

Open File Envelope

NUMBER 4199

PEL 5 AND PEL 6, PATCHAWARRA SOUTH-WEST BLOCK

EROMANGA AND COOPER BASINS

TINDILPIE 2

TEST REPORTS

Submitted by

Delhi Petroleum Pty Ltd
1985

© 30/12/94

MINES AND ENERGY
SOUTH AUSTRALIA



This report was supplied as part of the requirement to hold a mineral or petroleum exploration tenement in the State of South Australia.
MESA accepts no responsibility for statements made, or conclusions drawn, in the report or for the quality of text or drawings.
All rights reserved under the copyright. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the written permission of
Mines and Energy South Australia, PO Box 151, Eastwood, SA 5063

Enquiries: Information Services Branch
Mines and Energy South Australia
191 Greenhill Road, Parkside 5063
Telephone: (08) 274 7687
Facsimile: (08) 272 7597

ENVELOPE 4199

TENEMENT: PELs 5 and 6, Patchawarra South-West Block; Eromanga and Cooper Basins

TENEMENT HOLDER: Delhi Petroleum Pty Ltd (operator), Vamgas Ltd, Santos Ltd, Hartogen Energy Ltd, Endeavour Resources Ltd and South Australian Oil and Gas Corp. Pty Ltd

CONTENTS

REPORTS:	Halliburton Services, 1985. Formation testing service report, DST 3 (4/1/85).	MESA NO. 4199 R 1 Pgs 3-13	
	Halliburton Services, 1985. Formation testing service report, DST 4 (4/1/85).	4199 R 2 Pgs 14-19	
	Halliburton Services, 1985. Formation testing service report, DST 5 (4/1/85).	4199 R 3 Pgs 20-30	
	Halliburton Services, 1985. Formation testing service report, DST 6 (11/1/85).	4199 R 4 Pgs 31-39	
	Young, N.J., 1985. Velocity survey - time/depth calibration (Delhi Geophysics Branch, November 1985).	4199 R 5 Pgs 40-55	
PLANS			
Encl. 1	Shot record table (after Pg. 55).	4199-1	A1
Encl. 2	Sonic velocity and T/Z [time-depth calibration] diagram.	4199-2	>A0
REPORTS:	Halliburton Services, 1984. Formation testing service report, DST 1 (16/11/84).	4199 R 6 Pgs 56-65	
	Halliburton Services, 1984. Formation testing service report, DST 2 (16/11/84).	4199 R 7 Pgs 66-76	

END OF CONTENTS

735

00003



TICKET NO. 32411900
04-JUN-85
MOOMBA

LEGAL LOCATION	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME
INDILPIE	2	3	9888.1 - 9979.0	DELHI/SANTOS
LEASE NAME				
SEC. - TYP. - RING.				
SEE REMARKS	FIELD AREA	PATCHAMARRA/COOPER	COUNTY	STATE
			SOUTH AUSTRALIA	AUSTRALIA OR

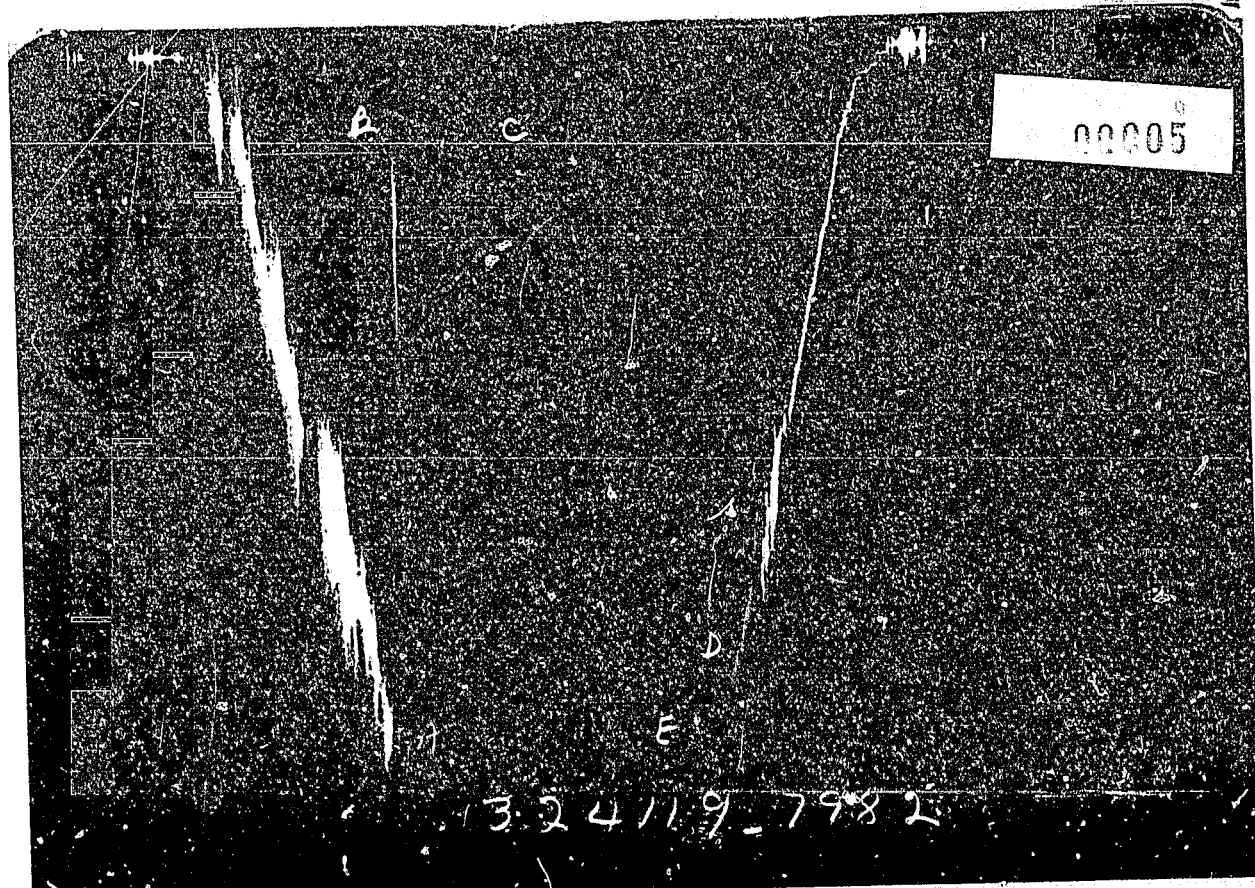
FORMATION TESTING SERVICE REPORT

00004

324119-8723

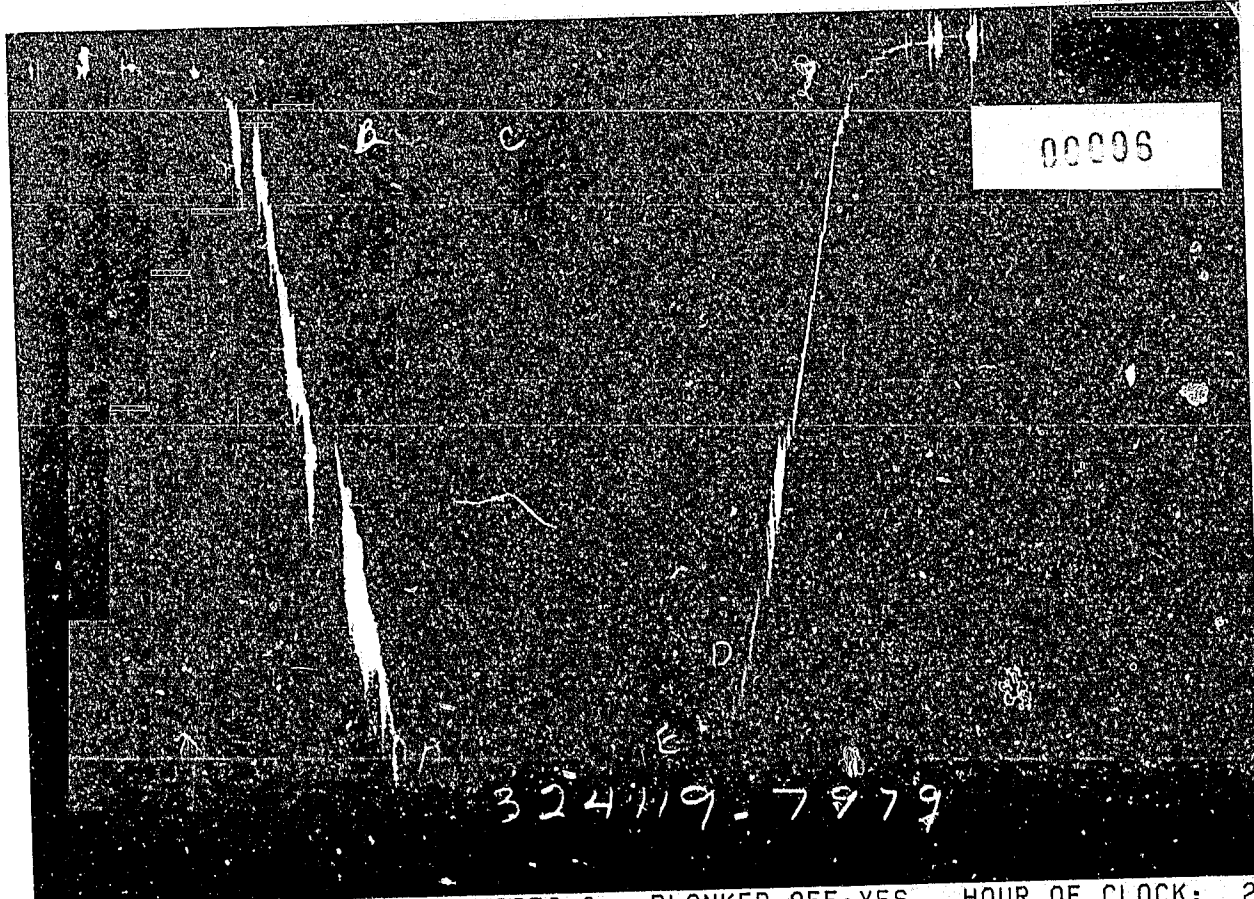
GAUGE NO: 8723 DEPTH: 9843.5 BLANKED OFF: NO HOUR OF CLOCK: 48

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		494.4			
C	FINAL FIRST FLOW	547	617.3	123.0	123.2	F
C	INITIAL FIRST CLOSED-IN	547	617.3			
D	FINAL FIRST CLOSED-IN		600.5	240.0	239.8	C
E	FINAL HYDROSTATIC					



GAUGE NO: 7982 DEPTH: 9865.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	4360	4740.7			
B	INITIAL FIRST FLOW	448	510.4	123.0	123.2	F
C	FINAL FIRST FLOW	555	596.5			
C	INITIAL FIRST CLOSED-IN	555	596.5	240.0	239.8	C
D	FINAL FIRST CLOSED-IN	3856	4234.2			
E	FINAL HYDROSTATIC	4309	4717.9			



GAUGE NO: 7979 DEPTH: 9976.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	4427	4801.6			
B	INITIAL FIRST FLOW	496	586.9	123.0	123.2	F
C	FINAL FIRST FLOW	588	643.9			
C	INITIAL FIRST CLOSED-IN	588	643.9	240.0	239.8	C
D	FINAL FIRST CLOSED-IN	3950	4253.0			
E	FINAL HYDROSTATIC	4409	4751.5			

682

90007

EQUIPMENT & HOLE DATA			TICKET NUMBER: 32411900		
FORMATION TESTED: <u>PATCHAWARRA</u>			DATE: <u>9-24-84</u> TEST NO: <u>3</u>		
NET PAY (ft): _____			TYPE DST: <u>OPEN HOLE</u>		
GROSS TESTED FOOTAGE: <u>90.9</u>			HALLIBURTON CAMP: _____		
ALL DEPTHS MEASURED FROM: <u>R. KELLY BUSHING</u>			MOOMBA		
CASING PERFS. (ft): _____			TESTER: <u>MARK PARSONS</u>		
HOLE OR CASING SIZE (in): <u>8.500</u>			WITNESS: <u>RAY EEL</u>		
ELEVATION (ft): <u>121.1</u>			DRILLING CONTRACTOR: _____		
TOTAL DEPTH (ft): <u>9979.0</u>			RICHTER RIG #14		
PACKER DEPTH(S) (ft): <u>9880, 9888</u>					
FINAL SURFACE CHOKE (in): <u>0.50000</u>					
BOTTOM HOLE CHOKE (in): <u>0.750</u>					
MUD WEIGHT (lb/gal): <u>9.20</u>					
MUD VISCOSITY (sec): <u>40</u>					
ESTIMATED HOLE TEMP. (°F): _____					
ACTUAL HOLE TEMP. (°F): <u>279 @ 9975.0 ft</u>					
FLUID PROPERTIES FOR RECOVERED MUD & WATER			SAMPLER DATA		
SOURCE	RESISTIVITY	CHLORIDES	Pstg AT SURFACE: _____		
<u>MUDDY WATER</u>	<u>0.360 @ 74 °F</u>	_____ ppm	cu.ft. OF GAS: _____		
_____	_____ °F	_____ ppm	cc OF OIL: _____		
_____	_____ °F	_____ ppm	cc OF WATER: _____		
_____	_____ °F	_____ ppm	cc OF MUD: _____		
_____	_____ °F	_____ ppm	TOTAL LIQUID cc: _____		
_____	_____ °F	_____ ppm			
HYDROCARBON PROPERTIES			CUSHION DATA		
OIL GRAVITY (°API): _____ °F			TYPE	AMOUNT	WEIGHT
GAS/OIL RATIO (cu.ft. per bbl): _____			<u>WATER (FT.)</u>	<u>1000.0</u>	<u>8.34</u>
GAS GRAVITY: _____			_____	_____	_____
RECOVERED:					
180' OF MUD					
650' OF SLIGHTLY MUDDY WATER					
600' OF GAS CUT WATERY MUD AND MUD					
MEASURABLE GAS TO SURFACE					
REMARKS:					
LEGAL LOCATION: LAT. 27 DEGREES 54' 18.8" SOUTH, LONG. 139 DEGREES 55' 26.3" EAST					

MEASURED FROM
TESTER VALVE

00008

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC CHOKE IN SURFACE MANIFOLD					TICKET NO: 32411900
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
9-23-84					
2355					LOADED B.T. 8723
9-24-84					
0004					LOADED B.T. 7982
0011					LOADED B.T. 7979
0205					STARTED PICKING UP TOOLS
0335					TOOLS MADE UP, STARTED IN HOLE
0550					MADE UP HEAD ON SINGLE AND
					LAIID IN V-DOOR
0730					HEAD UP AND RIGGED UP CHOKE
					MANIFOLD
0735					SET PACKER WITH 30,000#
0737					OPENED TOOL WITH A WEAK BLOW,
					FLOW SHUT IN AT MANIFOLD
0738					VERY WEAK BLOW, INCREASING
					SLOWLY
0742	.50				VERY WEAK BLOW, OPENED CHOKE
					MANIFOLD
0743					SLIGHT DECREASE IN BUBBLE
					BUCKET
0751					INCREASING SLIGHTLY
0752					MODERATE BLOW IN BUBBLE BUCKET
0754					STRONG BLOW AND INCREASING
0755		1.0			SAME
0758		2.0			SAME
0800		3.0			SAME
0803		5.0			GAS TO SURFACE
0805		9.0			PRESSURE BUILDING UP THROUGHOUT
					REMAINDER OF FLOW PERIOD
0817		15.0			
0820		17.00			
0825		23.0			
0830		31.0			
0835		36.0			
0840		40.0			
0845		43.0			
0850		47.0			

00009

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC CHOKE IN SURFACE MANIFOLD

[illegible]

00010

272

TICKET NO: 32411900
CLOCK NO: 25064 HOUR: 48



GAUGE NO: 8723
DEPTH: 9843.5

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$	REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW											
B	1	0.0	494.4								
	2	5.0	443.7	-50.7							
	3	10.0	445.2	1.5							
	4	15.0	451.7	6.5							
	5	20.0	473.9	22.2							
	6	25.0	486.9	13.0							
	7	30.0	513.8	26.9							
	8	35.0	514.4	0.6							
	9	40.0	520.9	6.4							
	10	45.0	528.1	7.3							
	11	50.0	537.7	9.5							
	12	55.0	547.3	9.7							
	13	60.0	555.1	7.7							
	14	65.0	562.0	6.9							
	15	70.0	568.6	6.6							
	16	75.0	575.7	7.1							
	17	80.0	581.5	5.8							
	18	85.0	588.1	6.6							
	19	90.0	594.2	6.1							
	20	95.0	597.6	3.4							
	21	100.0	601.5	3.9							
	22	105.0	607.6	6.1							
	23	110.0	610.2	2.6							
	24	115.0	613.1	2.9							
	25	120.1	615.3	2.3							
C	26	123.2	617.3	1.9							
FIRST CLOSED-IN											
C	1	0.0	617.3								
D	2	239.8	600.5	-16.8	81.4	0.180					

REMARKS:

871

00011

TICKET NO: 32411900
CLOCK NO: 26547 HOUR: 24



GAUGE NO: 7982
DEPTH: 9865.0

REF	MINUTES	PRESSURE	AP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$	REF	MINUTES	PRESSURE	AP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$
FIRST FLOW						FIRST CLOSED-IN - CONTINUED					
B	1	0.0	510.4			23	40.0	3901.0	3304.4	30.2	0.611
	2	5.0	430.6	-79.8		24	45.0	3941.6	3345.1	33.0	0.573
	3	10.0	425.8	-4.8		25	50.0	3972.7	3376.2	35.6	0.539
	4	15.0	442.9	17.1		26	55.0	3999.0	3402.5	38.0	0.510
	5	20.0	464.8	21.9		27	60.0	4021.2	3424.7	40.3	0.485
	6	25.0	472.2	7.4		28	70.0	4058.0	3461.5	44.6	0.441
	7	30.0	482.6	10.4		29	80.0	4088.6	3492.0	48.5	0.405
	8	35.0	490.2	15.7		30	90.0	4112.1	3515.5	52.0	0.374
	9	40.0	500.5	4.3		31	100.0	4131.0	3534.5	55.2	0.349
	10	45.0	506.4	5.9		32	110.0	4148.2	3551.7	58.1	0.326
	11	50.0	514.6	8.2		33	120.0	4160.9	3564.4	60.8	0.307
	12	55.0	524.3	9.7		34	135.0	4178.3	3579.8	64.4	0.282
	13	60.0	532.6	8.2		35	150.0	4191.5	3595.0	67.6	0.260
	14	65.0	539.0	6.4		36	165.0	4201.1	3604.6	70.5	0.242
	15	70.0	547.5	8.6		37	180.0	4209.3	3612.8	73.1	0.226
	16	75.0	553.1	5.6		38	195.0	4218.5	3621.9	75.5	0.213
	17	80.0	559.5	6.4		39	210.0	4224.3	3627.8	77.6	0.200
	18	85.0	565.5	5.9		40	225.0	4228.7	3633.2	79.6	0.190
	19	90.0	571.2	5.8		D 41	239.8	4234.2	3637.6	81.4	0.180
	20	95.0	574.3	3.1							
	21	100.0	579.8	5.4							
	22	105.0	584.5	4.8							
	23	110.0	588.8	4.3							
	24	115.0	591.0	2.1							
	25	120.0	593.6	2.6							
C	26	123.2	596.5	3.0							
FIRST CLOSED-IN											
C	1	0.0	596.5								
	2	1.0	862.3	265.8	1.0	2.109					
	3	2.0	1162.8	566.3	2.0	1.792					
	4	3.0	1441.2	844.6	2.9	1.622					
	5	4.0	1723.8	1127.3	3.9	1.501					
	6	5.0	1939.0	1342.5	4.8	1.408					
	7	6.0	2137.3	1540.7	5.7	1.335					
	8	7.0	2377.2	1780.6	6.6	1.268					
	9	8.0	2527.0	1930.4	7.5	1.217					
	10	9.0	2686.3	2089.8	8.4	1.167					
	11	10.0	2836.0	2239.5	9.3	1.123					
	12	12.0	3068.7	2472.2	10.9	1.052					
	13	14.0	3242.7	2646.2	12.5	0.992					
	14	16.0	3373.8	2777.3	14.2	0.938					
	15	18.0	3488.6	2892.0	15.7	0.894					
	16	20.0	3561.7	2965.1	17.2	0.855					
	17	22.0	3629.8	3033.2	18.7	0.820					
	18	24.0	3678.9	3082.4	20.1	0.788					
	19	26.0	3723.8	3127.3	21.4	0.759					
	20	28.0	3763.5	3166.9	22.8	0.732					
	21	30.0	3793.3	3196.7	24.1	0.708					
	22	35.0	3855.1	3258.6	27.3	0.655					

