

Denne rapport  
tilhører

 **STATOIL**

**LTEK DOK.SENTER**

L.NR. 12483030007

KODE Well 1/9-6 nr22

Returneres etter bruk

# Formation testing service report

1/9  
LEASE NAME

6  
WELL NO.

4  
TEST NO.

3417.1 - 3459.1  
TESTED INTERVAL

PHILLIPS PETROLEUM COMPANY NORWAY  
LEASE OWNER/COMPANY NAME



**HALLIBURTON**  
MANUFACTURING & SERVICES LTD.  
REGISTERED IN ENGLAND



TICKET NO. 00374600  
20-DEC-82  
TANANGER

# FORMATION TESTING SERVICE REPORT

LEASE NAME	1/9	WELL NO.	6	TEST NO.	4	TESTED INTERVAL	3417. - 3459.	PHILLIPS PETROLEUM COMPANY NORWAY
LEGAL LOCATION SEC. - TWP. - RANG.		FIELD AREA	TOMMELTEN	COUNTY	NORWAY	STATE	NORTH SEA	LEASE OWNER/COMPANY NAME

GAUGE NO: 165 DEPTH: 11109.6 BLANKED OFF: NO HOUR OF CLOCK: 120

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		7537.6			
B	INITIAL SURFACE CLOSURE		4735.2			
C	FINAL SURFACE CLOSURE		6919.4	8	11	
D	INITIAL FIRST FLOW		6919.4			
E	FINAL FIRST FLOW		4058.4	23	24	F
E	INITIAL FIRST CLOSED-IN		4058.4			
F	FINAL FIRST CLOSED-IN		6942.7	91	98	C
G	INITIAL SECOND FLOW		6942.7			
H	FINAL SECOND FLOW		1079.8	302	294	F
H	INITIAL SECOND CLOSED-IN		1079.8			
I	FINAL SECOND CLOSED-IN		6838.7	2938	2951	C
J	INITIAL ACID JOB		6838.7			
K	FINAL ACID JOB		8104.7	127	127	
K	INITIAL BLEED DOWN		8104.7			
L	FINAL BLEED DOWN		7532.8	311	312	
M	INITIAL THIRD FLOW					
N	FINAL THIRD FLOW			688		F
N	INITIAL THIRD CLOSED-IN					
O	FINAL THIRD CLOSED-IN			1499		C

GAUGE NO: 700 DEPTH: 11109.6 BLANKED OFF: NO HOUR OF CLOCK: 144

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		7557.4			
B	INITIAL SURFACE CLOSURE		4765.6			
C	FINAL SURFACE CLOSURE		6938.0	8	11	
D	INITIAL FIRST FLOW		6938.0			
E	FINAL FIRST FLOW		4073.4	23	24	F
E	INITIAL FIRST CLOSED-IN		4073.4			
F	FINAL FIRST CLOSED-IN		6950.4	91	98	C
G	INITIAL SECOND FLOW		6950.4			
H	FINAL SECOND FLOW		1040.5	302	294	F
H	INITIAL SECOND CLOSED-IN		1040.5			
I	FINAL SECOND CLOSED-IN		6878.3	2938	2951	C
J	INITIAL ACID JOB		6878.3			
K	FINAL ACID JOB		8109.2	127	127	
K	INITIAL BLEED DOWN		8109.2			
L	FINAL BLEED DOWN		7305.4	311	312	
M	INITIAL THIRD FLOW		7305.4			
N	FINAL THIRD FLOW		5421.7	688	681	F
N	INITIAL THIRD CLOSED-IN		5421.7			
O	FINAL THIRD CLOSED-IN		6189.1	1499	520	C

# EQUIPMENT & HOLE DATA

FORMATION TESTED: DANIAN  
 NET PAY (ft): 3416.6  
 GROSS TESTED FOOTAGE: 42.7  
 ALL DEPTHS MEASURED FROM: RKB  
 CASING PERFS. (ft): 11210-11240 MD  
 HOLE OR CASING SIZE (in): 1.000  
 ELEVATION (ft): 26  
 TOTAL DEPTH (ft): 3490.0  
 PACKER DEPTH(S) (ft): \_\_\_\_\_  
 FINAL SURFACE CHOKE (in): 0.375  
 BOTTOM HOLE CHOKE (in): 2.250  
 MUD WEIGHT (lb/gal): 13.30  
 MUD VISCOSITY (sec): 65  
 ESTIMATED HOLE TEMP. (°F): 260  
 ACTUAL HOLE TEMP. (°F): 240 @ 11109.6 ft

TICKET NUMBER: 00374600  
 DATE: 11/19/82 TEST NO: 4  
 TYPE DST: CASED HOLE  
 HALLIBURTON CAMP: TANANGER  
 TESTER: B. CHALMERS  
G. TENNANT  
 WITNESS: BEN WHITE  
 DRILLING CONTRACTOR: SEDCO RIG 703

## FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
<u>FORMATION H2O</u>	<u>    </u> @ <u>    </u> °F	<u>63000</u> ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm
_____	_____ @ _____ °F	_____ ppm

## SAMPLER DATA

Pstg AT SURFACE: \_\_\_\_\_  
 cu.ft. OF GAS: \_\_\_\_\_  
 cc OF OIL: \_\_\_\_\_  
 cc OF WATER: \_\_\_\_\_  
 cc OF MUD: \_\_\_\_\_  
 TOTAL LIQUID cc: \_\_\_\_\_

## HYDROCARBON PROPERTIES

OIL GRAVITY (°API): 0.8 @ 60°F  
 GAS/OIL RATIO (cu.ft. per bbl): \_\_\_\_\_  
 GAS GRAVITY: 0.672

## CUSHION DATA

TYPE	AMOUNT	WEIGHT
<u>SEA WATER, FULL</u>	_____	<u>3.60</u>
_____	_____	_____

## RECOVERED:

RECOVERED FULL CUSHION.

MEASURED FROM  
TESTER VALVE

## REMARKS:

TRACE OF SAND DURING CLEAN UP FLOW. WELL MADE 2342 BBLS/DAY CONDENSATE AND 550 BBLS/DAY H2O ON .750 CHOKE DURING FINAL FLOW. RATE 20.4 MMCF/DAY AFTER WELL STIMULATION. APR-N CLOSED AFTER ACID JOB. WHEN CYCLING TOOL BALL OPENED HALF WAY. 50T2 - APR-M SHEARED 1000 PSI HIGH. SET TO SHEAR @2389 PSI - SHEARED @3400 PSI BOTTOM APR-M SHEARED TOP DID NOT SHEAR THIS TOOL WAS SET FOR 3489 PSI WHEN PRESSURING UP TO SHEAR APR-M,N-TOOL OPENED @3000 PSI. TOOL WOULD NOT STAY OPEN DURING TEST WITH ANNULUS PRESSURES FROM 1600-1800 PSI.

TYPE &amp; SIZE MEASURING DEVICE:

FLOPETROL SEPARATOR

TICKET NO: 00374600

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
11-19-82					ENGAGE STYLUS
12:56					PICK UP BAKER SEAL ASSEMBLY
					PERF. TAIL PIPE AND MULE SHOE
					RUN IN HOLE
14:17					MAKE UP APR TEST STRING. START TO RUN IN HOLE
15:54					PICK UP 4.750 DRILL COLLARS. RUN 7 STANDS IN HOLE
18:11					MAKE UP SLIP JOINTS. R.I.H
20:03					RUN FIRST STAND OF 3.5 VAM TBG
					MAKE UP PRESSURE TEST HEAD TO TEST STRING.
20:30					PRESSURE TEST LINES TO RIG FLOOR
20:53					ORDERS TO HANGER OFF. WAIT ON WEATHER.
11/20/82					
03:30					PICK UP HANG OFF TOOL START TO RUN IN HOLE W/STRING
09:58		7000			PRESSURE TEST STRING
10:12					TEST GOOD
12:36		7000			TEST ALL 3.5 VAM TBG + 22 STANDS 5.0 VAM
12:52					TEST GOOD
15:02		7000			TEST ALL 3.5 VAM TBG + 44 STANDS 5.0 TBG
15:18					TEST GOOD
17:50		7000			TEST ALL 3.5 VAM TBG + 66 STANDS 5.00 TBG
18:11					TEST GOOD
20:27		7000			TEST ALL 3.5 VAM TBG + 85 STANDS 5.00 TBG
20:46					TEST GOOD
21:48					TRY TO GET INTO PRODUCTION PKRS
23:40					INTO PKRS MAKE SPACE OUT RUN
11/21/82					
02:35		7000			TEST ALL 3.5 VAM TBG + 85 STANDS PLUS 2 PUPS 5.00 VAM

TYPE &amp; SIZE MEASURING DEVICE:

FLOPETROL SEPARATOR

TICKET NO: 00374600

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
03:15					TEST GOOD
06:48		7000/500			TEST ALL SURFACE EQUIPMENT
09:10					SURFACE EQUIPMENT TESTED
					TESTS GOOD
09:48					PRESSURE UP ON ANNULUS TO OPEN N-TOOL, NO SURFACE INDICATION
10:05					BLEED OFF ANNULUS
10:16		2000			PRESSURE UP ON TBG TO 2000 PSI
10:18					PRESSURE UP ON ANNULUS TO OPEN N-TOOL.
10:20					BLEED OFF ANNULUS
10:21					OPENED WELL AT CHOKE MANIFOLD, 8/64" ADJ. CHOKE.
10:22		500			PRESSURE BUILD UP AT SURFACE
10:23	12/64				VARIABLE CHOKE
10:24	18/64				VARIABLE CHOKE
10:25	24/64				VARIABLE CHOKE
10:27	32/64				VARIABLE CHOKE
10:29	48/64				VARIABLE CHOKE
10:44					SHUT IN AT SURFACE
11:00		2470			TUBING PRESSURE
11:30		2860			TUBING PRESSURE
12:00		2890			TUBING PRESSURE
12:15	8/64	2815			OPENED WELL ON 8/64" CHOKE
12:30	44/64	505			VARIABLE CHOKE
13:00	44/64	940			VARIABLE CHOKE
13:30	44/64	735			VARIABLE CHOKE
14:00	44/64	657			VARIABLE CHOKE
14:30	44/64	621			VARIABLE CHOKE
15:00	44/64	560			VARIABLE CHOKE
15:15	44/64	524			FLOW THRU SEPARATOR
16:00	44/64	508			
17:00	44/64	443			
17:17					SHUT WELL IN AT FLOPETROL CHOKE MANIFOLD
18:00		2007			TUBING PRESSURE
20:00		3692			TUBING PRESSURE

TYPE &amp; SIZE MEASURING DEVICE:

FLOPETROL SEPARATOR

TICKET NO: 00374600

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
22:00		4253			TUBING PRESSURE
23:00		4390			TUBING PRESSURE
11-22-82					
0200		4608			SHUT IN AT CHOKE MANIFOLD.
					WAIT ON WEATHER. DOWELL TO
					DO ACID JOB.
12:00		4885			TUBING PRESSURE
14:00		4894			TUBING PRESSURE
15:30					SHUT WELL IN AT MASTER VALVE.
					WORK ON LINES ON CHOKE SIZE.
					PRESSURE TEST LINES ON FLOOR.
18:00					WELL SHUT IN AT MASTER VALVE.
23:59					SHUT IN AT MASTER VALVE.
11-23-82					
00:01					SHUT IN WELL AT MASTER VALVE
18:15		6400			COMMENCE ACIDIZE JOB USING
					DOWELL FRAC. BOAT. PUMP COOLING
					PAD.
18:59		4900			ANNULUS PRESSURE DROPS FROM
					1750 PSI TO 1000 PSI. PUMP UP
					ANNULUS TO 1750 PSI. PUMP TOOK
					20 STROKES ON ANNULUS TO PR
					PFRESSURF BACK UP. TUBING PRE
					PRESSURE 4900 PSI. RATE AT THIS
					TIME WAS 12 BBL MIN. PUMPING
					15% HCL ACID.
20:22		600			ACID JOB COMPLETED. WELL HEAD
					PRESSURE AFTER JOB 3550 PSI.
					SHUT WELL IN AT MASTER VALVE.
					RIG OUT ACID LINES.
23:30					OPEN MASTER VALVE.
22:34	10/64				OPEN WELL ON 10/64 ADJ.
22:35	36/64				ADJ. CHOKE TO 36/64.
22:40					WELL BLEED DOWN TO ZERO. CYCLED
					EZ TREE.
23:30		6000			PRESSURE UP ON TUBING STRING
					TO 6000 PSI. 5 BBLs PUMPED



TYPE &amp; SIZE MEASURING DEVICE:

FLOPETROL SEPARATOR

TICKET NO: 00374600

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
					bled back 4 BBLs. N-TOOL
					CLOSED FULLY. ANNULUS PRESSURE
					1931 PSI
11-24-82					
00:03					bled off tubing pressure. ANN.
					PRESSURE 1736 PSI
00:45		6000			PRESSURE UP ON TUBING TO SURGE
					N-TOOL ANNULUS PRESSURE 1806PSI
00:47					BLEED OFF TUBING THRU HA
					HALLIBURTON UNIT. ANNULUS PRE
					PRESSURE 1755 PSI
00:52		7000			PRESSURE UP ON TUBING TO SURGE
					N-TOOL ANNULUS PRESSURE 1876PSI
00:54					BLEED OFF TUBING THRU HALLIBUR-
					TON UNIT. ANNULUS PRESSURE 1862
					PSI
01:03					BLEED ANNULUS OFF.
01:06					PRESSURE BACK UP ON ANNULUS
					TO 1865 PSI. N-TOOL OPEN.
					SURFACE BUILD UP TO 2810 PSI
01:33	10/64	2870			OPEN WELL ON ADJ. CHOKE. ANN.
					1869 PSI
01:33	32/64	2605			INCREASE CHOKE SIZE ON ADJ.
					ANN. 1909 PSI.
01:43	32/64	2540			GAS CUT FLUID TO SURFACE ADJ.
					CHOKE
01:53	32/64	3604			GAS TO SURFACE. ADJ. CHOKE.
03:40	40/64	3550			SWITCH TO SEPERATOR ANN.1773PSI
05:34	56/64	3375			INCREASE CHOKE TO 56/64 ADJ.
					ANNULUS 1785 PSI.
06:10	56/64	2745			FIXED CHOKE. ANNULUS 1761 PSI.
07:00	56/64	2650			FIXED CHOKE. ANNULUS 1755 PSI.
08:00	56/64	2565			FIXED CHOKE. ANNULUS 1759 PSI.
08:42	24/64	3357			ADJ. CHOKE. ANNULUS 1780 PSI
08:45	26/64	3357			FIXED CHOKE. ANNULUS 1780 PSI
10:00	26/64	3708			FIXED CHOKE. ANNULUS 1612 PSI
11:00	26/64	3747			FIXED CHOKE. ANNULUS 1673 PSI

