Attachment to WCR
Final Well Report
Basker South-1
(W839)

EXLOG

FINAL WELL REPORT

SHELL DEVELOPMENT (AUSTRALIA) PTY LTD

BASKER SOUTH NO. 1

OFFSHORE, VICTORIA

NOVEMBER - DECEMBER 1983

by

EXPLORATION LOGGING OF AUSTRALIA INC

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I. INTRODUCTION

a. Well and Rig Data

Company:	Shell Development (Australia) Pty Ltd
Operator For:	TNT (20%), News (20%), Crusader (15%) and Mincorp (5%).
Well Name:	Basker South No. 1
Location:	Gippsland Basin (Exploration Permit Vic P19), Offshore Victoria, Australia.
Position:	Latitude: 38° 19' 11.40" South Longitude: 148° 41' 21.56" East
Well Type:	Expendable Exploration Appraisal Well.
Rig:	Semi-submersible drilling rig "Nymphea".
Rig Operator:	Foramer
RKB-MSL:	25 metres
RKB-Seabed:	264 metres
Spud Date:	23rd November 1983.
Total Depth:	3420 metres
Reached Total Depth:	24th December 1983.
Completion Status:	Plugged and Abandoned.
Exlog Unit No.:	216, GEMDAS X
Crew, GEMDAS:	T Janowicz, D New
Crew, Logging:	J Ashworth, H Hadlow, R Henning
Final Well Report by:	T Janowicz

b. Prognosis

Basker South No. 1 was an expendable exploration appraisal well drilled to test the hydrocarbon potential of the Upper Cretaceous sandstones of the Gippsland Basin similar to those which contain hydrocarbons in Basker No. 1.

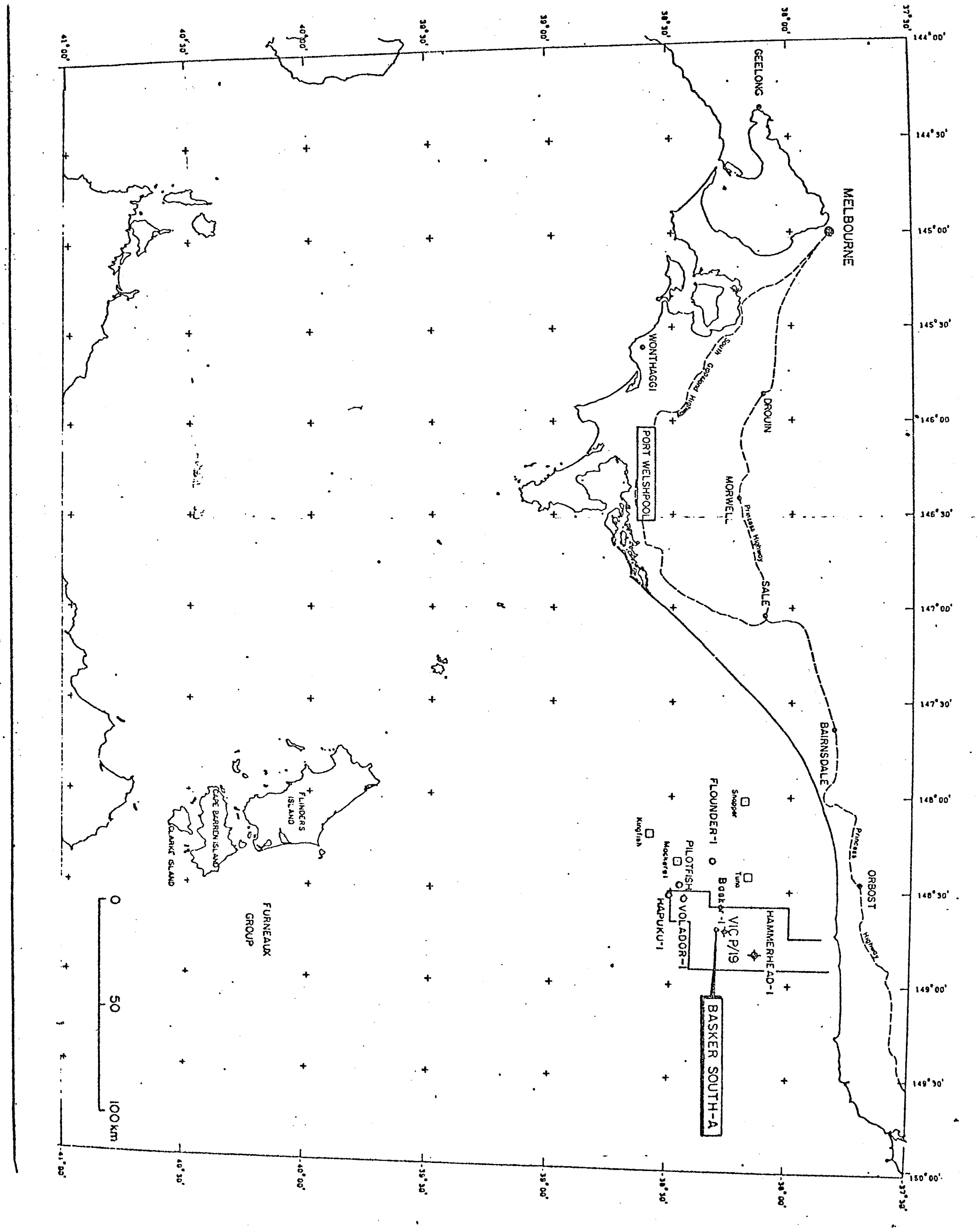
Exploration Logging of Australia Inc provided GEMDAS (Geological and Engineering Monitoring and Data Analysis Service), Formation Logging and Pressure Evaluation Services on Basker South No. 1 from the start of the 12¼" hole at 709 metres to Total Depth at 3420 metres. In addition to formation evaluation and conventional mud logging, automatic real time data monitoring, recording and pressure and drilling analyses were carried out. Continuous evaluation of pressures and drilling progress provided an aid in ensuring that drilling continued efficiently and with maximum safety to personnel, the rig and equipment. The Operator was continuously advised as to the status of these analyses and the results stored on disks. The printouts and plots of the results of these services are contained in the appendices to this report.

For details of the computer programs and the theory of pressure evaluation methods used, refer to the Program Information Book (MS-144) and the Pressure Log Manual (MS-156). Both are available from Exploration Logging.

As an aid to formation and pressure evaluation, certain items of specialised equipment were supplied by Exploration Logging. These were a CO_2 detector, an autocalcimeter and a microscope with an ultra-violet light source. Results from this equipment are contained in Appendix G, Lag Data Printout.

Other wells drilled in the vicinity of Basker South No. 1 include Hapuku No. 1, Volador No. 1, Hammerhead No. 1 and Basker No. 1 (see Figure 1, Location Map). Data from Basker No. 1 was used for correlation purposes and to establish probable overburden gradients and pore pressure gradients before data from Basker South No. 1 was available.

Figure 1. Location Map



II. DRILLING AND ENGINEERING

Basker South No. 1 was drilled to a total depth of 3420 metres in 32 days from spudding, using a total of 14 bits. These consisted of seven tooth bits, six insert bits and one stratapax type bit. These bits drilled from spud (264 metres below RKB) to 3420 metres, a distance of 3156 metres, in a total of 327.5 hours (on bottom), at an overall average rate of penetration of 9.6 metres per hour.

Table 1 (Bit Data), Table 2 (Hydraulics Data), Appendix C. i. (Drilling Data Printout) and Appendix C. ii. (Drilling Data Plots) provide a complete record of the drilling parameters used.

All significant drilling breaks and any unexplained changes in pit volume were flow checked. No flow from the well was noted from any of these checks.

36", 26" and 17½" Hole Sections. 264 to 709 metres.

Basker South No. 1 was spudded at 10.30 hours on 23rd November 1983, with a 36" hole opener which jetted from 264 to 266 metres and drilled from 266 to 316 metres. Deviation at 316 metres was 0.5 degrees. Four joints of 310 lb/ft 30" casing were run to 311 metres and cemented with 15 metric tonne Class G at 1.54 sg and 14 metric tonne Class G at 1.95 sg which was displaced with 4.3 cubic metres seawater.

Run #1 (NB#1) a SMITH DSJ 26" drilled cement, the shoe and washed the 36" pocket.

Run #2 (NB#2), SMITH SDGH 12.25" with 3 x 20 jets drilled a pilot hole to 706 metres in 16 hours at an average rate of penetration of 24.3 metres per hour.

Deviation at 500 metres was 0.5 degrees. A survey at 706 metres was a misrun.

Run #3 (RRB#1), SMITH DSJ 26" with 3 x 20 jets opened the 12.25" pilot hole to 26".

Thirty-six joints of VETCO LS 133 lb/ft 20" casing were then run to 700 metres. This was cemented with 81 metric tonne Class G with 2% calcium chloride and 3% bentonite at 1.49 sg, tailed by 26 metric tonne Class G mixed with seawater, at a slurry density of 1.92 sg.

After running the riser and BOP, Run #4 (NB#3), SMITH DSJ 17.5" with 3 x 6 jets drilled cement, the shoe and 3 metres of new formation to 709 metres where an FIT was conducted. The formation broke down at an imposed pressure of 500 psi with an 1.03 sg mud. This corresponds to a formation fracture gradient of 1.52 sg, equivalent mud density.

12¼" Hole Section. 709 to 2257.5 metres.

Almost the entire 12¼" hole section (except for 3.5 metres drilled while milling junk prior to running the 9-5/8" casing) was drilled using one Diamant Boart bit with a turbodrill. In two runs, it drilled 1545 metres in 85.8 hours on bottom at an overall average rate of penetration of 18 metres per hour.

Run #5 (NB#4), DIAMANT BOART LX27HS 12.25" with TFA 1.05 square inches was run with a NEYRFOR T2A turbodrill. It drilled to 1847 metres in 52.4 hours at an average rate of penetration of 21.7 metres per hour where it was tripped to retrieve a stuck survey tool. Surveys at 956 (941), 1145 (1130), 1393 (1378), 1630 (1615) and 1847 metres (1832 metres) yielded deviations of 2, 1.5, 2, 2.5 and 3 degrees respectively. No drag was evident during a 5 stand wiper trip at 1630 metres or while tripping at 1847 metres. The bit was rerun and continued drilling to 2254 metres averaging 12.2 metres per hour over the interval 1847 to 2254 metres. A survey at 2047 metres gave a deviation of 4.5 degrees. No drag was recorded during a wiper trip to the shoe at 1915 metres to replace the kelly due to a washout. Again no drag was evident while tripping the bit at 2254 metres to run wireline logs and 9-5.8" casing. No flow was observed from a flow check at 2224 metres.

Wireline logs were run as follows:

DLL-MSFL-GR-SP-Cal	2249 to 699 metres
LDL-GR-Cal	2251 to 699 metres
LSS-GR	2248 to 699 metres
CST	(shot 51, lost 5, empty 1)

Rerun #6 (RRB#2), SMITH SDGH 12.25" drilled 3.5 metres to 2257.5 metres while milling junk and cleaning the hole prior to running the 9-5/8" casing. Drag of 30 tonnes was recorded when initially pulling the bit. After reaming back to bottom and pumping a high viscosity slug, no drag was encountered when pulling the bit to surface.

166 joints of N80 47 lb/ft 20" casing were run to 2249 metres. The casing was cemented with 70 metric tonnes Class G with 3% bentonite, at 1.48 sg and 3.25 metric tonnes Class G with 0.2% HR-7, at 1.90 sg.

8½" Hole Section. 2257.5 to 3420 metres.

The 8½" hole section was drilled using 10 bits. These drilled 1162.5 metres in a total of 222.2 hours (on bottom) at an average rate of penetration of 5.2 metres per hour.

After testing the stack, Run #7 (NB#5), SMITH SVH 8.5" with 3 x 16 jets drilled cement, the shoe and new formation to 2261 metres. The hole deviation at 2261 metres (2260 metres) was 7 degrees.

Following a Gyro survey, Run #8 (NB#6), SMITH SDGH 8.5" with 3 x 14 jets drilled to 2288 metres, a distance of 27 metres in 4.5 hours at an average rate of penetration of 6 metres per hour.

A formation integrity test conducted at 2288 metres reached an EMD of 1.82 sg without achieving formation breakdown. No drag was encountered during the trip.

Run #9 (NB#7), SMITH FDGH 8.5" with 10, 10, 11 jets drilled to 2372 metres, a distance of 84 metres in 7.1 hours at an average rate of penetration of 11.8 metres per hour. No flow was in evidence during flow checks at 2295 and 2343 metres. The survey at 2372 metres (2370 metres) yielded a deviation of 7.25 degrees.

Run #10 (NB#8), SMITH FDGH 8.5" with 10, 10, 11 jets drilled to 2409 metres a distance of 37 metres in 8 hours at an average rate of penetration of 4.6 metres per hour. The hole deviation at 2409 metres (2407 metres) was 7.5 degrees. No drag was recorded while tripping the bit.

Run #11 (NB#9), SMITH F2 8.5" with 10, 10, 11 jets drilled to 2590 metres, a distance of 181 metres in 17.3 hours at an average rate of penetration of 10.3 metres per hour. No flow was seen during a flow check at 2443 metres. No drag was encountered during a three stand wiper trip at 2513 metres to retrieve a survey. Deviation at 2513 metres (2512 metres) was 7.75 degrees. No flow was seen during a flow check at 2443 metres. Deviation at 2590 metres (2588 metres) was 7.75 degrees. No drag was seen while tripping the bit.

Run #12 (NB#10), SMITH F2 8.5" with 10, 10, 11 jets drilled to 2828 metres, a distance of 238 metres in 34 hours at an average rate of penetration of 7 metres per hour. At 2685 metres returns were circulated for 15 minutes, a survey dropped and a three stand wiper trip made to retrieve the survey.

Deviation at 2685 metres (2683 metres), was 6.75 degrees N57^{O}E. Deviation at 2828 metres (2818 metres) was 5.75 degrees N68^{O}E.

Run #13 (NB#11), SMITH F3 8.5" with 10, 10, 11 jets drilled to 2999 metres, a distance of 171 metres in 39.3 hours at an average rate of penetration of 4.4 metres per hour. Trip gas from 2828 metres was 0.015%. Up to 28 tonne drag was encountered from the first 12 stands while tripping the bit at 2999 metres. Hole deviation at 2999 metres (2989 metres) was 5 degrees N60^{O}E.

Run #14 (NB#12), VAREL 537, 8.5" with 10, 10, 11 jets drilled to 3189 metres, a distance of 190 metres in 45.3 hours at an average rate of penetration of 4.2 metres per hour. Trip gas from 2999 metres was 0.08%. Deviation at 3189 metres (3176 metres) was 3.5 degrees N28^{O}E.

