

# N sperry - sun

Denne rapport  
tilhører

 **STATOIL**

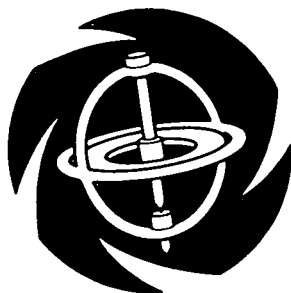
**L&U DOK. SENTER**

L. NR. 30283510013

KODE Well 31/3-1 nr. 16

Returneres etter bruk

Pressure Survey Report  
for  
Statoil  
Well No. 31/3-1  
25 September 1983  
Test No. 2      Run No. 1  
Downhole (Gauge No's. 0120 & 0106)  
& Surface Data.



Pressure Survey Report  
for  
Statoil  
Well No. 31/3-1  
25 September 1983  
Test No. 2      Run No. 1  
Downhole (Gauge No.s. 0120 & 0106)  
& Surface Data.

SPERRY-SUN INTERNATIONAL INC.  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

CHECK PRESSURES SHEET.

GAUGE TYPE/NO:	MKIIIA 0120	0106	MR-6
TIME MODE	2 MIN	1 MIN	-
ELEMENT SIZE	10 K	10 K	10 K
DEPTH(M.RKB)	1344.32	1344.32	U/C
MAX. TEMP.(Deg. C)	54.1	54.5	-

END OF EVENT	TIME/DATE	PRESSURE (Bars Abs.)	PRESSURE (Bars Abs.)	PRESSURE (Bars Abs.)
INITIAL STATIC	18:39:30 26/09/83	116.189	116.309	1.069
1st FLOW	21:07:00 "	155.454	155.460	138.206
1st BUILD-UP	23:05:00 "	155.510	155.475	137.930
POST BUILD-UP	00:00:05 27/09/83	155.820	155.145	1.069

SPERRY-SUN ENGINEER : P J Weatherill.

GAUGE PERFORMANCE REPORT -

MKIIIA 0120-3185 - Performed perfectly for duration of test.

MKIIIA 0106-2241 - Performed perfectly for duration of test.

-----

SPERRY-SUN INTERNATIONAL INC.  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

TEST NO.2, RUN NO.1. SEQUENCE OF EVENTS

DATE	TIME	OPERATION
25/09/83	21:20	ACTIVATE GAUGE NO.0120
"	21:21	ACTIVATE GAUGE NO.0106
"	22:26	GAUGES INSTALLED IN CARRIER
26/09/83	18:36	DROP GEOVANN DETONATING BAR
"	18:39:30	PERFORATE WELL (MANIFOLD OPEN ON 128/64" CHOKE)
"	18:42	DECREASE TO 24/64" CHOKE AT MANIFOLD
"	18:45	DIRECT FLOW THRU HEATER ON 2x20/64" CHOKES (CHOKE MANIFOLD FULLY OPEN)
"	18:50	GAS TO SURFACE
"	21:03	DECREASE TO 104/64" ADJ. CHOKE AT MANIFOLD
"	21:04	" " 50/64" " " " "
"	21:05	" " 20/64" " " " "
"	21:06	" " 08/64" " " " "
"	21:06:30	" " 04/64" " " " "
"	21:07	WELL SHUT-IN AT CHOKE
"	23:05	CLOSE PCT VALVE & BLEED OFF TUBING
27/09/83	00:03	OPEN PCT VALVE & COMMENCE BULLHEADING
"	23:15	GAUGES OUT OF STRING

PRESSURE Scale 1 inch = 98 BARS

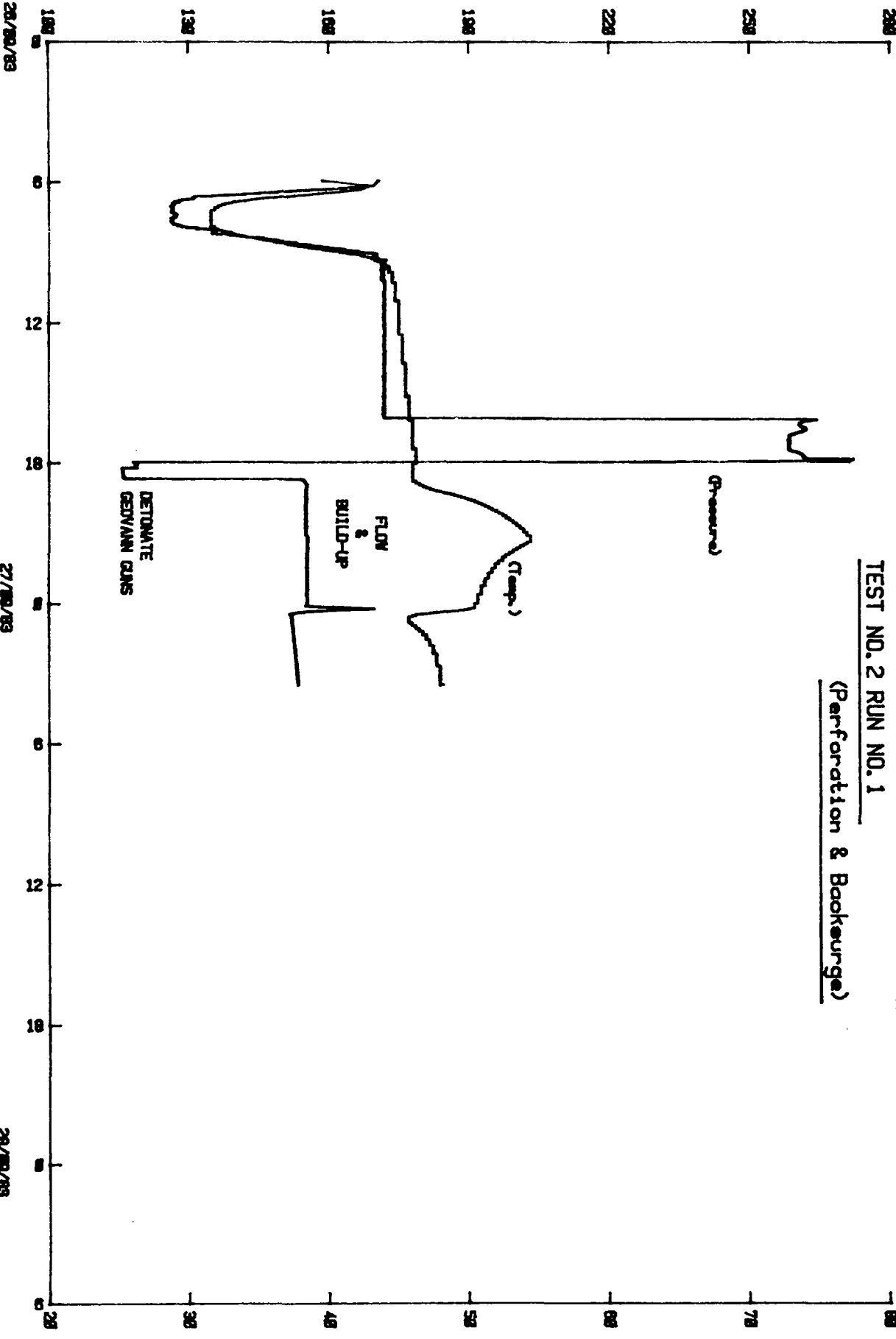
STATOIL  
WELL NO. 91/2-1  
TROLL

NL Sperry-Sun, Inc.  
PRESSURE/TEMP. vs TIME PLOT

TEST NO. 2 RUN NO. 1

(Perforation & Backsurge)

25 SEPTEMBER 1989  
MKT11A 8100-2241  
DM8788



TEMPERATURE Scale 1 inch = 18 (deg. C)

REAL TIME  
Scale 1 inch = 6 hours

26/09/89 0 6 12 18 24 28/09/89

10/22/83

SPERRY-SUN INTERNATIONAL  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PAGE: 1

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2, RUN 1. GAUGE 0106, SENSING DEPTH 1344.32 M. (INITIAL HYDROSTATIC).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
0.000	118.024	46.3	17:57	26/ 9/83 INITIAL HYDROSTATIC.
0.017	118.505	46.3	17:58	
0.033	118.851	46.3	17:59	
0.050	119.016	46.3	18: 0	
0.067	119.119	46.0	18: 1	
0.083	118.999	46.0	18: 2	
0.100	118.999	46.0	18: 3	
0.117	118.939	46.0	18: 4	
0.133	118.849	46.0	18: 5	
0.150	118.728	46.0	18: 6	
0.167	118.668	46.0	18: 7	
0.183	118.759	46.0	18: 8	
0.200	118.789	46.0	18: 9	
0.217	118.864	46.0	18:10	
0.233	118.924	46.0	18:11	
0.250	118.984	46.0	18:12	
0.267	115.693	46.0	18:13	
0.283	115.844	46.0	18:14	
0.300	115.874	46.0	18:15	
0.317	115.813	46.0	18:16	
0.333	115.829	46.0	18:17	
0.350	115.844	46.0	18:18	
0.367	115.813	46.0	18:19	
0.383	115.904	46.0	18:20	
0.400	115.904	46.0	18:21	
0.417	115.889	46.0	18:22	
0.433	115.919	46.0	18:23	
0.450	115.904	46.0	18:24	
0.467	115.874	46.0	18:25	
0.483	115.919	46.0	18:26	
0.500	115.904	46.0	18:27	
0.517	115.904	46.0	18:28	
0.533	115.964	46.0	18:29	
0.550	115.934	46.0	18:30	
0.567	115.934	46.0	18:31	
0.583	115.964	46.0	18:32	
0.600	115.964	46.0	18:33	
0.617	115.934	46.0	18:34	
0.633	115.934	46.0	18:35	
0.650	115.964	46.0	18:36	
0.667	116.144	46.0	18:37	
0.683	116.369	46.0	18:38	
0.700	116.309	46.0	18:39	

DROP GEOVANN  
DETONATING BAR.