TYPE &amp; SIZE MEASURING DEVICE: \_\_\_\_\_

TICKET NO: 00374601

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
13:00	26/64	3782			FIXED CHOKE. ANNULUS 1717PSI
13:01		3782			SHUT WELL IN AT CHOKE MANIFOLD
					ANN. 1724 PSI.
13:15		3962			SHUT IN AT CHOKE MANIFOLD ANN.
					1669 PSI.
13:30		4007			SHUT IN. ANNULUS 1772 PSI.
13:35					CLOSE MASTER VALVE.
14:00					RIG UP WIRELINE LUBRICATOR.
					MASTER VALVE CLOSED.
15:07		4314			START IN THE HOLE W/WIRELINE
					TOOLS. ANNULUS PRESSURE 1759PSI
15:15					STUFFING BOY LEAKING POOH W/
					WIRELINE TOOL.
18:12		4350			START BACK IN HOLE W/WIRELINE
					EQUIPMENT. ANNULUS PRESSURE
					1741 PSI.
19:00					TAG BALL ON APR-N.
19:50					OUT OF HOLE W/WIRELINE TOOLS.
19:54		4377			CLOSE LUBRICATOR VALVE.
					BLEED DOWN STRING FROM TOP
					OF LUBRICATOR VALVE.
21:03		3990			RUN IN HOLE W/1.75" IMPRESSION
					BLOCK. ANNULUS 1756 PSI.
22:14		4446			TOOL BACK TO SURFACE. ANNULUS
					1729 PSI. N-TOOL BALL HALF
					OPEN.
22:25					PRESSURE BLED OFF ANNULUS.
					MASTER VALVE CLOSED.
22:27					PRESSURE UP ON ANNULUS. CYCLE
					N-TOOL.
22:30					PRESSURE BLED OFF ANNULUS.
22:31					PRESSURE UP ON ANNULUS. CYCLE
					N-TOOL.
22:32					PRESSURE BLED OFF ANNULUS.
22:34					PRESSURE UP ON ANNULUS. CYCLE
					N-TOOLS.
23:20		4984			OPEN MASTER VALVE. ANNULUS

TYPE &amp; SIZE MEASURING DEVICE:

TICKET NO: 00374601

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
					1791 PSI.
23:46		4440			START GAUGES IN HOLE. ANNULUS
					1776 PSI.
11-25-82					
01:15		4480			TAG APR-N BALL VALVE WITH GAUGE
					WILL NOT GO THRU N-TOOL.
					ANNULUS 1725 PSI.
01:24					BLEED OFF ANNULUS.
01:26					PRESSURE UP ON ANNULUS 1800PSI
01:28					BLEED OFF ANNULUS.
01:30					PRESSURE UP ON ANNULUS. ATTEMPT
					WIRELINE GAUGES. NO SUCCESS.
01:35					POOH.
03:05		4490			GAUGES IN LUBRICATOR. CLOSE
					LUBRICATOR VALVE. ANNULUS 1877PS
04:05		4500			OPEN LUBRICATOR VALVE EQUALIZE
					ACROSS BALL. SHUT IN @ CHOKE
					CHOKE MANIFOLD.
05:00		4515			TUBING PRESSURE. ANNULUS
					PRESSURE 1854 PSI.
07:00		4535			TUBING PRESSURE. ANNULUS
					PRESUSRE 1812 PSI.
09:00		4555			TUBING PRESSURE. ANNULUS
					PRESSURE 1779 PSI.
10:28		4597			CLOSE LUBRICATOR VALVE. RIG
					UP TO RUN 2ND IMPRESSION BLOCK.
					ANNULUS 1786 PSI.
11:45		4593			OPEN LUBRICATOR VALVE. ANNULUS
					1800 PSI.
11:45					RIH W/IMPRESSION BLOCK.
12:18					OUT OF HOLE W/IMPRESSION BLOCK.
12:20		3254			CLOSE LUBRICATOR VALVE.
13:52		4586			OPEN LUBRICATOR VALVE. ANNULUS
					1813 PSI.
14:00	8/64	4560			OPEN WELL ON 8/64" ADJ. CHOKE.
					ADJ. CHOKE. ANNULUS 1811 PSI.
14:01	12/64	4350			ADJ. CHOKE. ANNULUS 1821 PSI.

TYPE &amp; SIZE MEASURING DEVICE:

TICKET NO: 00374601

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
14:02	26/64	3850			ADJ. CHOKE. ANNULUS 1811
					CHANGED. TO FIXED 26/64".
14:10	26/64	2460			FIXED CHOKE. ANNULUS 1810 PSI.
14:20	26/64	1945			FIXED CHOKE. ANNULUS 1811 PSI.
14:37		1160			SHUT IN @ CHOKE MANIFOLD. ANN.
					1810 PSI.
15:00					BLEED OFF ANNULUS.
15:01					PRESSURE UP ON ANNULUS. CYCLE
					N-TOOL 1800 PSI.
15:03					BLEED OFF ANNULUS.
15:04					PRESSURE UP ON ANNULUS. CYCLE
					N-TOOL 1800 PSI
15:06					BLEED OFF ANNULUS.
15:07					PRESSURE UP ON ANNULUS. CYCLE
					N-TOOL 1800 PSI.
15:13					BLEED OFF ANNULUS.
15:15					PRESSURE UP ON ANNULUS. CYCLE
					N-TOOL 1800 PSI.
15:20					BLEED OFF ANNULUS.
15:25					PRESSURE UP ON ANNULUS. CYCLE
					N-TOOL 1800 PSI.
15:28					BLEED OFF ANNULUS.
15:31					PRESSURE UP ON ANNULUS. CYCLE
					N-TOOL 1800 PSI.
15:56		1300			START TO PUMP DIESEL INTO STRING
17:38		3600			PUMP 87 BBLs DIESEL. 1 BBL/MIN
					RATE.
17:52		3600			PUMP 10 BBLs DIESEL @ 4 BBL/MIN
					INJECTING.
18:11					SHUT IN @ FLOOR.
18:20	16/64	3480			OPEN WELL UP ON ADJ. CHOKE.
18:23	24/64	3310			CHANGE TO FIXED CHOKE.
18:31		3690			GAS TO SURFACE. DIESEL UNLOADED.
19:05	24/64	4110			THRU SEPERATOR.
20:00	24/64	4055			TUBING PRESSURE.
21:00	24/64	4022			TUBING PRESSURE.
22:00	24/64	3995			TUBING PRESSURE.

TYPE &amp; SIZE MEASURING DEVICE: \_\_\_\_\_

TICKET NO: 00374601

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
23:00	24/64	3954			TUBING PRESSURE.
11-26-82					
00:01	24/64	3940			TUBING PRESSURE.
02:00	24/64	3880			TUBING PRESSURE.
03:00	24/64	3857			TUBING PRESSURE.
03:32	26/64	3790			CHANGE TO 26/64 ADJ.
03:51	48/64				CHANGE TO 48/64 ADJ.
04:00	48/64	2350			CHANGE TO 48/64 FIXED.
05:00	48/64	2457			TUBING PRESSURE.
06:00	48/64	2380			TUBING PRESSURE.
08:00	48/64	2302			TUBING PRESSURE.
10:00	48/64	2232			TUBING PRESSURE.
11:30	48/64	2109			TUBING PRESSURE.
11:33					SHUT IN FOR BUILD UP.
12:00		3603			TUBING PRESSURE.
12:01					SHUT IN @ LUBRICATOR AND MASTER VALVE.
12:15					RIG UP BAKER WIRELINE W/GAUGES FOR BUILD UP.
13:17					EQUALIZE TO OPEN LUBRICATOR.
13:20					RIH W/GAUGES.
14:00		3335			TUBING PRESSURE.
16:00		3254			TUBING PRESSURE.
18:00		3207			TUBING PRESSURE.
19:30					SURGE ANNULUS 6 TIMES TO CYCLE N-TOOL.
20:00					TUBING PRESSURE.
20:40					POOH W/ GAUGES.
22:00		3127			TUBING PRESSURE.
23:00		3101			TUBING PRESSURE.
11-27-82					
00:53					PRESSURE UP ON ANNULUS 1800PSI.
01:07					TRY TO PUMP INTO FORMATION. CANNOT PUMP INTO FORMATION. N-TOOL CLOSED.
01:25					BLEED TUBING DOWN TO 3300PSI.
01:44					PRESS. UP ANNULUS TO SHEAR APR-M



TICKET NO: 00374600

CLOCK NO: 14022 HOUR: 120



GAUGE NO: 165

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
<b>SURFACE CLOSURE</b>					
B	1	0	4735.2		
	2	5	6786.3		
	3	1	5919.5		
	4	2	6259.7		
	5	3	6465.3		
	6	4	6620.2		
	7	5	6762.1		
	8	6	6829.8		
	9	7	6826.6		
	10	8	6843.5		
C	11	11	6919.4		
<b>FIRST FLOW</b>					
D	1	0	6919.4		
	2	2	5246.9	-1672.5	
	3	4	4881.6	-365.3	
	4	6	4548.0	-333.6	
	5	8	4393.6	-154.4	
	6	10	4345.6	-48.0	
	7	12	4297.6	48.0	
	8	14	4214.4	-83.2	
	9	16	4172.0	-42.4	
	10	18	4132.8	-39.2	
	11	20	4094.4	-38.4	
E	12	24	4058.4	-36.0	
<b>FIRST CLOSED-IN</b>					
E	1	0	4058.4		
	2	5	4999.2	940.3	4.3 0.742
	3	10	5888.3	1829.9	6.9 0.532
	4	15	6299.2	2240.8	9.1 0.413
	5	20	6537.1	2478.7	10.8 0.339
	6	25	6630.6	2572.2	12.1 0.287
	7	30	6668.5	2610.1	13.1 0.253
	8	35	6712.9	2654.5	14.0 0.225
	9	40	6732.3	2673.9	14.8 0.201
	10	45	6748.4	2690.0	15.4 0.183
	11	50	6762.9	2704.5	16.0 0.168
	12	55	6783.9	2725.5	16.4 0.155
	13	60	6791.1	2732.7	16.9 0.143
	14	65	6797.6	2739.2	17.3 0.134
	15	70	6806.1	2749.7	17.6 0.125
	16	75	6810.5	2752.1	17.9 0.118
	17	80	6817.7	2759.3	18.1 0.112
	18	85	6824.2	2765.8	18.4 0.106
	19	90	6880.6	2822.2	18.7 0.100
	20	95	6881.5	2823.1	18.8 0.096

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
<b>FIRST CLOSED-IN - CONTINUED</b>					
F	21	98	6942.7	2884.3	18.9 0.094
<b>SECOND FLOW</b>					
G	1	0	6942.7		
	2	5	3929.5	-3013.2	
	3	10	3287.7	-641.8	
	4	15	3009.6	-277.9	
	5	20	2703.2	-306.7	
	6	25	2842.9	139.7	
	7	30	2787.3	-55.6	
	8	35	2493.7	-293.7	
	9	40	2207.1	-286.5	
	10	45	2001.6	-205.6	
	11	50	1807.3	-194.3	
	12	55	1716.1	-91.1	
	13	60	1652.4	-63.7	
	14	65	1582.3	-70.2	
	15	70	1533.1	-49.2	
	16	75	1483.9	-49.2	
	17	80	1445.2	-38.7	
	18	85	1396.8	-48.4	
	19	90	1359.7	-37.1	
	20	95	1352.4	-7.3	
	21	100	1335.5	-16.9	
	22	105	1318.5	-16.9	
	23	110	1249.2	-69.4	
	24	115	1247.6	-1.6	
	25	120	1247.6	0.0	
	26	125	1247.6	0.0	
	27	130	1241.1	-6.5	
	28	135	1233.1	-8.1	
	29	140	1215.3	-17.7	
	30	145	1190.3	-25.0	
	31	150	1174.2	-16.1	
	32	155	1146.0	-28.2	
	33	160	1144.4	-1.6	
	34	165	1140.3	-4.0	
	35	170	1137.1	-3.2	
	36	175	1129.8	-7.3	
	37	180	1129.8	0.0	
	38	185	1114.5	-15.3	
	39	190	1104.8	-9.7	
	40	195	1102.4	-2.4	
	41	200	1101.6	-0.8	
	42	205	1096.8	-4.8	
	43	210	1092.7	-4.0	
	44	215	1088.7	-4.0	
	45	220	1075.8	-12.9	
	46	225	1073.4	-2.4	
	47	230	1059.7	-13.7	
	48	235	1055.6	-4.0	

**LEGEND:**  
 REPAIRING CHOKES

**REMARKS:**  
 CLOCK STOPPED DURING CLOSURE PRIOR TO ACID JOB AND DID NOT RESTART UNTIL MIDWAY THROUGH THE ACID JOB.

TICKET NO: 00374600

CLOCK NO: 14022 HOUR: 120



GAUGE NO: 165

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND FLOW - CONTINUED					
49	240	1055.6	0.0		
50	245	1055.6	0.0		
51	250	1047.6	-8.1		
52	255	1047.6	0.0		
53	260	1047.6	0.0		
54	265	1037.9	-9.7		
55	270	1024.2	-13.7		
56	275	1020.2	-4.0		
57	280	1020.2	0.0		
58	285	1020.2	0.0		
H 59	294	1079.8	59.7		

SECOND CLOSED-IN

H 1	0	1079.6			
2	5	1291.1	211.3	4.6	1.808
3	10	1562.1	482.3	9.3	1.500
4	15	1858.9	779.0	14.3	1.315
5	20	2131.7	1051.9	19.1	1.189
6	25	2341.3	1261.4	23.3	1.101
7	30	2534.9	1455.1	27.0	1.038
8	35	2750.0	1670.2	31.3	0.973
9	40	2923.0	1843.2	35.3	0.921
10	45	3104.1	2024.3	38.9	0.879
11	50	3294.3	2214.4	43.0	0.835
12	55	3437.7	2357.9	46.1	0.805
13	60	3610.7	2530.8	50.1	0.769
14	65	3726.2	2646.4	53.0	0.745
15	70	3860.7	2780.8	56.6	0.716
16	75	3985.2	2905.4	59.7	0.693
17	80	4108.8	3029.0	62.8	0.671
18	85	4225.6	3145.8	66.1	0.649
19	90	4333.6	3253.8	69.2	0.629
20	95	4452.0	3372.2	71.9	0.612
21	100	4541.6	3461.8	74.8	0.595
22	105	4617.6	3537.8	77.3	0.581
23	110	4709.6	3629.8	80.2	0.564
24	115	4779.2	3699.4	82.7	0.552
25	120	4861.6	3781.8	85.2	0.538
26	125	4921.6	3841.8	87.5	0.527
27	130	4998.4	3918.6	90.3	0.513
28	135	5071.1	3991.3	92.7	0.502
29	140	5113.3	4033.4	94.8	0.492
30	145	5165.6	4085.8	97.2	0.481
31	150	5211.7	4131.9	99.4	0.472
32	155	5264.8	4185.0	101.5	0.462
33	160	5305.5	4225.6	103.6	0.454
34	165	5347.7	4267.8	105.6	0.445
35	170	5391.4	4311.6	107.6	0.437
36	175	5431.3	4351.4	109.8	0.428
37	180	5467.2	4387.3	111.7	0.421
38	185	5499.2	4419.4	113.6	0.414