Run #15 (NB#13), SMITH F3 with 10, 10, 11 jets drilled to 3341 metres, a distance of 152 metres in 37.5 hours at an average rate of penetration of 4 metres per hour. Returns were circulated at 3212 metres with no shows. An increase in cavings and a decrease in Dxc trend suggested an increase in pore pressure from 3240 metres to a maximum 1.07 sg EMD at 3280 metres, then decreasing to a normal 1.01 sg by 3310 metres. The hole deviation at 3341 metres (3329 metres) was 3 degrees.

Run #16 (NB#14), SMITH F3 with 10, 10, 11 jets drilled to Total Depth at 3420 metres, a distance of 71 metres in 24.8 hours at an average rate of penetration of 3.2 metres per hour. Trip gas from 3341 metres was 1.2%. Hole deviation at 3420 metres (3408 metres) was 2.5 degrees).

Overpull of 15 tonnes and 8 tonnes was recorded over the intervals 3224 to 3196 metres and 3196 to 3167 metres during a 15 stand wiper trip at 3420 metres. No drag was observed when pulling out of the hole to run wireline logs.

Wireline logs were run as follows:

DLL-MSFL-Cal-GR-SP
LDL-CNL-Cal-GR
HDT
Velocity Survey.

Following a wiper trip from which 0.8% trip gas was observed, wireline logs, RFT x 2, and CST (1 gun) were run.

Only formation water and a small volume of gas were recovered from the RFTs.

The hole was plugged and abandoned as a dry hole.

EXLOG	COMPANY: SHELL DEVELOPMENT (AUSTRALIA) PTY LTD	WELL: BASKER SOUTH NO. 1	SHEET NO. 1

BIT DATA RECORD

UN #	BIT DATA						BIT RUN								
	BIT #	MFR	TYPE	SIZE	IADC CODE	JET SIZES	START DEPTH	DRILLED metres	DRILLED HOURS	AVERAGE ROP	WOB	RPM	PUMP PRESSURE	SPM/GPM	IADC BIT CONDIT
1	NB 1	SMITH	DSJ	26	1115			DRILL	CEMENT						1 1 0
2	NB 2	SMITH	SDGH	12¼	1355	20 20 20	316	390	16.0	24.3	5	100	2000	68/1287	1 2 0
3	RR 1	SMITH	DSJ	26	1115	20 20 20	316	390	3.5	111	5	75	2300	85/1597	2 2 0
4	NB 3	SMITH	DSJ	17½	1115	16 16 16	706	3	3.5	DRILL	CEMENT	AND CLEAN	HOLE		1 1 0
5	NB 4	DIAMANT BOART	LX27HS	12¼	-	TFA 1.05	709	1138	52.4	21.7	4	650	3500	200/3164	
RR5	RR 4	" "	Lx27HS	12¼		TFA 1.05	1847	407	33.4	12.2	5-10	660	3800	201/3179	40% WOR
6	RR 2	SMITH	SDGH	12¼	1355	20 20 20	2254	WIPER	TRIP -	REAM	FOR	JUNK.			1 2 0
7	NB 5	SMITH	SVH	8½	2255	16 16 16	2257.5	3.5	4.4	0.8	5	70	990	78/1488	8 4 4
8	NB 6	SMITH	SDGH	8½	1355	14 14 14	2261	27	4.5	6.0	6	60	1470	85/1617	2 2 2
9	NB 7	SMITH	FDGH	8½	1375	10 10 11	2288	84	7.1	11.8	8	60	2440	75/1423	3 2 4
0	NB 8	SMITH	FDGH	8½	1375	10 10 11	2372	37	8.0	4.6	6-12	65	2490	75/1423	3 2 4
1	NB 9	SMITH	F2	8½	5275	10 10 11	2409	181	17.3	10.5	15.5	55	2650	77/1461	2 3 4
2	NB10	SMITH	F2	8½	5275	10 10 11	2590	238	34.0	7.0	16.5	65	2590	76/1442	5 5 8
3	NB11	SMITH	F3	8½	5375	10 10 11	2828	171	39.3	4.3	15	65	2580	76/1445	4 6 0
4	NB12	VAREL	537	8½	5372	10 10 11	2999	190	45.3	4.2	15	55-65	2740	77/1463	3 5 0
5	NB13	SMITH	F3	8½	5375	10 10 11	3189	152	37.5	4.0	15	60	2610	75/1427	2 4 0
6	NB14	SMITH	F3	8½	5375	10 10 11	3341	79	24.8	3.2	16	60	2640	75/1423	2 2 0

TABLE 2. HYDRAULICS DATA: BASKER SOUTH NO. 1

BIT NO.	INTERVAL metres	JETS	MUD WEIGHT sg	ECD sg	PV/YP	SPM	FLOW l/min	PUMP PRESS psi	BIT LOSS psi	%	ANNULAR VELOCITY RISER m/min	DP	DC	CRIT	NOZZLE VEL. m/sec	IMPACT FORCE kg	BIT POWER HP
12.25" Hole Section																	
4	709.0-1847.0	TFA 0.5 sq in	1.06-1.09	1.08-1.10	11/10	200	3164	3500	543	16	20.9	49.9	76.1	78.8	78.9	461	265
RR4	1847.0-2254.0	TFA 0.5 sq in	1.09-1.10	1.10-1.11	7/11	201	3179	3800	548	14	20.9	50.2	76.5	83.9	79.3	466	269
8.5" Hole Section																	
RR2	2254.0-2257.5	20 20 20	Ream for Junk														
5	2257.5-2261.0	16 16 16	1.11	1.13	11/10	78	1488	990	612	38	7.8	-	97.9	105.4	65.3	183	87
6	2261.0-2288.0	14 14 14	1.10	1.14	13/13	85	1617	1470	756	55	8.5	-	106.4	125.0	92.6	279	188
7	2288.0-2372.0	10 10 11	1.11	1.15	15/16	75	1423	2440	1981	81	7.5	-	93.6	141.8	149.3	400	434
8	2372.0-2409.0	10 10 11	1.10	1.14	15/16	75	1423	2490	1963	77	7.5	-	93.6	142.7	149.3	396	431
9	2409.0-2590.0	10 10 11	1.11	1.14	15/14	77	1461	2650	2089	77	7.7	60.9	96.1	133.3	153.1	421	470
10	2590.0-2828.0	10 10 11	1.11	1.14	15/14	76	1442	2590	2035	76	7.6	60.2	94.9	133.3	151.4	411	452
11	2828.0-2999.0	10 10 11	1.11	1.14	16/12	76	1445	2580	2036	79	7.6	60.4	95.1	126.9	151.7	411	454
12	2999.0-3189.0	10 10 11	1.12	1.15	14/15	77	1463	2740	2119	76	7.7	61.2	96.4	134.6	154.4	427	478
13	3189.0-3341.0	10 10 11	1.13	1.17	17/16	75	1427	2610	2028	78	7.5	59.6	93.9	144.5	149.7	409	446
14	3341.0-3420.0	10 10 11	1.13	1.16	16/14	75	1423	2640	2011	72	7.5	59.4	93.6	134.1	149.0	406	441

TABLE 3. SURVEY RESULTS: BASKER SOUTH NO. 1

SURVEY DEPTH metres	TOOL DEPTH metres	DEVIATION deg. C	AZIMUTH	VERTICAL DEPTH metres	BHT Deg. C (Template)
218	281	misrun	-	-	-
316	316	0.5	-	316.0	-
500	500	0.5	-	500.0	-
706	706	0.75	-	706.0	-
956	941	2.0	-	940.9	37 - 43
1145	1130	1.5	-	1129.8	37 - 43
1193	1378	2.0	-	1377.7	37 - 43
1630	1615	2.5	-	1614.5	37 - 43
1847	1832	3.0	-	1831.3	37 - 43
2047	2032	4.5	-	2030.0	43 - 48
2254	2239	7.5	-	2236.7	48 - 54
2261	2260	7.0	-	2258.5	48 - 54
2372	2370	7.25	-	2368.6	48 - 54
2409	2407	7.25	-	2402.3	54 - 60
2513	2511	7.75	-	2506.4	60 - 65
2590	2588	7.75	-	2582.7	60 - 65
2685	2683	6.75	N57°E	2677.1	60 - 65
2828	2818	5.75	N68°E	2811.3	65 - 71
2999	2989	5.0	N60°E	2981.6	65 - 71
3189	3176	3.5	N28°E	3168.0	71 - 76
3341	3329	3.0	N41°E	3320.8	71 - 76
3420	3408	2.5	N35°E	3399.8	71 - 76

III. GEOPRESSURE ENGINEERING

a. Formation Pore Pressure

During the drilling of Basker South No. 1, the following parameters were monitored as an aid in estimating pore pressures: bulk density, mud temperature, Dxc, gas values, hole problems, cavings and cuttings properties.

Of these, bulk density was the least useful, due to the often hydrated nature of the clays (See Appendix G, Lag Data Printout.) Mud temperature data (see Appendix B. iii, Temperature Data Log) was also difficult to interpret due to the heat loss in the riser and the effects of injecting "fresh mud" into the system when boosting the riser while drilling the 12.25" hole. The small volume of the active system meant that the addition of new mud or water also had a significant effect on mud temperature. Despite these problems, the other monitored parameters were sufficiently accurate to allow very reliable qualitative evaluation of pore pressure changes and fair quantitative estimations of the amount of change.

On the basis of data from Basker No. 1, the normal pore pressure gradient was estimated to be 1.03 sg EMD in the marine post Latrobe Group sediments. The estimated normal pore pressure for the freshwater sediments of the Latrobe Group was 1.01 sg EMD.

No evidence of abnormal pore pressure was seen in the post Latrobe Group sediments.

Pore pressure through the Latrobe Group sediments seemed normal excepting for the interval 3240 to 3280 metres where an increase in cavings and a decrease in Dxc trend suggested an increase in pore pressure. However RFT pressure measurements show a pore pressure gradient of 1.02 sg EMD in this zone. Thus the Dxc shift and cavings increase are probably due to lithological changes.

b. Formation Overburden Pressure

Formation density data from Basker No. 1 corrected for the different water depth was processed to give an overburden gradient curve for Basker South No. 1. As density data became available from wireline logs, this data was used to obtain the final overburden pressure gradient. (See Appendix B. v., Pressure Evaluation Log.)

c. Formation Fracture Pressure

Formation integrity tests were performed after drilling out of the 20" and 9-5/8" shoes. From these tests, the following results were obtained:

Depth metres	Mud Weight sg	Gauge Pressure psi	Fracture Pressure Gradient sg EMD
709	1.03	500	1.52
2288	1.10	2300	1.82

The test at 2288 metres was not taken to "leak off".

The Exlog constant effective stress ratio method was used to estimate fracture pressures while drilling and gave reasonable agreement with observed fracture pressures. It is evident from these results, (see Appendix B. v., Pressure Evaluation Log), that the fracture pressures in Basker South No. 1 were significantly higher than the mud weights used (maximum 1.13 sg), thus no lost circulation problems were experienced.

IV. GEOLOGY AND SHOWS

During the drilling of Basker South No. 1, samples were collected every ten metres from 709 metres to the base of the 12¼" hole at 2257 metres, and at three metres intervals from 2257 to 3420 metres (Total Depth).

Returns were generally good, but the sticky and often dispersive nature of the Gippsland Marls made the collection of sufficient sample difficult in some sections of the 12¼" hole.

Two 500 g bags of unwashed and one 500 g bag of washed samples were collected. The washed sample was used for lithological description, fluorescence analysis, calcimetry and density analysis, and after air drying, was divided into four set (BMR, VDME, SDA and wellsite). In addition to the regular samples, spot samples were taken as required for more detailed lithological interpretations. The outputs from the desander and desilter were also regularly checked.

Excellent control was provided by Basker No. 1, and the sequence was close to prognosis.

An Exlog Autocalcimeter was used to determine carbonate compositions (Calcite/Dolomite) and results are contained in Appendix G, Lag Data Printout.

An ultra-violet microscope was of considerable value in observing details of fluorescence and cut.

GIPPSLAND LIMESTONE (Middle Miocene Pliocene)

710 metres (first returns) to 1945 metres

The Gippsland Limestone consisted of a sequence of marine marl and calcarenite.

710 to 1310 metres

The lithclogy in this section was dominantly a marl with minor calcarenite. Rates of penetration varied from 6.5 to 60 metres per hour and averaged 25 metres per hour. Gas values were from 0.08% to 0.5%. No shows.

The marl was very light to medium grey and light green grey, very soft to occasionally firm, sticky, dispersive, very fossiliferous with foraminifera and echinoderms, trace pyrite, glauconite and carbonaceous material.

The calcarenite was very light to medium grey, to buff, firm to moderately hard, very fine to fine grained, subangular to subrounded, poorly to moderately well sorted, friable to brittle and commonly very argillaceous with a trace of calcareous cement; foraminifera were very common with a trace of pyrite, glauconite and carbonaceous detritus.

1310 to 1600 metres

The dominant lithology in this section was marl with interbedded calcarenite increasing in amount, up to 50% of the samples. Rates of penetration through this section varied from 17.5 to 40 metres per hour and averaged 30 metres per hour. Gas ranged from 0.06% to 0.5%. No shows.

Marl - as above.

The calcarenite was light grey to buff, firm to occasionally moderately hard, friable to brittle, very fine to fine grained subangular to rounded, moderately well sorted with up to 30% calcilutite matrix. Foraminifera were common with traces of pyrite, glauconite and carbonaceous detritus and very rare lithic clasts.

1600 to 1945 metres

The dominant lithology in this section was again marl with thin beds of calcarenite. Rates of penetration ranged from 12 to 35 metres per hour and average 25 metres per hour. Gas ranged from 0.04% to 0.45% and there were no shows.

The marl was light grey to light green grey, very soft to soft, occasionally sticky, dispersive, and occasionally silty. Foraminifera were less abundant than above, becoming rare, with traces of pyrite, glauconite and carbonaceous detritus.

The calcarenite was as above.

LAKES ENTRANCE FORMATION (Middle Miocene - Oligocene). 1945 to 2210 metres.

The transition from the Gippsland Limestone to the Lakes Entrance formation was not very marked, though a gradual decrease in rate of penetration did occur towards the base along with a decrease in the amount of carbonate material in the marl, grading to calcareous claystone.

The rate of penetration through this formation averaged 13 metres per hour and varied from 4 to 35 metres per hour. Gas values ranged from 0.01 to 0.28%.

1945 to 2080 metres

Marl was the dominant lithology in this section with very minor calcarenite.

