COMPANY: STATOIL
RIG: ROSS RIG
DST's NO: 1 and 2. OIL AND GAS FLOW RATES
WELL NO: 34/10-4
DATE: 3.10.79 13.10.79

~~050- PS.15.07 Bu. hode og sep. data.~~

050-PS.15 DST

OIL FLOW RATE CALCULATIONS-TANK MEASUREMENTS

OEC-871-B

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE	OF
DST 1A	1	NORTH SEA	5.10.79	1	1

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (API) @ 60°F	STANDARD CONDITIONS
STATOIL	34/10-4		14.73 PRESS. 60 TEMP.

TANK #1 CAPACITY (BBLS)	TANK #1 INSIDE DIMENSIONS (INCHES)	BBLS PER INCH FOR TANK #1	TANK #2 CAPACITY (BBLS)	TANK #2 INSIDE DIMENSIONS (INCHES)	BBLS PER INCH FOR TANK #2

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TANK USED (1 or 2)	FIELD OIL TANK READINGS BBLS (~~XXXX~~)	INCREASE IN TANK READINGS SINCE LAST READING BBLS (~~XXXX~~)	VOLUME BY TANK SINCE LAST READING V_1 (BBLS)	TANK TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED OIL VOLUME $V_o = V_1 k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC FORM Q_g (MSCF/D)	X GOR (MSCF/STO BBL) / OGR (STO BBL/MMSCF)	
1 05/16.35			2.75					OPEN WELL. FLOW DIRECTED TO STOCK TANK FOR INITIAL FLOW.					
2 16.37			7.5	4.75	4.75	60	1.0	WELL SHUT-IN FOR INITIAL BUILD-UP. 0	4.75	3420.0			
3 20.30			7.5					FLOW DIRECTED TO TANK FROM SEPARATOR FOR METER CHECK.					
4 20.45			25.8	18.3	18.3	56	1.0012	0	18.3220	1758.91	851.143	484	
5 23.36								CHANGE TO 8/64 CHOKE - BYPASS SEPARATOR - FLOW DIRECTED TO STOCK TANK.					
6 23.40			0										
7 23.50			2.5	2.5	2.5	61	.9996	0	2.499	359.856			
8 24.00			5.0	2.5	2.5	61	.9996	0	2.499	359.856			
9 06/00.10			7.5	2.5	2.5	61	.9996	0	2.499	359.856			
10 00.20			9.9	2.4	2.4	61	.9996	0	2.399	345.456			
11 00.23								SHUT-IN AT CHOKE.					
12 10.45			8.0					FLOW FROM SEPARATOR TO STOCK TANK FOR METER CHECK.					
13 11.50			89	81	81	54	1.0012	0	81.0972	1796.615	875.416	487	
14													
15													
16													
17													
18													

OIL FLOW RATE CALCULATIONS-TANK MEASUREMENTS

DEC-871-B

BOTTOM HOLE SAMPLE NO. 1

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE	OF
DST 1A		NORTH SEA	7-10-79	1	1

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (API) @ 60°F	STANDARD CONDITIONS
STATOIL	34/10-4		14.73 PRESS. 60°F TEMP.

TANK #1 CAPACITY (BBLS)	TANK #1 INSIDE DIMENSIONS (INCHES)	BBLS PER INCH FOR TANK #1	TANK #2 CAPACITY (BBLS)	TANK #2 INSIDE DIMENSIONS (INCHES)	BBLS PER INCH FOR TANK #2
100		1			

	DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TANK USED (1 or 2)	FIELD OIL TANK READINGS (INCHES)	INCREASE IN TANK READINGS SINCE LAST READING (INCHES)	VOLUME BY TANK SINCE LAST READING V_t (BBLS)	TANK TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED OIL VOLUME $V_o = V_t k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC FORM Q_g (MSCF/D)	GOR (MSCF/STO BBL) / OGR (STO BBL/MMSCF)	
1	07 09.23			3.5			50	1.0040						1
2	09.30			5.5	2.0		50	1.0040		2.008	413.0742			2
3	09.45			9.0	3.5		48	1.0048		3.5168	337.6128			3
4	10.00			13.5	4.5		49	1.0044		4.5198	433.9008			4
5	10.15			17.5	4.0		49	1.0044		4.0176	385.69			5
6	10.30			21.25	3.75		49	1.0044		3.7665	361.58			6
7	10.45			25.0	3.75		49	1.0044		3.7665	361.58			7
8	11.00			29.0	4.0		49	1.0044		4.0176	385.69			8
9	11.15			33.0	4.0		49	1.0044		4.0176	385.69			9
10	11.30			37.0	4.0		49	1.0044		4.0176	385.69			10
11	11.45			41.0	4.0		49	1.0044		4.0176	385.69			11
12	12.00			44.9	3.9		49	1.0044		3.917	376.05			12
13	12.15			48.65	3.75		49	1.0044		3.7665	361.58			13
14	12.30			52.4	3.75		49	1.0044		3.7665	361.58			14
15														15
16														16
17														17
18														18

OIL FLOW RATE CALCULATIONS-TANK MEASUREMENTS

OTIS

OEC-871-B

BOTTOM HOLE SAMPLE NO. 2

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE	OF
DST 1A		NORTH SEA	7-10-79	1	1

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (API) @ 60°F	STANDARD CONDITIONS
STATOIL	34/10-4		14.73 PRESS. 60°F TEMP.

TANK #1 CAPACITY (BBLS)	TANK #1 INSIDE DIMENSIONS (INCHES)	BBLS PER INCH FOR TANK #1	TANK #2 CAPACITY (BBLS)	TANK #2 INSIDE DIMENSIONS (INCHES)	BBLS PER INCH FOR TANK #2
100		1			

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TANK USED (1 or 2)	FIELD OIL TANK READINGS (INCHES)	INCREASE IN TANK READINGS SINCE LAST READING (INCHES)	VOLUME BY TANK SINCE LAST READING V_t (BBLS)	TANK TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED OIL VOLUME $V_o = V_t k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC FORM Q_g (MSCF/D)	GOR (MSCF/STO BBL) / OGR (STO BBL/MMSCF)	
1 07 / 13.46			19.0			48	1.0048						1
2 / 14.00			23.0	4.0		49	1.0044		4.0176	361.584			2
3 / 14.15			27.0	4.0		48	1.0048		4.0192	385.84			3
4 / 14.30			31.0	4.0		48	1.0048		4.0192	385.84			4
5 / 14.45			34.5	3.5		48	1.0048		3.5168	337.613			5
6 / 15.00			38.5	4.0		48	1.0048		4.0192	385.84			6
7 / 15.15			42.0	3.5		48	1.0048		3.5168	337.613			7
8 / 15.30			46.0	4.0		48	1.0048		4.0192	385.84			8
9 / 15.45			49.5	3.5		48	1.0048		3.5168	337.613			9
10 / 16.00			53.0	3.5		48	1.0048		3.5168	337.613			10
11 / 16.15			57.0	4.0		48	1.0048		4.0192	385.84			11
12 / 16.30			60.5	3.5		48	1.0048		3.5168	337.613			12
13 / 16.40			62.5	2.0		48	1.0048		2.0096	289.382			13
14													14
15													15
16													16
17													17
18													18

OTIS (OIS) OEC-871-B

OIL FLOW RATE CALCULATIONS-TANK MEASUREMENTS

BOTTOM HOLE SAMPLING FLOW 1

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE	OF
DST 2	1	NORTH SEA	11.10.79	1	1

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (API) @ 60°F	STANDARD CONDITIONS	
STATOIL	34/10-4	29°	14.73 PRESS.	60°F TEMP.

TANK #1 CAPACITY (BBLS)	TANK #1 INSIDE DIMENSIONS (INCHES)	BBLS PER INCH FOR TANK #1	TANK #2 CAPACITY (BBLS)	TANK #2 INSIDE DIMENSIONS (INCHES)	BBLS PER INCH FOR TANK #2
100		1/1			

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TANK USED (1 or 2)	FIELD OIL TANK READINGS BBLS	INCREASE IN TANK READINGS SINCE LAST READING BBLS	VOLUME BY TANK SINCE LAST READING V_t (BBLS)	TANK TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED OIL VOLUME $V_o = V_t k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC FORM Q_g (MSCF/D)	GOR (MSCF/STO BBL) OGR (STO BBL/MMSCF)	
1 11/19.21							OPEN WELL FOR B.H. SAMPLE FLOW RATE 1 8/64 CHOKE						FLOW DIRECTLY TO STOCK TANK.
2 19.21			3.0	0		56	1.0016						
3 19.30			6.0	3.0		52	1.0032		3.0096	481.54			
4 19.45			9.5	3.5		52	1.0032		3.5112	337.07			
5 20.00			13.0	3.5		52	1.0032		3.5112	337.07			
6 20.15			16.5	3.5		52	1.0032		3.5112	337.07			
7 20.30			20.5	4.0		52	1.0032		4.0128	385.23			
8 20.45			24.0	3.5		52	1.0032		3.5112	337.07			
9 21.00			27.5	3.5		52	1.0032		3.5112	337.07			
10 21.15			31.5	4.0		51	1.0036		4.0144	385.38			
11 21.30			35.0	3.5		51	1.0036		3.5126	337.21			
12 21.45			39.0	4.0		51	1.0036		4.0144	385.38			
13 22.00			43.0	4.0		51	1.0036		4.0144	385.38			
14 22.15			47.0	4.0		51	1.0036		4.0144	385.38			
15 22.21							WELL CLOSED IN AT CHOKE MANIFOLD						
16													
17													
18													

[redacted]L FL[redacted]ATE [redacted]ULA[redacted]S-TA[redacted]EASU[redacted]ENTS[redacted]

UTIS (UTIS)

OEC—871-B

BOTTOM HOLE SAMPLING FLOW 2

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE	OF
DST 2	2	NORTH SEA	11-12.10.79	1	1

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (API) @ 60°F	STANDARD CONDITIONS PRESS.	TEMP.
STATOIL	34/10-4	29°	14.73	60°F

TANK #1 CAPACITY (BBLS)	TANK #1 INSIDE DIMENSIONS (INCHES)	BBLS PER INCH FOR TANK #1	TANK #2 CAPACITY (BBLS)	TANK #2 INSIDE DIMENSIONS (INCHES)	BBLS PER INCH FOR TANK #2

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TANK USED (1 or 2)	FIELD OIL TANK READINGS BBLS ~~XXXXX~~	INCREASE IN TANK READINGS SINCE LAST READING BBLS ~~(XXXX)~~	VOLUME BY TANK SINCE LAST READING V_i (BBLS)	TANK TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED OIL VOLUME $V_o = V_i k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC FORM Q_g (MSCF/D)	GOR (MSCF/STO BBL) OGR (STO BBL/MMSCF)	
1 11 / 23.48							OPEN WELL FOR B.H. SAMPLE FLOW RATE 2 8/64 CHOKE.						
2 / 23.48			5.0	0		48	1.0048						FLOW DIRECTLY TO STOCK TANK
3 / 24.00			8.0	3.0		50	1.0040		3.012	361.44			
4 12 / 00.15			11.5	3.5		50	1.0040		3.514	337.34			
5 / 00.30			15.0	3.5		50	1.0040		3.514	337.34			
6 / 00.45			18.5	3.5		50	1.0040		3.514	337.34			
7 / 01.00			22.0	3.5		50	1.0040		3.514	337.34			
8 / 01.15			25.7	3.7		50	1.0040		3.7148	356.62			
9 / 01.30			29.4	3.7		50	1.0040		3.7148	356.62			
10 / 01.45			33.1	3.7		50	1.0040		3.7148	356.62			
11 / 02.00			36.8	3.7		50	1.0040		3.7148	356.62			
12 / 02.15			40.5	3.7		50	1.0040		3.7148	356.62			
13 / 02.30			44.2	3.7		50	1.0040		3.7148	356.62			
14 / 02.45			47.9	3.7		50	1.0040		3.7148	356.62			
15 / 03.00			51.6	3.7		50	1.0040		3.7148	356.62			
16 / 03.08			53.5				CLOSED IN WELL AT CHOKE MANIFOLD						
17 /													
18 /													

[redacted] FLOW RATE CALCULATIONS TANK MEASUREMENTS [redacted]

OEC-871-B

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE	OF
DST 1 & 2		NORTH SEA	5-13.10.79	1	1

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (API) @ 60°F	STANDARD CONDITIONS
STATOIL	34/10-4		PRESS. TEMP.

