Datashare 79

In situ stress variations associated with regional changes in tectonic setting, northeastern Brooks Range and eastern North Slope of Alaska

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Appendix 1. Wells Used to Calculate the Present-Day In Situ Magnitudes in This Study

Well No.	Well Name	Depth (ft)	Depth (m)	P_p (psi)	P_p (MPa)	$S_{H\max}$ (MPa)	$S_{h\min}$ (MPa)	S_v (MPa)	Ø	Stress Index, $A(Ø)$
1	CONOCOPHILLIPS KUPARUK RIV	3138	956	9.5	0.07	21.3	17.4	22.5	0.8	0.8
	UNIT 2F-18	7700	2347	28.1	0.19	57.3	44.8	55.2	0.8	1.2
		9900	3018	33.1	0.23	82.9	60.1	70.9	0.5	1.5
2	CONOCOPHILLIPS KUPARUK RIV	3309	1009	2.9	0.02	6.7	6.0	22.0	0.0	0.0
	UNIT 3A-17	6000	1829	NA	NA	12.1	10.8	41.3	0.0	0.0
		9000	2743	NA	NA	18.2	16.2	61.9	0.0	0.0
3	CONOCOPHILLIPS KUPARUK RIV	6013	1833	22.8	0.16	31.4	29.2	41.4	0.2	0.2
	UNIT 2H-17	9000	2743	NA	NA	46.9	43.7	61.9	0.2	0.2
4	CONOCOPHILLIPS COLVILLE RIV	114	35	0.4	0.00	0.5	0.5	0.8	0.1	0.1
	UNIT CD2-21	2390	728	7.5	0.05	14.1	12.5	16.4	0.4	0.4
		7228	2203	22.6	0.16	56.5	41.5	49.7	0.5	1.5
		9000	2743	NA	NA	70.4	51.7	61.9	0.5	1.5
5	HILCORP NORTHSTAR	4500	1372	13.8	0.10	23.1	20.3	30.3	0.3	0.3
	UNIT NS-10	7000	2134	22.4	0.15	38.3	32.4	48.3	0.4	0.4
		11,000	3353	35.9	0.25	80.9	60.7	75.8	0.7	1.3
6	BP SOURDOUGH 1	4500	1372	14.5	0.10	22.0	20.2	31.0	0.2	0.2
		6000	1829	NA	NA	29.4	27.0	41.3	0.2	0.2
		10,000	3048	35.9	0.25	78.4	59.2	68.8	0.5	1.5
7	BP YUKON GOLD 1	4000	1219	12.9	0.09	17.5	17.3	27.5	0.0	0.0
		6000	1829	NA	NA	26.3	25.9	41.3	0.0	0.0
		10,000	3048	36.6	0.25	74.8	57.8	68.8	0.6	1.4
		12,000	3658	54.6	0.38	85.2	72.4	82.5	1.3	1.3
8	UNION OIL E DE	4030	1228	14.2	0.10	22.8	20.6	26.0	0.4	0.4
	K LEFFINGWELL 1	6000	1829	NA	NA	33.9	30.7	38.8	0.4	0.4
		9000	2743	NA	NA	50.9	46.0	58.1	0.4	0.4
		12,604	3842	49.7	0.34	73.4	63.8	85.0	0.5	0.5
9	EXXON ALASKA	1704	519	6.2	0.04	9.0	8.8	7.1	0.9	2.9
	ST K 1XX	6250	1905	24.2	0.17	46.3	37.3	39.8	0.3	1.7
		9000	2743	NA	NA	66.6	53.7	61.9	0.6	1.4
10	EXXON CANNING	2153	656	7.4	0.05	13.7	11.6	10.9	0.3	2.3
	RIV U BLK A 1	6000	1829	NA	NA	38.3	32.5	41.3	0.7	0.7
		9000	2743	NA	NA	57.4	48.7	61.9	0.7	0.7

(*continued*)