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
39	190	5533.6	4453.8	115.4	0.407
40	195	5563.3	4483.4	117.4	0.399
41	200	5593.0	4513.1	119.1	0.393
42	205	5621.9	4542.0	120.9	0.386
43	210	5653.1	4573.3	122.7	0.380
44	215	5678.9	4599.1	124.3	0.374
45	220	5700.8	4620.9	125.8	0.369
46	225	5721.9	4642.0	127.5	0.363
47	230	5747.7	4667.8	129.1	0.358
48	235	5766.4	4686.6	130.7	0.353
49	240	5798.3	4708.4	132.2	0.348
50	245	5810.2	4730.3	133.8	0.342
51	250	5828.9	4749.1	135.3	0.338
52	255	5846.9	4767.0	136.7	0.333
53	260	5862.5	4782.7	138.0	0.329
54	265	5878.1	4798.3	139.5	0.324
55	270	5896.1	4816.3	140.9	0.320
56	275	5910.9	4831.1	142.1	0.316
57	280	5926.6	4846.7	143.4	0.312
58	285	5940.6	4860.8	144.8	0.308
59	290	5954.7	4874.8	146.1	0.304
60	295	5968.8	4888.9	147.3	0.301
61	300	5978.9	4899.1	148.5	0.297
62	305	5996.1	4916.3	149.8	0.293
63	310	6006.5	4926.6	150.9	0.290
64	315	6017.7	4937.9	152.2	0.287
65	320	6031.5	4951.6	153.3	0.283
66	325	6043.5	4963.7	154.4	0.280
67	330	6054.0	4974.2	155.5	0.277
68	335	6066.9	4987.1	156.7	0.274
69	340	6078.2	4998.4	157.8	0.271
70	345	6091.1	5011.3	158.8	0.268
71	350	6098.4	5018.5	159.9	0.265
72	355	6108.1	5028.2	160.9	0.262
73	360	6116.9	5037.1	161.9	0.260
74	365	6129.0	5049.2	163.0	0.257
75	370	6135.5	5055.6	163.9	0.254
76	375	6144.4	5064.5	165.0	0.252
77	380	6150.8	5071.0	165.9	0.249
78	385	6162.9	5083.1	166.8	0.247
79	390	6171.0	5091.1	167.7	0.244
80	395	6180.6	5100.8	168.7	0.242
81	400	6187.1	5107.3	169.6	0.240
82	405	6194.4	5114.5	170.5	0.237
83	410	6199.2	5119.4	171.4	0.235
84	415	6211.3	5131.5	172.2	0.233
85	420	6221.8	5141.9	173.1	0.231
86	425	6225.0	5145.2	173.9	0.229
87	430	6230.6	5150.8	174.7	0.227
88	435	6234.7	5154.8	175.6	0.225
89	440	6242.7	5162.9	176.4	0.223
90	445	6251.6	5171.8	177.1	0.221
91	450	6255.6	5175.8	177.9	0.219

LEGEND:  
 REPAIRING CHOKES

REMARKS:  
 CLOCK STOPPED DURING CLOSURE PRIOR TO ACID JOB AND DID NOT RESTART  
 UNTIL MIDWAY THROUGH THE ACID JOB.



TICKET NO: 00374600

CLOCK NO: 14022 HOUR: 120



GAUGE NO: 165

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
92	455	6262.1	5182.3	178.7	0.217
93	460	6270.2	5190.3	179.5	0.215
94	465	6275.0	5195.2	180.2	0.213
95	470	6280.6	5200.8	181.0	0.211
96	475	6285.5	5205.6	181.8	0.209
97	480	6293.5	5213.7	182.5	0.208
98	485	6300.8	5221.0	183.2	0.206
99	490	6304.0	5224.2	184.0	0.204
100	495	6308.9	5229.0	184.6	0.203
101	500	6316.9	5237.1	185.3	0.201
102	505	6321.0	5241.1	186.0	0.199
103	510	6325.8	5246.0	186.6	0.198
104	515	6332.3	5252.4	187.3	0.196
105	520	6337.1	5257.3	188.0	0.195
106	525	6343.5	5263.7	188.6	0.193
107	530	6348.4	5268.5	189.3	0.192
108	535	6356.5	5276.6	189.9	0.190
109	540	6358.9	5279.0	190.5	0.189
110	545	6364.5	5284.7	191.2	0.188
111	550	6369.4	5289.5	191.8	0.186
112	555	6373.4	5293.5	192.4	0.185
113	560	6376.6	5296.8	192.9	0.184
114	565	6383.9	5304.0	193.5	0.182
115	570	6386.3	5306.5	194.2	0.181
116	575	6390.3	5310.5	194.7	0.180
117	580	6395.2	5315.3	195.3	0.178
118	585	6399.2	5319.4	195.9	0.177
119	590	6404.0	5324.2	196.4	0.176
120	595	6409.7	5329.8	196.9	0.175
121	600	6413.7	5333.9	197.5	0.173
122	605	6416.9	5337.1	198.0	0.172
123	610	6418.5	5338.7	198.6	0.171
124	615	6425.0	5345.2	199.1	0.170
125	620	6427.4	5347.6	199.6	0.169
126	625	6433.1	5353.2	200.1	0.168
127	630	6434.7	5354.8	200.7	0.166
128	635	6438.7	5358.9	201.1	0.165
129	640	6441.9	5362.1	201.6	0.164
130	645	6446.0	5366.1	202.2	0.163
131	650	6450.8	5371.0	202.6	0.162
132	655	6454.0	5374.2	203.1	0.161
133	660	6458.1	5378.2	203.6	0.160
134	665	6458.1	5378.2	204.0	0.159
135	670	6460.5	5380.6	204.5	0.158
136	675	6463.7	5383.9	205.0	0.157
137	680	6468.5	5388.7	205.4	0.156
138	685	6471.0	5391.1	205.9	0.155
139	690	6475.0	5395.2	206.3	0.154
140	695	6478.2	5398.4	206.8	0.153
141	700	6479.8	5400.0	207.2	0.152
142	705	6483.9	5404.0	207.7	0.152
143	710	6486.3	5406.5	208.1	0.151
144	715	6491.1	5411.3	208.5	0.150

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
145	720	6493.5	5413.7	209.0	0.149
146	725	6495.2	5415.3	209.4	0.148
147	730	6496.8	5416.9	209.8	0.147
148	735	6500.0	5420.2	210.2	0.146
149	740	6502.4	5422.6	210.6	0.145
150	745	6504.8	5425.0	211.0	0.145
151	750	6509.7	5429.8	211.4	0.144
152	755	6511.3	5431.5	211.8	0.143
153	760	6515.3	5435.5	212.2	0.142
154	765	6515.3	5435.5	212.6	0.141
155	770	6517.7	5437.9	213.0	0.141
156	775	6521.0	5441.1	213.4	0.140
157	780	6522.6	5442.7	213.7	0.139
158	785	6525.0	5445.2	214.1	0.138
159	790	6526.6	5446.8	214.5	0.138
160	795	6529.0	5449.2	214.9	0.137
161	800	6530.6	5450.8	215.2	0.136
162	805	6532.3	5452.4	215.6	0.135
163	810	6534.7	5454.8	215.9	0.135
164	815	6537.1	5457.3	216.3	0.134
165	820	6541.9	5462.1	216.6	0.133
166	825	6544.4	5464.5	217.0	0.133
167	830	6547.6	5467.7	217.3	0.132
168	835	6550.0	5470.2	217.7	0.131
169	840	6550.0	5470.2	218.0	0.130
170	845	6552.4	5472.6	218.3	0.130
171	850	6556.5	5476.6	218.7	0.129
172	855	6558.1	5478.2	219.0	0.129
173	860	6559.7	5479.8	219.3	0.128
174	865	6561.3	5481.5	219.7	0.127
175	870	6562.1	5482.3	220.0	0.127
176	875	6566.1	5486.3	220.3	0.126
177	880	6566.9	5487.1	220.6	0.125
178	885	6568.5	5488.7	220.9	0.125
179	890	6571.8	5491.9	221.2	0.124
180	895	6573.4	5493.5	221.6	0.123
181	900	6574.2	5494.4	221.8	0.123
182	905	6577.4	5497.6	222.1	0.122
183	910	6579.0	5499.2	222.4	0.122
184	915	6579.8	5500.0	222.7	0.121
185	920	6582.3	5502.4	223.0	0.121
186	925	6583.1	5503.2	223.3	0.120
187	930	6587.9	5508.1	223.6	0.119
188	935	6584.7	5504.8	223.9	0.119
189	940	6587.1	5507.3	224.2	0.118
190	945	6590.3	5510.5	224.5	0.118
191	950	6591.9	5512.1	224.7	0.117
192	955	6594.4	5514.5	225.0	0.117
193	960	6596.8	5516.9	225.3	0.116
194	965	6596.8	5516.9	225.6	0.116
195	970	6598.4	5518.5	225.8	0.115
196	975	6601.6	5521.8	226.1	0.115
197	980	6601.6	5521.8	226.4	0.114

LEGEND:  
 REPAIRING CHOKES

REMARKS:  
 CLOCK STOPPED DURING CLOSURE PRIOR TO ACID JOB AND DID NOT RESTART UNTIL MIDWAY THROUGH THE ACID JOB.

TICKET NO: 00374600

CLOCK NO: 14022 HOUR: 120



GAUGE NO: 165

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
198	985	6604.8	5525.0	226.7	0.114
199	990	6605.6	5525.8	226.9	0.113
200	995	6608.9	5529.0	227.2	0.113
201	1000	6609.7	5529.8	227.4	0.112
202	1005	6609.7	5529.8	227.7	0.112
203	1010	6614.5	5534.7	227.9	0.111
204	1015	6614.5	5534.7	228.2	0.111
205	1020	6616.9	5537.1	228.5	0.110
206	1025	6616.9	5537.1	228.7	0.110
207	1030	6616.9	5537.1	229.0	0.109
208	1035	6621.0	5541.1	229.2	0.109
209	1040	6621.0	5541.1	229.5	0.108
210	1045	6621.0	5541.1	229.7	0.108
211	1050	6621.0	5541.1	229.9	0.107
212	1055	6626.6	5546.8	230.2	0.107
213	1060	6626.6	5546.8	230.4	0.106
214	1065	6626.6	5546.8	230.6	0.106
215	1070	6626.6	5546.8	230.9	0.106
216	1075	6630.6	5550.8	231.1	0.105
217	1080	6633.1	5553.2	231.3	0.105
218	1085	6633.1	5553.2	231.6	0.104
219	1090	6633.1	5553.2	231.8	0.104
220	1095	6637.9	5558.1	232.0	0.103
221	1100	6637.9	5558.1	232.3	0.103
222	1105	6639.5	5559.7	232.5	0.103
223	1110	6639.5	5559.7	232.7	0.102
224	1115	6643.5	5563.7	232.9	0.102
225	1120	6643.5	5563.7	233.1	0.101
226	1125	6643.5	5563.7	233.3	0.101
227	1130	6643.5	5563.7	233.6	0.101
228	1135	6643.5	5563.7	233.8	0.100
229	1140	6650.8	5571.0	234.0	0.100
230	1145	6651.6	5571.8	234.2	0.099
231	1150	6651.6	5571.8	234.4	0.099
232	1155	6654.8	5575.0	234.6	0.099
233	1160	6654.8	5575.0	234.8	0.098
234	1165	6658.9	5579.0	235.0	0.098
235	1170	6658.9	5579.0	235.2	0.097
236	1175	6658.9	5579.0	235.4	0.097
237	1180	6658.9	5579.0	235.6	0.097
238	1185	6662.9	5583.1	235.8	0.096
239	1190	6662.9	5583.1	236.0	0.096
240	1195	6662.9	5583.1	236.2	0.096
241	1200	6666.9	5587.1	236.4	0.095
242	1205	6666.9	5587.1	236.6	0.095
243	1210	6666.9	5587.1	236.8	0.095
244	1215	6666.9	5587.1	237.0	0.094
245	1220	6666.9	5587.1	237.2	0.094
246	1225	6673.4	5593.5	237.4	0.094
247	1230	6673.4	5593.5	237.5	0.093
248	1235	6673.4	5593.5	237.7	0.093
249	1240	6673.4	5593.5	237.9	0.093
250	1245	6673.4	5593.5	238.1	0.092

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
251	1250	6673.4	5593.5	238.3	0.092
252	1255	6679.0	5599.2	238.5	0.092
253	1260	6679.0	5599.2	238.6	0.091
254	1265	6679.0	5599.2	238.8	0.091
255	1270	6679.0	5599.2	239.0	0.091
256	1275	6679.0	5599.2	239.2	0.090
257	1280	6679.0	5599.2	239.3	0.090
258	1285	6684.7	5604.8	239.5	0.090
259	1290	6684.7	5604.8	239.7	0.089
260	1295	6684.7	5604.8	239.9	0.089
261	1300	6687.1	5607.3	240.0	0.089
262	1305	6687.1	5607.3	240.2	0.088
263	1310	6687.1	5607.3	240.4	0.088
264	1315	6687.1	5607.3	240.5	0.088
265	1320	6687.1	5607.3	240.7	0.087
266	1325	6687.1	5607.3	240.9	0.087
267	1325	6687.1	5607.3	240.9	0.087
268	1330	6632.3	5552.4	241.1	0.087
269	1335	6572.6	5492.7	241.2	0.087
270	1340	6368.5	5288.7	241.4	0.086
271	1345	6496.8	5416.9	241.5	0.086
272	1350	5801.6	4721.7	241.7	0.086
273	1355	5988.3	4908.4	241.9	0.085
274	1360	6225.8	5146.0	242.0	0.085
275	1365	6339.5	5259.7	242.2	0.085
276	1370	6425.0	5345.2	242.3	0.085
277	1375	6479.0	5399.2	242.5	0.084
278	1380	6514.5	5434.7	242.6	0.084
279	1385	6546.0	5466.1	242.8	0.084
280	1390	6565.3	5485.5	242.9	0.083
281	1395	6580.6	5500.8	243.1	0.083
282	1400	6595.2	5515.3	243.2	0.083
283	1406	6609.7	5529.8	243.4	0.083
284	1410	6616.1	5536.3	243.5	0.082
285	1415	6629.0	5549.2	243.7	0.082
286	1420	6635.5	5555.6	243.9	0.082
287	1425	6641.1	5561.3	244.0	0.082
288	1430	6645.2	5565.3	244.1	0.081
289	1435	6650.0	5570.2	244.3	0.081
290	1440	6654.8	5575.0	244.4	0.081
291	1445	6659.7	5579.8	244.6	0.081
292	1450	6665.3	5585.5	244.7	0.080
293	1455	6664.5	5584.7	244.9	0.080
294	1460	6667.7	5587.9	245.0	0.080
295	1465	6671.8	5591.9	245.1	0.080
296	1470	6675.8	5596.0	245.3	0.079
297	1475	6677.4	5597.6	245.4	0.079
298	1480	6678.2	5598.4	245.5	0.079
299	1485	6682.3	5602.4	245.7	0.079
300	1490	6685.5	5605.6	245.8	0.078
301	1495	6687.1	5607.3	246.0	0.078
302	1500	6687.1	5607.3	246.1	0.078
303	1505	6688.7	5608.9	246.2	0.078

LEGEND:  
 REPAIRING CHOKES

REMARKS:  
 CLOCK STOPPED DURING CLOSURE PRIOR TO ACID JOB AND DID NOT RESTART  
 PUMP OFF MIDWAY THROUGH THE ACID JOB.

