

U-298

REGISTRATION
1 2 MMS 1982

Esso Exploration and Production.
Well test report
D.S.T. 2.
Steipner 15/8-1.

SEQUENCE OF OPERATIONS



ORC-172-B

CUSTOMER	ESSO EXPLORATION & PROD. NORWAY	WELL NAME OR NUMBER	15/8-1	TEST NUMBER	DST 2	RIG NAME	GIOMAR BISCAY II	AREA	NORTH SEA	PAGE	1	OF	3
CUSTOMER REPRESENTED BY				OTIS TEST SUPERVISOR		FIELD	SLETPNER						

DATE	TIME	OPERATIONS
16.12.81	10.55	OPEN WELL TO STOCK TANK FOR INITIAL FLOW.
16.12.81	11.00	2,5 BBLS RECOVERED. CLOSE IN AT CHOKE MANIFOLD FOR INITIAL BUTTD-UP.
16.12.81	11.01	BIED ANNULUS PRESSURE. CLOSE APR-N TESTER VALVE.
16.12.81	11.03	OPEN CHOKE TO CHECK APR-N CLOSED, BLEED OF PRESSURE TO ZERO.
16.12.81	11.04	CLOSED IN AT CHOKE MANIFOLD. CHECK PRESSURE BUTTD-UP.
16.12.81	12.25	PRESSURE ANNULUS TO 1700 PSI. APR-N OPEN.
16.12.81	12.26	PRESSURE INDICATION ON SURFACE.
16.12.81	12.27	OPEN WELL TO STOCK TANK FOR MAJOR FLOW PERIOD ON 20/64" ADJUSTABLE CHOKE.
16.12.81	12.36	CHANGE CHOKE TO 30/64" ADJUSTABLE.
16.12.81	12.47	SLIGHT TRACES OF GAS TO SURFACE.
16.12.81	12.50	BY-PASSED STOCK TANK TO BURNER, 40 BBLS RECOVERED.
16.12.81	12.57	GAS CUT MUD TO SURFACE.
16.12.81	13.02	GAS TO SURFACE. BURNER IGNITED.
16.12.81	13.10	INCREASE CHOKE TO 40/64" ADJUSTABLE. ATTEMPT TO UNPLUG MUD FROM CHOKE.
16.12.81	13.11	REDUCE CHOKE TO 30/64" ADJUSTABLE.
16.12.81	13.15	SOLIDS PLUGGING ADJUSTABLE CHOKE.
16.12.81	13.18	CHANGED TO 32/64 FIXED CHOKE.
16.12.81	15.55	OPEN SEPARATOR INLET VALVE. CONTINUE. DO FLOW ON BY-PASS.

SEQUENCE OF OPERATIONS



OTIS
oils

08C-012-B

CUSTOMER ESSO EXPLORATION & PROD. NORWAY
 WELL NAME OR NUMBER 15/8-1
 OTIS TEST SUPERVISOR
 RIG NAME GLOMAR BISCAY IT
 FIELD SLEIPNER
 AREA NORTH SEA
 PAGE 2 OF 3

DATE	TIME	OPERATIONS
16.12.81	19.46	CHANGED CHOKE TO 42/64 POSITIVE.
17.12.81	02.11	APR-N VALVE CLOSED.
17.12.81	02.13	CLOSED CHOKE. POSITIVE INDICATION APR-N CLOSED. MONITOR SURFACE PRESSURE & TEMPERATURE.
17.12.81	20.00	LEAK ON DATA HEADER NEEDLE VALVE. CLOSE FAITSAFER VALVE.
17.12.81	20.05	BIED OFFF PRESSURE AT CHOKE TO BURNER.
17.12.81	20.20	LEAK REPAIRED. RE-OPENED FAITSAFER VALVE.
17.12.81	23.00	END OF BUILD-UP.
17.12.81	23.02	OPEN ON 42/64 CHOKE. BIEED OF GAS TO BURNER.
17.12.81	23.15	CLOSED CHOKE PRESSURE BIEED TO 900 PST. CLOSE FAITSAFER VALVE.
17.12.81	23.18	OPEN KILL VALVE. START PUMPING MUD DOWN STRING.
17.12.81	23.45	FINISHED PUMPING 56 BRIS. PRESSURE ANNULIUS TO OPEN APR-N.
17.12.81	23.50	LOST ANNULIUS PRESSURE.
18.12.81	00.02	CHANGED MUD PUMPS. RE-PRESSURED ANNULIUS TO OPEN APR-N.
18.12.81	00.12	START TO PUMP DOWN STRING.
18.12.81	00.26	BIED OFF ANNULIUS PRESSURE. APR-N NOT OPEN.
18.12.81	00.38	PRESSURE ANNULIUS TO 1950 PST. APR-N OPEN.
18.12.81	00.40	START BULL-HEADING.
18.12.81	00.52	BIED OF GAS TRAPPED IN FLOW LINE AT CHOKE.



SEQUENCE OF OPERATIONS

ORC-872-B

CUSTOMER ESSO EXPLORATION & PROD.
CUSTOMER REPRESENTED BY

TEST NUMBER
DST 2
WELL NAME OR NUMBER
15/8-1

OTIS TEST SUPERVISOR

RIG NAME
GIOMAR BISCAY II
FIELD
SLEPNER

AREA
NORTH SEA

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1 6

OPERATIONS

DATE	TIME	OPERATIONS
14.12.81		AMERADA GAUGE NO. 30797 REC. SECT. 10640. CLOCK 120 HRS. F- 7141.
14.12.81	11.52	ENGAGED STYLUS AND CLOCK.
14.12.81	12.15	MAKE-UP TAILPIPE ASSY ON RIG FLOOR.
14.12.81	12.30	MAKE-UP FLOPETROL, SPERRY-SUN AND OTIS AMERADA IN MOUSEHOLE.
14.12.81	12.40	SET B.H.P. GAUGES IN MOUSEHOLE.
14.12.81	12.45	PICK-UP PERE. JOINT AND R.T.T.S. PACKER.
14.12.81	16.30	MADE UP HALLIBURTON DRILL STEM TEST TOOLS AND R.I.H.
14.12.81	17.00	START TO R.I.H. WITH T.D.S. TUBING.
15.12.81	04.15	S.S.T.T. ON RIG FLOOR. MAKE-UP X-OVERS AND MAKE-UP TO TEST STRING.
15.12.81	04.45	S.S.T.T. IN ROTARY. FUNCTION TEST HYDRAULIC RELEASE MECHANISM.
15.12.81	05.15	S.S.T.T. BALL VALVES OPEN. PRESSURE ON CONTROL-LINE 3000 PSI.
15.12.81	05.30	S.S.T.T. THROUGH ROTARY TABLE. START TO R.I.H.
15.12.81	06.10	LUBRICATOR VALVE ON RIG FLOOR.
15.12.81	06.20	LUBRICATOR VALVE MADE-UP TO TEST-STRING.
15.12.81	06.35	PRESSURE LUBRICATOR VALVE BALL OPEN LINE TO 3000 PSI.
15.12.81	06.40	LUBRICATOR VALVE THROUGH ROTARY TABLE.
15.12.81	06.55	PRESSURE-TEST STRING TO 7500 PSI.
15.12.81	07.10	BLEED-OFF PRESSURE. TEST O.K.



SEQUENCE OF OPERATIONS

DEC-81-8

CUSTOMER	ESSO EXPLORATION & PROD. NORWAY	WELL NAME OR NUMBER	15/8-1	TEST NUMBER	DST 2	RIG NAME	GLomar BISCAY II	AREA	NORTH SEA	PAGE	2	OF	6
CUSTOMER REPRESENTED BY						FIELD	SIEITNER						

DATE	TIME	OPERATIONS
15.12.81	08.00	RIG UP 50 FT. SLINGS TO ELEVATOR.
15.12.81	08.30	RIG UP FLOW LINES TO S.T.T.
15.12.81	09.30	S.T.T. MADE UP TO TEST SPRING.
15.12.81	09.50	S.S.T.T. LANDED IN B.O.P. STACK.
15.12.81	10.00	BREAK OUT S.T.T. SET IN MOUSEHOLE.
15.12.81	10.15	INSTALLED EXTRA PUP JOINTS BELOW S.T.T.
15.12.81	10.45	MAKE UP S.T.T. HANDLING SUB.
15.12.81	12.05	CHOKE MANHOLD TO RIG FLOOR.
15.12.81	12.10	PRESS. TEST S.T.T. 7500 PSI. AGAINST MASTER, SWAB FLOWLINES VALVES.
15.12.81	12.35	OPEN S.T.T. MASTER V/V.
15.12.81	12.48	PRESSURE TEST SPRING TO 7500 PSI.
15.12.81	12.50	CLOSED S.S.T.T. BALL VALVES.
15.12.81	12.55	BLEED OFF ABOVE S.S.T.T. TO 500 PSI. MONITOR PRESSURE.
15.12.81	13.05	EQUALISE ACROSS S.S.T.T. BALL VALVES.
15.12.81	13.12	RE-OPEN S.S.T.T. BALL VALVES.
15.12.81	13.18	CLOSE LUBRICATOR VALVE. BLEED OFF ABOVE TO 500 PSI. MONITOR FOR P.B.U.
15.12.81	13.25	EQUALISE PRESSURE ACROSS LUBRICATOR VALVE.
15.12.81	13.28	RE-OPEN LUBRICATOR VALVE.