PERFORATE WELL AT 18:39:30.

STATOIL  
TROLL  
31/3-1OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2, RUN 1. GAUGE 0106, SENSING DEPTH 1344.32 M. (INITIAL FLOW PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
-0.008	116.309	46.0	18:39	26/ 9/83 PERFORATE WELL AT 18:39:30.
0.008	151.501	46.0	18:40	(FLOWING ON 128/64" ADJ.
0.025	153.998	46.0	18:41	CHOKE).
0.042	154.479	46.0	18:42	DECREASE TO 24/64" ADJ.
0.058	154.735	46.0	18:43	CHOKE.
0.075	154.720	46.0	18:44	
0.092	154.810	46.0	18:45	DIRECT FLOW THRU HEATER
0.108	154.854	46.3	18:46	ON 2 X 20/64" CHOKES.
0.125	154.944	46.3	18:47	INCREASE TO 128/64" CHOKE
0.142	155.034	46.3	18:48	AT MANIFOLD.
0.158	155.095	46.3	18:49	
0.175	155.125	46.3	18:50	GAS TO SURFACE.
0.192	155.124	46.5	18:51	
0.242	155.319	46.5	18:54	
0.258	155.379	46.5	18:55	
0.275	155.363	46.7	18:56	
0.292	155.363	46.7	18:57	
0.308	155.303	46.7	18:58	
0.325	155.333	46.7	18:59	
0.342	155.287	47.0	19: 0	
0.358	155.287	47.0	19: 1	
0.375	155.287	47.0	19: 2	
0.392	155.272	47.2	19: 3	
0.408	155.272	47.2	19: 4	
0.425	155.272	47.2	19: 5	
0.442	155.287	47.2	19: 6	
0.458	155.241	47.5	19: 7	
0.475	155.241	47.5	19: 8	
0.492	155.210	47.7	19: 9	
0.508	155.195	47.7	19:10	
0.525	155.180	47.7	19:11	
0.542	155.179	48.0	19:12	
0.558	155.194	48.0	19:13	
0.575	155.164	48.2	19:14	
0.592	155.209	48.2	19:15	
0.608	155.178	48.5	19:16	
0.625	155.208	48.5	19:17	
0.642	155.178	48.7	19:18	
0.658	155.193	48.7	19:19	
0.675	155.162	49.0	19:20	
0.692	155.192	49.0	19:21	
0.708	155.207	49.0	19:22	
0.725	155.177	49.2	19:23	
0.742	155.207	49.2	19:24	
0.758	155.192	49.5	19:25	
0.775	155.192	49.5	19:26	
0.792	155.222	49.5	19:27	
0.808	155.191	49.7	19:28	
0.825	155.206	49.7	19:29	
0.842	155.161	50.0	19:30	

10/22/83

SPERRY-SUN INTERNATIONAL  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PAGE: 2

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2; RUN 1. GAUGE 0106; SENSING DEPTH 1344.32 M. (INITIAL FLOW PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
0.858	155.191	50.0	19:31	26/ 9/83
0.875	155.221	50.0	19:32	
0.892	155.176	50.2	19:33	
0.908	155.191	50.2	19:34	
0.925	155.206	50.2	19:35	
0.942	155.175	50.5	19:36	
0.958	155.190	50.5	19:37	
0.975	155.190	50.5	19:38	
0.992	155.205	50.5	19:39	
1.008	155.175	50.7	19:40	
1.025	155.175	50.7	19:41	
1.042	155.175	50.7	19:42	
1.058	155.145	51.0	19:43	
1.075	155.145	51.0	19:44	
1.092	155.130	51.0	19:45	
1.108	155.130	51.0	19:46	
1.125	155.100	51.2	19:47	
1.142	155.115	51.2	19:48	
1.158	155.115	51.2	19:49	
1.175	155.145	51.2	19:50	
1.192	155.100	51.5	19:51	
1.208	155.100	51.5	19:52	
1.225	155.115	51.5	19:53	
1.242	155.130	51.5	19:54	
1.258	155.130	51.5	19:55	
1.275	155.115	51.7	19:56	
1.292	155.130	51.7	19:57	
1.308	155.145	51.7	19:58	
1.325	155.145	51.7	19:59	
1.342	155.114	52.0	20: 0	
1.358	155.129	52.0	20: 1	
1.375	155.144	52.0	20: 2	
1.392	155.159	52.0	20: 3	
1.408	155.190	52.0	20: 4	
1.425	155.144	52.2	20: 5	
1.442	155.189	52.2	20: 6	
1.458	155.174	52.2	20: 7	
1.475	155.174	52.2	20: 8	
1.492	155.174	52.2	20: 9	
1.508	155.129	52.5	20:10	
1.525	155.159	52.5	20:11	
1.542	155.174	52.5	20:12	
1.558	155.159	52.5	20:13	
1.575	155.174	52.5	20:14	
1.592	155.144	52.7	20:15	
1.608	155.159	52.7	20:16	
1.625	155.159	52.7	20:17	
1.642	155.174	52.7	20:18	
1.658	155.174	52.7	20:19	
1.675	155.174	52.7	20:20	



0/22/83

SPERRY-SUN INTERNATIONAL  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PAGE: 3