TICKET NO: 00374600

CLOCK NO: 14022 HOUR: 120



GAUGE NO: 165

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t+\Delta t}{t-\Delta t}$	$\log \frac{t+\Delta t}{t-\Delta t}$
SECOND CLOSED-IN - CONTINUED					
304	1510	6691.9	5612.1	246.4	0.077
305	1515	6694.4	5614.5	246.5	0.077
306	1520	6696.0	5616.1	246.6	0.077
307	1525	6701.6	5621.8	246.8	0.077
308	1530	6701.6	5621.8	246.9	0.076
309	1535	6701.6	5621.8	247.0	0.076
310	1540	6705.6	5625.8	247.2	0.076
311	1545	6705.6	5625.8	247.3	0.076
312	1550	6705.6	5625.8	247.4	0.076
313	1555	6705.6	5625.8	247.5	0.075
314	1560	6705.6	5625.8	247.7	0.075
315	1565	6711.3	5631.5	247.8	0.075
316	1570	6711.3	5631.5	247.9	0.075
317	1575	6711.3	5631.5	248.0	0.074
318	1580	6711.3	5631.5	248.2	0.074
319	1585	6711.3	5631.5	248.3	0.074
320	1590	6711.3	5631.5	248.4	0.074
321	1595	6720.2	5640.3	248.5	0.074
322	1600	6720.2	5640.3	248.7	0.073
323	1605	6720.2	5640.3	248.8	0.073
324	1610	6720.2	5640.3	248.9	0.073
325	1615	6720.2	5640.3	249.0	0.073
326	1620	6720.2	5640.3	249.1	0.073
327	1625	6728.2	5648.4	249.2	0.072
328	1630	6728.2	5648.4	249.4	0.072
329	1635	6728.2	5648.4	249.5	0.072
330	1640	6728.2	5648.4	249.6	0.072
331	1645	6728.2	5648.4	249.7	0.072
332	1650	6728.2	5648.4	249.8	0.071
333	1655	6731.5	5651.6	249.9	0.071
334	1660	6731.5	5651.6	250.1	0.071
335	1665	6731.5	5651.6	250.2	0.071
336	1670	6731.5	5651.6	250.3	0.071
337	1675	6735.5	5655.6	250.4	0.070
338	1680	6735.5	5655.6	250.5	0.070
339	1685	6735.5	5655.6	250.6	0.070
340	1690	6735.5	5655.6	250.7	0.070
341	1695	6735.5	5655.6	250.8	0.070
342	1700	6734.7	5654.8	250.9	0.069
343	1705	6739.5	5659.7	251.1	0.069
344	1710	6739.5	5659.7	251.2	0.069
345	1715	6739.5	5659.7	251.3	0.069
346	1720	6739.5	5659.7	251.4	0.069
347	1725	6739.5	5659.7	251.5	0.068
348	1730	6739.5	5659.7	251.6	0.068
349	1735	6745.2	5665.3	251.7	0.068
350	1740	6745.2	5665.3	251.8	0.068
351	1745	6745.2	5665.3	251.9	0.068
352	1750	6745.2	5665.3	252.0	0.068
353	1755	6745.2	5665.3	252.1	0.067
354	1760	6745.2	5665.3	252.2	0.067
355	1765	6745.2	5665.3	252.3	0.067
356	1770	6751.6	5671.8	252.4	0.067

REF	MINUTES	PRESSURE	ΔP	$\frac{t+\Delta t}{t-\Delta t}$	$\log \frac{t+\Delta t}{t-\Delta t}$
SECOND CLOSED-IN - CONTINUED					
357	1775	6751.6	5671.8	252.5	0.067
358	1780	6751.6	5671.8	252.6	0.066
359	1785	6751.6	5671.8	252.7	0.066
360	1790	6751.6	5671.8	252.8	0.066
361	1795	6751.6	5671.8	252.9	0.066
362	1800	6751.6	5671.8	253.0	0.066
363	1805	6751.6	5671.8	253.1	0.066
364	1810	6756.5	5676.6	253.2	0.065
365	1815	6756.5	5676.6	253.3	0.065
366	1820	6756.5	5676.6	253.4	0.065
367	1825	6756.5	5676.6	253.5	0.065
368	1830	6756.5	5676.6	253.6	0.065
369	1835	6756.5	5676.6	253.7	0.065
370	1840	6756.5	5676.6	253.8	0.064
371	1845	6756.5	5676.6	253.9	0.064
372	1850	6759.7	5679.8	254.0	0.064
373	1860	6759.7	5679.8	254.2	0.064
374	1865	6759.7	5679.8	254.3	0.064
375	1870	6759.7	5679.8	254.4	0.063
376	1875	6759.7	5679.8	254.4	0.063
377	1880	6759.7	5679.8	254.5	0.063
378	1885	6764.5	5684.7	254.6	0.063
379	1890	6764.5	5684.7	254.7	0.063
380	1895	6764.5	5684.7	254.8	0.063
381	1900	6764.5	5684.7	254.9	0.063
382	1905	6764.5	5684.7	255.0	0.062
383	1910	6764.5	5684.7	255.1	0.062
384	1915	6767.7	5687.9	255.2	0.062
385	1920	6767.7	5687.9	255.3	0.062
386	1925	6767.7	5687.9	255.3	0.062
387	1930	6767.7	5687.9	255.4	0.062
388	1935	6767.7	5687.9	255.5	0.062
389	1940	6767.7	5687.9	255.6	0.061
390	1945	6771.8	5691.9	255.7	0.061
391	1950	6771.8	5691.9	255.8	0.061
392	1955	6771.8	5691.9	255.9	0.061
393	1960	6771.8	5691.9	256.0	0.061
394	1965	6771.8	5691.9	256.0	0.061
395	1970	6771.8	5691.9	256.1	0.060
396	1975	6771.8	5691.9	256.2	0.060
397	1980	6771.8	5691.9	256.3	0.060
398	1985	6771.8	5691.9	256.4	0.060
399	1990	6771.8	5691.9	256.5	0.060
400	1995	6776.6	5696.8	256.5	0.060
401	2000	6776.6	5696.8	256.6	0.060
402	2005	6776.6	5696.8	256.7	0.060
403	2010	6776.6	5696.8	256.8	0.059
404	2015	6776.6	5696.8	256.9	0.059
405	2020	6776.6	5696.8	257.0	0.059
406	2025	6776.6	5696.8	257.0	0.059
407	2030	6783.9	5704.0	257.1	0.059
408	2035	6783.9	5704.0	257.2	0.059
409	2040	6783.9	5704.0	257.3	0.059

LEGEND:

REPAIRING CHOKES

REMARKS:

CLOCK STOPPED DURING CLOSURE PRIOR TO ACID JOB AND DID NOT RESTART

UNTIL MIDWAY THROUGH THE ACID JOB.

TICKET NO: 00374600

CLOCK NO: 14022 HOUR: 120



GAUGE NO: 165

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
410	2045	6783.9	5704.0	257.3	0.058
411	2050	6783.9	5704.0	257.4	0.058
412	2055	6783.9	5704.0	257.5	0.058
413	2060	6783.9	5704.0	257.6	0.058
414	2065	6783.9	5704.0	257.7	0.058
415	2070	6783.9	5704.0	257.7	0.058
416	2075	6787.9	5708.1	257.8	0.058
417	2080	6787.9	5708.1	257.9	0.057
418	2085	6787.9	5708.1	258.0	0.057
419	2090	6787.9	5708.1	258.1	0.057
420	2095	6787.9	5708.1	258.1	0.057
421	2100	6787.9	5708.1	258.2	0.057
422	2105	6787.9	5708.1	258.3	0.057
423	2110	6787.9	5708.1	258.3	0.057
424	2115	6787.9	5708.1	258.4	0.057
425	2120	6787.9	5708.1	258.5	0.056
426	2125	6787.9	5708.1	258.6	0.056
427	2130	6787.9	5708.1	258.6	0.056
428	2135	6787.9	5708.1	258.7	0.056
429	2140	6787.9	5708.1	258.8	0.056
430	2145	6787.9	5708.1	258.9	0.056
431	2150	6787.9	5708.1	258.9	0.056
432	2155	6787.9	5708.1	259.0	0.056
433	2160	6787.9	5708.1	259.1	0.055
434	2165	6787.9	5708.1	259.2	0.055
435	2170	6787.9	5708.1	259.2	0.055
436	2175	6787.9	5708.1	259.3	0.055
437	2180	6787.9	5708.1	259.4	0.055
438	2185	6797.6	5717.7	259.4	0.055
439	2190	6797.6	5717.7	259.5	0.055
I 440	2951	6838.7	5758.9	267.7	0.041
ACID JOB					
J 1	0	6838.7			
2	110	8363.0			
3	115	8178.7			
4	120	8049.6			
5	125	8028.3			
K 6	127	8104.7			
BLEED DOWN					
K 1	0	8104.7			
2	5	7764.8			
3	10	7712.8			
4	15	7687.2			
5	20	7660.8			
6	25	7638.4			
7	30	7624.8			
8	35	7610.4			

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
BLEED DOWN - CONTINUED					
9	40	7591.2			
10	45	7577.6			
11	50	7568.8			
12	55	7552.0			
13	60	7541.6			
14	65	7531.2			
15	70	7521.6			
16	75	7511.2			
17	80	7504.8			
18	85	7493.6			
19	90	7485.6			
20	95	7479.2			
21	100	7473.6			
22	105	7465.6			
L 23	312	7532.8			
THIRD FLOW					
M 1		NO DATA FOR THIS POINT			
N 2		NO DATA FOR THIS POINT			
THIRD CLOSED-IN					
N 1		NO DATA FOR THIS POINT			
O 2		NO DATA FOR THIS POINT			

LEGEND:

REPAIRING CHOKES

REMARKS:

CLOCK STOPPED DURING CLOSURE PRIOR TO ACID JOB AND DID NOT RESTART UNTIL MIDWAY THROUGH THE ACID JOB.

TICKET NO: 00374600

CLOCK NO: 696 HOUR: 144



GAUGE NO: 700

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SURFACE CLOSURE					
B	1	0	4765.6		
	2	1	4964.1		
	3	2	5276.0		
	4	3	5850.4		
	5	4	6415.5		
	6	5	6610.1		
	7	6	6746.1		
	8	7	6858.1		
	9	8	6841.9		
	10	9	6910.9		
C	11	11	6938.0		
FIRST FLOW					
D	1	0	6938.0		
	2	2	5235.7	-1702.3	
	3	4	4820.3	-415.3	
	4	6	4570.3	-250.0	
	5	8	4446.9	-123.4	
	6	10	4404.7	-42.2	
	7	12	4320.3	84.4	
	8	14	4258.6	-61.7	
	9	16	4203.9	-54.7	
	10	18	4176.6	-27.3	
	11	20	4124.2	-52.3	
E	12	24	4073.4	-50.6	
FIRST CLOSED-IN					
E	1	0	4073.4		
	2	5	5381.4	1308.0	4.2 0.752
	3	10	6035.7	1962.2	7.0 0.527
	4	15	6466.7	2393.2	9.2 0.409
	5	20	6637.2	2563.8	10.8 0.337
	6	25	6726.4	2652.9	12.1 0.287
	7	30	6776.0	2702.5	13.2 0.251
	8	35	6808.5	2735.1	14.1 0.223
	9	40	6827.1	2753.7	14.8 0.200
	10	45	6836.4	2763.0	15.4 0.183
	11	50	6855.8	2782.4	16.0 0.167
	12	55	6869.8	2796.3	16.5 0.154
	13	60	6881.4	2808.0	16.9 0.144
	14	65	6888.4	2814.9	17.3 0.134
	15	70	6897.7	2824.2	17.6 0.126
	16	75	6900.0	2826.6	17.9 0.118
	17	80	6910.1	2836.6	18.2 0.112
	18	85	6914.7	2841.3	18.4 0.106
	19	90	6951.2	2877.7	18.6 0.101
	20	95	6953.5	2880.1	18.8 0.096

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST CLOSED-IN -- CONTINUED					
F	21	98	6950.4	2876.9	18.9 0.094
SECOND FLOW					
G	1	0	6950.4		
	2	5	3510.9	-3439.4	
	3	10	3207.0	-303.9	
	4	15	2964.1	-243.0	
	5	20	2817.2	-146.9	
	6	25	2907.8	90.6	
	7	30	2578.9	-328.9	
	8	35	2308.6	-270.3	
	9	40	2022.7	-285.9	
	10	45	1884.1	-136.5	
	11	50	1780.2	-104.0	
	12	55	1718.3	-61.9	
	13	60	1654.0	-64.3	
	14	65	1586.5	-67.5	
	15	70	1540.5	-46.0	
	16	75	1503.2	-37.3	
	17	80	1454.8	-48.4	
	18	85	1419.8	-34.9	
	19	90	1405.6	-14.3	
	20	95	1392.1	-13.5	
	21	100	1366.7	-25.4	
	22	105	1326.2	-40.5	
	23	110	1327.0	0.8	
	24	115	1321.4	-5.6	
	25	120	1306.3	-15.1	
	26	125	1287.3	-19.0	
	27	130	1281.0	-6.3	
	28	135	1263.5	-17.5	
	29	140	1228.6	-34.9	
	30	145	1211.1	-17.5	
	31	150	1186.5	-24.6	
	32	155	1186.5	0.0	
	33	160	1183.3	-3.2	
	34	165	1172.2	-11.1	
	35	170	1161.9	-10.3	
	36	175	1160.3	-1.6	
	37	180	1150.8	-9.5	
	38	185	1138.1	-12.7	
	39	190	1133.3	-4.8	
	40	195	1125.4	-7.9	
	41	200	1132.5	7.1	
	42	205	1120.6	-11.9	
	43	210	1117.5	-3.2	
	44	215	1110.3	-7.1	
	45	220	1100.0	-10.3	
	46	225	1099.2	-0.8	
	47	230	1077.0	-22.2	
	48	235	1077.0	0.0	