SEQUENCE OF OPERATIONS

08C-811-B

CUSTOMER ESSO EXPLORATION & PROD. NORWAY

TEST NUMBER DST 2
WELL NAME OR NUMBER 15/8-1

RIG NAME GLOMAR BISCAY II
FIELD SLEIPNER

AREA NORTH SEA

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OTIS TEST SUPERVISOR

OPERATIONS

DATE	TIME	OPERATIONS
15.12.81	13.31	CLOSE LOWER MASTER VALVE.
15.12.81	13.56	OPEN FLOWLINE VALVE.
15.12.81	14.00	PUMP WATER TO STOCK TANK. CHECK LEVEL.
15.12.81	14.15	CLOSE FRONT VALVES ON CHOKE. TEST 500 PSI AND 7500 PSI.
15.12.81	14.30	OPEN FRONT VALVES ON CHOKE MANIFOLD.
15.12.81	14.35	CLOSE BACK VALVES ON CHOKE MANIFOLD. TEST 500 PSI AND 7500 PSI.
15.12.81	14.45	BLEED OFF PRESSURE.
15.12.81	14.48	CLOSE HEATER VALVES. TEST TO 500 PSI AND 7500 PSI.
15.12.81	14.52	LEAK ON HALLIBURTON CEMENT MANIFOLD. BLEED OFF PRESSURE.
15.12.81	15.00	RE-TEST TO 5,000 PSI AGAINST HEATER V/V'S.
15.12.81	15.05	CLOSE SEPARATOR INLET AND BY-PASS VALVES. TEST 500 PSI AND 1200 PSI.
15.12.81	15.15	TEST GOOD. OPEN BYPASS. FLUSH SURFACE LINES TO GAS FLARE.
15.12.81	15.30	CLOSE KILL VALVE. OPEN LOWER MASTER VALVE.
15.12.81	15.57	PICK-UP LANDING STRING. FORMATE TO SET PACKER.
15.12.81	16.04	NOT SET. MAKE 2nd ATTEMPT TO SET PACKER.
15.12.81	16.30	NOT SET. MAKE 3rd ATTEMPT TO SET PACKER.
15.12.81	17.07	NOT SET. MAKE 4 th. ATTEMPT TO SET PACKER.
15.12.81	17.37	NOT INDICATION R.T.T.S. SET. MAKE 5 th ATTEMPT TO SET R.T.T.S. PACKER.



SEQUENCE OF OPERATIONS

DEC-01-78

CUSTOMER	ESSO EXPLORATION & PROD. NORWAY	WELL NAME OR NUMBER	15/8-1	TEST NUMBER	DST 2	RIG NAME	GLOMAR BISCAY II	PAGE	4	OF	6
CUSTOMER REPRESENTED BY						FIELD	SLEIPNER	AREA	NORTH SEA		

OTIS TEST SUPERVISOR

OPERATIONS

DATE	TIME	OPERATIONS
15.12.81	18.30	RIG DOWN SURFACE FLOWLINES.
15.12.81	18.55	RIG DOWN S.T.T.
15.12.81	19.30	S.T.T. LAID DOWN ON CATWALK.
15.12.81	20.15	LUBRICATOR VALVE THROUGH ROTARY TABLE.
15.12.81	20.55	S.S.T.T. IN ROTARY TABLE.
15.12.81	21.20	S.S.T.T. ON CATWALK.
15.12.81	21.30	SET R.T.T.S. PACKER AND UNSEALED.
15.12.81	21.40	SET R.T.T.S. PACKER AND UNSEALED.
15.12.81	21.45	R.I.H. WITH TUBING TO PACKER DEPTH 5 STANDS.
15.12.81	22.40	SET PACKER AT DEPTH. P.O.O.H. WITH TUBING. 5 STANDS.
15.12.81	23.50	S.S.T.T. MADE UP TO TEST STRING.
16.12.81	24.00	CHANGE OUT 18 INCH CENTRALIZER ON S.S.T.T. TO 13 3/8 CENTRALIZER.
16.12.81	01.00	
16.12.81	01.15	ORIENTATE S.S.T.T. LATCH. OPEN BALL VALVES.
16.12.81	01.25	S.S.T.T. THROUGH ROTARY TABLE.
16.12.81	01.50	LUBRICATOR VALVE ON RIG FLOOR.
16.12.81	02.10	LUBRICATOR VALVE THROUGH ROTARY TABLE.
16.12.81	02.40	PRESSURE TEST STRING TO 7500 PSI.
16.12.81	02.55	TEST GOOD. BLEED OFF PRESSURE.

SEQUENCE OF OPERATIONS

ORC-172-B

CUSTOMER ESSO EXPLORATION & PROD. NORWAY	WELL NAME OR NUMBER 15/8-1	TEST NUMBER DST 2	RIG NAME GLOMAR BISCAY II	PAGE OF 5 6
CUSTOMER REPRESENTED BY	OTIS TEST SUPERVISOR		FIELD SLEIPNER	AREA NORTH SEA

DATE	TIME	OPERATIONS
16.12.81	03.45	S.T.T. MADE UP TO TEST STRING.
16.12.81	04.00	RIG-UP FLOW KILL LINES TO S.T.T. AND CHOKE MANIFOLD.
16.12.81	05.00	PRESSURE TEST FLOW, SWAB AND MASTER VALVE ON S.T.T.
16.12.81	05.20	PRESSURE TEST FLOW, SWAB AND MASTER VALVE ON S.T.T.
16.12.81	05.40	PRESSURE STRING TO 500 PSI. CLOSE S.S.T.T. BALL VALVES. MONITOR FOR P.B.U.
16.12.81	05.50	RE-OPEN S.S.T.T. BALL VALVES. PRESSURE STRING TO 7500 PSI.
16.12.81	05.55	CLOSE S.S.T.T. BALL VALVES. BLEED OFF ABOVE TO 500 PSI. MONITOR FOR LEAKS.
16.12.81	06.05	RE-OPEN S.S.T.T. BALL VALVES. CLOSE LUBRICATOR VALVE.
16.12.81	06.15	BLEED OFF STRING PRESSURE TO 500 PSI. CHECK FOR LEAKS.
16.12.81	06.20	RE-OPEN LUBRICATOR VALVE. BLEED OFF STRING PRESSURE TO 500 PSI.
16.12.81	06.30	CLOSE LUBRICATOR VALVE. MONITOR PRESSURE ABOVE FOR LEAKS.
16.12.81	06.40	RE-OPEN LUBRICATOR VALVE. TEST GOOD. BLEED OFF STRING PRESSURE. CLOSE L.M. VALVE.
16.12.81	06.55	PRESSURE TEST FLOW LINE VALVE TO CHOKE MANIFOLD TO 7500 PSI.
16.12.81	07.05	TEST GOOD. BLEED OFF PRESSURE.
16.12.81	07.10	OPEN LOWER MASTER VALVE. CLOSE KILL LINE VALVE.
16.12.81	07.20	SET R.T.T.S. PACKER.
16.12.81	07.45	RIG DOWN FLOW LINE CHIKSANS.
16.12.81	07.55	ATTEMPT TO STRAIGHTEN STRING ON S.T.T.
16.12.81	08.00	PICK-UP LANDING STRING. OPEN DRILL PIPE TESTER VALVE.



SEQUENCE OF OPERATIONS

DEC-81-3

CUSTOMER	ESSO EXPLORATION & PROD. NORWAY	WELL NAME OR NUMBER	15/8-1	TEST NUMBER	DST 2	RIG NAME	GIOMAR BISCAY II	PAGE	6	OF	6
CUSTOMER REPRESENTED BY						FIELD	SLEPNER	AREA	NORTH SEA		

OTIS TEST SUPERVISOR

OPERATIONS

DATE	TIME	OPERATIONS
16.12.81	08.36	PRESSURE TEST TO CHOKE MANIFOLD TO 7500 PSI.
16.12.81	08.47	TEST GOOD. BLEED OFF PRESSURE.
16.12.81	09.10	OPEN MASTER VALVE. CLOSE KILL LINE VALVE.
16.12.81	09.15	BLEED OFF S.S.T.T. BALL CONTROL PRESSURE. CHECK ORIENTATION OF S.S.T.T.
16.12.81	09.20	RE-OPEN S.S.T.T. BALL VALVES.
16.12.81	09.21	SEPT 20/64 ADJUSTABLE CHOKE ON MANIFOLD. LINE-UP TO STOCK TANK.
16.12.81	09.26	PRESSURE ANNULUS TO OPEN APR-N VALVE.
16.12.81	09.35	BLEED OFF ANNULUS PRESSURE TO CLOSE APR-N VALVE. NO INDICATION AT SURFACE.
16.12.81	09.41	PRESSURE ANNULUS TO 1700 PSI.
16.12.81	09.48	PRESSURE ANNULUS TO 1800 PSI.
16.12.81	10.05	PRESSURE ANNULUS TO 2000 PSI.
16.12.81	10.13	BLEED OF ANNULUS PRESSURE. NO INDICATION OF FLOW AT SURFACE.
16.12.81	10.35	RE-CYCLE DRILL PIPE TESTER VALVE WITH 1800 PSI. STRING PRESSURE ABOVE.
16.12.81	10.36	INCREASE IN STRING PRESSURE FROM 1800 PSI TO 2400 PSI. D.P. VALVE OPEN.
16.12.81	10.40	RE-LANDED S.S.T.T. IN WELLHEAD.
16.12.81	10.43	BLEED STRING PRESSURE TO ZERO.
16.12.81	10.51	PRESSURE ANNULUS TO OPEN APR-N VALVE. WELL LINED UP TO STOCK TANK 20/64 CHOKE.

CUSTOMER ESSO EXPLORATION & PROD. NORWAY
WELL NAME OR NUMBER 15/8-1
FIELD SLEIPNER NORWAY
FORMATION

ELEVATION (FEET) STANDARD CONDITIONS 14.73 PSI 60°F OTHER 14.73 PRESS. TEMP. TIME WELL FLOWING OR SHUT IN BEFORE SAMPLING 7 HRS. INTERVAL TESTED (FEET) 3911 - 3926

SAMPLE # -

TIME TAKEN	CONTAINER #	CONTAINER VOL. (cc) or (gal.)	INITIALLY FILLED WITH	VOL. OF FILL REMAINING WITH SAMPLE (b)	SAMPLE TYPE	SAMPLE TAKEN AT	SAMPLING PRESSURE (PSIG)	SAMPLING TEMP. (°F)	ATMOSPHERIC PRESS. (PSI)	ATMOS. TEMP. (°F)	TIME TO TAKE SAMPLE (min.)
1920-1930	Luxer 48A	2,000	evacuated	nil	gas	separator gas line	410	90	14.73	50	10

FIELD READINGS AND FACTORS USED

WELL HEAD		CHOKES	HI STAGE SEP.	LO STAGE SEP.	BOTTOM HOLE		OIL		GAS		TOTAL GAS/OIL		WATER				
TEMP (°F)	SIZE (64in INCH)	PRESS (PSIG)	TEMP (°F)	PRESS (PSIG)	TEMP (°F)	PRESS (PSIG)	GRAVITY @ 60°F (API)	BSW (%)	C ₁ (C)	W ₁ (C)	GRAVITY (AIR=1)	F _{PV}	FLOW RATE AT STOCK TANK (BPD)	SEP. COND. (MMCF/D)	SON STOCK TANK (BPD)	OSR STOCK TANK (BPD)	WATER FLOW RATE (BPD)
3179	161	32	410	90			44	trace	.89		.944	1.105	13.04	-	5864		nil