STATOIL  
TROLL  
31/3-1

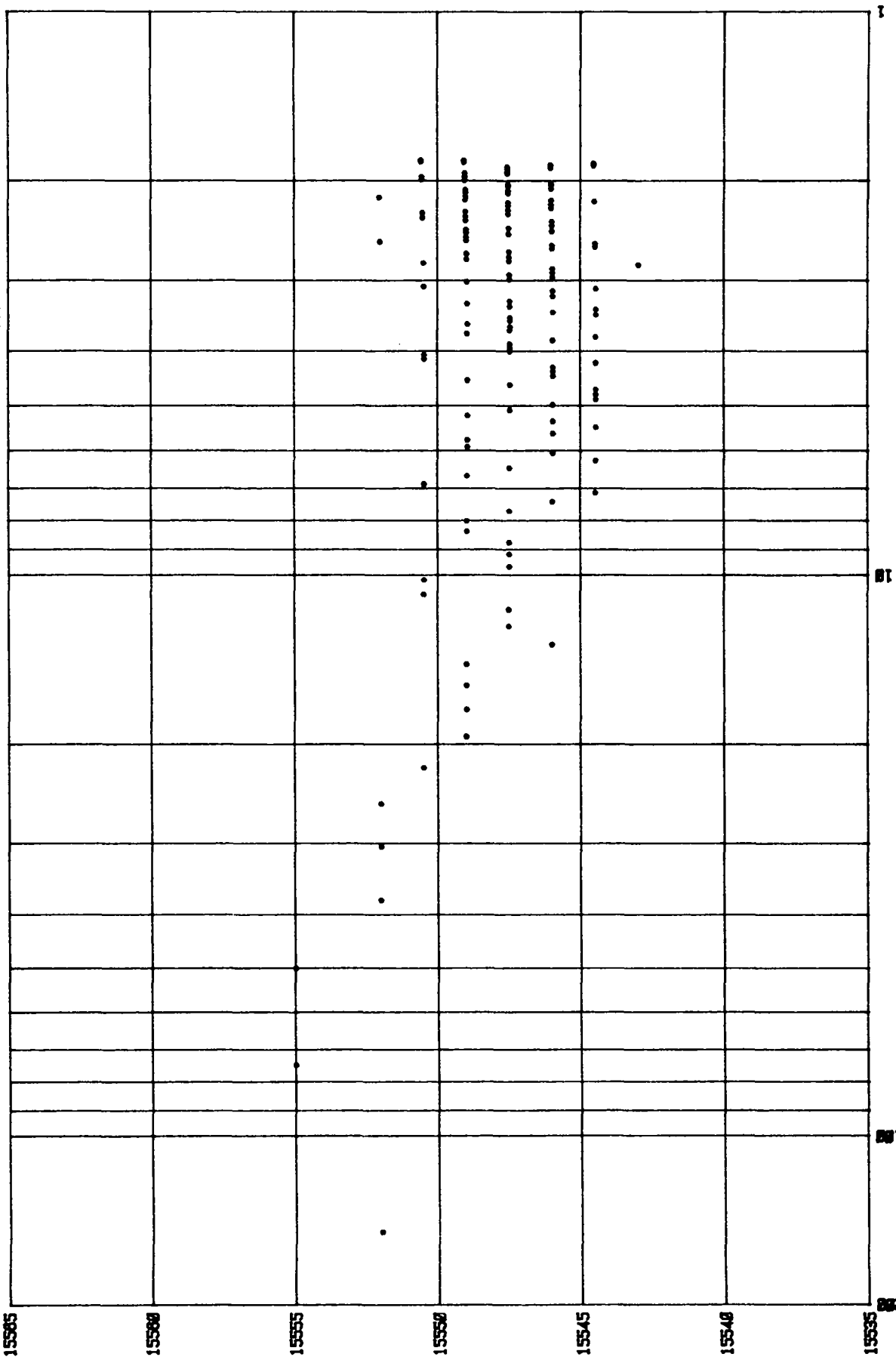
OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2, RUN 1. GAUGE 0106, SENSING DEPTH 1344.32 M. (INITIAL FLOW PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
1.692	155.129	53.0	20:21	26/ 9/83
1.708	155.129	53.0	20:22	
1.725	155.144	53.0	20:23	
1.742	155.159	53.0	20:24	
1.758	155.159	53.0	20:25	
1.775	155.174	53.0	20:26	
1.792	155.144	53.2	20:27	
1.808	155.159	53.2	20:28	
1.825	155.144	53.2	20:29	
1.842	155.159	53.2	20:30	
1.858	155.144	53.2	20:31	
1.875	155.159	53.2	20:32	
1.892	155.144	53.2	20:33	
1.908	155.085	53.5	20:34	
1.925	155.100	53.5	20:35	
1.942	155.115	53.5	20:36	
1.958	155.130	53.5	20:37	
1.975	155.160	53.5	20:38	
1.992	155.160	53.5	20:39	
2.008	155.160	53.5	20:40	
2.025	155.145	53.7	20:41	
2.042	155.145	53.7	20:42	
2.058	155.160	53.7	20:43	
2.075	155.160	53.7	20:44	
2.092	155.160	53.7	20:45	
2.108	155.145	53.7	20:46	
2.125	155.145	53.7	20:47	
2.142	155.085	54.0	20:48	
2.158	155.085	54.0	20:49	
2.175	155.100	54.0	20:50	
2.192	155.130	54.0	20:51	
2.208	155.130	54.0	20:52	
2.225	155.160	54.0	20:53	
2.242	155.160	54.0	20:54	
2.258	155.160	54.0	20:55	
2.275	155.160	54.0	20:56	
2.292	155.145	54.2	20:57	
2.308	155.130	54.2	20:58	
2.325	155.145	54.2	20:59	
2.342	155.145	54.2	21: 0	
2.358	155.145	54.2	21: 1	
2.375	155.160	54.2	21: 2	
2.392	155.160	54.2	21: 3	
2.408	155.175	54.2	21: 4	
2.425	155.205	54.2	21: 5	
2.442	155.385	54.2	21: 6	
2.458	155.460	54.5	21: 7	

DECREASE TO 104/64" CHOKE.  
DECREASE TO 50/64" CHOKE.  
DECREASE TO 20/64" CHOKE.  
DECREASE TO 08/64" CHOKE.  
END OF FLOW PERIOD.

WELL NO. 31/3-1  
 TROLL  
 NL Sperry Sun, Inc.  
 HORNER PLOT  
 MKIIIA 0100-2241  
 D00769



Scale 1 inch = 5 KPA  
 PRESSURE

TEST NO. 2 RUN NO. 1 Build-up Period  
 SHUT-IN TIME = 1426 min.  
 FINAL DELTA TIME = 1602 min.

T = 2.45 hours

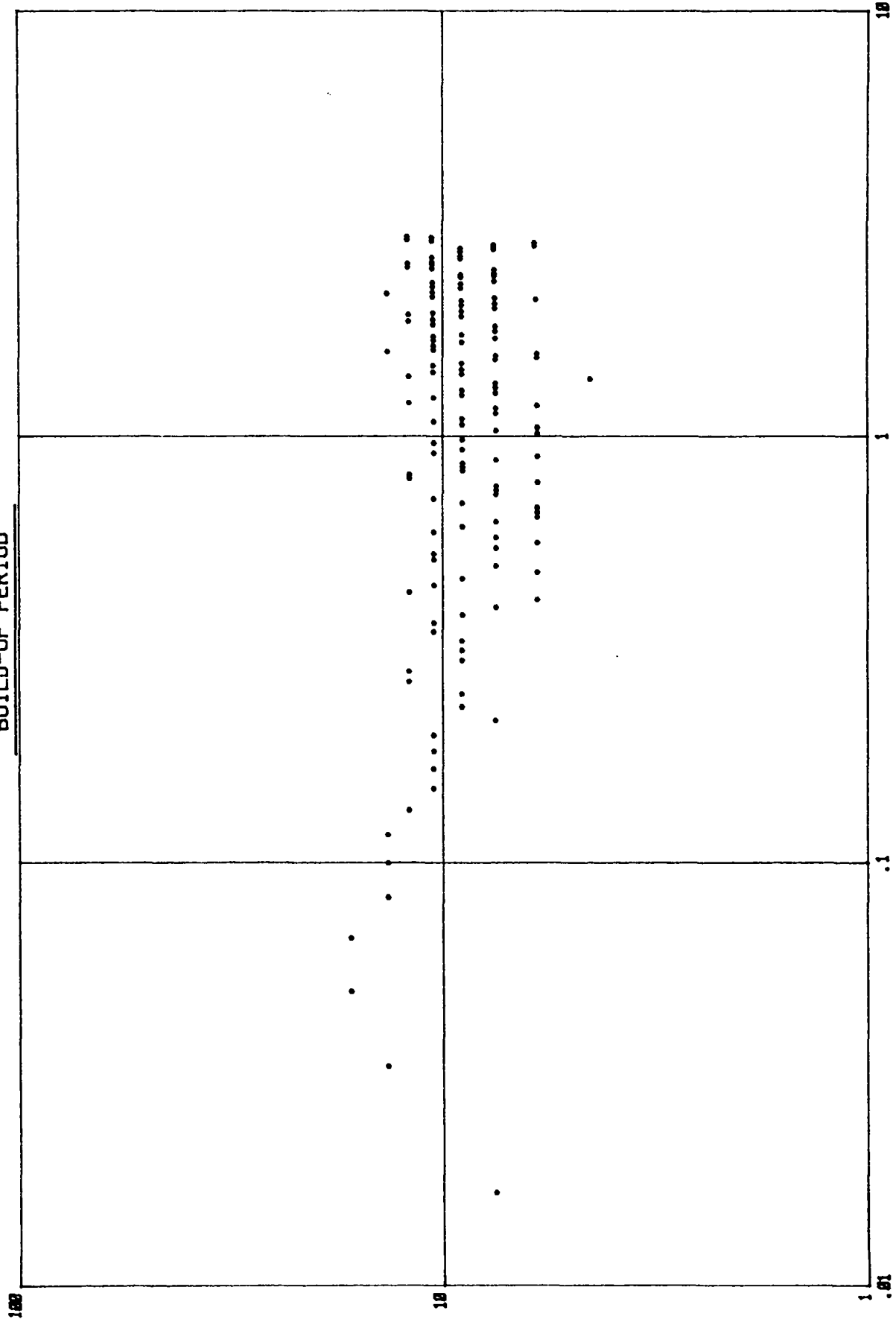
$(T+DT)/DT$

STATOIL  
WELL NO. 31/3-1  
TROLL

# NL Sperry-Sun, Inc. LOG(DP) Vs LOG(DT) PLOT

25 SEPTEMBER 1983  
MK111A 0100-2241  
080788

TEST NO. 2 RUN NO. 1  
BUILD-UP PERIOD



SHUT-IN TIME = 1425 mins.  
FINAL DELTA TIME = 1802 mins.