Appendix 1. Continued

Well No.	Well Name	Depth (ft)	Depth (m)	P_p (psi)	P_p (MPa)	$S_{H\max}$ (MPa)	$S_{h\min}$ (MPa)	S_v (MPa)	Ø	Stress Index, $A(Ø)$
11	ARCO GYR1	4000	1219	12.8	0.09	25.0	20.9	27.1	0.7	0.7
		6000	1829	21.1	0.15	41.9	33.6	42.1	1.0	1.0
		9000	2743	37.1	0.26	68.4	54.9	64.4	0.7	1.3
12	MCCULLOCH OIL FIN CK UNIT 1	4000	1219	10.3	0.07	68.3	41.4	28.7	0.3	2.3
		7000	2134	23.1	0.16	92.1	59.6	52.0	0.2	2.2
		10,000	3048	29.0	0.20	89.9	61.7	74.2	0.4	1.6
13	ARCO KAVIK UNIT 3	4970	1515	18.9	0.13	34.3	28.8	38.1	0.6	0.6
		9000	2743	NA	NA	62.1	52.1	68.9	0.6	0.6
14	ARCO PIPELINE STATE 1	8900	2713	36.9	0.25	61.0	50.8	57.7	0.7	1.3
		6000	1829	NA	NA	41.2	34.3	38.9	0.7	1.3
		3000	914	NA	NA	20.6	17.1	19.4	0.7	1.3
15	ANADARKO JACOB'S LADDER C	3442	1049	11.4	0.08	15.8	15.5	22.3	0.0	0.0
		6000	1829	NA	NA	27.6	27.0	40.7	0.0	0.0
		10,006	3050	34.8	0.24	71.9	55.3	67.9	0.8	1.2
		11,437	3486	34.9	0.24	90.7	64.9	78.4	0.5	1.5
16	TEXACO KAD RIV 1	3442	1049	11.6	0.08	16.3	15.5	22.3	0.1	0.1
		6000	1829	NA	NA	28.3	27.0	40.7	0.1	0.1
		10,006	3050	37.7	0.26	69.0	55.3	67.9	1.1	1.1
17	SHELL LAKE 79 FED 1	3442	1049	12.3	0.09	15.5	15.5	22.3	0.0	0.0
		6000	1829	NA	NA	27.1	27.0	40.7	0.0	0.0
		10,006	3050	35.9	0.25	70.8	55.3	67.9	1.2	1.2
		11,437	3486	40.2	0.28	85.4	64.9	78.4	0.7	1.3
18	UNION OIL ALPENGLOW STATE 1	2450	747	13.0	0.09	15.4	15.2	15.8	0.3	0.3
		6000	1829	25.2	0.17	45.1	37.2	41.3	0.5	1.5
		8000	2438	32.1	0.22	63.0	49.6	55.0	0.4	1.6
19	CONOCO BADAMI 2	5672	1729	17.7	0.12	38.0	30.0	39.0	0.9	0.9
		9700	2957	41.4	0.29	62.3	53.6	66.7	0.7	0.7
		12,000	3658	53.8	0.37	79.3	68.5	82.5	0.8	0.8
		3000	914	NA	NA	20.1	15.8	18.0	0.5	1.5
20	BP BADAMI 4	4500	1372	13.7	0.09	21.8	19.4	31.0	0.2	0.2
		3000	914	NA	NA	14.5	13.0	18.0	0.3	0.3
		9800	2987	36.9	0.25	57.8	49.3	67.4	0.5	0.5
		10,800	3292	40.7	0.28	83.0	64.0	74.3	0.5	1.5
21	EXXON PT THOMSON UNIT 4	3350	1021	12.3	0.08	15.0	14.7	23.0	0.0	0.0
		7412	2259	27.1	0.19	29.9	29.6	51.0	0.0	0.0
		11,897	3626	58.0	0.40	76.5	69.2	81.8	0.6	0.6
22	EXXON ALASKA ST F 1	2160	658	7.0	0.05	11.5	10.3	14.9	0.3	0.3
		7244	2208	23.4	0.16	58.1	42.9	49.8	0.5	1.5
		9000	2743	NA	NA	72.2	53.3	61.9	0.5	1.5
		13,470	4106	60.4	0.42	99.4	82.7	92.6	0.6	1.4
23	EXXON PT THOMSON UNIT 1	3328	1014	12.6	0.09	18.8	17.9	22.9	0.2	0.2
		6000	1829	NA	NA	34.0	32.2	41.3	0.2	0.2
		11,407	3477	63.8	0.44	81.8	75.0	78.5	0.5	1.5

