Torok, Lower)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
AWUNA	2	TOROK, LOWER	3666.5	2.53	FINE SANDSTONE
AWUNA	1/2	TOROK, LOWER	3667.5	2.61	SILTY SHALE
AWUNA	2/3	TOROK, LOWER	3676.	2.62	SILTY SHALE W/SLICKENSIDES
AWUNA	3	TOROK, LOWER	6014.	2.68	SILTSTONE
AWUNA	3	TOROK, LOWER	6021.	2.66	SILTY SHALE W/SLICKENSIDES
AWUNA	3	TOROK, LOWER	6028.	2.68	SILTY SHALE
DREW POINT	2	TOROK, LOWER	5530.	2.54	FINE CROSSBEDDED SAND
DREW POINT	3	TOROK, LOWER	5903.5	2.50	VERY FINE CALCAREOUS SAND
DREW POINT	3	TOROK, LOWER	5908.2	2.54	SILTY SHALE
E SIMPSON #1	4/1	TOROK, LOWER	5123.	2.56	SHALE
E SIMPSON #1	4/2	TOROK, LOWER	5129.	2.37	SLIGHTLY CALC FINE SANDSTONE
IKPIKPUK	3/1	TOROK, LOWER	5690.5	2.60	SILTY SHALE
IKPIKPUK	3/2	TOROK, LOWER	5697.	2.58	SILTY SHALE
IKPIKPUK	4/1	TOROK, LOWER	7136.	2.62	SILTY SHALE
IKPIKPUK	4/2	TOROK, LOWER	7138.	2.37	SANDSTONE
IKPIKPUK	4/2	TOROK, LOWER	7141.5	2.61	SILTY SHALE
INIGOK	5/2	TOROK, LOWER	7064.3	2.61	SILTY SHALE
INIGOK	6/1	TOROK, LOWER	8216.	2.68	FINE SANDSTONE, POROUS
INIGOK	6/2	TOROK, LOWER	8220.	2.59	SANDY SHALE
INIGOK	6/3	TOROK, LOWER	8227.4	2.66	FINE SANDSTONE, POROUS
INIGOK	6/4	TOROK, LOWER	8231.5	2.57	FINE SANDSTONE, POROUS
INIGOK	6/5	TOROK, LOWER	8236.6	2.49	V FINE SANDY SHALE W/SOME TAR
INIGOK	7	TOROK, LOWER	8851.8	2.63	BLACK SHALE W/PYRITE
J W DALTON	3	TOROK, LOWER	5609.	2.46	SILTY SHALE
J W DALTON	4	TOROK, LOWER	6585.	2.52	SILTY SHALE
N INIGOK	3	TOROK, LOWER	6852.	2.63	GREY LAYERED SILTY SHALE
N INIGOK	3	TOROK, LOWER	6855.	2.62	GREY LAYERED SILTY SHALE
N INIGOK	3	TOROK, LOWER	6864.	2.62	GREY LAYERED SILTY SHALE
OUMALIK	78	TOROK, LOWER	8691.	2.58	INTERBEDDED SHALE
OUMALIK	79	TOROK, LOWER	8917.	2.57	SILTSTONE
OUMALIK	82	TOROK, LOWER	9278.	2.43	SANDSTONE BUBBLES
OUMALIK	83/1	TOROK, LOWER	9537.	2.59	SILTY SHALE
OUMALIK	83/1	TOROK, LOWER	9542.	2.49	SANDSTONE
OUMALIK	83/2	TOROK, LOWER	9544.	2.49	SANDSTONE
OUMALIK	83/3	TOROK, LOWER	9552.	2.59	SANDSTONE
OUMALIK	84/1	TOROK, LOWER	9825.	2.58	FINE GRAIN SHALE
OUMALIK	84/1	TOROK, LOWER	9829.	2.58	SILTY SHALE SOME SOFT SPOTS
OUMALIK	84/2	TOROK, LOWER	9840.	2.60	INTERBEDDED SHALE
OUMALIK	85/1	TOROK, LOWER	10014.	2.54	SANDSTONE
OUMALIK	85/1	TOROK, LOWER	10019.	2.60	FINE SANDSTONE
OUMALIK	85/2	TOROK, LOWER	10029.	2.60	SANDSTONE
OUMALIK	86	TOROK, LOWER	10233.	2.57	SANDSTONE
OUMALIK	86	TOROK, LOWER	10253.	2.59	SHALE
OUMALIK	87	TOROK, LOWER	10453.	2.58	SANDSTONE
OUMALIK	88	TOROK, LOWER	10669.	2.51	FINE GRANULAR SHALE
PEARD	5/2	TOROK, LOWER	6125.6	2.62	SILTSTONE

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
S BARROW #3	6	TOROK, LOWER	993.	2.38	SILTSTONE
SEABEE	3/6	TOROK, LOWER	10072.	2.64	SILTSTONE
SEABEE	3/5	TOROK, LOWER	10073.8	2.67	SILTY SHALE
SEABEE	3	TOROK, LOWER	10088.	2.64	FINE SANDSTONE
SEABEE	3/2	TOROK, LOWER	10091.	2.58	SILTSTONE
SEABEE	3/1	TOROK, LOWER	10095.	2.60	SILTSTONE
SEABEE	3/1	TOROK, LOWER	10096.3	2.64	SILTSTONE
SEABEE	5/1	TOROK, LOWER	12012.8	2.58	FINE SANDY SHALE
SEABEE	5/1	TOROK, LOWER	12014.3	2.60	SILTY SHALE
SEABEE	5	TOROK, LOWER	12037.	2.58	SILTY SHALE
TOPAGORUK	55	TOROK, LOWER	6510.	2.63	MUDSTONE

Table 5e.--Density data sorted by rock unit (Pebble Shale)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
AVAK	3	PEBBLE SHALE	582 M	2.30	SILTY SHALE
AVAK	4	PEBBLE SHALE	802 M	2.42	SILTY SHALE
AVAK	5	PEBBLE SHALE	1008 M	2.40	SILTY SHALE
AVAK	6	PEBBLE SHALE	1026 M	2.41	SILTY SHALE
AVAK	7	PEBBLE SHALE	1045 M	2.41	SILTY SHALE
AVAK	11	PEBBLE SHALE	1226 M	2.37	SILTY SHALE
AVAK	12	PEBBLE SHALE	1247 M	2.44	SILTY SHALE
AVAK	13	PEBBLE SHALE	1268 M	2.35	SILTY SHALE
AVAK	16	PEBBLE SHALE	1339 M	2.40	SILTY SHALE
E SIMPSON #2	3/1	PEBBLE SHALE	6342.	2.58	BLACK SHALE W/PYRITE NODULES
E SIMPSON #2	3/5	PEBBLE SHALE	6366.	2.58	BLACK SHALE W/CHERT PEBBLES
IKPIKPUK	5/1	PEBBLE SHALE	7369.	2.60	PEBBLE SHALE
IKPIKPUK	5/1	PEBBLE SHALE	7374.	2.60	PEBBLE SHALE
IKPIKPUK	5/2	PEBBLE SHALE	7374.5	2.62	BLACK SHALE/SILTY INTERBEDS
J W DALTON	5	PEBBLE SHALE	7525.	2.50	BLACK SILTY SHALE W/QUARTZ
KUYANAK	1	PEBBLE SHALE	4969.	2.59	SILTY SHALE
KUYANAK	1	PEBBLE SHALE	5029.	2.53	SILTY SHALE
KUYANAK	2	PEBBLE SHALE	5069.	2.52	SILTY SANDSTONE
KUYANAK	2	PEBBLE SHALE	5069.5	2.52	CONGLOMERATE
KUYANAK	2	PEBBLE SHALE	5072.5	2.51	CONGLOMERATE
KUYANAK	2	PEBBLE SHALE	5073.	3.27	SILICIFIED SHALE SLICKENSIDED
KUYANAK	2	PEBBLE SHALE	5074.	2.57	SILTY SHALE-FELL APART WET
KUYANAK	3	PEBBLE SHALE-SND	5095.	2.66	FINE SANDSTONE
KUYANAK	3	PEBBLE SHALE-SND	5099.7	2.54	FINE SANDSTONE
KUYANAK	3	PEBBLE SHALE-SND	5104.1	2.62	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5111.	2.42	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5114.5	2.59	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5116.	2.44	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5118.7	2.50	FINE SANDSTONE, POROUS
KUYANAK	3	PEBBLE SHALE-SND	5120.	2.70	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5124.	2.44	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5128.	2.44	FINE SANDSTONE
KUYANAK	3	PEBBLE SHALE-SND	5133.	2.48	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5136.	2.39	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5138.	2.56	FINE SANDSTONE, VERY POROUS
KUYANAK	3	PEBBLE SHALE-SND	5144.5	2.53	FINE SANDSTONE
KUYANAK	3	PEBBLE SHALE-SND	5151.	2.39	FINE SANDSTONE, VERY POROUS
KUYANAK	4	PEBBLE SHALE-SND	5163.	2.64	FINE SANDSTONE, VERY POROUS
KUYANAK	4	PEBBLE SHALE-SND	5164.	2.66	MED-FINE SAND, POROUS
N INIGOK	4	PEBBLE SHALE	7490.	2.49	BLACK SILTY SHALE W/QUARTZ
N INIGOK	4	PEBBLE SHALE	7499.5	2.51	BLACK SILTY SHALE W/QUARTZ
N INIGOK	4	PEBBLE SHALE	7501.	2.51	BLACK SILTY SHALE W/QUARTZ
N KALIKPIK	5/1	PEBBLE SHALE	6993.5	2.52	BLACK SHALE W/QUARTZ FLOATERS
N KALIKPIK	5/2	PEBBLE SHALE	6996.2	2.53	BLACK SHALE W/QUARTZ FLOATERS
N KALIKPIK	6/3	PEBBLE SHALE	7039.	2.48	BLACK SHALE W/QUARTZ FLOATERS
N KALIKPIK	7/1	PEBBLE SHALE	7052.5	2.83	BLK & BRWN SHALE W/PYRITE
N KALIKPIK	7/5	PEBBLE SHALE	7074.	2.88	IRONSTAIN BLK SHALE, MUD LEN
N KALIKPIK	7/11	PEBBLE SHALE	7103.5	2.54	BLACK SHALE W/SMALL PEBBLES
N KALIKPIK	9/1	PEBBLE SHALE	7138.	2.55	BROWN SHALE W/PYRITE
N KALIKPIK	10/3	PEBBLE SHALE	7154.7	2.57	BROWNISH BLACK SHALE