REMARKS:

TICKET NO: 32411900
CLOCK NO: 16055 HOUR: 24



GAUGE NO: 7979
DEPTH: 9976.0

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW					
B 1	0.0	586.9			
2	5.0	505.9	-81.0		
3	10.0	495.8	-10.0		
4	15.0	539.0	43.1		
5	20.0	561.0	22.1		
6	25.0	595.8	34.7		
7	30.0	612.1	16.3		
8	35.0	572.9	-39.2		
9	40.0	553.0	-19.9		
10	45.0	557.8	4.8		
11	50.0	571.6	14.0		
12	55.0	585.7	14.0		
13	60.0	601.4	15.6		
14	65.0	614.4	13.0		
15	70.0	624.6	10.2		
16	75.0	632.2	7.6		
17	80.0	638.8	6.6		
18	85.0	645.8	7.1		
19	90.0	650.8	4.9		
20	95.0	655.9	5.1		
21	100.0	660.3	4.4		
22	105.0	637.6	-22.7		
23	110.0	640.1	2.5		
24	115.0	641.9	1.8		
25	120.0	643.4	1.5		
C 26	123.2	643.9	0.5		
FIRST CLOSED-IN					
C 1	0.0	643.9			
2	1.0	1038.8	394.9	1.0	2.084
3	2.0	1315.3	271.4	2.0	1.800
4	3.0	1600.2	286.3	2.9	1.623
5	4.0	1817.1	217.3	3.9	1.499
6	5.0	2013.0	196.1	4.8	1.409
7	6.0	2187.6	174.8	5.7	1.336
8	7.0	2358.1	171.3	6.6	1.271
9	8.0	2563.5	205.7	7.5	1.213
10	9.0	2691.9	208.0	8.4	1.166
11	10.0	2823.6	217.7	9.2	1.125
12	12.0	3045.9	2402.1	10.9	1.052
13	14.0	3200.5	2556.6	12.6	0.991
14	16.0	3343.7	2699.8	14.2	0.939
15	18.0	3452.8	2808.9	15.7	0.895
16	20.0	3545.9	2902.1	17.2	0.855
17	22.0	3623.6	2979.7	18.7	0.819
18	24.0	3682.1	3038.2	20.1	0.788
19	26.0	3732.4	3088.5	21.5	0.758
20	28.0	3778.8	3134.9	22.8	0.733
21	30.0	3813.1	3169.2	24.1	0.708
22	35.0	3880.4	3236.5	29.3	0.655

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST CLOSED-IN - CONTINUED					
23	40.0	3926.5	3282.6	30.2	0.610
24	45.0	3965.1	3321.2	33.0	0.572
25	50.0	3994.0	3350.1	35.6	0.540
26	55.0	4021.8	3377.9	38.0	0.511
27	60.0	4044.4	3400.5	40.4	0.485
28	70.0	4080.0	3436.1	44.6	0.441
29	80.0	4111.4	3467.5	48.5	0.405
30	90.0	4134.6	3490.8	52.0	0.375
31	100.0	4150.6	3506.7	55.2	0.349
32	110.0	4165.2	3521.3	58.1	0.326
33	120.0	4180.1	3536.3	60.8	0.307
34	135.0	4201.0	3557.1	64.4	0.282
35	150.0	4212.3	3568.5	67.6	0.260
36	165.0	4221.3	3577.4	70.5	0.242
37	180.0	4231.7	3587.8	73.1	0.226
38	195.0	4236.7	3592.8	75.5	0.213
39	210.0	4241.6	3597.7	77.6	0.200
40	225.0	4247.3	3603.4	79.6	0.190
D 41	239.8	4253.0	3609.1	81.4	0.180

REMARKS:

TICKET NO. 32411900

577
00013

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	9269.6	
4		FLEX WEIGHT.....	4.500	2.764	180.0	
3		DRILL COLLARS.....	6.500	2.875	360.9	
50		IMPACT REVERSING SUB.....	5.750	3.000	1.0	9810.5
3		DRILL COLLARS.....	6.500	2.875	30.9	
5		CROSSOVER.....	5.750		1.0	
80		AP RUNNING CASE.....	5.000	2.250	4.1	9843.5
5		CROSSOVER.....	5.000	2.500	1.0	
12		DUAL CIP VALVE.....	5.000	0.870	4.9	
97		SAMPLER CHAMBER.....	5.000	2.250	4.9	9853.0
5		CROSSOVER.....	5.000	2.250	0.8	
60		HYDROSPRING TESTER.....	5.000	0.750	5.0	9863.0
80		AP RUNNING CASE.....	5.000	2.250	4.0	9865.0
15		JAR.....	5.000	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	2.7	
70		OPEN HOLE PACKER.....	6.250	1.530	5.8	9880.0
18		DISTRIBUTOR VALVE.....	5.000	1.680	2.9	
70		OPEN HOLE PACKER.....	6.250	1.530	5.4	9888.1
19		ANCHOR PIPE SAFETY JOINT.....	5.000	1.500	4.2	
5		CROSSOVER.....	5.750	2.500	1.0	
3		DRILL COLLARS.....	6.500	2.875	59.1	
5		CROSSOVER.....	5.750	2.500	1.0	
20		FLUSH JOINT ANCHOR.....	5.000	2.370	20.0	
81		BLANKED-OFF RUNNING CASE.....	5.000		4.1	9976.0
TOTAL DEPTH					9979.0	

EQUIPMENT DATA

EQUIPMENT DATA

411

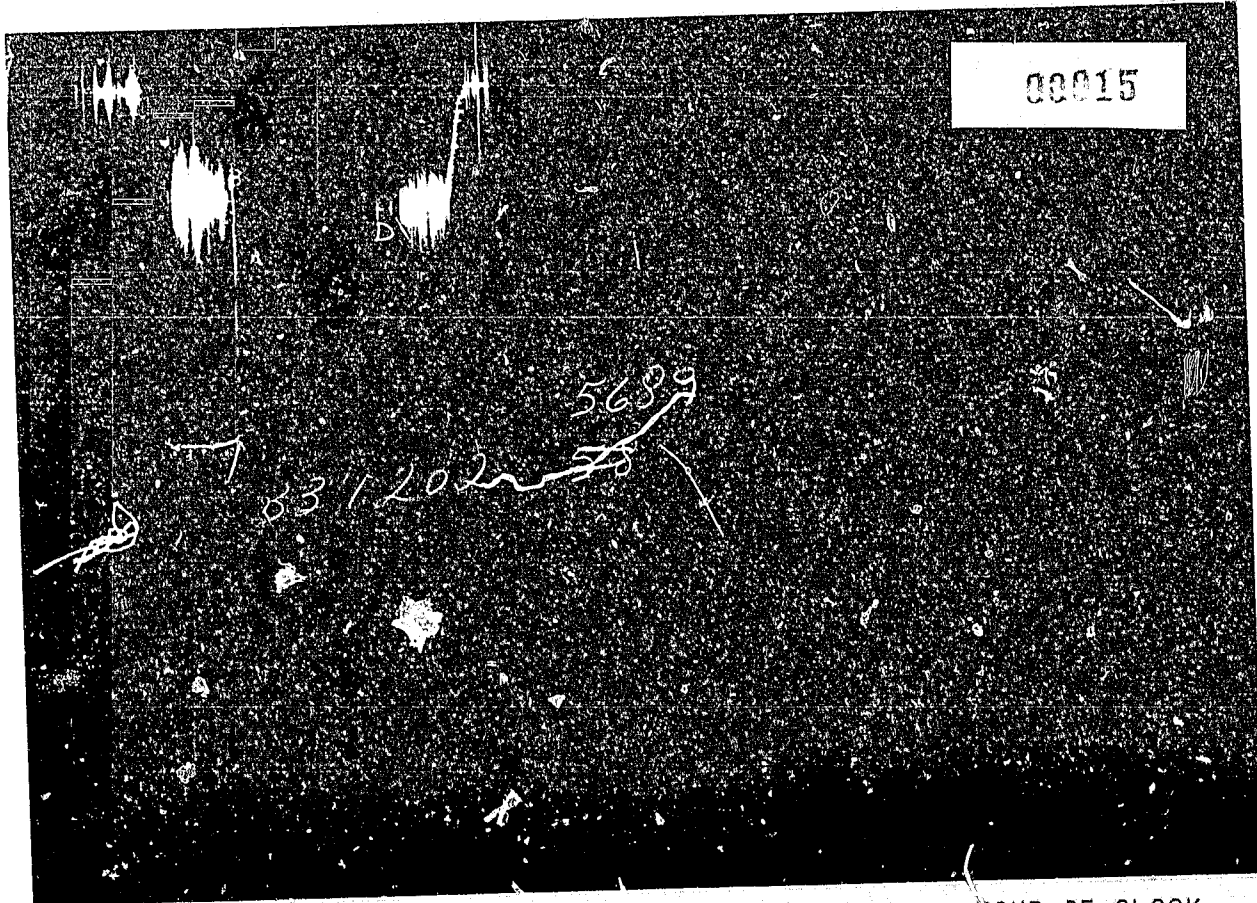
00014



TICKET NO. 33720200
04-JAN-85
MODMBA

TINDILPIE		2		4		10359.1 - 10445.1		DELHI/SANTOS	
LEASE NAME		WELL NO.		TEST NO.		TESTED INTERVAL		LEASE OWNER/COMPANY NAME	
LEGAL LOCATION		FIELD AREA		COOPER BASIN		COUNTY SOUTH AUSTRALIA		STATE AUSTRALIA	
SEC. - TYP. - RING.		SEE REMARKS						IC	

FORMATION TESTING SERVICE REPORT



GAUGE NO: 5689 DEPTH: 10314.8 BLANKED OFF: NO HOUR OF CLOCK: 48

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		1041.1			
C	FINAL FIRST FLOW		1134.4	120.0	120.0	F
C	INITIAL FIRST CLOSED-IN		1134.4			
D	FINAL FIRST CLOSED-IN	1133	1146.3	240.0	240.0	C
E	FINAL HYDROSTATIC					

817

00016

337292-5368

GAUGE NO: 8568 DEPTH: 10335.9 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	4852	4996.4			
B	INITIAL FIRST FLOW	1063	1072.3	120.0	120.0	F
C	FINAL FIRST FLOW	1076	1080.7			
C	INITIAL FIRST CLOSED-IN	1076	1080.7	240.0	240.0	C
D	FINAL FIRST CLOSED IN	2695	2755.4			
E	FINAL HYDROSTATIC	4832	4936.2			

00017 414

EQUIPMENT & HOLE DATA			TICKET NUMBER: 33720200		
FORMATION TESTED: PATCHAWARRA			DATE: 9-27-84 TEST NO: 4		
NET PAY (ft):			TYPE DST: OPEN HOLE		
GROSS TESTED FOOTAGE: 86.5			HALLIBURTON CAMP: MOOMBA		
ALL DEPTHS MEASURED FROM: KELLY BUSHING			TESTER: VANCE BLATT		
CASING PERFS. (ft):			WITNESS: ROY EEL		
HOLE OR CASING SIZE (in): 8.500			DRILLING CONTRACTOR: RICHTER #14		
ELEVATION (ft): -22					
TOTAL DEPTH (ft): 10445.0					
PACKER DEPTH(S) (ft): 10351, 10359					
FINAL SURFACE CHOKE (in): 0.500					
BOTTOM HOLE CHOKE (in): 0.750					
MUD WEIGHT (lb/gal): 9.20					
MUD VISCOSITY (sec): 37					
ESTIMATED HOLE TEMP. (°F):					
ACTUAL HOLE TEMP. (°F): 283 @ 10440.9 ft					
FLUID PROPERTIES FOR RECOVERED MUD & WATER			SAMPLER DATA		
SOURCE	RESISTIVITY	CHLORIDES	Pstg AT SURFACE:		
	°F	ppm	cu.ft. OF GAS:		
	°F	ppm	cc OF OIL:		
	°F	ppm	cc OF WATER:		
	°F	ppm	cc OF MUD:		
	°F	ppm	TOTAL LIQUID cc:		
HYDROCARBON PROPERTIES			CUSHION DATA		
OIL GRAVITY (°API): °F			TYPE AMOUNT WEIGHT		
GAS/OIL RATIO (cu.ft. per bbl):			WATER (FEET) 2300.0 8.33		
GAS GRAVITY:					
RECOVERED:			MEASURED FROM TESTER VALVE		
249 FEET OF RAT HOLE MUD					
REMARKS:					
1. TEST DATA WAS REPORTED AS 27/SEPT/1984.					
2. NO BOTTOM GAUGE CHART AVAILABLE - NOT SENT IN.					
3. CHARTS INDICATE POSSIBLE LEAKAGE DURING THE CIP AND POSSIBLE PLUGGING DURING THE FLOW - ALL READINGS ARE QUESTIONABLE.					
4. LEGAL LOCATION: LATITUDE-27 DEGREES, 54', 18.8"S; LONGITUDE-139 DEGREES, 55', 26.3"E.					

81000 415

[illegible]

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	9739.0	
4		FLEX WEIGHT.....	6.000	2.813	179.5	
3		DRILL COLLARS.....	6.000	2.875	361.7	
51		PUMP OUT REVERSING SUB.....	6.000	3.000	1.0	10281.3
50		IMPACT REVERSING SUB.....	6.000	3.000	1.0	10292.8
3		DRILL COLLARS.....	6.000	2.875	30.0	
5		CROSSOVER.....	5.750	1.500	1.0	
80		AP RUNNING CASE.....	5.000	2.250	4.1	10314.9
5		CROSSOVER.....	5.000	2.200	1.0	
12		DUAL CIP VALVE.....	5.000	0.870	4.9	
97		SAMPLE CHAMBER.....	5.000	2.500	4.9	10233.9
33		DRAIN VALVE.....	5.000	2.200	0.9	
60		HYDROSPRING TESTER.....	5.000	0.750	5.3	10333.9
80		AP RUNNING CASE.....	5.000	2.250	4.1	10335.9
15		JAR.....	5.000	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	2.8	
70		OPEN HOLE PACKER.....	5.000	1.680	5.9	10350.6
18		DISTRIBUTOR VALVE.....	5.000	1.680	2.0	
70		OPEN HOLE PACKER.....	5.000	1.680	5.9	10358.5
19		ANCHOR PIPE SAFETY JOINT.....	5.000	1.500	4.3	
5		CROSSOVER.....	6.000	2.875	1.0	
3		DRILL COLLARS.....	6.000	2.875	59.1	
5		CROSSOVER.....	6.000	2.875	1.0	
20		FLUSH JOINT ANCHOR.....	5.000	2.370	15.0	
81		BLANKED-OFF RUNNING CASE.....	5.000		4.1	10441.9
TOTAL DEPTH					10445.0	