TANK #1 CAPACITY (BBLS)	TANK #1 INSIDE DIMENSIONS (INCHES)	BBLS PER INCH FOR TANK #1	TANK #2 CAPACITY (BBLS)	TANK #2 INSIDE DIMENSIONS (INCHES)	BBLS PER INCH FOR TANK #2

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TANK USED (1 or 2)	FIELD OIL TANK READINGS (INCHES)	INCREASE IN TANK READINGS SINCE LAST READING (INCHES)	VOLUME BY TANK SINCE LAST READING V_t (BBLS)	TANK TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED OIL VOLUME $V_o = V_t k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC FORM Q_g (MSCF/D)	GOR $\left(\frac{MSCF}{STO\ BBL}\right)$ / OGR $\left(\frac{STO\ BBL}{MMSCF}\right)$	
1			TANK READINGS				METER READINGS						1
2 05 20.30			7.5				355.74						2
3 20.45			25.8	18.3			377.65	21.91	.835	METER FACTOR 2" METER			3
4 06 10.45			8.0				54.00						4
5 11.50			^89	81			150.45	96.45	.84	METER FACTOR 2" METER.			5
6 11 14.00			10.25				85.09						6
7 15.00			61.5	51.25			140.53	55.44	.924	METER FACTOR 2" METER.			7
8 12 04.45			7.5				362.43						8
9 05.15			44.75	37.25			402.52	40.09	.93	METER FACTOR 2" METER.			9
10 06.10			8.8				492.4						10
11 06.40			54.8	46			543.43	49.03	.938	METER FACTOR 2" METER.			11
12 10.20			6.0				1046.45						12
13 10.40			58	52			1103.53	57.08	.91	METER FACTOR 2" METER.			13
14 20.45							156.4						14
15 21.00				43.5			201.5	45.1	.96	METER FACTOR 3" METER.			15
16 13 01.30							933.0						16
17 01.46				58.0			1001.6	68.6	.845	METER FACTOR 2" METER.			17
18							METER FACTORS PLUS SHRINKAGE.						18

OIL FLOW RATE CALCULATIONS – METER MEASUREMENTS

OEC—870-1-B

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE OF
DST 1A	1 & 2	NORTH SEA	05OCT79	1 2

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (°API) @ 60°F	METER CALIBRATED WITH TANK DURING TEST
STATOIL	34/10-4	29.50	[X] YES [ ] NO GIVE DETAILS OF CALIBRATION

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TOTAL OF FIELD METER READINGS #1 + #2 (BBLS)	VOLUME BY METER(S) SINCE LAST READING V_m (BBLS)	MEASURED CORRECTION FACTOR C_f, $C_f = M W_f$	METER FACTOR M	WEATHERING FACTOR W_f	OIL METER TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED VOLUME $V_o = V_m C_f k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC. FORM Q_g (MSCF/D)	GOR (MSCF/STO BBL)
1 05 / 1930	0.00	268.74	21.77	0.8350 / 0.995	0.839 / 1.000	0.995	54 / 0	1.0026	1.0	18.04	1732.2	837.9	0.484
2 05 / 1945	0.00	290.41	21.67	0.8350 / 0.995	0.839 / 1.000	0.995	55 / 0	1.0022	1.0	17.95	1723.5	840.4	0.488
3 05 / 2000	0.00	312.13	21.72	0.8350 / 0.995	0.839 / 1.000	0.995	56 / 0	1.0018	1.0	17.99	1726.7	859.3	0.498
4 05 / 2015	0.00	333.89	21.76	0.8350 / 0.995	0.839 / 1.000	0.995	56 / 0	1.0018	1.0	18.02	1729.9	854.3	0.494
5 05 / 2030	0.00	355.74	21.85	0.8350 / 0.995	0.839 / 1.000	0.995	56 / 0	1.0017	1.0	18.09	1737.0	854.3	0.492
6 05 / 2045	0.00	377.65	21.91	0.8350 / 0.995	0.839 / 1.000	0.995	56 / 0	1.0017	0.0	18.33	1759.4	854.3	0.486
7 05 / 2100	0.00	399.16	21.51	0.8350 / 0.995	0.839 / 1.000	0.995	56 / 0	1.0017	0.0	17.99	1727.3	849.3	0.492
8 05 / 2115	0.00	421.01	21.85	0.8350 / 0.995	0.839 / 1.000	0.995	57 / 0	1.0013	1.0	18.~~09~~ 27	~~1736.3~~ 1753.8	849.3	0.489
9 05 / 2130	0.00	442.88	21.87	0.8350 / 0.995	0.839 / 1.000	0.995	57 / 0	1.0013	0.0	18.29	1755.4	867.4	0.494
10 05 / 2145	0.00	464.71	21.83	0.8350 / 0.995	0.839 / 1.000	0.995	57 / 0	1.0013	0.0	18.25	1752.2	867.4	0.495
11 05 / 2200	0.00	486.55	21.84	0.8350 / 0.995	0.839 / 1.000	0.995	58 / 0	1.0009	0.0	18.25	1752.2	866.4	0.494
12 05 / 2215	0.00	508.44	21.89	0.8350 / 0.995	0.839 / 1.000	0.995	58 / 0	1.0009	0.0	18.29	1756.2	866.4	0.493
13 05 / 2230	0.00	530.23	21.79	0.8350 / 0.995	0.839 / 1.000	0.995	58 / 0	1.0009	0.0	18.21	1748.2	866.4	0.496
14 05 / 2245	0.00	552.09	21.86	0.8350 / 0.995	0.839 / 1.000	0.995	58 / 0	1.0009	0.0	18.27	1753.8	866.4	0.494
15 05 / 2300	0.00	574.05	21.96	0.8350 / 0.995	0.839 / 1.000	0.995	58 / 0	1.0009	0.0	18.35	1761.9	866.4	0.492
16 05 / 2315	0.00	596.28	22.23	0.8350 / 0.995	0.839 / 1.000	0.995	58 / 0	1.0009	0.0	18.58	1783.5	865.4	0.485
17 05 / 2330	0.00	618.46	22.18	0.8350 / 0.995	0.839 / 1.000	0.995	59 / 0	1.0004	0.0	18.53	1778.7	865.4	0.487
18 06 / 1030	0.00	31.20	22.24	0.8350 / 0.995	0.839 / 1.000	0.995	56 / 0	1.0018	0.0	18.60	1785.9	907.8	0.508
19 06 / 1045	0.00	54.00	22.80	0.8350 / 0.995	0.839 / 1.000	0.995	56 / 0	1.0018	0.0	19.07	1830.9	947.8	0.518

OIL FLOW RATE CALCULATIONS – METER MEASUREMENTS

OEC—870-1-B

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE OF
DST 1A	1 & 2	NORTH SEA	06OCT79	2 2

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (°API) @ 60°F	METER CALIBRATED WITH TANK DURING TEST
STATOIL	34/10-4	29.70	[X] YES [ ] NO GIVE DETAILS OF CALIBRATION

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TOTAL OF FIELD METER READINGS #1 + #2 (BBLS)	VOLUME BY METER(S) SINCE LAST READING V_m (BBLS)	MEASURED CORRECTION FACTOR C_f $C_f = M W_f$	METER FACTOR M	WEATHERING FACTOR W_f	OIL METER TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED VOLUME $V_o = V_m C_f k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC. FORM Q_g (MSCF/D)	GOR ($\frac{MSCF}{STO\ BBL}$)
1 06 / 1100	0.00	76.38	22.38	0.8350 / 0.995	0.839 / 1.000	0.995	56 / 0	1.0018	0.0	18.72	1797.1	907.8	0.505
2 06 / 1115	0.00	98.58	22.20	0.8350 / 0.995	0.839 / 1.000	0.995	56 / 0	1.0018	0.0	18.57	1782.7	907.8	0.509
3 06 / 1130	0.00	120.85	22.27	0.8350 / 0.995	0.839 / 1.000	0.995	56 / 0	1.0017	0.0	18.63	1788.3	907.8	0.508
4 06 / 1145	0.00	142.77	21.92	0.8350 / 0.995	0.839 / 1.000	0.995	56 / 0	1.0017	0.0	18.34	1760.2	915.5	0.520
5 06 / 1150	0.00	150.45	7.68	0.8350 / 0.995	0.839 / 1.000	0.995	56 / 0	1.0017	0.0	6.42	1850.1	0.0	0.000
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OIL FLOW RATE CALCULATIONS – METER MEASUREMENTS

OEC—870-1-B

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE OF
DST 2	1	NORTH SEA	11OCT79	1 2

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (°API) @ 60°F	METER CALIBRATED WITH TANK DURING TEST
STATOIL	34/10-4	29.40	[X] YES [ ] NO GIVE DETAILS OF CALIBRATION