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
OUMALIK	89	PEBBLE SHALE	10992.	2.44	FINE GRANULAR SHALE
OUMALIK	90	PEBBLE SHALE	11852.	2.70	SANDSTONE
PEARD	6	PEBBLE SHALE	6408.	2.69	MUDSTONE, FALLS APART
S BARROW #1	9	PEBBLE SHALE	3042.	2.48	GREY SILTSTONE
S BARROW #1	14	PEBBLE SHALE	3069.	2.48	GREY SHALE
S BARROW #1	19	PEBBLE SHALE	3083.	2.46	GREY SHALE
S BARROW #1	24	PEBBLE SHALE	3105.2	2.45	BLACK SILTY SHALE
S BARROW #1	24	PEBBLE SHALE	3106.5	2.44	GREY SILTY SHALE
S BARROW #1	24	PEBBLE SHALE	3115.	2.67	FINE SANDY SHALE POROUS
S BARROW #1	28	PEBBLE SHALE	3153.	2.49	BLACK SILTY SHALE
S BARROW #1	28	PEBBLE SHALE	3153.3	2.25	FINE SANDSTONE POROUS
S BARROW #1	28	PEBBLE SHALE	3158.5	2.56	GREY SILTSTONE
S BARROW #1	30	PEBBLE SHALE	3181.5	2.49	GREY SHALE
S BARROW #1	31	PEBBLE SHALE	3193.	3.24	CHERT (?)
S BARROW #1	31	PEBBLE SHALE	3196.	2.48	SILTY SHALE (LAYERED)
S BARROW #1	31	PEBBLE SHALE	3196.4	2.61	FINE SANDY SHALE POROUS
S BARROW #1	34	PEBBLE SHALE	3227.3	2.52	GREY SILTSTONE
S BARROW #1	35	PEBBLE SHALE	3238.	2.51	SILTSTONE
S BARROW #2	34/1	PEBBLE SHALE	1955.	2.42	MUDSTONE
S BARROW #2	39	PEBBLE SHALE	2020.	2.41	SILTY SHALE
S BARROW #2	40	PEBBLE SHALE	2060.	2.43	MUDSTONE
S BARROW #2	43	PEBBLE SHALE	2111.	2.39	MUDSTONE
S BARROW #2	52	PEBBLE SHALE	2254.	2.39	FINE SANDSTONE POROUS
S BARROW #2	55	PEBBLE SHALE	2287.	2.21	MED SANDSTONE POROUS
S BARROW #3	9	PEBBLE SHALE	1406.	2.35	SILTY SHALE
S BARROW #3	11	PEBBLE SHALE	1613.	2.43	BLACK SILTSTONE
S BARROW #3	12	PEBBLE SHALE	1625.	2.35	BLACK SHALE
S BARROW #9	2	PEBBLE SHALE	2017.	2.41	SILTSTONE
S BARROW #9	3	PEBBLE SHALE	2042.	2.49	SILTY SHALE
S BARROW #9	4	PEBBLE SHALE	2061.	2.42	SILTY SHALE
S BARROW #9	5	PEBBLE SHALE	2098.	2.45	SILTY SHALE
S BARROW #9	6	PEBBLE SHALE	2365.	2.46	PEBBLE SHALE
S BARROW #9	6	PEBBLE SHALE	2372.	3.10	SILICIFIED SHALE OR ARGILLITE
S BARROW #13	1	PEBBLE SHALE	2163.	2.44	SILTSTONE, FRIABLE
S BARROW #13	1	PEBBLE SHALE	2173.	2.43	SILTSTONE, POROUS & FRIABLE
S BARROW #13	1	PEBBLE SHALE	2184.	2.48	FINE SANDY SHALE,FRIABLE
S BARROW #13	1	PEBBLE SHALE	2188.	2.49	MUDSTONE
S BARROW #13	2	PEBBLE SHALE	2208.	2.48	GOUGED MUDSTONE
SIMPSON #1	23/0	PEBBLE SHALE	5464.	2.55	SILTY SHALE
TOPAGORUK	57	PEBBLE SHALE	6849.	2.53	
TULAGEAK	1	PEBBLE SHALE	2940.	2.42	SILTY PEBBLE SHALE
TULAGEAK	1	PEBBLE SHALE	2945.	2.39	SILTY PEBBLE SHALE, FRIABLE
TUNALIK	8/1	PEBBLE SHALE	10674.	2.52	BLACK SILTY SHALE W/QUARTZ
TUNALIK	8/2	PEBBLE SHALE	10680.	2.68	BLACK SILTY SHALE
TUNALIK	8/3	PEBBLE SHALE	10687.5	2.64	BLACK SILTY SHALE
TUNALIK	8/5	PEBBLE SHALE	10701.	2.62	BLACK SILTY SHALE W/PYRITE
W DEASE	4/2	PEBBLE SHALE	2959.	2.45	BLACK SILTY SHALE
W DEASE	4/4	PEBBLE SHALE	2974.6	2.46	BLACK SILTY SHALE W/PYRITE

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
WALAKPA #1	4	PEBBLE SHALE	1844.	2.40	BLACK SILTY SHALE
WALAKPA #1	4	PEBBLE SHALE	1864.5	3.00	BROWN LIMESTONE W/CALC VEIN
WALAKPA #1	4/9	PEBBLE SHALE	1882.	2.42	BLACK SILTY SHALE
WALAKPA #1	5/1	PEBBLE SHALE	1983.	2.44	BLACK SILTY SHALE W/QUARTZ
WALAKPA #1	5/	PEBBLE SHALE	2009.	2.43	BLACK SILTY SHALE W/QUARTZ
WALAKPA #1	6	PEBBLE SHALE	2066.	2.39	
WALAKPA #1	6	PEBBLE SHALE	2069.	2.48	
WALAKPA #1	6	PEBBLE SHALE	2071.	2.40	
WALAKPA #1	6	PEBBLE SHALE	2074.	2.34	
WALAKPA #1	6	PEBBLE SHALE	2077.	2.43	
WALAKPA #1	6	PEBBLE SHALE	2084.	2.43	
WALAKPA #1	6	PEBBLE SHALE	2087.	2.42	
WALAKPA #2	1	PEBBLE SHALE	2611.	2.35	
WALAKPA #2	1	PEBBLE SHALE	2614.	2.34	
WALAKPA #2	1	PEBBLE SHALE	2617.	2.29	
WALAKPA #2	1	PEBBLE SHALE	2620.	2.36	
WALAKPA #2	1	PEBBLE SHALE	2623.5	2.35	
WALAKPA #2	1	PEBBLE SHALE	2626.	2.45	
WALAKPA #2	1	PEBBLE SHALE	2629.	2.35	
WALAKPA #2	1	PEBBLE SHALE	2632.	2.29	
WALAKPA #2	1	PEBBLE SHALE	2635.	2.73	
WALAKPA #2	1	PEBBLE SHALE	2638.	2.62	
WALAKPA #2	1	PEBBLE SHALE	2639.	2.71	
WALAKPA #1	5/8	PEBBLE SHALE-SND	2020.5	2.47	BLACK SILTY SHALE, QTZ PEB
WALAKPA #1	5/9	PEBBLE SHALE-SND	2025.6	2.48	BLACK SILTY SHALE QTZPEB
WALAKPA #1	6/1	PEBBLE SHALE-SND	2061.	2.43	BLACK SILTY SHALE
WALAKPA #1	6/1	PEBBLE SHALE-SND	2062.5	2.44	PEBBLE SANDSTONE
WALAKPA #1	6/1	PEBBLE SHALE-SND	2063.3	2.39	PEBBLE CONGLOMERATE, POROUS
WALAKPA #1	6/1	PEBBLE SHALE-SND	2064.8	2.13	PEBBLE CONGL W/FINE SAND MTRX
WALAKPA #1	6/2	PEBBLE SHALE-SND	2070.	2.23	FINE SANDSTONE, POROUS
WALAKPA #1	6/4	PEBBLE SHALE-SND	2081.	2.44	SILTSTONE