EQUIPMENT DATA

EQUIPMENT DATA

682

00020



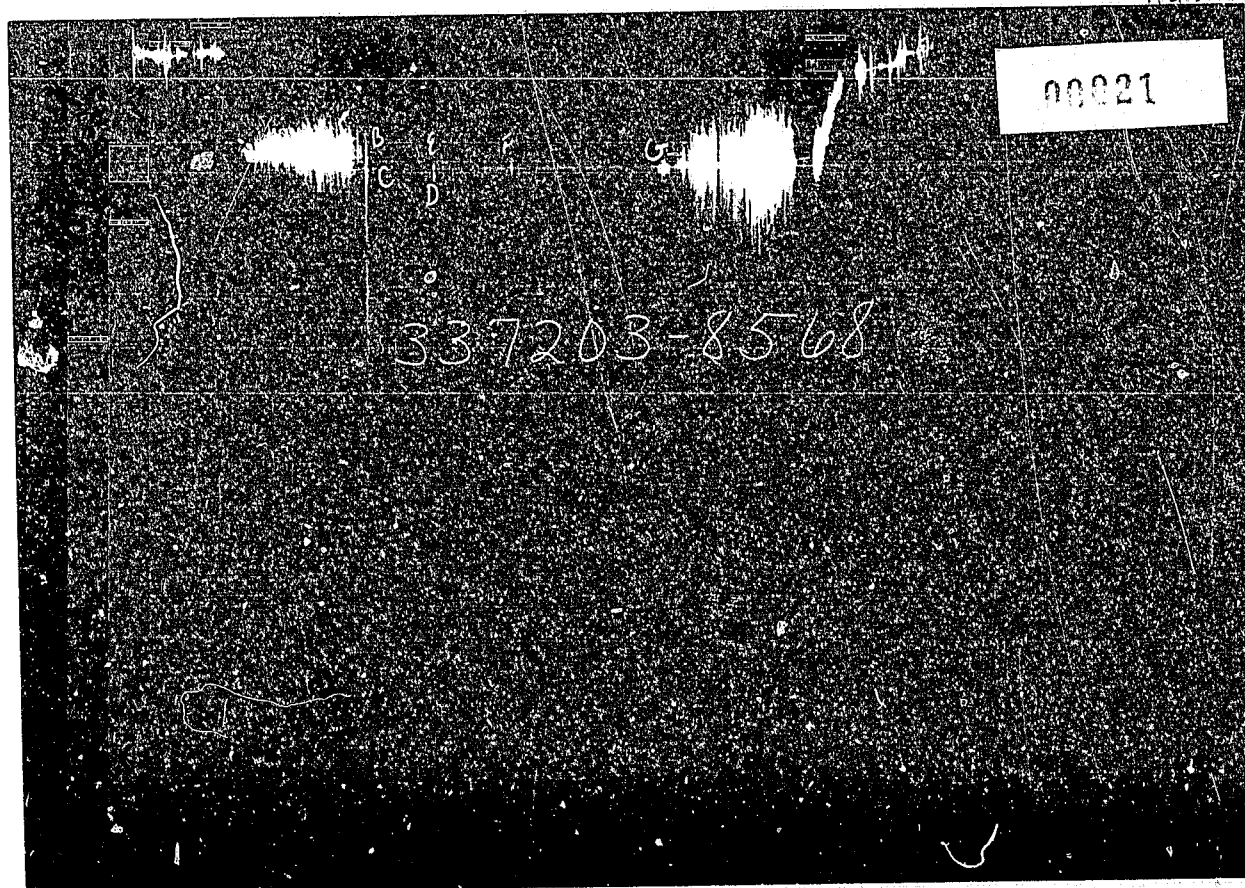
TICKET NO. 93720300

00-JAN-85

MOOMBA

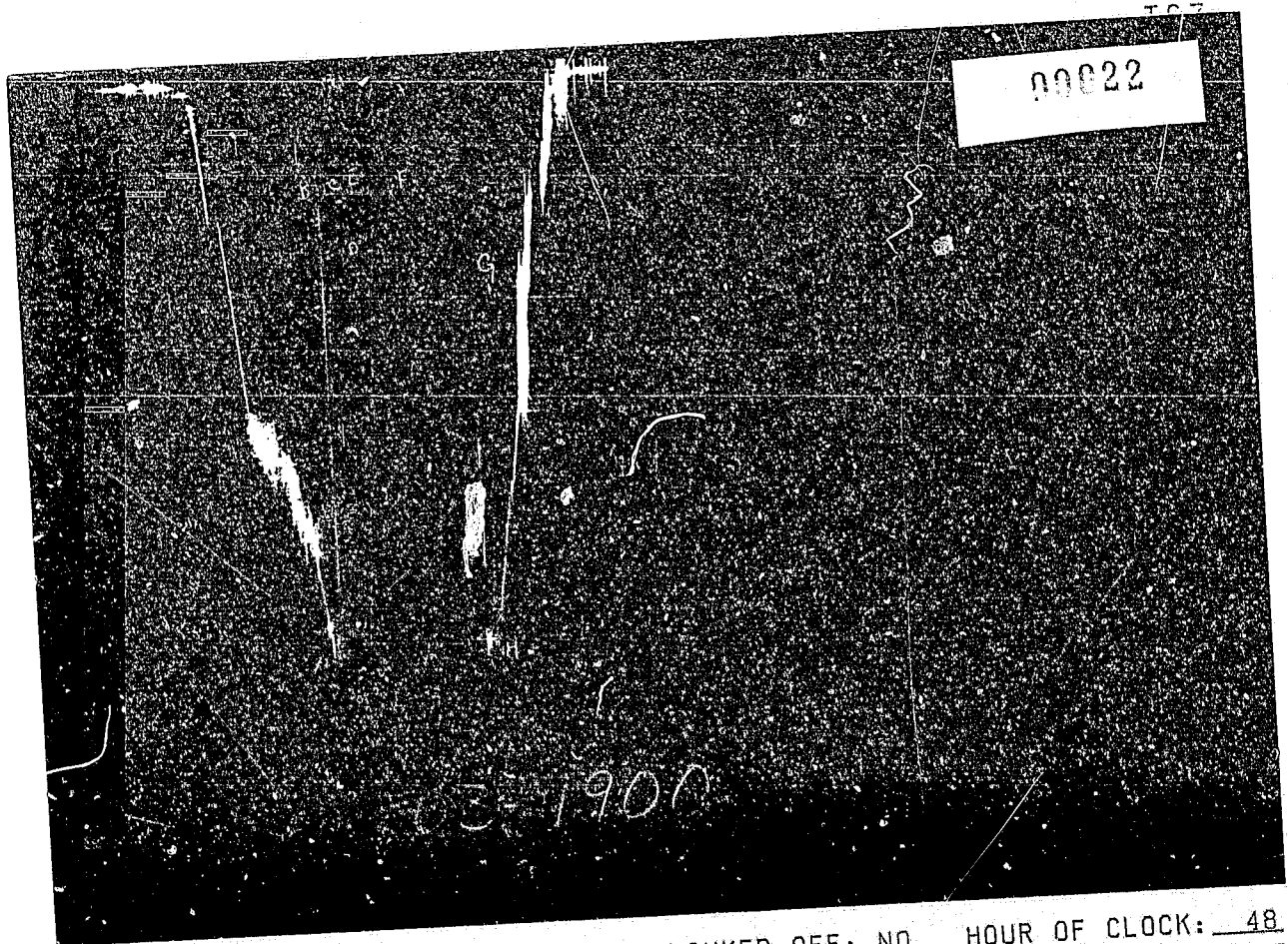
FORMATION TESTING SERVICE REPORT

LEASE NAME	TINDILPIE	WELL NO.	2	TEST NO.	5	TESTED INTERVAL	10354.1 - 10445.1	LEASE OWNER/COMPANY NAME	DELHI/SANTOS
LEGAL LOCATION SEC. - TWP. - RNC.	SEE REMARKS			FIELD AREA	COOPER BASIN		COUNTY	SOUTH AUSTRALIA	STATE AUSTRALIA
					BG/IC				



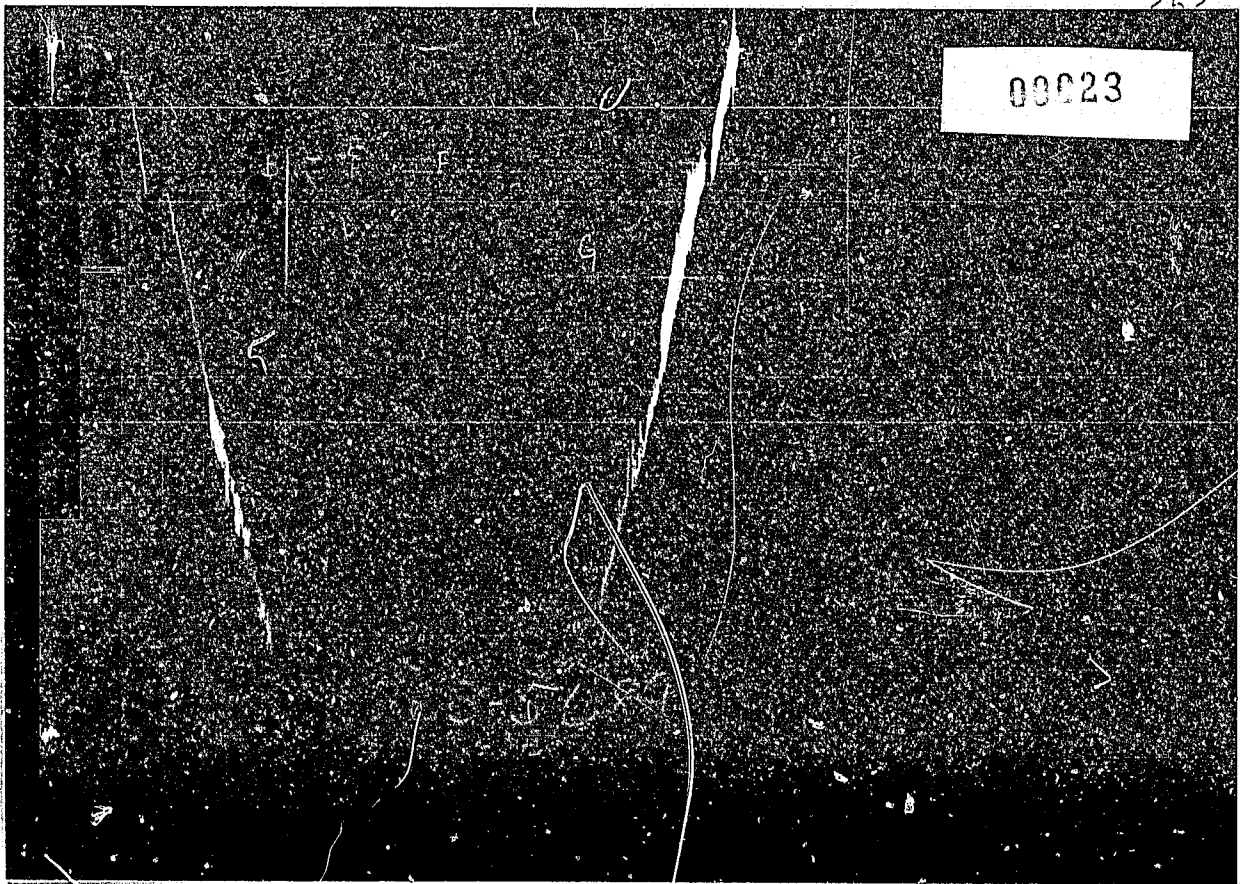
GAUGE NO: 8568 DEPTH: 10309.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		898.6	22.0	20.1	F
C	FINAL FIRST FLOW		931.9			
C	INITIAL FIRST CLOSED-IN		931.9	60.0	58.3	C
D	FINAL FIRST CLOSED-IN	936	960.9			
E	INITIAL SECOND FLOW		981.4	90.0	93.5	F
F	FINAL SECOND FLOW		971.9			
F	INITIAL SECOND CLOSED-IN		971.9	180.0	171.6	C
G	FINAL SECOND CLOSED-IN		988.3			
H	FINAL HYDROSTATIC					



GAUGE NO: 7900 DEPTH: 10330.9 BLANKED OFF: NO HOUR OF CLOCK: 48

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	4775	5075.0			
B	INITIAL FIRST FLOW	875	946.0	22.0	20.1	F
C	FINAL FIRST FLOW	903	976.0			
C	INITIAL FIRST CLOSED-IN	903	976.0	60.0	58.3	C
D	FINAL FIRST CLOSED-IN	1284	1384.2			
E	INITIAL SECOND FLOW	917	1001.1	90.0	93.5	F
F	FINAL SECOND FLOW	945	1016.4			
F	INITIAL SECOND CLOSED-IN	945	1016.4	180.0	171.6	C
G	FINAL SECOND CLOSED-IN	1571	1698.9			
H	FINAL HYDROSTATIC	4694	5042.6			



GAUGE NO: 5689 DEPTH: 10441.9 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	5189	5128.7			
B	INITIAL FIRST FLOW	1022	1031.9	22.0	20.1	F
C	FINAL FIRST FLOW	1050	1057.5			
C	INITIAL FIRST CLOSED-IN	1050	1057.5	60.0	58.3	C
D	FINAL FIRST CLOSED-IN	1457	1465.3			
E	INITIAL SECOND FLOW	1067	1092.2	90.0	93.5	F
F	FINAL SECOND FLOW	1102	1110.5			
F	INITIAL SECOND CLOSED-IN	1102	1110.5	180.0	171.6	C
G	FINAL SECOND CLOSED-IN	1777	1781.9			
H	FINAL HYDROSTATIC	5099	5099.8			

862
00024

EQUIPMENT & HOLE DATA			TICKET NUMBER: 33720300		
FORMATION TESTED: PATCHAWARRA			DATE: 9-28-84 TEST NO: 5		
NET PAY (ft):			TYPE DST: OPEN HOLE		
GROSS TESTED FOOTAGE: 91.5			HALLIBURTON CAMP:		
ALL DEPTHS MEASURED FROM: KELLY BUSHING			MOUMBA		
CASING PERFS. (ft):			TESTER: VANCE BLATT		
HOLE OR CASING SIZE (in): 8.50			WITNESS: ROY EEL		
ELEVATION (ft): -22			DRILLING CONTRACTOR:		
TOTAL DEPTH (ft): 10445.0			RICHTER RIG #14		
PACKER DEPTH(S) (ft): 10346, 10354					
FINAL SURFACE CHOKE (in): 0.500					
BOTTOM HOLE CHOKE (in): 0.750					
MUD WEIGHT (lb/gal): 9.20					
MUD VISCOSITY (sec): 37					
ESTIMATED HOLE TEMP. (°F):					
ACTUAL HOLE TEMP. (°F): 283 @ 10440.9 ft					
FLUID PROPERTIES FOR RECOVERED MUD & WATER			SAMPLER DATA		
SOURCE	RESISTIVITY	CHLORIDES	Pstg AT SURFACE:		
	°F	ppm	cu.ft. OF GAS:		
	°F	ppm	cc OF OIL:		
	°F	ppm	cc OF WATER:		
	°F	ppm	cc OF MUD:		
	°F	ppm	TOTAL LIQUID cc:		
HYDROCARBON PROPERTIES			CUSHION DATA		
OIL GRAVITY (°API): @ °F			TYPE AMOUNT WEIGHT		
GAS/OIL RATIO (cu.ft. per bbl):			WATER (FEET) 2300.0 8.33		
GAS GRAVITY:					
RECOVERED:			MEASURED FROM TESTER VALVE		
10 FEET OF RAT HOLE MUD GAS TO SURFACE					
REMARKS:					
TEST DATA WAS REPORTED AS 28/SEPTEMBER/1984.					
LEGAL LOCATION = LAT. 27 DEGREES 54' 18.8" SOUTH					
LONG. 139 DEGREES 55' 26.3" EAST.					

0025 462

TYPE & SIZE MEASURING DEVICE: .5" SURFACE CHOKE					TICKET NO: 33720300
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
9-28-84					
0345					LOADED CLOCKS
0400					PICKED UP AND MADE UP TOOLS
0600					STARTED IN HOLE
0855					ON BOTTOM - 15' HIGH
0900					LACKED OFF WEIGHT ON PACKERS
0930					SKIDDED TO BOTTOM
0938	.5				OPENED TOOL WITH A WEAK BLOW -
					REMAINED ON .5" CHOKE
0940					BLOW WEAKER
0945					BLOW WEAKER
0950					BUBBLE DEAD
1000					CLOSED TOOL - BUBBLE STARTED
1010					BUBBLE INCREASED
1020					STRONG BLOW
1030		10			GAS TO SURFACE
1038		8			STRONG BLOW
1048		2			STRONG BLOW
1052		0			STRONG BLOW
1055					MODERATE BUBBLE
1100	.5				OPENED TOOL WITH VERY WEAK
					BUBBLE
1107					VERY WEAK BUBBLE
1109					OPENED TO PIT WITH VERY WEAK
					BUBBLE
1110					CLOSED TO PIT-VERY WEAK BLOW
1114					SAME
1117					SLOW INCREASE - WEAK BLOW
1130					OPENED TO PIT-BLOW INCREASING
1134					MODERATE TO STRONG
1135					STRONG BUBBLE
1137		1			
1145		1			SAME
1148		0			
1157					MODERATE TO WEAK
1200					SAME
1210					VERY WEAK

00026

[illegible]

962
00227

TICKET NO: 33720300
CLOCK NO: 16055 HOUR: 24



GAUGE NO: 8568
DEPTH: 10309.0

REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$	REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$
FIRST FLOW											
B	1	0.0	898.6								
	2	3.0	897.9	-0.6							
	3	6.0	900.7	2.7							
	4	9.0	907.6	7.0							
	5	12.0	916.5	8.9							
	6	15.0	923.5	7.0							
	7	18.0	928.6	5.1							
C	8	20.1	931.9	3.4							
FIRST CLOSED-IN											
C	1	0.0	931.9								
D	2	58.3	960.9	28.9	15.0 0.129						
SECOND FLOW											
E	1	0.0	981.4								
	2	10.0	944.4	-37.0							
	3	20.0	954.5	10.1							
	4	30.0	960.7	6.1							
	5	40.0	956.0	-4.6							
	6	50.0	962.4	6.3							
	7	60.0	977.4	15.0							
	8	70.0	987.5	10.1							
	9	80.0	1006.9	19.4							
	10	90.0	989.3	-23.7							
F	11	93.5	971.9	-11.4							
SECOND CLOSED-IN											
F	1	0.0	971.9								
G	2	171.6	988.3	16.5	68.4 0.221						

REMARKS:

262
00028

TICKET NO: 33720300
CLOCK NO: 25064 HOUR: 48



GAUGE NO: 7900
DEPTH: 10330.9

REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$
FIRST FLOW					
B 1	0.0	946.0			
2	3.0	951.2	5.2		
3	6.0	945.5	-5.7		
4	9.0	949.7	4.1		
5	12.0	959.9	10.2		
6	15.0	967.3	7.4		
7	18.0	972.1	4.8		
C 8	20.1	976.0	3.9		
FIRST CLOSED-IN					
C 1	0.0	976.0			
2	4.0	1052.5	76.5	3.3	0.781
3	8.0	1109.4	133.4	5.7	0.547
4	12.0	1151.0	174.9	7.5	0.427
5	16.0	1183.6	207.5	8.9	0.353
6	20.0	1211.8	235.8	10.0	0.303
7	24.0	1238.7	262.7	11.0	0.264
8	28.0	1260.4	284.4	11.7	0.256
9	32.0	1280.1	304.0	12.4	0.212
10	36.0	1299.8	323.7	12.9	0.193
11	40.0	1317.3	341.2	13.4	0.177
12	44.0	1333.2	357.2	13.8	0.164
13	48.0	1349.0	373.0	14.2	0.152
14	52.0	1363.2	387.2	14.5	0.142
15	56.0	1378.3	402.3	14.8	0.133
D 16	58.3	1384.2	408.2	15.0	0.129
SECOND FLOW					
E 1	0.0	1001.1			
2	10.0	988.2	-12.9		
3	20.0	1001.1	12.9		
4	30.0	1009.0	7.9		
5	40.0	1009.8	0.9		
6	50.0	1009.8	0.0		
7	60.0	1010.5	0.7		
8	70.0	1013.1	2.6		
9	80.0	1015.3	2.2		
10	90.0	1015.3	0.0		
F 11	93.5	1016.4	1.1		
SECOND CLOSED-IN					
1	0.0	1016.4			
2	10.0	1211.4	195.0	9.2	1.092
3	20.0	1250.9	234.3	17.0	0.824
4	30.0	1285.1	268.7	23.7	0.680
5	40.0	1319.2	302.8	29.6	0.585

REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
6	50.0	1350.8	334.3	34.7	0.515
7	60.0	1382.0	365.6	39.3	0.461
8	70.0	1411.4	395.0	43.3	0.419
9	80.0	1440.2	423.8	47.0	0.384
10	90.0	1469.1	452.7	50.2	0.355
11	100.0	1498.7	482.3	53.2	0.330
12	110.0	1527.8	511.4	55.9	0.308
13	120.0	1558.2	541.8	58.4	0.289
14	130.0	1587.5	571.1	60.6	0.273
15	140.0	1614.9	598.4	62.7	0.258
16	150.0	1641.3	624.9	64.7	0.245
17	160.0	1667.4	651.0	66.5	0.233
18	170.0	1694.9	678.5	68.1	0.222
G 19	171.6	1698.9	682.5	68.4	0.221

REMARKS:

862

00029

TICKET NO: 33720300

CLOCK NO: 7023 HOUR: 24



GAUGE NO: 5689

DEPTH: 10441.9

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$	REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW						SECOND CLOSED-IN - CONTINUED					
B	1	0.0	1031.9			6	50.0	1435.7	325.2	34.7	0.515
	2	3.0	1031.4	-0.4		7	60.0	1462.9	352.4	39.3	0.462
	3	6.0	1031.4	0.0		8	70.0	1494.1	383.6	43.3	0.419
	4	9.0	1034.0	2.6		9	80.0	1528.4	417.9	46.9	0.384
	5	12.0	1042.0	8.0		10	90.0	1557.7	447.2	50.2	0.355
	6	15.0	1048.2	6.3		11	100.0	1587.0	476.5	53.2	0.330
	7	18.0	1052.3	4.1		12	110.0	1615.9	505.4	55.9	0.308
C	8	20.1	1057.5	5.2		13	120.0	1639.6	529.1	58.4	0.289
FIRST CLOSED-IN						14	130.0	1668.7	558.2	60.6	0.273
C	1	0.0	1057.5			15	140.0	1695.6	585.1	62.7	0.258
	2	4.0	1137.5	80.0	3.4	16	150.0	1722.6	612.1	64.7	0.245
	3	8.0	1189.4	131.9	5.7	17	160.0	1751.9	641.4	66.4	0.233
	4	12.0	1227.3	169.8	7.5	18	170.0	1779.7	669.2	68.1	0.222
	5	16.0	1268.3	210.8	8.9	19	171.8	1781.9	671.3	68.4	0.221
	6	20.0	1295.2	237.7	10.0						
	7	24.0	1321.7	264.2	10.9						
	8	28.0	1344.6	287.1	11.7						
	9	32.0	1365.0	307.5	12.4						
	10	36.0	1383.4	325.9	12.9						
	11	40.0	1399.7	342.2	13.4						
	12	44.0	1415.0	357.5	13.8						
	13	48.0	1429.7	372.2	14.2						
	14	52.0	1444.1	386.6	14.5						
	15	56.0	1456.4	398.9	14.8						
D	16	58.3	1465.3	407.8	15.0						
SECOND FLOW											
E	1	0.0	1092.2								
	2	10.0	1080.6	-11.6							
	3	20.0	1090.5	9.9							
	4	30.0	1096.7	6.2							
	5	40.0	1097.6	0.9							
	6	50.0	1097.6	0.0							
	7	60.0	1099.5	1.9							
	8	70.0	1100.8	1.3							
	9	80.0	1111.4	10.6							
	10	90.0	1111.4	0.0							
F	11	93.5	1110.5	-0.9							
SECOND CLOSED-IN											
F	1	0.0	1110.5								
	2	10.0	1300.0	189.4	9.2						
	3	20.0	1335.7	225.2	17.0						
	4	30.0	1372.4	261.9	23.7						
	5	40.0	1403.0	292.5	29.6						

REMARKS:

667 00030
TICKET NO. 33720300

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	9736.0	
4		FLEX WEIGHT.....	6.000	2.310	179.5	
3		DRILL COLLARS.....	6.000	2.875	361.7	
51		PUMP OUT REVERSING SUB.....	6.000	3.000	1.0	10276.0
50		IMPACT REVERSING SUB.....	6.000	3.000	1.0	10277.0
3		DRILL COLLARS.....	6.000	2.875	30.0	
5		CROSSOVER.....	5.750	1.500	1.0	
80		AP RUNNING CASE.....	5.000	2.250	4.1	10309.0
5		CROSSOVER.....	5.000	2.200	1.0	
12		DUAL CIP VALVE.....	5.000	0.870	4.9	
97		SAMPLE CHAMBER.....	5.000	2.500	4.9	10318.9
33		DRAIN VALVE.....	5.000	2.200	0.9	
60		HYDROSPRING TESTER.....	5.000	0.750	5.3	10329.0
80		AP RUNNING CASE.....	5.000	2.250	4.1	10330.7
15		JAR.....	5.000	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	2.8	
70		OPEN HOLE PACKER.....	5.000	1.680	6.0	10345.6
18		DISTRIBUTOR VALVE.....	5.000	1.680	2.0	
70		OPEN HOLE PACKER.....	5.000	1.680	5.9	10353.5
19		ANCHOR PIPE SAFETY JOINT.....	5.000	1.500	4.3	
5		CROSSOVER.....	6.000	2.875	1.0	
3		DRILL COLLARS.....	6.000	2.875	59.1	
5		CROSSOVER.....	6.000	2.875	1.0	
20		FLUSH JOINT ANCHOR.....	5.000	2.370	20.0	
81		BLANKED-OFF RUNNING CASE.....	5.000		4.1	10441.9
TOTAL DEPTH					10445.0	
EQUIPMENT DATA						

551

18000



TICKET NO. 92942400
11-JAN-85
MOOMBA

TINDILPIE		2	6	10476.1 - 10546.1	DELHI/SANITIS
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME	
LEGAL LOCATION SEC. - TWP. - RANG.	SEE REMARKS	FIELD AREA	COOPER BASIN	COUNTY SOUTH AUSTRALIA	STATE AUSTRALIA OR SM

FORMATION TESTING SERVICE REPORT

00032

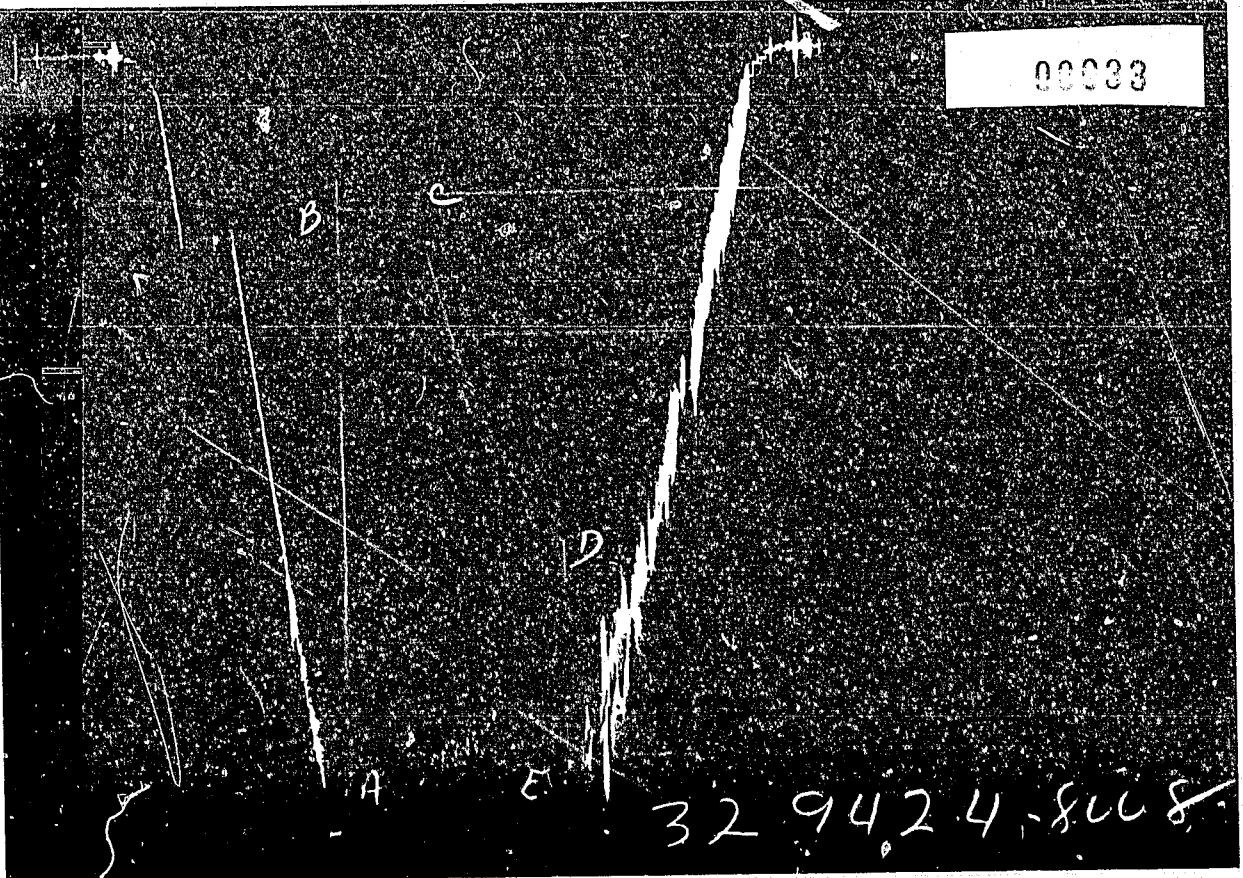
329424-8600

GAUGE NO: 8600 DEPTH: 10433.2 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		1122.8	98.0	99.3	F
C	FINAL FIRST FLOW		1122.8			
D	INITIAL FIRST CLOSED-IN		1122.8	180.0	178.7	C
E	FINAL FIRST CLOSED-IN	1134	1137.5			
F	FINAL HYDROSTATIC					

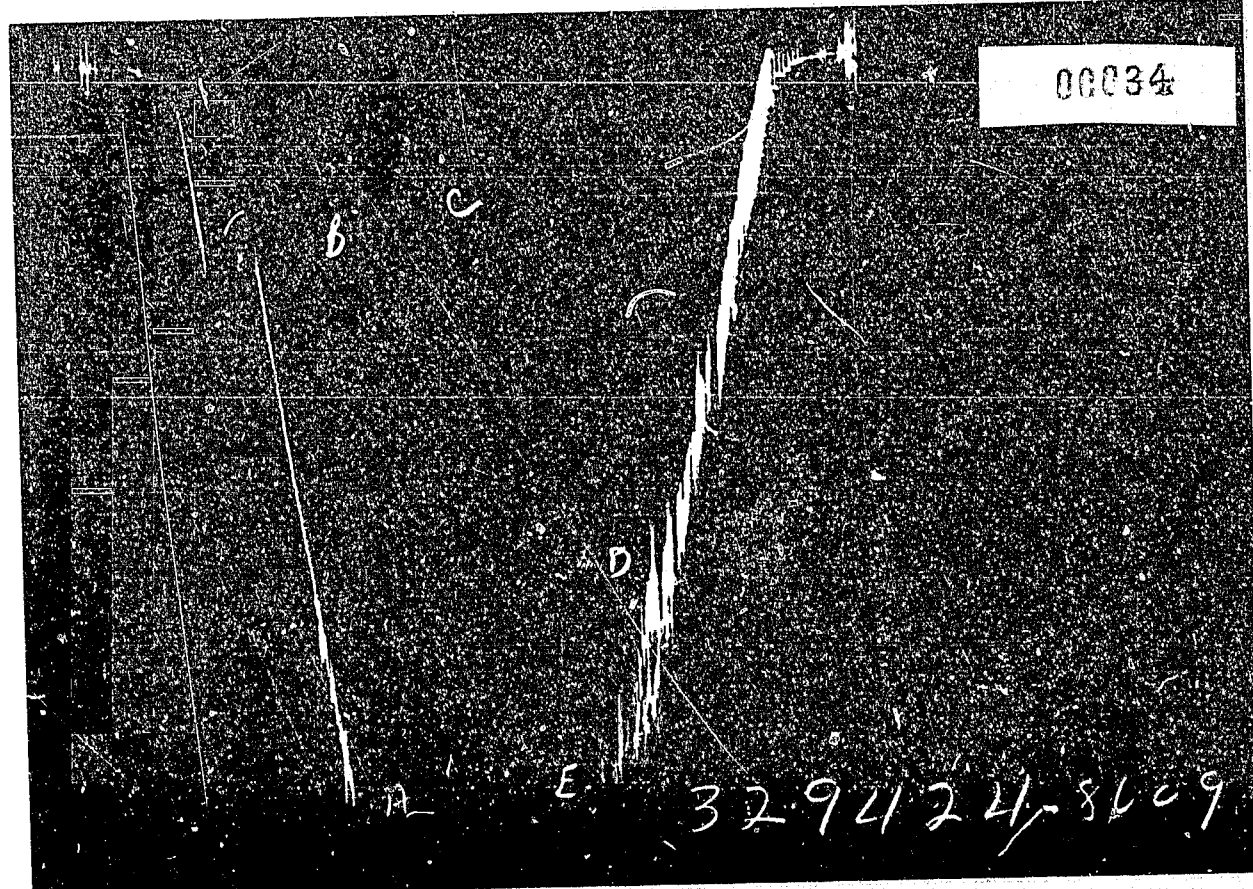
899

00033



GAUGE NO: 8008 DEPTH: 10454.3 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	5105	5089.4			
B	INITIAL FIRST FLOW	1100	1098.2	98.0	99.3	F
C	FINAL FIRST FLOW	1113	1115.4			
D	INITIAL FIRST CLOSED-IN	1113	1115.4	180.0	178.7	C
E	FINAL FIRST CLOSED-IN	3482	3486.4			
F	FINAL HYDROSTATIC	5072	5070.5			



GAUGE NO: 8009 DEPTH: 10543.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	5136	5146.1			
B	INITIAL FIRST FLOW	1152	1156.7	98.0	99.3	F
C	FINAL FIRST FLOW	1172	1168.2			
D	INITIAL FIRST CLOSED-IN	1172	1168.2	180.0	178.7	C
E	FINAL FIRST CLOSED-IN	3528	3536.5			
F	FINAL HYDROSTATIC	5110	5117.9			

999
00035

EQUIPMENT & HOLE DATA			TICKET NUMBER: 32942400	
FORMATION TESTED: <u>TIRRAWARRA</u>			DATE: <u>10-1-84</u> TEST NO: <u>6</u>	
NET PAY (ft): _____			TYPE DST: <u>OPEN HOLE</u>	
GROSS TESTED FOOTAGE: <u>70.0</u>			HALLIBURTON CAMP: <u>MOOMBA</u>	
ALL DEPTHS MEASURED FROM: <u>KELLY BUSHING</u>			TESTER: <u>N. COWLEY</u>	
CASING PERFS. (ft): _____			WITNESS: <u>RAY ELF</u>	
HOLE OR CASING SIZE (in): <u>8.500</u>			DRILLING CONTRACTOR: <u>RICHTER #14</u>	
ELEVATION (ft): <u>-22</u>				
TOTAL DEPTH (ft): <u>10546.0</u>				
PACKER DEPTH(S) (ft): <u>10469, 10476</u>				
FINAL SURFACE CHOKE (in): _____				
BOTTOM HOLE CHOKE (in): <u>0.750</u>				
MUD WEIGHT (lb/gal): <u>9.30</u>				
MUD VISCOSITY (sec): <u>36</u>				
ESTIMATED HOLE TEMP. (°F): _____				
ACTUAL HOLE TEMP. (°F): <u>290 @ 10544.0 ft</u>				
FLUID PROPERTIES FOR RECOVERED MUD & WATER			SAMPLER DATA	
SOURCE	RESISTIVITY	CHLORIDES		
_____	_____ @ _____ °F	_____ ppm	Pstg AT SURFACE: _____	
_____	_____ @ _____ °F	_____ ppm	cu.ft. OF GAS: _____	
_____	_____ @ _____ °F	_____ ppm	cc OF OIL: _____	
_____	_____ @ _____ °F	_____ ppm	cc OF WATER: _____	
_____	_____ @ _____ °F	_____ ppm	cc OF MUD: _____	
_____	_____ @ _____ °F	_____ ppm	TOTAL LIQUID cc: _____	
HYDROCARBON PROPERTIES			CUSHION DATA	
OIL GRAVITY (°API): _____ @ _____ °F			TYPE AMOUNT WEIGHT	
GAS/OIL RATIO (cu.ft. per bbl): _____			<u>WATER (FT)</u> <u>2300.0</u> <u>8.34</u>	
GAS GRAVITY: _____				
RECOVERED: 2600 FEET (2300 FEET OF WATER CUSHION AND 300 FEET OF GAS CUT MUD) MEASURED FROM TESTER VALVE				
REMARKS: TEST DATE WAS REPORTED AS 1/OCT/84. LEGAL LOCATION IS LAT. 27 DEGREES, 54', 18.8"S. AND LONG. 139 DEGREES, 55', 26.3" EAST. DIMENSIONS OF THE DRILL PIPE AND WEIGHT PIPE WERE NOT REPORTED. REPORTED ELEVATION IS BELOW SEA LEVEL.				

299
00037

TICKET NO: 32942400
CLOCK NO: 30368 HOUR: 24



GAUGE NO: 8008
DEPTH: 10454.3

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$	REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW											
B	1	0.0	1098.2								
	2	15.0	1102.7	4.6							
	3	30.0	1105.6	2.9							
	4	45.0	1108.0	2.4							
	5	60.0	1110.7	2.7							
	6	75.0	1113.5	2.9							
	7	90.0	1113.5	0.0							
C	8	99.3	1115.4	1.9							
FIRST CLOSED-IN											
C	1	0.0	1115.4								
	2	10.0	1371.1	255.7	9.1	1.039					
	3	20.0	1588.4	473.0	16.7	0.775					
	4	30.0	1788.0	672.6	23.1	0.634					
	5	40.0	1977.4	862.0	28.5	0.542					
	6	50.0	2150.4	1035.0	33.2	0.475					
	7	60.0	2311.3	1195.9	37.4	0.424					
	8	70.0	2457.2	1341.9	41.1	0.384					
	9	80.0	2600.9	1485.5	44.3	0.351					
	10	90.0	2729.3	1613.8	47.2	0.323					
	11	100.0	2848.4	1733.0	49.8	0.299					
	12	110.0	2956.9	1841.5	52.2	0.279					
	13	120.0	3054.5	1939.1	54.3	0.262					
	14	130.0	3145.1	2029.8	56.3	0.246					
	15	140.0	3228.2	2112.8	58.1	0.233					
	16	150.0	3301.7	2186.3	59.7	0.221					
	17	160.0	3371.8	2256.5	61.3	0.210					
	18	170.0	3432.7	2317.3	62.7	0.200					
D	19	178.7	3486.4	2371.0	63.8	0.192					

REMARKS:

000000

CLOCK NO: 30343 HOUR: 24



DEPTH: 10543.0

REMARKS:

699
00039
TICKET NO. 32942400

		O.D.	I.D.	LENGTH	DEPTH
				9829.8	
	DRILL PIPE.....				
				180.0	
	FLEX WEIGHT.....				
				358.8	
	DRILL COLLARS.....	6.250	2.812		
				1.0	10368.5
	IMPACT REVERSING SUB.....	6.000	3.000		
				29.9	
	DRILL COLLARS.....	6.250	2.812		
				1.0	10399.4
	IMPACT REVERSING SUB.....	6.000	3.000		
				29.7	
	DRILL COLLARS.....	6.250	2.812		
				1.0	
	CROSSOVER.....	5.750	1.500		10433.2
				4.1	
	AP RUNNING CASE.....	5.000	2.250		
				1.0	
	CROSSOVER.....	5.000	2.200		
				4.9	
	DUAL CIP VALVE.....	5.000	0.087		
				4.9	10442.0
		5.000	2.250		
				50.9	
	DRAIN VALVE.....	5.000	2.250		10452.3
				5.3	
	HYDROSPRING TESTER.....	5.000	0.750		10454.3
				4.1	
	AP RUNNING CASE.....	5.000	2.250		
				5.0	
	JAR.....	5.000	1.750		
				2.8	
	VR SAFETY JOINT.....	5.000	1.000		
				5.8	10468.6
	OPEN HOLE PACKER.....	6.000	1.530		
				2.0	
	DISTRIBUTOR VALVE.....	5.000	1.680		
				5.8	10476.0
	OPEN HOLE PACKER.....	6.000	1.530		
				4.3	
	ANCHOR PIPE SAFETY JOINT.....	5.000	1.500		
				30.0	
	FLUSH JOINT ANCHOR.....	5.000	2.370		
				1.0	
	CROSSOVER.....	5.750	2.250		
				30.9	
	DRILL COLLARS.....	6.250	2.812		
				1.0	
	CROSSOVER.....	5.750	2.250		10543.0
				4.1	
	BLANKED-OFF RUNNING CASE.....	5.000			
					10545.0
	TOTAL DEPTH				
	EQUIPMENT DATA				

DELHI PETROLEUM PTY. LTD.