(*continued*)

Appendix 1. Continued

Well No.	Well Name	Depth (ft)	Depth (m)	P_p (psi)	P_p (MPa)	$S_{H\max}$ (MPa)	$S_{h\min}$ (MPa)	S_v (MPa)	Ø	Stress Index, $A(Ø)$
24	SAVANT KUPCAKE 1	4110	1253	13.1	0.09	22.0	19.8	28.3	0.3	0.3
		6000	1829	NA	NA	32.2	28.9	41.3	0.3	0.3
		10,672	3253	36.0	0.25	62.9	51.3	73.4	0.5	0.5
25	UNION AMETHYST	6500	1981	22.4	0.15	36.5	31.4	44.1	0.4	0.4
	STATE 1	3000	914	NA	NA	16.9	14.5	18.0	0.7	0.7
		11,500	3505	47.6	0.33	59.6	55.5	82.0	0.2	0.2
26	UNION OIL MASTODON	2000	610	6.2	0.04	8.8	8.7	12.0	0.0	0.0
	6-3-9	6000	1829	NA	NA	26.4	26.0	41.3	0.0	0.0
		9000	2743	NA	NA	39.6	39.0	61.9	0.0	0.0
27	BP MALGUK 1	3010	917	9.9	0.07	15.4	14.4	18.1	0.3	0.3
		6000	1829	NA	NA	30.7	28.7	41.3	0.2	0.2
		9000	2743	NA	NA	46.0	43.1	61.9	0.2	0.2
28	UNION OIL SMILODON	1710	521	5.4	0.04	8.1	7.7	10.3	0.1	0.1
	9-4-9	6000	1829	NA	NA	28.4	27.1	41.3	0.1	0.1
		9000	2743	NA	NA	42.6	40.7	61.9	0.1	0.1
29	CONOCOPHILLIPS HEAVENLY 1	3566	1087	11.9	0.08	18.9	16.9	21.4	0.4	0.4
		6000	1829	NA	NA	38.0	30.8	41.3	0.7	0.7
		9590	2923	33.9	0.23	60.7	49.2	66.0	0.7	0.7
30	CONOCOPHILLIPS GRIZZLY 1	2282	696	7.6	0.05	11.7	11.1	13.7	0.2	0.2
		6000	1829	NA	NA	46.1	29.0	41.3	0.7	1.3
		8380	2554	25.3	0.17	51.6	40.6	57.6	0.6	0.6
31	ARCO TULAGA 1	1250	381	4.0	0.03	6.1	5.7	7.1	0.3	0.3
		5000	1524	16.5	0.11	28.0	24.3	38.2	0.3	0.3
		8000	2438	28.1	0.19	51.4	41.7	62.3	0.5	0.5
		11,500	3505	41.6	0.29	83.8	64.8	89.4	0.8	0.8
32	TEXACO WOLFBUTTON	2490	759	8.0	0.06	13.0	12.1	15.4	0.3	0.3
	25-6-9	6000	1829	NA	NA	33.2	28.8	41.3	0.4	0.4
		9490	2893	34.4	0.24	52.5	45.5	65.3	0.4	0.4
33	UNION OIL PANTHERA	2119	646	6.3	0.04	9.3	9.1	12.7	0.1	0.1
	28-6-9	6000	1829	NA	NA	26.3	25.8	41.3	0.0	0.0
		9000	2743	NA	NA	39.5	38.7	61.9	0.0	0.0
34	UNION OIL STEGODON	1850	564	5.5	0.04	8.0	8.0	11.1	0.0	0.0
	24-6-8XX	6000	1829	NA	NA	26.0	25.8	41.3	0.0	0.0
		9000	2743	NA	NA	39.0	38.7	61.9	0.0	0.0
35	UNION OIL MUSKOXEN	1950	594	5.8	0.04	10.1	8.7	11.7	0.4	0.4
	36-7-8	6000	1829	NA	NA	30.9	26.9	41.3	0.3	0.3
		9000	2743	NA	NA	46.4	40.3	61.9	0.3	0.3
36	TEXACO WOLFBUTTON	2490	759	9.0	0.06	13.7	13.1	14.3	0.5	0.5
	32-7-8	6000	1829	NA	NA	33.0	29.0	43.4	0.3	0.3
		8990	2740	32.5	0.22	49.5	43.4	65.0	0.3	0.3
37	ARCO MELTWATER	2932	894	8.8	0.06	15.2	13.7	16.9	0.5	0.5
	SOUTH 1	8377	2553	25.0	0.17	67.7	48.1	60.6	0.6	1.4
38	BP NARVAQ 1	2500	762	8.0	0.06	12.4	12.1	14.4	0.1	0.1
		8272	2521	29.4	0.20	54.1	43.4	62.1	0.6	0.6