Table 5f.--Density data sorted by rock unit (Okpikruak)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
LISBURNE	1/1	OKPIKRUAK	1557.	2.64	FINE GRAIN SILTSTONE/SML BUB
LISBURNE	2/1	OKPIKRUAK	2075.	2.63	PEBBLE CONG-NO BUBBLES
LISBURNE	2/2	OKPIKRUAK	2083.	2.61	PEBBLE CONG-NO BUBBLES
LISBURNE	2/3	OKPIKRUAK	2090.5	2.62	PEBBLE CONG,SILTSTONE-NO BUB
LISBURNE	3/1	OKPIKRUAK	2991.	2.61	SILTSTONE-NO BUBBLES
LISBURNE	3/2	OKPIKRUAK	2998.	2.63	SILTSTONE-NO BUBBLES
LISBURNE	4/1	OKPIKRUAK	3904.	2.60	META PEBBLE CONG-FALLS APART
LISBURNE	5/1	OKPIKRUAK	5343.	2.64	META SILTSTONE-FALLS APART
LISBURNE	5/2	OKPIKRUAK	5350.	2.57	META SILTSTONE-FALLS APART
LISBURNE	5/3	OKPIKRUAK	5354.	2.66	META?SANDSTONE & SILTSTONE

Table 5g.--Density data sorted by rock unit (Kingak)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
AVAK	17	KINGAK	1388 M	2.45	SILTSTONE
AVAK	21	KINGAK	1563 M	2.27	SILTSTONE
AVAK	24	KINGAK	1645 M	2.33	SILTSTONE
AVAK	24	KINGAK	1675 M	2.41	SILTSTONE
AVAK	28	KINGAK	1742 M	2.16	SILTSTONE
AVAK	29	KINGAK	1759 M	2.37	SILTSTONE
AVAK	30	KINGAK	1773 M	2.21	SILTSTONE
AVAK	34	KINGAK	1844 M	2.34	SILTSTONE
AVAK	41	KINGAK	2017 M	2.43	SILTSTONE
AVAK	44	KINGAK	2063 M	2.30	SILTSTONE
AVAK	46	KINGAK	2172 M	2.43	SILTSTONE
AVAK	50	KINGAK	2289 M	2.29	SILTSTONE & PEBBLES
KUGRUA	1/1	KINGAK	7202.	2.59	SILTSTONE
KUYANAK	4	KINGAK	5164.5	2.65	CONGLOMERATE
KUYANAK	4	KINGAK	5168.	2.56	
KUYANAK	4	KINGAK	5173.	2.60	SILTSTONE
PEARD	8	KINGAK	8284.8	2.64	SILTY SHALE-ARGILLITE
S BARROW #1	37	KINGAK	3330.	2.56	FINE SANDSTONE POROUS
S BARROW #2	58	KINGAK	2332.	2.17	MED-FINE SANDSTONE
S BARROW #2	60	KINGAK	2356.	2.37	SILTY SHALE
S BARROW #2	65	KINGAK	2440.	2.43	FINE SANDSTONE
S BARROW #3	13	KINGAK	1740.	2.24	SILTSTONE
S BARROW #3	19	KINGAK	2030.	2.80	SILTSTONE SILICEOUS
S BARROW #3	23	KINGAK	2100.	2.41	SILTSTONE
S BARROW #3	26	KINGAK	2170.	2.42	SILTY SHALE
S BARROW #9	7	KINGAK	2384.	2.45	FINE SANDSTONE, POROUS
S BARROW #9	7	KINGAK	2401.	2.34	FINE SANDSTONE, POROUS
S BARROW #9	7	KINGAK	2404.	2.56	FINE SANDSTONE
S BARROW #9	7	KINGAK	2413.	2.20	FINE SANDSTONE
S BARROW #9	8	KINGAK	2434.	2.29	FINE SANDSTONE, POROUS
S BARROW #9	8	KINGAK	2444.	2.25	FINE SANDSTONE, POROUS
S BARROW #12	1	KINGAK	1966.	2.28	V FINE SANDY SILTSTONE,POROUS
S BARROW #12	1	KINGAK	1981.	2.17	VERY FINE SANDSTONE, POROUS
S BARROW #12	2	KINGAK	1988.	2.13	VERY FINE SANDSTONE, POROUS
S BARROW #12	2	KINGAK	2000.	2.19	VERY FINE SANDSTONE, POROUS
S BARROW #12	2	KINGAK	2003.5	2.27	SILTSTONE
S BARROW #12	3	KINGAK	2021.	2.21	FINE SILTY SANDSTONE, POROUS
S BARROW #12	3	KINGAK	2037.	2.20	MED SANDSTONE
S BARROW #12	4	KINGAK	2056.	2.97	MED SANDSTONE (SILICEOUS?)
S BARROW #12	4	KINGAK	2072.	2.25	SILTSTONE
S BARROW #12	5	KINGAK	2081.5	3.07	FINE SILICEOUS SANDSTONE
S BARROW #12	5	KINGAK	2093.	2.40	SILTY SHALE
S BARROW #12	6	KINGAK	2168.5	2.42	SANDY SILTSTONE
S BARROW #12	6	KINGAK	2180.	2.37	MUDDY SHALE
S BARROW #12	7	KINGAK	2196.	2.31	SILTY SHALE

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
S BARROW #13	3	KINGAK	2291.	2.39	FINE SANDY SHALE, POR, FRIAB
S BARROW #13	3	KINGAK	2303.	2.36	FINE SANDSTONE, POROUS
S BARROW #13	3	KINGAK	2312.	2.30	FINE SANDSTONE, POROUS
S BARROW #13	4	KINGAK	2323.	2.51	SILTSTONE
S BARROW #13	4	KINGAK	2331.	2.42	FINE SANDY SHALE, POROUS
S BARROW #13	4	KINGAK	2341.	2.20	FINE SANDSTONE, POROUS, FRIAB
S BARROW #13	5	KINGAK	2412.	2.31	FINE SANDY SHALE, POR, FRIAB
S BARROW #13	5	KINGAK	2422.	2.41	FINE SANDSTONE,POROUS,V FRIAB
S BARROW #17	1	KINGAK	2020.	2.03	FINE SANDSTONE, POROUS
S BARROW #17	1	KINGAK	2096.	2.79	V FINE SANDSTONE (SILTSTONE)
S BARROW #17	1	KINGAK	2099.	2.29	FINE SANDSTONE
S BARROW #17	1	KINGAK	2103.	2.07	FINE SANDSTONE, POROUS
S BARROW #17	1	KINGAK	2118.	2.39	FINE SANDSTONE, POROUS
S BARROW #17	1	KINGAK	2126.	2.33	FINE SANDSTONE, POROUS
S BARROW #17	2	KINGAK	2128.	2.13	
S BARROW #17	2	KINGAK	2130.	2.37	FINE SANDSTONE, POROUS
S BARROW #17	2	KINGAK	2136.	2.43	FINE SANDSTONE, POROUS
S BARROW #17	2	KINGAK	2142.	2.37	FINE SANDSTONE, POROUS
S BARROW #17	2	KINGAK	2149.	2.48	FINE SANDSTONE
S BARROW #18	3	KINGAK	1704.	2.48	SILTY SHALE
S BARROW #18	3	KINGAK	1713.	2.48	SILTSTONE POROUS
S BARROW #18	3	KINGAK	1733.	2.42	SILTY SHALE
S BARROW #18	3	KINGAK	1754.5	2.44	DARK PEBBLE SHALE, FRIABLE
S BARROW #18	3	KINGAK	1760.5	2.47	MUDSTONE, FRIABLE
S BARROW #19	2	KINGAK	2044.	2.41	FINE SANDSTONE, POROUS
S BARROW #19	2/2	KINGAK	2047.	2.45	FINE SANDSTONE, SLIGHTLY POR
S BARROW #19	2	KINGAK	2054.3	2.35	FINE SANDSTONE, POROUS
S BARROW #19	2	KINGAK	2064.5	2.44	SILTSTONE,SLIGHTLY POROUS
S MEADE	6	KINGAK	8492.	2.71	SILTY SHALE
S MEADE	6	KINGAK	8498.	2.70	SILTY SHALE
S MEADE	6	KINGAK	8501.	2.66	SILTY SHALE
S MEADE	6	KINGAK	8507.	2.67	SILTY SHALE
S MEADE	6	KINGAK	8513.	2.66	SILTY SHALE
SEABEE	6/1	KINGAK	13214.	2.51	GREY SILTSTONE W/QUARTZ
SEABEE	6/3	KINGAK	13224.	2.53	SILTY SHALE-ARGILLITE
SEABEE	3/7	KINGAK	14591.	2.51	BLACK SILTY SHALE W/PEBBLES
SIMPSON	23/1	KINGAK	5677.	2.59	MUDSTONE
SIMPSON	23/1	KINGAK	5684.	2.59	MUDSTONE
SIMPSON	23/2	KINGAK	5867.5	2.57	MUDSTONE
TOPAGORUK	67	KINGAK	8106.	2.63	
TULAGEAK	1	KINGAK	2948.8	2.45	SILTSTONE
TULAGEAK	1	KINGAK	2950.	2.69	VERY CALCAREOUS SILTSTONE
TULAGEAK	1	KINGAK	2952.	2.32	SILTSTONE
TULAGEAK	1	KINGAK	2955.	2.33	SILTSTONE
TULAGEAK	1	KINGAK	2961.2	2.42	SILTSTONE
TULAGEAK	1	KINGAK	2967.3	2.41	SILTSTONE, FRIABLE
TULAGEAK	1	KINGAK	2970.	2.46	SILTSTONE, VERY POROUS
TULAGEAK	1	KINGAK	2973.	2.43	SILTSTONE
TULAGEAK	1	KINGAK	2977.	2.45	SILTSTONE