0/22/83

SPERRY-SUN INTERNATIONAL  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PAGE: 1

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2, RUN 1. GAUGE 0106, SENSING DEPTH 1344.32 M. (BUILD-UP PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
0.000	155.460	54.5	21: 7	26/ 9/83 WELL SHUT-IN AT CHOKE.
0.017	155.520	54.5	21: 8	
0.033	155.550	54.5	21: 9	
0.050	155.550	54.5	21:10	
0.067	155.520	54.5	21:11	
0.083	155.520	54.5	21:12	
0.100	155.520	54.5	21:13	
0.117	155.505	54.5	21:14	
0.133	155.490	54.5	21:15	
0.150	155.490	54.5	21:16	
0.167	155.490	54.5	21:17	
0.183	155.490	54.5	21:18	
0.200	155.460	54.5	21:19	
0.217	155.475	54.5	21:20	
0.233	155.475	54.5	21:21	
0.250	155.505	54.2	21:22	
0.267	155.505	54.2	21:23	
0.283	155.475	54.2	21:24	
0.300	155.475	54.2	21:25	
0.317	155.475	54.2	21:26	
0.333	155.490	54.0	21:27	
0.350	155.490	54.0	21:28	
0.367	155.475	54.0	21:29	
0.383	155.460	54.0	21:30	
0.400	155.445	54.0	21:31	
0.417	155.505	53.7	21:32	
0.433	155.490	53.7	21:33	
0.450	155.475	53.7	21:34	
0.467	155.445	53.7	21:35	
0.483	155.460	53.7	21:36	
0.500	155.490	53.5	21:37	
0.517	155.490	53.5	21:38	
0.533	155.460	53.5	21:39	
0.550	155.445	53.5	21:40	
0.567	155.460	53.5	21:41	
0.583	155.490	53.2	21:42	
0.600	155.475	53.2	21:43	
0.617	155.460	53.2	21:44	
0.633	155.445	53.2	21:45	
0.650	155.445	53.2	21:46	
0.667	155.445	53.2	21:47	
0.683	155.475	53.0	21:48	
0.700	155.490	53.0	21:49	
0.717	155.460	53.0	21:50	
0.733	155.460	53.0	21:51	
0.750	155.460	53.0	21:52	
0.767	155.445	53.0	21:53	
0.783	155.505	52.7	21:54	
0.800	155.505	52.7	21:55	
0.817	155.475	52.7	21:56	

10/22/83

SPERRY-SUN INTERNATIONAL  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PAGE: 2

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2, RUN 1. GAUGE 0106, SENSING DEPTH 1344.32 M. (BUILD-UP PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
0.833	155.475	52.7	21:57	26/ 9/83
0.850	155.475	52.7	21:58	
0.867	155.460	52.7	21:59	
0.883	155.445	52.7	22: 0	
0.900	155.490	52.5	22: 1	
0.917	155.475	52.5	22: 2	
0.933	155.475	52.5	22: 3	
0.950	155.490	52.5	22: 4	
0.967	155.475	52.5	22: 5	
0.983	155.475	52.5	22: 6	
1.000	155.445	52.5	22: 7	
1.017	155.460	52.5	22: 8	
1.033	155.445	52.5	22: 9	
1.050	155.475	52.2	22:10	
1.067	155.490	52.2	22:11	
1.083	155.475	52.2	22:12	
1.100	155.475	52.2	22:13	
1.117	155.460	52.2	22:14	
1.133	155.460	52.2	22:15	
1.150	155.460	52.2	22:16	
1.167	155.445	52.2	22:17	
1.183	155.505	52.0	22:18	
1.200	155.505	52.0	22:19	
1.217	155.490	52.0	22:20	
1.233	155.475	52.0	22:21	
1.250	155.460	52.0	22:22	
1.267	155.475	52.0	22:23	
1.283	155.460	52.0	22:24	
1.300	155.460	52.0	22:25	
1.317	155.460	52.0	22:26	
1.333	155.460	52.0	22:27	
1.350	155.430	52.0	22:28	
1.367	155.505	51.7	22:29	
1.383	155.475	51.7	22:30	
1.400	155.490	51.7	22:31	
1.417	155.475	51.7	22:32	
1.433	155.475	51.7	22:33	
1.450	155.490	51.7	22:34	
1.467	155.475	51.7	22:35	
1.483	155.475	51.7	22:36	
1.500	155.460	51.7	22:37	
1.517	155.445	51.7	22:38	
1.533	155.460	51.7	22:39	
1.550	155.445	51.7	22:40	
1.567	155.520	51.5	22:41	
1.583	155.490	51.5	22:42	
1.600	155.490	51.5	22:43	
1.617	155.490	51.5	22:44	
1.633	155.490	51.5	22:45	
1.650	155.475	51.5	22:46	

10/22/83

SPERRY-SUN INTERNATIONAL  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PAGE: 3

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2, RUN 1. GAUGE 0106, SENSING DEPTH 1344.32 M. (BUILD-UP PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
1.667	155.490	51.5	22:47	26/ 9/83
1.683	155.460	51.5	22:48	
1.700	155.490	51.5	22:49	
1.717	155.475	51.5	22:50	
1.733	155.475	51.5	22:51	
1.750	155.460	51.5	22:52	
1.767	155.460	51.5	22:53	
1.783	155.460	51.5	22:54	
1.800	155.460	51.5	22:55	
1.817	155.490	51.2	22:56	
1.833	155.490	51.2	22:57	
1.850	155.505	51.2	22:58	
1.867	155.490	51.2	22:59	
1.883	155.490	51.2	23: 0	
1.900	155.475	51.2	23: 1	
1.917	155.505	51.2	23: 2	
1.933	155.490	51.2	23: 3	
1.950	155.475	51.2	23: 4	
1.967	155.475	51.2	23: 5	

END OF BUILD-UP PERIOD.

STATOIL  
TROLL  
31/3-1OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2, RUN 1. GAUGE 0106, SENSING DEPTH 1344.32 M. (POST BUILD-UP PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
0.000	155.475	51.2	23: 5	26/ 9/83 CLOSE PCTV & BLEED-OFF TUBING.
0.017	155.460	51.2	23: 6	
0.033	155.460	51.2	23: 7	
0.050	155.475	51.2	23: 8	
0.067	155.460	51.2	23: 9	
0.083	155.460	51.2	23:10	
0.100	155.475	51.2	23:11	
0.117	155.445	51.2	23:12	
0.133	155.460	51.2	23:13	
0.150	155.490	51.0	23:14	
0.167	155.490	51.0	23:15	
0.183	155.520	51.0	23:16	
0.200	155.490	51.0	23:17	
0.217	155.490	51.0	23:18	
0.233	155.490	51.0	23:19	
0.250	155.475	51.0	23:20	
0.267	155.490	51.0	23:21	
0.283	155.490	51.0	23:22	
0.300	155.475	51.0	23:23	
0.317	155.490	51.0	23:24	
0.333	155.460	51.0	23:25	
0.350	155.460	51.0	23:26	
0.367	155.460	51.0	23:27	
0.383	155.475	51.0	23:28	
0.400	155.460	51.0	23:29	
0.417	155.475	51.0	23:30	
0.433	155.460	51.0	23:31	
0.450	155.460	51.0	23:32	
0.467	155.460	51.0	23:33	
0.483	155.460	51.0	23:34	
0.500	155.490	50.7	23:35	
0.517	155.505	50.7	23:36	
0.533	155.505	50.7	23:37	
0.550	155.490	50.7	23:38	
0.567	155.505	50.7	23:39	
0.583	155.490	50.7	23:40	
0.600	155.490	50.7	23:41	
0.617	155.490	50.7	23:42	
0.633	155.475	50.7	23:43	
0.650	155.490	50.7	23:44	
0.667	155.475	50.7	23:45	
0.683	155.475	50.7	23:46	
0.700	155.475	50.7	23:47	
0.717	155.475	50.7	23:48	
0.733	155.475	50.7	23:49	
0.750	155.475	50.7	23:50	
0.767	155.460	50.7	23:51	
0.783	155.475	50.7	23:52	
0.800	155.460	50.7	23:53	
0.817	155.445	50.7	23:54	

10/22/83

SPERRY-SUN INTERNATIONAL  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PAGE: 2

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2, RUN 1. GAUGE 0106, SENSING DEPTH 1344.32 M. (POST BUILD-UP PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
0.833	155.460	50.7	23:55	26/ 9/83
0.850	155.460	50.7	23:56	
0.867	155.445	50.7	23:57	
0.883	155.445	50.7	23:58	
0.900	155.491	50.5	23:59	
0.917	155.506	50.5	0: 0	27/ 9/83
0.933	155.506	50.5	0: 1	
0.950	155.491	50.5	0: 2	
0.967	155.506	50.5	0: 3	
0.983	155.145	50.5	0: 4	

OPEN PCT VALVE &  
COMMENCE BULLHEADING.