The marl was light grey to grey to light green grey, very soft to soft, sticky, moderately to very dispersive, an increase in small foraminifera was noted with traces of pyrite and glauconite.

The calcarenite was grey to buff to light brown-grey, occasionally green-grey, firm to moderately hard, very fine, subangular to rounded grains, moderately well sorted, with argillaceous matrix and calcareous cement. It had a trace of foraminifera, pyrite and galuconite and occasional lithic fragments.

This section drilled at 25 to 36 metres per hour, averaging 30 metres per hour. Gas values ranged from 0.04 to 0.30%. No shows.

2080 to 2210 metres

This interval was dominated by claystone with minor marl interbeds. The marl was as above.

Claystone: light grey to green grey, occasionally light green, firm to moderately hard, blocky to subfissile, calcareous, becoming less calcareous towards the base of the interval. Large and small foraminifera were common to very common, traces of glauconite and good traces of pyrite and carbonaceous detritus were also present.

At the base of this interval the claystones became slightly silty with traces of very fine subrounded quartz grains.

The gas values over this interval dropped to 0.02% to 0.06% and the drill rates ranged from 4 to 11 metres per hour averaging 7 metres per hour.

FLOUNDER FORMATION (Eocene). 2210 to 2254 metres.

The Flounder formation was marked by an increase in siltstone and appearance of very fine to fine sandstone. A corresponding drop in carbonate content determined by the autocalcimeter was also a feature of this formation.

Drill rates increased through this section, ranging from 6 to 30 metres per hour and averaging 20 metres per hour. The gas values remained low ranging from 0.02 to 0.06%. No gas shows.

2210 to 2254 metres

Claystone was as above.

Siltstone: medium to dark grey, occasionally grey brown, soft to firm, occasionally brittle, blocky to subfissile and micromicaceous in part, very argillaceous.

The sandstone was predominantly loose clear quartz grains, angular to subrounded, very poorly to poorly sorted, with silty and argillaceous matrix. There was abundant glauconite, common pyrite and a trace of black carbonaceous nodules. There was no visible porosity.

LATROBE GROUP (Palaeocene - Cretaceous)(Santonian).
2254 to 3420 metres (Total Depth).

The Latrobe group consisted of a sequence of mainly interbedded sandstones and siltstones with minor claystones, shales and coal. The sandstone elements becoming generally thinner and less common with depth. At 3358 to 3387 metres weathered volcanics were encountered and were tuffaceous in nature. The almost complete alteration of the volcanics to clay minerals made any attempt to determine the nature of the material impractical.

Hydrocarbon shows within this group were of a very poor nature and commonly restricted to a very few grains within a particular sample and were associated very closely to the presence of very thin coal seams.

The top of the Latrobe Group was indicated by the occurence of clean sandstones coincidental with an increase in the rate of penetration.

2254 to 2410 metres

The lithology of this section was dominantly sandstone with thin beds of siltstone and claystone. Rate of penetration varied from 2.5 to 50 metres per hour. The sandstones drilled at the faster rates, averaging about 20 metres per hour.

Gas values were extremely low, from a trace to 0.015%. There were no shows.

The sandstones were clear to white to light grey, consisting of dominantly unconsolidated loose quartz sand to friable, ranging in size from fine to very coarse. They were very poorly sorted to moderately well sorted and roundness varied from angular to subrounded, occasionally being well rounded, sphericity ranging from elongated to spherical. Traces of argillaceous to silty matrix and traces of siliceous and pyritic cement were present, pyrite becoming very abundant in parts. Glauconite was very common in this section and porosity was very good.

The siltstone was light to medium grey-brown to medium grey-green, soft to moderately hard, occasionally hard, subfissile to blocky, very argillaceous, common very fine quartz sand, common glauconite and pyrite, micromicaceous in part with occasional carbonaceous detritus, poorly to moderately calcareous.

The claystone was very light grey to medium grey, soft to firm, silty with occasional very fine quartz grains, trace of glauconite.

2410 to 2451 metres

This section was dominated by claystone with thin interbedded sands and siltstone.

Drill rates ranged from 2 to 25 metres per hour, averaging 15 metres per hour. Gas values remained very low from trace to 0.015%. No shows.

Claystone: light grey to medium grey and olive grey, very soft to firm, dispersive to very dispersive, occasionally blocky, very silty, common to abundant very fine quartz grains and good trace of carbonaceous detritus, trace of pyrites.

Siltstone as above.

The sandstone was clear to translucent white, loose quartz grains, fine to coarse, angular to subrounded, poorly sorted, slight trace of siliceous cement, good trace pyrite cement, occasionally calcite cement, rare traces of glauconite.

2451 to 2564 metres

This interval consisted of sandstone with occasional thin beds of glauconitic claystone. Drill rates varied from 4 to 40 metres per hour, averaging 15 metres per hour. Gas values were still extremely low, ranging from a trace to 0.02%. No shows.

Sandstone, clear to translucent yellow, unconsolidated loose quartz sand to friable, fine to coarse, predominantly medium grained. The grains were angular to subrounded to occasionally well rounded larger grains and sorting was moderate to well sorted. Both pyrite and glauconite were very abundant.

20 to 40% of the sandstone was fine to medium, hard to very hard, angular to subrounded, moderately well sorted with strong pyritic cement and common siliceous cement. Glauconite was abundant with rare lithic clasts and carbonaceous detritus.

The claystone was grey-green, soft, sticky, dispersive with very abundant glauconite and commonly silty and micromicaceous with good trace of carbonaceous detritus.

2564 to 2672 metres

This interval consisted of siltstone and shales with interbedded sandstone. Coal seams of up to 0.5 metres thick were also present.

Penetration rates were 1 to 50 metres per hour, averaging 8 metres per hour, the faster rates being through coal seams. Gas values were again low, ranging from 0.02% to 0.08%. No shows.

The sandstones were as above with an argillaceous matrix in part.

The siltstones were grey-brown to light brown, firm to moderately hard, blocky to subfissile, very argillaceous with abundant carbonaceous detritus and had a trace of very fine quartz sand.

The shale was dark grey-brown to black, hard to very hard, and carbonaceous, grading to siltstone in part.

2672 to 2723 metres

This interval was 100% sandstone. Rate of penetration was 3.5 to 21 metres per hour, averaging 7 metres per hour. Gas values were extremely low ranging from a trace to 0.015%.

The sandstone was clear to white, hard to very hard, medium to coarse grained, occasionally very coarse with angular to subangular grains with high sphericity. The sand was moderately well sorted with common strong dolomite cement and a trace of siliceous cement, there was also a good trace of pyrite increasing with depth. The sandstone was non porous to very slightly porous.

Up to 90% of the sandstone in this interval had moderately bright yellow-orange mineral fluorescence.

2723 to 3248 metres

This interval consisted of a thick section of interbedded sandstones, siltstones, shale and coal, with occasional claystone. Penetration rates were 10 to 15 metres per hour, averaging 10 metres per hour in the sandstones and 2 to 8 metres per hour in the siltstones and claystones.

Gas values from the sandstones were low ranging from 0.04% to 0.02%; gas values from the coals and carbonaceous siltstones ranged between 0.2% and 2.0%.

Extremely poor shows, i.e., one or two grains per sample of washed cuttings were seen at 2868 metres and from 3105 metres to 3202 metres in thin sandstone beds.

The sandstone had pale to dull, yellow to gold fluorescence, giving a slow streaming dull to pale cut fluorescence.

The sandstones in this section varied in thickness from 1 metre to a maximum of 6 metres; interbedded with siltstones and coals. These sandstones consistently drilled from 10 to 12 metres per hour, occasionally reaching 15 metres per hour.

The sandstones in the thinner beds were generally clear to white to light grey, friable to moderately hard, very fine to medium grained, occasionally coarse. Occasionally fining upwards sequences could be determined from drill rates and samples. The sand grains were subangular to subrounded, slightly spherical to spherical and moderately well sorted. There was a good trace to common dolomitic cement, a trace of siliceous cement and a trace of argillaceous matrix. Traces of pyrite and lithic clasts were also seen. Porosity was very poor.

The sandstones in the thicker beds were typically white to light grey, loose to friable quartz sand, medium to coarse grained, dominantly medium, very angular to subangular, moderately well sorted and spherical. They had a trace of silica cement and a trace of argillaceous matrix, with also traces of pyrite and carbonaceous detritus; porosity being generally fair to good.

Coal was typically very dark brown to black, hard, brittle, subvitreous, subconchoidal fracture, occasionally being argillaceous. The coals were 1 metre thick maximum and generally much thinner and grading to carbonaceous shale.

Shale was dark brown to black, hard, occasionally brittle, fissile, earthy in part and very carbonaceous.

Claystone was grey to light brown, soft, dispersive, occasionally blocky, traces of silt with common carbonaceous detritus, grading to siltstone in part.

Siltstone was grey-brown to light to medium brown, firm, occasionally moderately hard, commonly having an argillaceous matrix and micromicaceous in part; commonly having carbonaceous detritus with a trace of very fine sand and a trace of finely disseminated pyrites.

3248 to 3368 metres

This interval was dominated by siltstones with thin shales and very thin sandstones interbeds. Very thin coals were also present.

Penetration rates ranged from 10 to 15 metres per hour in sandstones to 2 to 5 metres per hour in siltstones and shales.

Gas values ranged from 0.04% to 2.0%, the peaks coming from coals and carbonaceous siltstones.

The shows in this section were from thin sands of less than 1 metre at 3300, 3312 and 3323 metres and consisted of very few grains of the sample having spotted pale blue fluorescence, giving a slow streaming to crush cut pale fluorescence.

The sandstones in this section were typically white tc light grey, moderately hard to very hard, occasionally friable, very fine to medium grained, dominantly fine, being very angular to subangular and well sorted grains. There was common dolomitic cement, very common strong silica cement and common pyrite cement. There was also common argillaceous matrix with a trace of carbonaceous detritus. The sands were generally nonporous to very slightly porous.

Siltstones were grey-brown to dark brown, firm to moderately hard, blocky, occasionally subfissile, commonly argillaceous with abundant carbonaceous detritus and grade in part to carbonaceous shale.

The shales were dark brown-grey to black, hard to very hard, subfissile to fissile, earthy lustre, have a trace to occasionally common silt with abundant carbonaceous detritus and grade in part to coal.

The coal was as above.

3368 to 3395 metres

This interval was dominated by weathered volcanics of indeterminate origin.

The most obvious feature of this section was the clay residue left from the volcanics which from the poor samples was determined to be tuff. There were few very thin sands between the volcanics.

Drill rates were 2 to 3 metres per hour in the volcanics and 4 to 7 metres per hour in sands. Gas values were 0.015% to 0.1%.

The top of the volcanics was seen by the presence of chert or chert-like rock which was translucent white to translucent grey to translucent light brown. It was very hard, having a pearly lustre and conchoidal fracture, cryptocrystalline containing finely disseminated pyrites.

The clay was white and occasionally light green, very soft and amorphous.

The intact volcanics were light to medium grey to white, moderately hard to hard, brittle, had acicular crystals in a cryptocrystalline groundmass with common quartz and feldspar inclusions; vitreous in part with occasional amygdales.

The thin sandstones were as above.

3395 to 3420 metres (Total Depth)

This interval was sandstone with siltstones. The rate of penetration for this section ranged from 2 to 6.5 metres per hour. Gas values ranged from 0.02% to 0.5%.

The siltstones were as above.

The sandstones were white to light grey, very fine to medium grained but dominantly fine grained, hard to very hard, very angular to angular and poorly to moderately sorted. Commonly had lithic clasts and a strong silica cement becoming recrystallised orthoquartzite; cryptocrystalline, microcrystalline; pyrite is common and the porosity nil to trace.

V. EVALUATION AND TESTING

a. Wireline Logging

Wireline logs were run as follows:

Depth Driller metres	Logs Run	Interval Logged metres
2254	DLL-MSFL-GR-SP-Cal	699 - 2249
	LDL-Cal-GR	699 - 2251
	LSS-GR	699 - 2248
	CST (Shot 51, Lost 5, Empty 1)	
3420	DLL-MSFL-GR-SP-Cal	2245 - 3414
	LDL-CNL-Cal-GR	2245 - 3417
	BHC-GR /CBL-VDL	2245 - 3417
	HDT	
	Velocity Survey	
	RFTs	
	CST (Shot 51, Lost 7, Empty 1)	

Data from sonic, resistivity and density logs were plotted for pore pressure analysis and the results shown in Appendix B. v., Wireline Data Log.

b. Testing

Two Repeat Formation Tests (RFTs) were run giving the following results:

RFT No. 1 Pressure Measurements

Depth metres	Permeability	Final Build Up Pressure psi	Final Build Up Pressure EMD sg	Corrected Mud Hydrostatic Pressure psi	Corrected Mud Hydrostatic Pressure EMD sg
2340.0	good	3337	1.005	3782	1.139
2536.0	good	3614	1.005	4085	1.136
2651.5	good	3781	1.005	4272	1.136
2803.2	tight				
2804.2	good	3999	1.005	4513	1.135
2907.7	good	4155	1.007	4681	1.135
2932.0	good	4194	1.008	4719	1.135
2971.0	good	4255	1.009	4781	1.135
3034.0	very good	4350	1.011	4880	1.134
3111.5	good	4467	1.012	5002	1.133
3151.5	poor	4524	1.012	5062	1.132
3177.6	very good	4568	1.014	5105	1.133
3215.5	poor	4615	1.012	5161	1.132
3231.0	very good	4645	1.014	5189	1.132
3258.8	good	4686	1.014	5231	1.132
3267.7	tight	4733	1.021	5243	1.131
2367.7	tight	4733	1.021	5242	1.131
3382.2	good	4854	1.012	5414	1.129

RFT No. 2

Sample Recovery from 3231 metres.

Upper Chamber. 22.7 litre capacity

0.9 scf gas

21 litres dirty water, 1.025 sg, 31,700 ppm NaCl,

Res = 0.219 ohm-metres at 21^{o}C.

Lower Chamber. 10.4 litre capacity

0.7 scf gas

9.5 litres clean water, milky fluorescence, 1.015 sg, 31,700 ppm NaCl,

Res = 0.228 ohm-metresat 19^{o}C.

VI. CONCLUSIONS

Experience from the previous wells (Volador, Basker and Bignose) contributed to efficient drilling practices, resulting in fast drill rates and considerable savings in rig time costs.

An example was the use of a turbodrill and Stratapax type bit to drill the entire 12¼" hole, through the relatively uniform lithologies of the Gippsland Limestone and the Lakes Entrance Formation.

Another example of a cost efficient practice was the elimination of the 17½" hole and 13-3/8" liner, made possible by the rapid drilling of the Gippsland Limestone and Lakes Entrance Formation.