SAMPLE # -

TIME TAKEN	CONTAINER #	CONTAINER VOL. (cc) or (gal.)	INITIALLY FILLED WITH	VOL. OF FILL REMAINING WITH SAMPLE (b)	SAMPLE TYPE	SAMPLE TAKEN AT	SAMPLING PRESSURE (PSIG)	SAMPLING TEMP. (°F)	ATMOSPHERIC PRESS. (PSI)	ATMOS. TEMP. (°F)	TIME TO TAKE SAMPLE (min.)
1920-1930	Luxer 44 A	2,000	evacuated	nil	gas	separator gas line	410	90	14.73	50	10

FIELD READINGS AND FACTORS USED

WELL HEAD		CHOKES	HI STAGE SEP.	LO STAGE SEP.	BOTTOM HOLE		OIL		GAS		TOTAL GAS/OIL		WATER				
TEMP (°F)	SIZE (64in INCH)	PRESS (PSIG)	TEMP (°F)	PRESS (PSIG)	TEMP (°F)	PRESS (PSIG)	GRAVITY @ 60°F (API)	BSW (%)	C ₁ (C)	W ₁ (C)	GRAVITY (AIR=1)	F _{PV}	FLOW RATE AT STOCK TANK (BPD)	SEP. COND. (MMCF/D)	SON STOCK TANK (BPD)	OSR STOCK TANK (BPD)	WATER FLOW RATE (BPD)
3179	161	32	410	90			44	trace	.89		.944	1.105	13.04	-	5864		

SAMPLE # -

TIME TAKEN	CONTAINER #	CONTAINER VOL. (cc) or (gal.)	INITIALLY FILLED WITH	VOL. OF FILL REMAINING WITH SAMPLE (b)	SAMPLE TYPE	SAMPLE TAKEN AT	SAMPLING PRESSURE (PSIG)	SAMPLING TEMP. (°F)	ATMOSPHERIC PRESS. (PSI)	ATMOS. TEMP. (°F)	TIME TO TAKE SAMPLE (min.)
1920-1930	Hoke 2M80 E875	500	Mercury	25CC	oil	separator oil outlet	410	85	14.73	50	10

FIELD READINGS AND FACTORS USED

WELL HEAD		CHOKES	HI STAGE SEP.	LO STAGE SEP.	BOTTOM HOLE		OIL		GAS		TOTAL GAS/OIL		WATER				
TEMP (°F)	SIZE (64in INCH)	PRESS (PSIG)	TEMP (°F)	PRESS (PSIG)	TEMP (°F)	PRESS (PSIG)	GRAVITY @ 60°F (API)	BSW (%)	C ₁ (C)	W ₁ (C)	GRAVITY (AIR=1)	F _{PV}	FLOW RATE AT STOCK TANK (BPD)	SEP. COND. (MMCF/D)	SON STOCK TANK (BPD)	OSR STOCK TANK (BPD)	WATER FLOW RATE (BPD)
3179	161	32	410	90			44	trace	.89		.944	1.105	13.04	-	5864		

(a) CONTAINER MAY BE INITIALLY FILLED WITH WATER OR MERCURY (HG) OR BE EVACUATED (VACUUM).
 (b) VOLUME OF WATER OR MERCURY LEFT WITH WELL EFFLUENT SAMPLE.
 (c) C₁ IS MEASURED CORRECTION FACTOR FOR CORRECTING OIL VOLUME FROM SEPARATOR TO STOCK TANK CONDITIONS. IT INCLUDES WEATHERING FACTOR, W₁, AND METER NONLINEARITY EFFECTS. M. C₁ - M. W₁.

SAMPLED BY G. SMITH
P. HIGDON



SURFACE SAMPLING DATA

08C-877-B

TEST NUMBER	DST 2	RATE NUMBER	2	ARI	N. SEA	DATE (DAY MONTH)	17.12.81	PAGE OF	2 2
WELL NAME OR NUMBER	15/8-1		FIELD	FORMATION					

CUSTOMER ESSO EXPLORATION & PROD. NORWAY

ELEVATION (FEET) STANDARD CONDITIONS 14.73 PSI 60°F OTHER 14.73 PRESS. 14 HRS. TEMP. TIME WELL FLOWING OR SHUT IN BEFORE SAMPLING 14 HRS. INTERVAL TESTED (FEET) 3911 - 3926

SAMPLE #

TIME TAKEN	CONTAINER #	CONTAINER VOL	INITIALLY FILLED WITH	VOL. OF FILL REMAINING WITH SAMPLE	SAMPLE TYPE	SAMPLE TAKEN AT	SAMPLING PRESSURE (PSIG)	SAMPLING TEMP. (°F)	ATMOSPHERIC PRESS. (PSI)	ATMOS. TEMP. (°F)	TIME TO TAKE SAMPLE (MIN.)
0145-0200	Luxer 41 A	2,000	Evacuated	nil	gas	Separator gas outlet	410	103			15

FIELD READINGS AND FACTORS USED

WELL HEAD	CHOKE	HI STAGE SEP.	LO STAGE SEP.	BOTTOM HOLE	OIL		GAS		TOTAL GAS/OIL			WATER FLOW RATE (BPD)	
PRESS	TEMP	SIZE	PRESS	TEMP	GRAVITY @ 60 OF (°API)	BSW (%)	C ₁ (C)	W ₁ (C)	GRAVITY (AIR=1)	F _{PV}	<input type="checkbox"/> FLOW RATE AT STOCK TANK (BPD) (MWC/F/D)	<input checked="" type="checkbox"/> COR <input type="checkbox"/> OR <input type="checkbox"/> STOCK TANK (MWC/F/D)	
(PSIG)	(°F)	(64IN INCH)	(PSIG)	(°F)	(°API)	(%)	(C)	(C)	(AIR=1)				
2642	170	42	410	103	43	trace	.89		.944	1.0964	16.64-	6031	nil

SAMPLE #

TIME TAKEN	CONTAINER #	CONTAINER VOL	INITIALLY FILLED WITH	VOL. OF FILL REMAINING WITH SAMPLE	SAMPLE TYPE	SAMPLE TAKEN AT	SAMPLING PRESSURE (PSIG)	SAMPLING TEMP. (°F)	ATMOSPHERIC PRESS. (PSI)	ATMOS. TEMP. (°F)	TIME TO TAKE SAMPLE (MIN.)
0145-0200	Luxer 46 A	2,000	Evacuated	nil	gas	Separator gas outlet	410	103			15

FIELD READINGS AND FACTORS USED

WELL HEAD	CHOKE	HI STAGE SEP.	LO STAGE SEP.	BOTTOM HOLE	OIL		GAS		TOTAL GAS/OIL			WATER FLOW RATE (BPD)	
PRESS	TEMP	SIZE	PRESS	TEMP	GRAVITY @ 60 OF (°API)	BSW (%)	C ₁ (C)	W ₁ (C)	GRAVITY (AIR=1)	F _{PV}	<input type="checkbox"/> FLOW RATE AT STOCK TANK (BPD) (MWC/F/D)	<input checked="" type="checkbox"/> COR <input type="checkbox"/> OR <input type="checkbox"/> STOCK TANK (MWC/F/D)	
(PSIG)	(°F)	(64IN INCH)	(PSIG)	(°F)	(°API)	(%)	(C)	(C)	(AIR=1)				
2642	170	42	103		43	trace	.89		.944	1.0964	16.64 -	6031	nil

SAMPLE #

TIME TAKEN	CONTAINER #	CONTAINER VOL	INITIALLY FILLED WITH	VOL. OF FILL REMAINING WITH SAMPLE	SAMPLE TYPE	SAMPLE TAKEN AT	SAMPLING PRESSURE (PSIG)	SAMPLING TEMP. (°F)	ATMOSPHERIC PRESS. (PSI)	ATMOS. TEMP. (°F)	TIME TO TAKE SAMPLE (MIN.)
0145-0200	Hoke 10 EK	500	Brine Soln	25 CC	oil	Separator oil outlet	410	97			15

FIELD READINGS AND FACTORS USED

WELL HEAD	CHOKE	HI STAGE SEP.	LO STAGE SEP.	BOTTOM HOLE	OIL		GAS		TOTAL GAS/OIL			WATER FLOW RATE (BPD)	
PRESS	TEMP	SIZE	PRESS	TEMP	GRAVITY @ 60 OF (°API)	BSW (%)	C ₁ (C)	W ₁ (C)	GRAVITY (AIR=1)	F _{PV}	<input type="checkbox"/> FLOW RATE AT STOCK TANK (BPD) (MWC/F/D)	<input checked="" type="checkbox"/> COR <input type="checkbox"/> OR <input type="checkbox"/> STOCK TANK (MWC/F/D)	
(PSIG)	(°F)	(64IN INCH)	(PSIG)	(°F)	(°API)	(%)	(C)	(C)	(AIR=1)				
2646	170	42	410	97	43	trace	.89		.944	1.0964	16.64-	6031	nil

(a) CONTAINER MAY BE INITIALLY FILLED WITH WATER OR MERCURY (HG) OR BE EVACUATED (VACUUM).

(b) VOLUME OF WATER OR MERCURY LEFT WITH WELL EFFLUENT SAMPLE.

(c) C₁ IS MEASURED CORRECTION FACTOR FOR CORRECTING OIL VOLUME FROM SEPARATOR TO STOCK TANK CONDITIONS. IT INCLUDES WEATHERING FACTOR, W₁, AND METER NONLINEARITY EFFECTS, M. C₁ = M W₁.