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TOTAL OF FIELD METER READINGS #1 + #2 (BBLS)	VOLUME BY METER(S) SINCE LAST READING V_m (BBLS)	MEASURED CORRECTION FACTOR C_t, $C_t = M W_t$	METER FACTOR M	WEATHERING FACTOR W_t	OIL METER TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED VOLUME $V_o = V_m C_t k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC. FORM Q_g (MSCF/D)	GOR ($\frac{MSCF}{STO\ BBL}$)
1 11 1245	0.00	14.91	9.84	0.9300 0.980	0.949 1.000	0.980	57 0	1.0013	0.0	9.16	1319.5	602.5	1 0.457
2 11 1300	0.00	29.06	14.15	0.9300 0.980	0.949 1.000	0.980	55 0	1.0022	0.0	13.19	1266.1	597.6	2 0.472
3 11 1315	0.00	43.13	14.07	0.9300 0.980	0.949 1.000	0.980	56 0	1.0017	0.0	13.11	1258.4	592.6	3 0.471
4 11 1330	0.00	57.21	14.08	0.9300 0.980	0.949 1.000	0.980	56 0	1.0017	0.0	13.12	1259.3	598.7	4 0.475
5 11 1345	0.00	71.24	14.03	0.9300 0.980	0.949 1.000	0.980	56 0	1.0017	0.0	13.07	1254.8	599.6	5 0.478
6 11 1400	0.00	85.09	13.85	0.9300 0.980	0.949 1.000	0.980	56 0	1.0017	0.0	12.90	1238.7	594.5	6 0.480
7 11 1415	0.00	99.10	14.01	0.9300 0.980	0.949 1.000	0.980	56 0	1.0017	0.0	13.05	1253.0	589.4	7 0.470
8 11 1430	0.00	112.82	13.72	0.9300 0.980	0.949 1.000	0.980	57 0	1.0013	0.0	12.78	1226.6	588.7	8 0.480
9 11 1445	0.00	126.67	13.85	0.9300 0.980	0.949 1.000	0.980	57 0	1.0013	0.0	12.90	1238.2	588.7	9 0.475
10 11 1500	0.00	140.53	13.86	0.9300 0.980	0.949 1.000	0.980	57 0	1.0013	0.0	12.91	1239.1	583.5	10 0.471
11 11 1515	0.00	154.37	13.84	0.9300 0.980	0.949 1.000	0.980	57 0	1.0013	0.0	12.89	1237.3	583.5	11 0.472
12 11 1530	0.00	168.25	13.88	0.9300 0.980	0.949 1.000	0.980	57 0	1.0013	0.0	12.93	1240.9	583.5	12 0.470
13 11 1545	0.00	182.15	13.90	0.9300 0.980	0.949 1.000	0.980	57 0	1.0013	0.0	12.94	1242.6	589.2	13 0.474
14 11 1600	0.00	196.23	14.08	0.9300 0.980	0.949 1.000	0.980	57 0	1.0013	0.0	13.11	1258.7	583.9	14 0.464
15 11 1615	0.00	210.15	13.92	0.9300 0.980	0.949 1.000	0.980	57 0	1.0013	0.0	12.96	1244.4	583.9	15 0.469
16 11 1630	0.00	224.14	13.99	0.9300 0.980	0.949 1.000	0.980	57 0	1.0013	0.0	13.03	1250.7	583.9	16 0.467
17 11 1645	0.00	238.02	13.88	0.9300 0.980	0.949 1.000	0.980	57 0	1.0013	0.0	12.93	1240.9	579.8	17 0.467
18 11 1700	0.00	251.95	13.93	0.9300 0.980	0.949 1.000	0.980	57 0	1.0013	0.0	12.97	1245.3	579.8	18 0.466
19 11 1715	0.00	265.95	14.00	0.9300 0.980	0.949 1.000	0.980	57 0	1.0013	0.0	13.04	1251.6	585.5	19 0.468

OIL FLOW RATE CALCULATIONS – METER MEASUREMENTS

OEC—870-1-B

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE OF
DST 2	1	NORTH SEA	11OCT79	2 2

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (°API) @ 60°F	METER CALIBRATED WITH TANK DURING TEST
STATOIL	34/10-4	29.40	[X] YES [ ] NO GIVE DETAILS OF CALIBRATION

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TOTAL OF FIELD METER READINGS #1 + #2 (BBLS)	VOLUME BY METER(S) SINCE LAST READING V_m (BBLS)	MEASURED CORRECTION FACTOR C_f, $C_f = M W_f$	METER FACTOR M	WEATHERING FACTOR W_f	OIL METER TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED VOLUME $V_o = V_m C_f k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC. FORM Q_g (MSCF/D)	GOR ($\frac{MSCF}{STO\ BBL}$)
1 11 / 1730	0.00	279.91	13.96	0.9300 / 0.980	0.949 / 1.000	0.980	57 / 0	1.0013	0.0	13.00	1248.0	585.5	0.469
2 11 / 1745	0.00	293.46	13.55	0.9300 / 0.980	0.949 / 1.000	0.980	57 / 0	1.0013	0.0	12.62	1211.4	585.5	0.483
3 11 / 1800	0.00	307.34	13.88	0.9300 / 0.980	0.949 / 1.000	0.980	57 / 0	1.0013	0.0	12.93	1240.9	585.5	0.472
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OIL FLOW RATE CALCULATIONS – METER MEASUREMENTS

OEC—870-1-B

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE OF
DST 2	2	NORTH SEA	12OCT79	1 1

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (°API) @ 60°F	METER CALIBRATED WITH TANK DURING TEST
STATOIL	34/10-4	29.40	[X] YES [ ] NO GIVE DETAILS OF CALIBRATION

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TOTAL OF FIELD METER READINGS #1 + #2 (BBLS)	VOLUME BY METER(S) SINCE LAST READING V_m (BBLS)	MEASURED CORRECTION FACTOR C_f $C_f = M W_f$	METER FACTOR M	WEATHERING FACTOR W_f	OIL METER TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED VOLUME $V_o = V_m C_f k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC. FORM Q_g (MSCF/D)	GOR (MSCF/STO BBL)
1 12/415	0.00	322.02	10.85	0.9290 0.980	0.948 1.000	0.980	53 0	1.0031	0.0	10.11	1820.0	791.1	0.435
2 12/430	0.00	342.20	20.18	0.9290 0.980	0.948 1.000	0.980	55 0	1.0022	0.0	18.79	1803.7	777.4	0.431
3 12/445	0.00	362.43	20.23	0.9290 0.980	0.948 1.000	0.980	56 0	1.0017	0.0	18.83	1807.4	780.2	0.432
4 12/500	0.00	382.45	20.02	0.9290 0.980	0.948 1.000	0.980	58 0	1.0009	0.0	18.62	1787.1	775.0	0.434
5 12/515	0.00	402.52	20.07	0.9290 0.980	0.948 1.000	0.980	58 0	1.0007	0.0	18.66	1791.2	775.0	0.433
6 12/530	0.00	424.04	21.52	0.9290 0.980	0.948 1.000	0.980	60 0	1.0000	0.0	19.99	1919.3	979.0	0.510
7 12/545	0.00	449.69	25.65	0.9290 0.980	0.948 1.000	0.980	60 0	1.0000	0.0	23.83	2287.7	948.5	0.415
8 12/600	0.00	475.25	25.56	0.9290 0.980	0.948 1.000	0.980	62 0	0.9991	0.0	23.73	2277.7	980.1	0.430
9 12/615	0.00	500.94	25.69	0.9290 0.980	0.948 1.000	0.980	63 0	0.9987	0.0	23.84	2288.2	987.5	0.432
10 12/630	0.00	526.52	25.58	0.9290 0.980	0.948 1.000	0.980	64 0	0.9983	0.0	23.72	2277.5	987.5	0.434
11 12/645	0.00	551.82	25.30	0.9290 0.980	0.948 1.000	0.980	64 0	0.9983	0.0	23.46	2252.5	986.4	0.438
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OIL FLOW RATE CALCULATIONS – METER MEASUREMENTS

OEC—870-1-B

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE OF
DST 2	2	NORTH SEA	12OCT79	1 1

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (°API) @ 60°F	METER CALIBRATED WITH TANK DURING TEST
STATOIL	34\10-4	29.30	[X] YES [ ] NO GIVE DETAILS OF CALIBRATION

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TOTAL OF FIELD METER READINGS #1 + #2 (BBLS)	VOLUME BY METER(S) SINCE LAST READING V_m (BBLS)	MEASURED CORRECTION FACTOR C_f, $C_f = M W_f$	METER FACTOR M	WEATHERING FACTOR W_f	OIL METER TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED VOLUME $V_o = V_m C_f k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC. FORM Q_g (MSCF/D)	GOR ($\frac{MSCF}{STO\ BBL}$)
1 12/715	0.00	604.11	32.81	0.9099 0.970	0.938 1.000	0.970	68 0	0.9965	0.0	29.75	2855.9	1234.2	0.432
2 12/730	0.00	636.75	32.64	0.9099 0.970	0.938 1.000	0.970	70 0	0.9956	0.0	29.57	2838.6	1229.0	0.433
3 12/745	0.00	669.34	32.59	0.9099 0.970	0.938 1.000	0.970	72 0	0.9948	0.0	29.50	2831.7	1227.5	0.433
4 12/800	0.00	702.19	32.85	0.9099 0.970	0.938 1.000	0.970	72 0	0.9948	0.0	29.73	2854.4	1231.5	0.431
5 12/820	0.00	744.45	42.26	0.9099 0.970	0.938 1.000	0.970	75 0	0.9935	0.0	38.20	2750.4	1447.1	0.526
6 12/830	0.00	770.13	25.68	0.9099 0.970	0.938 1.000	0.970	75 0	0.9935	0.0	23.21	3342.6	1531.1	0.458
7 12/845	0.00	807.89	37.76	0.9099 0.970	0.938 1.000	0.970	77 0	0.9926	0.0	34.10	3273.8	1472.0	0.450
8 12/900	0.00	845.74	37.85	0.9099 0.970	0.938 1.000	0.970	78 0	0.9922	0.0	34.17	3280.2	1481.6	0.452
9 12/915	0.00	884.29	38.55	0.9099 0.970	0.938 1.000	0.970	79 0	0.9918	0.0	34.79	3339.4	1491.1	0.447
10 12/930	0.00	920.92	36.63	0.9099 0.970	0.938 1.000	0.970	80 0	0.9913	0.0	33.04	3171.7	1487.7	0.469
11 12/945	0.00	952.37	31.45	0.9099 0.970	0.938 1.000	0.970	81 0	0.9909	0.0	28.35	2722.0	1607.4	0.591
12 12/1000	0.00	993.18	40.81	0.9099 0.970	0.938 1.000	0.970	82 0	0.9905	0.0	36.78	3530.6	1615.8	0.458
13 12/1015	0.00	1032.09	38.91	0.9099 0.970	0.938 1.000	0.970	84 0	0.9896	0.0	35.03	3363.3	1725.2	0.513
14 12/1030	0.00	1075.01	42.92	0.9099 0.970	0.938 1.000	0.970	84 0	0.9896	0.0	38.64	3709.9	1715.5	0.462
15 12/1045	0.00	1117.87	42.86	0.9099 0.970	0.938 1.000	0.970	84 0	0.9896	0.0	38.59	3704.7	1715.5	0.463
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OIL FLOW RATE CALCULATIONS – METER MEASUREMENTS

OEC—870-1-B

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE OF
DST 2	2	NORTH SEA	12OCT79	1

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (°API) @ 60°F	METER CALIBRATED WITH TANK DURING TEST
STATOIL	34\10-4	29.00	[X] YES [ ] NO GIVE DETAILS OF CALIBRATION