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
W DEASE	5/1	KINGAK	3701.	2.38	FINE SANDSTONE
W DEASE	5	KINGAK	3715.	2.29	FINE SANDSTONE
W DEASE	5	KINGAK	3721.	2.43	FINE SANDSTONE
W DEASE	6	KINGAK	3752.	2.48	FINE SANDSTONE
W DEASE	6	KINGAK	3780.	2.52	SILTY SHALE
W DEASE	6	KINGAK	3786.2	2.61	FINE SANDSTONE (GREYWACKE)
W DEASE	7	KINGAK	3794.	2.53	LAYERED SILTSTONE
W DEASE	7	KINGAK	3817.	2.24	FINE SANDSTONE
W DEASE	7	KINGAK	3823.	2.63	FINE SANDSTONE W/PEBBLES
WALAKPA #1	6	KINGAK	2090.5	2.42	
WALAKPA #1	6	KINGAK	2093.	2.37	
WALAKPA #1	6	KINGAK	2105.	2.37	
WALAKPA #1	6	KINGAK	2111.	2.39	
WALAKPA #1	7/1	KINGAK	2810.	2.50	SILTY SHALE
WALAKPA #1	8/1	KINGAK	2937.	2.53	SILTY SHALE
WALAKPA #1	8	KINGAK	2961.5	2.54	SILTY SHALE
WALAKPA #1	8/10	KINGAK	2985.	2.51	SILTSTONE
WALAKPA #1	9	KINGAK	2992.	2.48	SILTSTONE
WALAKPA #1	9	KINGAK	3017.5	2.49	SANDY SILTSTONE, POROUS
WALAKPA #1	10	KINGAK	3060.	2.40	FINE SANDSTONE
WALAKPA #1	10	KINGAK	3091.	2.45	SANDY SILTSTONE
WALAKPA #2	2	KINGAK	2985.	2.34	SILTY SHALE, FRIABLE
WALAKPA #2	2	KINGAK	2990.	2.46	FINE SANDY SHALE
WALAKPA #2	2	KINGAK	2993.4	2.57	FINE SILTY, SANDY SHALE
WALAKPA #2	2	KINGAK	3002.	2.69	FINE SANDSTONE
WALAKPA #2	3	KINGAK	3690.	2.50	FINE SANDY SHALE
WALAKPA #2	3	KINGAK	3743.8	2.48	FINE SANDY SHALE
WALAKPA #2	3	KINGAK	3745.3	2.58	FINE SANDY SHALE
WALAKPA #2	3	KINGAK	3749.7	2.58	FINE SANDY SHALE

Table 5g1.--Density data sorted by rock unit (Kingak-J shale)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
IKPIKPUK	6/1	KINGAK-J SHALE	7495.	2.60	BLACK SHALE
IKPIKPUK	6/2	KINGAK-J SHALE	7501.	2.56	BLACK SHALE
INIGOK	8/2	KINGAK-J SHALE	9342.1	2.55	SILTY SHALE
INIGOK	8	KINGAK-J SHALE	9345.	2.55	SILTY SHALE
INIGOK	9/1	KINGAK-J SHALE	9448.7	2.58	SILTY SHALE
INIGOK	9/2	KINGAK-J SHALE	9455.8	2.57	SILTY SHALE
INIGOK	11/1	KINGAK-J SHALE	10998.	2.61	FINE SILTY SHALE W/PEBBLES
INIGOK	12/1	KINGAK-J SHALE	11707.	2.56	BLACK SILTY SHALE
INIGOK	12/2	KINGAK-J SHALE	11710.	2.56	BLACK SILTY SHALE
N KALIKPIK	11/1	KINGAK-J SHALE	7162.5	2.58	BLACK SHALE W/SML MUD LENSES
N KALIKPIK	12/1	KINGAK-J SHALE	7164.	2.56	BLACK SHALE W/SML MUD LENSES
N KALIKPIK	13/1	KINGAK-J SHALE	7166.5	2.57	BLACK SHALE W/SML MUD LENSES
N KALIKPIK	14/1	KINGAK-J SHALE	7168.5	2.57	BLACK SHALE W/SML MUD LENSES
N KALIKPIK	15/2	KINGAK-J SHALE	7206.	2.57	BLACK SHALE W/SML MUD LENSES
N KALIKPIK	17/1	KINGAK-J SHALE	7395.	2.58	SHALE W/CONCRET & SML MUD LEN
S MEADE	5	KINGAK-J SHALE	7503.	2.59	SILTY SHALE
TUNALIK	9/1	KINGAK-J SHALE	10910.	2.56	SILTSTONE, POROUS
TUNALIK	9/2	KINGAK-J SHALE	10922.	2.56	SILTSTONE
TUNALIK	9/3	KINGAK-J SHALE	10922.	2.58	SILTSTONE
TUNALIK	9/3	KINGAK-J SHALE	10928.	2.57	SILTSTONE
TUNALIK	9/4	KINGAK-J SHALE	10934.	2.56	SILTSTONE
TUNALIK	9	KINGAK-J SHALE	10934.	2.57	SILTSTONE
TUNALIK	9	KINGAK-J SHALE	10935.	2.65	FINE SANDSTONE
TUNALIK	9	KINGAK-J SHALE	10936.5	2.78	SANDSTONE
TUNALIK	9	KINGAK-J SHALE	10937.	2.56	FINE SANDSTONE
TUNALIK	9	KINGAK-J SHALE	10940.	2.50	FINE SANDSTONE
TUNALIK	10/4	KINGAK-J SHALE	11678.	2.60	LAYERED FINE SAND & SILT
TUNALIK	10	KINGAK-J SHALE	11684.	2.56	SILTY SHALE
TUNALIK	10	KINGAK-J SHALE	11690.	2.64	SILTY SHALE W/SLICKENSIDES
TUNALIK	10/4	KINGAK-J SHALE	11693.	2.60	SILTY SHALE
TUNALIK	11/1	KINGAK-J SHALE	12573.	2.58	SILTY SHALE
TUNALIK	11/2	KINGAK-J SHALE	12574.2	2.56	MUDSTONE
TUNALIK	11/2	KINGAK-J SHALE	12577.	2.58	BLOCKY SAND & SILTSTONE
TUNALIK	11/3	KINGAK-J SHALE	12582.	2.48	FINE SANDSTONE
TUNALIK	11/3	KINGAK-J SHALE	12583.	2.56	FINE SANDY SHALE
TUNALIK	11/3	KINGAK-J SHALE	12585.	2.57	BLOCKY SAND & SHALE (ARGIL?)
TUNALIK	11/4	KINGAK-J SHALE	12588.	2.53	SLICKENSIDED SILTY SHALE
TUNALIK	11/4	KINGAK-J SHALE	12591.	2.59	ARGILLITE

Table 5g2.-Density data sorted by rock unit (Kingak-sands)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
DREW POINT	4	KINGAK-SAND	6924.5	2.62	SILTY SHALE
DREW POINT	5	KINGAK-SAND	6936.5	2.60	SILTY SHALE
KUYANAK	4	KINGAK-SAND	5164.5	2.72	SILTSTONE W/PYRITE NODULE
KUYANAK	5	KINGAK-SAND	6204.	2.65	VERY FINE SANDSTONE
KUYANAK	5	KINGAK-SAND	6209.	2.60	SILTSTONE
KUYANAK	5	KINGAK-SAND	6220.	2.56	SILTSTONE
S BARROW #6	1	KINGAK-SAND	2346.	2.27	FINE SANDSTONE, POROUS
S BARROW #6	1	KINGAK-SAND	2360.	2.21	FINE SANDSTONE, POROUS
WALAKPA #1	68	KINGAK-SAND 1	2100.	2.40	BLACK SILTSTONE
PEARD	7	KINGAK-SAND 2	7843.8	2.72	SANDY SILTSTONE
PEARD	7	KINGAK-SAND 2	7848.5	2.81	SILTY SANDY SHALE W/ORGANICS
PEARD	7	KINGAK-SAND 2	7854.2	2.67	SILTY SHALE, POROUS
PEARD	7	KINGAK-SAND 2	7859.8	2.85	SILTSTONE, POROUS
PEARD	7	KINGAK-SAND 2	7862.8	2.94	SILTSTONE, POROUS
PEARD	7	KINGAK-SAND 2	7866.7	2.92	SILTY SHALE
TOPAGORUK	63	KINGAK-SAND 2	7805.	3.00	META-SED? SLIGHTLY POROUS
TOPAGORUK	64	KINGAK-SAND 2	7831.5	2.64	
TOPAGORUK	65	KINGAK-SAND 2	7847.	2.60	SLIGHTLY POROUS