SAMPLED BY S. MUNRO P. HIGDON



WELL NUMBER 15/8-1
WELL NAME

Otis Field Readings

DATE 16.12.81
DST No. 2

ENGR:	FLOWING CONDITIONS										SAMPLES								OIL	GAS	WATER	GOR
	TIME	CHOKE SIZE	SEPA-RATOR SAMPLES	WELLHEAD		SEPARATOR			OIL GRAV-ITY		GAS GRAV-ITY		CO ₂	H ₂ S	MER-CAP-TANS	BS & W	CHLOR-IDES PH.	METERED BOPD				
PRESS				TEMP	PRESS DIFF	SHRINK-AGE	OIL T GAST	* F	* API	S.G.	%	PPM							PPM	%	mg/l	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			
	10.52			1145																		
	10.55	20/64		1065																		
	11.00	0		1095																		
	11.01																					
	11.03	20/64																				
	11.04	0																				
	11.10	0		160																		
	11.15			150																		
	11.20			145																		
	11.25			140																		
	11.30			137																		
	11.35			130																		
	11.40			125																		
	11.45			122																		
	11.50			120																		

PERFORATED INTERVAL:

Otis Field Readings

WELL NUMBER 15/8-1

WELL NAME

DATE 16.12.81
DST No. 2

ENGR:	FLOWING CONDITIONS														SAMPLES					OIL	. GAS	WATER	GOR
	TIME	CHOKE SIZE	SEPA. RATOR SAMPLES	WELLHEAD		SEPARATOR			OIL GRAV. ITY	GAS GRAV. ITY	CO ₂	H ₂ S	MER. CAP. TANS	BS & W	CHLORIDES PH.								
				PRESS	TEMP	PRESS DIFF	SHRINK-AGE	FACTOR								OIL T GAST	%	PPM	PPM				
HOURS	64in IN.	TYPE	PSIG	* F	PSIG	PSIG	PSIG	* F	* API	S.G.	%	PPM	PPM	%	mg/l	METERED BOPD	SEPARATOR FLOW RATE MSCFD	METERED BWPD	SCF/bbl				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19					
11.55			118																				
12.00			116																				
12.05			117																				
12.10			115																				
12.15			115																				
12.20	0		114																				
12.25	0																						
12.26	0		1285																				
12.27	20																						
12.29	20		1120																				
12.30	20		1015																				
12.31	20		1055	38																			
12.32	20		1084	42																			
12.33	20		1137																				
12.34	20		1185	50																			

PRESSURE ANNULUS TO 1700 PSI APP-R-N OPEN.
 PRESSURE INDICATION ON SURFACE.
 OPEN WELL TO STOCK TANK FOR MAJOR FLOW PERIOD.

PERFORATED INTERVAL:

WELL NUMBER 15/8-1
WELL NAME

Otis Field Readings

DATE 16.12.81
DST No. 2

ENGR:	FLOWING CONDITIONS																				
	TIME	CHOKE SIZE	SEPA. RATOR SAMPLES	WELLHEAD				SEPARATOR				SAMPLES						OIL	GAS	WATER	GOR
				PRESS.	TEMP	PSIG	* F	PSIG	SHRINK-AGE	OIL T GAST	* API	S.G.	CO ₂	H ₂ S	MER. CAP. TANS	BS & W	CHLORIDES				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			
12.35	20		1214	50																	
12.36	30		885	54																	
12.37	30		915																		
12.38	30		920																		
12.39	30		987	62																	
12.40	30		1125	68																	
12.42	30		1249	70																	
12.44	30		1334	72																	
12.46	30		1435	72																	
12.47	30		1507	77																	
12.48	30		1602	82																	
12.50	30		1705	85																	
12.52	30		2049	88																	
12.54	30		2085																		
12.55	30		2077	96																	

PERFORATED INTERVAL:

WELL NUMBER 15/8-1
WELL NAME

Otis Field Readings

DATE 16.12.81
DST No. 2

ENGR:	FLOWING CONDITIONS										SAMPLES								OIL	GAS	WATER	GOR						
	TIME	CHOKE SIZE	SEPA. RATOR SAMPLES	WELLHEAD		SEPARATOR			OIL T		GAS		CO ₂		H ₂ S		MER. CAP. TANS						BS & W		CHLOR. IDES		METERED BOPD	SEPARATOR FLOW RATE MSCFD
PHS				TEMP	PRESS DIFF	SHRINK-AGE	GAS T	GRAV. LTY	S.G.	%	PPM	PPM	%	mg/l	PH.	17	18	19										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19										
12.57	30		2072	104																								
12.59	30		2249	120																								
13.02	30		3329	120																								
13.04	30		3487	112																								
13.06	30		3700	110																								
13.08	30		3885	102																								
13.10	40																											
13.11	30																											
13.13	30		2787	98																								
13.15	30		3832	90																								
13.18	32																											
13.20	32		2857	97																								
13.25	32		2803	101																								
13.30	32		2885	105																								
13.45	32		2930	117																								

PERFORATED INTERVAL:

Otis Field Readings

WELL NUMBER 15/8-1
DATE 16.12.81

WELL NAME
DST No. 2

ENGR:	FLOWING CONDITIONS																				SAMPLES			OIL	GAS	WATER	GOR
	TIME	CHOKE SIZE	SEPA. RATOR SAMPLES	WELLHEAD		PRESS PSIG	TEMP °F	SEPARATOR			OIL T GAST	OIL GRAY. ITY	GAS GRAY. ITY	CO2 %	H2S PPM	MER. CAP. TANS PPM	BS & W %	CHLOR. IDES PH.	METERED BOPD	SEPARATOR FLOW RATE MSCFD	METERED BWPD	SCF/bbl					
				PRESS DIFF	SHRINK. AGE			FACTOR	PSIG	OIL T GAST													API ITY	S.G.	PPM	MERC. CAP. TANS	PH.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19									
14.00	32		2979	125				45					5 % mud						16								
14.15	32		2989	129									3 % mud														
14.30	32		3009	135						10+	5		3 % mud														
14.45	32		3024	141									2 % mud														
15.00	32		3035	140				45																			
15.15	32		3055	148																							
15.30			3059	147				45		10+	5		trace solids														
15.45			3070	150																							
15.55	32		OPEN SEPARATOR INLET VALVE. CONTINUE TO FLOW ON BY-PASS.																								
16.00			3069	150				45		10	7		trace solids														
16.00			FLOW THROUGH SEPARATOR. CHECK FLUID LEVELS. REGULATE FLOW TO BURNER.																								
16.00			FLOW DIRECTED THROUGH SEPARATOR.																								
16.15	32		3082	150									trace						2813.9	12.95			4602				
16.30	32		3092	150									1 %						1923.97	12.87			6689				
17.00	32		3098	132									trace						2288.42	12.85			5615				

PERFORATED INTERVAL:

Otis Field Readings

WELL NUMBER 15/8-1
WELL NAME

DATE 16.12.81
DST No. 2

ENGR:	FLOWING CONDITIONS															SAMPLES					OIL		GAS		WATER		GOR
	TIME	CHOKE SIZE	SEPA-RATOR SAMPLES	WELLHEAD			SEPARATOR			OIL T		OIL GRAV. ID	GAS GRAV. ID	CO ₂	H ₂ S	MER-CAP-TANS	BS & W	CHLOR-IDES PH.	METERED BOPD	SEPARATOR FLOW RATE MMSCFD	METERED BWPD	SCF/bbl					
				PRESS	TEMP	* F	PRESS DIFF	SHRINK-AGE	FACTOR	* F	* API												S.G.	%	PPM	PPM	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19									
7.30	32		3112	160	400		76	45	.934	10	5		2 8		2250.28	12.95		5754									
8.00	32		3127	159	405		80	44	.944	10	5		2 8		2241.74	12.98		5790									
18.30	32		3160	162	410		82	44	.944	10	6		2 8		2260.61	13.08		5786									
19.00	32		3209	160	410		88	44	.944	10	5		trace		2256.0	13.08		5797									
19.30	32		3179	161	410		85	44	.944	10	5		trace		2223.36	13.04		5864									
19.46			CHANGED POSITIVE CHOKE TO 42/64.																								
20.00	42		2550	161	410		85	44	.944	10	6		trace		2269.44	13.04		5746									
20.30	42		2600	165	410		90	44	.944	10	7		1 8		2663.52	16.58		6224									
21.00	42		2620	167	410		95	44	.944	10	6		2 8		2598.24	16.320		6281									
21.30	42		2622	167	410		95	44	.944	10	6		1 8		2619.34	16.760		6398									
22.00	42		2624	170	410		96	43	.944	10	4		trace		2454.4	16.71		6808									
22.30	42		2649	170	410		96	43	.944	10	8		1 8		2706.12	16.730		6182									
23.00	42		2649	170	410		98	43	.944	10	8		trace		2409.97	16.750		6950									
23.30	42		2655	172	410		98	43	.944	10	8		trace		2116.58	16.750		7914									
24.00	42		2650	170	410		97	43	.944	10	8		trace		2088.3	16.68		7987									

PERFORATED INTERVAL:

WELL NUMBER 15/8-1
WELL NAME

Otis Field Readings

DATE 17.12.81
DST No. 2

ENGR:	FLOWING CONDITIONS										SAMPLES								OIL	GAS	WATER	GOR
	WELLHEAD		SEPARATOR			OIL GRAVITY					GAS GRAVITY			CO ₂		H ₂ S		MER. CAP. TANS				
TIME	CHOKESIZE	SEPA. RATOR SAMPLES	PRESS PSIG	TEMP ° F	SEPARATOR SHRINK-AGE	OIL T GAST	OIL GRAV. LTY	GAS GRAV. LTY	CO ₂ %	H ₂ S PPM	MER. CAP. TANS PPM	BS & W %	CHLORIDES PH.	METERED BOPD	SEPARATOR FLOW RATE MMSCFD	METERED BWPPD	SCF/bbl					
00.30	42	2	2630	170	410	98	43	.944	10	8	trace	trace	2468.64	16.74			6781					
01.00	42	3	2630	170	410	99	43	.944	10	4	trace	trace	2555.52	16.74			6550					
01.30	42	4	2615	175	410	99	43	.944	10	6	trace	trace	2760.48	16.80			6085					
02.00	42	5	2642	170	410	97	43	.944	10	7	trace	trace	2759.04	16.64			6031					
02.11			APR-N VALVE CLOSED.																			
02.13	0		CLOSED CHOKE. PRESSURE DROPPED 300 PSI. POSITIVE INDICATION APR-N CLOSED. MONITOR SURFACE PRESSURE & TEMPERATURE. FINAL BUILD-UP.																			
02.13			2820	170																		
02.15			2989	170																		
02.16			3089	170																		
02.17			3425	160	MONITOR PRESSURE BETWEEN APR-N VALVE AND SURFACE CHOKE MANIFOLD.																	
02.18			3600	155	(WELL CLOSED IN AT APR-N V/V 02.11 FOR FINAL BUILD-UP.)																	
02.19			3610	155																		
02.20			3575	150																		
02.21			3560	150																		

PERFORATED INTERVAL:

WELL NUMBER 15/8-1
WELL NAME

Otis Field Readings

DATE 17.12.81
DST No. 2

ENGR:	FLOWING CONDITIONS																								
	TIME	CHOKE SIZE	SEPA-RATOR SAMPLES	WELLHEAD			SEPARATOR					SAMPLES							OIL		GAS		WATER		GOR
				PRESS	TEMP	PSIG	PSIG	SHRINK-AGE	OIL T	OIL GRAV-ITY	GAS GRAV-ITY	CO ₂	H ₂ S	MER-CAP-TANS	BS & W	CHLOR-IDES	METERED	SEPARATOR FLOW RATE	METERED	SCF/bbl					
HOURS	64th IN.	TYPE	PSIG	° F	PSIG	DIFF	FACTOR	° F	° API	S.G.	%	PPM	PPM	%	mg/l	BOPD	MSCFD	BWPD							
	1	2	3	4	6	6	7	8	9	10	11	12	13	14	15	16	17	18	19						
	02.22			3502	145																				
	02.23			3500	145																				
	02.24			3495	145																				
	02.25			3470	145																				
	02.30			3362	130																				
	02.35			3252	120																				
	02.40			3210	115																				
	02.45			3132	110																				
	02.50			3072	105																				
	02.55			3005	120																				
	03.00			2970	100																				
	03.15			2900	92																				
	03.30			2769	90																				
	03.45			2730	83																				
	04.00			2640	80																				

PERFORATED INTERVAL:

Otis Field Readings

WELL NUMBER 15/8-1
WELL NAME

DATE 16.12.81
DST No. 2

ENGR:	FLOWING CONDITIONS																						
	TIME	CHOKE SIZE	SEPA-RATOR SAMPLES	WELLHEAD			SEPARATOR			OIL			GAS			SAMPLES			OIL		GAS		WATER
PRESS				TEMP	PSIG	SHRINK-AGE	OIL T	GRAV-ITY	S.G.	CO ₂	H ₂ S	MER-CAP-TANS	BS & W	CHLOR-IDES	METERED BOPD	SEPARATOR FLOW RATE MSCFD	METERED BWPD	SCF/bbl					
HOURS	64th IN.	TYPE	PSIG	* F	PSIG	DIFF	FACTOR	* F	* API	S.G.	%	PPM	PPM	%	mg/l	BOPD	MSCFD	BWPD	SCF/bbl				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19					
04.15			2590	75																			
04.30			2555	72																			
04.45			2490	68																			
05.00			2470	67																			
05.15			2460	65																			
05.30			2440	64																			
05.45			2400	62																			
06.00			2335	60																			
06.15			2350	60																			
06.30			2360	60																			
06.45			2360	60																			
07.00			2360																				
07.15			2320																				
07.30			2315																				
07.45			2310																				

PERFORATED INTERVAL:

Otis Field Readings

WELL NUMBER 15/8-1
WELL NAME

DATE 17.12.81
DST No. 2

ENGR:	FLOWING CONDITIONS																					
	TIME	CHOKE SIZE	SEPA. RATOR SAMPLES	WELLHEAD			SEPARATOR			OIL			GAS			SAMPLES			OIL	GAS	WATER	GOR
				PRESS	TEMP	* F	PSIG	SHRINK. AGE	* F	OIL T. GAST	* API	GAS GRAV. TTY	S.G.	CO ₂	H ₂ S	MER. CAP. TANS	BS & W	CHLOR. IDES PH.				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			
	08.00			2280																		
	08.15			2270																		
	08.30			2225																		
	08.45			2225																		
	09.00			PRESSURE LINE TO D.M.T. PLUGGED. ISOLATE AND DISPLACE WITH MARRIN DECKER FLUID.																		
	09.15			2225	50																	
	09.30			2225	50																	
	09.45			2230	50																	
	10.00			2210	50																	
	10.15			2090	48																	
	10.30			2080	48																	
	10.45			2190	48																	
	11.00			2235	48																	
	11.15			2180	48																	
	11.30			2180	48																	

PERFORATED INTERVAL:

Otis Field Readings

WELL NUMBER 15/8-1
WELL NAME

DATE 17.12.81
DST No. 2

ENGR:	FLOWING CONDITIONS																						
	TIME	CHOKE SIZE	SEPA. RATOR SAMPLES	WELLHEAD					SEPARATOR					SAMPLES					OIL	GAS	WATER	GOR	
				PRESS	TEMP	PSIG	* F	PSIG	SHRINK-AGE	OIL T	* F	* API	GAS GRAV. ITY	S.G.	CO ₂	H ₂ S	PPM	MER. CAP. TANS					PPM
HOURS	4in IN.	TYPE	PSIG	* F	PSIG	DIFF	FACTOR	* F	* API	S.G.	%	PPM	PPM	%	mg/l	BOPD	MSCFD	BWPD	SCF/bbl				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19				
	1.45			2219	48																		
	2.00			2200	48																		
	2.15			2050	46																		
	2.30			2000	45																		
	2.45			2059	45																		
	13.00			2100	45																		
	13.15			2100	45																		
	13.30			2100	45																		
	13.45			1950	45																		
	14.00			2000	43																		
	14.15			2250	43																		
	14.30			2150	42																		
	14.45			2150	42																		
	15.00			2189	42																		
	15.30			2189																			

PERFORATED INTERVAL:

WELL NUMBER 15/8-1
WELL NAME

Otis Field Readings

DATE 17.12.81
DST No. 2

ENGR:	FLOWING CONDITIONS													SAMPLES						OIL			GAS	WATER	GOR
	TIME	CHOKE SIZE	SEPA-RATOR SAMPLES	WELLHEAD			SEPARATOR			OIL T		OIL GRAY-ITY		GAS GRAY-ITY		CO ₂	H ₂ S	MER-CAP-TANS	BS & W	CHLOR-IDES		METERED BOPD	SEPARATOR FLOW RATE MSCFD	METERED BWPD	SCF/bbl
PRES				TEMP	PRES DIFF	SHRINK-AGE	FACTOR	* F	* F	* API	S.G.	%	PPM	PPM	%	PH.									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19						
	5.45			2189																					
	16:00			2100	43																				
	17:00			NO READINGS AVAILABLE. D.W.T. LINE PLUGGED.																					
	17.15			2050	43																				
	17.30			2050																					
	17.45			2050																					
	18.00			2050	44																				
	18.30			2050																					
	19.00			2060	44																				
	19.30			2060	44																				
	20.00			LEAK ON DATA HEADER NEEDLE VALVE. CLOSE FAILSAFE VALVE.																					
	20.05			BLEED OFF PRESSURE AT CHOKE TO BURNER																					
	20.20			LEAK REPAIRED. RE-OPEN FAILSAFE VALVE.																					
	20.21			2020	44																				
	20.30			2020	44																				

PERFORATED INTERVAL:

Otis Field Readings

WELL NUMBER 15/8-1

DATE 17.12.81
DST No. 2

ENGR: _____

TIME	CHOKE SIZE	SEPA. RATOR SAMPLES	FLOWING CONDITIONS										SAMPLES											
			WELLHEAD		SEPARATOR				OIL				GAS				OIL		GAS		WATER		GOR	
			PRESS	TEMP	PRESS DIFF	SHRINK-AGE	OIL T GAST	GRAV. ITY	GRAV. ITY	CO ₂	H ₂ S	MER. CAP. TANS	BS & W	CHLOR. IDES RH.	METERED BOPD	SEPARATOR FLOW RATE MSCFD	METERED BWPD	SCF/bbl						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19						
L.00			2020	44																				
L.30			2020	44																				
2.00			2020	44																				
2.30			2020	44																				
3.00			2020																					
3.02	40		OPEN ON 40/64 CHOKE. BLEED OFF GAS TO BURNER.																					
3.08	48																							
3.15	0		CLOSED CHOKE PRESSURE BLEED TO 900 PSI. CLOSE HATS SAFE VALVE.																					
3.18			OPEN KILL VALVE. START PUMPING MUD DOWN SPRING.																					
3.45			FINISHED PUMPING 56 BBLs PUMPED. TOTAL PRESSURE ANNULUS TO OPEN APR-N.																					
3.50			LOST ANNULUS PRESSURE.																					
18.12			CHANGED MUD PUMPS. RE-PRESSURED ANNULUS TO OPEN APR-N 1800 PSI.																					
20.02			START TO PUMP DOWN SPRING.																					
20.12																								
20.26			BLEED OFF ANNULUS PRESSURE. APR-N NOT OPEN.																					
00.38			PRESSURE ANNULUS TO 1950 PSI. APR-N OPEN.																					

PERFORATED INTERVAL:

Otis Field Readings

WELL NUMBER 15/8-1
WELL NAME

DATE 18.12.81
DST No. 2

ENGR:	FLOWING CONDITIONS															SAMPLES			OIL	GAS	WATER	GOR		
	TIME	CHOKE SIZE	SEPA. RATOR SAMPLES	WELLHEAD			SEPARATOR			OIL GRAV. ITY	GAS GRAV. ITY	CO ₂	H ₂ S	MER. CAP. TANS	BS & W	CHLORIDES PH.	METERED BOPD	SEPARATOR FLOW RATE MSCFD					METERED BWPD	SCF/bbl
				PRESS	TEMP	PSIG	SHRINK-AGE	OIL T	GAS T															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19					
	10.40			START BULL-HEADING TO FORMATION.																				
	10.52			BLEED OFF GAS TRAPPED IN FLOW LINE AT CHOKE.																				
	11.37			FINISHED BULL-HEADING.																				
	11.38			PRESSURE ANNULUS TO SHEAR APR-N REV. CIRC. VALVE. COMMENCE REV. CIRC.																				
	12.50			FINISHED REV. CIRC.																				
	12.57			UNSEATED R.T.T.S. PACKER																				
	13.00			RIG DOWN SURFACE FLOW LINES.																				
	14.00			RIG DOWN FLOW LINE MANIFOLD.																				
	15.00			BREAK OUT S.T.T. SET IN MOUSEHOLE.																				
	16.00			LAID DOWN S.T.T. ON CATWALK.																				
	16.15			START CIRCULATING CONDITIONING MUD UNDER PACKER.																				