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TOTAL OF FIELD METER READINGS #1 + #2 (BBLS)	VOLUME BY METER(S) SINCE LAST READING V_m (BBLS)	MEASURED CORRECTION FACTOR C_f, $C_f = M W_f$	METER FACTOR M	WEATHERING FACTOR W_f	OIL METER TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED VOLUME $V_o = V_m C_f k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC. FORM Q_g (MSCF/D)	GOR ($\frac{MSCF}{STO\ BBL}$)
1 12 / 1115	0.00	1209.95	50.53	0.8449 / 0.970	0.871 / 1.000	0.970	87 / 0	0.9883	0.0	42.19	4050.4	1985.5	0.490
2 12 / 1130	0.00	1259.87	49.92	0.8449 / 0.970	0.871 / 1.000	0.970	90 / 0	0.9870	0.0	41.63	3996.3	1986.7	0.497
3 12 / 1145	0.00	1310.33	50.46	0.8449 / 0.970	0.871 / 1.000	0.970	90 / 0	0.9870	0.0	42.08	4039.5	1981.9	0.491
4 12 / 1205	0.00	1372.88	62.55	0.8449 / 0.970	0.871 / 1.000	0.970	90 / 0	0.9870	0.0	52.16	3755.4	1992.7	0.531
5 12 / 1215	0.00	1406.64	33.76	0.8449 / 0.970	0.871 / 1.000	0.970	90 / 0	0.9870	0.0	28.15	4053.8	2017.0	0.498
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OIL FLOW RATE CALCULATIONS – METER MEASUREMENTS

OEC—870-1-B

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE OF
DST 2	3	NORTH SEA	12OCT79	1 1

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (°API) @ 60°F	METER CALIBRATED WITH TANK DURING TEST
STATOIL	34\10-4	29.10	[X] YES [ ] NO GIVE DETAILS OF CALIBRATION

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TOTAL OF FIELD METER READINGS #1 + #2 (BBLS)	VOLUME BY METER(S) SINCE LAST READING V_m (BBLS)	MEASURED CORRECTION FACTOR C_f $C_f = M W_f$	METER FACTOR M	WEATHERING FACTOR W_f	OIL METER TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED VOLUME $V_o = V_m C_f k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC. FORM Q_g (MSCF/D)	GOR ($\frac{MSCF}{STO\ BBL}$)
1 12 / 1830	0.00	46.16	25.50	0.8449 / 0.970	0.871 / 1.000	0.970	62 / 0	0.9991	0.0	21.53	2066.4	974.9	0.472
2 12 / 1845	0.00	72.42	26.26	0.8449 / 0.970	0.871 / 1.000	0.970	64 / 0	0.9983	0.0	22.15	2126.2	979.6	0.461
3 12 / 1900	0.00	106.02	33.60	0.8449 / 0.970	0.871 / 1.000	0.970	69 / 0	0.9961	0.0	28.28	2714.6	1265.6	0.466
4 12 / 1915	0.00	140.60	34.58	0.8449 / 0.970	0.871 / 1.000	0.970	71 / 0	0.9952	0.0	29.08	2791.3	1262.6	0.452
5 12 / 1930	0.00	188.70	48.10	0.8449 / 0.970	0.871 / 1.000	0.970	77 / 0	0.9926	0.0	40.34	3872.4	0.0	0.000
6 12 / 1945	0.00	236.80	48.10	0.8449 / 0.970	0.871 / 1.000	0.970	82 / 0	0.9905	0.0	40.25	3864.1	0.0	0.000
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OIL FLOW RATE CALCULATIONS – METER MEASUREMENTS

OTIS

OEC-967

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE	OF
DST 2	3	North Sea	12 Oct 79	1	1

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (°API) @ 60°F	METER CALIBRATED WITH TANK DURING TEST
Statoil	34/10-4	28.80	[x] YES [ ] NO GIVE DETAILS OF CALIBRATION

	DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TOTAL OF FIELD METER READINGS #1 + #2 (BBLS)	VOLUME BY METER(S) SINCE LAST READING V_m (BBLS)	MEASURED CORRECTION FACTOR C_f, $C_f = M W_f$	METER FACTOR M	WEATHERING FACTOR W_f	OIL METER TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED VOLUME $V_o = V_m C_f k (1 - BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC. FORM Q_g (MSCF/D)	GOR ($\frac{MSCF}{STO\ BBL}$)	
1	12 / 2015	0.00	64.80	45.10	0.9642 0.950	1.015 1.000	0.950	90 0	0.9870	0.0	42.92	4120.7	1846.5	0.448	1
2	12 / 2030	0.00	110.50	45.70	0.9642 0.950	1.015 1.000	0.950	92 0	0.9862	0.0	43.46	4171.8	1865.3	0.447	2
3	12 / 2045	0.00	156.40	45.90	0.9642 0.950	1.015 1.000	0.950	92 0	0.9862	0.0	43.65	4190.1	1860.6	0.444	3
4	12 / 2100	0.00	201.50	45.10	0.9642 0.950	1.015 1.000	0.950	92 0	0.9862	0.0	42.89	4117.1	1850.6	0.449	4
5	12 / 2115	0.00	247.50	46.00	0.9642 0.950	1.015 1.000	0.950	94 0	0.9853	0.0	43.70	4195.6	2073.5	0.494	5
6	12 / 2130	0.00	294.90	47.40	0.9642 0.950	1.015 1.000	0.950	96 0	0.9845	0.0	45.00	4319.6	2070.9	0.479	6
7	12 / 2145	0.00	342.00	47.10	0.9642 0.950	1.015 1.000	0.950	96 0	0.9845	0.0	44.71	4292.3	2076.7	0.484	7
8	12 / 2200	0.00	388.70	46.70	0.9642 0.950	1.015 1.000	0.950	96 0	0.9845	0.0	44.33	4255.8	2063.2	0.485	8
9	12 / 2215	0.00	435.50	46.80	0.9642 0.950	1.015 1.000	0.950	99 0	0.9832	0.0	44.37	4259.3	2022.5	0.475	9
10	12 / 2230	0.00	483.00	47.50	0.9642 0.950	1.015 1.000	0.950	99 0	0.9832	0.0	45.03	4323.0	2022.5	0.468	10
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OIL FLOW RATE CALCULATIONS – METER MEASUREMENTS

OTIS

OEC-967

TEST NUMBER	RATE NUMBER	AREA	DATE (DAY MO YR)	PAGE	OF
DST 2	3	North Sea	12Oct 79	1	1

CUSTOMER	WELL NAME OR NUMBER	STO GRAVITY (°API) @ 60°F	METER CALIBRATED WITH TANK DURING TEST
Statoil	34/10-4	29.5	[X] YES [ ] NO GIVE DETAILS OF CALIBRATION

	DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	TOTAL OF FIELD METER READINGS #1 + #2 (BBLS)	VOLUME BY METER(S) SINCE LAST READING V_m (BBLS)	MEASURED CORRECTION FACTOR C_f, $C_f = M W_f$	METER FACTOR M	WEATHERING FACTOR W_f	OIL METER TEMP. (°F)	k FROM ASTM TABLES	BSW (%)	CORRECTED VOLUME $V_o = V_m C_f k (1-BSW/100)$ (STO BBLS)	CORRECTED OIL FLOW RATE Q_o (STO BPD)	CORRECTED GAS FLOW RATE FROM GAS FLOW RATE CALC. FORM Q_g (MSCF/D)	GOR (MSCF / STO BBL)	
1	12 / 2245	0.00	299.87	35.98	0.8450 / 0.950	0.889 / 1.000	0.950	99 / 0	0.9832	0.0	29.89	4304.5	2020.0	0.469	1
2	12 / 2300	0.00	353.80	53.93	0.8450 / 0.950	0.889 / 1.000	0.950	100 / 0	0.9827	0.0	44.78	4299.1	2020.0	0.470	2
3	12 / 2315	0.00	407.49	53.69	0.8450 / 0.950	0.889 / 1.000	0.950	100 / 0	0.9827	0.0	44.58	4280.0	2017.5	0.471	3
4	12 / 2330	0.00	460.70	53.21	0.8450 / 0.950	0.889 / 1.000	0.950	100 / 0	0.9326	0.0	44.18	4241.3	2017.5	0.476	4
5	12 / 2345	0.00	513.00	52.30	0.8450 / 0.950	0.889 / 1.000	0.950	100 / 0	0.9826	0.0	43.43	4168.8	1878.7	0.451	5
6	12 / 2400	0.00	566.50	53.50	0.8450 / 0.950	0.889 / 1.000	0.950	101 / 0	0.9821	0.0	43.40	4262.2	2121.6	0.498	6
7	13 / 0015	0.00	624.52	58.02	0.8450 / 0.950	0.889 / 1.000	0.950	103 / 0	0.9813	0.0	48.11	4618.6	2119.0	0.459	7
8	13 / 0030	0.00	682.34	57.82	0.8450 / 0.950	0.889 / 1.000	0.950	104 / 0	0.9808	0.0	47.92	4600.3	2043.8	0.444	8
9	13 / 0045	0.00	742.40	60.06	0.8450 / 0.950	0.889 / 1.000	0.950	104 / 0	0.9808	0.0	49.78	4778.5	2399.5	0.502	9
10	13 / 0100	0.00	805.80	63.40	0.8450 / 0.950	0.889 / 1.000	0.950	105 / 0	0.9803	0.0	52.52	5041.7	2396.6	0.475	10
11	13 / 115	0.00	869.20	63.40	0.8450 / 0.950	0.889 / 1.000	0.950	107 / 0	0.9795	0.0	52.48	5037.6	2384.7	0.473	11
12	13 / 0130	0.0	933.00	63.80	0.8450 / 0.950	0.889 / 1.000	0.950	108 / 0	0.9790	0.0	52.78	5066.8	2381.8	0.470	12
13	13 / 0145	0.00	997.60	64.60	0.8450 / 0.950	0.889 / 1.000	0.950	108 / 0	0.9790	0.0	53.44	5130.3	2330.1	0.454	13
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GAS FLOW RATE CALCULATIONS

OEC—862-1-B

TEST NUMBER	RATE NUMBER	AREA	WELL NAME OR NUMBER	DATE (DAY, MO, YR)	PAGE	OF
HIGH STAGE DST 1A	1 & 2	NORTH SEA	34/10-4	05OCT79	1	2

CUSTOMER	STANDARD CONDITIONS	ATM. PRESS	P_c =	T_c =	MEAS. / EST.	GAS SPECIFIC GRAVITY-G
STATOIL	[X] 14.73 psi 60°F [ ] OTHER	14.73	669.7	362.5	[ ] / [X]	0.616

METER TYPE	METER RUN SIZE (INCHES)	FLOW RECORDER TYPE	h_w RANGE (INCHES WATER)	STATIC PRESS RANGE (psi)	F_u TABLE PREV. PAGE	$F_g = \sqrt{1/G}$	$C_1 = F_u \times F_g$
DANIELS	5.501	BARTON	0-200	0-1500	24.0000	1.2741	30.5788