(*continued*)

Appendix 1. Continued

Well No.	Well Name	Depth (ft)	Depth (m)	P_p (psi)	P_p (MPa)	$S_{H\max}$ (MPa)	$S_{h\min}$ (MPa)	S_v (MPa)	Ø	Stress Index, $A(Ø)$
39	UNION OIL BLUEBUCK	1950	594	6.8	0.05	9.3	8.8	11.2	0.2	0.2
	6-7-9	6000	1829	NA	NA	28.6	27.1	41.3	0.1	0.1
		9000	2743	NA	NA	42.9	40.6	61.9	0.1	0.1
40	ENI MAGGIORE 1	2000	610	6.0	0.04	9.4	9.0	11.5	0.1	0.1
		2385	727	7.3	0.05	11.2	10.8	13.7	0.1	0.1
		4000	1219	12.9	0.09	19.4	17.7	24.7	0.2	0.2
		9000	2743	NA	NA	43.6	39.7	61.9	0.2	0.2
41	ENI MAGGIORE 3XX	2000	610	6.5	0.04	9.8	9.3	11.5	0.2	0.2
		4000	1219	12.9	0.09	21.0	18.6	24.7	0.4	0.4
		9000	2743	NA	NA	47.2	42.0	61.9	0.3	0.3
42	CONOCOPHILLIPS MELTWATER	2150	655	7.4	0.05	10.2	10.0	13.3	0.1	0.1
	NORTH 1	5968	1819	23.9	0.17	40.9	34.2	36.9	0.4	1.6
		9000	2743	NA	NA	61.6	51.6	61.9	1.0	1.0
43	ARCO MELTWATER	2150	655	6.9	0.05	10.2	10.1	12.4	0.1	0.1
	NORTH 2	5968	1819	22.7	0.16	42.3	34.3	36.9	0.3	1.7
		9000	2743	NA	NA	63.8	51.7	61.9	0.8	1.2
44	CONOCOPHILLIPS KUPARUK RIV	2678	816	6.6	0.05	13.0	11.6	15.4	0.4	0.4
	U MELT 2P-406	6000	1829	NA	NA	29.1	25.9	41.3	0.2	0.2
		9000	2743	NA	NA	43.7	38.9	61.9	0.2	0.2
45	CONOCOPHILLIPS CIRQUE 3	2432	741	8.9	0.06	11.2	11.1	14.0	0.0	0.0
		6567	2002	25.2	0.17	35.2	31.9	45.2	0.3	0.3
		9000	2743	NA	NA	48.3	43.7	61.9	0.3	0.3
46	ANADARKO HOT ICE 1	1320	402	3.9	0.03	6.8	6.4	7.6	0.4	0.4
		3000	914	9.0	0.06	19.7	16.0	20.6	0.8	0.8
		6000	1829	NA	NA	39.3	32.0	41.3	0.8	0.8
		9000	2743	NA	NA	59.0	47.9	61.9	0.8	0.8
47	UNION OIL RUBY STATE 1	1889	576	6.1	0.04	12.9	10.9	10.9	0.0	2.0
		6000	1829	NA	NA	41.1	34.8	34.5	0.0	2.0
		9000	2743	NA	NA	73.4	52.1	51.8	0.0	2.0
48	CONOCOPHILLIPS RAVIK ST 1	7301	2225	25.9	0.18	54.7	42.3	50.2	0.6	1.4
		3000	914	NA	NA	22.5	17.4	18.0	0.1	1.9
		9000	2743	NA	NA	67.5	52.1	61.9	0.6	1.4
49	ENI ROCK FLOUR 3	2000	610	6.0	0.04	9.4	9.0	11.5	0.1	0.1
		6000	1829	NA	NA	28.2	27.1	41.3	0.1	0.1
		9000	2743	NA	NA	42.3	40.6	61.9	0.1	0.1
50	CONOCOPHILLIPS ANTIGUA 1	4005	1221	12.6	0.09	27.3	22.0	24.7	0.5	1.5
		6875	2096	23.2	0.16	58.0	42.5	47.3	0.3	1.7
		9000	2743	NA	NA	76.0	55.6	61.9	0.3	1.7
51	ARCO KUPARUK RIV	3070	936	9.7	0.07	13.0	12.2	18.4	0.1	0.1
	UNIT WT-01	6000	1829	NA	NA	25.5	23.8	41.3	0.1	0.1
		9000	2743	NA	NA	38.2	35.7	61.9	0.1	0.1
52	ARCO KUPARUK RIV	3682	1122	12.3	0.08	14.3	13.9	22.0	0.0	0.0
	UNIT WT-04	6000	1829	NA	NA	23.4	22.7	41.3	0.0	0.0
		9000	2743	NA	NA	35.0	34.0	61.9	0.0	0.0