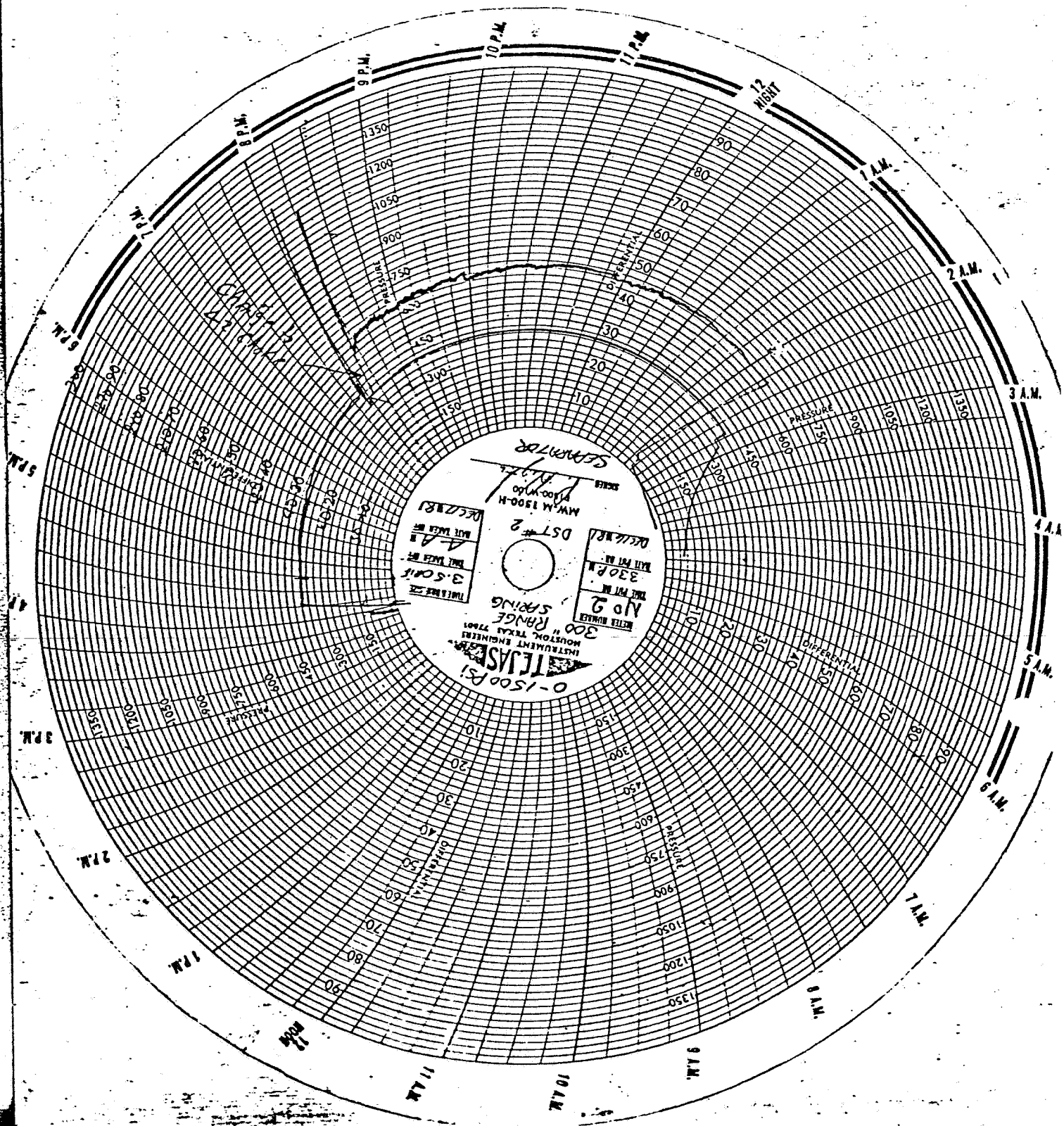
PERFORATED INTERVAL:

Pf: 0-1500 PSI

hw: 0-300" H₂O

RANGE

SEPARATOR CHARTS



OTIS OIL FLOW RATE CALCULATIONS - METER MEASUREMENTS

DEC-1987

TEST NUMBER DST 2 RATE NUMBER AREA SLEIPNER DATE (DAY MONTH) 16.12.81 PAGE OF 1 2

CUSTOMER ESSO EXPLORATION & PROD. NORWAY WELL NAME OR NUMBER 15/8-1 METER CALIBRATED WITH TANK DURING TEST YES NO GIVE DETAILS OF CALIBRATION

DAY TIME (24HR CLOCK)	FLOW TIME (HOURS)	TOTAL OF FIELD METER READINGS #1 + #2 (BBLS)	VOLUME BY METERS(S) SINCE LAST READING V _m (BBLS)	MEASURED CORRECTION FACTOR C ₁ = M/W ₁	METER FACTOR M	WEATHERING FACTOR W ₁	OIL METER TEMP. (°F)	K FROM ASTM TABLES	BSW (%)	CORRECTED VOLUME V ₀ = V _m C ₁ K(1 - BSW/100) (STO BBLS)	CORRECTED OIL FLOW RATE Q ₀ (STO BPD)	CORRECTED GAS FLOW RATE FROM CALC. FORM Q ₀ (MSCF/D)	GOR (SCF/STO BBL)
16.12			DIRECTED FLOW THROUGH SEPARATOR.										
16.15	00.25	33.2	33.2	.89			76	.9920	1	29.31	2813.9	12.950	4602
16.30	00.50	55.9	22.7	.89			76	.9920	1	20.04	1923.97	12.870	6689
17.00	01.00	109.9	54.0	.89			76	.9920	trace	47.68	2288.42	12.850	5615
17.30													
FLOW TO TANK TO OBTAIN A METER FACTOR.													
17.30	01.50	163.0	53.1	.89			76	.9920	2	46.88	2250.28	12.850	5754
18.00	02.00	216.0	53.0	.89			80	.9901	2	46.70	2241.74	12.980	5790
18.30	02.50	269.5	53.5	.89			82	.9891	2	47.09	2260.61	13.080	5786
19.00	03.00	322.9	53.4	.89			82	.9891	trace	47.00	2256.0	13.080	5797
19.30	03.50	375.6	52.7	.89			85	.9876	trace	46.32	2223.36	13.040	5864
20.00	04.00	429.4	53.8	.89			85	.9876	trace	27.28	2269.44	13.040	5746
20.30	04.50	492.7	63.3	.89			90	.9851	1	55.49	2663.52	16.580	6224
21.00	05.00	554.6	61.9	.89			95	.9826	2	54.13	2598.24	16.320	6281
21.30	05.50	617.0	62.4	.89			95	.9826	1	54.57	2619.34	16.760	6398
22.00	06.00	675.5	58.5	.89			96	.9821	trace	51.13	2454.4	16.710	6808
22.30	06.50	740.0	64.5	.89			96	.9821	1	56.37	2706.12	16.730	6182
23.00	07.00	797.5	57.5	.89			98	.9811	trace	50.20	2409.97	16.750	6950
23.30	07.50	848.3	50.5	.89			98	.9811	1	44.09	2116.58	16.750	7914
24.00	08.00	898.1	49.8	.89			97	.9816	trace	43.5	2088.3	16.68	7087



GAS FLOW RATE CALCULATIONS

TEST NUMBER

DST 2

RATE NUMBER

1

AREA

SLEIPNER

WELL NAME OR NUMBER

15/8-1

DATE (DAY, MO, YR)

16.12.81

PAGE

1

OF

CUSTOMER: ESSO EXPLORATION & PROD. NORWAY
 METER TYPE: DANIELS
 METER RUN SIZE (INCHES): 5.761
 FLOW RECORDER TYPE: BARTON
 STANDARD CONDITIONS: 14.73 PSI 60°F OTHER
 HW RANGE (INCHES WATER): 0-300
 STATIC PRESS RANGE (PSI): 0-1500
 ATM. PRESS: P_a =
 T_a =
 MEAS. EST. 0,944
 GAS SPECIFIC GRAVITY: G = 24.7016

DAY TIME (24HR CLOCK)	FLOW TIME (HOURS)	STATIC PRESSURE P _f (PSIA)	DIFFERENTIAL PRESSURE h _w (INCHES WATER)	DOWN STREAM GAS TEMP. (°F)	ORIFICE SIZE D (INCHES)	C ₂ = F _b X F _U X F _{pv} X F _{v2}				C ₂	C (C-C ₁ X C ₂)	CORRECTED GAS FLOW RATE Q _g = C √(h _w P _f) (MM MSCFD)
						F _b	F _U	F _{pv}	F _{v2}			
16.12.00.25	00.25	405	78	78	3.5	2695.1	.9831	1.1011	1.0010	2920.43	72837.1	12.95
16.30.00.50	00.50	405	78	82	3.5	2695.1	.9795	1.0984	1.0010	2902.5	72389.8	12.87
17.00.01.00	01.00	405	78	82	3.5	2695.1	.9795	1.105	1.0010	2910.81	72285.5	12.85
17.30.01.50	01.50	415	78	86	3.5	2695.1	.9759	1.1012	1.0010	2899.33	72000.4	12.95
18.00.02.00	02.00	420	78	88	3.5	2695.1	.9741	1.1051	1.0010	2904.24	71739.3	12.98
18.30.02.50	02.50	425	78	88	3.5	2695.1	.9741	1.1064	1.0010	2987.45	71818.6	13.08
19.00.03.00	03.00	425	78	88	3.5	2695.1	.9741	1.1064	1.0010	2987.45	71818.6	13.08
19.30.03.50	03.50	425	78	90	3.5	2695.1	.9723	1.105	1.0010	2898.47	71596.9	13.04
20.00.04.00	04.00	425	78	90	3.5	2695.1	.9723	1.105	1.0010	2898.47	71596.9	13.04
20.30.04.50	04.50	425	126	90	3.5	2695.1	.9723	1.105	1.0016	2900.22	71640.19	16.58
21.00.05.00	05.00	425	124	95	3.5	2695.1	.9680	1.1016	1.0016	2878.14	71094.78	16.32
21.30.05.50	05.50	425	132	98	3.5	2695.1	.9653	1.0996	1.0017	2865.52	70782.9	16.76
22.00.06.00	06.00	425	132	100	3.5	2695.1	.9636	1.0983	1.0017	2857.03	70573.3	16.71
22.30.06.50	06.50	425	133	102	3.5	2695.1	.9619	1.0970	1.0017	2848.67	70366.28	16.73
23.00.07.00	07.00	425	135	106	3.5	2695.1	.9585	1.0945	1.0017	2832.22	69960.46	16.75
23.30.07.50	07.50	425	135	106	3.5	2695.1	.9585	1.0945	1.0017	2832.22	69960.46	16.75
24.00.08.00	08.00	425	133	104	3.5	2695.1	.9602	1.0958	1.0017	2840.36	70161.63	16.68
00.30.08.50	08.50	425	134	104	3.5	2695.1	.9602	1.0958	1.0017	2840.36	70161.63	16.68

BOTTOM HOLE PRESSURE REPORT

o/s

DEC-084

CUSTOMER NO. **ESSO EXPLORATION**

TEST NUMBER **D.S.T. 2**
WELL NAME OR NUMBER **15/8-1**

RUN NUMBER **1**

AREA **NORTH SEA**
INTERVAL TESTED (FT.)