Table 5h.--Density data sorted by rock unit (Sag River)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
DREW POINT	7	SAG RIVER	6979.	2.59	SILTY SHALE
DREW POINT	7	SAG RIVER	6994.	2.48	SILTY SHALE
DREW POINT	7	SAG RIVER	7005.	2.83	FINE CALCAREOUS SAND
E SIMPSON #1	5	SAG RIVER	6815.	2.59	MUDSTONE
E SIMPSON #1	5	SAG RIVER	6817.6	2.59	SANDSTONE
E SIMPSON #1	5/3	SAG RIVER	6825.	2.51	SANDSTONE
E SIMPSON #1	5	SAG RIVER	6828.	2.61	MUDSTONE
E SIMPSON #1	5	SAG RIVER	6840.2	2.68	SANDSTONE
E SIMPSON #1	5	SAG RIVER	6850.	2.53	SANDSTONE
E SIMPSON #1	5	SAG RIVER	6857.5	2.77	MUDSTONE
E SIMPSON #1	6	SAG RIVER	6898.	2.57	MUDSTONE
E SIMPSON #1	6	SAG RIVER	6898.5	2.67	FOSSILIFEROUS SANDSTONE
E SIMPSON #1	6	SAG RIVER	6902.	2.55	SANDSTONE POROUS
E SIMPSON #2	4/1	SAG RIVER	6705.5	2.54	FINE SANDSTONE-POROUS
E SIMPSON #2	4/4	SAG RIVER	6726.5	2.52	FINE SANDSTONE, POROUS
E SIMPSON #2	4/5	SAG RIVER	6733.	2.49	FINE SANDSTONE, POROUS
KUYANAK	6	SAG RIVER	6254.5	2.55	SILTSTONE, VERY POROUS
KUYANAK	6	SAG RIVER	6260.5	2.76	SILTSTONE
KUYANAK	6	SAG RIVER	6281.	2.48	GREENISH FOSSILIF SILTSTONE
KUYANAK	6	SAG RIVER	6308.	2.60	SILTSTONE
PEARD	9	SAG RIVER	8451.	2.58	SILTY SHALE W/ORGANICS,POROUS
PEARD	9	SAG RIVER	8457.9	2.61	SILTSTONE W/PLANT DEBRIS?
PEARD	9	SAG RIVER	8473.	2.60	SILTY SHALE-ARGILLITE
S BARROW #3	29	SAG RIVER	2200.	2.44	SILTSTONE
S BARROW #3	32	SAG RIVER	2268.5	2.47	
S BARROW #3	35	SAG RIVER	2300.	2.39	MUDSTONE
S BARROW #3	36	SAG RIVER	2320.	2.42	SILTSTONE
S BARROW #3	39	SAG RIVER	2363.	2.43	SILTSTONE
S BARROW #3	41	SAG RIVER	2410.	2.32	FINE SANDSTONE, POROUS
S BARROW #3	45	SAG RIVER	2468.	2.45	SILTSTONE
S BARROW #3	53	SAG RIVER	2590.	2.34	SANDY SILTSTONE
S BARROW #12	7	SAG RIVER	2202.5	2.49	MED GRAIN CALCAREOUS SANDSTN
S BARROW #12	7	SAG RIVER	2209.	2.44	SILTSTONE, POROUS
S BARROW #12	7	SAG RIVER	2213.5	2.04	BLOCKY SANDSTONE
S BARROW #12	8	SAG RIVER	2234.	2.29	OIL STAINED FINE SANDSTONE
S BARROW #12	8	SAG RIVER	2246.	2.20	OIL STAINED FINE SANDSTN-CALC
S BARROW #17	4	SAG RIVER	2323.	2.41	FINE SANDSTONE OIL STAINED
S BARROW #17	4	SAG RIVER	2325.	2.29	FINE SANDSTONE OIL STAINED
S BARROW #17	4	SAG RIVER	2328.	2.26	OIL SOAKED FINE SANDSTONE
S BARROW #17	4	SAG RIVER	2334.	2.17	FINE SANDSTONE OIL STAINED
S BARROW #17	4	SAG RIVER	2335.	2.30	CALCAREOUS SAND, POROUS
S BARROW #17	4	SAG RIVER	2337.	2.18	
S BARROW #17	4	SAG RIVER	2338.	2.43	VERY CALCAREOUS SANDSTONE
S BARROW #17	4	SAG RIVER	2343.	2.49	FOSSIL FRAGMENTS

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
S BARROW #19	3	SAG RIVER	2209.	2.40	FINE CALCAREOUS SANDSTONE
S BARROW #19	4	SAG RIVER	2220.	2.35	CALCAREOUS SANDSTONE
S BARROW #19	4	SAG RIVER	2225.	2.14	OILY SANDSTONE
S BARROW #19	5	SAG RIVER	2230.	2.32	CALCAREOUS SANDSTONE
S BARROW #19	5	SAG RIVER	2231.	2.08	VERY OIL SOAKED
S BARROW #19	5	SAG RIVER	2235.	2.21	OILY SANDSTONE
S BARROW #19	5	SAG RIVER	2245.	2.19	OILY SANDSTONE POROUS
S MEADE	8	SAG RIVER	8820.4	2.47	SILTSTONE
S MEADE	8	SAG RIVER	8823.	2.45	SILTSTONE, POROUS
S MEADE	8	SAG RIVER	8823.5	2.54	SILTSTONE, POROUS
S MEADE	8	SAG RIVER	8835.2	2.57	SILTSTONE, POROUS
S MEADE	8	SAG RIVER	8840.2	2.49	SILTSTONE, POROUS
S MEADE	8	SAG RIVER	8847.1	2.49	SILTSTONE
S MEADE	8	SAG RIVER	8851.2	2.55	SILTSTONE, POROUS
S MEADE	8	SAG RIVER	8857.1	2.67	SILTSTONE (META?,ARGILLITE?)
S MEADE	8	SAG RIVER	8859.6	2.68	ARGILLITE
S MEADE	8	SAG RIVER	8864.7	2.68	LIMESTONE
S MEADE	8	SAG RIVER	8869.6	2.69	SILTSTONE (META?)
SIMPSON	23/5	SAG RIVER	6183.	2.51	CALCAREOUS SILTSTONE, POROUS
TULAGEAK	2	SAG RIVER	3784.	2.25	OIL- OR IRON-STAIN SILTSTONE
TULAGEAK	2	SAG RIVER	3785.	2.10	SILTSTONE
TULAGEAK	2	SAG RIVER	3794.	1.90	CALCAREOUS SILTSTONE,POROUS

Table 5i.--Density data sorted by rock unit (Shublik)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
DREW POINT	8	SHUBLIK	7093.	2.60	CALCAREOUS SILTY SHALE
DREW POINT	9	SHUBLIK	7352.3	2.58	SILTY SHALE
DREW POINT	9	SHUBLIK	7366.2	2.59	SLIGHTLY CALC SILTY SHALE
DREW POINT	9	SHUBLIK	7374.	2.58	SILTY SHALE
DREW POINT	9	SHUBLIK	7376.	2.59	SLIGHTLY CALC SILTY SHALE
DREW POINT	10	SHUBLIK	7545.5	2.67	LIMESTONE
DREW POINT	10	SHUBLIK	7563.	2.62	SILTY SHALE W/MICA, CALC FIL
E SIMPSON #1	7/1	SHUBLIK	7426.	2.64	CALCAREOUS SANDSTONE
E SIMPSON #1	7/2	SHUBLIK	7436.	2.68	SANDSTONE-CALCAREOUS
IKPIKPUK	7/1	SHUBLIK	10270.5	2.59	FOSSILIFEROUS SHALE
IKPIKPUK	7/2	SHUBLIK	10274.5	2.66	FOSSILIFEROUS SHALE
IKPIKPUK	7/3	SHUBLIK	10283.5	2.59	FOSSILIFEROUS SHALE
IKPIKPUK	7/4	SHUBLIK	10289.	2.59	FOSSILIFEROUS SHALE
IKPIKPUK	7/5	SHUBLIK	10294.5	2.66	FOSSILIFEROUS SHALE
IKPIKPUK	7/6	SHUBLIK	10300.	2.67	FOSSILIFEROUS SHALE
INIGOK	13/1	SHUBLIK	12273.5	2.57	BANDED SILTY SHALE
INIGOK	13/1	SHUBLIK	12276.5	2.61	SAND LENS IN FOSSILIFEROUS SH
N INIGOK	6	SHUBLIK	10162.	2.58	BLACK LIMESTONE W/FOSSILS
N INIGOK	6	SHUBLIK	10167.	2.61	BLACK LIMESTONE W/FOSSILS
N INIGOK	6	SHUBLIK	10168.3	2.66	BLACK LIMESTONE
S BARROW #3	55	SHUBLIK	2610.	2.55	SILTY SHALE,SLIGHTLY POROUS
S BARROW #3	57	SHUBLIK	2639.	2.65	CALCAREOUS SANDSTONE, POROUS
S BARROW #3	63	SHUBLIK	2738.	2.68	CALCAREOUS SANDSTONE, POROUS
S BARROW #3	66	SHUBLIK	2779.	2.49	CALCAREOUS SANDSTONE, POROUS
S MEADE	9	SHUBLIK	9047.9	2.81	LIMESTONE
S MEADE	9	SHUBLIK	9047.9	2.68	LIMESTONE
SIMPSON	23/7	SHUBLIK	6304.5	2.64	CALCAREOUS MUDSTONE
SIMPSON	23/8	SHUBLIK	6316.	2.65	CALCAREOUS MUDSTONE
SIMPSON	24/0	SHUBLIK	6356.	2.63	MUDSTONE, SLIGHTLY CALCAREOUS
SIMPSON	24/3	SHUBLIK	6485.	2.64	CALCAREOUS SILTY SHALE
TULAGEAK	2	SHUBLIK	3800.	2.54	SILTSTONE
TULAGEAK	2	SHUBLIK	3805.	2.39	SILTSTONE, POROUS
TULAGEAK	2	SHUBLIK	3805.	2.57	CALCAREOUS SILTSTONE,SL POR
TULAGEAK	2	SHUBLIK	3810.	2.48	SLIGHTLY CALCAREOUS SILTSTONE
W DEASE	8	SHUBLIK	3912.5	2.68	FINE SANDSTONE W/FOSSILS
W DEASE	8	SHUBLIK	3921.	2.70	FINE SANDSTONE W/FOSSILS,POR
W DEASE	8	SHUBLIK	3960.	2.75	GREENISH GREYWACKE, POROUS
W DEASE	9	SHUBLIK	4000.4	2.75	PEBBLE CONGLOMERATE, POROUS
W T FORAN	1/2	SHUBLIK	7545.	1.84	VERY FINE SANDSTONE
W T FORAN	1/2	SHUBLIK	7547.	2.44	CALCAREOUS SILTY SHALE
W T FORAN	1/2	SHUBLIK	7550.	2.54	CALCAREOUS SILTY SHALE
W T FORAN	1/3	SHUBLIK	7552.	2.50	CALCAREOUS SILTY SHALE
W T FORAN	1/3	SHUBLIK	7553.	2.61	LIMESTONE
W T FORAN	1/3	SHUBLIK	7556.	2.51	SILTY SHALE LIMEY