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	STATIC PRESSURE P_f (psia)	DIFFERENTIAL PRESSURE h_w 0-20 (INCHES WATER)	DOWN STREAM GAS TEMP. (°F)	$\sqrt{h_w P_f}$	ORIFICE SIZE d (INCHES)	$C_2 = F_b \times F_{tf} \times F_{pv} \times Y_2$: F_b	F_{tf}	F_{pv}	Y_2	C_2	C ($C = C_1 \times C_2$)	CORRECTED GAS FLOW RATE $Q_g = C\sqrt{h_w P_f}$ (LTL MSCF/D)
1 05 1215	0.00	345	80.0	54	166.07	0.875	153.69	1.0058	1.0321	1.0015	159.788	4886	0.81
2 05 1930	0.00	350	84.0	54	171.40	0.875	153.69	1.0058	1.0325	1.0016	159.872	4889	0.84
3 05 1945	0.00	360	82.0	54	171.75	0.875	153.69	1.0058	1.0335	1.0015	160.011	4893	0.84
4 05 2000	0.00	355	87.0	54	175.67	0.875	153.69	1.0058	1.0330	1.0016	159.953	4891	0.86
5 05 2015	0.00	355	86.0	54	174.66	0.875	153.69	1.0058	1.0330	1.0016	159.950	4891	0.85
6 05 2030	0.00	355	86.0	54	174.66	0.875	153.69	1.0058	1.0330	1.0016	159.950	4891	0.85
7 05 2045	0.00	355	86.0	54	174.66	0.875	153.69	1.0058	1.0330	1.0016	159.950	4891	0.85
8 05 2100	0.00	355	85.0	54	173.64	0.875	153.69	1.0058	1.0330	1.0016	159.947	4891	0.85
9 05 2115	0.00	355	85.0	54	173.64	0.875	153.69	1.0058	1.0330	1.0016	159.947	4891	0.85
10 05 2130	0.00	350	90.0	54	177.41	0.875	153.69	1.0058	1.0325	1.0017	159.891	4889	0.87
11 05 2145	0.00	350	90.0	54	177.41	0.875	153.69	1.0058	1.0325	1.0017	159.891	4889	0.87
12 05 2200	0.00	350	90.0	55	177.41	0.875	153.69	1.0048	1.0323	1.0017	159.700	4883	0.87
13 05 2215	0.00	350	90.0	55	177.41	0.875	153.69	1.0048	1.0323	1.0017	159.700	4883	0.87
14 05 2230	0.00	350	90.0	55	177.41	0.875	153.69	1.0048	1.0323	1.0017	159.700	4883	0.87
15 05 2230	0.00	350	90.0	55	177.41	0.875	153.69	1.0048	1.0323	1.0017	159.700	4883	0.87
16 05 2230	0.00	350	90.0	55	177.41	0.875	153.69	1.0048	1.0323	1.0017	159.700	4883	0.87
17 05 2245	0.00	350	90.0	55	177.41	0.875	153.69	1.0048	1.0323	1.0017	159.700	4883	0.87
18 05 2300	0.00	350	90.0	55	177.41	0.875	153.69	1.0048	1.0323	1.0017	159.700	4883	0.87

GAS FLOW RATE CALCULATIONS

OEC—862-1-B

TEST NUMBER	RATE NUMBER	AREA	WELL NAME OR NUMBER	DATE (DAY, MO, YR)	PAGE	OF
HIGH STAGE DST 1A	1 & 2	NORTH SEA	34/10-4	05OCT79	2	2

CUSTOMER	STANDARD CONDITIONS	ATM. PRESS	P_c =	T_c =	MEAS. / EST.	GAS SPECIFIC GRAVITY-G
STATOIL	X 14.73 psi 60°F / OTHER	14.73	669.7	362.5	EST. X	0.616

METER TYPE	METER RUN SIZE (INCHES)	FLOW RECORDER TYPE	h_w RANGE (INCHES WATER)	STATIC PRESS RANGE (psi)	F_u TABLE PREV. PAGE	$F_g = \sqrt{1/G}$	$C_1 = F_u \times F_g$
DANIELS	5.501	BARTON	0-200	0-1500	24.0000	1.2741	30.5788

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	STATIC PRESSURE P_f (psia)	DIFFERENTIAL PRESSURE h_w (INCHES WATER)	DOWN STREAM GAS TEMP. (°F)	$\sqrt{h_w P_f}$	ORIFICE SIZE d (INCHES)	$C_2 = F_b \times F_{tf} \times F_{pv} \times Y_2$: F_b	F_{tf}	F_{pv}	Y_2	C_2	C ($C = C_1 \times C_2$)	CORRECTED GAS FLOW RATE $Q_g = C\sqrt{h_w P_f}$ (MSCF/D)
1 05 0315	0.00	350	90.0	56	177.41	0.875	153.69	1.0039	1.0321	1.0017	159.511	4878	0.87
2 05 0330	0.00	350	90.0	56	177.41	0.875	153.69	1.0039	1.0321	1.0017	159.511	4878	0.87
3 06 1015	0.00	305	116.0	53	188.01	0.875	153.69	1.0068	1.0284	1.0025	159.529	4878	0.92
4 06 1030	0.00	310	112.0	54	186.25	0.875	153.69	1.0058	1.0287	1.0024	159.399	4874	0.91
5 06 1045	0.00	315	120.0	54	194.34	0.875	153.69	1.0058	1.0291	1.0025	159.495	4877	0.95
6 06 1100	0.00	310	112.0	54	186.25	0.875	153.69	1.0058	1.0287	1.0024	159.399	4874	0.91
7 06 1115	0.00	310	112.0	54	186.25	0.875	153.69	1.0058	1.0287	1.0024	159.399	4874	0.91
8 06 1130	0.00	310	112.0	54	186.25	0.875	153.69	1.0058	1.0287	1.0024	159.399	4874	0.91
9 06 1145	0.00	315	112.0	54	187.75	0.875	153.69	1.0058	1.0291	1.0024	159.468	4876	0.92
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GAS FLOW RATE CALCULATIONS

OEC—862-1-B

TEST NUMBER	RATE NUMBER	AREA	WELL NAME OR NUMBER	DATE (DAY, MO, YR)	PAGE	OF
HIGH STAGE DST 2	1	NORTH SEA	34/10-4	11OCT79	1	2

CUSTOMER	STANDARD CONDITIONS	ATM. PRESS	P_c =	T_c =		GAS SPECIFIC GRAVITY-G
STATOIL	X 14.73 psi 60°F ☐ OTHER	14.73	669.1	366.6	MEAS. ☐ EST. ☒	0.629

METER TYPE	METER RUN SIZE (INCHES)	FLOW RECORDER TYPE	h_w RANGE (INCHES WATER)	STATIC PRESS RANGE (psi)	F_u TABLE PREV. PAGE	$F_g = \sqrt{1/G}$	$C_1 = F_u \times F_g$
DANIELS	5.501	BARTON	0-200	0-1500	24.0000	1.2609	30.2612

	DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	STATIC PRESSURE P_f (psia)	DIFFERENTIAL PRESSURE h_w (INCHES WATER)	DOWN STREAM GAS TEMP. (°F)	$\sqrt{h_w P_f}$	ORIFICE SIZE d (INCHES)	$C_2 = F_b \times F_{tf} \times F_{pv} \times Y_2$: F_b	F_{tf}	F_{pv}	Y_2	C_2	C ($C = C_1 \times C_2$)	CORRECTED GAS FLOW RATE $Q_g = C\sqrt{h_w P_f}$ (MSCF/D)	
1	11 / 1235	0.00	255	62.0	55	125.67	0.875	153.69	1.0048	1.0242	1.0016	158.423	4794	0.60	1
2	11 / 1245	0.00	255	62.0	55	125.67	0.875	153.69	1.0048	1.0242	1.0016	158.423	4794	0.60	2
3	11 / 1300	0.00	255	61.0	55	124.65	0.875	153.69	1.0048	1.0242	1.0016	158.419	4794	0.60	3
4	11 / 1315	0.00	255	60.0	55	123.63	0.875	153.69	1.0048	1.0242	1.0016	158.415	4794	0.59	4
5	11 / 1330	0.00	260	60.0	55	124.84	0.875	153.69	1.0048	1.0247	1.0015	158.486	4796	0.60	5
6	11 / 1345	0.00	265	59.0	55	124.98	0.875	153.69	1.0048	1.0251	1.0015	158.554	4798	0.60	6
7	11 / 1400	0.00	265	58.0	55	123.91	0.875	153.69	1.0048	1.0251	1.0015	158.550	4798	0.59	7
8	11 / 1415	0.00	265	57.0	55	122.84	0.875	153.69	1.0048	1.0251	1.0014	158.546	4798	0.59	8
9	11 / 1430	0.00	265	57.0	56	122.84	0.875	153.69	1.0039	1.0250	1.0014	158.367	4792	0.59	9
10	11 / 1445	0.00	265	57.0	56	122.84	0.875	153.69	1.0039	1.0250	1.0014	158.367	4792	0.59	10
11	11 / 1500	0.00	265	56.0	56	121.76	0.875	153.69	1.0039	1.0250	1.0014	158.363	4792	0.58	11
12	11 / 1515	0.00	265	56.0	56	121.76	0.875	153.69	1.0039	1.0250	1.0014	158.363	4792	0.58	12
13	11 / 1530	0.00	265	56.0	56	121.76	0.875	153.69	1.0039	1.0250	1.0014	158.363	4792	0.58	13
14	11 / 1545	0.00	270	56.0	56	122.90	0.875	153.69	1.0039	1.0255	1.0014	158.434	4794	0.59	14
15	11 / 1600	0.00	270	55.0	56	121.80	0.875	153.69	1.0039	1.0255	1.0014	158.431	4794	0.58	15
16	11 / 1615	0.00	270	55.0	56	121.80	0.875	153.69	1.0039	1.0255	1.0014	158.431	4794	0.58	16
17	11 / 1630	0.00	270	55.0	56	121.80	0.875	153.69	1.0039	1.0255	1.0014	158.431	4794	0.58	17
18	11 / 1645	0.00	270	54.0	56	120.69	0.875	153.69	1.0039	1.0252	1.0013	158.391	4805	0.58	18

GAS FLOW RATE CALCULATIONS

OEC—862-1-B

TEST NUMBER	RATE NUMBER	AREA	WELL NAME OR NUMBER	DATE (DAY, MO, YR)	PAGE	OF
HIGH STAGE DST 2	1	NORTH SEA	34/10-4	11OCT79	2	2

CUSTOMER	STANDARD CONDITIONS	ATM. PRESS	P_c =	T_c =	MEAS. / EST.	GAS SPECIFIC GRAVITY-G
STATOIL	X 14.73 psi 60°F / OTHER	14.73	669.2	365.7	MEAS. ☐ EST. ☒	0.626

METER TYPE	METER RUN SIZE (INCHES)	FLOW RECORDER TYPE	h_w RANGE (INCHES WATER)	STATIC PRESS RANGE (psi)	F_u TABLE PREV. PAGE	$F_g = \sqrt{1/G}$	$C_1 = F_u \times F_g$
DANIELS	5.501	BARTON	0-200	0-1500	24.0000	1.2639	30.3336

	DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	STATIC PRESSURE P_f (psia)	DIFFERENTIAL PRESSURE h_w (INCHES WATER)	DOWN STREAM GAS TEMP. (°F)	$\sqrt{h_w P_f}$	ORIFICE SIZE d (INCHES)	$C_2 = F_b \times F_{tf} \times F_{pv} \times Y_2$: F_b	F_{tf}	F_{pv}	Y_2	C_2	C ($C = C_1 \times C_2$)	CORRECTED GAS FLOW RATE $Q_g = C\sqrt{h_w P_f}$ (MSCF/D)	
1	11 / 1700	0.00	270	54.0	56	120.69	0.875	153.69	1.0039	1.0252	1.0013	158.391	4805	0.58	1
2	11 / 1715	0.00	275	54.0	56	121.80	0.875	153.69	1.0039	1.0257	1.0013	158.462	4807	0.59	2
3	11 / 1730	0.00	275	54.0	56	121.80	0.875	153.69	1.0039	1.0257	1.0013	158.462	4807	0.59	3
4	11 / 1745	0.00	275	54.0	56	121.80	0.875	153.69	1.0039	1.0257	1.0013	158.462	4807	0.59	4
5	11 / 1800	0.00	275	54.0	56	121.80	0.875	153.69	1.0039	1.0257	1.0013	158.462	4807	0.59	5
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16															16
17															17
18															18

GAS FLOW RATE CALCULATIONS

OEC—862-1-B

TEST NUMBER	RATE NUMBER	AREA	WELL NAME OR NUMBER	DATE (DAY, MO, YR)	PAGE	OF
HIGH STAGE DST 2	2	NORTH SEA	34/10-4	12OCT79	1	1

CUSTOMER	STANDARD CONDITIONS	ATM. PRESS	P_c =	T_c =	MEAS. / EST.	GAS SPECIFIC GRAVITY-G
STATOIL	X 14.73 psi 60°F / OTHER	14.73	669.3	365.4	EST. ☑	0.625

METER TYPE	METER RUN SIZE (INCHES)	FLOW RECORDER TYPE	h_w RANGE (INCHES WATER)	STATIC PRESS RANGE (psi)	F_u TABLE PREV. PAGE	$F_g = \sqrt{1/G}$	$C_1 = F_u \times F_g$
DANIELS	5.501	BARTON	0-200	0-1500	24.0000	1.2649	30.3579

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	STATIC PRESSURE P_f (psia)	DIFFERENTIAL PRESSURE h_w (INCHES WATER)	DOWN STREAM GAS TEMP. (°F)	$\sqrt{h_w P_f}$	ORIFICE SIZE d (INCHES)	$C_2 = F_b \times F_{tf} \times F_{pv} \times Y_2$: F_b	F_{tf}	F_{pv}	Y_2	C_2	C ($C = C_1 \times C_2$)	CORRECTED GAS FLOW RATE $Q_g = C\sqrt{h_w P_f}$ (MSCF/D)
1 12 415	0.00	285	94.0	53	163.60	0.875	153.69	1.0068	1.0272	1.0022	159.290	4836	0.79
2 12 430	0.00	285	91.0	54	160.97	0.875	153.69	1.0058	1.0270	1.0021	159.095	4830	0.78
3 12 445	0.00	290	90.0	54	161.48	0.875	153.69	1.0058	1.0275	1.0021	159.163	4832	0.78
4 12 500	0.00	290	89.0	55	160.58	0.875	153.69	1.0048	1.0273	1.0020	158.976	4826	0.77
5 12 515	0.00	290	89.0	55	160.58	0.875	153.69	1.0048	1.0273	1.0020	158.976	4826	0.77
6 12 530	0.00	290	142.0	56	202.83	0.875	153.69	1.0039	1.0271	1.0033	158.987	4827	0.98
7 12 545	0.00	295	131.0	56	196.49	0.875	153.69	1.0039	1.0276	1.0030	159.014	4827	0.95
8 12 600	0.00	300	138.0	58	203.38	0.875	153.69	1.0019	1.0277	1.0031	158.741	4819	0.98
9 12 615	0.00	305	138.0	59	205.07	0.875	153.69	1.0010	1.0280	1.0030	158.625	4816	0.99
10 12 630	0.00	305	138.0	59	205.07	0.875	153.69	1.0010	1.0280	1.0030	158.625	4816	0.99
11 12 645	0.00	305	138.0	60	205.07	0.875	153.69	1.0000	1.0278	1.0030	158.444	4810	0.99
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GAS FLOW RATE CALCULATIONS

OEC—862-1-B

TEST NUMBER	RATE NUMBER	AREA	WELL NAME OR NUMBER	DATE (DAY, MO, YR)	PAGE	OF
HIGH STAGE DST 2	2	NORTH SEA	34\10-4	12OCT79	1	1

CUSTOMER	STANDARD CONDITIONS	ATM. PRESS	P_c =	T_c =	GAS SPECIFIC GRAVITY-G
STATOIL	[X] 14.73 psi 60°F [ ] OTHER	14.73	669.3	365.4 MEAS. [ ] EST. [X]	0.625

METER TYPE	METER RUN SIZE (INCHES)	FLOW RECORDER TYPE	h_w RANGE (INCHES WATER)	STATIC PRESS RANGE (psi)	F_u TABLE PREV. PAGE	$F_g = \sqrt{1/G}$	$C_1 = F_u \times F_g$
DANIELS	5.501	BARTON	0-200	0-1500	24.0000	1.2649	30.3579

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	STATIC PRESSURE P_f (psia)	DIFFERENTIAL PRESSURE h_w (INCHES WATER)	DOWN STREAM GAS TEMP. (°F)	$\sqrt{h_w P_f}$	ORIFICE SIZE d (INCHES)	$C_2 = F_b \times F_{tf} \times F_{pv} \times Y_2$: F_b	F_{tf}	F_{pv}	Y_2	C_2	C ($C = C_1 \times C_2$)	CORRECTED GAS FLOW RATE $Q_g = C\sqrt{h_w P_f}$ (MMSCF/D)
1 12/700	0.00	360	151.0	62	233.06	0.875	153.69	0.9981	1.0326	1.0028	158.847	4822	1.12
2 12/715	0.00	355	185.0	63	256.17	0.875	153.69	0.9971	1.0319	1.0035	158.696	4818	1.23
3 12/730	0.00	365	179.0	65	255.51	0.875	153.69	0.9952	1.0324	1.0033	158.438	4810	1.23
4 12/745	0.00	365	179.0	66	255.51	0.875	153.69	0.9943	1.0322	1.0033	158.254	4804	1.23
5 12/800	0.00	370	178.0	67	256.54	0.875	153.69	0.9933	1.0325	1.0032	158.130	4801	1.23
6 12/820	0.00	375	58.0	68	147.43	1.250	315.17	0.9924	1.0327	1.0010	323.331	9816	1.45
7 12/830	0.00	370	66.0	69	156.21	1.250	315.17	0.9915	1.0320	1.0012	322.865	9802	1.53
8 12/845	0.00	345	66.0	71	150.84	1.250	315.17	0.9896	1.0294	1.0013	321.457	9759	1.47
9 12/900	0.00	350	66.0	72	151.93	1.250	315.17	0.9887	1.0296	1.0013	321.225	9752	1.48
10 12/915	0.00	350	67.0	73	153.07	1.250	315.17	0.9877	1.0294	1.0013	320.868	9741	1.49
11 12/930	0.00	350	67.0	75	153.07	1.250	315.17	0.9859	1.0290	1.0013	320.147	9719	1.49
12 12/945	0.00	350	78.0	74	165.16	1.250	315.17	0.9868	1.0292	1.0015	320.574	9732	1.61
13 12/1000	0.00	355	78.0	76	166.34	1.250	315.17	0.9850	1.0293	1.0015	319.982	9714	1.62
14 12/1015	0.00	345	92.0	78	178.09	1.250	315.17	0.9831	1.0280	1.0018	319.105	9687	1.73
15 12/1030	0.00	350	90.0	80	177.41	1.250	315.17	0.9813	1.0281	1.0017	318.509	9669	1.72
16 12/1045	0.00	350	90.0	80	177.41	1.250	315.17	0.9813	1.0281	1.0017	318.509	9669	1.72
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GAS FLOW RATE CALCULATIONS

OEC—862-1-B

TEST NUMBER	RATE NUMBER	AREA	WELL NAME OR NUMBER	DATE (DAY, MO, YR)	PAGE	OF
HIGH STAGE DST 2	2	NORTH SEA	34\10-4	12OCT79	1	1

CUSTOMER	STANDARD CONDITIONS	ATM. PRESS	P_c =	T_c =	MEAS. / EST.	GAS SPECIFIC GRAVITY-G
STATOIL	X 14.73 psi 60°F / OTHER	14.73	669.3	365.4	EST. X	0.625

METER TYPE	METER RUN SIZE (INCHES)	FLOW RECORDER TYPE	h_w RANGE (INCHES WATER)	STATIC PRESS RANGE (psi)	F_u TABLE PREV. PAGE	$F_g = \sqrt{1/G}$	$C_1 = F_u \times F_g$
DANIELS	5.501	BARTON	0-200	0-1500	24.0000	1.2649	30.3579

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	STATIC PRESSURE P_f (psia)	DIFFERENTIAL PRESSURE h_w (INCHES WATER)	DOWN STREAM GAS TEMP. (°F)	$\sqrt{h_w P_f}$	ORIFICE SIZE d (INCHES)	$C_2 = F_b \times F_{tf} \times F_{pv} \times Y_2$: F_b	F_{tf}	F_{pv}	Y_2	C_2	C ($C = C_1 \times C_2$)	CORRECTED GAS FLOW RATE $Q_g = C\sqrt{h_w P_f}$ (MMMSCF/D)
1 12/1100	0.00	355	106.0	81	193.91	1.250	315.17	0.9804	1.0283	1.0020	318.373	9665	1.87
2 12/1115	0.00	365	116.0	83	205.69	1.250	315.17	0.9786	1.0288	1.0021	317.964	9653	1.99
3 12/1130	0.00	370	115.0	85	206.20	1.250	315.17	0.9768	1.0288	1.0021	317.374	9635	1.99
4 12/1145	0.00	385	110.0	86	205.72	1.250	315.17	0.9759	1.0298	1.0019	317.341	9634	1.98
5 12/1205	0.00	395	108.0	85	206.47	1.250	315.17	0.9768	1.0308	1.0018	317.915	9651	1.99
6 12/1215	0.00	405	108.0	86	209.07	1.250	315.17	0.9759	1.0314	1.0018	317.794	9648	2.02
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GAS FLOW RATE CALCULATIONS

OEC—862-1-B

TEST NUMBER	RATE NUMBER	AREA	WELL NAME OR NUMBER	DATE (DAY, MO, YR)	PAGE	OF
HIGH STAGE DST 2	3	NORTH SEA	34\10-4	12OCT79	1	1

CUSTOMER	STANDARD CONDITIONS	ATM. PRESS	P_c =	T_c =	MEAS. / EST.	GAS SPECIFIC GRAVITY-G
STATOIL	X 14.73 psi 60°F / OTHER	14.73	669.3	365.4	MEAS. ☐ EST. ☒	0.625