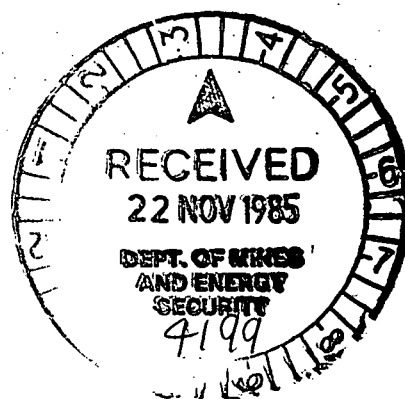
VELOCITY SURVEY - TIME/DEPTH CALIBRATION

TINDILPIE 2

DISTRIBUTION (10)

DELHI (4) - J.T. Frazer/Library
D. Burns
N. Young
R. Weiss

SANTOS
VAMGAS
SAOG
HARTOGEN
ENDEAVOUR
SADME



By: N.J. Young
Geophysicist
November, 1985

CONTENTS

1. SUMMARY
2. INTRODUCTION
3. TINDILPIE 2 DEPTH PROGNoses
4. DATUM STATIC DETERMINATION
5. WELLSHOOT OPERATIONS
6. TIME/DEPTH CALIBRATION
7. RESULTS

FIGURES

1. LOCATION MAP
2. VELOCITY SURVEY GEOMETRY DIAGRAM
3. SEISMIC LOCATION DIAGRAM
4. COMPARISON OF REAL & SYNTHETIC SEISMOGRAMS

TABLES

1. COMPARISON OF WELL TOP AND PROGNosed DEPTHS
2. DATUM STATIC DETERMINATION
3. COMPARISON OF SEISMIC AND VELOCITY SURVEY STATIC
4. CHECKSHOT - SONIC TIME DIFFERENCES
5. SURVEY RESULTS
6. COMPARISON OF TINDILPIE 1 AND 2 WELLTOPS BEFORE AND AFTER CORRECTION
7. SURVEY DATA

ENCLOSURES

1. SHOT RECORD TABLE
2. SONIC VELOCITY AND T/Z DIAGRAM
3. SYNTHETIC SEISMOGRAM

NORTHERN
TERRITORY

A.T.P. 259P.

QUEENSLAND
SOUTH AUSTRALIA

PEDIRKA

BIRDSVILLE TRACK RIDGE

P.E.L. 586

PATCHAWARRA EAST

PATCHAWARRA CENT.

MERRIM
INNAM

PATCHAWARRA SW

TINDILPIE-2

MOOMBA

LAKE
EYRE

MULKA

L. GREGORY

MARREE

MURTA

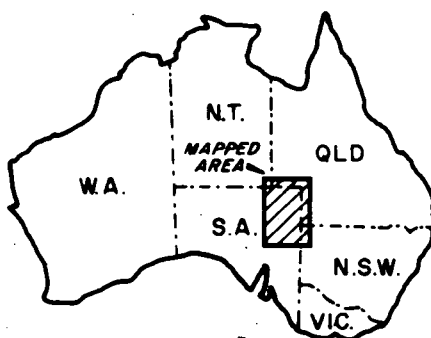
TOOLACHEE

TINGA-TINGANA

ARROWIE

SECTOR

L. CALLABONNA

QUEENSLAND
NEW SOUTH
WALES

DELHI PETROLEUM PTY. LTD.

LOCATION MAP
TINDILPIE - 2

P.E.L. 586 SOUTH AUSTRALIA

SCALE 1 2000000
KILOMETRES 20 0 20 40 60 80 100 120 KILOMETRES

Author : E. JOHNSTONE

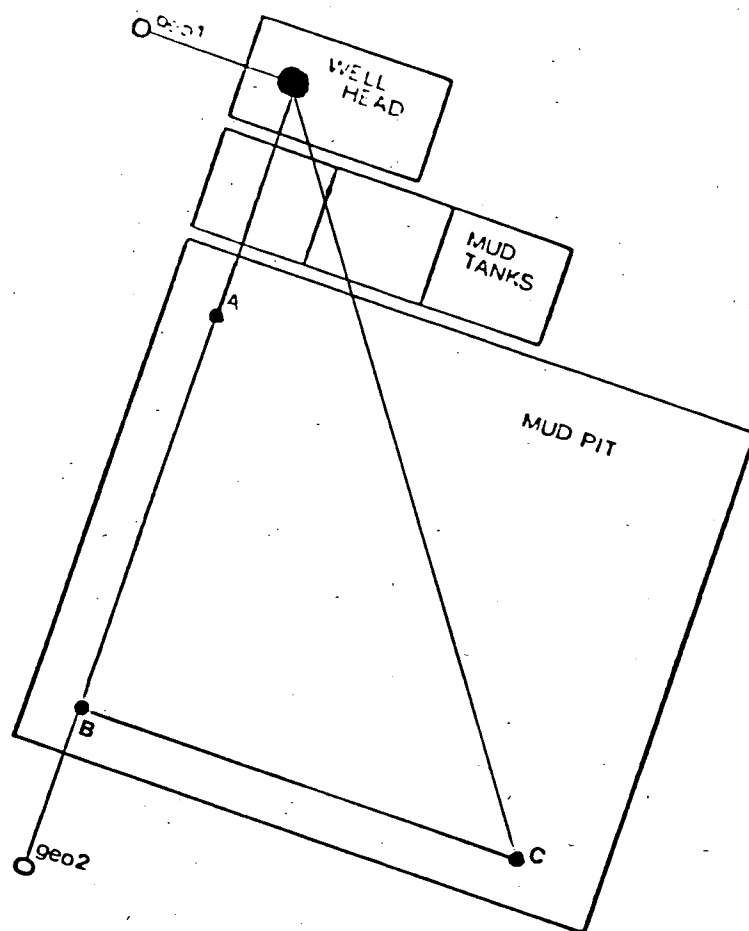
Date : 1. Aug. 1984

Drafted : A. HOLTZ

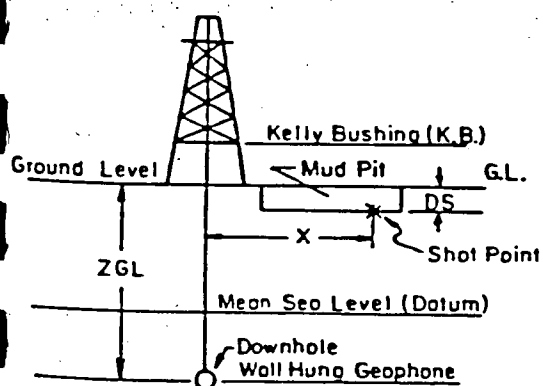
Dwg. No. : 84XG - 3838

File : SD-36

Fig. 1



- SHOT POINT
- REFERENCE GEOPHONE



$$T = T_0 \cos \left[\tan^{-1} \left(\frac{X}{ZGL - DS} \right) \right]$$

T_0 = Time from Shot Point to downhole geophone. (record time)

T = Time for vertical ray path from shot point level at well-head to downhole geophone level.

SHOT POINT	A	B	C	D
Depth Relative to G.L. at K.B.	8'	10'	11'	
Horizontal Distance from K.B.	80'	149'	159'	

DELHI PETROLEUM PTY. LTD.

LOCATION DIAGRAM

TINDILPIE 2 WELL VELOCITY SURVEY

DATE:

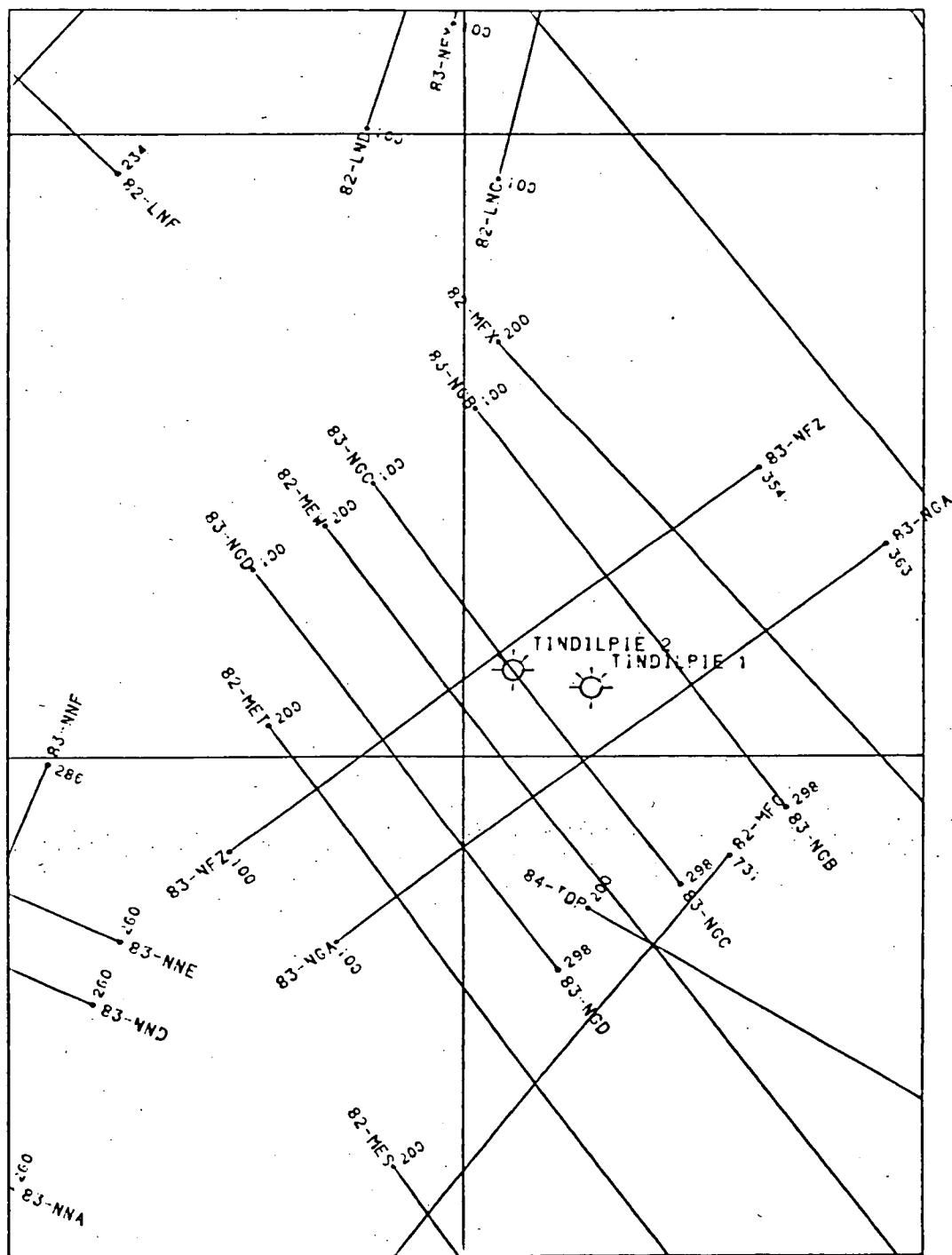
DRAFTED:

DWG. No.

FIGURE 2

100000

139 59 00E



VELOCITY SURVEY-TIME/DEPTH CALIBRATION

TINDILPIE 2

1.0 SUMMARY

The Tindilpie 2 well velocity survey was carried out to evaluate the prognoses derived for the well from an interpretation of the 1983 GILES-PSW SS recorded in the Tindilpie area.

A 46' error in the GL elevation at Tindilpie 1, which was used as control for the prognosis, resulted in an erroneous prognosis. Also initial well top comparisons seemingly placed Tindilpie 2 slightly downdip from Tindilpie 1, the reverse of that indicated from seismic mapping.

Corrected Tindilpie 1 well tops placed Tindilpie 2 updip as predicted and recalculated prognosed depths were on average 53' higher than actual well top depths (as opposed to 107' higher with the erroneous prognosis).

A synthetic seismogram was computed (and tied to the survey results) to analyse the relationship of horizon picks to seismic character. There is a fair to good character correlation between the synthetic and seismic above 2.0 seconds TWT. Below this time correlation is fair to poor only due to the difference in resolution of thin coal seams between the seismic and the synthetic. The N horizon appears to have been mapped a leg high. The C, P, V and W horizon picks appear good.

2.0 INTRODUCTION

A well velocity survey was conducted by Delhi Petroleum Pty. Ltd. at the Tindilpie 2 wellsite on 8 October, 1984.

Velocity Data Pty Ltd, of Brisbane were the recording contractors, providing the recording equipment and down-hole tool used in the survey.

Forty poor-good quality records were obtained at thirty two different levels using ANZOMEX boosters detonated in the mud pit as the energy source. The down-hole tool was a wall-locking vertical motion geophone device.

Check shots at datum (121 ft) were taken to confirm the static correction used in the processing of line 83-NGC, VP 192.

A Time/Depth curve was computed by fitting the integrated sonic time curve to the check-shot data by the least squares method.

* Note: all depths are below KB unless otherwise specified.

3.0 TINDILPIE 2 DEPTH PROGNOSSES

Prognoses of formation tops at Tindilpie 2 were based on an interpretation of the 1983 GILES-PSW SS recorded in the Tindilpie area. Section times for the mapped horizons were used for the depth prognosis along with average velocities from Tindilpie 1.

Table 1 shows the comparison between welltop and prognosed depths. Refer to section 7.0 for a more detailed discussion of the depth prognosis and reasons for the differences shown in Table 1.

TABLE 1
COMPARISON OF WELLTOP AND PROGNOSSED DEPTHS
DEPTH (feet below MSL)

Horizon	C	N	P	V	W
Prognosis	5390	7597	8142	8749	10237
Well Top	5463	7729	8227	8842	10366
Difference	-73	-132	-85	-93	-129

4.0 DATUM STATIC DETERMINATION

Seven shots at datum were taken at three different shot locations (Figure 3) with the down-hole tool locked in casing at mean sea level, 121 ft below KB. Ground level was surveyed at 99 ft above mean sea level. The last two datum shots were recorded at the end of the survey.

The mean vertical one-way time from surface to datum after geometrical offset and shot depth corrections, using a LVL velocity of 2000 ft/sec, was 31ms. Table 2 summarises the datum static determination. Note that only five shots were used. This was because two of the datum shots yielded noisy records which were unusable. The seismic static and velocity survey static are compared in Table 3.

- 5 -

TABLE 2

DATUM STATIC DETERMINATION

SHOT No	SHOT LOC ft	SHOT DEPTH ft	SHOT OFFSET ft	ARRIVAL TIME ms	SHOT -DATUM STATIC ms	SURFACE -DATUM STATIC ms
1	A	8	80	37	28	32
2	A	8	80	39	29	33
4	C	10	159	49	24	29
5	C	11	159	49	24	30
41	C	10	159	52	25	30
average					26	31

TABLE 3

COMPARISON OF SEISMIC AND VELOCITY SURVEY STATIC

		SEISMIC LINE 83-NGC, VP192	VELOCITY SURVEY	DIFFERENCE
GROUND ELEVATION	(ft)	99	99	-
DATUM STATIC	(ms)	28	31	-3
INTERVAL VELOCITY GROUND LEVEL TO DATUM	(ft/sec)	3536	3193	343

5.0 WELLSHOOT OPERATIONS

Shots were taken at 31 levels down the hole. Fourteen levels were chosen to coincide with formation tops picked from electric logs by the well site geologist. Several intermediate shots were taken to ensure that subsurface sampling did not exceed 600 feet.

The hole condition was generally good, allowing the tool to couple satisfactorily thus keeping noise levels to a minimum. Record quality was poor to good.

The explosive type used was ANZOMEX boosters. Various charge sizes were used according to the depth below the surface (Enclosure 1). These provided adequate energy returns in most cases, depending on tool coupling, hole condition and hole noise.

6.0 TIME/DEPTH CALIBRATION

The digital sonic (SLS) was integrated, summed and plotted against depth to produce an uncalibrated sonic T/Z curve.

The checkshot times were corrected for geometric offset and surface-to-datum static. The uncalibrated sonic T/Z curve was initially tied to the C horizon to allow sonic interval velocity calculation. The sonic T/Z curve was then bulk shifted in time so as to provide the least-square error between the checkshots and the sonic values below the C horizon. Inclusion of checkshots above the C horizon leads to a bias in the least-squares error due to the large negative drift which occur above this level.

Drift corrections were then calculated by fitting three linear functions to the check-sonic drift values. The three linear functions were calculated by the least-squares method.

The calibrated sonic T/Z curve was corrected for drift with the values derived from the drift curve.

Table 4 lists the travel time and drift values at the successive stages of the process as well as the final rms errors in time of the checkshots curve. A rms error in equivalent depth is calculated using the interval velocities shown in Enclosure 1. A "worst case" error in depth interpretation from the T/Z curve was computed.

- 7 -

TABLE 4

CHECK SHOT - SONIC TIME DIFFERENCES

DEPTH (ft)		TRAVEL-TIME to DATUM (ms)			CHECK - SONIC		
Below K.B. ft	Below M.S.L. ft	Check-Shot ms	Tied Sonic ms	Drift Corr. Sonic ms	Tied Sonic ms	Drift Corr. Sonic ms	Depth Diff. ft
1500	1379	217	235	219	-18	02	-13
2000	1879	292	307	294	-15	-2	-14
2500	2379	358	376	355	-18	3	23
3000	2879	424	440	420	-16	4	31
3500	3379	488	500	486	-12	2	16
4000	3879	551	556	553	-5	-2	-16
4500	4379	611	613	613	-2	-2	-17
5000	4879	667	668	668	-1	-1	-9
5585*	5464	730	730	730	0	0	0
5785	5664	750	749	751	1	-1	-11
5972	5851	765	764	765	1	0	0
6206	6085	784	784	783	0	1	12
6529	6408	810	810	809	0	1	12
6732	6611	828	826	829	2	-1	-12
6968	6847	846	845	846	1	0	0
7400	7279	883	878	886	5	-3	-39
7850	7729	914	913	913	1	1	14
8347	8226	949	947	948	2	1	13
8605	8484	969	968	967	1	2	24
8661	8540	974	972	973	2	1	9
8864	8743	992	988	992	4	0	0
8964	8843	1000	995	1001	5	-1	-11
10000	9879	1089	1078	1092	11	-3	-35
10943	10822	1154	1145	1152	9	2	30
RMS Values		Above tie point Below tie point Total sonic			12.8 4.4 8.1	2.3 1.5 1.8	18.5 18.9 18.3

* C Horizon Tie Point

TABLE 5
SURVEY RESULTS

DEPTH (feet below M.S.L.)