DEVIATED HOLET
YES NO

DATE (DAY MO. YR.)

PAGE **1** OF **10**
KB ELEV. (FT.) / GRN ELEV. / WATER REF. ELEV. (FT.)

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (PSI)	INNER HOUSING NO.	CHART TIME RANGE (HRS.)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION S + P _g	DEPTH SET (FEET)
	0 - 15000	10640	120	002	7694.2887	- 7.7	

LOWER GAUGE

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (PSI)	INNER HOUSING NO.	CHART TIME RANGE (HRS.)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION S + P _g	DEPTH SET (FEET)
30797	0 - 15000	10640	120	002	7694.2887	- 7.7	

BOTTOM HOLE PRESSURES

DAY TIME	UPPER GAUGE				LOWER GAUGE				SURFACE CONDITIONS		REMARKS	
	FLOW OR SHUT-IN DURATION (HOURS)	TIME DEFLECTION (INCHES)	PRESSURE DEFLECTION (INCHES)	NON-LINEAR CONNECTION C _L (PSI)	BOTTOM HOLE PRESSURE P-KY+P _g +P _g (PSIG)	TIME DEFLECTION (INCHES)	PRESSURE REFLECTIVE Y (INCHES)	NON-LINEAR CONNECTION C _L (PSI)	BOTTOM HOLE PRESSURE P-KY+P _g +P _g (PSIG)	WELLHEAD PRESSURE DWT (PSIG)		CHOKER SIZE (64N INCH)
11.00						0.000	0.840		6455.5	1065	20	APR-N OPEN.
11.05						0.003	0.962		7394.2	1095	20	CLOSED APR-N.
11.10						0.007	0.978		7517.3			
11.15						0.010	0.980		7532.7	160		
11.20						0.013	0.980		7532.7	150		
11.25						0.017	0.980		7532.7	145		
11.30						0.020	0.980		7532.7	140		
11.35						0.023	0.981		7540.4	137		
11.40						0.027	0.981		7540.4	130		
11.45						0.031	0.981		7540.4	125		
11.50						0.034	0.981		7540.4	122		
11.55						0.037	0.981		7540.4	120		
						0.041	0.981		7540.4	118		

INITIAL HYDROSTATIC.

DTIS **BOTTOM HOLE PRESSURE REPORT**



DEC-984

CUSTOMER: ESSO EXPLORATION

TEST NUMBER	D.S.T. 2	RUN NUMBER	1	AREA	NORTH SEA	DEVIATED HOLET	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	DATE (DAY MO. YR.)	PAGE	OF
WELL NAME OR NUMBER	15/8-1	INTERVAL TESTED (FT.)		KB ELEV. (FT.)	GRN. ELEV. / WATER REF. ELEV. (FT.)				2	10

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (PSI)	INNER HOUSING NO.	CHART TIME RANGE (HRS.)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION B + P ₀	DEPTH SET (FEET)
30797	0 - 15000	10640	120	002	7694.2887	- 7.7	

LOWER GAUGE

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (PSI)	INNER HOUSING NO.	CHART TIME RANGE (HRS.)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION B + P ₀	DEPTH SET (FEET)
30797	0 - 15000	10640	120	002	7694.2887	- 7.7	

BOTTOM HOLE PRESSURES

TIME	UPPER GAUGE				LOWER GAUGE				SURFACE CONDITIONS		REMARKS
	DAY	TIME	DEFLECTION	PRESSURE	TIME	DEFLECTION	PRESSURE	NON-LINEAR CORRECTION	WELLHEAD PRESSURE	CHOKE SIZE	
24 HR. (G.O.M.)	FLOW OR SHUT-IN DURATION (HOURS)	(INCHES)	(INCHES)	NON-LINEAR CORRECTION C ₁ * (PSI)	(INCHES)	(INCHES)	(PSI)	(PSI)	(PSI)	(RAIN INCH)	
12.05					0.048	0.981	7540.4	117			
12.10					0.051	0.981	7540.4	115			
12.15					0.054	0.981	7540.4	115			
12.20					0.057	0.981	7540.4	114			
12.25					0.061	0.981	7540.4				APR-N OPEN.
12.30					0.065	0.893	6863.3	1015			
12.35					0.068	0.946	7271.1	1214	50		
12.40					0.072	0.926	7117.2	1125	30		
12.45					0.075	0.923	7094.1				
12.50					0.079	0.931	7155.7	1705	85		
12.55					0.082	0.947	7278.8	2077	96		
13.00					0.085	0.946	7271.1				
13.05					0.089	0.952	7371.3				
13.10					0.092	0.963	7401.9				

DEC-984

CUSTOMER ESSO EXPLORATION

TEST NUMBER D.S.T. 2
WELL NAME OR NUMBER 15/8-1

RUN NUMBER 1

AREA NORTH SEA
INTERVAL TESTED (FT.)

DEVIATED HOLE? YES NO
KB ELEV. (FT.) / GRN ELEV. / WATER REF. ELEV. (FT.)

DATE (DAY MO. YR.)

PAGE OF 4 | 10

PRESS. ELEMENT NO. PRESS. ELEMENT RANGE (PSI) INNER HOUSING NO. CHART TIME RANGE (HRS.) CALIBRATION NO. CALIBRATION MODULUS - K CALIBRATION B + P₀ DEPTH SET (FEET)

PRESS. ELEMENT NO. PRESS. ELEMENT RANGE (PSI) INNER HOUSING NO. CHART TIME RANGE (HRS.) CALIBRATION NO. CALIBRATION MODULUS - K CALIBRATION B + P₀ DEPTH SET (FEET)

PRESS. ELEMENT NO. PRESS. ELEMENT RANGE (PSI) INNER HOUSING NO. CHART TIME RANGE (HRS.) CALIBRATION NO. CALIBRATION MODULUS - K CALIBRATION B + P₀ DEPTH SET (FEET)

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PRESS. ELEMENT NO. PRESS. ELEMENT RANGE (PSI) INNER HOUSING NO. CHART TIME RANGE (HRS.) CALIBRATION NO. CALIBRATION MODULUS - K CALIBRATION B + P₀ DEPTH SET (FEET)

PRESS. ELEMENT NO. PRESS. ELEMENT RANGE (PSI) INNER HOUSING NO. CHART TIME RANGE (HRS.) CALIBRATION NO. CALIBRATION MODULUS - K CALIBRATION B + P₀ DEPTH SET (FEET)

TIME	UPPER GAUGE				LOWER GAUGE				SURFACE CONDITIONS		REMARKS
	TIME OF START QUANTUM (HOURS)	TIME DEFLECTION (INCHES)	PRESSURE DEFLECTION Y (INCHES)	NON-LINEAR CONNECTION CL (PSI)	BOTTOM HOLE PRESSURE P-KY+P ₀ +C ₀ (PSIG)	TIME DEFLECTION (INCHES)	PRESSURE DEFLECTION Y (INCHES)	NON-LINEAR CONNECTION CL (PSI)	BOTTOM HOLE PRESSURE P-KY+P ₀ +C ₀ (PSIG)	WELLHEAD PRESSURE DWT (PSIG)	
14.35						0.150	0.928		7132.6		
14.40						0.154	0.928		7132.6		
14.45						0.157	0.929		7140.3	3024	32
14.50						0.161	0.929		7140.3		
14.55						0.164	0.929		7140.3		
15.00						0.168	0.930		7147.9	3035	32
15.15						0.178	0.930		7147.9	3055	32
15.30						0.188	0.930		7147.9	3059	32
15.45						0.198	0.930		7147.9	3070	32
16.00						0.209	0.930		7147.9	3069	32
16.15						0.219	0.930		7147.9	3082	32
16.30						0.229	0.930		7147.9	3092	32
16.45						0.239	0.930		7147.9		
17.00						0.250	0.931		7155.7	3098	32

DEC-984

CUSTOMER ESSO EXPLORATION

TEST NUMBER	D.S.T. 2	RUN NUMBER	1	AREA	NORTH SEA	DEVIATED HOLE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	DATE (DAY MO. YR.)	5 / 10
WELL NAME OR NUMBER	15/8-1	INTERVAL TESTED (FT.)		KB ELEV. (FT.)		GRN ELEV. / DEPTH (FT.)		WATER REF. ELEV. (FT.)	

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (PSI)	INNER HOUSING NO.	CHART TIME RANGE (HRS.)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION S + P	DEPTH SET (FEET)
30797	0 - 15000	10640	120	002	7694.2887	- 7.7	

UPPER GAUGE

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (PSI)	INNER HOUSING NO.	CHART TIME RANGE (HRS.)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION S + P	DEPTH SET (FEET)
30797	0 - 15000	10640	120	002	7694.2887	- 7.7	

BOTTOM HOLE PRESSURES

DAY TIME	FLOW OR SHUT-IN DURATION (HOURS)	UPPER GAUGE				LOWER GAUGE				SURFACE CONDITIONS		REMARKS
		TIME DEFLECTION (INCHES)	PRESSURE DEFLECTION Y (INCHES)	NON-LINEAR CONNECTION C _L (PSI)	BOTTOM HOLE PRESSURE P-KY+P+P ₀ (PSIG)	TIME DEFLECTION (INCHES)	PRESSURE DEFLECTION Y (INCHES)	NON-LINEAR CONNECTION C _L (PSI)	BOTTOM HOLE PRESSURE P-KY+P+P ₀ (PSIG)	WELLHEAD PRESSURE BX BWI (PSIG)	CHOKER SIZE (44IN INCH)	
17.30						0.270	0.931		7155.7	3112	32	
17.45						0.280	0.931		7155.7			
18.00						0.291	0.931		7155.7	3127	32	
18.15						0.301	0.931		7155.7			
18.30						0.311	0.931		7155.7	3160	32	
18.45						0.322	0.933		7171.1			
19.00						0.332	0.933		7171.1	3209	32	
19.15						0.342	0.933		7171.1			
19.30						0.352	0.933		7171.1	3179	32	
19.45						0.362	0.933		7171.1			
19.46						0.365	0.921		7078.7			CHANGED TO 42/64" CHOKER.
19.50						0.369	0.921		7078.7			
19.55						0.372	0.921		7078.7			
20.00						0.375	0.921		7078.7	2550	42	



BOTTOM HOLE PRESSURE REPORT

DEC-984

CUSTOMER
ESSO EXPLORATION

TEST NUMBER
D.S. # 2
WELL NAME OR NUMBER
15/8-1

RUN NUMBER
1

AREA
NORTH SEA
INTERVAL TESTED (FT.)