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
WALAKPA #1	11	SHUBLIK	3371.5	2.67	FOSSILIFEROUS LIMESTONE
WALAKPA #1	11	SHUBLIK	3394.5	2.62	SILTY SHALE
WALAKPA #1	11	SHUBLIK	3397.	2.59	SILTY SHALE
WALAKPA #1	11/9	SHUBLIK	3405.4	2.57	CALCAREOUS SILTSTONE

Table 5j.--Density data sorted by rock unit (Etivluk)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
LISBURNE	6/2	ETIVLUK	6219.	2.65	META-SILTSTONE? NO BUBBLES
LISBURNE	6/1	ETIVLUK	6224.	2.63	META SILTSTONE-NO BUBBLES
LISBURNE	8/2	ETIVLUK	8732.	2.54	META SILTSTONE
LISBURNE	8/1	ETIVLUK	8738.	2.69	META SED
LISBURNE	10/1	ETIVLUK, OTUK	11163.3	2.62	DOLOMITE
LISBURNE	10/1	ETIVLUK, OTUK	11165.2	2.75	META SED
LISBURNE	10/1	ETIVLUK, OTUK	11166.5	2.69	META SED
LISBURNE	10/2	ETIVLUK, OTUK	11168.	2.69	META SED
LISBURNE	10/2	ETIVLUK, OTUK	11169.5	2.62	META SED W/CALCITE VEINS
LISBURNE	10/2	ETIVLUK, OTUK	11170.8	2.60	META SED W/CALCITE VEINS
LISBURNE	10/2	ETIVLUK, OTUK	11172.5	2.58	META SED W/CALCITE VEINS
LISBURNE	12/1	ETIVLUK	13603.	2.72	
LISBURNE	12/2	ETIVLUK	13608.	2.71	
LISBURNE	14/1	ETIVLUK	15329.	2.71	BUBBLES
LISBURNE	14/2	ETIVLUK	15339.	2.79	

Table 5k.--Density data sorted by rock unit (Ivishak)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
DREW POINT	10	IVISHAK	7572.	2.63	SILTY SHALE W/PEBBLES
DREW POINT	11	IVISHAK	7573.	2.75	SILTY SHALE W/PEBBLES
DREW POINT	11	IVISHAK	7574.2	2.59	SILTY SHALE
DREW POINT	11	IVISHAK	7575.2	2.73	SILTY SHALE
DREW POINT	12	IVISHAK	7627.4	2.52	SILTY SHALE
DREW POINT	14	IVISHAK	7803.	2.43	FINE SANDY SHALE
DREW POINT	14	IVISHAK	7813.	2.45	OIL STAINED FINE SAND
E SIMPSON #1	8/7	IVISHAK	7499.	2.67	CONGLOMERATE POROUS
E SIMPSON #1	8	IVISHAK	7508.	2.62	CONGLOMERATE VERY POROUS
E SIMPSON #1	9	IVISHAK	7565.5	2.59	MED SANDSTONE POROUS
E SIMPSON #1	9	IVISHAK	7567.5	2.46	SANDSTONE COAL INTERBEDS POR
E SIMPSON #1	9	IVISHAK	7581.	2.56	FINE SANDSTONE POROUS
E SIMPSON #1	9	IVISHAK	7588.	2.61	SANDSTONE & CONGLOMERATE POR
E SIMPSON #1	9	IVISHAK ?	7591.	2.75	SHALE SLIGHTLY POROUS
IKPIKPUK	8/1	IVISHAK	10619.5	2.59	FINE-GRAN SANDSTONE, V POROUS
IKPIKPUK	8/2	IVISHAK	10621.	2.76	FINE-GRAN SANDSTONE, V POROUS
IKPIKPUK	8/3	IVISHAK	10629.	2.52	FINE-GRAIN MASSIVE SANDSTONE
IKPIKPUK	8/4	IVISHAK	10633.5	2.67	FINE-GRAIN SANDSTONE, IMPERM
IKPIKPUK	8/5	IVISHAK	10639.5	2.62	FINE-GRAIN SANDSTONE MUD LEN
IKPIKPUK	8/6	IVISHAK	10647.5	2.64	FINEGRAIN SANDSTONE, POR, PER
IKPIKPUK	9/1	IVISHAK	10815.	2.63	FINEGRAIN SANDSTONE, POR, PER
IKPIKPUK	9/2	IVISHAK	10820.	2.59	FINEGRAIN SANDSTONE, POROUS
IKPIKPUK	9/2	IVISHAK	10823.	2.51	MEDIUM-GRAINED SANDSTONE
IKPIKPUK	9/3	IVISHAK	10824.	2.59	SANDSTONE POORLY SORTED, POR
IKPIKPUK	9/3	IVISHAK	10828.	2.60	SANDSTONE POORLY SORTED, POR
IKPIKPUK	9/4	IVISHAK	10830.5	2.68	FINEGRAIN SANDSTONE/MUD LENS
IKPIKPUK	9/4	IVISHAK	10833.5	2.57	FINE-GRAINED SANDSTONE
IKPIKPUK	9/5	IVISHAK	10838.5	2.67	FINEGRAIN SANDSTONE/MUD PODS
INIGOK	14/1	IVISHAK	12500.	2.71	SILTY SHALE
INIGOK	14/5	IVISHAK	12529.	2.70	SILTY SHALE
INIGOK	15/2	IVISHAK	12711.	2.66	LT GREY, FINE GRAN ARGILLITE
INIGOK	15/4	IVISHAK	12730.	2.70	BANDED SILTY SHALE
J W DALTON	6	IVISHAK	7970.	2.25	OIL STAINED MED SAND
J W DALTON	6	IVISHAK	7973.	2.34	MEDIUM SANDSTONE, POROUS
J W DALTON	6	IVISHAK	7990.	2.37	COARSE SAND W/PEBBLES
J W DALTON	6	IVISHAK	7993.	2.32	OIL STAINED MED SAND
J W DALTON	6	IVISHAK	7996.	2.33	OIL STAINED MED SAND
J W DALTON	6	IVISHAK	7996.5	2.37	OIL STAINED MED SAND
J W DALTON	6	IVISHAK	7997.5	2.71	SILTY SHALE
J W DALTON	7	IVISHAK	8072.	2.67	CLAY SHALE
J W DALTON	7	IVISHAK	8073.	2.45	PEBBLE CONG W/COARSE SAND CEM
J W DALTON	7	IVISHAK	8074.	2.40	FINE SAND W/PEBBLES
J W DALTON	9	IVISHAK	8134.	2.36	MED SANDSTONE
J W DALTON	9	IVISHAK	8137.5	2.36	MED SAND W/SMALL PEBBLES,POR
J W DALTON	10	IVISHAK	8173.5	2.31	FINE SANDSTONE, POROUS
J W DALTON	10	IVISHAK	8194.	2.21	FINE SANDY SHALE W/LAYER COAL
J W DALTON	10	IVISHAK	8199.	2.43	FINE SANDY SHALE