LEGEND:  
 REPAIRED CHOKE

REMARKS:

TICKET NO: 00374600

CLOCK NO: 696

HOUR: 144



GAUGE NO: 700

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND FLOW - CONTINUED					
49	240	1077.0	0.0		
50	245	1071.4	-5.6		
51	250	1065.9	-5.6		
52	255	1064.3	-1.6		
53	260	1057.1	-7.1		
54	265	1053.2	-4.0		
55	270	1046.8	-6.3		
56	275	1043.7	-3.2		
57	280	1042.9	-0.8		
58	285	1041.3	-1.6		
H 59	294	1040.5	-0.8		

SECOND CLOSED-IN

H 1	0	1040.5			
2	5	1406.3	365.9	5.0	1.772
3	10	1701.6	661.1	9.8	1.479
4	15	1973.8	933.3	14.3	1.314
5	20	2221.9	1181.4	18.8	1.195
6	25	2428.9	1388.4	23.1	1.104
7	30	2621.1	1580.6	27.2	1.034
8	35	2807.8	1767.3	31.2	0.975
9	40	3005.5	1965.0	35.3	0.921
10	45	3169.5	2129.1	39.0	0.877
11	50	3335.2	2294.7	42.9	0.838
12	55	3484.4	2443.9	46.4	0.802
13	60	3621.1	2580.6	49.8	0.771
14	65	3744.5	2704.1	53.3	0.742
15	70	3867.2	2826.7	56.6	0.716
16	75	3975.8	2935.3	59.8	0.692
17	80	4107.0	3066.6	63.1	0.669
18	85	4220.3	3179.8	65.9	0.650
19	90	4335.2	3294.7	69.0	0.630
20	95	4437.5	3397.0	71.8	0.613
21	100	4534.4	3493.9	74.6	0.596
22	105	4624.2	3583.7	77.5	0.580
23	110	4699.2	3658.7	80.0	0.566
24	115	4769.5	3729.1	82.7	0.552
25	120	4849.2	3808.7	85.3	0.538
26	125	4935.9	3895.5	87.9	0.525
27	130	5007.8	3967.3	90.2	0.514
28	135	5071.3	4030.8	92.6	0.502
29	140	5132.6	4092.1	94.9	0.492
30	145	5190.7	4150.2	97.2	0.481
31	150	5240.3	4199.8	99.4	0.472
32	155	5291.5	4251.0	101.6	0.462
33	160	5338.0	4297.5	103.7	0.453
34	165	5372.9	4332.4	105.7	0.445
35	170	5420.2	4379.7	107.8	0.436
36	175	5459.7	4419.2	109.8	0.428
37	180	5496.1	4455.6	111.7	0.421
38	185	5533.3	4492.9	113.6	0.413

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
39	190	5562.8	4522.3	115.5	0.407
40	195	5597.7	4557.2	117.3	0.400
41	200	5628.7	4588.2	119.1	0.393
42	205	5665.9	4625.4	120.9	0.387
43	210	5693.8	4653.3	122.6	0.381
44	215	5723.3	4682.8	124.3	0.375
45	220	5752.7	4712.2	126.0	0.369
46	225	5772.9	4732.4	127.5	0.363
47	230	5791.5	4751.0	129.1	0.358
48	235	5814.0	4773.5	130.7	0.353
49	240	5838.8	4798.3	132.2	0.348
50	245	5859.7	4819.2	133.7	0.343
51	250	5881.4	4840.9	135.2	0.338
52	255	5900.0	4859.5	136.7	0.333
53	260	5920.9	4880.5	138.1	0.329
54	265	5936.4	4896.0	139.5	0.325
55	270	5954.3	4913.8	140.8	0.320
56	275	5966.7	4926.2	142.2	0.316
57	280	5978.3	4937.8	143.5	0.312
58	285	5990.7	4950.2	144.8	0.308
59	290	6008.5	4968.1	146.1	0.304
60	295	6022.5	4982.0	147.3	0.301
61	300	6039.5	4999.1	148.6	0.297
62	305	6054.3	5013.8	149.8	0.293
63	310	6070.5	5030.1	151.0	0.290
64	315	6086.0	5045.6	152.2	0.287
65	320	6101.6	5061.1	153.4	0.283
66	325	6114.7	5074.3	154.5	0.280
67	330	6128.7	5088.2	155.6	0.277
68	335	6135.7	5095.2	156.7	0.274
69	340	6148.1	5107.6	157.8	0.271
70	345	6161.2	5120.8	158.9	0.268
71	350	6171.3	5130.8	159.9	0.265
72	355	6179.8	5139.4	160.9	0.262
73	360	6190.7	5150.2	162.0	0.260
74	365	6202.3	5161.8	163.0	0.257
75	370	6212.4	5171.9	164.0	0.254
76	375	6221.7	5181.2	164.9	0.252
77	380	6231.0	5190.5	165.9	0.249
78	385	6238.8	5198.3	166.9	0.247
79	390	6247.3	5206.8	167.7	0.244
80	395	6257.4	5216.9	168.7	0.242
81	400	6264.3	5223.9	169.6	0.240
82	405	6270.5	5230.1	170.5	0.237
83	410	6278.3	5237.8	171.3	0.235
84	415	6286.8	5246.3	172.2	0.233
85	420	6293.0	5252.5	173.1	0.231
86	425	6299.2	5258.7	173.9	0.229
87	430	6307.8	5267.3	174.8	0.226
88	435	6317.1	5276.6	175.6	0.225
89	440	6319.4	5278.9	176.4	0.222
90	445	6325.6	5285.1	177.2	0.221
91	450	6331.8	5291.3	178.0	0.219

LEGEND:

[ ] REPAIRED CHOKE

REMARKS:

TICKET NO: 00374600

CLOCK NO: 696 HOUR: 144



GAUGE NO: 700

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
92	455	6341.9	5301.4	178.8	0.217
93	460	6349.6	5309.1	179.5	0.215
94	465	6353.5	5313.0	180.3	0.213
95	470	6354.3	5313.8	181.0	0.211
96	475	6358.9	5318.4	181.8	0.209
97	480	6372.9	5322.4	182.5	0.208
98	485	6376.0	5335.5	183.2	0.206
99	490	6387.6	5347.1	183.9	0.204
100	495	6392.2	5351.8	184.6	0.203
101	500	6393.0	5352.5	185.3	0.201
102	505	6405.4	5365.0	186.0	0.199
103	510	6407.8	5367.3	186.7	0.198
104	515	6411.6	5371.2	187.3	0.196
105	520	6417.8	5377.4	188.0	0.195
106	525	6421.8	5384.3	188.6	0.193
107	530	6427.9	5387.4	189.3	0.192
108	535	6431.8	5391.3	189.9	0.190
109	540	6434.9	5394.4	190.5	0.189
110	545	6437.2	5396.7	191.1	0.188
111	550	6443.4	5402.9	191.7	0.186
112	555	6448.8	5408.4	192.4	0.185
113	560	6451.2	5410.7	193.0	0.183
114	565	6454.3	5413.8	193.5	0.182
115	570	6459.7	5419.2	194.1	0.181
116	575	6463.6	5423.1	194.7	0.180
117	580	6467.4	5427.0	195.3	0.178
118	585	6470.5	5430.1	195.8	0.177
119	590	6473.6	5433.2	196.4	0.176
120	595	6478.3	5437.8	197.0	0.175
121	600	6480.6	5440.1	197.5	0.173
122	605	6482.9	5442.5	198.0	0.172
123	610	6484.5	5444.0	198.6	0.171
124	615	6484.5	5444.0	199.1	0.170
125	620	6489.1	5448.7	199.6	0.169
126	625	6520.2	5479.7	200.1	0.168
127	630	6520.2	5479.7	200.6	0.167
128	635	6520.2	5479.7	201.2	0.165
129	640	6520.2	5479.7	201.7	0.164
130	645	6520.2	5479.7	202.1	0.163
131	650	6520.2	5479.7	202.6	0.162
132	655	6520.2	5479.7	203.1	0.161
133	660	6520.2	5479.7	203.6	0.160
134	665	6540.3	5499.8	204.1	0.159
135	670	6540.3	5499.8	204.5	0.158
136	675	6540.3	5499.8	205.0	0.157
137	680	6540.3	5499.8	205.4	0.156
138	685	6540.3	5499.8	205.9	0.155
139	690	6540.3	5499.8	206.4	0.154
140	695	6544.2	5503.7	206.8	0.153
141	700	6547.3	5506.8	207.2	0.152
142	705	6547.3	5506.8	207.7	0.152
143	710	6559.7	5519.2	208.1	0.151
144	715	6569.8	5529.3	208.5	0.150

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
145	720	6569.8	5529.3	209.0	0.149
146	725	6573.6	5533.2	209.4	0.148
147	730	6573.6	5533.2	209.8	0.147
148	735	6573.6	5533.2	210.2	0.146
149	740	6576.7	5536.3	210.6	0.145
150	745	6579.1	5538.6	211.0	0.145
151	750	6581.4	5540.9	211.4	0.144
152	755	6586.8	5546.3	211.8	0.143
153	760	6589.1	5548.7	212.2	0.142
154	765	6589.1	5548.7	212.6	0.141
155	770	6590.7	5550.2	213.0	0.141
156	775	6590.7	5550.2	213.4	0.140
157	780	6593.8	5553.3	213.7	0.139
158	785	6593.8	5553.3	214.1	0.138
159	790	6595.3	5554.9	214.5	0.138
160	795	6600.0	5559.5	214.8	0.137
161	800	6606.2	5565.7	215.2	0.136
162	805	6607.8	5567.3	215.0	0.135
163	810	6610.1	5569.6	215.9	0.135
164	815	6613.2	5572.7	216.3	0.134
165	820	6613.2	5572.7	216.6	0.133
166	825	6613.2	5572.7	217.0	0.133
167	830	6613.2	5572.7	217.3	0.132
168	835	6619.4	5578.9	217.7	0.131
169	840	6619.4	5578.9	218.0	0.130
170	845	6619.4	5578.9	218.3	0.130
171	850	6624.8	5584.3	218.7	0.129
172	855	6624.8	5584.3	219.0	0.128
173	860	6624.8	5584.3	219.3	0.128
174	865	6624.8	5584.3	219.6	0.127
175	870	6624.8	5584.3	220.0	0.127
176	875	6629.5	5589.0	220.3	0.126
177	880	6629.5	5589.0	220.6	0.125
178	885	6629.5	5589.0	220.3	0.125
179	890	6634.1	5593.6	221.2	0.124
180	895	6634.1	5593.6	221.5	0.124
181	900	6637.2	5596.7	221.8	0.123
182	905	6638.8	5598.3	222.1	0.122
183	910	6641.9	5601.4	222.5	0.122
184	915	6647.3	5606.8	222.7	0.121
185	920	6651.9	5611.5	223.0	0.121
186	925	6651.9	5611.5	223.3	0.120
187	930	6651.9	5611.5	223.6	0.119
188	935	6658.1	5617.7	223.9	0.119
189	940	6658.1	5617.7	224.2	0.118
190	945	6658.1	5617.7	224.5	0.118
191	950	6662.8	5622.3	224.7	0.117
192	955	6662.8	5622.3	225.0	0.117
193	960	6664.3	5623.9	225.3	0.116
194	965	6664.3	5623.9	225.6	0.116
195	970	6668.2	5627.7	225.9	0.115
196	975	6668.2	5627.7	226.1	0.115
197	980	6671.3	5630.8	226.4	0.114

LEGEND:

REPAIRED CHOKE

REMARKS:

TICKET NO: 00374600

CLOCK NO: 696 HOUR: 144



GAUGE NO: 700

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
198	985	6672.9	5632.4	226.7	0.114
199	990	6675.2	5634.7	226.9	0.113
200	995	6675.2	5634.7	227.2	0.113
201	1000	6679.1	5638.6	227.4	0.112
202	1005	6682.2	5641.7	227.7	0.112
203	1010	6684.5	5644.0	228.0	0.111
204	1015	6686.0	5645.6	228.2	0.111
205	1020	6686.0	5645.6	228.5	0.110
206	1025	6689.1	5648.7	228.7	0.110
207	1030	6690.7	5650.2	229.0	0.109
208	1035	6690.7	5650.2	229.2	0.109
209	1040	6690.7	5650.2	229.4	0.108
210	1045	6694.6	5654.1	229.7	0.108
211	1050	6698.4	5658.0	229.9	0.107
212	1055	6703.1	5662.6	230.2	0.107
213	1060	6703.1	5662.6	230.4	0.106
214	1065	6705.4	5665.0	230.6	0.106
215	1070	6705.4	5665.0	230.9	0.106
216	1075	6705.4	5665.0	231.1	0.105
217	1080	6707.0	5666.5	231.3	0.105
218	1085	6708.5	5668.1	231.6	0.104
219	1090	6710.9	5670.4	231.8	0.104
220	1095	6712.4	5671.9	232.0	0.103
221	1100	6714.0	5673.5	232.2	0.103
222	1105	6714.0	5673.5	232.5	0.103
223	1110	6714.0	5673.5	232.7	0.102
224	1115	6717.8	5677.4	232.9	0.102
225	1120	6717.8	5677.4	233.1	0.101
226	1125	6717.8	5677.4	233.3	0.101
227	1130	6721.7	5681.2	233.6	0.101
228	1135	6724.0	5683.6	233.8	0.100
229	1140	6724.0	5683.6	234.0	0.100
230	1145	6724.0	5683.6	234.2	0.099
231	1150	6726.4	5685.9	234.4	0.099
232	1155	6726.4	5685.9	234.6	0.099
233	1160	6726.4	5685.9	234.8	0.098
234	1165	6730.2	5689.8	235.0	0.098
235	1170	6730.2	5689.8	235.2	0.097
236	1175	6730.2	5689.8	235.4	0.097
237	1180	6734.1	5693.6	235.6	0.097
238	1185	6734.1	5693.6	235.8	0.096
239	1190	6734.1	5693.6	236.0	0.096
240	1195	6734.1	5693.6	236.2	0.096
241	1200	6737.2	5696.7	236.4	0.095
242	1205	6737.2	5696.7	236.6	0.095
243	1210	6737.2	5696.7	236.8	0.095
244	1215	6740.3	5699.8	237.0	0.094
245	1220	6741.1	5700.6	237.2	0.094
246	1230	6741.1	5700.6	237.5	0.093
247	1235	6744.2	5703.7	237.7	0.093
248	1240	6745.7	5705.3	237.9	0.093
249	1245	6745.7	5705.3	238.1	0.092
250	1250	6748.8	5708.4	238.3	0.092