(*continued*)

Appendix 1. Continued

Well No.	Well Name	Depth (ft)	Depth (m)	P_p (psi)	P_p (MPa)	$S_{H\max}$ (MPa)	$S_{h\min}$ (MPa)	S_v (MPa)	Ø	Stress Index, $A(Ø)$
53	ARCO KRU STATE 2	6558	1999	24.0	0.17	31.3	29.5	45.1	0.1	0.1
	16-10-10	3000	914	NA	NA	14.3	13.5	18.0	0.2	0.2
		9000	2743	NA	NA	43.0	40.4	61.9	0.1	0.1
54	ARCO ROCK FLOUR 1	3000	914	12.0	0.08	16.1	15.1	17.9	0.4	0.4
		7210	2198	29.0	0.20	42.4	37.6	49.6	0.4	0.4
		9000	2743	NA	NA	52.9	46.9	61.9	0.4	0.4
55	ALASKAN CRUDE ACC	9200	2804	33.6	0.23	51.3	44.4	66.5	0.3	0.3
	F-03XX	3000	914	NA	NA	16.7	14.5	18.0	0.6	0.6
		6000	1829	NA	NA	33.5	29.0	41.3	0.4	0.4
56	ALASKAN CRUDE ACC	9200	2804	33.6	0.23	51.3	44.4	66.5	0.3	0.3
	F-02XX	6000	1829	NA	NA	33.5	29.0	43.4	0.3	0.3
57	PIONEER HAILSTORM 1	2995	913	9.7	0.07	14.8	13.4	17.9	0.3	0.3
		6000	1829	NA	NA	29.6	26.9	41.3	0.2	0.2
		9440	2877	33.8	0.23	66.2	51.5	68.2	0.9	0.9
		10,306	3141	33.3	0.23	78.5	57.7	74.5	0.8	1.2

Stress-index values are based on a stress-index scale developed by Hurd and Zoback (2012). Stress index: 0 (vertical/overburden principal stress [S_v] > maximum principal horizontal stress [$S_{H\max}$] = minimum principal horizontal stress [$S_{h\min}$]), 0.5 ($S_v > S_{H\max} > S_{h\min}$), 1 ($S_{H\max} = S_v > S_{h\min}$), 1.5 ($S_{H\max} > S_v > S_{h\min}$), 2 ($S_{H\max} > S_v = S_{h\min}$), 2.5 ($S_{H\max} > S_{h\min} > S_v$), and 3 ($S_{H\max} > S_{h\min} = S_v$).

Abbreviations: $A(Ø)$ = generalized Angelier's shape parameter; NA = not available; No. = number; P_p = formation pore pressure; $Ø$ = Angelier's shape parameter.