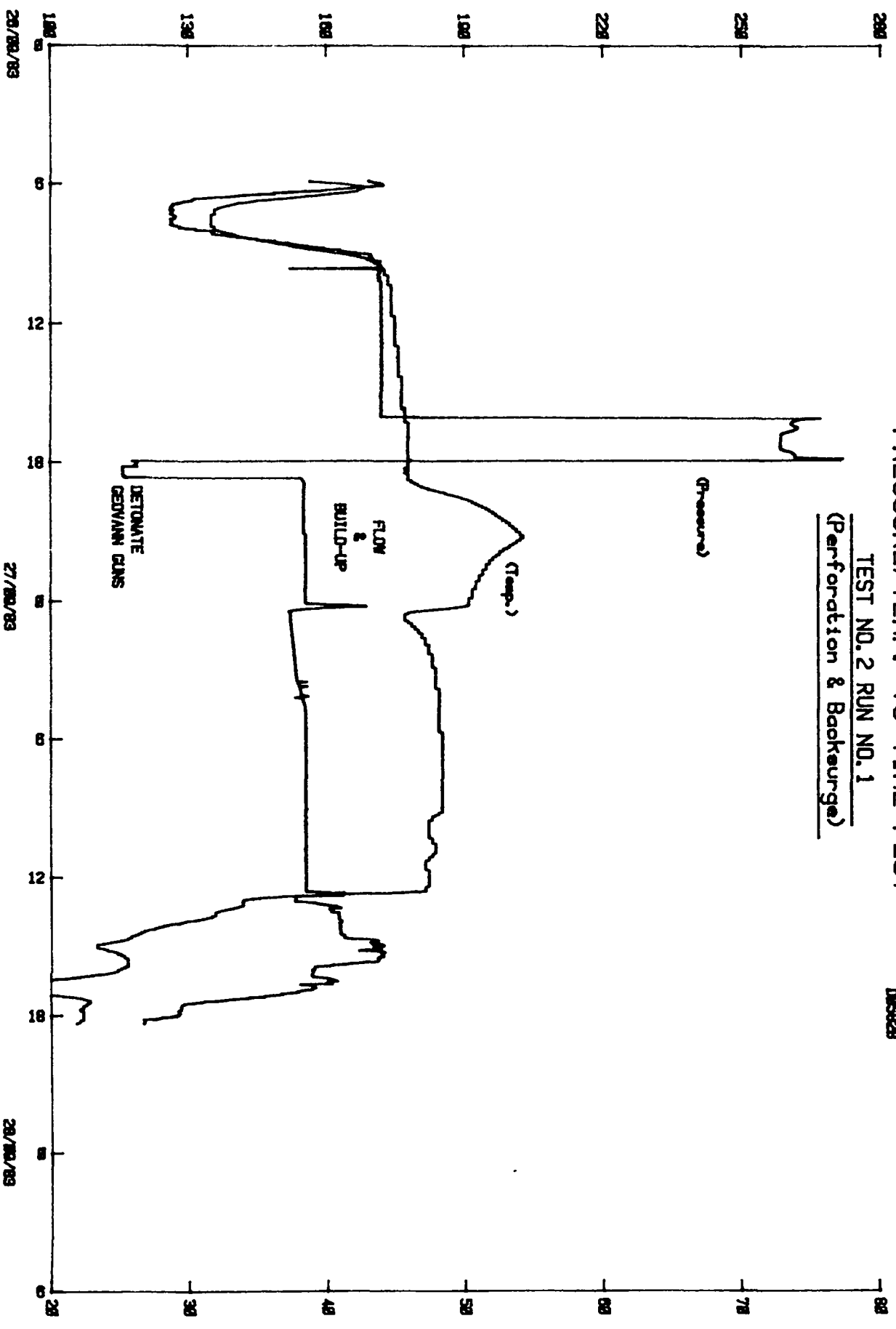
PRESSURE Scale 1 inch = 30 BARS

STATOIL  
WELL NO. 31/3-1  
TROLL

NL Sperry-Sun, Inc.  
PRESSURE/TEMP. vs TIME PLOT

TEST NO. 2 RUN NO. 1  
(Perforation & Backsurge)

25 SEPTEMBER 1983  
MKT11A 0128-3185  
DMS828



REAL TIME  
Scale 1 inch = 6 hours

TEMPERATURE Scale 1 inch = 10 (deg. C)

10/22/83

SPERRY-SUN INTERNATIONAL  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PAGE: 1

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2, RUN 1. GAUGE 0120, SENSING DEPTH 1344.32 M. (INITIAL HYDROSTATIC).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
0.000	117.846	45.9	17:57	26/ 9/83 INITIAL HYDROSTATIC
0.033	118.849	45.9	17:59	
0.067	118.956	45.9	18: 1	
0.100	118.895	45.9	18: 3	
0.133	118.682	45.9	18: 5	
0.167	118.500	45.9	18: 7	
0.200	118.743	45.9	18: 9	
0.233	118.880	45.9	18:11	
0.267	115.703	45.9	18:13	
0.300	115.844	45.7	18:15	
0.333	115.764	45.9	18:17	
0.367	115.799	45.7	18:19	
0.400	115.794	45.9	18:21	
0.433	115.810	45.9	18:23	
0.467	115.859	45.7	18:25	
0.500	115.859	45.7	18:27	
0.533	115.825	45.9	18:29	
0.567	115.855	45.9	18:31	
0.600	115.855	45.9	18:33	
0.633	115.840	45.9	18:35	
0.667	116.341	45.9	18:37	
0.700	116.189	45.9	18:39	

DROP GEOVANN  
DETONATING BAR.  
PERFORATE WELL AT 18:39:30.

0/22/83

SPERRY-SUN INTERNATIONAL  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PAGE: 1

STATOIL  
TROLL  
31/3-1OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2, RUN 1. GAUGE 0120, SENSING DEPTH 1344.32 M. (INITIAL FLOW PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
-0.008	116.189	45.9	18:39	26/ 9/83 PERFORATE WELL AT 18:29:30
0.025	154.296	45.9	18:41	(FLOWING ON 128/64" CHOKE).
0.058	154.661	45.9	18:43	DECREASE TO 24/64" CHOKE.
0.092	154.844	45.9	18:45	DIRECT FLOW THRU HEATER
0.125	154.989	46.2	18:47	ON 2 X 20/64" CHOKES &
0.158	155.095	46.2	18:49	INCREASE TO 128/64" CHOKE
0.192	155.156	46.2	18:51	AT MANIFOLD.
0.225	155.285	46.4	18:53	
0.258	155.376	46.4	18:55	
0.292	155.247	46.7	18:57	
0.325	155.278	46.7	18:59	
0.358	155.270	46.9	19: 1	
0.392	155.255	46.9	19: 3	
0.425	155.217	47.2	19: 5	
0.458	155.194	47.4	19: 7	
0.492	155.194	47.4	19: 9	
0.525	155.141	47.7	19:11	
0.558	155.119	47.9	19:13	
0.592	155.126	48.2	19:15	
0.625	155.149	48.4	19:17	
0.658	155.127	48.6	19:19	
0.692	155.142	48.6	19:21	
0.725	155.150	48.9	19:23	
0.758	155.143	49.1	19:25	
0.792	155.135	49.4	19:27	
0.825	155.128	49.6	19:29	
0.858	155.121	49.9	19:31	
0.892	155.151	49.9	19:33	
0.925	155.144	50.1	19:35	
0.958	155.137	50.4	19:37	
0.992	155.121	50.4	19:39	
1.025	155.114	50.6	19:41	
1.058	155.099	50.6	19:43	
1.092	155.092	50.9	19:45	
1.125	155.061	50.9	19:47	
1.158	155.054	51.1	19:49	
1.192	155.085	51.1	19:51	
1.225	155.077	51.3	19:53	
1.258	155.077	51.3	19:55	
1.292	155.070	51.6	19:57	
1.325	155.085	51.6	19:59	
1.358	155.093	51.8	20: 1	
1.392	155.124	51.8	20: 3	
1.425	155.139	51.8	20: 5	
1.458	155.117	52.1	20: 7	
1.492	155.117	52.1	20: 9	
1.525	155.117	52.1	20:11	
1.558	155.109	52.3	20:13	
1.592	155.125	52.3	20:15	
1.625	155.109	52.3	20:17	

10/22/83

SPERRY-SUN INTERNATIONAL  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PAGE: 2

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2, RUN 1. GAUGE 0120, SENSING DEPTH 1344.32 M. (INITIAL FLOW PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
1.658	155.102	52.6	20:19	26/ 9/83
1.692	155.102	52.6	20:21	
1.725	155.102	52.6	20:23	
1.758	155.126	52.8	20:25	
1.792	155.095	52.8	20:27	
1.825	155.110	52.8	20:29	
1.858	155.088	53.1	20:31	
1.892	155.088	53.1	20:33	
1.925	155.073	53.1	20:35	
1.958	155.081	53.3	20:37	
1.992	155.081	53.3	20:39	
2.025	155.111	53.3	20:41	
2.058	155.111	53.3	20:43	
2.092	155.074	53.6	20:45	
2.125	155.059	53.6	20:47	
2.158	155.074	53.6	20:49	
2.192	155.089	53.6	20:51	
2.225	155.097	53.8	20:53	
2.258	155.097	53.8	20:55	
2.292	155.128	53.8	20:57	
2.325	155.112	53.8	20:59	
2.358	155.090	54.1	21: 1	
2.392	155.090	54.1	21: 3	
2.425	155.181	54.1	21: 5	
2.458	155.454	54.1	21: 7	