Horizon	C	N	P	V	W
Prognosis	5390	7597	8142	8749	10237
Well top	5463	7729	8227	8842	10366
Difference	-73	-132	-85	-93	-129

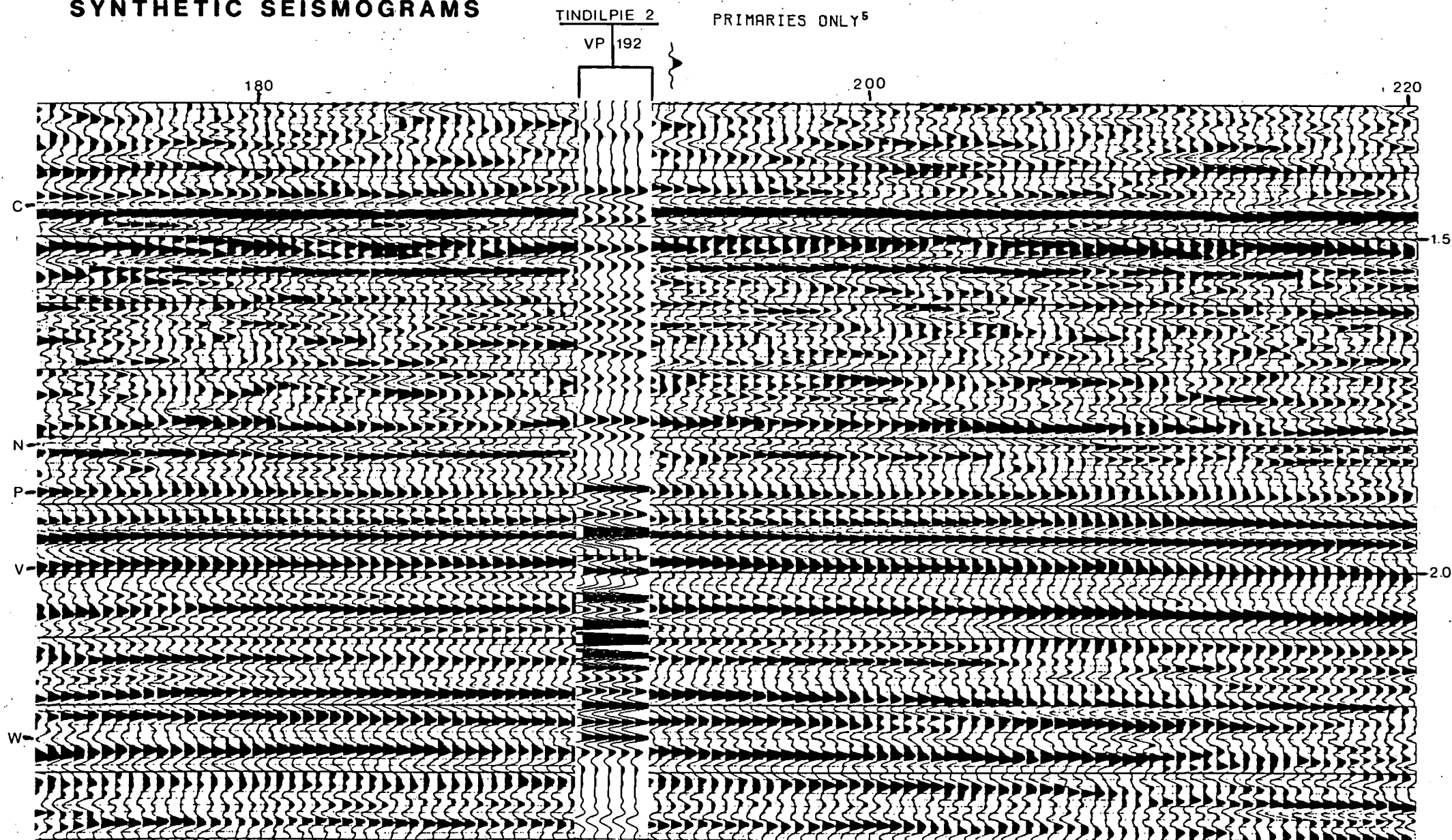
TWO-WAY TIME* (msecs)

Horizon	C	N	P	V	W
Prognosis	1448	1796	1879	1986	2238
Well top	1459	1824	1894	1989	2228
Difference	-11	-28	-15	-3	10

AVERAGE VELOCITY (ft/sec)

Horizon	C	N	P	C	W
Prognosis	7445	8460	8666	8811	9148
Well top	7489	8475	8687	8891	9305
Difference	-44	-15	-21	-80	-157

TINDILPIE 2
COMPARISON OF REAL AND
SYNTHETIC SEISMOGRAMS



7.0 RESULTS

After calibration, the checkshots had a rms depth error of 18.3 ft and a rms time error of 1.8 ms. Table 5 indicates the results against prognoses. The prognoses were derived from the interpretation of the 1983 GILES-PSW SS recorded in the Tindilpie area.

The velocity survey and seismic datum statics differ by 3 ms, as shown in Section 4.0.

The Tindilpie 1 stratigraphy and seismic times served as a control for the Tindilpie 2 geophysical prognosis. The GL elevation at Tindilpie 1 was surveyed 46' too high which placed the formation top picks at Tindilpie 1 (below sea level) 46' too shallow.

This error was not detected until after the drilling of Tindilpie 2 when formation tops for the two wells were compared. This comparison placed Tindilpie 2 slightly downdip from Tindilpie 1. Detailed seismic mapping of the Tindilpie complex had predicted that Tindilpie 2 would be sited crestally on the highest feature, with Tindilpie 1 lying off structure (downdip) approximately 1 km to the ESE.

Table 6 below shows well top comparisons before and after the correction to Tindilpie 1. The 46' adjustment to the Tindilpie 1 horizon tops was enough to reverse the situation and place Tindilpie 2 updip from Tindilpie 1 (40' on average over the five horizons) as indicated from the seismic.

The Patchawarra Formation (V) where there is gas pay in both wells is of most significance here with a 5' downdip figure being converted to a 38' updip figure after the correction.

Note that for the V horizon the adjustment made was not 46' but 43'. This arises from a slight adjustment in the actual interpreted V horizon pick from well logs at Tindilpie 1.

TABLE 6

COMPARISON OF TINDILPIE 1 AND 2 WELLTOPS
BEFORE AND AFTER CORRECTION

HORIZON	C	N	P	V	W
Tindilpie 1 (Erroneous)	5442	7682	8230	8837	10411
Tindilpie 2	5463	7729	8227	8842	10366
Difference	-21	-47	+3	-5	+45
Average Difference = -5					

HORIZON	C	N	P	V	W
Tindilpie 1 (Corrected)	5488	7728	8276	8880	10457
Tindilpie 2	5463	7729	8227	8842	10366
Difference	+25	-1	+49	+38	+91
Average Difference = 40.4					

Another result of the surveying error at Tindilpie 1 was an erroneous Tindilpie 2 depth prognosis. The depth prognosis was made using the formula shown below:-

$$D2 = \frac{D1}{t1} \cdot t2 \quad \text{where}$$

D2 = prognosed depth to horizon at Tindilpie 2 proposed location.

D1 = depth to horizon at Tindilpie 1.

t1 = one-way seismic time to horizon at Tindilpie 1.

t2 = one-way seismic time to horizon at Tindilpie 2 proposed location.

In this simple relation, if D1 is 46' too small numerically for all horizons then the value of D2 will also be smaller numerically (shallow) for all horizons, the effect of the error being greater (as a percentage of total depth) for the shallower horizons.

The erroneous depth and average velocity prognoses listed in Table 5 should in effect be ignored. If the prognoses are re-calculated with corrected Tindilpie 1 depths using the same method, the prognosed depths to formation tops are on average 53' higher than actual well tops (compared to 107' higher previously). Also revised average velocities are on average around 50 ft/sec higher than actual well top values.

This error along with the small average negative errors in prognosed two way times combined to produce the small negative errors in the depth prognosis.

The two way times from the velocity survey compare well with the seismic section times used in the prognosis for all horizons except the N horizon, which appears to have been picked one leg too high on the seismic. (Refer to Table 5 and Figure 4).

Figure 4 shows a comparison of the real and synthetic seismograms. Note that the seismic section is reverse polarity and the synthetic is normal polarity. Reverse polarity seismic sections were used in the seismic interpretation as they gave the desired seismic character for recognisable events (eg. The C horizon gave the expected large trough with smaller peaks on either side).

The normal polarity synthetic (Enclosure 3) provides the best character tie to the reverse polarity seismic section as shown in Figure 4. A fair to good character correlation exists between the real and synthetic seismograms above 2.0 seconds TWT. Below this time the difference in frequency content between the two has resulted in vastly different responses. The real seismogram, with a lower frequency content at this depth than the 10-55 Hz synthetic has been unable to adequately resolve the thin Intra-Patchawarra coal seams as well as the synthetic has.

TABLE 7

SURVEY DATA

Personnel Present

Observer - Well shoot
Shooter

A. Viersma Velocity Data Pty. Ltd.
J. Coveny Velocity Data Pty. Ltd.

Recording Parameters

Energy Source
Shot Offset and Depth
(B.G.L.)

Explosive - BOOSTERS
Location A : 90 feet, 8 feet
Location B : 149 feet, 10 feet
Location C : 159 feet, 10-12 feet.

Production Shooting:
Datum Shooting :

Location C
Location A, B, C

Equipment

Recorder
Reference Geophone
Downhole Geophone

VDLS 11/10
Hall Sears HS 1
Geospace WLS-100 Wall-locking type

Elements

6 HS 1 4.5 Hz 215 ohm
high temperature elements
series parallel connection
Frequency response: 8-300 Hz within
3db

Pre-amplifier - 48 db fixed gain
Frequency response: 5-200 Hz within
3db

Monitor Traces

- 1 Instrument time break
- 2-4 Analogue down-hole geophone signal - low, medium and high gain
- 5 Digital down-hole geophone signal IFP gain
- 6 Confirmation time break geophone signal

TINDILPIE 2

08-10-84

SHOT RECORD TABLE

4199-1



DATUM SHOTS (DATUM=MSL)

Z (KB) = 121 FT Z (GL) = 99 FT

SHOT NUMBER	LOCAL TIME	SHOT LOCATION	AMP. GAIN	CHARGE SIZE	CHARGE DEPTH FT	OFFSET (FT)	ARRIVAL TIME MS	SHOT TO DATUM STATIC (MS)	SURFACE TO SHOT CORR. (MS)	SURFACE TO DATUM STATIC (MS)	REMARKS
1	15.56	A	15	1XA	8	80	37	28	4	32	
2	16.00	A	20	1XA	8	80	39	29	4	33	
3	16.03	B	20	1XA	10	149	---	---			NOISY
4	16.10	C	20	1XA	10	159	49	24	5	29	
5	16.13	C	15	1XA	11	159	49	24	6	30	
40	20.00	C	5	1XA	11	159	---	---			NOISY
41	20.04	C	10	2XA	10	159	52	25	5	30	

THE SHOT TO DATUM STATIC USED IS 26 MSEC.

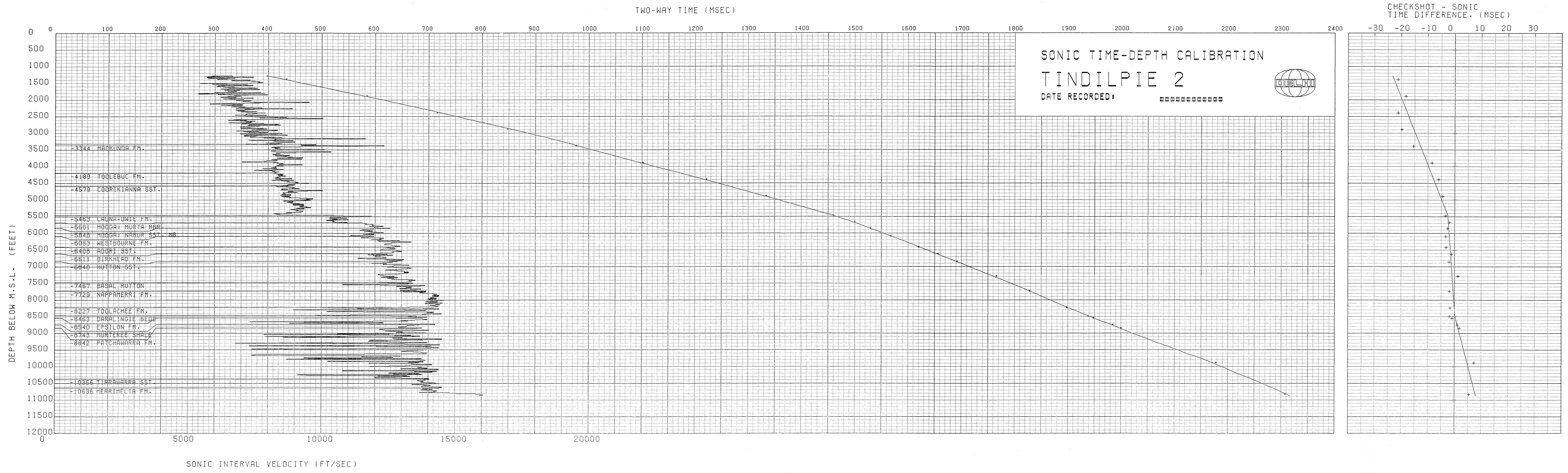
THE SURFACE VELOCITY IS 2000 FT/SEC.

SURVEY SHOTS

SHOT NUMBER	LOCAL TIME	CHARGE SIZE	AMP. GAIN	OFFSET (FT)	CHARGE DEPTH	KB DEPTH	RECORD TIME	MSL DEPTH	CORR. TIME	INTERVAL VELOCITY	RMS VELOCITY	REMARKS
39	19.56	1XA	15	159	12	500	---	379	---	----	----	NOISY
38	19.50	1XA	35	159	11	1000	169	879	141	6234	6234	
37	19.46	1XA	45	159	11	1500	244	1379	217	6579	6357	
36	19.42	2XA	45	159	11	2000	319	1879	292	6667	6438	
35	19.37	2XA	45	159	11	2500	385	2379	358	7576	6662	
34	19.32	2XA	45	159	11	3000	451	2879	424	7576	6813	
33	19.18	2XA	45	159	11	3500	515	3379	488	7813	6952	
31	19.02	2XA	45	159	11	4000	577	3879	551	7937	7071	
30	18.55	1XQ	45	159	11	4500	637	4379	611	8333	7205	
29	18.47	1XQ	45	159	11	5000	693	4879	667	8929	7365	
6	16.31	1XQ	45	159	11	5585	756	5464	730	9286	7550	CADNA-OWIE FM.
28	18.40	1XQ	45	159	12	5585	756	5464	730	9286	7550	CADNA-OWIE FM.
27	18.34	1XQ	40	159	12	5785	776	5664	750	10000	7626	
26	18.26	1XQ	45	159	12	5972	791	5851	765	12467	7750	MOOGA:NAMUR SST.
25	18.16	1XQ	45	159	12	6206	810	6085	784	12316	7892	WESTBOURNE FM.
24	18.12	1XQ	45	159	11	6529	836	6408	810	12423	8077	ADORI SANDSTONE
23	18.07	1XQ	45	159	11	6732	854	6611	828	11278	8160	BIRKHEAD FM.
22	18.03	1XQ	40	159	11	6968	872	6847	846	13111	8296	HUTTON SANDSTONE
21	17.56	1XQ	40	159	11	7400	909	7279	883	11676	8465	
7	16.38	1XQ	45	159	11	7850	940	7729	914	14516	8739	NAPPAMERRI FM.
20	17.50	1XQ	45	159	11	7850	940	7729	914	14516	8739	NAPPAMERRI FM.
19	17.43	1XQ	45	159	11	8347	975	8226	949	14200	8999	TOOLACHEE FM.
18	17.36	1XQ	45	159	11	8605	995	8484	969	12900	9097	ROSENEATH SHALE
17	17.33	1XQ	45	159	12	8661	1000	8540	974	11200	9109	EPSILON FM.
16	17.29	1XQ	45	159	10	8864	1018	8743	992	11278	9153	MURTEREE SHALE
15	17.25	1XQ	45	159	11	8964	1026	8843	1000	12500	9184	PATCHAWARRA FM.
14	17.19	1XQ	45	159	11	9500	---	9379	---	----	----	POOR BREAK
13	17.13	1XQ	45	159	11	10000	1115	9879	1089	11640	9409	
12	17.06	1XQ	45	159	11	10486	---	10365	---	----	----	POOR BREAK
11	17.01	1XQ	40	159	11	10759	---	10638	---	----	----	POOR BREAK
10	16.53	1XQ	45	159	11	10943	1180	10822	1154	14508	9767	
8	16.46	1XQ	45	159	11	11035	1186	10914	1160	15333	9804	T.D.
9	16.49	1XQ	45	159	11	11035	---	10914	---	----	----	NOISY

ENCLOSURE 1
24-OCT-1985

4199-2



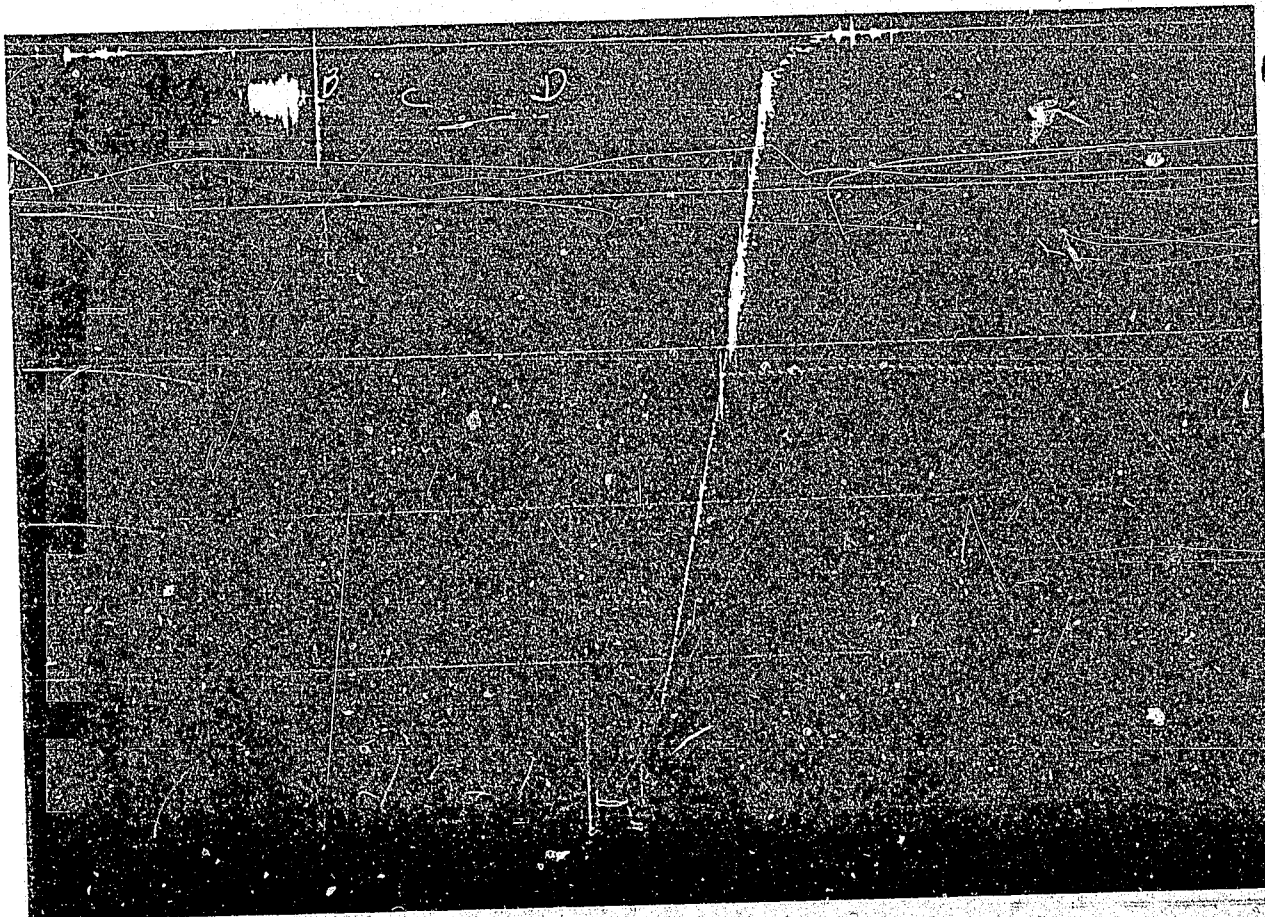
0056

LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME
INDOPLIE	2	1	9026. - 9055.	DELHI/SANTOS
LEGAL LOCATION SEC. - TWP. - RNG.	SEE REMARKS	FIELD PREP	COOPER BASIN	COUNTY, SOUTH AUSTRALIA
				STATE AUSTRALIA. SM