Appendix 2. Wells Used to Calculate the Present-Day In Situ Magnitudes at the Top of Shublik Formation in This Study

Well No.	Well Name	Depth (ft)	Depth (m)	$S_{H\max}$ (MPa)	$S_{h\min}$ (MPa)	S_v (MPa)	Ø	Stress Index, $A(Ø)$
1	CONOCOPHILLIPS KUPARUK RIV UNIT 2F-18	9601	2926	78.1	57.6	68.8	0.5	1.5
2	CONOCOPHILLIPS KUPARUK RIV UNIT 3A-17	7837	2389	15.8	14.1	53.9	0.0	0.0
3	CONOCOPHILLIPS KUPARUK RIV UNIT 2H-17	9196	2803	NA	NA	NA	NA	NA
4	CONOCOPHILLIPS COLVILLE RIV UNIT CD2-21	8588	2618	66.9	49.3	59.1	0.6	1.6
5	HILCORP NORTHSTAR UNIT NS-10	14,291	4356	110.0	81.0	99.0	0.6	1.6
6	BP SOURDOUGH 1	13,890	4234	120.1	87.5	95.5	0.2	1.2
7	BP YUKON GOLD 1	13,546	4129	103.2	83.1	93.2	0.5	1.5
8	UNION OIL E DE K LEFFINGWELL 1	13,422	4091	77.8	68.1	89.8	0.4	0.4
9	EXXON ALASKA ST K 1XX	12,706	3873	96.6	76.8	89.1	0.6	1.6
10	EXXON CANNING RIV U BLK A 1	3116	950	19.9	16.8	18.5	0.4	2.4
11	ARCO GYR1	11,405	3476	89.2	71.2	82.4	0.6	1.6
12	MCCULLOCH OIL FIN CK UNIT 1	13,606	4147	118.6	81.4	101.7	0.5	1.5
13	ARCO KAVIK UNIT 3	2964	903	NA	NA	NA	NA	NA
14	ARCO PIPELINE STATE 1	11,526	3513	79.1	65.8	74.7	0.7	1.7
15	ANADARKO JACOB'S LADDER C	10,989	3349	83.7	61.5	75.1	0.6	1.6
16	TEXACO KAD RIV 1	11,517	3510	80.6	64.0	78.5	0.9	1.9
17	SHELL LAKE 79 FED 1	11,084	3378	80.9	62.1	75.7	0.7	1.7
18	UNION OIL ALPENGLOW STATE 1	12,464	3799	100.9	77.3	86.7	0.4	1.4
19	CONOCO BADAMI 2	13,627	4154	89.1	77.3	94.6	0.7	0.7
20	BP BADAMI 4	13,773	4198	101.8	79.4	95.7	0.7	1.7
21	EXXON PT THOMSON UNIT 4	14,684	4476	95.8	86.0	101.0	0.7	0.7
22	EXXON ALASKA ST F 1	15,141	4615	117.1	93.1	104.1	0.5	1.5
23	EXXON PT THOMSON UNIT 1	14,787	4507	108.0	98.7	101.7	0.3	1.3
24	SAVANT KUPCAKE 1	13,330	4063	79.4	64.1	91.7	0.6	0.6
25	UNION AMETHYST STATE 1	12,794	3900	66.8	61.7	91.7	0.2	0.2
26	UNION OIL MASTODON 6-3-9	12,443	3793	54.7	53.9	86.8	0.0	0.0
27	BP MALGUK 1	12,336	3760	63.1	59.1	86.8	0.1	0.1
28	UNION OIL SMILODON 9-4-9	12,036	3669	57.0	54.4	83.7	0.1	0.1
29	CONOCOPHILLIPS HEAVENLY 1	11,809	3599	76.7	61.3	82.9	0.7	0.7
30	CONOCOPHILLIPS GRIZZLY 1	11,771	3588	82.0	57.0	82.5	1.0	1.0
31	ARCO TULAGA 1	11,931	3637	84.5	65.9	93.4	0.7	0.7
32	TEXACO WOLFBUTTON 25-6-9	11,042	3366	61.4	52.9	76.7	0.4	0.4
33	UNION OIL PANTHERA 28-6-9	11,007	3355	48.3	47.4	76.6	0.0	0.0
34	UNION OIL STEGODON 24-6-8XX	10,925	3330	47.3	47.0	75.9	0.0	0.0
35	UNION OIL MUSKOXEN 36-7-8	10,555	3217	54.4	47.3	73.3	0.3	0.3
36	TEXACO WOLFBUTTON 32-7-8	10,610	3234	58.4	50.8	78.3	0.3	0.3
37	ARCO MELTWATER SOUTH 1	10,657	3248	91.5	63.2	78.8	0.6	1.6
38	BP NARVAQ 1	10,355	3156	NA	NA	NA	NA	NA
39	UNION OIL BLUEBUCK 6-7-9	10,156	3096	48.4	45.9	70.6	0.1	0.1
40	ENI MAGGIORE 1	9525	2903	46.2	42.0	65.5	0.2	0.2
41	ENI MAGGIORE 3XX	9167	2794	48.1	42.7	62.9	0.3	0.3
42	CONOCOPHILLIPS MELTWATER NORTH 1	9976	3041	69.7	58.0	67.7	0.8	1.8
43	ARCO MELTWATER NORTH 2	9863	3006	71.5	57.4	67.1	0.7	1.7
44	CONOCOPHILLIPS KUPARUK RIV U MELT 2P-409	9857	3004	47.8	42.6	68.7	0.2	0.2