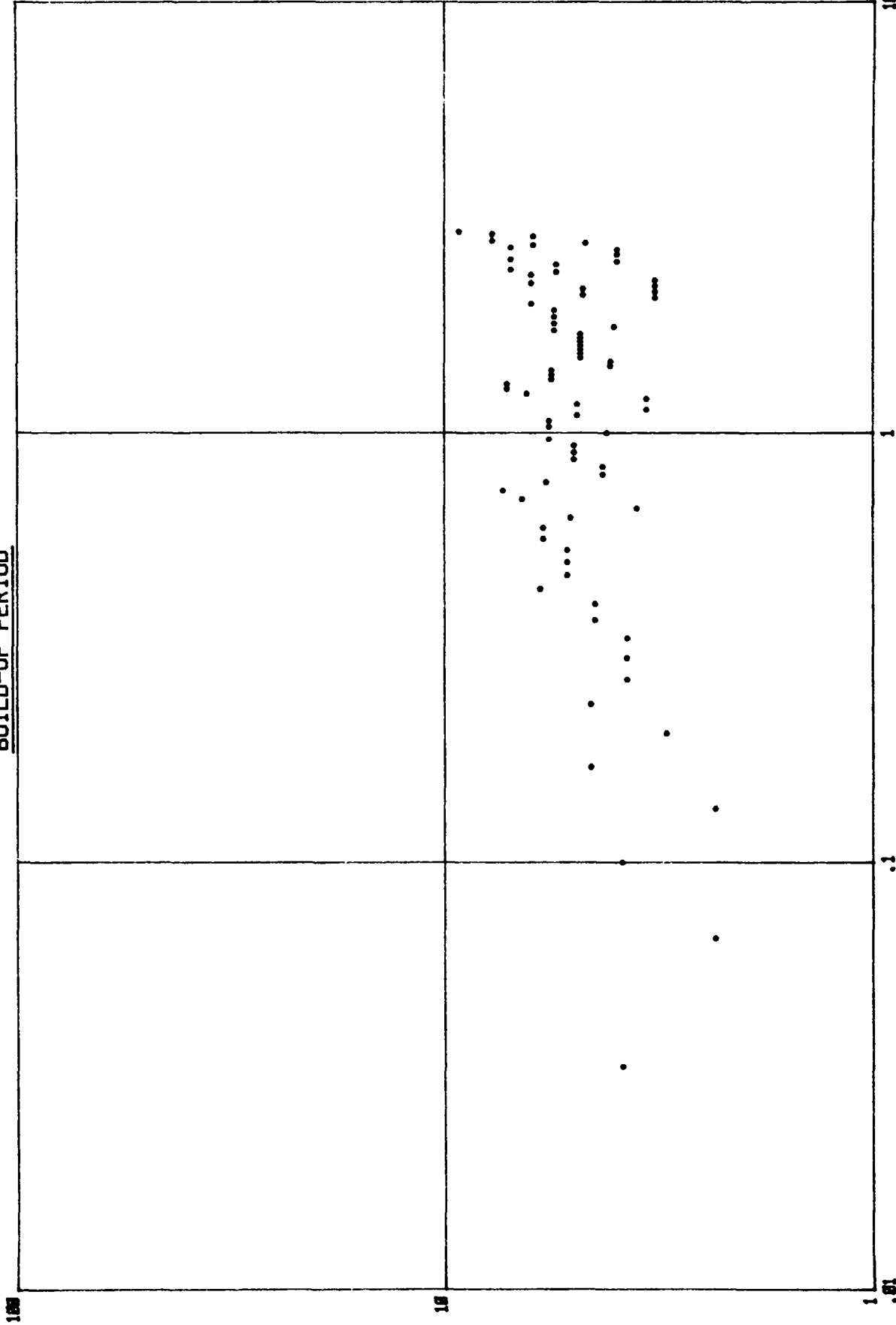
DECREASE TO 104/64" CHOKE.  
STEP DOWN TO 4/64" CHOKE.  
END OF FLOW PERIOD

STATOIL  
WELL NO. 31/8-1  
TROLL

NL Sperry-Sun, Inc.  
LOG(DP) Vs LOG(DT) PLOT

25 SEPTEMBER 1983  
MK111A 0128-3185  
DM5828

TEST NO. 2 RUN NO. 1  
BUILD-UP PERIOD



SHUT-IN TIME = 1427 mine.  
FINAL DELTA TIME = 1803 mine.

DELTA TIME

DELTA TIME IS IN HOURS

23 SEPTEMBER 1969

NL Sperry-Sun, Inc.

WELL NO. 31/3-1  
TROLL

STATOIL

WELL NO. 31/3-1  
TROLL

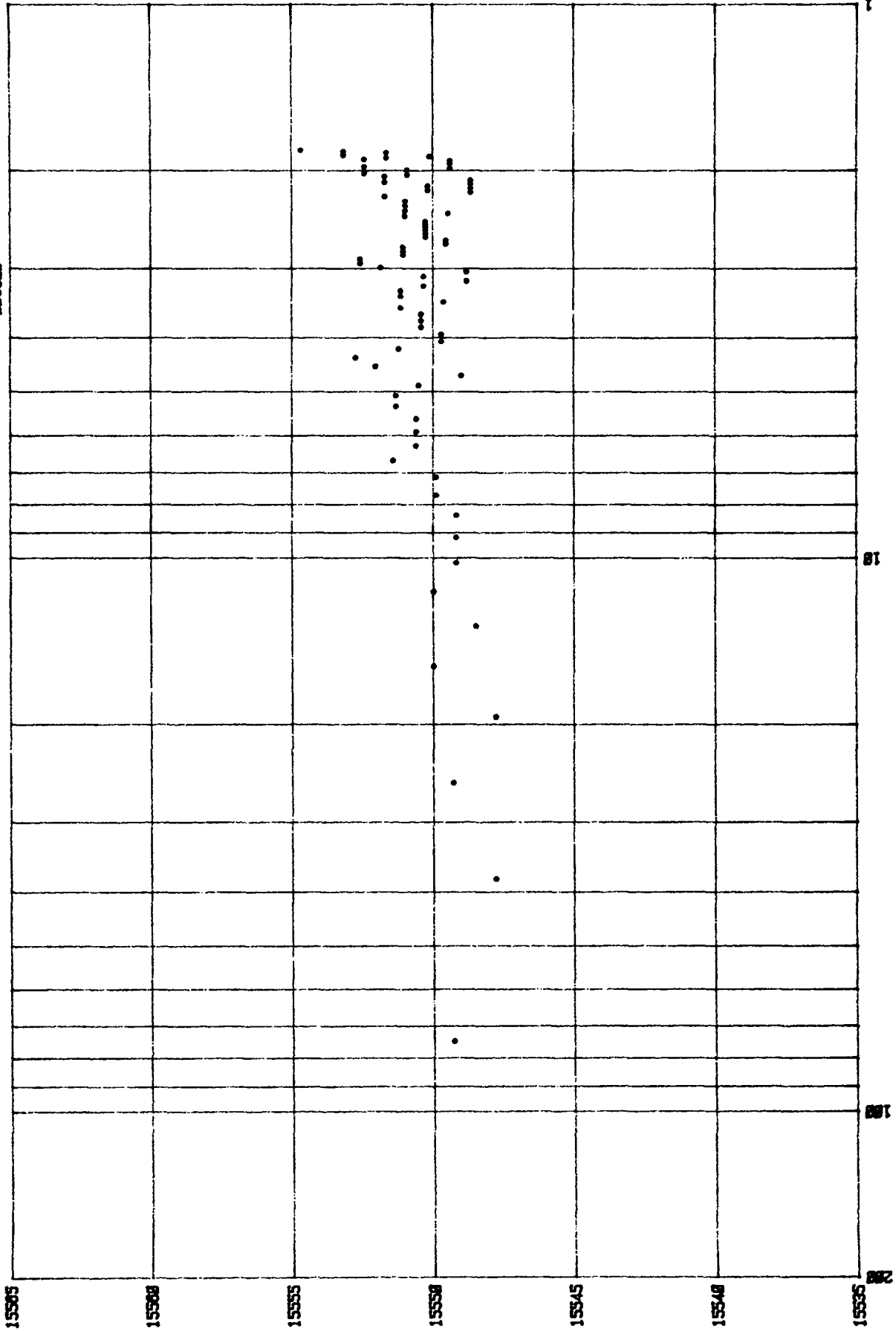
WELL NO. 31/3-1  
TROLL

WELL NO. 31/3-1  
TROLL

WELL NO. 31/3-1  
TROLL

WELL NO. 31/3-1  
TROLL

WELL NO. 31/3-1  
TROLL



TEST NO. 2 RUN NO. 1 Build-up Period  
 SHUT-IN TIME = 1427 mins.  
 FINAL DELTA TIME = 1603 mins.