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
KUGRUA	2/1	IVISHAK	10480.	2.69	ARGILLITE
KUGRUA	2/2	IVISHAK	10487.	2.69	ARGILLITE-SLATE
KUGRUA	2/3	IVISHAK	10498.	2.67	ARGILLITE-SLATE
KUGRUA	2/4	IVISHAK	10503.5	2.69	ARGILLITE-SLATE
PEARD	10	IVISHAK	8980.	2.68	SILTY SHALE
PEARD	10	IVISHAK	8993.7	2.67	SILTY SHALE
PEARD	10	IVISHAK	9001.5	2.63	SILTY SHALE
S MEADE	10	IVISHAK	9307.6	2.75	LAYERED SILTY SHALE
S MEADE	10	IVISHAK	9310.	2.66	ARGILLITE
S MEADE	10	IVISHAK	9311.	2.65	ARGILLITE
S MEADE	10	IVISHAK	9313.6	2.67	ARGILLITE
S MEADE	10	IVISHAK	9314.6	2.70	LAYERED SILTY SHALE
S MEADE	10	IVISHAK	9318.8	2.66	ARGILLITE
S MEADE	10	IVISHAK	9324.7	2.66	WACKE W/LARGE PYRITE INCLUS
TOPAGORUK	71	IVISHAK	9416.	2.53	FINE SANDSTONE
TOPAGORUK	71	IVISHAK	9425.	2.53	
TOPAGORUK	73	IVISHAK	9434.	2.70	
TOPAGORUK	73	IVISHAK	9434.5	2.66	
TOPAGORUK	73	IVISHAK	9435.	2.63	QUARTZITE
TOPAGORUK	73	IVISHAK	9440.	2.63	
TOPAGORUK	73	IVISHAK	9445.2	2.63	
TOPAGORUK	73/6	IVISHAK	9450.	2.62	
TOPAGORUK	76/3	IVISHAK	9469.7	2.67	
TOPAGORUK	76	IVISHAK	9490.	2.70	
TOPAGORUK	77	IVISHAK	9507.	2.77	
TOPAGORUK	77	IVISHAK	9510.	2.72	MUDSTONE
TOPAGORUK	77	IVISHAK	9516.	2.72	ARGILLITE?
TOPAGORUK	77	IVISHAK	9517.	2.75	
TOPAGORUK	77	IVISHAK	9519.	2.68	
TOPAGORUK	77	IVISHAK	9521.5	2.69	GREYWACKE
TOPAGORUK	78/1	IVISHAK	9537.	2.60	CONGLOMERATE SLIGHTLY POROUS
TOPAGORUK	78	IVISHAK	9538.	2.70	ARGILLITE
TOPAGORUK	79	IVISHAK	9541.	2.56	FINE SANDSTONE
TOPAGORUK	79	IVISHAK	9555.	2.59	FINE SANDSTONE
TOPAGORUK	80	IVISHAK	9562.	2.83	ARGILLITE
TUNALIK	12	IVISHAK	14847.	2.74	SILTSTONE
TUNALIK	12	IVISHAK	14855.	2.68	SHALE W/CHERT "BLOBS"
TUNALIK	13	IVISHAK	15411.	2.65	SILTY SHALE
TUNALIK	13	IVISHAK	15420.	2.68	LAYERED FINE SAND & SHALE
TUNALIK	13	IVISHAK	15421.	2.66	SILTY SHALE
TUNALIK	13	IVISHAK	15427.	2.65	SILTY SHALE

Table 5k1.--Density data sorted by rock unit (Ivishak, Kavik)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
IKPIKPUK	10/1	IVISHAK, KAVIK	11108.	2.69	SILTSTONE (ARGILLITE)
IKPIKPUK	10/2	IVISHAK, KAVIK	11118.	2.69	SILTSTONE (ARGILLITE)
IKPIKPUK	10/3	IVISHAK, KAVIK	11120.	2.69	SILTSTONE (ARGILLITE)
IKPIKPUK	10/4	IVISHAK, KAVIK	11126.	2.69	SILTSTONE (ARGILLITE)
IKPIKPUK	10/5	IVISHAK, KAVIK	11135.	2.71	SILTSTONE (ARGILLITE)
INIGOK	16/3	IVISHAK, KAVIK	13469.	2.74	FINE SILTY SHALE
INIGOK	16/1	IVISHAK, KAVIK	13485.	2.71	BANDED SILTY SHALE
INIGOK	16/6	IVISHAK, KAVIK	13508.	2.71	SILTY SHALE
TOPAGORUK	80	IVISHAK, KAVIK	9585.5	2.69	ARGILLITE
TOPAGORUK	81	IVISHAK, KAVIK	9592.5	2.67	ARGILLITE
TOPAGORUK	81	IVISHAK, KAVIK	9597.	2.67	ARGILLITE
TUNALIK	14	IVISHAK, KAVIK	16237.	2.68	SILTY SHALE
TUNALIK	14	IVISHAK, KAVIK	16240.	2.69	LAYERED SHALE
TUNALIK	14	IVISHAK, KAVIK	16255.	2.68	SILTY SHALE
TUNALIK	14	IVISHAK, KAVIK	16260.	2.69	SILTY SHALE

Table 51.--Density data sorted by rock unit (Echooka)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
INIGOK	17	ECHOOKA	13842.	2.67	SILTY SHALE
INIGOK	17	ECHOOKA	13848.	2.68	SILTY SHALE
INIGOK	17	ECHOOKA	13849.5	2.78	LIMESTONE
INIGOK	17/5	ECHOOKA	13855.5	2.96	SILTY SHALE
INIGOK	17	ECHOOKA	13865.	2.72	LIMEY SHALE
INIGOK	17	ECHOOKA	13873.	2.67	SILTY SHALE W/LIMESTONE LENS
KUGRUA	3/1	ECHOOKA	11031.	2.70	FINE SANDSTONE-ARGILLITE
PEARD	11	ECHOOKA	9498.	2.89	FINE SANDSTONE W/SML PEBBLES
PEARD	11	ECHOOKA	9500.5	2.79	FINE SANDSTONE W/SML PEBBLES
PEARD	11	ECHOOKA	9505.4	2.55	FINE SANDSTONE, POROUS
TUNALIK	15	ECHOOKA	16931.	2.66	SILTSTONE (ARGILLITE)
TUNALIK	15	ECHOOKA	16943.	2.67	SILTSTONE
TUNALIK	15	ECHOOKA	16949.	2.67	SILTSTONE

Table 5m.--Density data sorted by rock unit (Lisburne)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
IKPIKPUK	11/1	LISBURNE	11719.	2.69	SEMI SCHISTOSE META SED
IKPIKPUK	11/1	LISBURNE	11724.	2.67	CALCITE (FOSSILS) POROUS
IKPIKPUK	12/1	LISBURNE	12746.	2.71	META-SED
IKPIKPUK	12/2	LISBURNE	12749.	2.70	SEMI SCHISTOSE MED SED
IKPIKPUK	12/2	LISBURNE	12753.	2.66	META-SED
INIGOK	18	LISBURNE	14021.5	2.71	LIMEY SHALE W/SHELL FRAGMENTS
INIGOK	18	LISBURNE	14037.	2.71	SILTY SHALE W/SOME CALCITE
INIGOK	18	LISBURNE	14040.4	2.67	LIMESTONE
INIGOK	18	LISBURNE	14042.	2.71	BLACK LIMESTONE W/WHITE INCLU
INIGOK	18	LISBURNE	14049.	2.68	SILTY SHALE W/CALCITE
INIGOK	18	LISBURNE	14059.8	2.71	LIMESTONE
INIGOK	18	LISBURNE	14065.6	2.71	LIMESTONE
INIGOK	19	LISBURNE	15186.5	2.73	LIMESTONE
INIGOK	19	LISBURNE	15193.	2.74	BLACK SILTY SHALE W/LIMESTONE
INIGOK	19	LISBURNE	15210.	2.72	LIMESTONE
INIGOK	20	LISBURNE	16194.8	2.73	LIMESTONE
INIGOK	20	LISBURNE	16197.3	2.69	LIMESTONE
INIGOK	21	LISBURNE	17058.5	2.77	SILTY SHALE
INIGOK	21	LISBURNE	17069.5	2.72	LIMESTONE
INIGOK	21	LISBURNE	17081.	2.70	SILTY SHALE-LIMESTONE
J W DALTON	11	LISBURNE	8319.	2.48	OIL SOAKED CALC FINE SAND
J W DALTON	11	LISBURNE	8331.	2.65	FINE CALCAREOUS SANDSTONE
J W DALTON	12	LISBURNE	8520.	2.49	TAR STAINED FINE CALC SAND
J W DALTON	12	LISBURNE	8534.5	2.49	FINE CALCAREOUS SAND
J W DALTON	12	LISBURNE	8539.5	2.64	RED SILTY SHALE
LISBURNE	7/6	LISBURNE	8042.	2.51	SILTSTONE-NO BUBBLES
LISBURNE	7/5	LISBURNE	8046.5	2.78	DOLOMITE?
LISBURNE	7/4	LISBURNE	8053.	2.64	DOLOMITE?
LISBURNE	7/3	LISBURNE	8057.	2.78	DOLOMITE?
LISBURNE	7/2	LISBURNE	8062.5	2.75	DOLOMITE?
LISBURNE	7/1	LISBURNE	8067.	2.62	DOLOMITE?? LIGHT BUBBLES
LISBURNE	9/3	LISBURNE	9732.	2.64	META SED
LISBURNE	9/2	LISBURNE	9733.	2.65	META SED
LISBURNE	9/2	LISBURNE	9738.	2.69	DOLOMITE
LISBURNE	11/1	LISBURNE	11686.5	2.79	META SILTSTONE
LISBURNE	11/1	LISBURNE	11689.	2.71	FRAC META SANDSTONE GRANULAR
LISBURNE	13/1	LISBURNE	13859.	2.69	
LISBURNE	13/1	LISBURNE	13863.	2.66	
LISBURNE	13/2	LISBURNE	13869.	2.68	
LISBURNE	16/1	LISBURNE	15656.	2.73	BUBBLES
LISBURNE	17/1	LISBURNE	15905.	2.68	
LISBURNE	18/1	LISBURNE	16305.	2.80	
LISBURNE	18/2	LISBURNE	16312.5	2.76	BUBBLES
LISBURNE	18/3	LISBURNE	16318.	2.78	
LISBURNE	18/3	LISBURNE	16321.5	3.03	DOLOMITE
LISBURNE	19/1	LISBURNE	16860.	2.66	
LISBURNE	19/2	LISBURNE	16870.	2.67	
LISBURNE	20/1	LISBURNE	16983.	2.68	
LISBURNE	20/2	LISBURNE	16996.5	2.68	