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
251	1255	6748.8	5708.4	238.5	0.092
252	1260	6748.8	5708.4	238.6	0.091
253	1265	6752.7	5712.2	238.8	0.091
254	1270	6752.7	5712.2	239.0	0.091
255	1275	6755.8	5715.3	239.2	0.090
256	1280	6755.8	5715.3	239.4	0.090
257	1285	6755.8	5715.3	239.5	0.090
258	1290	6756.6	5716.1	239.7	0.089
259	1295	6756.6	5716.1	239.9	0.089
260	1300	6756.6	5716.1	240.0	0.089
261	1305	6758.1	5717.7	240.2	0.088
262	1310	6758.1	5717.7	240.4	0.088
263	1315	6759.7	5719.2	240.5	0.088
264	1320	6759.7	5719.2	240.7	0.087
265	1325	6759.7	5719.2	240.9	0.087
266	1330	6759.7	5719.2	241.0	0.087
267	1335	6759.7	5719.2	241.2	0.087
268	1340	6759.7	5719.2	241.4	0.086
269	1341	6759.7	5719.2	241.4	0.086
270	1345	6709.3	5668.8	241.5	0.086
271	1350	6660.5	5620.0	241.7	0.086
272	1355	6387.6	5347.1	241.9	0.085
273	1360	6541.1	5500.6	242.0	0.085
274	1365	6370.5	5330.1	242.2	0.085
275	1370	5958.1	4917.7	242.3	0.085
276	1375	6227.1	5186.7	242.5	0.084
277	1380	6366.7	5326.2	242.6	0.084
278	1385	6462.0	5421.5	242.8	0.084
279	1390	6530.2	5489.8	242.9	0.083
280	1395	6569.8	5529.3	243.1	0.083
281	1400	6614.0	5573.5	243.3	0.083
282	1405	6632.6	5592.1	243.4	0.083
283	1410	6649.6	5609.1	243.6	0.082
284	1415	6663.6	5623.1	243.7	0.082
285	1420	6676.0	5635.5	243.8	0.082
286	1425	6682.9	5642.5	244.0	0.082
287	1430	6688.4	5647.9	244.1	0.081
288	1435	6696.9	5656.4	244.3	0.081
289	1440	6703.1	5662.6	244.4	0.081
290	1445	6707.0	5666.5	244.6	0.081
291	1450	6710.1	5669.6	244.7	0.080
292	1455	6714.7	5674.3	244.9	0.080
293	1460	6718.6	5678.1	245.0	0.080
294	1465	6721.7	5681.2	245.1	0.080
295	1470	6726.4	5685.9	245.3	0.079
296	1475	6734.1	5693.6	245.4	0.079
297	1480	6738.8	5698.3	245.6	0.079
298	1485	6740.3	5699.8	245.7	0.079
299	1490	6742.6	5702.2	245.8	0.078
300	1495	6745.7	5705.3	246.0	0.078
301	1500	6748.8	5708.4	246.1	0.078
302	1505	6750.4	5709.9	246.2	0.078
303	1510	6753.5	5713.0	246.4	0.077

LEGEND:  
 REPAIRED CHOKE

REMARKS:



TICKET NO: 00374600

CLOCK NO: 696 HOUR: 144



GAUGE NO: 700

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
304	1515	6753.5	5713.0	246.5	0.077
305	1520	6755.8	5715.3	246.6	0.077
306	1525	6757.4	5716.9	246.8	0.077
307	1530	6758.1	5717.7	246.9	0.076
308	1535	6763.6	5723.1	247.0	0.076
309	1540	6766.7	5726.2	247.2	0.076
310	1545	6766.7	5726.2	247.3	0.076
311	1550	6769.0	5728.5	247.4	0.076
312	1555	6769.0	5728.5	247.5	0.075
313	1560	6772.9	5732.4	247.7	0.075
314	1565	6774.4	5733.9	247.8	0.075
315	1570	6774.4	5733.9	247.9	0.075
316	1575	6774.4	5733.9	248.0	0.074
317	1580	6778.3	5737.8	248.2	0.074
318	1585	6778.3	5737.8	248.3	0.074
319	1590	6778.3	5737.8	248.4	0.074
320	1595	6782.2	5741.7	248.5	0.074
321	1600	6782.2	5741.7	248.7	0.073
322	1605	6784.5	5744.0	248.8	0.073
323	1610	6784.5	5744.0	248.9	0.073
324	1615	6784.5	5744.0	249.0	0.073
325	1620	6787.6	5747.1	249.1	0.073
326	1625	6787.6	5747.1	249.2	0.072
327	1630	6791.5	5751.0	249.4	0.072
328	1635	6791.5	5751.0	249.5	0.072
329	1640	6795.3	5754.9	249.6	0.072
330	1645	6795.3	5754.9	249.7	0.072
331	1650	6796.9	5756.4	249.8	0.071
332	1655	6796.9	5756.4	249.9	0.071
333	1660	6796.9	5756.4	250.1	0.071
334	1665	6796.9	5756.4	250.2	0.071
335	1670	6796.9	5756.4	250.3	0.071
336	1675	6796.9	5756.4	250.4	0.070
337	1680	6796.9	5756.4	250.5	0.070
338	1685	6796.9	5756.4	250.6	0.070
339	1690	6796.9	5756.4	250.7	0.070
340	1695	6796.9	5756.4	250.8	0.070
341	1700	6797.7	5757.2	250.9	0.069
342	1705	6800.0	5759.5	251.1	0.069
343	1710	6800.0	5759.5	251.2	0.069
344	1715	6800.0	5759.5	251.3	0.069
345	1720	6806.2	5765.7	251.4	0.069
346	1725	6806.2	5765.7	251.5	0.068
347	1730	6806.2	5765.7	251.6	0.068
348	1735	6806.2	5765.7	251.7	0.068
349	1740	6806.2	5765.7	251.8	0.068
350	1745	6806.2	5765.7	251.9	0.068
351	1750	6807.0	5766.5	252.0	0.068
352	1755	6807.0	5766.5	252.1	0.067
353	1760	6807.0	5766.5	252.2	0.067
354	1765	6807.0	5766.5	252.3	0.067
355	1770	6807.0	5766.5	252.4	0.067
356	1775	6807.0	5766.5	252.5	0.067

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
357	1780	6807.0	5766.5	252.6	0.066
358	1785	6811.6	5771.2	252.7	0.066
359	1790	6811.6	5771.2	252.8	0.066
360	1795	6811.6	5771.2	252.9	0.066
361	1800	6811.6	5771.2	253.0	0.066
362	1805	6811.6	5771.2	253.1	0.066
363	1810	6816.3	5775.8	253.2	0.065
364	1815	6816.3	5775.8	253.3	0.065
365	1820	6816.3	5775.8	253.4	0.065
366	1825	6816.3	5775.8	253.5	0.065
367	1830	6816.3	5775.8	253.6	0.065
368	1835	6820.2	5779.7	253.7	0.065
369	1840	6820.2	5779.7	253.8	0.064
370	1845	6820.2	5779.7	253.9	0.064
371	1850	6820.2	5779.7	254.0	0.064
372	1855	6820.2	5779.7	254.1	0.064
373	1860	6820.2	5779.7	254.2	0.064
374	1865	6822.5	5782.0	254.3	0.064
375	1870	6822.5	5782.0	254.4	0.063
376	1875	6822.5	5782.0	254.5	0.063
377	1880	6822.5	5782.0	254.5	0.063
378	1885	6822.5	5782.0	254.6	0.063
379	1890	6824.0	5783.6	254.7	0.063
380	1895	6824.0	5783.6	254.8	0.063
381	1900	6824.0	5783.6	254.9	0.063
382	1905	6825.6	5785.1	255.0	0.062
383	1910	6825.6	5785.1	255.1	0.062
384	1915	6825.6	5785.1	255.2	0.062
385	1920	6825.6	5785.1	255.3	0.062
386	1925	6825.6	5785.1	255.3	0.062
387	1930	6827.9	5787.4	255.4	0.062
388	1935	6827.9	5787.4	255.5	0.062
389	1940	6827.9	5787.4	255.6	0.061
390	1945	6827.9	5787.4	255.7	0.061
391	1950	6830.2	5789.8	255.8	0.061
392	1955	6830.2	5789.8	255.9	0.061
393	1960	6830.2	5789.8	256.0	0.061
394	1965	6830.2	5789.8	256.0	0.061
395	1970	6830.2	5789.8	256.1	0.060
396	1975	6830.2	5789.8	256.2	0.060
397	1980	6831.0	5790.5	256.3	0.060
398	1985	6831.0	5790.5	256.4	0.060
399	1990	6831.0	5790.5	256.5	0.060
400	1995	6831.0	5790.5	256.5	0.060
401	2000	6831.8	5791.3	256.6	0.060
402	2005	6831.8	5791.3	256.7	0.059
403	2010	6835.7	5795.2	256.8	0.059
404	2015	6835.7	5795.2	256.9	0.059
405	2020	6835.7	5795.2	256.9	0.059
406	2025	6835.7	5795.2	257.0	0.059
407	2030	6835.7	5795.2	257.1	0.059
408	2035	6835.7	5795.2	257.2	0.059
409	2040	6835.7	5795.2	257.3	0.059

## LEGEND:

 REPAIRED CHOKE

REMARKS:

TICKET NO: 00374600

CLOCK NO: 696 HOUR: 144



GAUGE NO: 700

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
410	2045	6835.7	5795.2	257.4	0.058
411	2050	6835.7	5795.2	257.4	0.058
412	2055	6838.8	5798.3	257.5	0.058
413	2060	6838.8	5798.3	257.6	0.058
414	2065	6838.8	5798.3	257.7	0.058
415	2070	6838.8	5798.3	257.7	0.058
416	2075	6838.8	5798.3	257.8	0.058
417	2080	6840.3	5799.8	257.9	0.057
418	2085	6840.3	5799.8	258.0	0.057
419	2090	6840.3	5799.8	258.1	0.057
420	2095	6840.3	5799.8	258.1	0.057
421	2100	6840.3	5799.8	258.2	0.057
422	2105	6840.3	5799.8	258.3	0.057
423	2110	6843.4	5802.9	258.4	0.057
424	2115	6843.4	5802.9	258.4	0.057
425	2120	6843.4	5802.9	258.5	0.056
426	2125	6843.4	5802.9	258.6	0.056
427	2130	6843.4	5802.9	258.7	0.056
428	2135	6843.4	5802.9	258.7	0.056
429	2140	6843.4	5802.9	258.8	0.056
430	2145	6845.7	5805.3	258.9	0.056
431	2150	6845.7	5805.3	258.9	0.056
432	2155	6845.7	5805.3	259.0	0.056
433	2160	6845.7	5805.3	259.1	0.055
434	2165	6845.7	5805.3	259.2	0.055
435	2170	6845.7	5805.3	259.2	0.055
436	2175	6849.6	5809.1	259.3	0.055
437	2180	6853.5	5813.0	259.4	0.055
438	2185	6853.5	5813.0	259.4	0.055
439	2190	6853.5	5813.0	259.5	0.055
440	2195	6853.5	5813.0	259.6	0.055
441	2200	6853.5	5813.0	259.7	0.055
442	2205	6855.8	5815.3	259.7	0.054
443	2210	6855.8	5815.3	259.8	0.054
444	2215	6855.8	5815.3	259.9	0.054
445	2220	6855.8	5815.3	259.9	0.054
446	2225	6855.8	5815.3	260.0	0.054
447	2230	6855.8	5815.3	260.1	0.054
448	2235	6855.8	5815.3	260.1	0.054
449	2240	6855.8	5815.3	260.2	0.054
450	2245	6858.1	5817.7	260.3	0.054
451	2250	6858.1	5817.7	260.3	0.053
452	2255	6858.1	5817.7	260.4	0.053
453	2260	6858.1	5817.7	260.5	0.053
454	2265	6860.5	5820.0	260.5	0.053
455	2270	6860.5	5820.0	260.6	0.053
456	2275	6860.5	5820.0	260.7	0.053
457	2280	6860.5	5820.0	260.7	0.053
458	2285	6860.5	5820.0	260.8	0.053
459	2290	6860.5	5820.0	260.9	0.053
460	2295	6860.5	5820.0	260.9	0.052
461	2300	6862.8	5822.3	261.0	0.052
462	2305	6862.8	5822.3	261.1	0.052

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
463	2310	6862.8	5822.3	261.1	0.052
464	2315	6862.8	5822.3	261.2	0.052
465	2320	6862.8	5822.3	261.2	0.052
466	2325	6862.8	5822.3	261.3	0.052
467	2330	6864.3	5823.9	261.4	0.052
468	2335	6864.3	5823.9	261.4	0.052
469	2340	6864.3	5823.9	261.5	0.051
470	2345	6864.3	5823.9	261.6	0.051
471	2350	6864.3	5823.9	261.6	0.051
472	2355	6864.3	5823.9	261.7	0.051
473	2360	6864.3	5823.9	261.7	0.051
474	2365	6864.3	5823.9	261.8	0.051
475	2370	6864.3	5823.9	261.9	0.051
476	2375	6865.9	5825.4	261.9	0.051
477	2380	6865.9	5825.4	262.0	0.051
478	2385	6865.9	5825.4	262.1	0.051
479	2390	6865.9	5825.4	262.1	0.050
480	2395	6866.7	5826.2	262.2	0.050
481	2400	6866.7	5826.2	262.2	0.050
482	2405	6866.7	5826.2	262.3	0.050
483	2410	6866.7	5826.2	262.4	0.050
484	2415	6868.2	5827.7	262.4	0.050
485	2420	6868.2	5827.7	262.5	0.050
486	2425	6868.2	5827.7	262.5	0.050
487	2430	6868.2	5827.7	262.6	0.050
488	2435	6868.2	5827.7	262.6	0.050
489	2440	6868.2	5827.7	262.7	0.049
490	2445	6868.2	5827.7	262.8	0.049
491	2450	6868.2	5827.7	262.8	0.049
492	2455	6868.2	5827.7	262.9	0.049
493	2460	6879.1	5838.6	262.9	0.049
494	2465	6879.1	5838.6	263.0	0.049
495	2470	6879.1	5838.6	263.0	0.049
496	2475	6879.1	5838.6	263.1	0.049
497	2480	6879.1	5838.6	263.2	0.049
498	2485	6879.1	5838.6	263.2	0.049
499	2490	6879.1	5838.6	263.3	0.049
500	2495	6879.1	5838.6	263.3	0.048
501	2500	6879.1	5838.6	263.4	0.048
502	2505	6881.4	5840.9	263.4	0.048
503	2510	6881.4	5840.9	263.5	0.048
504	2515	6881.4	5840.9	263.5	0.048
505	2520	6881.4	5840.9	263.6	0.048
506	2525	6881.4	5840.9	263.7	0.048
507	2530	6881.4	5840.9	263.7	0.048
508	2535	6881.4	5840.9	263.8	0.048
509	2540	6881.4	5840.9	263.8	0.048
510	2545	6881.4	5840.9	263.9	0.048
511	2550	6881.4	5840.9	263.9	0.047
512	2555	6881.4	5840.9	264.0	0.047
513	2560	6881.4	5840.9	264.0	0.047
514	2565	6881.4	5840.9	264.1	0.047
515	2570	6881.4	5840.9	264.1	0.047