$(T+\Delta T) / \Delta T$

T = 2.45 hours

STATOIL  
TROLL  
31/3-1OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2, RUN 1. GAUGE 0120, SENSING DEPTH 1344.32 M. (BUILD-UP PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
0.000	155.454	54.1	21: 7	26/ 9/83 WELL SHUT-IN AT CHOKE.
0.033	155.493	54.3	21: 9	
0.067	155.478	54.3	21:11	
0.100	155.493	54.3	21:13	
0.133	155.478	54.3	21:15	
0.167	155.500	54.1	21:17	
0.200	155.485	54.1	21:19	
0.233	155.500	54.1	21:21	
0.267	155.492	53.8	21:23	
0.300	155.492	53.8	21:25	
0.333	155.492	53.8	21:27	
0.367	155.499	53.6	21:29	
0.400	155.499	53.6	21:31	
0.433	155.514	53.6	21:33	
0.467	155.506	53.3	21:35	
0.500	155.506	53.3	21:37	
0.533	155.506	53.3	21:39	
0.567	155.513	53.1	21:41	
0.600	155.513	53.1	21:43	
0.633	155.505	52.8	21:45	
0.667	155.490	52.8	21:47	
0.700	155.520	52.8	21:49	
0.733	155.527	52.6	21:51	
0.767	155.512	52.6	21:53	
0.800	155.497	52.6	21:55	
0.833	155.497	52.6	21:57	
0.867	155.504	52.3	21:59	
0.900	155.504	52.3	22: 1	
0.933	155.504	52.3	22: 3	
0.967	155.511	52.1	22: 5	
1.000	155.496	52.1	22: 7	
1.033	155.511	52.1	22: 9	
1.067	155.511	52.1	22:11	
1.100	155.503	51.8	22:13	
1.133	155.488	51.8	22:15	
1.167	155.503	51.8	22:17	
1.200	155.488	51.8	22:19	
1.233	155.519	51.8	22:21	
1.267	155.526	51.6	22:23	
1.300	155.526	51.6	22:25	
1.333	155.511	51.6	22:27	
1.367	155.511	51.6	22:29	
1.400	155.511	51.6	22:31	
1.433	155.495	51.6	22:33	
1.467	155.495	51.6	22:35	
1.500	155.503	51.3	22:37	
1.533	155.503	51.3	22:39	
1.567	155.503	51.3	22:41	
1.600	155.503	51.3	22:43	
1.633	155.503	51.3	22:45	

0/22/83

SPERRY-SUN INTERNATIONAL  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PAGE: 2

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2, RUN 1. GAUGE 0120, SENSING DEPTH 1344.32 M. (BUILD-UP PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
1.667	155.503	51.3	22:47	26/ 9/83
1.700	155.503	51.3	22:49	
1.733	155.510	51.1	22:51	
1.767	155.495	51.1	22:53	
1.800	155.510	51.1	22:55	
1.833	155.510	51.1	22:57	
1.867	155.510	51.1	22:59	
1.900	155.510	51.1	23: 1	
1.933	155.510	51.1	23: 3	
1.967	155.510	51.1	23: 5	

END OF BUILD-UP PERIOD



10/22/83

SPERRY-SUN INTERNATIONAL  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PAGE: 1

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30180

DST 2; RUN 1. GAUGE 0120; SENSING DEPTH 1344.32 M. (POST BUILD-UP PERIOD).

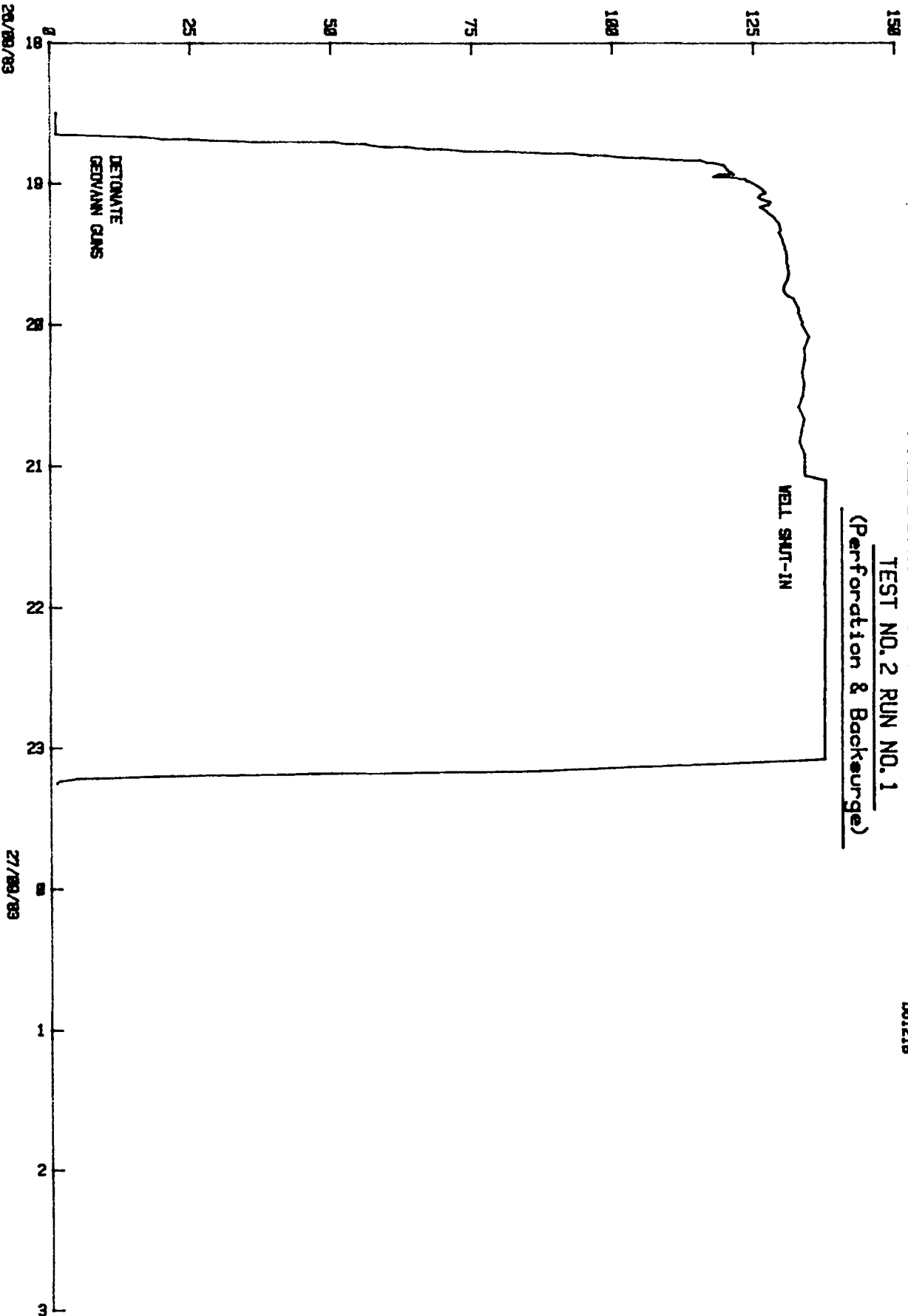
DELTA TIME HOURS	ABS PRESSURE (BARS)	TEMP. DEG C	TIME	
0.000	155.510	51.1	23: 5	26/ 9/83 CLOSE PCTV & BLEED-OFF TUBING.
0.033	155.517	50.9	23: 7	
0.067	155.517	50.9	23: 9	
0.100	155.487	50.9	23:11	
0.133	155.502	50.9	23:13	
0.167	155.487	50.9	23:15	
0.200	155.502	50.9	23:17	
0.233	155.487	50.9	23:19	
0.267	155.517	50.9	23:21	
0.300	155.487	50.9	23:23	
0.333	155.487	50.9	23:25	
0.367	155.517	50.9	23:27	
0.400	155.509	50.6	23:29	
0.433	155.524	50.6	23:31	
0.467	155.524	50.6	23:33	
0.500	155.509	50.6	23:35	
0.533	155.494	50.6	23:37	
0.567	155.524	50.6	23:39	
0.600	155.524	50.6	23:41	
0.633	155.494	50.6	23:43	
0.667	155.494	50.6	23:45	
0.700	155.494	50.6	23:47	
0.733	155.524	50.6	23:49	
0.767	155.516	50.4	23:51	
0.800	155.501	50.4	23:53	
0.833	155.532	50.4	23:55	
0.867	155.532	50.4	23:57	
0.900	155.516	50.4	23:59	
0.933	155.532	50.4	0: 1	27/ 9/83 OPEN PCTV & COMMENCE BULLHEADING.
0.967	155.547	50.4	0: 3	
1.000	155.820	50.4	0: 5	