(*continued*)

Appendix 2. Continued

Well No.	Well Name	Depth (ft)	Depth (m)	$S_{H\max}$ (MPa)	$S_{h\min}$ (MPa)	S_v (MPa)	Ø	Stress Index, $A(Ø)$
45	CONOCOPHILLIPS CIRQUE 3	9486	2891	51.3	46.2	65.9	0.3	0.3
46	ANADARKO HOT ICE 1	9604	2927	63.4	51.3	66.4	0.8	0.8
47	UNION OIL RUBY STATE 1	9882	3012	78.8	57.1	56.8	0.0	2.0
48	CONOCOPHILLIPS RAVIK ST 1	9727	2965	72.9	56.3	67.6	0.7	1.7
49	ENI ROCK FLOUR 3	8614	2626	40.4	38.8	59.5	0.1	0.1
50	CONOCOPHILLIPS ANTIGUA 1	8898	2712	76.1	55.4	61.6	0.3	1.3
51	ARCO KUPARUK RIV UNIT WT-01	8945	2726	38.0	35.5	62.0	0.1	0.1
52	ARCO KUPARUK RIV UNIT WT-04	9277	2828	36.1	35.1	64.6	0.0	0.0
53	ARCO KRU STATE 2 16-10-10	9028	2752	43.1	40.6	62.5	0.1	0.1
54	ARCO 1 ROCK FLOUR 1	8795	2681	51.8	45.9	60.7	0.4	0.4
55	ALASKAN CRUDE ACC F-03XX	9382	2860	52.3	45.3	67.9	0.3	0.3
56	ALASKAN CRUDE ACC F-02XX	8409	2563	NA	NA	NA	NA	NA
57	PIONEER HAILSTORM 1	8768	2672	61.7	47.2	62.8	0.9	0.9

Stress-index values are based on a stress-index scale developed by Hurd and Zoback (2012). Stress index: 0 (vertical/overburden principal stress [S_v] > maximum principal horizontal stress [$S_{H\max}$] = minimum principal horizontal stress [$S_{h\min}$]), 0.5 ($S_v > S_{H\max} > S_{h\min}$), 1 ($S_{H\max} = S_v > S_{h\min}$), 1.5 ($S_{H\max} > S_v > S_{h\min}$), 2 ($S_{H\max} > S_v = S_{h\min}$), 2.5 ($S_{H\max} > S_{h\min} > S_v$), and 3 ($S_{H\max} > S_{h\min} = S_v$).

Abbreviations: $A(Ø)$ = generalized Angelier's shape parameter; NA = not available; No. = number; $Ø$ = Angelier's shape parameter.