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
S HARRISON	BAY2/1	LISBURNE	10613.	2.72	GREY LIMESTONE
S HARRISON	BAY2/2	LISBURNE	10619.	2.72	GREY LIMESTONE
S HARRISON	BAY2/2	LISBURNE	10621.	2.70	GREY LIMESTONE
S HARRISON	BAY2/3	LISBURNE	10625.	2.71	GREY LIMESTONE
TUNALIK	16	LISBURNE	17136.	2.68	LIMESTONE
TUNALIK	16	LISBURNE	17144.	2.68	LIMESTONE
TUNALIK	17	LISBURNE	17281.	2.66	ARGILLITE
TUNALIK	18	LISBURNE	17865.	2.74	META-SED?
TUNALIK	18	LISBURNE	17887.	2.76	META-SED W/SLICKENSIDES
TUNALIK	18	LISBURNE	17890.	2.76	META-SED
W T FORAN	2/1	LISBURNE	8254.	2.60	CONGLOMERATE W/CALCITE CEMENT
W T FORAN	2/1	LISBURNE	8258.	2.65	CALCAREOUS SANDSTONE
W T FORAN	2/2	LISBURNE	8262.	2.42	FINE SANDSTONE
W T FORAN	2/2	LISBURNE	8266.	2.71	FINE SANDSTONE ??
W T FORAN	2/3	LISBURNE	8273.	2.65	LIMESTONE
W T FORAN	2/4	LISBURNE	8283.	2.50	CALCAREOUS SANDSTONE W/SILICA

Table 5n.--Density data sorted by rock unit (Endicott)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
E SIMPSON #2	5/1	ENDICOTT	7167.	2.43	FINE SANDSTONE
E SIMPSON #2	5/2	ENDICOTT	7174.	2.60	GOUGED FINE SND-MUDSHALE,POR
E SIMPSON #2	5/2	ENDICOTT	7174.5	2.23	MED SNDSTN-SMELL LIKE KEROS
E SIMPSON #2	5/3	ENDICOTT	7182.	2.36	COARSE SANDSTONE, POROUS
E SIMPSON #2	5	ENDICOTT	7182.3	2.58	SANDY-MUDDY SHALE
E SIMPSON #2	5	ENDICOTT	7186.5	2.63	SILTY SHALE
E SIMPSON #2	5	ENDICOTT	7190.5	2.45	MED SANDSTONE,POROUS
E SIMPSON #2	5	ENDICOTT	7191.2	2.31	GOUGED SILTY SHALE W/COAL
E SIMPSON #2	5	ENDICOTT	7196.	2.62	SILTY SHALE
E SIMPSON #2	6	ENDICOTT	7201.2	2.49	SILTY SHALE W/COAL & PYRITE
E SIMPSON #2	6	ENDICOTT	7203.	2.53	SILTSTONE
E SIMPSON #2	6/5	ENDICOTT	7221.5	2.60	GOUGED MUDDY SHALE
E SIMPSON #2	7/1	ENDICOTT	7253.	2.41	COARSE SANDSTONE, POROUS
E SIMPSON #2	7/2	ENDICOTT	7259.	2.42	COARSE SANDSTONE, POROUS
E SIMPSON #2	7/4	ENDICOTT	7268.	2.61	SILTY SHALE
E SIMPSON #2	8/1	ENDICOTT	7297.	2.57	SILTSTONE
E SIMPSON #2	8/3	ENDICOTT	7310.	2.62	SILTSTONE
E SIMPSON #2	8/6	ENDICOTT	7324.5	2.60	SILTSTONE
E SIMPSON #2	8/7	ENDICOTT	7331.	2.56	GOUGED SILTSTONE
E SIMPSON #2	8/10	ENDICOTT	7346.	2.63	SILTSTONE, POROUS
IKPIKPUK	13/1	ENDICOTT	14971.5	2.78	RED META MUDSTONE
IKPIKPUK	13/1	ENDICOTT	14976.5	2.72	RED BRECCIATED QUARTZITE
IKPIKPUK	13/2	ENDICOTT	14977.5	2.71	META BRECCIATED SANDSTONE
IKPIKPUK	13/2	ENDICOTT	14983.	2.69	RED BEDDED QUARTZITE
IKPIKPUK	13/2	ENDICOTT	14985.5	2.68	RED MASSIVE QUARTZITE
TOPAGORUK	82	ENDICOTT	9816.	2.67	FINE GRAINED RED SILTSTONE
TOPAGORUK	85	ENDICOTT, KAYAK	10228.	2.63	GREYWACKE
INIGOK	22	ENDICOTT,KEKIK.	19360.	2.57	
INIGOK	22	ENDICOTT,KEKIK.	19363.4	2.59	
INIGOK	22	ENDICOTT,KEKIK.	19366.5	2.65	
INIGOK	22	ENDICOTT,KEKIK.	19369.	2.60	
INIGOK	23	ENDICOTT,KEKIK.	20092.	2.62	BLACK SILTY SHALE

Table 5o.--Density data sorted by rock unit (Basement)

WELL	CORE /BOX	FORMATION	DEPTH FEET	SPEC. GRAV.	LITHOLOGY
AVAK	52	BASEMENT	2321 M	2.07	ARGILLITE, SMALL PIECES
AVAK	55	BASEMENT	2598 M	2.58	ARGILLITE
AVAK	57	BASEMENT	2863 M	2.44	ARGILLITE, SMALL PIECES
AVAK	58	BASEMENT	2997 M	2.43	ARGILLITE, SMALL PIECES
AVAK	59	BASEMENT	3152 M	2.45	ARGILLITE, SMALL PIECES
AVAK	62	BASEMENT	3576 M	2.61	ARGILLITE, SMALL PIECES
AVAK	64	BASEMENT	4010 M	2.67	ARGILLITE, SMALL PIECES
DREW POINT	15	BASEMENT	7882.	2.74	ARGILLITE
DREW POINT	15	BASEMENT	7901.	2.75	ARGILLITE
E SIMPSON #1	10	BASEMENT	7729.	2.70	SHALE-ARGILLITE
IKPIKPUK	14/1	BASEMENT	15421.	2.75	FRACTURED QUARTZITE
IKPIKPUK	16/1	BASEMENT	15465.	2.67	FRACTURED QUARTZITE
IKPIKPUK	16/1	BASEMENT	15465.	2.64	FRACTURED QUARTZITE
J W DALTON	13	BASEMENT	9359.	2.74	ARGILLITE
KUYANAK	7	BASEMENT	6689.	2.71	ARGILLITE
PEARD	12	BASEMENT	10225.	2.81	ARGILLITE-SLATE
S BARROW #1	52	BASEMENT	3553.	2.65	ARGILLITE
S BARROW #3	73	BASEMENT	2879.	2.59	ARGILLITE
S BARROW #12	9	BASEMENT	2260.	2.60	SILTSTONE, SLIGHTLY POROUS
S BARROW #12	9	BASEMENT	2264.	2.75	SLATE
S BARROW #12	9	BASEMENT	2272.	2.76	SLATE
S BARROW #12	9	BASEMENT	2273.	2.73	SLATE
S BARROW #12	9	BASEMENT	2285.	2.76	ARGILLITE
S BARROW #13	6	BASEMENT	2525.	2.23	BLACK ARGILLITE
S BARROW #16	1	BASEMENT	2395.	2.53	
S BARROW #17	4	BASEMENT	2344.	2.52	CALCAREOUS SAND
S BARROW #17	4	BASEMENT	2345.	2.72	ARGILLITE
SIMPSON	24/4	BASEMENT	6557.	2.68	GREEN ARGILLITE
SIMPSON	24/7	BASEMENT	6796.	2.68	GREEN ARGILLITE
SIMPSON	24/8	BASEMENT	6896.	2.70	RED & GREEN ARGILLITE
SIMPSON	24/9	BASEMENT	7002.	2.72	RED & GREEN ARGILLITE
TULAGEAK	3	BASEMENT	4005.	2.64	SLICKENSIDED META SED
TULAGEAK	3	BASEMENT	4006.9	2.61	SLICKENSIDED META SED, QUARTZ
W DEASE	10	BASEMENT	4151.	2.67	ARGILLITE
WALAKPA #1	12	BASEMENT	3666.	2.74	ARGILLITE