DEVIATED HOLE? YES NO
KB ELEV. (FT.)

DATE (DAY MO. YR.)

PAGE 6 OF 10
WATER REF. ELEV. (FT.)

PRESS. ELEMENT NO. PRESS. ELEMENT RANGE (PSI) INNER HOUSING NO. CHART TIME RANGE (HRS.) CALIBRATION NO. CALIBRATION MODULUS - K CALIBRATION B + P_g DEPTH SET (FEET)

PRESS. ELEMENT NO. PRESS. ELEMENT RANGE (PSI) INNER HOUSING NO. CHART TIME RANGE (HRS.) CALIBRATION NO. CALIBRATION MODULUS - K CALIBRATION B + P_g DEPTH SET (FEET)

BOTTOM HOLE PRESSURES

TIME	UPPER GAUGE				LOWER GAUGE				SURFACE CONDITIONS		REMARKS	
	FLW OR SHUT-IN DURATION (HOURS)	TIME DEFLECTION (INCHES)	PRESSURE DEFLECTION (INCHES)	NON-LINEAR CONNECTION C _L (PSI)	BOTTOM HOLE PRESSURE P-K1+P _g +C _L (PSIG)	TIME DEFLECTION (INCHES)	PRESSURE DEFLECTION (INCHES)	NON-LINEAR CONNECTION C _L (PSI)	BOTTOM HOLE PRESSURE P-K1+P _g +C _L (PSIG)	WELLHEAD PRESSURE (PSIG)		CHOKE SIZE (44IN INCH)
20.10			Y			0.382	0.922		7086.4			
20.15						0.385	0.922		7086.4			
20.20						0.389	0.922		7086.4			
20.25						0.392	0.922		7086.4			
20.30						0.395	0.922		7086.4	2600	42	
20.45						0.405	0.922		7086.4			
21.00						0.415	0.922		7086.4	2620	42	
21.15						0.425	0.922		7086.4			
21.30						0.435	0.922		7086.4	2622	42	
21.45						0.445	0.922		7086.4			
22.00						0.445	0.922		7086.4	2624	42	
22.15						0.455	0.922		7086.4			
22.30						0.465	0.922		7086.4	2649	42	
22.45						0.475	0.922		7086.4			

OTIS
ofc.

OEC-984

BOTTOM HOLE PRESSURE REPORT

CUSTOMER	TEST NUMBER	RUN NUMBER	AREA	DEVIATED HOLES?	DATE (DAY MO. YR.)	PAGE	OF
ESSO EXPLORATION	D.S.T. 2	1	NORTH SEA	YES <input checked="" type="checkbox"/> NO		7	10
WELL NAME OR NUMBER	INTERVAL TESTED (FT.)	KB ELEV. (FT.)	GRN ELEV. / WATER REF. ELEV. (FT.)				
15/8-1							

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (PSI)	INNER HOUSING NO.	CHART TIME RANGE (HRS.)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION a + P ₀	DEPTH SET (FEET)
30797	0 - 15000	10640	120	002	7694.2887	- 7.7	

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (PSI)	INNER HOUSING NO.	CHART TIME RANGE (HRS.)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION a + P ₀	DEPTH SET (FEET)
30797	0 - 15000	10640	120	002	7694.2887	- 7.7	

BOTTOM HOLE PRESSURES

DAY TIME	FLOW OR SHUT-IN DURATION (HOURS)	UPPER GAUGE				LOWER GAUGE				SURFACE CONDITIONS		REMARKS			
		TIME DEFLECTION (INCHES)	PRESSURE DEFLECTION Y (INCHES)	NON-LINEAR CORRECTION C _L [*] (PSI)	BOTTOM HOLE PRESSURE P-KY+P ₀ +C _L (PSI)	TIME DEFLECTION (INCHES)	PRESSURE DEFLECTION Y (INCHES)	NON-LINEAR CORRECTION C _L [*] (PSI)	BOTTOM HOLE PRESSURE P-KY+P ₀ +C _L (PSI)	WELLHEAD PRESSURE X DWT (PSIG)	CHOK SIZE (44th INCH)				
23.15						0.495	0.922		7086.4						
23.30						0.505	0.922		7086.4	2655	42				
23.45						0.515	0.922		7086.4						
00.00						0.525	0.922		7086.4	2650	42				
00.15						0.535	0.922		7086.4						
00.30						0.545	0.922		7086.4	2630	42				
00.45						0.555	0.922		7086.4						
01.00						0.565	0.922		7086.4	2630	42				
01.15						0.575	0.922		7086.4						
01.30						0.585	0.922		7086.4	2615	42				
01.45						0.595	0.922		7086.4						
02.00						0.605	0.922		7086.4	2642	42				
02.11						0.608	0.942		7240.3						SHUT IN WELL.
02.15						0.611	0.962		7394.2	2989					

BOTTOM HOLE PRESSURE REPORT

OTIS
Oil
DEC-984

CUSTOMER
ESSO EXPLORATION

TEST NUMBER: **D.S.T. 2** RUN NUMBER: **1** AREA: **NORTH SEA**
WELL NAME OR NUMBER: **15/8-1** INTERVAL TESTED (FT.):
DEVIATED HOLE? YES NO DATE (DAY MO. YR.):
KB ELEV. (FT.): GRN ELEV. / WATER REF. ELEV. (FT.):
PAGE **8** OF **10**

PRESS. ELEMENT NO. PRESS. ELEMENT RANGE (PSI) INNER HOUSING NO. CHART TIME RANGE (HRS.) CALIBRATION NO. CALIBRATION MODULUS - K CALIBRATION B + P₀ DEPTH SET (FEET)

PRESS. ELEMENT NO. PRESS. ELEMENT RANGE (PSI) INNER HOUSING NO. CHART TIME RANGE (HRS.) CALIBRATION NO. CALIBRATION MODULUS - K CALIBRATION B + P₀ DEPTH SET (FEET)

BOTTOM HOLE PRESSURES

TIME	UPPER GAUGE				LOWER GAUGE				SURFACE CONDITIONS		REMARKS			
	FLOW OR SHUT-IN DURATION (HOURS)	TIME DEFLECTION (INCHES)	PRESSURE DEFLECTION (INCHES)	NON-LINEAR CORRECTION C _L * (PSI)	BOTTOM HOLE PRESSURE P-KY+P+P ₀ (PSIG)	TIME DEFLECTION (INCHES)	PRESSURE DEFLECTION (INCHES)	NON-LINEAR CORRECTION C _L * (PSI)	BOTTOM HOLE PRESSURE P-KY+P+P ₀ (PSIG)	WELLHEAD PRESSURE <input checked="" type="checkbox"/> DWT (PSIG)		CHOKES SIZE (64th INCH)		
02.25						0.618	0.972		7471.1			3470		
02.30						0.621	0.972		7471.1			3362		
02.35						0.624	0.972		7471.1			3252		
02.40						0.628	0.972		7471.1			3210		
02.45						0.631	0.972		7471.1			3132		
03.00						0.641	0.972		7471.1			2970		
03.15						0.651	0.972		7471.1			2900		
03.30						0.661	0.972		7471.1			2769		
03.45						0.671	0.972		7471.1			2730		
04.00						0.681	0.972		7471.1			2640		
04.15						0.691	0.972		7471.1			2590		
04.30						0.701	0.972		7471.1			2555		
04.45						0.711	0.972		7471.1			2490		
05.00						0.721	0.972		7471.1			2470		

BOTTOM HOLE PRESSURE REPORT

DEC-99A

CUSTOMER
ESSO EXPLORATION

TEST NUMBER
D.S.T.2

RUN NUMBER
1

AREA
NORTH SEA

DEVIATED HOLE? YES NO

DATE (DAY MO. YR.)

PAGE 10 OF 10

WELL NAME OR NUMBER
15/8-1

INTERVAL TESTED (FT.)

KB ELEV. (FT.) / GRN ELEV. (FT.) / WATER REF. ELEV. (FT.)

UPPER GAUGE

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (PSI)	INNER HOUSING NO.	CHART TIME RANGE (HRS.)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION B + P ₀	DEPTH SET (FEET)

LOWER GAUGE

PRESS. ELEMENT NO.	PRESS. ELEMENT RANGE (PSI)	INNER HOUSING NO.	CHART TIME RANGE (HRS.)	CALIBRATION NO.	CALIBRATION MODULUS - K	CALIBRATION B + P ₀	DEPTH SET (FEET)
30797	0 - 15000	10640	120	002	7694.2887	- 7.7	

BOTTOM HOLE PRESSURES

DAY TIME TIME (GLOB)	UPPER GAUGE				LOWER GAUGE				SURFACE CONDITIONS		REMARKS	
	FLOW OR SHUT-IN DURATION (HOURS)	TIME DEFLECTION (INCHES)	PRESSURE REFLECTION (INCHES)	NON-LINEAR CONNECTION C _L (PSI)	BOTTOM HOLE PRESSURE P-KT+P ₀ +C _L (PSIG)	TIME DEFLECTION (INCHES)	PRESSURE REFLECTION (INCHES)	NON-LINEAR CONNECTION C _L (PSI)	BOTTOM HOLE PRESSURE P-KT+P ₀ +C _L (PSIG)	WELLHEAD PRESSURE (PSIG)		CHOKE SIZE (44IN INCH)
13.00			Y	C _L	1.041	0.972		C _L	7471.1	2100		
14.00					1.081	0.972			7471.1	2000		
15.00					1.121	0.972			7471.1	2189		
16.00					1.161	0.972			7471.1	2100		
17.00					1.201	0.972			7471.1			
18.00					1.241	0.972			7471.1	2050		
19.00					1.281	0.972			7471.1	2060		
20.00					1.321	0.972			7471.1			
21.00					1.361	0.972			7471.1	2020		
22.00					1.761	0.972			7471.1	2020		
23.00					1.801	0.972			7471.1	2020		END OF BUILD UP.