The choice of SMITH F2 and F3 type bits in the 8½" hole section is most suited to the lithologies encountered and requires no change.

The mud weights used in the 8½" section, at 1.11 sg to 1.13 sg were somewhat excessive in view of the formation pore pressure of 1.01 sg and resulted in suppression of drill rates and subdued gas values. Consideration should be given to using a centrifuge with the mud cleaning system to enable the mud weight to be maintained as low as possible. The polymer mud system kept the hole in good condition and restricted hole problems to a minimum.

Hydraulics for the well were generally good with flow rates in the 8½" section giving 70 to 80% pressure loss across the bit.

No significant hydrocarbon accumulations were encountered in the prospective reservoir formations of Basker South No. 1 and the well was plugged and abandoned as a dry hole.

APPENDICES

A. DATA ACQUISITION AND ANALYSIS METHODS

B. MANUAL PLOTS

i. Well Progress Log
ii. Drilling Data Pressure Log
iii. Temperature Data Log
iv. Wireline Data Log
v. Pressure Evaluation Log

C. COMPUTER PRINTS AND PLOTS

i. Drilling Data Printout 709 - 3420 metres

ii. Drilling Data Plots

(a) 1:2000 ROP-LITHOLOGY-WOB-PUMP PRESSURE & FLOW-RPM AVERAGE & MAXIMUM TORQUE-$/M & $/M INST.

(b) 1:2000 ROP-DXC & TREND-LITHOLOGY-TOTAL GAS-ESTIMATED PORE PRESSURE & ECD-TEMPERATURE IN & OUT.

D. MORNING GEOLOGICAL ENGINEERING REPORTS

E. WEEKLY GEOLOGICAL ENGINEERING REPORTS

F. HYDRAULICS ANALYSES

G. LAG DATA PRINTOUT

H. FORMATION EVALUATION LOG

APPENDIX A

DATA ACQUISITION AND ANALYSIS METHODS

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DATA ACQUISITION AND ANALYSIS METHODS

A. PORE PRESSURE EVALUATION

I. Pre-Drilling

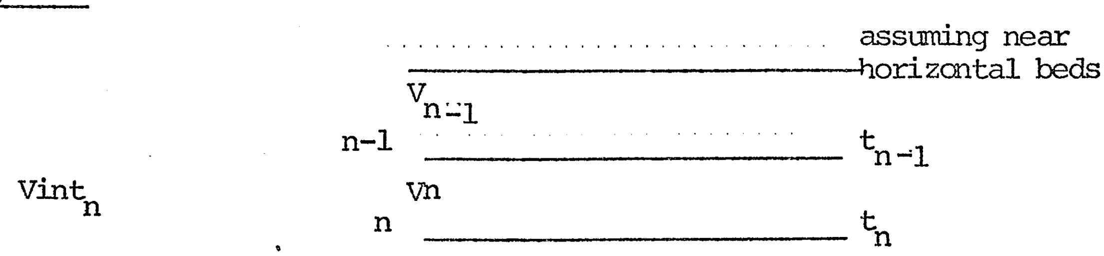
1. Offset Well Data

Whenever available, offset well data are examined to predict and evaluate pore pressure prospects in the new well. Information that can be useful is available from seismic profiles; wireline logs, especially acoustic and resistivity logs, with bottom hole temperature data; FIT, DST, and Well Kick (if any) and mud logs; daily drilling reports, including bit record, mud properties used, and remarks concerning borehole stability; and the geopressure evaluation and completion reports.

2. Seismic Information

Pore pressure prediction using seismic data primarily focuses on the interpretation of detailed velocity analyses made possible by Common-Depth-Point (CDP) recording methods. The velocity analyses are performed with velocity scan increments (50ft/sec) and output intervals in the time domain (10 milliseconds). Based on such analyses, RMS (Root Mean Square) velocity values at a series of record times (i.e. two-way travel times) may be identified. The sequence of interpreted RMS velocity-time data pairs obtained from a velocity analysis may then be recomputed to interval transit time (ITT) using Dix's (1955) formula (see figure 1).

Figure 1



$$V^2int_n = (V_n^2 t_n - V_{n-1}^2 . t_{n-1}) / (t_n . t_{n-1}) \text{ .... eq. 1}$$

Where $Vint_n$ = ITT for reflecting horizon n, ft/sec.

V_n = RMS velocity for layer n, ft/sec.

V_{n-1} = RMS velocity for layer (n-1), ft/sec.

t_n = Two-way time to layer n, sec.

t_{n-1} = Two-way time to layer (n-1), sec.

$$1/Vint_n \times 10^6 = \text{ITT, microseconds} \quad \text{........ eq. 2}$$

The ITT when plotted with depth will produce a "synthetic acoustic log" which can be readily compared with that derived from the wireline acoustic log. The ITT plots show that velocity increases exponentially with depth in normally-compacted sediments. The "normal compaction trend" through the shale points which form a linear trend on the plot can be identified. Any departure from this normal trend is caused by the presence of geopressured formations and/or gross changes in lithology. There is no accurate way to separate shale from other lithologies when using seismic velocity data. Therefore since the influence of these other lithologies can adversely affect the interpretation of a seismic pressure plot, all available geologic and other subsurface information should be integrated into the evaluation. The accuracy of ITT plots will also depend upon the quality of the seismic data, and the use of high resolution seismic data will enhance the prediction of a shallow geopressured interval.

II. Drilling

1. Drilling Parameters: ROP and Drilling Exponents

Exploration Logging utilizes the Kelly Height system to calculate the rate of penetration. The system responds to the hydrostatic pressure variation of a sensing device and a Kelly chamber located near the Kelly swivel. The Kelly Height variations recorded on a time chart allows computation of the rate of penetration.

When the drilling variables (bit type, bit size, weight on bit, rotary rpm, mud hydraulics, mud rheological properties) are held constant in a uniform lithology, the rate of penetration will be determined by formation compaction characteristics and differential pressure. The rate of penetration would decrease uniformly with depth as compaction of shale increased. On entering a geopressure transition zone in shale, increasing porosity due to decreased compaction, and decreasing differential pressure across the bottom will cause an increase in the rate of penetration. A marked reduction in drilling rate is often observed at the top of a transition zone, possibly caused by a lithology difference in the so called "cap rock".

Maintaining constant drilling variables is not always possible; various formulae have been proposed in the attempts to resolve the problem of normalizing drill rate. Jorden and Shirley's (1968) formulation allows control of most of the drilling variables and has proven very successful in most areas.

$$d = \frac{\log \frac{R}{60N}}{\log \frac{12W}{10^3 D}}$$

Where d = drilling exponent (dimensionless)
R = Rate of Penetration, ft/hr.
N = Rotary Speed, RPM
W = Weight on Bit, klbs
D = Bit Diameter, inches

The d-exponent will increase as the depth, compaction and differential pressure across bottom increase in normally pressured homogeneous shale. Upon entering a geopressured zone, the compaction and differential pressure will decrease, which is reflected by a decrease in the d-exponent.

Differential pressure is dependent upon mud weight as well as formation pressure. Rehm and McClendon (1971) proposed the correction to allow for mud weight.

$$Dxc = d \times \frac{Weq}{ECD}$$

Where Dxc = corrected d-exponent

d = d exponent

Weq = normal pore pressure gradient (Equivalent Mud Weight, ppg)

ECD = Effective Circulating Density, ppg

Any negative deviation of the Dxc from a normal trend (based on clean shale points) may be indicative of an increase in pore pressure.

Exlog introduced Nx and Nxb to account for ROP variations due to tooth wear/efficiciency (based on Bourgoyne and Young's (1973) model), mud hydraulics, and lithology. A plot of Nxb with depth then serves as an indication of formation pressure changes at the bit.

2. <u>Gas</u>

The drilling mud continuously passes through the gas trap situated at the flowline, and the gas extracted is pumped to the logging unit to be analysed by the catalytic or flame ionisation gas detector. The amount of gas is expressed as "gas unit". Exlog's gas detectors are calibrated with a mixture of 1% methane in air to read 50 units, i.e. 1 unit is 200 ppm, according to API standards for mud logging.

The volume of gas released from a drilled formation is dependent upon the porosity, permeability, gas saturation, and differential pressure. Gas magnitude is relative when gas is being used as a measure of differential pressure. Low permeability formations with low gas saturation, and high permeability formations with low gas saturation, are both likely to yield only low background gas.

Background gas is the total drilled gas resulting primarily from the unit volume of formation cut by the drill bit, i.e. liberated gas. A continued increase of background gas indicates a higher formation porosity and/or a higher hydrocarbon saturation in the available pore space. Thus if lithology, permeability rate, rate of penetration, gas saturation, and mud density are given due consideration, then an increasing background gas may indicate increasing pore pressure. The background gas after a gas peak should be compared with the background gas prior to the peak. A higher background gas after a peak than that before the peak may suggest an underbalanced hole condition.

Produced gas, i.e. gas produced into the drilling fluid from a specific zone in response to formation pressure that exceeds the opposing effective hydrostatic pressure (e.g. connection gas, swab gas, and trip gas), are also important factors to consider in pore pressure analysis. Their presence indicates a near balanced hole condition for permeable hydrocarbon bearing formations, and that at least some degree of effective permeability is present.

Connection gas results from momentary underbalance due to pump shutdown, and/or pipe movement while making a pipe connection. Negative differential pressure caused in part by the loss of annular pressure drop during periods of no circulation and in part by the swabbing action of drilling string, could lead to feeding into the borehole of formation fluid.

Swab gas is that gas produced by a formation due to underbalance caused by the upward movement of the drillstring. This may be accompanied by pump shutdown (e.g. during connections and trips) or not. There are two types of swabbing, one being the piston type (some part of the drill string acting as a plunger in the borehole) and the other being the frictional type (friction between moving drill string and annular mud inducing a slight lifting force in annular mud column).

Trip gas is produced gas caused by the loss of annular pressure drop during pump shutdown by swabbing the entire hole (influenced by the speed of tripping out the drill string), lowering of hydrostatic head (if the hole is not kept full), and the period of non-drilling operations while making a trip. It also is a measure of the degree of static balance in the borehole, but its utility is less because time interval is a significant factor in round trips when compared to connections.

3. Cuttings Analysis

(a) Shale Density

The compaction of sediments through applied overburden pressure and diagenetic process is largely a function of dewatering. The exclusion of water with compaction will result in a decrease in primary porosity and an increase in bulk density, generally with depth. With normal compaction, bulk density typically ranges from 1.7 to 2.7 gm/cc and shows a steady rate of increase with depth. Anomalies from this normal compaction trend may be due to mineralogy, e.g. siderite, dolomite, and calcitic shales exhibit higher than normal values. Sandy, silty shales and soft wet clays will produce further variations.

Geopressure in homogeneous claystone/shale sections is indicated by a constant or decrease in density with depth reflecting a higher than normal porosity and fluid content. "Cap rocks" of higher than normal density may be present above this zone of geopressure.

Two methods of shale density determination commonly used by Exlog at the wellsite are:

(i) Single-solution shale density kit (Density Gradient Method) which consists of a column of variable density solution fluid (bromoform and neothene) in which beads of known density are suspended. A calibration curve of density versus depth is prepared. Shale cuttings immersed in the column will sink to the level at which their density is the same as the fluid; density is then read off from the calibration curve.

(ii) Multi-solution shale density kit ("sink or float" method) which consists of a set of liquids of varying densities. By placing a piece of shale in such a liquid, its density can be determined when it either sinks or floats through the liquid.

(b) Shale Factor

Smectite is the principle component of clay during normal sedimentation. This is a flocculated sheet silicate which has a large capacity to absorb and retain water between the individual molecular sheets and between the flocculate particles. With burial and continual compaction, smectite will undergo diagnesis due to increasing temperatue and pressure. Ionic exchange occurs and structured water becomes liberated to the pores. Providing that the hydraulic conductivitv is sufficiently high to remove this water, compaction will continue. The outer layers of water bonded to the clay particles may next be removed as smectite alters diagnetically with depth to mixed-layer clays and finally, to illite. This alteration involves compaction of pore spaces, orientation of particles and reduction in inter-layer and intraparticle area, thereby reducing the total area available for chemical adsorption. If the hydraulic conductivity is insufficient to remove the liberated water as it is flushed, then at depth the clays will be geopressured and of a "younger" diagenetic age.

Illite or kaolinite may be deposited as the primary clays. As non-swelling clays they have very little intraparticle water. These clays dewater by loss of interparticle water through compaction. Again, if the hydraulic conductivity of the clays is lower than that required to efficiently flush the water, then these clays will be geopressured. Non-swelling clays, as stated above, are geometrically more compact than their swellable counterparts and therefore originally contain less sites for chemical adsorption of free ions.

Shale factor is a measure of the cation capacity of clays. Cation exchange capacity will decrease as clays convert from smectite to illite. Therefore, geopressured zones generated by restricted diagenesis due to inefficient dewatering mechanism, will theoretically show an increase of the shale factor due to the increased porosity and hence larger surface areas of cation exchange. If illite and kaolinite were the primary clays, the shale factor would be low initially. In geopressured sections of such clays, the shale factor may show no increase whatsoever. Hence in sections of mature, reworked clays, shale factor may be of little use in the detection of geopressures.

Also, in geopressure zones caused by dehydration, i.e. water released to the pore spaces has been unable to escape fast enough and resulting in a pore pressure increase, the shale factor will decrease since the smectite has been converted to illite. Therefore shale factor may not be a useful geopressure indicator; this is also the case when geopressure was generated by tectonic forces and aquathermal pressuring other than compaction disequilibrium.

The method of shale factor determination used by Exlog at the wellsite is as follows:

1. dry samples in oven;
2. pulverise the sample to fine powder with mortar and pestle;
3. Seive powdered sample through 80-mesh seive;
4. weight o.5 gm of the powder & add this to a solution of distilled water acidified with a few drops of 5N Sulphuric acid in the blendor metal measuring cup;

5. heat solution to boiling on the hot plate, stirring continuously and titrate with methylene blue solution until end-point is reached - this occurs when the halo of pale turqoise around a blue dye spot on filter paper occurs;

6. calculate the shale factor:

$$\text{Shale Factor (meq/100gm)} = \frac{100}{\text{sample wt, gm}} \times \text{volume} \times \text{normality of methylene blue solution}$$

Where volume = volume of methylene blue used when end-point was reached, ml

7. If clay is calcareous, and calcimetries are also being run, shale factor may be corrected for carbonate content (assuming clay matrix is of same density as the carbonate matrix).

$$\text{True shale factor} = \frac{100}{100 - CaCO_3\%} \times \text{apparent shale factor}$$

Note that the shale factor as measured at the wellsite will not give values corresponding to actual chemical cation exchange capacity. This is due to impurities in the sample, variations in methodology, experimental errors, and the fact that the methvlene blue dye (used in the titration) is a very large molecule and thus cannot be adsorbed in interlayer sites.