METER TYPE	METER RUN SIZE (INCHES)	FLOW RECORDER TYPE	h_w RANGE (INCHES WATER)	STATIC PRESS RANGE (psi)	F_u TABLE PREV. PAGE	$F_g = \sqrt{1/G}$	$C_1 = F_u \times F_g$
DANIELS	5.501	BARTON	0-200	0-1500	24.0000	1.2649	30.3579

	DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	STATIC PRESSURE P_f (psia)	DIFFERENTIAL PRESSURE h_w (INCHES WATER)	DOWN STREAM GAS TEMP. (°F)	$\sqrt{h_w P_f}$	ORIFICE SIZE d (INCHES)	$C_2 = F_b \times F_{tf} \times F_{pv} \times Y_2$: F_b	F_{tf}	F_{pv}	Y_2	C_2	C ($C = C_1 \times C_2$)	CORRECTED GAS FLOW RATE $Q_g = C\sqrt{h_w P_f}$ (MSCF/D)	
1	12 1815	0.00	390	100.0	62	197.42	0.875	153.69	0.9981	1.0355	1.0017	159.115	4830	0.95	1
2	12 1830	0.00	370	110.0	60	201.67	0.875	153.69	1.0000	1.0341	1.0020	159.241	4834	0.97	2
3	12 1845	0.00	375	110.0	62	203.03	0.875	153.69	0.9981	1.0341	1.0020	158.933	4825	0.98	3
4	12 1900	0.00	405	170.0	65	262.31	0.875	153.69	0.9952	1.0362	1.0028	158.937	4825	1.27	4
5	12 1915	0.00	405	170.0	67	262.31	0.875	153.69	0.9933	1.0357	1.0028	158.559	4814	1.26	5
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GAS FLOW RATE CALCULATIONS

OEC—862-1-B

TEST NUMBER	RATE NUMBER	AREA	WELL NAME OR NUMBER	DATE (DAY, MO, YR)	PAGE	OF
HIGH STAGE DST 2	3	NORTH SEA	34/10-4	12OCT79	1	2

CUSTOMER	STANDARD CONDITIONS	ATM. PRESS	P_c =	T_c =	MEAS. / EST.	GAS SPECIFIC GRAVITY-G
STATOIL	X 14.73 psi 60°F / OTHER	14.73	669.3	365.4	MEAS. ☐ EST. ☒	0.625

METER TYPE	METER RUN SIZE (INCHES)	FLOW RECORDER TYPE	h_w RANGE (INCHES WATER)	STATIC PRESS RANGE (psi)	F_u TABLE PREV. PAGE	$F_g = \sqrt{1/G}$	$C_1 = F_u \times F_g$
DANIELS	5.501	BARTON	0-200	0-1500	24.0000	1.2649	30.3579

DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	STATIC PRESSURE P_f (psia)	DIFFERENTIAL PRESSURE h_w (INCHES WATER)	DOWN STREAM GAS TEMP. (°F)	$\sqrt{h_w P_f}$	ORIFICE SIZE d (INCHES)	$C_2 = F_b \times F_{tf} \times F_{pv} \times Y_2$: F_b	F_{tf}	F_{pv}	Y_2	C_2	C ($C = C_1 \times C_2$)	CORRECTED GAS FLOW RATE $Q_g = C\sqrt{h_w P_f}$ (MSCF/D)
1 12 2000	0.00	665	24.0	83	126.31	1.500	455.49	0.9786	1.0536	1.0002	469.763	14261	1.80
2 12 2015	0.00	675	25.0	86	129.88	1.500	455.49	0.9759	1.0533	1.0002	468.331	14218	1.85
3 12 2030	0.00	665	26.0	87	131.46	1.500	455.49	0.9750	1.0521	1.0003	467.380	14189	1.87
4 12 2045	0.00	665	26.0	89	131.46	1.500	455.49	0.9732	1.0514	1.0003	466.202	14153	1.86
5 12 2100	0.00	660	26.0	90	130.97	1.500	455.49	0.9723	1.0506	1.0003	465.444	14130	1.85
6 12 2115	0.00	675	32.0	92	146.94	1.500	455.49	0.9706	1.0511	1.0003	464.827	14111	2.07
7 12 2130	0.00	675	32.0	93	146.94	1.500	455.49	0.9697	1.0507	1.0003	464.248	14094	2.07
8 12 2145	0.00	680	32.0	94	147.48	1.500	455.49	0.9688	1.0508	1.0003	463.840	14081	2.08
9 12 2200	0.00	675	32.0	96	146.94	1.500	455.49	0.9671	1.0497	1.0003	462.529	14041	2.06
10 12 2215	0.00	670	31.0	96	144.09	1.500	455.49	0.9671	1.0493	1.0003	462.359	14036	2.02
11 12 2230	0.00	670	31.0	96	144.09	1.500	455.49	0.9671	1.0493	1.0003	462.359	14036	2.02
12 12 2235	0.00	670	31.0	96	144.09	1.500	455.49	0.9671	1.0493	1.0003	462.359	14036	2.02
13 12 2245	0.00	670	31.0	97	144.09	1.500	455.49	0.9662	1.0490	1.0003	461.793	14019	2.02
14 12 2300	0.00	670	31.0	97	144.09	1.500	455.49	0.9662	1.0490	1.0003	461.793	14019	2.02
15 12 2315	0.00	670	31.0	98	144.09	1.500	455.49	0.9653	1.0486	1.0003	461.230	14002	2.02
16 12 2330	0.00	670	31.0	98	144.09	1.500	455.49	0.9653	1.0486	1.0003	461.230	14002	2.02
17 12 2345	0.00	625	29.0	98	134.60	1.500	455.49	0.9653	1.0453	1.0003	459.764	13957	1.88
18 12 2400	0.00	715	32.0	99	151.23	1.500	455.49	0.9645	1.0516	1.0003	462.115	14029	2.12

GAS FLOW RATE CALCULATIONS

OEC—862-1-B

TEST NUMBER	RATE NUMBER	AREA	WELL NAME OR NUMBER	DATE (DAY, MO, YR)	PAGE	OF
HIGH STAGE DST 2	3	NORTH SEA	34/10-4	13OCT79	2	2

CUSTOMER	STANDARD CONDITIONS	ATM. PRESS	P_c =	T_c =	MEAS. / EST.	GAS SPECIFIC GRAVITY-G
STATOIL	X 14.73 psi 60°F / OTHER	14.73	669.3	365.4	MEAS. ☐ EST. ☒	0.625

METER TYPE	METER RUN SIZE (INCHES)	FLOW RECORDER TYPE	h_w RANGE (INCHES WATER)	STATIC PRESS RANGE (psi)	F_u TABLE PREV. PAGE	$F_g = \sqrt{1/G}$	$C_1 = F_u \times F_g$
DANIELS	5.501	BARTON	0-200	0-1500	24.0000	1.2649	30.3579