LEGEND:

REPAIRED CHOKE

REMARKS:

TICKET NO: 00374600

CLOCK NO: 696      HOUR: 144



GAUGE NO: 700

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
516	2575	6881.4	5840.9	264.2	0.047
517	2580	6881.4	5840.9	264.2	0.047
518	2585	6881.4	5840.9	264.3	0.047
519	2590	6881.4	5840.9	264.4	0.047
520	2595	6881.4	5840.9	264.4	0.047
521	2600	6881.4	5840.9	264.5	0.047
522	2605	6881.4	5840.9	264.5	0.046
523	2610	6881.4	5840.9	264.6	0.046
524	2615	6881.4	5840.9	264.6	0.046
525	2620	6881.4	5840.9	264.7	0.046
526	2625	6881.4	5840.9	264.7	0.046
527	2630	6881.4	5840.9	264.8	0.046
528	2635	6881.4	5840.9	264.8	0.046
529	2640	6881.4	5840.9	264.9	0.046
530	2645	6881.4	5840.9	264.9	0.046
531	2650	6881.4	5840.9	265.0	0.046
532	2655	6881.4	5840.9	265.0	0.046
533	2660	6881.4	5840.9	265.1	0.046
534	2665	6881.4	5840.9	265.1	0.046
535	2670	6881.4	5840.9	265.2	0.045
536	2675	6881.4	5840.9	265.2	0.045
537	2680	6881.4	5840.9	265.3	0.045
538	2685	6881.4	5840.9	265.3	0.045
539	2690	6881.4	5840.9	265.4	0.045
540	2695	6881.4	5840.9	265.4	0.045
541	2700	6881.4	5840.9	265.5	0.045
542	2705	6881.4	5840.9	265.5	0.045
543	2710	6881.4	5840.9	265.6	0.045
544	2715	6881.4	5840.9	265.6	0.045
545	2720	6881.4	5840.9	265.6	0.045
546	2725	6881.4	5840.9	265.7	0.045
547	2730	6881.4	5840.9	265.7	0.044
548	2735	6881.4	5840.9	265.8	0.044
549	2740	6881.4	5840.9	265.8	0.044
550	2745	6881.4	5840.9	265.9	0.044
551	2750	6881.4	5840.9	265.9	0.044
552	2755	6881.4	5840.9	266.0	0.044
553	2760	6881.4	5840.9	266.0	0.044
554	2765	6881.4	5840.9	266.1	0.044
555	2770	6881.4	5840.9	266.1	0.044
556	2775	6881.4	5840.9	266.2	0.044
557	2780	6881.4	5840.9	266.2	0.044
558	2785	6881.4	5840.9	266.3	0.044
559	2790	6881.4	5840.9	266.3	0.044
560	2795	6881.4	5840.9	266.3	0.043
561	2800	6881.4	5840.9	266.4	0.043
562	2805	6881.4	5840.9	266.4	0.043
563	2810	6881.4	5840.9	266.5	0.043
564	2815	6881.4	5840.9	266.5	0.043
565	2820	6881.4	5840.9	266.6	0.043
566	2825	6881.4	5840.9	266.6	0.043
567	2830	6881.4	5840.9	266.7	0.043
568	2835	6881.4	5840.9	266.7	0.043

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
569	2840	6881.4	5840.9	266.7	0.043
570	2845	6881.4	5840.9	266.8	0.043
571	2850	6881.4	5840.9	266.8	0.043
572	2855	6881.4	5840.9	266.9	0.043
573	2860	6881.4	5840.9	266.9	0.043
574	2865	6881.4	5840.9	267.0	0.042
575	2870	6881.4	5840.9	267.0	0.042
576	2875	6881.4	5840.9	267.1	0.042
577	2880	6881.4	5840.9	267.1	0.042
578	2885	6882.2	5841.7	267.1	0.042
579	2890	6882.2	5841.7	267.2	0.042
580	2895	6882.2	5841.7	267.2	0.042
581	2900	6882.2	5841.7	267.3	0.042
582	2905	6882.2	5841.7	267.3	0.042
583	2910	6882.2	5841.7	267.4	0.042
584	2915	6882.2	5841.7	267.4	0.042
585	2920	6882.2	5841.7	267.4	0.042
586	2925	6882.2	5841.7	267.5	0.042
587	2930	6882.2	5841.7	267.5	0.042
588	2935	6882.2	5841.7	267.6	0.042
589	2940	6882.2	5841.7	267.6	0.041
590	2945	6883.7	5843.2	267.6	0.041
I 591	2951	6878.3	5837.8	267.7	0.041
ACID JOB					
J 1	0	6878.3			
2	5	8094.6			
3	10	8255.4			
4	15	8344.6			
5	20	8420.8			
6	25	8495.4			
7	30	8676.9			
8	35	8693.8			
9	40	8693.8			
10	45	8709.2			
11	50	8734.6			
12	55	8556.9			
13	60	8556.9			
14	65	8458.5			
15	70	8397.7			
16	75	8496.9			
17	80	8551.5			
18	85	8454.6			
19	90	8276.9			
20	95	8229.2			
21	100	8293.1			
22	105	8389.2			
23	110	8450.0			
24	115	8217.7			
25	120	8113.8			
K 26	127	8109.2			

LEGEND:

[ ] REPAIRED CHOKE

REMARKS:

TICKET NO: 00374600  
 CLOCK NO: 696      HOUR: 144



GAUGE NO: 700  
 DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
BLEED DOWN					
K 1	0	8109.2			
2	5	7827.1			
3	10	7773.6			
4	15	7745.7			
5	20	7720.9			
6	25	7690.7			
7	30	7671.3			
8	35	7654.3			
9	40	7640.3			
10	45	7621.7			
11	50	7609.3			
12	55	7596.1			
13	60	7585.3			
14	65	7574.4			
15	70	7562.0			
16	75	7550.4			
17	80	7545.0			
18	85	7533.3			
19	90	7521.7			
20	95	7516.3			
21	100	7506.2			
22	105	7499.2			
23	110	7492.2			
24	115	7489.1			
25	120	7479.1			
26	125	7469.8			
27	130	7462.0			
28	135	7456.6			
29	140	7446.5			
30	145	7441.9			
31	150	7435.7			
32	155	7430.2			
33	160	7424.8			
34	165	7421.7			
35	170	7417.1			
36	175	7411.6			
37	180	7407.8			
38	185	7401.6			
39	190	7397.7			
40	195	7393.8			
41	200	7388.4			
42	205	7383.7			
43	210	7381.4			
44	215	7378.3			
45	220	7372.9			
46	225	7369.0			
47	230	7365.9			
48	235	7363.6			
49	240	7358.9			
50	245	7358.1			
51	250	7355.8			

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
BLEED DOWN - CONTINUED					
52	255	7351.2			
53	260	7348.1			
54	265	7344.2			
55	270	7341.1			
56	275	7338.8			
57	280	7336.4			
58	285	7294.6			
59	290	7300.8			
60	295	7305.4			
61	300	7305.4			
62	305	7310.1			
L 63	312	7305.4			
THIRD FLOW					
M 1	0	7305.4			
2	5	7125.6	-179.8		
3	10	7049.6	-76.0		
4	15	6999.2	-50.4		
5	20	6950.4	-48.8		
6	25	6912.4	-38.0		
7	30	6881.4	-31.0		
8	35	6772.1	-109.3		
9	40	6705.4	-66.7		
10	45	6647.3	-58.1		
11	50	6603.1	-44.2		
12	55	6565.9	-37.2		
13	60	6524.8	-41.1		
14	65	6481.4	-43.4		
15	70	6445.7	-35.7		
16	75	6414.7	-31.0		
17	80	6382.9	-31.8		
18	85	6347.3	-35.7		
19	90	6318.6	-28.7		
20	95	6296.1	-22.5		
21	100	6263.6	-32.6		
22	105	6234.1	-29.5		
23	110	6207.8	-26.4		
24	115	6178.3	-29.5		
25	120	6148.8	-29.5		
26	125	6125.6	-23.3		
27	130	6100.0	-25.6		
28	135	6080.6	-19.4		
29	140	6055.8	-24.8		
30	145	6032.6	-23.3		
31	150	6009.3	-23.3		
32	155	5984.5	-24.8		
33	160	5963.6	-20.9		
34	165	5942.6	-20.9		
35	170	5924.0	-18.6		
36	175	5906.2	-17.8		
37	180	5888.4	-17.8		

LEGEND:  
 REPAIRED CHOKE

REMARKS:

TICKET NO: 00374600

CLOCK NO: 696 HOUR: 144



GAUGE NO: 700

DEPTH: 11109.6

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
THIRD FLOW - CONTINUED					
38	185	5866.7	-21.7		
39	190	5845.0	-21.7		
40	195	5824.8	-20.2		
41	200	5807.8	-17.1		
42	205	5788.4	-19.4		
43	210	5770.5	-17.8		
44	215	5755.0	-15.5		
45	220	5741.9	-13.2		
46	225	5724.0	-17.8		
47	230	5705.4	18.6		
48	235	5691.5	-14.0		
49	240	5645.0	-46.5		
50	245	5550.4	-94.6		
51	250	5503.9	-46.5		
52	255	5478.3	-25.6		
53	260	5453.5	-24.8		
54	265	5426.4	-27.1		
55	270	5403.1	-23.3		
56	275	5377.5	-25.6		
57	280	5358.9	-18.6		
58	285	5339.5	-19.4		
59	290	5320.2	-19.4		
60	295	5296.1	-24.0		
61	300	5276.0	-20.2		
62	305	5252.7	-23.3		
63	310	5236.4	-16.3		
64	315	5216.3	-20.2		
65	320	5195.3	-20.9		
66	325	5179.1	-16.3		
67	330	5159.7	-19.4		
68	335	5137.2	-22.5		
69	340	5120.2	-17.1		
70	345	5099.2	-20.9		
71	350	5082.9	-16.3		
72	355	5065.1	-17.8		
73	360	5048.8	-16.3		
74	365	5030.2	-18.6		
75	370	5015.5	-14.7		
76	375	5001.6	-14.0		
77	380	4985.9	-15.6		
78	385	4971.1	-14.8		
79	390	4954.7	-16.4		
80	395	4938.3	-16.4		
81	400	4923.4	-14.8		
82	405	4907.8	-15.6		
83	410	4891.4	-16.4		
84	415	4876.6	-14.8		
85	420	4858.6	-18.0		
86	425	4844.5	-14.1		
87	430	4918.0	73.4		
88	435	5014.0	96.0		
89	440	5083.7	69.8		
90	445	5112.4	28.7		

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
THIRD FLOW - CONTINUED					
91	450	5148.8	36.4		
92	455	5171.3	22.5		
93	460	5195.3	24.0		
94	465	5214.7	19.4		
95	470	5233.3	18.6		
96	475	5244.2	10.9		
97	480	5256.6	12.4		
98	485	5269.0	12.4		
99	490	5278.3	9.3		
100	495	5288.4	10.1		
101	500	5300.8	12.4		
102	505	5307.8	7.0		
103	510	5315.5	7.8		
104	515	5324.0	8.5		
105	520	5328.7	4.7		
106	525	5334.9	6.2		
107	530	5341.9	7.0		
108	535	5347.3	5.4		
109	540	5351.9	4.7		
110	545	5355.0	3.1		
111	550	5362.0	7.0		
112	555	5363.6	1.6		
113	560	5366.7	3.1		
114	565	5370.5	3.9		
115	570	5375.2	4.7		
116	575	5378.3	3.1		
117	580	5381.4	3.1		
118	585	5386.0	4.7		
119	590	5388.4	2.3		
120	595	5391.5	3.1		
121	600	5393.8	2.3		
122	605	5396.9	3.1		
123	610	5398.4	1.6		
124	615	5402.3	3.9		
125	620	5405.4	3.1		
126	625	5407.0	1.6		
127	630	5408.5	1.6		
128	635	5409.3	0.8		
129	640	5410.9	1.6		
130	645	5414.0	3.1		
131	650	5416.3	2.3		
132	655	5416.3	0.0		
133	660	5418.6	2.3		
134	665	5418.6	0.0		
135	670	5420.2	1.6		
136	675	5420.2	0.0		
N 137	681	5421.7	1.6		
THIRD CLOSED-IN					
N 1	0	5421.7			
2	5	5502.3	80.6	5.0	2.132

LEGEND:

REPAIRED CHOKE

REMARKS:

TICKET NO: 00374600

CLOCK NO: 696 HOUR: 144



GAUGE NO: 700

DEPTH: 11109.6























REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
THIRD CLOSED-IN - CONTINUED					
3	10	5531.6	110.1	10.0	1.835
4	15	5548.8	127.1	14.5	1.672
5	20	5567.4	145.7	19.5	1.544
6	25	5586.0	164.3	24.1	1.452
7	30	5600.8	179.1	28.7	1.375
8	35	5614.0	192.2	33.3	1.310
9	40	5627.9	206.2	37.9	1.255
10	45	5641.9	220.2	42.2	1.208
11	50	5653.5	231.8	46.6	1.165
12	55	5668.2	246.5	50.8	1.127
13	60	5679.0	258.1	55.1	1.092
14	65	5690.7	269.0	59.4	1.060
15	70	5702.3	280.6	63.6	1.030
16	75	5710.9	289.1	67.6	1.004
17	80	5721.7	300.0	71.5	0.979
18	85	5730.2	308.5	75.7	0.954
19	90	5741.1	319.4	79.6	0.932
20	95	5749.6	327.9	83.4	0.912
21	100	5756.6	334.9	87.3	0.892
22	105	5765.1	343.4	91.0	0.874
23	110	5772.9	351.2	94.8	0.857
24	115	5781.4	359.7	98.4	0.840
25	120	5790.7	369.0	102.0	0.825
26	125	5798.4	376.7	105.7	0.809
27	130	5806.2	384.5	109.1	0.795
28	135	5815.5	393.8	112.7	0.781
29	140	5822.5	400.8	116.3	0.768
30	145	5830.2	408.5	119.6	0.755
31	150	5838.0	416.3	122.9	0.744
32	155	5845.7	424.0	126.4	0.731
33	160	5850.4	428.7	129.7	0.720
34	165	5859.7	438.0	133.0	0.710
35	170	5863.6	441.9	136.1	0.699
36	175	5873.6	451.9	139.3	0.689
37	180	5878.3	456.6	142.5	0.679
38	185	5883.7	462.0	145.5	0.670
39	190	5889.9	468.2	148.5	0.661
40	195	5893.8	472.1	151.6	0.653
41	200	5899.2	477.5	154.7	0.644
42	205	5905.4	483.7	157.7	0.636
43	210	5912.4	490.7	160.6	0.627
44	215	5916.3	494.6	163.3	0.620
45	220	5924.0	502.3	166.3	0.612
46	225	5931.0	509.3	169.1	0.605
47	230	5935.7	514.0	172.0	0.598
48	235	5941.1	519.4	174.8	0.591
49	240	5945.7	524.0	177.5	0.584
50	245	5952.7	531.0	180.2	0.577
51	250	5958.1	536.4	182.8	0.571
52	255	5963.6	541.9	185.5	0.565
53	260	5968.2	546.5	188.1	0.559
54	265	5973.6	551.9	190.8	0.553
55	270	5978.3	556.6	193.3	0.547