(c) <u>Cuttings Physical Character</u>

Cuttings over shale shaker are continuously monitored for any indication of geopressure. Cuttings for normally pressured shales are generally small, semi-flat and rounded edges, while cuttings from a geopressure zone drilled underbalanced are typically larger, angular edges, flat, splintery, and often as jagged and elongated concave, curved samples. The quantity of cuttings often increases while drilling underbalanced because the formation explodes into the wellbore. Cavings are also produced by stress relief mechanism, characteristically blocky and varying in size tremendously, depending on the formation characteristics.

4. Mud Properties

(a) Flowline Temperature

Heat flow is generated radially from the earth's core with a constant heat flux across any depth increment. For any given area, the geothermal gradient is usually assumed to be constant. While this may be true for the average gradient across normally pressured formations, geopressured formations have exhibited abnormally high geothermal gradients. The top of a geopressured zone will be marked by a sharp increase in geothermal gradient due to the higher than normal porosity and fluid content of the formation which reduces the thermal conductivity. The seal above geopressured zones may exhibit a decrease in the geothermal gradient due to the insulating effect of the geopressured zone below and/or due to the greater thermal conductivity at the abnormally compacted seal rock.

The temperature of the drilling fluid at the flowline may reflect the geotemperature, and the recording of flowline temperature is a practical method of determining temperature gradient. However, many variables must be accounted for, including the mixing, treatment and addition of new cooler mud into the circulatory system, pump rate, lag time, ambient temperature, lithology, solid content of mud (weighing material), penetration rate, casing size, and the length of marine riser. Exlog uses a dual temperature probe system with sensors at the flowline and suction pit - surface effects may be removed if lagged differential temperature is plotted.

Returns are often circulated prior to pulling each bit, and after significant drilling breaks. A plot of these circulated returns temperatures usually provides a better approximation of the geothermal gradient than that obtained from the flowline temperature over the bit run. As with the standard method, recent mud additions can have a serious effect upon the circulated returns temperatures.

A plot of maximum temperature on regaining circulation after a period of downtime can also closely approximate geothermal trends. After a trip, mud temperature will reach a maximum on bottoms-up. Monitoring these peaks may aid geothermal trend interpretations.

Another method of obtaining geothermal gradient between hole deviation survey runs is the use of Temp Plates. These are self-adhesive sensors containing thermetically sealed heat-sensitive elements which change chemical structure at given calibrated temperatures. When exposed to the new rated temperature, the indicator turns from pastel grey to black. The Temp Plates are attached to the survey tool. A record of downhole survey temperatures can therefore be kept. It has been found that this method more closely reflects the true geothermal gradient, although recorded temperature values are lower than true values.

Maximum bottom-home temperatures recorded during wireline log runs at the same depth can be utilized to estimate the true formation temperature. By use of a modified Horner Plot, a method adapted from Horner's bottom-hole pressure plots (Fertl & Wichmann, 1977), it is possible to estimate true bottom hole temperatures. The method requires maximum recorded bottom hole temperature on each logging run, and information concerning circulating time (tk = hours) and time since circulation stopped (dt, hours). The recorded data may then be plotted on semilogrithmic paper, with temperature on the linear coordinate and one dimensionless time factor, $\frac{dt}{tk + dt}$ on the semilog abscissa.

BOTTOM HOLE TEMPERATURE CALCULATION

LOG RUN #	TIME SINCE CIRCLN. (dt)	MEASURED B.H.T.	dt / tk+dt
1	4.00	210.00	.500
2	7.83	225.00	.662
3	11.17	231.00	.736

CIRCULATION TIME (tk) = 4.00 hours

HORNER - FERTL METHOD

BOTTOM HOLE TEMPERATURE = 247.46DEGREES

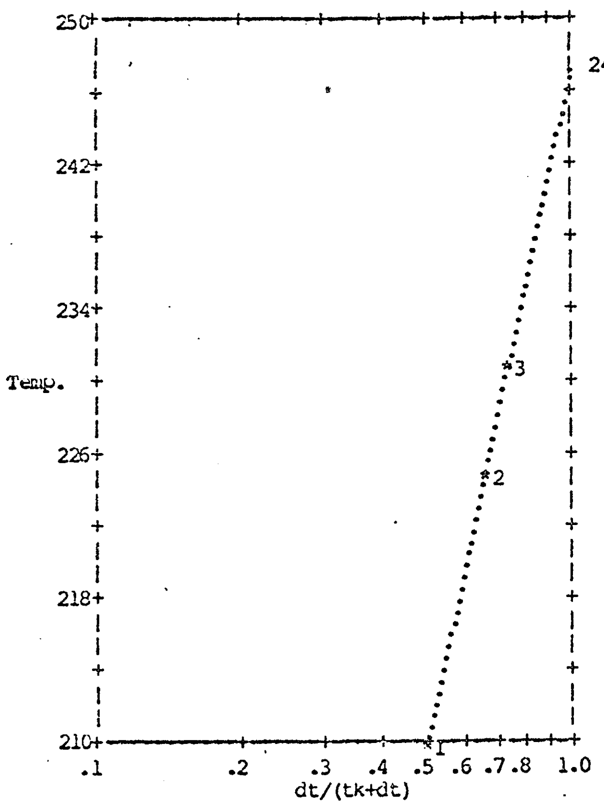


Figure 2

BOTTOM HOLE TEMPERATURE CALCULATION

LOG RUN #	TIME SINCE CIRCLN. (dt)	MEASURED B.H.T.	dt / tk+dt
1	4.00	210.00	.500
2	7.83	225.00	.662
3	11.17	231.00	.736

CIRCULATION TIME (tk) = 4.00 hours

NWACHUKWU METHOD

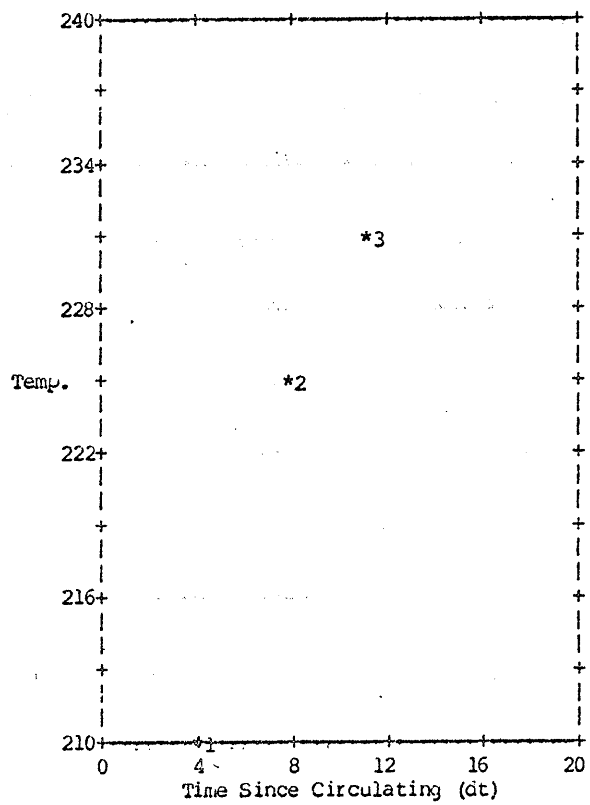


Figure 3

USING LOG RUNS 1 , 2 AND 3
BOTTOM HOLE TEMPERATURE = 248.89DEGREES

A straight line joining the plotted points is extrapolated to the temperature axis and true bottom hole static temperature is read off (figure 2). The method fails if circulation and the addition of new, cool mud into the system occurs between log runs.

Nwachukwu (1976) proposed a mathematical method, utilizing a modified Lachenbruch-Brewer (1959) equation, to calculate true static bottom hole temperature when three bottom hole temperatures are available from logging runs (figure 3). True bottom hole temperature, T_f, is solved by:

$$T_f \frac{(t_2 - t_1) + ((T_1 \cdot t_1) - (T_2 \cdot t_2))}{T_2 - T_1} = T_f \frac{(t_3 - t_1) + ((T_1 \cdot t_1) - (T_3 \cdot t_3))}{T_3 - T_1}$$

where T_1 = recorded BHT, log run 1
T_2 = recorded BHT, log run 2
T_3 = recorded BHT, log run 3
t_1 = time since circulation stopped, log run 1
t_2 = time since circulation stopped, log run 2
t_3 = time since circulation stopped, log run 3
T_f = true static formation temperature

(b) Mud Resistivity/Conductivity

Dissolved solids in formation water are often correlated to the total chloride concentration of salinity. When conductivity is monitored at the flowline and the mud pits, a conversion is made to chlorides, and the differential, $\triangle$ Cl, is purportedly an indicator of geopressure. The dissolved solid contents of water in normally pressured shale is known to increase with depth, but shows a decrease in geopressured shale. The trend is similar in normally pressured sands but at a higher concentration than shale waters, while in geopressured sands the dissolved solid concentration of sands pure water approaches that of shale water. Therefore geopressured zones may be detected in the resistivity changes of returning mud, but this will be influenced by the shale/sand ratio of the basin. Moreover, the use of saline mud system will severely mask small changes caused by fluctuating pore water chemistry.

5. Borehole Condition

Borehole condition has to be used in conjunction with all other data. Increased rotary torque while drilling, drag on trips and connections, occurrence of connection gases, swab gases, quantity and physical character of cuttings, carbide lag versus theoretical lag time are all indicators of hole condition and will tend to indicate the presence of geopressure.

6. Verification of Wireline Logs

(a) Accoustic Log

The acoustic (sonic) log measures the shortest time for a sound wave to travel through rock. The acoustic logging devices consist of acoustic transmitters with a fixed distance from the receivers, thus time is the only variable. The interval transit time can be related to the porosity of the formation.

$$\phi = \frac{dt - dtm}{dtf - dtm}$$

where ϕ = fractional porosity

dt = transit time of particular formation (from log)

dtm = transit time of matrix

dtf = transit time of pore fluids

The transit times decrease with increasing formation compaction due to burial depth and older geological age. A normal trend can be produced from a plot of clay transit times in normally pressured sections. Geopressured clays will show increasing transit times due to increasing porosity associated with increasing pore pressure.

(b) Resistivity Logs

The resistivity of a rock is the ability of the rock to impede the flow of electric current through rock, and is dependent upon the amount of water, its salinity, and the distribution of the water within the rock's porous network.

Any log producing resistivity curves can be utilized for formation pressure evaluation, but the best logs are the induction and microlog types. A resistivity plot in a normally pressured clay shows an increasing trend with depth caused by compaction that decreases clays porosity which results in less connate water to act as an electrical resistance. The increase in porosity in geopressured clays is reflected by a decrease in resistivity, provided the resistivity of the pore water has not increased.

(c) Other Logs

Other electrical logs, including Spontaneous Potential (SP), Formation Density (FDC), Neutron Logs, have been used for formation pressure plotting.

Quantitative formation pressure evaluation involves the determination of normal trends in normally pressured clay sections, and departure from these trend lines in geopressured clays.

All electrical logs used for formation pressure evaluation should be utilised with the considerations for possible pitfalls and limitations, posed by factors such as borehole conditions, mud salinity, shale hydration, tools calibrations, which are inherent with different logging tools.

B. PORE PRESSURE QUANTIFICATION

Pore pressure quantification can be made from either empirical data such as well kick information, or from pressure parameter data such as seismic data, drilling data (including drilling exponents and shale density), and wireline log data. The quantification of pore pressure from pressure parameter data requires the knowledge of the normal pore pressure for the area, the establishment of a normal shale compaction trend line on a plot of the pressure parameter deviation from normal and abnormal pore pressure which causes such deviation.

The normal pore pressure for all areas can either be assumed to be 8.3-9.0 ppg EMW (Equivalent Mud Weight) on a rank wildcat well, estimated from formation tests data gathered in the area of interest, or calculated from wireline log formation salinity data.

Pressure parameters described above usually increase exponentially with depth in normally pressured clean shales. Thus a "normal compaction trend" can be identified by a best fit line drawn through clean shale points which form a linear trend on the plot when the pressure parameter scale is log and the depth scale is linear. This trend line represents the normal pore pressure and quantification of geopressure can be made by noting the divergence from this trend line. It should be noted that the above mentioned pressure parameters reflect changes in porosity, and hence compaction only, and do not reflect changes in pore pressure from other causes.

The magnitude of pore pressure can be estimated by the use of overlays, calibration curves, rock matrix stress analysis, or variable overburden method. However, the overlays and calibration curves should ideally only be used in the areas where the empirical well data, used to derive the pore pressure versus pressure parameter departure relationships, was obtained. Differences in lithologies, sediment age, pore water density, and overburden, compaction and cementation rates between areas can produce significantly variant departure relationships. Ignoring this can result in invalid and misleading estimations. In a rank wildcat area where no established empirical guides are available, a technique using rock matrix stress analysis or variable overburden method is therefore preferable.

Overlays and calibration curves can be developed from known pore pressure gradient corresponding to the difference in actual pressure parameter value in geopressured shale from the pressure parameter value on the extrapolated normal trend line. The estimated pore pressure can be determined by:

$$P_f = P_p \quad x \quad \left(\frac{Vn}{Vo}\right)$$

where P_f = pore pressure at depth of interest, ppg

P_p = normal pore pressure, ppg

Vo = observed pressure parameter value at depth of interest

Vn = pressure parameter value on the extropolated trend line at depth of interest

The matrix stress or Equivalent Depth method assumes that part of the overburden supported by the clay matrix will be constant for clays with the same porosity. More precisely it assumes that the rock matrix stress at a shallow depth point where the pressure parameter value on the parameter normal trend is equal to the pressure parameter value at the depth of interest in the geopressured zone. If overburden gradient and normal pore pressure are known, then pore pressure at any depth of interest can be calculated by:

$$P_{fi} = Di\ .OBG_i - De\ (OBG_e - P_{pg})$$

where P_{fi} = formation pore pressure at depth of interest, psi

P_{pg} = normal pore pressure gradient, psi/ft

OBGi = overburden gradient at Di, psi/ft

OBGe = overburden gradient at De, psi/ft

D_i = depth of interest, ft

D_e = normal, equivalent depth, ft

geopressure magnitude may also be calculated by variable overburden method from the pressure parameter data using the following equations:

$$P/D = S/D - (S/D - (P/D)n) \times (^{Ro}/Rn)^{1.2}$$
$$P/D = S/D - (S/D - (P/D)n) \times (^{dt}n/dt_o)^{3.0}$$
$$P/D = S/D - (S/D - (P/D)n) \times (^{dc}o/dc_n)^{1.2}$$

where P/D = Formation pressure gradient either normal or geopressured, psi/ft

(P/D)n = Normal water gradient, psi/ft

S/D = Overburden stress gradient, psi/ft

R_n = Shale resistivity from normal line, ohm-metres

R_o = Shale resistivity from well log, ohm-metres

dt_n = Normal shale travel time, microsecs/ft

dt_o = Shale travel time from log, microsec/ft

dc_n = Actual dc from trend time

dc_o = Actual dc calculated

C. OVERBURDEN PRESSURE DETERMINATION

The overburden pressure at any point in the formation is that pore pressure exerted by the total density of the overlying formations, gravity, and the depth at the point of interest.

$$\int_o^z \rho\, dz = \int_o^z \rho(z)\, dz$$

where z = depth interval

ρ = bulk density

The bulk density of a rock is a function of the density of the rock matrix itself, the density of the bore fluids, and the porosity.