TICKET NO. 33688400
16-NOV-84
MOOMBA

FORMATION TESTING SERVICE REPORT

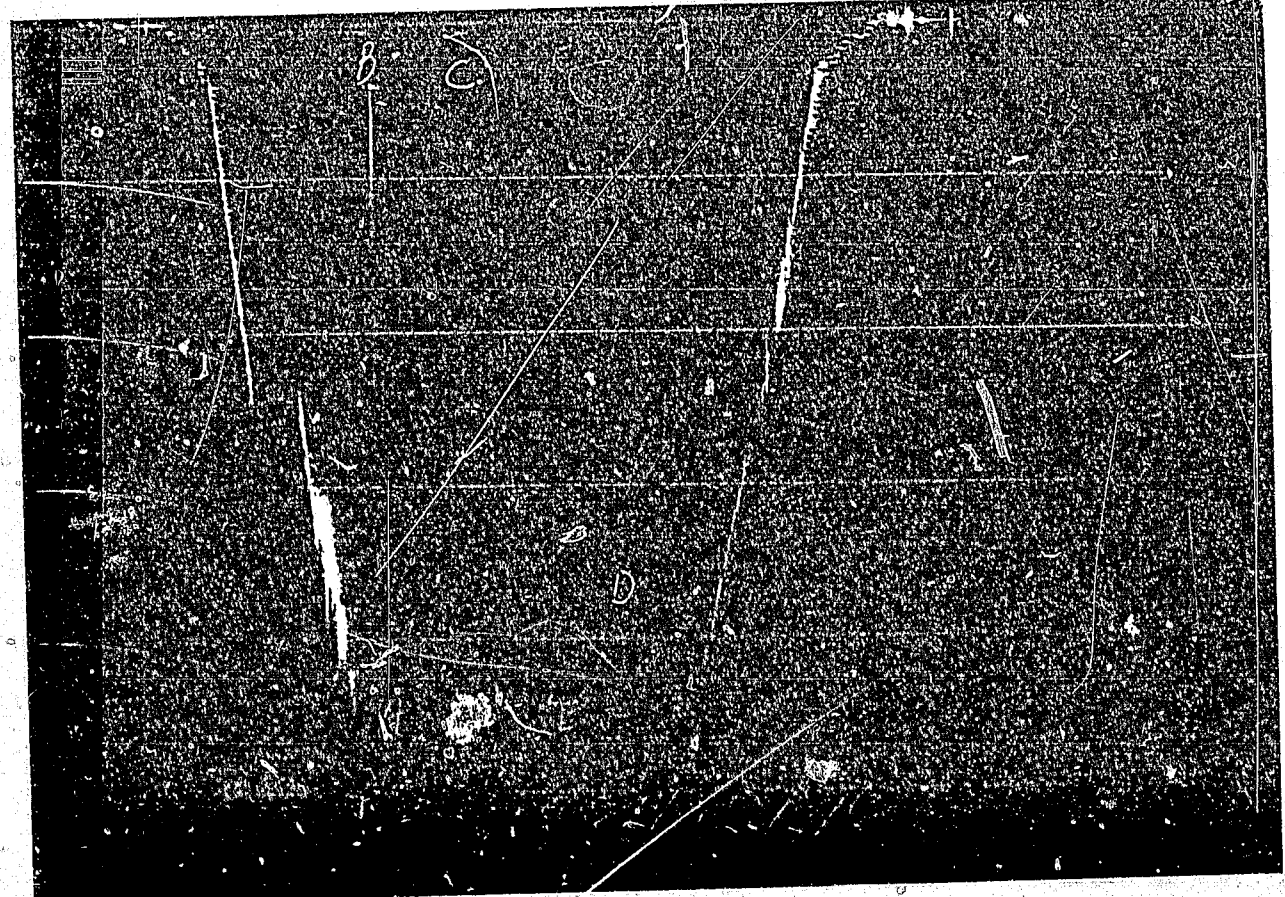


0057

GAUGE NO: 521 DEPTH: 8981.0 BLANKED OFF: NO HOUR OF CLOCK: 24

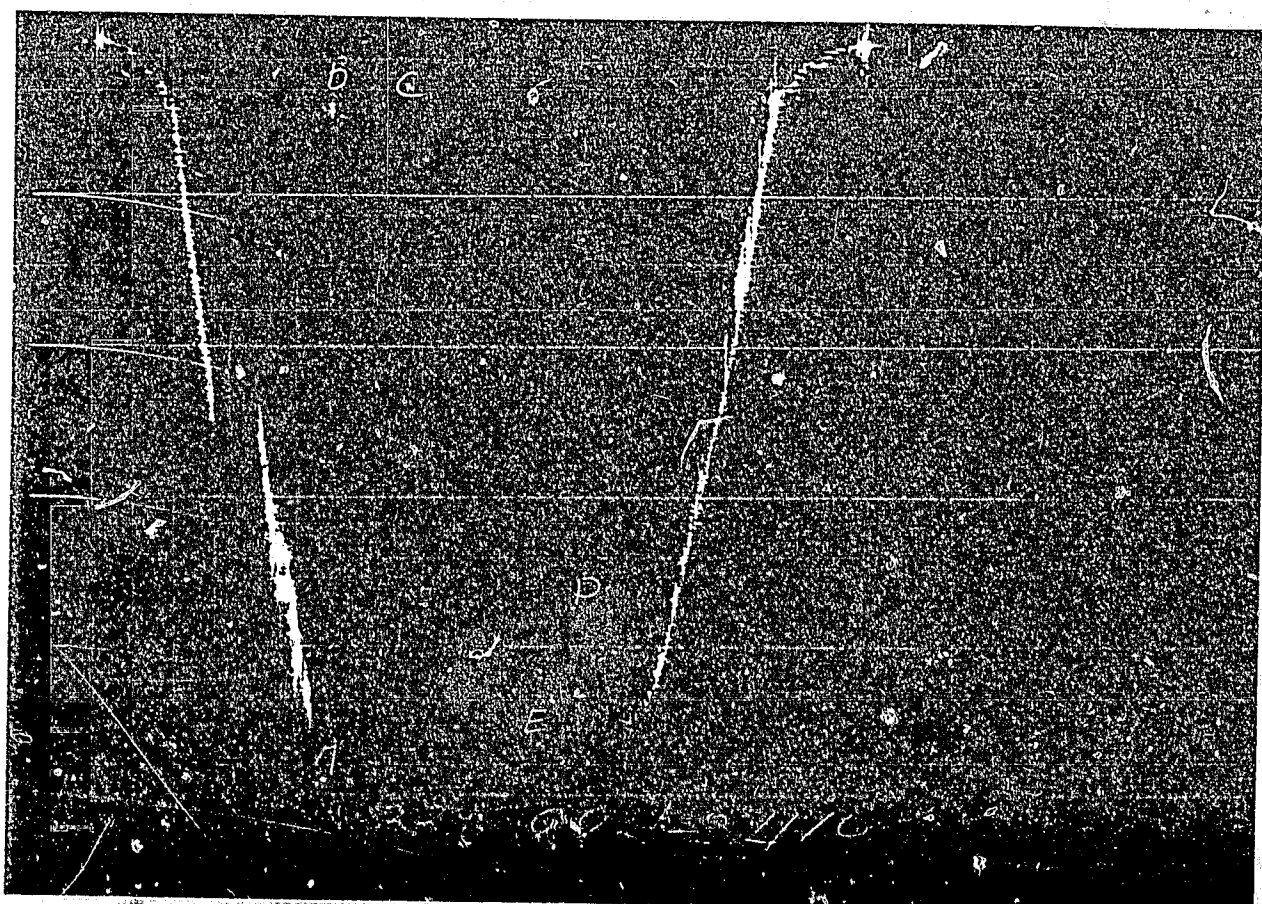
ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW	306	339.5			
C	FINAL FIRST FLOW		475.9	89.0	91.4	F
C	INITIAL FIRST CLOSED-IN		475.9			
D	FINAL FIRST CLOSED-IN	487	490.1	175.0	172.6	C
E	FINAL HYDROSTATIC		4337.3			

0058



GAUGE NO: 2146 DEPTH: 9002.0 BLANKED OFF: NO HOUR OF CLOCK: 024

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	4390	4393.3			
B	INITIAL FIRST FLOW	353	363.2	89.0	91.4	F
C	FINAL FIRST FLOW	498	499.2			
C	INITIAL FIRST CLOSED-IN	498	499.2	175.0	172.6	C
D	FINAL FIRST CLOSED-IN	3645	3639.6			
E	FINAL HYDROSTATIC	4380	4344.2			



0059

GAUGE NO: 2410 DEPTH: 9052.0 PLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	427	4426.3			
B	INITIAL FIRST FLOW	383	377.6			
C	FINAL FIRST FLOW	515	513.5	89.0	91.4	F
C	INITIAL FIRST CLOSED-IN	515	513.5			
D	FINAL FIRST CLOSED-IN	3664	3660.3	175.0	172.6	C
E	FINAL HYDROSTATIC	4413	4378.5			

EQUIPMENT & HOLE DATA			TICKET NUMBER: 33688400		
FORMATION TESTED: <u>PATCHAWARRA</u>			DATE: <u>9-18-84</u> TEST NO: <u>1</u>		
NET PAY (ft): _____			TYPE DST: <u>OPEN HOLE</u>		
GROSS TESTED FOOTAGE: <u>29.0</u>			HALLIBURTON CAMP: <u>MOOMBA</u>		
ALL DEPTHS MEASURED FROM: <u>KELLY BUSHING</u>			TESTER: <u>BRENT HOOVER</u>		
CASING PERFS. (ft): _____			WITNESS: <u>R. WARSWA</u>		
HOLE OR CASING SIZE (in): <u>8.500</u>			DRILLING CONTRACTOR: <u>RIGHTER DRILLING RIG #14</u>		
ELEVATION (ft): <u>121</u>					
TOTAL DEPTH (ft): <u>9055.0</u>					
PACKER DEPTH(S) (ft): <u>9017. 9026</u>					
FINAL SURFACE CHOKE (in): _____					
BOTTOM HOLE CHOKE (in): <u>0.750</u>					
MUD WEIGHT (lb/gal): <u>9.40</u>					
MUD VISCOSITY (sec): <u>42</u>					
ESTIMATED HOLE TEMP. (°F): _____					
ACTUAL HOLE TEMP. (°F): <u>250 @ 9051.0</u> ft					
FLUID PROPERTIES FOR RECOVERED MUD & WATER			SAMPLER DATA		
SOURCE	RESISTIVITY	CHLORIDES	Pstg AT SURFACE: _____		
_____	_____ °F	_____ ppm	cu.ft. OF GAS: _____		
_____	_____ °F	_____ ppm	cc OF OIL: _____		
_____	_____ °F	_____ ppm	cc OF WATER: _____		
_____	_____ °F	_____ ppm	cc OF MUD: _____		
_____	_____ °F	_____ ppm	TOTAL LIQUID cc: _____		
HYDROCARBON PROPERTIES			CUSHION DATA		
OIL GRAVITY (°API): <u>0</u> °F			TYPE AMOUNT WEIGHT		
GAS/OIL RATIO (cu.ft. per bbl): _____			<u>WATER - FEET</u> <u>300.0</u> <u>8.34</u>		
GAS GRAVITY: _____					
RECOVERED:			MEASURED FROM TESTER VALVE		
REMARKS: GROUND LEVEL ELEVATION IS 99'. LEGAL LOCATION: LAT. 27 DEGREES, 54', 18.8" S AND LONG 139 DEGREES, 55', 26.3" EAST.					

TYPE & SIZE MEASURING DEVICE:			6" CERAMIC CHOKE		TICKET NO: 33688400
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
9-18-84					
1200					STARTED MAKING UP TOOLS
1725					SET 30,000# ON TOOL
1727					TOOL OPENED WITH WEAK BLOW
					MANIFOLD CLOSED TO FLARE LINE.
1735					SLIGHT INCREASE TO MODERATE BLOW.
1740		1			STRONG BLOW
1745		2			STRONG BLOW
1750		2.5			STRONG BLOW
1755		3			STRONG BLOW, OPENED MANIFOLD TO FLARE LINE
					SHUT BUBBLE HOSE
1800					MANIFOLD OPEN TO FLARE LINE
					NO GAS TO THE SURFACE
					OPEN BUBBLE HOSE
1805					BUBBLE DECREASING.
1815					BUBBLE DECREASING, MODERATE BLOW.
1830					BUBBLE DECREASING - WEAK BLOW
1848					VERY SMALL SHOW OF GAS TO THE SURFACE
1802					CLOSED TOOL
2157					PULLED FREE
2230					DROPPED BAR AND STARTED TO REVERSE CIRCULATE.
2335					STOPPED REVERSE CIRCULATING AND BROKE DOWN HEAD.
9-19-84					
0340					STARTED TO BREAK OUT TOOLS
0430					TOOLS OUT OF HOLE.

698

0062

TICKET NO: 33688400

CLOCK NO: 13446 HOUR: 24



GAUGE NO: 521

DEPTH: 8981.0

REF	MINUTES	PRESSURE	AP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$
FIRST FLOW					
B 1	0.0	339.5			
2	15.0	345.4	5.9		
3	30.0	388.8	43.5		
4	45.0	413.9	25.1		
5	60.0	435.9	22.0		
6	75.0	457.3	21.4		
C 7	91.4	475.9	18.5		

FIRST CLOSED-IN					
C 1	0.0	475.9			
D 2	172.6	490.1	14.2	59.8	0.185

REMARKS:

028

0063

TICKET NO: 33688400

CLOCK NO: 12462 HOUR: 24



GAUGE NO: 2146

DEPTH: 9002.0

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$	REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW											
B	1	0.0	363.2								
	2	15.0	372.1	8.9							
	3	30.0	412.6	40.5							
	4	45.0	436.6	24.0							
	5	60.0	458.7	22.1							
	6	75.0	479.4	20.6							
C	7	91.4	499.2	19.8							
FIRST CLOSED-IN											
C	1	0.0	499.2								
	2	10.0	1768.2	1269.0	9.0	1.006					
	3	20.0	2524.8	2025.6	16.4	0.747					
	4	30.0	2856.3	2357.1	22.6	0.607					
	5	40.0	3042.6	2543.4	27.8	0.517					
	6	50.0	3168.9	2669.7	32.3	0.452					
	7	60.0	3263.0	2764.4	36.2	0.402					
	8	70.0	3333.0	2833.8	39.7	0.363					
	9	80.0	3392.9	2893.8	42.7	0.331					
	10	90.0	3439.7	2940.5	45.3	0.305					
	11	100.0	3478.5	2979.3	47.8	0.282					
	12	110.0	3513.1	3013.9	49.9	0.263					
	13	120.0	3542.6	3043.4	51.9	0.246					
	14	130.0	3567.9	3068.8	53.7	0.231					
	15	140.0	3588.8	3089.6	55.3	0.218					
	16	150.0	3606.7	3107.5	56.8	0.207					
	17	160.0	3623.1	3123.9	58.2	0.196					
D	18	172.6	3639.6	3140.4	59.8	0.185					

REMARKS:

T28

0064

TICKET NO: 33688400
CLOCK NO: 9394 HOUR: 24



GAUGE NO: 2410
DEPTH: 9052.0

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW					
B	1	0.0	377.6		
	2	15.0	382.7	5.1	
	3	30.0	424.7	41.9	
	4	45.0	450.8	26.2	
	5	60.0	474.2	23.4	
C	6	75.0	495.1	20.5	
	7	91.4	513.5	18.4	
FIRST CLOSED-IN					
C	1	0.0	513.5		
	2	10.0	1576.9	1063.4	9.0 1.008
	3	20.0	2477.1	1963.6	16.4 0.747
	4	30.0	2844.1	2330.6	22.6 0.607
	5	40.0	3045.2	2531.7	27.8 0.516
	6	50.0	3175.7	2682.2	32.3 0.452
	7	60.0	3276.0	2782.5	36.2 0.402
	8	70.0	3348.9	2835.4	39.7 0.363
	9	80.0	3409.7	2896.2	42.7 0.331
	10	90.0	3456.7	2943.2	45.4 0.304
	11	100.0	3496.1	2982.6	47.8 0.282
	12	110.0	3528.1	3014.6	49.9 0.263
	13	120.0	3557.8	3044.3	51.9 0.246
	14	130.0	3583.1	3069.6	53.7 0.231
	15	140.0	3607.9	3094.4	55.3 0.218
	16	150.0	3626.8	3113.3	56.8 0.207
	17	160.0	3642.0	3128.5	58.2 0.196
D	18	172.6	3660.3	3146.8	59.8 0.185

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$

REMARKS:

		O.D.	I.D.	LENGTH	DEPTH
1		DRILL PIPE.....	4.500	3.826	8274.9
4		FLEX WEIGHT.....	4.500	2.764	180.0
3		DRILL COLLARS.....	6.500	2.750	509.7
50		IMPACT REVERSING SUB.....	6.000	3.000	1.0
3		DRILL COLLARS.....	6.500	2.750	30.4
5		CROSSOVER.....	5.750	1.000	1.0
60		AP RUNNING CASE.....	5.000	2.250	4.1
5		CROSSOVER.....	5.000	2.200	1.0
12		DUAL CIP VALVE.....	5.000	0.870	4.9
97		SAMPLE CHAMBER.....	5.000	2.500	4.9
33		DRAIN VALVE.....	5.100	2.200	0.9
60		HYDROSPRING TESTER.....	5.000	0.750	5.3
80		AP RUNNING CASE.....	5.000	2.250	4.1
15		JAR.....	5.000	1.750	5.0
16		VR SAFETY JOINT.....	5.000	1.000	2.8
70		OPEN HOLE PACKER.....	5.000	1.530	5.8
18		DISTRIBUTOR VALVE.....	5.000	1.680	2.0
70		OPEN HOLE PACKER.....	5.000	1.530	5.8
19		ANCHOR PIPE SAFETY JOINT.....	5.000	1.500	4.3
20		FLUSH JOINT ANCHOR.....	5.000	2.370	20.0
81		BLANKED-OFF RUNNING CASE.....	5.000		4.0
		TOTAL DEPTH			9055.0

EQUIPMENT DATA

9900

445



TICKET NO. 32411800
16-NOV-84
MOOMBA

INDUPLY	2	2	9634	9722	DELHI/SANTOS
LEASE NAME	VEIL NO.	TEST NO.	TESTED INTERVAL		LEASE OWNER/COMPANY - INNS
LEGAL LOCATION SEC. - TWP. - RNG.	SEE REMARKS	FIELD GREG	COOPER BASIN	COUNTY SOUTH AUSTRALIA	STATE AUSTRALIA BG