PRESSURE Scale: 1 inch = 25 BARS

STATOIL  
WELL NO. 31/3-1  
TROLL

NL Sperry-Sun, Inc.  
PRESSURE/TEMP. vs TIME PLOT  
TEST NO. 2 RUN NO. 1  
(Perforation & Backsurge)

28 SEPTEMBER 1983  
MR-8 UPSTREAM CHOKE  
D01218



REAL TIME  
Scale: 1 inch = 1 hour

STATOIL  
TROLL  
31/3-1OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30179

DST 2, RUN 1. UPSTREAM CHOKE DATA. (INITIAL FLOW PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TIME	
-0.158	1.069	18:30: 0	26/ 9/83
-0.008	1.069	18:39: 0	PERFORATE WELL AT 18:39:30.
0.000	1.069	18:39:30	(FLOWING ON 128/64" CHOKE).
0.008	14.583	18:40: 0	
0.017	16.306	18:40:30	
0.025	20.167	18:41: 0	
0.033	24.856	18:41:30	
0.042	36.232	18:42: 0	DECREASE TO 24/64" CHOKE
0.050	50.573	18:42:30	AT MANIFOLD.
0.058	52.918	18:43: 0	
0.067	56.020	18:43:30	
0.075	59.399	18:44: 0	
0.083	63.260	18:44:30	
0.092	67.328	18:45: 0	DIRECT FLOW THRU HEATER
0.100	69.672	18:45:30	ON 2 X 20/64" CHOKES &
0.108	73.947	18:46: 0	INCREASE TO 128/64" CHOKE
0.117	81.324	18:46:30	AT MANIFOLD.
0.125	88.494	18:47: 0	
0.133	92.907	18:47:30	
0.142	95.872	18:48: 0	
0.150	98.768	18:48:30	
0.158	102.353	18:49: 0	
0.167	105.800	18:49:30	
0.175	110.902	18:50: 0	GAS TO SURFACE.
0.183	115.729	18:50:30	
0.192	116.970	18:51: 0	
0.200	118.004	18:51:30	
0.208	119.659	18:52: 0	
0.217	119.935	18:52:30	
0.225	120.279	18:53: 0	
0.233	120.279	18:53:30	
0.242	120.555	18:54: 0	
0.250	120.693	18:54:30	
0.258	120.969	18:55: 0	
0.267	121.245	18:55:30	
0.275	121.727	18:56: 0	
0.283	119.176	18:56:30	
0.292	118.142	18:57: 0	
0.300	120.693	18:57:30	
0.308	122.899	18:58: 0	
0.317	123.796	18:58:30	
0.325	124.071	18:59: 0	
0.333	124.416	18:59:30	
0.358	125.864	19: 1: 0	
0.375	126.485	19: 2: 0	
0.392	126.967	19: 3: 0	
0.408	127.381	19: 4: 0	
0.425	126.485	19: 5: 0	
0.442	126.140	19: 6: 0	
0.458	126.829	19: 7: 0	

10/22/83

SPERRY-SUN INTERNATIONAL  
MR-SIX PRESSURE GAUGE REPORT

PAGE: 2

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30179

DST 2; RUN 1. UPSTREAM CHOKE DATA. (INITIAL FLOW PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TIME	
0.475	128.277	19: 8: 0	26/ 9/83
0.492	127.932	19: 9: 0	
0.508	126.416	19:10: 0	
0.525	127.105	19:11: 0	
0.542	127.657	19:12: 0	
0.558	128.070	19:13: 0	
0.575	128.691	19:14: 0	
0.592	129.105	19:15: 0	
0.608	129.380	19:16: 0	
0.625	129.794	19:17: 0	
0.642	129.932	19:18: 0	
0.658	130.070	19:19: 0	
0.675	130.139	19:20: 0	
0.692	129.863	19:21: 0	
0.708	130.070	19:22: 0	
0.725	130.277	19:23: 0	
0.742	130.484	19:24: 0	
0.758	130.552	19:25: 0	
0.775	130.690	19:26: 0	
0.792	130.897	19:27: 0	
0.808	130.897	19:28: 0	
0.825	131.104	19:29: 0	
0.842	131.173	19:30: 0	
0.858	131.242	19:31: 0	
0.875	131.242	19:32: 0	
0.892	131.173	19:33: 0	
0.908	131.242	19:34: 0	
0.925	131.449	19:35: 0	
0.942	131.380	19:36: 0	
0.958	131.518	19:37: 0	
0.975	131.587	19:38: 0	
0.992	131.518	19:39: 0	
1.008	131.449	19:40: 0	
1.025	131.311	19:41: 0	
1.042	131.104	19:42: 0	
1.058	130.897	19:43: 0	
1.075	130.759	19:44: 0	
1.092	130.690	19:45: 0	
1.108	130.759	19:46: 0	
1.125	131.035	19:47: 0	
1.142	131.518	19:48: 0	
1.158	132.483	19:49: 0	
1.175	132.621	19:50: 0	
1.192	132.828	19:51: 0	
1.208	133.035	19:52: 0	
1.225	133.310	19:53: 0	
1.242	133.379	19:54: 0	
1.258	133.310	19:55: 0	
1.275	133.517	19:56: 0	
1.292	133.655	19:57: 0	

0/22/83

SPERRY-SUN INTERNATIONAL  
MR-SIX PRESSURE GAUGE REPORT

PAGE: 3

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30179

DST 2; RUN 1. UPSTREAM CHOKE DATA. (INITIAL FLOW PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TIME	
1.308	133.793	19:58: 0	26/ 9/83
1.325	134.000	19:59: 0	
1.342	133.931	20: 0: 0	
1.425	135.172	20: 5: 0	
1.508	134.345	20:10: 0	
1.592	134.414	20:15: 0	
1.675	133.931	20:20: 0	
1.758	134.414	20:25: 0	
1.842	134.138	20:30: 0	
1.925	133.379	20:35: 0	
2.008	134.414	20:40: 0	
2.092	133.931	20:45: 0	
2.175	133.586	20:50: 0	
2.258	134.482	20:55: 0	
2.342	134.482	21: 0: 0	
2.358	134.482	21: 1: 0	
2.375	134.482	21: 2: 0	
2.392	134.482	21: 3: 0	
2.408	134.551	21: 4: 0	
2.425	136.206	21: 5: 0	
2.442	138.206	21: 6: 0	
2.458	138.206	21: 7: 0	

DECREASE TO 104/64" CHOKE.  
DECREASE TO 50/64" CHOKE.  
DECREASE TO 20/64" CHOKE.  
DECREASE TO 08/64" CHOKE.  
END OF FLOW PERIOD.

10/22/83

SPERRY-SUN INTERNATIONAL  
MR-SIX PRESSURE GAUGE REPORT

PAGE: 1

STATOIL  
TROLL  
31/3-1

OFFSHORE NORWAY  
25 SEPTEMBER 1983  
NR-MS-30179

DST 2, RUN 1. UPSTREAM CHOKE DATA. (BUILD-UP PERIOD).

DELTA TIME HOURS	ABS PRESSURE (BARS)	TIME
0.000	138.206	21: 7: 0
0.017	138.206	21: 8: 0
0.033	138.206	21: 9: 0
0.050	138.137	21:10: 0
0.067	138.137	21:11: 0
0.083	138.137	21:12: 0
0.100	138.137	21:13: 0
0.117	138.068	21:14: 0
0.133	138.068	21:15: 0
0.150	138.137	21:16: 0
0.167	138.137	21:17: 0
0.183	138.068	21:18: 0
0.200	138.068	21:19: 0
0.217	138.068	21:20: 0
0.233	138.068	21:21: 0
0.250	138.068	21:22: 0
0.267	138.068	21:23: 0
0.283	138.068	21:24: 0
0.300	138.068	21:25: 0
0.317	138.068	21:26: 0
0.333	138.068	21:27: 0
0.350	138.068	21:28: 0
0.367	138.068	21:29: 0
0.383	137.999	21:30: 0
0.467	137.999	21:35: 0
0.550	137.999	21:40: 0
0.633	137.999	21:45: 0
0.717	137.930	21:50: 0
0.800	137.999	21:55: 0
0.883	137.999	22: 0: 0
0.950	137.999	22: 4: 0
1.050	137.999	22:10: 0
1.133	137.930	22:15: 0
1.217	137.930	22:20: 0
1.300	137.930	22:25: 0
1.383	137.930	22:30: 0
1.467	137.930	22:35: 0
1.550	137.930	22:40: 0
1.633	137.930	22:45: 0
1.717	137.930	22:50: 0
1.800	137.930	22:55: 0
1.883	137.930	23: 0: 0
1.967	137.930	23: 5: 0
2.050	87.116	23:10: 0
2.067	50.091	23:11: 0
2.083	20.098	23:12: 0
2.100	4.861	23:13: 0
2.117	1.758	23:14: 0
2.133	1.069	23:15: 0

26/ 9/83 WELL SHUT-IN AT CHOKE.

CLOSE PCTV & BLEED-OFF  
TUBING.

END OF TEST.