The formation densities are derived from cuttings or, preferably, from the FDC, or Acoustic logs. The average density for each successive 50 feet interval from surface to total depth is then used to compute overburden gradient. The overburden pressures are referenced from the rig floor, hence in offshore drilling the height of an air gap and depth and density of seawater must be accounted for.

D. <u>FRACTURE PRESSURE DETERMINATION</u>

Fracture pressure is the pressure required to overcome the tensile strength and fluid pressure of a formation at depth. Both empirical and theoretical methods are utilised to determine the fracture pressure of the formation. Empirical data from formation pressure integrity tests and lost circulation are the most reliable. Fracture data from well histories can be very beneficial. The following theoretical models are used:

a) Hubbert and Willis (1957)

$$\frac{F}{D} = \frac{P}{D} + \frac{1}{3}\left(\frac{S-P}{D}\right) \text{..........minimum}$$

$$= \frac{P}{D} + \frac{1}{2}\left(\frac{S-P}{D}\right) \text{..........maximum}$$

b) Mathews and Kelly (1967)

$$\frac{F}{D} = \frac{P}{D} + ki\left(\frac{S-P}{D}\right)$$

c) Eaton (1969)

$$\frac{F}{D} = \frac{P}{D} + \frac{\mu}{1-\mu}\left(\frac{S-P}{D}\right)$$

d) Anderson, <u>et.al</u> (1972)

$$\frac{F}{D} = \frac{P}{D}\left(\frac{1-3\mu}{1-\mu}\right) + \frac{S}{D}\left(\frac{2\mu}{1-\mu}\right)$$

e) Exlog (1980)

$$F = \sigma_t + \sigma_1' \left(\frac{\mu}{1-\mu}\right) + P$$

Where F = fracture pressure

D = depth

S = overburden pressure

P = pore pressure

ki = matrix stress coefficient

μ = Poisson's Ratio

σ_t = superposed horizontal tectonic stress

σ_1' = maximum compressive effective stress = S - P

The stress ratios, ki and μ in equation (b) and (c) may be backcalculated with measured formation breakdown ("Leak-off") pressures or taken from curves derived in Gulf Coast. It should be noted that Eaton's Poisson's ratio is not a function of the rock itself but of the regional stress field (i.e. the horizontal-to-vertical stress ratio); Anderson's Poisson's ratio is a function of the shaliness of the sand; Exlog's Poisson's ratio is a function of the rock and the values obtained by sonic testing. Exlog's method also requires a "leak-off" test to calculate the superposed tectonic stress, if present.

With known overburden pressure (from density data) and pore pressure (from drilling and log plots), fracture pressure can thus be predicted for any depth using one of the above equations. However, returns may be lost in vugular or naturally fractured formations regardless of the fracture gradient in the overlying formation.

E. REFERENCES

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APPENDIX B

i. Well Progress Log

ii. Drilling Data Pressure Log

iii. Temperature Data Log

iv. Wireline Data Log

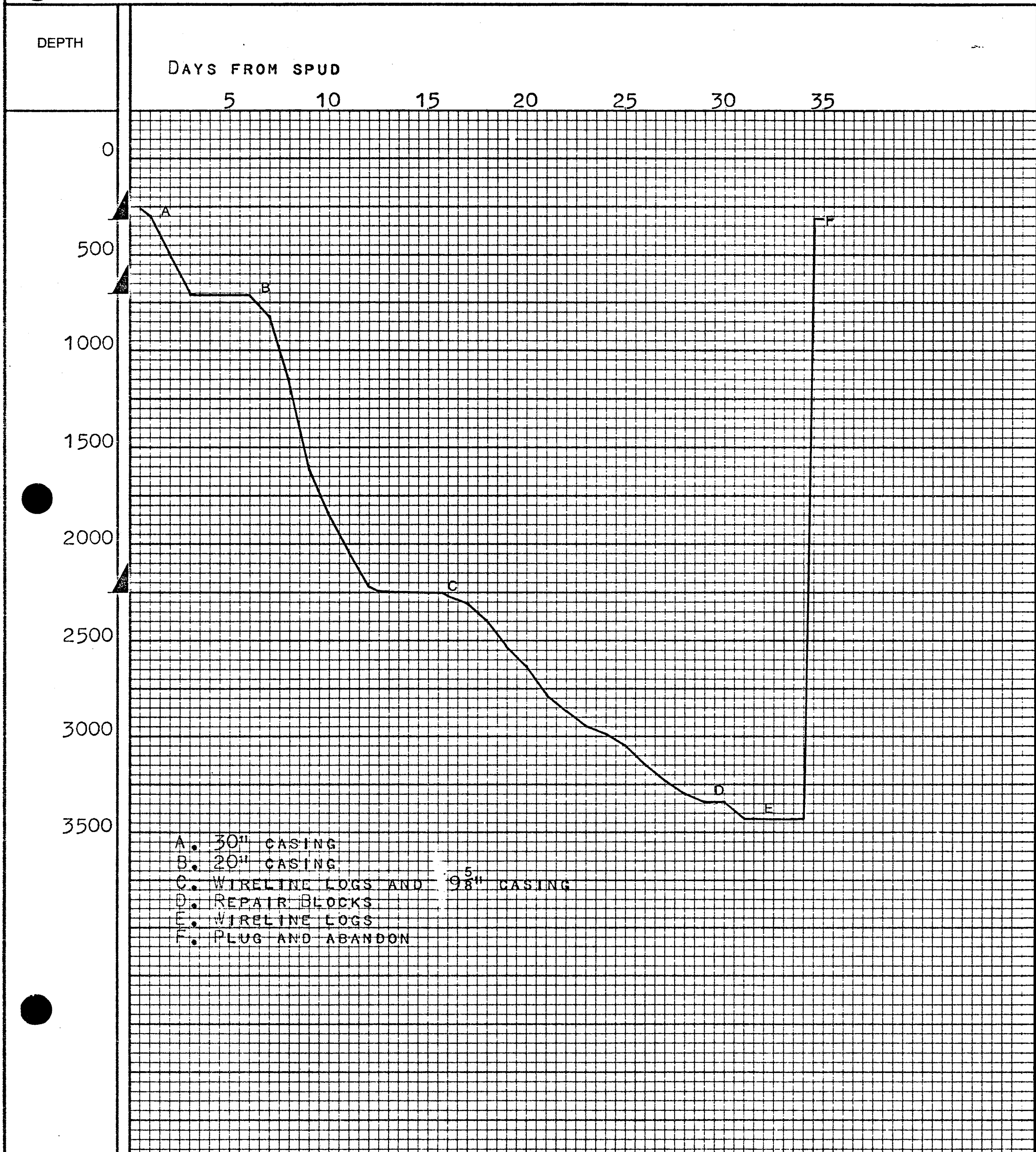
v. Pressure Evaluation Log

APPENDIX B

i. Well Progress Log

COMPANY: SHELL DEV. AUST. WELL: BASKER SOUTH No.1

WELL PROGRESS LOG



APPENDIX B

ii. Drilling Data Pressure Log

PE602287

This is an enclosure indicator page.
The enclosure PE602287 is enclosed within the container PE903478 at this location in this document.

The enclosure PE602287 has the following characteristics:

ITEM_BARCODE = PE602287
CONTAINER_BARCODE = PE903478
NAME = Exlog Mud Log
BASIN = GIPPSLAND
PERMIT = VIC/P19
TYPE = WELL
SUBTYPE = MUD_LOG
DESCRIPTION = Exlog Mud Log (enclosure from Final Well report--attachment to WCR) for Basker South-1
REMARKS =
DATE_CREATED = 24/12/83
DATE_RECEIVED = 14/05/84
W_NO = W839
WELL_NAME = Basker South-1
CONTRACTOR = EXLOG
CLIENT_OP_CO = Shell Development (Australia) Pty Ltd

(Inserted by DNRE - Vic Govt Mines Dept)

APPENDIX B

iii. Temperature Data Log

PE602288

This is an enclosure indicator page.
The enclosure PE602288 is enclosed within the container PE903478 at this location in this document.

The enclosure PE602288 has the following characteristics:

ITEM_BARCODE =	PE602288
CONTAINER_BARCODE =	PE903478
NAME =	Temperature Data Log
BASIN =	GIPPSLAND
PERMIT =	VIC/P19
TYPE =	WELL
SUBTYPE =	WELL_LOG
DESCRIPTION =	Temperature Data Log (enclosure from Final Well Report--attachment to WCR) for Basker South-1
REMARKS =	
DATE_CREATED =	31/05/80
DATE_RECEIVED =	14/05/84
W_NO =	W839
WELL_NAME =	Basker South-1
CONTRACTOR =	EXLOG
CLIENT_OP_CO =	Shell Development (Australia) Pty Ltd

(Inserted by DNRE - Vic Govt Mines Dept)

<u>APPENDIX B</u>

iv. Wireline Data Log

PE602289

This is an enclosure indicator page.
The enclosure PE602289 is enclosed within the container PE903478 at this location in this document.

The enclosure PE602289 has the following characteristics:

ITEM_BARCODE = PE602289
CONTAINER_BARCODE = PE903478
NAME = Wireline Data Pressure Log
BASIN = GIPPSLAND
PERMIT = VIC/P19
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Wireline Data Presure Log (enclosure from Final Well Report--attachment to WCR) for Basker South-1
REMARKS =
DATE_CREATED = 31/05/80
DATE_RECEIVED = 14/05/84
W_NO = W839
WELL_NAME = Basker South-1
CONTRACTOR = EXLOG
CLIENT_OP_CO = Shell Development (Australia) Pty Ltd

(Inserted by DNRE - Vic Govt Mines Dept)

APPENDIX B

v. Pressure Evaluation Log

PE602290

This is an enclosure indicator page.
The enclosure PE602290 is enclosed within the container PE903478 at this location in this document.

The enclosure PE602290 has the following characteristics:

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     ITEM_BARCODE = PE602290
CONTAINER_BARCODE = PE903478
             NAME = Pressure Evaluation Log
            BASIN = GIPPSLAND
           PERMIT = VIC/P19
             TYPE = WELL
          SUBTYPE = WELL_LOG
      DESCRIPTION = Pressure Evaluation Log (enclosure from
                    Final Well Report--attachment to WCR)
                    for Basker South-1
          REMARKS =
     DATE_CREATED = 31/05/80
    DATE_RECEIVED = 14/05/84
             W_NO = W839
        WELL_NAME = Basker South-1
       CONTRACTOR = EXLOG
     CLIENT_OP_CO = Shell Development (Australia) Pty Ltd
```

(Inserted by DNRE - Vic Govt Mines Dept)

APPENDIX C

i. Drilling Data Printout 709 - 3420 metres

ii. Drilling Data Plots

(a) 1:2000 ROP-LITHOLOGY-WOB-PUMP PRESSURE & FLOW-RPM AVERAGE & MAXIMUM TORQUE-$/M & $/M INST.

(b) 1:2000 ROP-DXC & TREND-LITHOLOGY-TOTAL GAS-ESTIMATED PORE PRESSURE & ECD-TEMPERATURE IN & OUT

APPENDIX C

i. Drilling Data Printout 709 - 3420 metres

SHELL DEV. AUST: BASKER SOUTH No.1

Data Printed at time 10:49 Date Dec 5 '83
Data Recorded at time 15:59 Date Nov 29 '83

Spud Basker South No.1 on 23rd November 1983.
Drill 36" hole to 316m. Set 30" casing at 311m.
Drill 26" hole to 706m. Set 20" casing at 700m.
Clean hole to 709m with a 17.5" bit.
Drill ahead with NB#4 (Run#5) DIAMANT BOART LX27HS 12.25" with a NEYRFOR turbodrill. Booster pump on. 1600 l/min.

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
7	1813	710.0	15.8	1.15	1.48	11	.44	2740	709.0	1.05	1.05	1631	2210	18.3	23.2	49.13	300	2.1	.0	201	9093	.00	.53	.17	1.07	1.05	1.03	D
8	1827	715.0	15.7	.91	1.14	30	.89	2900	709.0	1.05	1.05	1761	2345	18.7	30.9	45.79	5992	6.0	.2	1453	2997	.01	.54	.63	1.05	1.06	1.03	D
9	1902	720.0	12.5	.80	1.07	43	1.55	2910	709.0	1.05	1.05	3385	2345	21.2	21.4	44.52	24942	11.0	.6	403	1779	.03	.69	.76	1.07	1.07	1.03	D
10	1914	725.0	26.4	.80	1.08	56	1.67	3010	715.4	1.05	1.05	3300	1834	20.9	23.2	44.52	32716	16.0	.8	193	1276	.04	.62	.66	1.05	1.07	1.03	D
11	1934	730.0	23.9	.82	1.03	56	2.48	2920	717.3	1.05	1.05	3278	2365	21.2	23.1	40.22	40971	20.9	1.0	226	1031	.05	.68	.73	1.08	1.07	1.03	D
12	1946	735.0	25.7	.74	1.00	54	3.00	3050	719.5	1.05	1.05	3274	2329	21.1	23.9	40.38	48507	26.0	1.2	186	865	.06	.68	.74	1.05	1.08	1.03	D
13	2002	740.0	41.7	.87	1.75	45	3.49	2940	723.9	1.05	1.05	3244	2305	21.5	23.3	39.91	53487	31.0	1.3	121	747	.07	.57	.65	1.08	1.08	1.03	D
14	2009	745.0	44.0	.81	1.19	59	3.94	2990	726.5	1.05	1.05	3248	2283	21.6	22.9	39.59	57886	36.0	1.4	115	659	.07	.63	.68	1.06	1.08	1.03	D
15	2026	750.1	38.2	.82	1.90	61	3.65	3000	729.6	1.05	1.05	3259	823	21.4	23.2	41.02	63904	41.0	1.6	128	599	.08	.65	.70	1.08	1.08	1.03	D
16	2035	755.0	33.0	.73	.99	63	4.20	2900	733.6	1.05	1.05	3271	896	21.5	22.2	40.38	69676	46.0	1.8	156	551	.09	.70	.75	1.06	1.08	1.03	D
17	2053	760.0	30.6	.79	1.49	62	3.70	3190	739.8	1.05	1.05	3279	1024	21.6	24.0	48.01	76696	51.0	1.9	157	514	.10	.70	.74	1.08	1.08	1.03	D
18	2101	765.0	33.6	.96	1.15	61	3.64	3140	745.7	1.05	1.05	3282	1049	21.7	24.3	50.08	82416	56.0	2.1	154	482	.10	.67	.72	1.06	1.08	1.03	D
19	2117	770.0	36.3	.79	1.90	63	3.53	2970	750.4	1.05	1.05	3270	1118	21.9	24.3	53.90	88212	61.0	2.2	142	455	.11	.66	.70	1.08	1.08	1.03	D
20	2129	775.0	24.2	.64	.80	65	3.59	2980	755.3	1.05	1.05	3267	1270	22.2	24.6	56.44	96245	66.0	2.4	231	436	.12	.75	.79	1.06	1.08	1.03	D
21	2149	780.0	25.9	.70	1.55	65	3.77	2980	762.9	1.05	1.05	3267	2442	22.4	23.7	58.67	104328	71.0	2.7	198	420	.13	.75	.78	1.08	1.08	1.03	D
22	2209	785.0	26.7	.71	.95	65	4.16	2970	770.1	1.05	1.05	3238	2348	22.7	25.1	65.03	112476	76.0	2.9	185	406	.14	.76	.80	1.06	1.07	1.03	D↑
23	2219	790.1	29.6	.76	1.15	64	3.77	3080	773.9	1.05	1.05	3271	2451	22.8	22.6	64.23	119154	81.0	3.0	169	392	.15	.72	.76	1.08	1.08	1.03	D
24	2235	795.0	37.6	1.04	1.41	61	3.07	3110	777.4	1.05	1.05	3186	2299	22.7	26.1	69.16	124374	86.0	3.2	137	377	.15	.63	.68	1.06	1.08	1.03	D
25	2245	800.0	30.7	.82	1.13	63	4.30	2970	781.4	1.05	1.05	3210	2420	22.9	23.2	67.25	130624	91.0	3.3	171	365	.16	.73	.77	1.08	1.08	1.03	D
26	2306	805.0	21.6	.71	1.13	63	4.33	3080	787.0	1.05	1.05	3178	2359	23.1	25.7	68.05	139679	96.0	3.6	237	359	.17	.80	.84	1.06	1.08	1.03	D
27	2317	810.2	28.1	.67	1.08	56	4.70	2930	793.2	1.05	1.05	3202	2618	23.3	25.1	66.46	146684	101	3.8	189	351	.18	.74	.79	1.09	1.08	1.03	D
28	2339	815.0	18.6	.70	2.13	49	4.77	2950	800.7	1.05	1.05	3201	2386	23.5	26.0	69.16	157354	106	4.0	258	347	.19	.80	.87	1.09	1.07	1.03	D
29	2354	820.1	21.2	.72	1.00	61	5.12	2940	806.0	1.05	1.05	3207	2421	23.6	26.5	70.91	166468	111	4.3	234	343	.21	.83	.88	1.09	1.07	1.03	D
	Date	Nov 30 '83																										
30	0020	825.1	17.0	.71	1.00	52	4.40	2900	812.5	1.05	1.05	3188	2459	24.0	26.6	69.95	178315	116	4.6	336	342	.22	.82	.88	1.09	1.07	1.03	D
31	0036	830.0	18.1	.64	.89	51	4.39	2870	817.6	1.05	1.05	3194	2440	24.1	27.2	70.75	188396	121	4.9	269	339	.23	.80	.86	1.09	1.07	1.03	D
32	0110	835.0	11.1	.58	.71	54	4.33	2920	825.3	1.05	1.05	3203	2490	24.5	27.8	69.80	206323	126	5.4	412	345	.25	.91	.97	1.09	1.07	1.03	D
33	0133	840.1	13.5	.62	.73	56	4.69	2910	830.7	1.05	1.05	3202	2513	24.9	28.0	69.95	220572	131	5.7	384	346	.27	.89	.95	1.09	1.07	1.03	D
34	0207	845.1	12.9	.62	.73	48	5.26	3000	835.3	1.05	1.05	3203	2466	25.4	28.7	71.39	237145	136	6.2	377	350	.29	.89	.96	1.09	1.07	1.03	D
35	0234	850.0	11.1	.57	.66	52	5.63	2970	840.9	1.05	1.05	3206	2513	25.9	29.6	72.50	254055	141	6.6	437	353	.31	.96	1.02	1.09	1.07	1.03	D
36	0310	855.1	11.5	.63	.75	57	5.05	3020	847.1	1.05	1.05	3224	2487	26.3	29.9	72.66	272808	146	7.1	443	358	.34	.94	1.00	1.09	1.06	1.03	D
37	0336	860.0	11.5	.70	.91	53	2.18	3190	851.8	1.05	1.05	3379	2735	26.9	30.4	72.18	289624	151	7.5	426	360	.36	.78	.83	1.09	1.06	1.03	D
38	0421	865.0	11.8	.86	1.02	33	2.25	3140	856.6	1.05	1.05	3373	3121	26.7	31.1	69.80	306714	156	8.0	418	363	.38	.70	.79	1.09	1.06	1.03	D
39	0448	870.0	13.1	.88	1.07	58	2.79	3090	861.2	1.05	1.05	3353	1947	27.6	31.5	69.95	323832	161	8.4	390	366	.40	.81	.86	1.09	1.07	1.03	D
40	0514	875.0	17.2	.75	1.17	61	2.10	3090	865.6	1.06	1.05	3336	2019	27.8	32.0	69.95	336101	166	8.7	293	364	.41	.73	.77	1.09	1.07	1.03	D
41	0544	880.0	14.5	.85	.99	57	1.69	3120	869.5	1.06	1.04	3197	2007	28.4	31.9	69.64	350464	171	9.1	363	364	.43	.72	.76	1.09	1.07	1.03	D
42	0558	885.0	21.9	.86	1.06	55	1.76	3020	873.3	1.06	1.06	3199	2038	28.4	32.0	70.27	359218	176	9.3	236	361	.44	.65	.69	1.09	1.07	1.03	D
43	0635	890.0	10.7	.90	1.08	56	2.46	3070	880.1	1.06	1.06	3175	2124	28.8	32.5	70.59	377878	181	9.8	534	365	.46	.82	.86	1.09	1.08	1.03	D
44	0652	895.0	17.9	.73	.89	58	3.39	3050	885.4	1.06	1.06	3267	2087	28.7	32.8	70.27	388482	186	10.1	279	362	.47	.78	.82	1.09	1.08	1.03	D
45	0716	900.0	20.9	.73	.88	49	3.58	3070	888.1	1.06	1.06	3174	2104	29.1	33.1	70.11	399493	191	10.4	249	361	.48	.72	.78	1.09	1.08	1.03	D
46	0731	905.0	20.0	.64	.87	38	3.54	3020	891.6	1.06	1.06	3233	2033	29.2	33.5	68.84	408672	196	10.7	237	358	.49	.68	.76	1.09	1.08	1.03	D
47	0752	910.0	24.4	.70	1.03	61	2.85	2990	896.5	1.06	1.06	3170	2082	29.5	32.8	68.52	417595	201	10.9	206	355	.51	.70	.74	1.09	1.08	1.03	D
48	0818	915.0	11.6	.88	1.10	56	1.71	2990	903.8	1.06	1.06	3422	2015	29.5	33.4	69.16	434158	206	11.3	529	357	.52	.75	.79	1.09	1.08	1.03	D
49	0852	920.1	13.2	.87	1.03	51	1.44	3030	911.8	1.06	1.06	3311	2038	29.9	32.1	68.84	449322	211	11.7	398	358	.54	.69	.74	1.10	1.07	1.03	D
50	0914	925.0	13.7	.84	1.07	53	2.71	3190	915.7	1.06	1.06	3318	2162	30.1	33.9	68.52	463488	216	12.1	365	358	.55	.78	.83	1.10	1.08	1.03	D

SHELL DEV. AUST: BASKER SOUTH No.1

Data Printed at time 10:54 Date Dec 5 '83
Data Recorded at time 09:59 Date Nov 30 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
51	0959	930.0	7.94	.84	1.99	61	3.11	3240	923.7	1.06	1.06	3193	2016	30.5	34.5	67.89	488635	221	12.8	597	365	.59	.93	.97	1.10	1.07	1.03	D
52	1018	935.0	15.5	.70	.92	59	4.44	3110	926.2	1.06	1.06	3195	2115	30.7	34.9	68.36	500951	226	13.1	336	364	.60	.86	.90	1.10	1.08	1.03	D
53	1047	940.0	15.4	.76	2.05	55	4.40	3140	929.2	1.06	1.06	3157	2129	31.3	33.1	68.52	514854	231	13.5	326	364	.62	.75	1.07	1.10	1.08	1.03	D
54	1056	945.0	31.1	.78	1.08	57	4.50	3040	931.8	1.06	1.06	3163	2067	31.2	35.4	69.32	520984	236	13.6	163	360	.62	.82	.81	1.10	1.08	1.03	D
55	1114	950.0	32.4	.76	1.27	58	4.53	3120	934.3	1.05	1.06	3161	2032	31.3	34.8	69.00	527164	241	13.8	157	356	.63	.70	.74	1.10	1.08	1.03	D
56	1124	955.0	32.0	.96	1.42	52	4.18	3090	935.9	1.06	1.06	3175	2126	31.3	34.8	69.48	532951	246	13.9	162	352	.64	.67	.72	1.10	1.09	1.03	D
57	1225	960.0	30.8	.89	1.25	26	3.41	3250	939.8	1.06	1.06	3155	2187	30.6	24.5	70.59	540888	251	14.2	177	350	.65	.52	.63	1.10	1.09	1.03	D
58	1233	965.0	37.8	.96	1.36	13	3.75	3190	943.9	1.06	1.06	3162	2173	29.1	35.2	70.59	545497	256	14.3	132	345	.65	.35	.54	1.10	1.09	1.03	D
59	1249	970.0	34.4	.88	2.02	30	3.79	3160	949.1	1.06	1.06	3159	2259	29.6	33.8	69.48	551243	261	14.5	145	342	.66	.53	.64	1.10	1.09	1.03	D
60	1257	975.0	37.5	.85	1.13	33	4.02	3140	953.5	1.06	1.06	3165	2124	30.1	34.9	69.48	556039	266	14.6	130	338	.66	.54	.64	1.10	1.09	1.03	D
61	1312	980.0	42.0	1.13	1.50	29	3.38	3180	955.8	1.06	1.06	3180	2117	30.4	34.6	68.84	560456	271	14.7	123	334	.67	.48	.58	1.10	1.09	1.03	D↑
62	1331	985.0	24.3	1.09	1.30	30	2.97	3160	963.2	1.06	1.06	3175	1856	30.6	35.2	72.18	567802	276	14.9	224	332	.68	.57	.67	1.10	1.09	1.03	D↑
63	1346	990.0	20.2	.97	1.14	30	3.21	3220	968.5	1.06	1.06	3157	2068	30.7	34.7	67.73	574830	281	15.2	236	330	.68	.61	.71	1.10	1.09	1.03	D
64	1407	995.0	22.7	.96	1.94	31	3.41	3230	977.4	1.06	1.06	3116	2011	31.1	35.3	70.27	582983	286	15.4	228	329	.69	.61	.71	1.10	1.08	1.03	D↑
65	1421	1000.0	21.5	.95	1.27	33	2.91	3140	983.4	1.06	1.06	3170	2309	31.1	34.9	66.62	591412	291	15.6	224	327	.70	.61	.70	1.10	1.08	1.03	D
66	1442	1005.1	22.2	.79	2.03	37	3.18	3170	989.4	1.06	1.06	3183	2052	31.5	35.8	68.21	599813	296	15.9	232	325	.71	.64	.72	1.10	1.08	1.03	D
67	1453	1010.0	28.6	.81	1.11	38	4.07	3090	993.1	1.06	1.06	3160	2133	31.6	34.0	66.30	606072	301	16.0	177	323	.72	.63	.71	1.10	1.08	1.03	D