FORMATION TESTING SERVICE REPORT

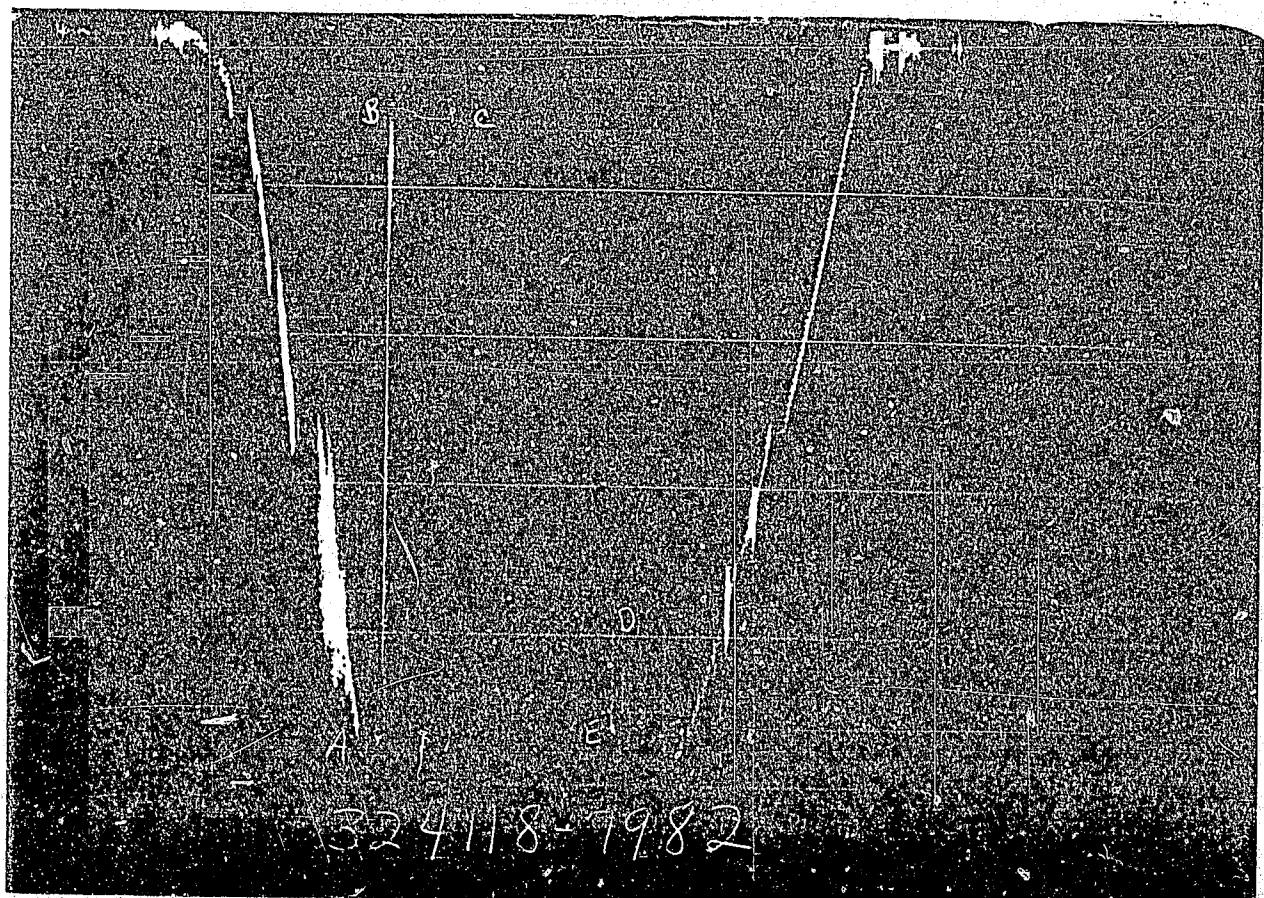
0067

324118-8723

GAUGE NO: 8723 DEPTH: 9593.3 BLANKED OFF: NO HOUR OF CLOCK: 48

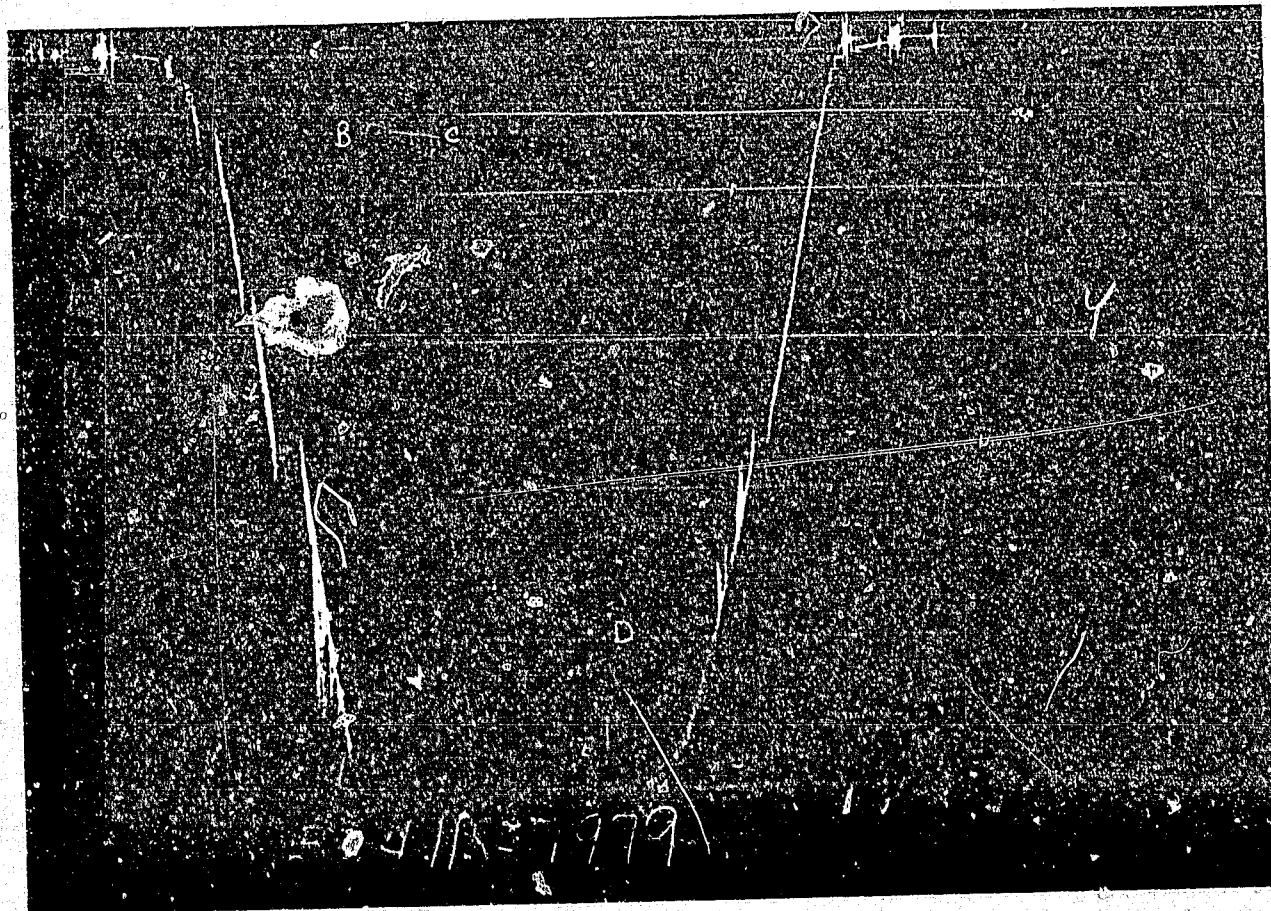
ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC					
B	INITIAL FIRST FLOW		468.3			
C	FINAL FIRST FLOW		573.5	92.0	92.0	F
C	INITIAL FIRST CLOSED-IN		573.5			
D	FINAL FIRST CLOSED-IN	571	622.0	186.0	185.2	C
E	FINAL HYDROSTATIC		4627.1			

068



GAUGE NO: 7982 DEPTH: 9610.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	4347	4654.4			
B	INITIAL FIRST FLOW	466	501.2			
C	FINAL FIRST FLOW	521	564.7	92.0	92.0	F
C	INITIAL FIRST CLOSED-IN	521	564.7			
D	FINAL FIRST CLOSED-IN	3663	3928.2	186.0	185.2	C
E	FINAL HYDROSTATIC	4322	4626.7			



69

GAUGE NO: 7979 DEPTH: 9719.0 BLANKED OFF: YES HOUR OF CLOCK: 24

	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	4270	4709.9			
B	INITIAL FIRST FLOW	504	557.2	92.0	92.0	F
C	FINAL FIRST FLOW	546	604.1			
C	INITIAL FIRST CLOSED-IN	546	604.1	186.0	185.2	C
D	FINAL FIRST CLOSED-IN	3595	3974.1			
E	FINAL HYDROSTATIC	4240	4679.6			

EQUIPMENT & HOLE DATA		TICKET NUMBER: 32411800	
FORMATION TESTED: <u>PATCHAWARRA</u>		DATE: <u>9-22-84</u> TEST NO: <u>2</u>	
NET PAY (ft): _____		TYPE DST: <u>OPEN HOLE</u>	
GROSS TESTED FOOTAGE: <u>88.0</u>		HALLIBURTON CAMP: <u>MOOMBA</u>	
ALL DEPTHS MEASURED FROM: <u>KB</u>		TESTER: <u>PARSONS</u>	
CASING PERFS. (ft): _____		WITNESS: <u>EEL</u>	
HOLE OR CASING SIZE (in): <u>7.500</u>		DRILLING CONTRACTOR: <u>RICHTER DRILLING COMPANY RIG #14</u>	
ELEVATION (ft): <u>121</u>			
TOTAL DEPTH (ft): <u>9722.0</u>			
PACKER DEPTH(S) (ft): <u>9626, 9634</u>			
FINAL SURFACE CHOKE (in): <u>0.500</u>			
BOTTOM HOLE CHOKE (in): <u>0.750</u>			
MUD WEIGHT (lb/gal): <u>8.20</u>			
MUD VISCOSITY (sec): <u>40</u>			
ESTIMATED HOLE TEMP. (°F): _____			
ACTUAL HOLE TEMP. (°F): <u>263 @ 9718.0 ft</u>			
FLUID PROPERTIES FOR RECOVERED MUD & WATER		SAMPLER DATA	
SOURCE	RESISTIVITY	CHLORIDES	Pa/g AT SURFACE: _____
DRILL PIPE-WATER	0.420 @ 64°F	_____ ppm	cu.ft. OF GAS: _____
MUDDY WATER	0.450 @ 68°F	_____ ppm	cc OF OIL: _____
_____	_____ @ _____°F	_____ ppm	cc OF WATER: _____
_____	_____ @ _____°F	_____ ppm	cc OF MUD: _____
_____	_____ @ _____°F	_____ ppm	TOTAL LIQUID cc: _____
_____	_____ @ _____°F	_____ ppm	
HYDROCARBON PROPERTIES		CUSHION DATA	
OIL GRAVITY (°API): _____ @ _____°F		TYPE	AMOUNT WEIGHT
GAS/OIL RATIO (cu.ft. per bbl): _____		WATER (FT.)	1000.0 8.33
GAS GRAVITY: _____			
RECOVERED:			
592' OF WATER			
1183' OF 8.7#/GALLON MUDDY WATER			
REMARKS:			
GROUND LEVEL ELEVATION IS 99 FEET.			
LEGAL LOCATION = LAT. 27 DEGREES 54' 18.8" SOUTH			
LONG. 139 DEGREES 55' 26.3" EAST			

097

0071

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC CHOKE					TICKET NO: 3241800
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
9-22-84					
0405					LOADED B.T. #8723
0410					LOADED B.T. #7982
0415					LOADED B.T. #7979
0515					STARTED MAKING UP TOOLS
0618					TOOLS MADE UP, RAN IN HOLE
0901					MADE UP HEAD AND LAID OUT ON
					SINGLE
1025					HEAD UP STRING, CONNECTED MANI-
					FOLD.
1038					SET PACKER WITH 30,000# DOWN
1041					OPENED TOOL WITH MANIFOLD
					CLOSED. HAD A WEAK BLOW IN
					BUBBLE BUCKET.
1043					SLIGHT INCREASE IN BUBBLE BUCKET
1048					SAME BLOW, STILL WEAK.
1056					BLOW INCREASED TO STRONG, STEAD-
					ILY INCREASING.
1058	.50				OPENED MANIFOLD, BUBBLE DECREAS-
					ED TO MODERATE.
1100	"				STRONG BLOW
1103	"	2			PRESSURE INCREASING SLOWLY.
1105	"	4			SAME
1107	"	6			SAME
1108	"	7			GAS TO SURFACE
1111	"	8			PRESSURE STABLE
1120	"	7			PRESSURE DECREASING SLOWLY
1124	"	6			SAME
1132	"	4			SAME
1135	"	3			SAME
1138	"	2			SAME
1206	"	1			SAME
1213	"	1			CLOSED TOOL
1519		0			OPENED BY-PASS, PULLED PACKERS
					FREE.
1531					DROPPED CIRCULATING BAR
1533					STARTED REVERSE CIRCULATING

0072

[illegible]

257

0073

TICKET NO: 32411800

CLOCK NO: 25064 HOUR: 48



GAUGE NO: 8723

DEPTH: 9593.3

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$	REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW											
B 1	0.0	468.3									
2	10.0	471.4	3.1								
3	20.0	490.1	18.7								
4	30.0	522.7	32.6								
5	40.0	539.7	17.0								
6	50.0	543.7	4.0								
7	60.0	547.0	3.2								
8	70.0	550.6	3.7								
9	80.0	559.5	8.8								
10	90.0	570.7	11.2								
C 11	92.0	573.5	2.7								
FIRST CLOSED-IN											
C 1	0.0	573.5									
D 2	185.2	622.0	48.5	61.5	0.175						

REMARKS:

897

0074

TICKET NO: 32411800

CLOCK NO: 26547 HOUR: 24



GAUGE NO: 7982

DEPTH: 9610.0

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW					
B 1	0.0	501.2			
2	10.0	472.0	-29.2		
3	20.0	479.4	7.4		
4	30.0	501.2	21.8		
5	40.0	527.2	26.0		
6	50.0	530.7	3.5		
7	60.0	535.8	5.1		
8	70.0	539.3	3.5		
9	80.0	546.9	7.6		
10	90.0	559.4	12.5		
C 11	92.0	564.7	5.3		
FIRST CLOSED-IN					
C 1	0.0	564.7			
2	10.0	2439.3	1874.6	9.0	1.010
3	20.0	3127.8	2563.1	16.4	0.749
4	30.0	3367.8	2803.1	22.6	0.609
5	40.0	3502.6	2937.9	27.9	0.518
6	50.0	3588.7	3024.0	32.4	0.454
7	60.0	3647.7	3083.1	36.3	0.404
8	70.0	3695.2	3130.5	39.8	0.364
9	80.0	3735.8	3171.2	42.8	0.333
10	90.0	3769.6	3204.9	45.5	0.306
11	100.0	3795.7	3231.1	47.9	0.283
12	110.0	3818.4	3253.8	50.1	0.264
13	120.0	3838.7	3274.0	52.1	0.247
14	130.0	3856.8	3292.1	53.9	0.232
15	140.0	3873.7	3309.1	55.5	0.219
16	150.0	3887.9	3323.2	57.0	0.208
17	160.0	3901.1	3336.4	58.4	0.197
18	170.0	3913.4	3348.8	59.7	0.188
19	180.0	3923.3	3358.6	60.9	0.179
D 20	185.2	3928.2	3363.6	61.5	0.175

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$

REMARKS:

757

0075

TICKET NO: 32411800

CLOCK NO: 16055 HOUR: 24



GAUGE NO: 7979

DEPTH: 9719.0

REF	MINUTES	PRESSURE	AP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
FIRST FLOW					
B 1	0.0	557.2			
2	10.0	508.2	-49.0		
3	20.0	511.3	3.1		
4	30.0	540.8	29.4		
5	40.0	564.9	24.2		
6	50.0	572.0	7.1		
7	60.0	579.6	7.6		
8	70.0	582.9	3.3		
9	80.0	590.2	7.4		
10	90.0	601.1	10.9		
C 11	92.0	604.1	3.0		

FIRST CLOSED-IN					
C 1	0.0	604.1			
2	10.0	2487.9	1883.9	9.1	1.007
3	20.0	3182.9	2578.8	16.4	0.748
4	30.0	3416.2	2812.2	22.6	0.610
5	40.0	3545.8	2941.8	27.9	0.519
6	50.0	3629.2	3025.1	32.4	0.453
7	60.0	3693.4	3089.3	36.3	0.404
8	70.0	3743.7	3139.6	39.7	0.365
9	80.0	3782.3	3178.2	42.8	0.332
10	90.0	3814.9	3210.9	45.5	0.306
11	100.0	3841.9	3237.8	47.9	0.283
12	110.0	3867.5	3263.5	50.1	0.264
13	120.0	3886.3	3282.3	52.1	0.247
14	130.0	3900.7	3296.7	53.9	0.232
15	140.0	3913.0	3308.9	55.5	0.219
16	150.0	3926.0	3322.0	57.0	0.208
17	160.0	3944.2	3340.1	58.4	0.197
18	170.0	3959.7	3355.6	59.7	0.188
19	180.0	3969.8	3365.8	60.9	0.179
D 20	185.2	3974.1	3370.0	61.5	0.175

REMARKS:

997

0076

TICKET NO. 32411800

		O.D.	I.D.	LENGTH	DEPTH
1		DRILL PIPE.....	4.500	3.826	9017.4
4		FLEX WEIGHT.....	4.500	2.764	180.0
3		DRILL COLLARS.....	6.500	2.250	362.7
50		IMPACT REVERSING SUB.....	5.750	3.000	1.0 9557.0
3		DRILL COLLARS.....	6.500	2.250	30.0
5		CROSSOVER.....	5.750	1.000	1.0
80		AP RUNNING CASE.....	5.000	3.060	4.1 9589.0
5		CROSSOVER.....	5.000	2.250	1.0
12		DUAL CIP VALVE.....	5.000	0.870	4.9
97		SAMPLE CHAMBER.....	5.000	2.500	4.9 9603.0
33		DRAIN VALVE.....	5.000	2.200	0.8
60		HYDROSPRING TESTER.....	5.000	0.750	5.0 9608.0
80		AP RUNNING CASE.....	5.000	3.060	4.0 9610.0
15		JAR.....	5.000	1.750	5.0
16		VR SAFETY JOINT.....	5.000	1.000	2.7
70		OPEN HOLE PACKER.....	6.000	1.530	5.8 9626.0
18		DISTRIBUTOR VALVE.....	5.000	1.680	2.2
70		OPEN HOLE PACKER.....	6.000	1.530	5.9 9634.0
19		ANCHOR PIPE SAFETY JOINT.....	5.000	2.370	4.2
5		CROSSOVER.....	5.750	2.500	1.0
3		DRILL COLLARS.....	6.500	2.250	59.1
5		CROSSOVER.....	5.750	2.500	1.0
20		FLUSH JOINT ANCHOR.....	5.000	2.370	17.0
81		BLANKED-OFF RUNNING CASE.....	5.000		4.1 9719.0
TOTAL DEPTH					9722.0

EQUIPMENT DATA