	DAY / TIME (24 HR CLOCK)	FLOW TIME (HOURS)	STATIC PRESSURE P_f (psia)	DIFFERENTIAL PRESSURE h_w (INCHES WATER)	DOWN STREAM GAS TEMP. (°F)	$\sqrt{h_w P_f}$	ORIFICE SIZE d (INCHES)	$C_2 = F_b \times F_{tf} \times F_{pv} \times Y_2$: F_b	F_{tf}	F_{pv}	Y_2	C_2	C ($C = C_1 \times C_2$)	CORRECTED GAS FLOW RATE $Q_g = C\sqrt{h_w P_f}$ (MSCF/D)
1	13 / 15	0.00	715	32.0	100	151.23	1.500	455.49	0.9636	1.0512	1.0003	461.544	14011	2.12
2	13 / 30	0.00	710	30.0	100	145.92	1.500	455.49	0.9636	1.0509	1.0003	461.377	14006	2.04
3	13 / 45	0.00	735	40.0	102	171.43	1.500	455.49	0.9619	1.0519	1.0004	461.066	13997	2.40
4	13 / 100	0.00	735	40.0	103	171.43	1.500	455.49	0.9611	1.0516	1.0004	460.498	13980	2.40
5	13 / 115	0.00	730	40.0	104	170.85	1.500	455.49	0.9602	1.0509	1.0004	459.780	13958	2.38
6	13 / 130	0.00	730	40.0	105	170.85	1.500	455.49	0.9594	1.0505	1.0004	459.218	13941	2.38
7	13 / 145	0.00	735	38.0	105	167.09	1.500	455.49	0.9594	1.0509	1.0003	459.361	13945	2.33
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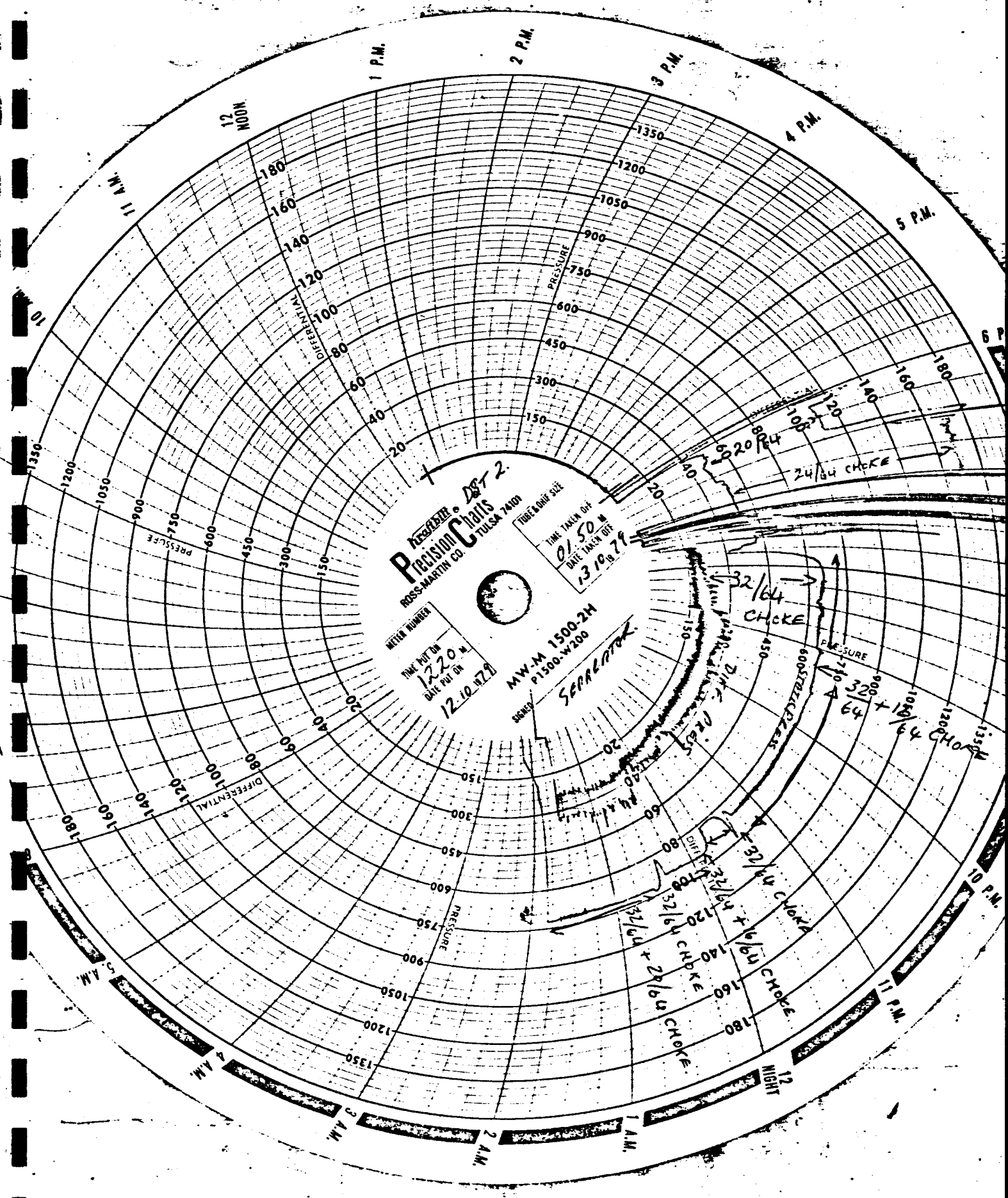
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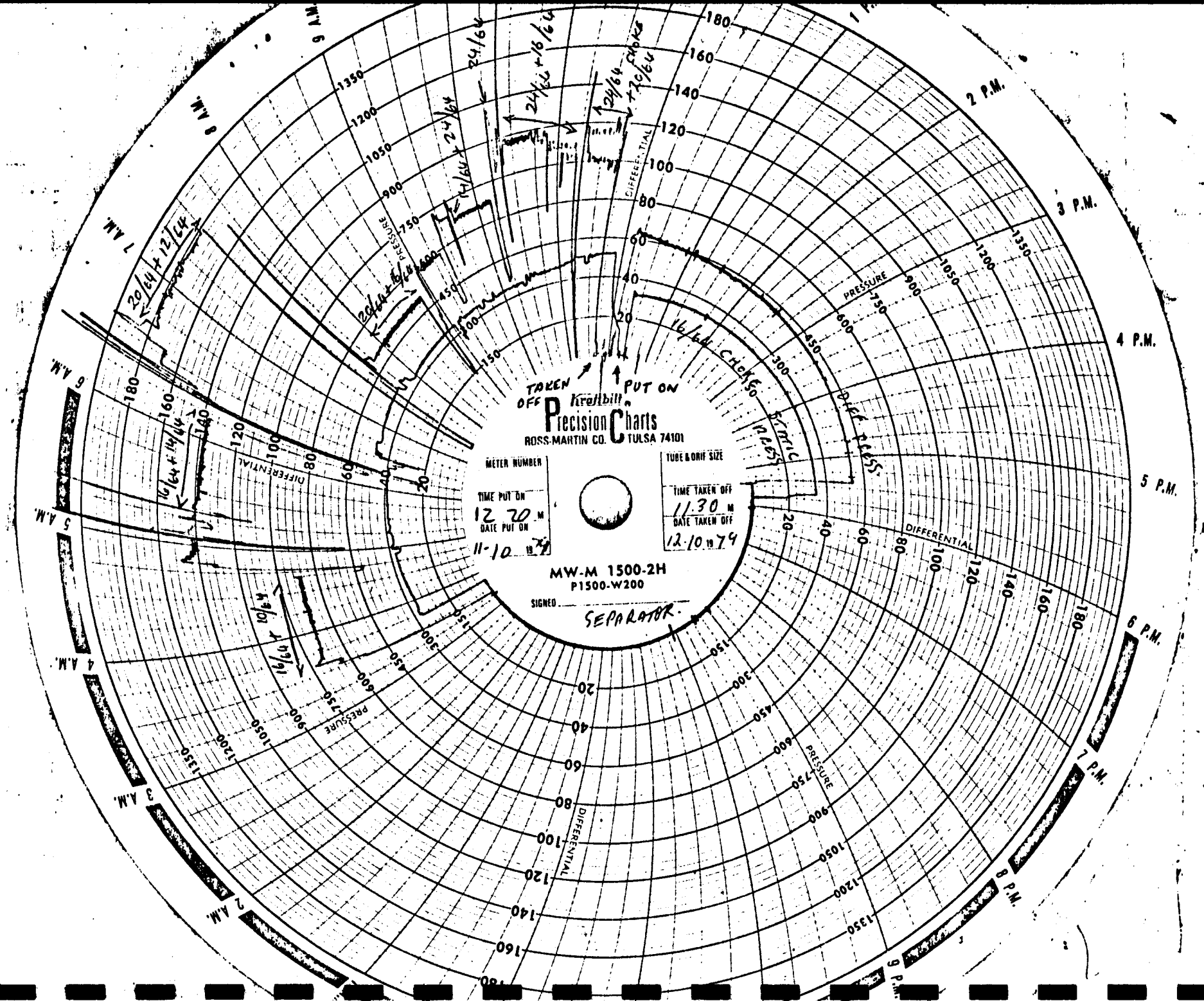
ROSS-MARTIN CO. TULSA 74101
DST 2
METER NUMBER
TIME PUT ON 1220 M
DATE PUT ON 12-10-79
TIME TAKEN OFF 01:50 M
DATE TAKEN OFF 12-10-79
TUBE & ORIF SIZE
MW-M 1500-2H
P1500-W200
SERIAL NO.
PRESSURE
DIFFERENTIAL
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
10 P.M.
11 P.M.
12 NIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
10 A.M.
11 A.M.
24/64 CHOKE
32/64 CHOKE
32/64 + 16/64 CHOKE
32/64 + 28/64 CHOKE
32/64 CHOKE
32/64 + 16/64 CHOKE
PIPE PLUGS
STRAIGHT CLEAN


Kreitbill
Precision Charts
ROSS-MARTIN CO. TULSA 74101
METER NUMBER
TIME PUT ON
12 20 M
DATE PUT ON
11-10 19 74
TUBE & ORIF SIZE
TIME TAKEN OFF
11.30 M
DATE TAKEN OFF
12-10 19 74
MW-M 1500-2H
P1500-W200
SIGNED
SEPARATOR
TAKEN OFF
PUT ON
DIFFERENTIAL
PRESSURE
24/64
20/64 + 12/64
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16/64 + 16/64
24/64 + 20/64 CHOKE
16/64 CHOKE
DIFF PRESS
STATIC PRESS
6 P.M.
7 P.M.
8 P.M.
9 P.M.
1 A.M.
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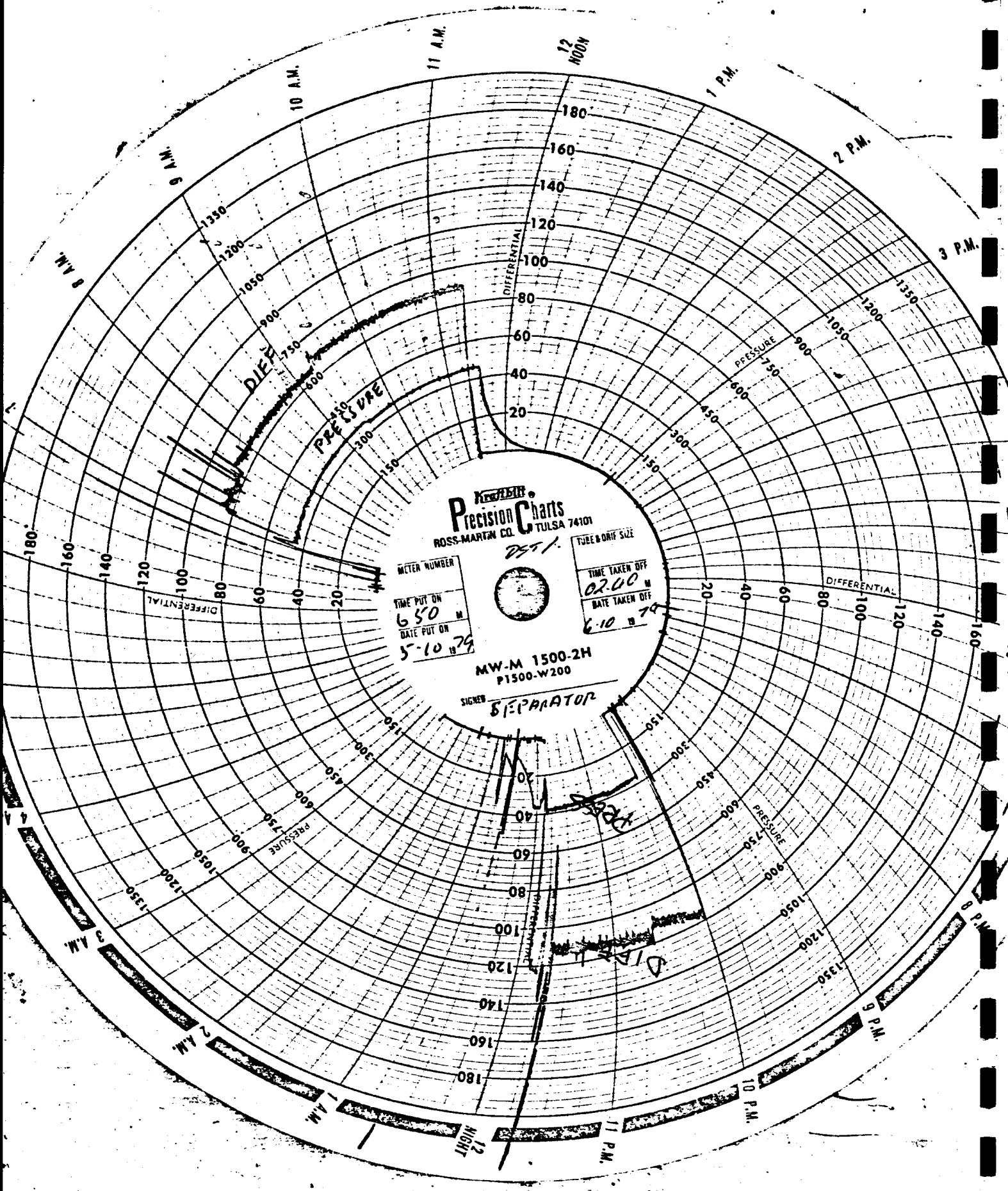
Precision Charts
ROSS-MARTIN CO. TULSA 74101
DST 1.
TUBE & ORIF SIZE
METER NUMBER
TIME PUT ON
6 50 M
DATE PUT ON
5-10 19 79
TIME TAKEN OFF
02 00 M
DATE TAKEN OFF
6-10 19 79
MW-M 1500-2H
P1500-W200
SIGNED
SEPARATOR
DIFF
PRESSURE
DIFFERENTIAL
12 NOON
1 P.M.
2 P.M.
3 P.M.
10 A.M.
11 A.M.
9 A.M.
8 A.M.
12 MIDNIGHT
11 P.M.
10 P.M.
9 P.M.
8 P.M.