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
THIRD CLOSED-IN - CONTINUED					
56	275	5981.4	559.7	196.0	0.541
57	280	5986.0	564.3	198.5	0.535
58	285	5991.5	569.8	200.9	0.530
59	290	5997.7	576.0	203.4	0.525
60	295	6003.1	581.4	205.9	0.520
61	300	6007.8	586.0	208.3	0.515
62	305	6013.2	591.5	210.6	0.510
63	310	6019.4	597.7	213.2	0.504
64	315	6024.0	602.3	215.5	0.500
65	320	6028.7	607.0	217.7	0.495
66	325	6033.3	611.6	220.1	0.491
67	330	6037.2	615.5	222.2	0.486
68	335	6044.2	622.5	224.5	0.482
69	340	6046.5	624.8	226.8	0.478
70	345	6049.6	627.9	229.0	0.473
71	350	6054.3	632.6	231.2	0.469
72	355	6058.1	636.4	233.4	0.465
73	360	6062.0	640.3	235.6	0.461
74	365	6093.8	672.1	237.6	0.457
75	370	6093.8	672.1	239.8	0.453
76	375	6094.6	672.9	241.8	0.450
77	380	6094.6	672.9	244.0	0.446
78	385	6094.6	672.9	245.9	0.443
79	390	6094.6	672.9	248.1	0.439
80	395	6102.3	680.6	250.0	0.435
81	400	6106.2	684.5	252.0	0.432
82	405	6109.3	687.6	253.9	0.429
83	410	6111.6	689.9	256.0	0.425
84	415	6117.8	696.1	258.0	0.422
85	420	6118.6	696.9	259.8	0.419
86	425	6123.3	701.6	261.7	0.415
87	430	6125.6	703.9	263.7	0.412
88	435	6130.2	708.5	265.6	0.409
89	440	6134.1	712.4	267.4	0.406
90	445	6138.8	717.1	269.1	0.403
91	450	6141.1	719.4	271.0	0.400
92	455	6144.2	722.5	272.8	0.397
93	460	6148.8	727.1	274.6	0.395
94	465	6151.2	729.5	276.4	0.392
95	470	6156.6	734.9	278.1	0.389
96	475	6160.5	738.8	279.9	0.386
97	480	6162.8	741.1	281.5	0.384
98	485	6165.1	743.4	283.3	0.381
99	490	6169.8	748.1	285.1	0.378
100	495	6172.1	750.4	286.7	0.376
101	500	6176.0	754.3	288.3	0.373
102	505	6179.8	758.1	290.0	0.371
103	510	6182.9	761.2	291.7	0.368
104	515	6184.5	762.8	293.2	0.366
0	105	6189.1	767.4	294.9	0.364

LEGEND:

☐ REPAIRED CHOKE

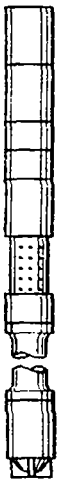
REMARKS:

		O.O.	I.O.	LENGTH	DEPTH
5					
5	CROSSOVER.....				
98			3.062	4.0	
5	CROSSOVER.....				
2		5.000	4.276		
5	CROSSOVER.....				
97		10.000	3.000	1.7	
5	CROSSOVER.....				
2		5.000	4.276		
6		10.870	3.000	2.7	
5	CROSSOVER.....				
2		5.000	4.276		
5				0.6	
2		3.500	2.992		
5	CROSSOVER.....				
10		5.000	2.250	5.5	
10		5.000	2.250	4.0	
10		5.000	2.250	4.0	
10		5.000	2.250	4.0	
10		5.000	2.250	4.0	
3		4.750	2.250	540.0	
54		5.000	2.250	2.3	11011.9
3		4.750	2.250	90.0	
54		5.000	2.250	2.3	11104.2
30		5.000	2.250	1.5	
64		5.000	2.250	3.9	11107.1
84		5.375	2.250	2.4	11109.7
57		4.625	2.250	2.1	

CONTINUED

EQUIPMENT DATA

		O.D.	I.D.	LENGTH	DEPTH
15	JAR.....	4.625	2.370	1.6	
35	RTTS SAFETY JOINT.....	4.870	2.440	1.0	
5	CROSSOVER.....	4.625	2.375	0.2	
5	CROSSOVER.....			0.5	
99	SEAL ASSEMBLY.....	3.500		9.1	11124.0
21	PERFORATED TAIL PIPE.....	3.220	2.375	3.0	
5	CROSSOVER.....	2.560	1.810		
2	TUBING.....	2.875			
24	SHOE.....				
TOTAL DEPTH					3490.0

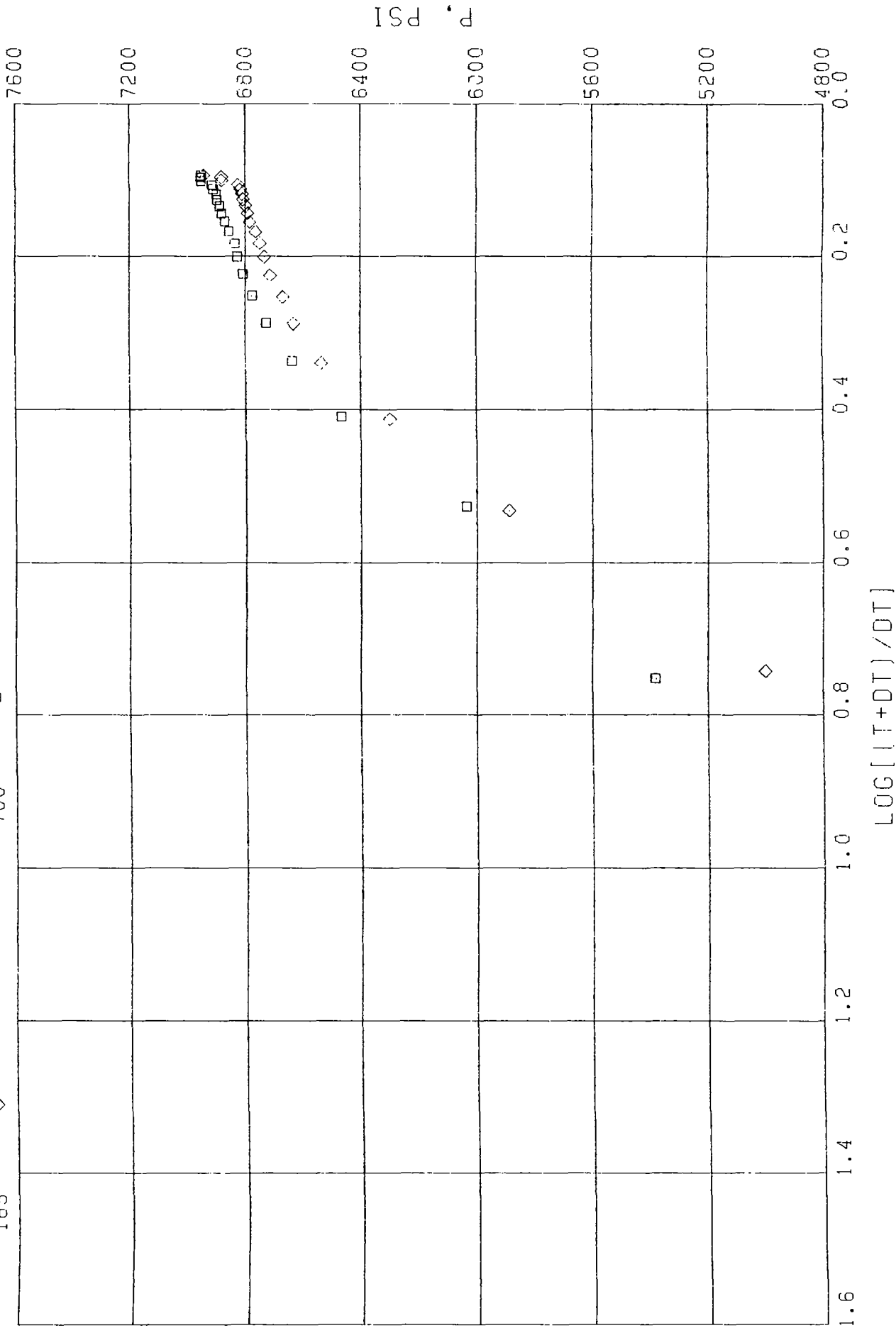




TICKET NO 00374600

GAUGE NO CIP 1 2 3  
700

GAUGE NO CIP 1 2 3  
165



PSI

$\text{LOG}[(T+DT)/DT]$

## SUMMARY OF RESERVOIR PARAMETERS USING HORNER METHOD

OIL GRAVITY <u>0.8</u> @60°	WATER % SALT <u>0.0</u>
GAS GRAVITY <u>0.672</u>	FLUID GRADIENT <u>0.4635</u> psi/ft
GAS/OIL RATIO <u>0.0</u> cu.ft/bbl	FORMATION VOL FACTOR <u>1.000</u> vol/vol
TEMPERATURE <u>240.0</u> °F	FLUID PROPERTIES AT <u>0.0</u> Psig
VISCOSITY <u>32.216</u> cp	NET PAY <u>3416.6</u> ft
PIPE CAPACITY FACTOR(S) _____	_____ bbl/ft

GAUGE NUMBER		185	700					
GAUGE DEPTH		11109.6	11109.6					
FLOW AND CIP PERIOD		1	1					UNITS
FINAL FLOW PRESSURE	$P_f$	4058.4	4073.4					Psig
TOTAL FLOW TIME	$t$	23.5	23.5					min
EXTRAPOLATED PRESSURE	$p^*$							Psig
ONE CYCLE PRESSURE								Psig
PRODUCTION RATE	$Q$							BPD
TRANSMISSIBILITY	$kh/\mu$							$\frac{md-ft}{cp}$
FLOW CAPACITY	$kh$							md-ft
PERMEABILITY	$k$							md
DAMAGE RATIO	DR							
POTENTIAL RATE	$Q_1$							BPD
RADIUS OF INVESTIGATION	$r_i$							ft

REMARKS:

**NOTICE:** THESE CALCULATIONS ARE BASED UPON INFORMATION FURNISHED BY YOU AND TAKEN FROM DRILL STEM PRESSURE CHARTS, AND ARE FURNISHED YOU FOR YOUR INFORMATION. IN FURNISHING SUCH CALCULATIONS AND EVALUATIONS BASED THEREON, HALLIBURTON IS MERELY EXPRESSING ITS OPINION. YOU AGREE THAT HALLIBURTON MAKES NO WARRANTY EXPRESS OR IMPLIED AS TO THE ACCURACY OF SUCH CALCULATIONS OR OPINIONS, AND THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER DUE TO NEGLIGENCE OR OTHERWISE, IN CONNECTION WITH SUCH OPINIONS.

# Nomenclature

<b>b</b>	= Approximate Radius of Investigation	Feet
<b>b<sub>1</sub></b>	= Approximate Radius of Investigation (Net Pay Zone h <sub>1</sub> )	Feet
<b>D.R.</b>	= Damage Ratio	—
<b>EI</b>	= Elevation	Feet
<b>GD</b>	= B.T. Gauge Depth (From Surface Reference)	Feet
<b>h</b>	= Interval Tested	Feet
<b>h<sub>1</sub></b>	= Net Pay Thickness	Feet
<b>K</b>	= Permeability	md
<b>K<sub>1</sub></b>	= Permeability (From Net Pay Zone h <sub>1</sub> )	md
<b>m</b>	= Slope Extrapolated Pressure Plot (Psi <sup>2</sup> /cycle Gas)	psi/cycle
<b>OF<sub>1</sub></b>	= Maximum Indicated Flow Rate	MCF/D
<b>OF<sub>2</sub></b>	= Minimum Indicated Flow Rate	MCF/D
<b>OF<sub>3</sub></b>	= Theoretical Open Flow Potential with /Damage Removed Max.	MCF/D
<b>OF<sub>4</sub></b>	= Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
<b>P<sub>s</sub></b>	= Extrapolated Static Pressure	Psig.
<b>P<sub>f</sub></b>	= Final Flow Pressure	Psig.
<b>P<sub>ot</sub></b>	= Potentiometric Surface (Fresh Water*)	Feet
<b>Q</b>	= Average Adjusted Production Rate During Test	bbbls/day
<b>Q<sub>1</sub></b>	= Theoretical Production w/Damage Removed	bbbls/day
<b>Q<sub>g</sub></b>	= Measured Gas Production Rate	MCF/D
<b>R</b>	= Corrected Recovery	bbbls
<b>r<sub>w</sub></b>	= Radius of Well Bore	Feet
<b>t</b>	= Flow Time	Minutes
<b>t<sub>o</sub></b>	= Total Flow Time	Minutes
<b>T</b>	= Temperature Rankine	°R
<b>Z</b>	= Compressibility Factor	—
<b>μ</b>	= Viscosity Gas or Liquid	CP
<b>Log</b>	= Common Log	

\*Potentiometric Surface Reference to Rotary Table When Elevation Not Given,  
Fresh Water Corrected to 100° F.

H-165  
HI 003746

HILLIS PET. CO. NORWAY D.S.T. #4 Gauge # 165  
K# 5929 180HR well # 1/9-6

← RPG time

BT time →

H-700  
HI 003746

HILLIS PET. CO. NORWAY D.S.T. #4 Gauge # 700  
K# 5929 180HR well # 1/9-6