68	1513	1015.0	22.9	.78	1.33	38	4.12	3330	998.4	1.06	1.06	3180	2106	31.9	36.0	66.30	614536	306	16.3	223	322	.73	.67	.75	1.11	1.08	1.03	D
69	1522	1020.0	32.7	.98	1.46	37	4.77	3210	1001.2	1.05	1.06	3154	2309	32.2	34.9	65.66	620111	311	16.4	153	319	.74	.61	.70	1.11	1.09	1.03	D
70	1543	1025.0	24.4	.93	1.94	38	3.47	3210	1007.3	1.06	1.06	3172	2188	32.4	35.4	64.87	627970	316	16.6	227	317	.74	.64	.71	1.11	1.09	1.03	D
71	1555	1030.0	23.1	1.07	1.37	37	3.11	3290	1012.2	1.06	1.06	3178	2332	32.4	36.8	64.55	635829	321	16.9	215	316	.75	.63	.71	1.11	1.09	1.03	D
72	1620	1035.0	16.9	.86	1.84	41	2.77	3100	1020.6	1.06	1.06	3167	2435	32.9	34.3	61.53	646794	326	17.2	292	315	.77	.69	.76	1.11	1.08	1.03	D
73	1635	1040.0	19.6	.72	1.06	43	3.23	3100	1025.2	1.06	1.06	3172	2452	32.9	37.7	60.89	655176	331	17.4	254	315	.78	.69	.76	1.11	1.08	1.03	D
74	1701	1045.0	17.1	.90	1.13	41	3.25	3270	1031.6	1.06	1.06	3156	2404	32.5	37.6	66.14	667293	336	17.7	312	314	.79	.71	.78	1.11	1.08	1.03	D
75	1710	1050.0	34.7	.84	1.23	41	2.74	3130	1033.9	1.06	1.06	3179	2402	32.8	37.9	65.65	672586	341	17.9	138	312	.79	.56	.62	1.11	1.08	1.03	D
76	1729	1055.0	32.1	.97	1.30	41	2.75	3290	1037.7	1.06	1.06	3183	2423	33.2	35.5	65.34	678524	346	18.0	159	310	.80	.57	.64	1.11	1.08	1.03	D
77	1743	1060.0	20.5	.97	1.19	42	2.13	3260	1041.7	1.05	1.05	3205	2323	33.1	37.7	66.14	687428	351	18.3	265	309	.81	.63	.69	1.11	1.09	1.03	D
78	1805	1065.0	25.0	.81	1.10	41	3.87	3140	1047.1	1.06	1.06	3192	2436	33.3	36.2	66.30	695598	356	18.5	203	308	.82	.66	.73	1.11	1.08	1.03	D
79	1815	1070.0	28.3	.78	1.06	43	4.29	3140	1051.4	1.05	1.06	3178	2332	33.2	37.9	66.14	702018	361	18.7	176	306	.83	.66	.73	1.11	1.09	1.03	D
80	1837	1075.0	23.4	1.07	1.29	40	3.34	3340	1057.7	1.06	1.06	3180	2366	33.4	36.2	65.98	710902	366	18.9	221	305	.84	.65	.72	1.11	1.08	1.03	D
81	1859	1080.1	24.9	1.04	1.29	49	3.75	3380	1062.8	1.06	1.06	3172	2378	33.5	36.3	67.73	719332	371	19.1	203	304	.85	.69	.74	1.11	1.08	1.03	D↑
82	1910	1085.0	27.9	.94	1.26	57	3.74	3210	1067.6	1.06	1.06	3169	2231	33.4	36.2	65.82	725992	376	19.3	179	302	.85	.70	.73	1.11	1.08	1.03	D
83	1932	1090.0	28.0	.74	1.17	57	3.75	3150	1072.8	1.06	1.06	3198	2302	33.5	36.4	66.62	733699	381	19.5	184	301	.86	.70	.74	1.11	1.08	1.03	D↑
84	1944	1095.0	24.5	.79	1.03	59	4.00	3080	1077.5	1.06	1.06	3178	2277	33.4	36.4	65.66	741396	386	19.7	205	300	.87	.74	.77	1.12	1.08	1.03	D
85	2012	1100.0	23.6	.80	1.06	58	3.93	3230	1084.4	1.06	1.06	3157	2286	33.6	35.7	61.21	750251	391	20.0	205	299	.88	.74	.78	1.12	1.08	1.03	D↑
86	2026	1105.0	21.2	.70	1.06	57	3.68	3210	1088.4	1.06	1.06	3176	2441	33.1	35.5	48.17	759101	396	20.2	241	298	.89	.75	.79	1.12	1.08	1.03	D
87	2049	1110.1	20.1	.85	1.36	56	3.64	3220	1095.4	1.06	1.06	3172	2393	33.5	34.8	48.49	769137	401	20.5	263	298	.90	.76	.79	1.12	1.08	1.03	D
88	2103	1115.0	21.5	.81	1.14	57	3.76	3170	1098.8	1.06	1.05	3173	2296	33.1	36.6	48.33	777807	406	20.7	226	297	.91	.75	.79	1.12	1.08	1.03	D
89	2127	1120.0	20.5	.91	1.32	57	3.40	3400	1105.2	1.06	1.06	3161	2430	33.4	34.3	47.70	787526	411	20.9	238	297	.92	.75	.78	1.12	1.08	1.03	D
90	2139	1125.1	24.7	.84	1.26	59	3.33	3160	1108.1	1.06	1.06	3173	2424	33.0	35.3	47.70	795211	416	21.1	202	296	.93	.71	.74	1.12	1.08	1.03	D
91	2159	1130.0	26.0	.93	1.61	58	3.54	3210	1113.3	1.06	1.06	3170	2451	33.2	34.2	47.70	803145	421	21.4	195	295	.94	.71	.74	1.12	1.08	1.03	D
92	2209	1135.0	28.6	1.15	1.56	57	3.54	3350	1116.6	1.06	1.06	3178	1866	32.9	36.3	49.60	809767	426	21.5	178	293	.95	.69	.72	1.12	1.08	1.03	D
93	2225	1140.0	35.0	1.10	1.49	56	3.43	3230	1119.6	1.07	1.05	3203	2478	33.1	35.5	48.17	815618	431	21.7	147	292	.95	.64	.67	1.12	1.09	1.03	D
94	2234	1145.0	34.4	1.00	1.42	56	3.85	3290	1123.1	1.07	1.05	3189	2354	33.1	35.7	48.17	821080	436	21.8	141	290	.96	.66	.69	1.12	1.09	1.03	D
Wiper trip at 1145m. Survey = 1.5 deg.																												
Date Dec 1 '83																												
97	0031	1150.0	43.9	1.25	1.79	61	2.21	3250	1130.1	1.07	1.07	3100	2633	29.8	32.5	51.67	826660	441	22.0	145	288	.96	.56	.58	1.15	1.10	1.03	D–
98	0052	1155.2	24.2	1.36	1.94	59	2.86	3350	1136.2	1.07	1.07	3109	2612	29.6	32.6	56.28	834921	446	22.2	343	288	.97	.69	.72	1.11	1.09	1.03	D
99	0053	1160.0	43.7	1.23	1.90	61	2.39	3400	1139.0	1.07	1.07	3133	2668	30.0	30.5	55.33	839034	451	22.3	113	286	.98	.57	.59	1.15	1.10	1.03	D
100	0111	1165.1	44.0	1.21	1.90	61	2.62	3310	1142.7	1.07	1.07	3107	2159	29.5	32.2	60.26	843703	456	22.4	119	284	.98	.57	.60	1.11	1.10	1.03	D

SHELL DEV. AUST: BASKER SOUTH No.1

Data Printed at time 10:59 Date Dec 5 '83
Data Recorded at time 01:16 Date Dec 1 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
101	0116	1170.0	59.9	1.26	1.78	60	3.24	3380	1144.8	1.07	1.07	3146	2485	29.6	32.2	57.39	846791	461	22.5	83	282	.99	.54	.57	1.15	1.10	1.03	D
102	0129	1175.0	58.0	1.20	1.72	63	3.64	3330	1148.2	1.07	1.07	3164	2328	29.2	31.7	59.78	850675	466	22.6	93	280	.99	.56	.59	1.11	1.10	1.03	D
103	0135	1180.0	48.8	1.38	1.87	60	3.60	3430	1151.2	1.07	1.07	3177	2446	29.2	29.5	59.62	854569	471	22.7	110	278	1.00	.59	.61	1.16	1.10	1.03	D
104	0152	1185.1	41.0	1.28	1.84	59	3.45	3470	1154.1	1.07	1.07	3154	2325	28.7	31.3	62.48	859380	476	22.9	126	277	1.00	.61	.64	1.11	1.11	1.03	D
105	0159	1190.0	40.5	1.28	1.80	56	3.67	3450	1158.4	1.07	1.07	3180	2427	28.7	31.0	62.96	863953	481	23.0	121	275	1.01	.61	.64	1.16	1.11	1.03	D
106	0216	1195.0	36.8	1.35	1.91	58	3.86	3390	1165.1	1.07	1.07	3168	2383	28.2	30.5	64.55	869397	486	23.1	134	274	1.01	.64	.67	1.11	1.11	1.03	D
107	0222	1200.0	56.3	1.42	1.90	58	4.08	3430	1170.3	1.07	1.07	3176	2098	28.2	29.4	64.71	872733	491	23.2	88	272	1.02	.57	.60	1.16	1.11	1.03	D
108	0236	1205.0	46.2	1.33	2.01	58	3.61	3480	1176.4	1.07	1.07	3174	2091	28.0	30.4	67.41	877036	496	23.3	115	270	1.02	.59	.62	1.11	1.10	1.03	D
109	0242	1210.0	49.6	1.42	1.93	57	4.19	3510	1180.9	1.07	1.07	3176	1961	28.1	29.0	67.57	880851	501	23.4	99	269	1.02	.59	.62	1.16	1.10	1.03	D
110	0257	1215.0	43.8	1.42	1.90	57	3.80	3510	1185.5	1.07	1.07	3176	2019	28.0	30.6	69.64	885567	506	23.6	120	267	1.03	.60	.64	1.11	1.10	1.03	D
111	0305	1220.0	38.9	1.34	1.82	58	3.91	3200	1190.6	1.07	1.07	3182	1931	28.1	30.6	70.43	890333	511	23.7	130	266	1.03	.63	.66	1.16	1.10	1.03	D
112	0320	1225.0	39.2	1.49	1.95	59	3.48	3430	1195.3	1.07	1.07	3146	2028	28.0	30.3	73.13	895496	516	23.8	126	265	1.04	.62	.65	1.12	1.10	1.03	D
113	0328	1230.0	37.8	1.45	2.01	60	3.56	3130	1201.9	1.07	1.07	3160	2007	28.0	30.9	73.29	900404	521	23.9	130	263	1.05	.63	.66	1.15	1.10	1.03	D
114	0343	1235.0	34.3	1.16	1.71	65	2.93	3360	1208.8	1.07	1.07	3143	2114	27.9	30.4	74.57	906352	526	24.1	145	262	1.05	.64	.66	1.12	1.10	1.03	D
115	0352	1240.0	37.3	1.13	1.69	66	3.11	3210	1212.2	1.07	1.07	3146	2151	28.1	32.1	74.72	911469	531	24.2	137	261	1.06	.64	.65	1.16	1.10	1.03	D
116	0406	1245.0	38.4	1.27	1.98	61	3.26	3350	1219.3	1.07	1.07	3155	2072	28.2	30.6	75.52	916880	536	24.4	134	260	1.06	.62	.65	1.12	1.10	1.03	D
117	0423	1250.0	31.3	1.21	1.74	62	3.20	3460	1225.3	1.07	1.07	3139	1841	28.5	31.7	78.06	923102	541	24.5	166	259	1.07	.66	.69	1.16	1.10	1.03	D
118	0431	1255.0	39.4	1.34	2.01	61	2.97	3530	1230.0	1.07	1.07	3195	1131	28.7	30.8	75.20	927922	546	24.7	127	258	1.08	.61	.63	1.12	1.10	1.03	D
119	0447	1260.0	33.2	1.15	1.88	63	2.91	3300	1235.4	1.07	1.07	3165	2604	28.6	32.8	71.23	933724	551	24.8	151	257	1.08	.64	.66	1.17	1.10	1.03	D
120	0459	1265.0	25.0	1.30	1.87	57	3.57	3460	1240.9	1.07	1.07	3188	1034	28.8	31.6	71.54	941306	556	25.0	214	257	1.09	.71	.74	1.12	1.10	1.03	D
121	0517	1270.0	24.2	1.36	1.97	58	3.46	3300	1248.8	1.06	1.06	3187	1017	28.8	33.2	72.66	948765	561	25.2	205	256	1.10	.71	.74	1.17	1.10	1.03	D
+ Booster pump off.																												
123	0528	1275.0	28.0	1.34	1.84	61	3.16	3340	1254.0	1.07	1.07	3150	2730	29.0	31.8	73.13	955507	566	25.4	181	255	1.11	.68	.71	1.12	1.10	1.03	D
124	0546	1280.1	27.8	1.45	2.10	61	3.09	3370	1259.9	1.07	1.07	3145	2872	29.0	33.6	74.41	962705	571	25.6	187	255	1.11	.68	.70	1.17	1.09	1.03	D
125	0556	1285.0	30.3	1.49	2.02	63	3.20	3380	1264.2	1.07	1.07	3157	2856	29.3	31.6	75.04	968866	576	25.7	161	254	1.12	.67	.69	1.12	1.09	1.03	D
126	0614	1290.0	28.9	1.49	2.01	61	3.12	3430	1269.4	1.07	1.07	3159	3102	28.9	32.8	78.06	975562	581	25.9	173	253	1.13	.67	.70	1.17	1.09	1.03	D
127	0625	1295.0	29.5	1.43	2.03	58	3.47	3380	1274.0	1.07	1.07	3173	3097	29.3	33.2	78.22	981951	586	26.1	174	253	1.13	.67	.70	1.13	1.10	1.03	D
128	0643	1300.0	28.2	1.48	1.90	58	3.58	3520	1279.0	1.07	1.07	3162	2998	29.3	33.2	78.54	988843	591	26.3	178	252	1.14	.69	.72	1.17	1.10	1.03	D
129	0654	1305.0	26.8	1.44	1.97	59	3.39	3440	1284.7	1.07	1.07	3169	3030	29.5	33.5	73.77	995820	596	26.5	191	252	1.15	.69	.72	1.13	1.09	1.03	D
130	0711	1310.0	30.8	1.50	2.12	59	3.32	3390	1288.9	1.07	1.07	3204	2721	29.7	33.5	75.84	2304	601	26.6	169	251	1.16	.66	.69	1.17	1.10	1.03	D
131	0719	1315.0	38.9	1.48	2.09	58	3.44	3340	1292.8	1.07	1.07	3153	2900	29.9	31.6	77.11	7132	606	26.8	128	250	1.16	.62	.65	1.13	1.10	1.03	D
132	0735	1320.0	33.3	1.46	2.17	59	3.13	3490	1297.6	1.07	1.07	3155	2786	29.5	33.5	79.02	12948	611	26.9	145	249	1.17	.64	.67	1.17	1.10	1.03	D
133	0745	1325.0	29.2	1.40	1.95	59	3.05	3400	1301.9	1.07	1.07	3161	2917	29.7	32.9	79.33	19402	616	27.1	183	248	1.18	.65	.69	1.13	1.10	1.03	D
134	0802	1330.0	31.7	1.50	1.95	60	3.43	3420	1307.0	1.07	1.07	3168	3017	29.5	33.0	79.97	25403	621	27.2	162	248	1.18	.66	.69	1.18	1.10	1.03	D
135	0811	1335.0	33.0	1.45	2.01	60	2.91	3310	1310.4	1.07	1.07	3169	2920	29.7	33.4	79.81	31134	626	27.4	157	247	1.19	.64	.66	1.13	1.10	1.03	D
136	0828	1340.0	28.9	1.46	2.09	62	2.37	3290	1317.1	1.07	1.07	3150	2778	30.0	32.0	79.81	37761	631	27.6	167	247	1.19	.64	.66	1.18	1.10	1.03	D
+ Booster pump on. 500 l/min.																												
138	0849	1345.0	24.9	1.35	1.95	64	2.38	3430	1324.3	1.07	1.07	3114	2377	29.9	32.9	81.88	45547	636	27.7	204	246	1.20	.68	.69	1.13	1.09	1.03	D↑
139	0857	1350.0	36.6	1.38	1.93	63	3.37	3460	1327.2	1.07	1.07	3185	4597	29.9	31.1	78.54	50717	641	27.9	139	245	1.21	.65	.66	1.18	1.10	1.03	D
140	0916	1355.1	26.0	1.35	1.97	63	3.40	3530	1334.7	1.07	1.07	3138	3236	29.9	33.4	78.54	58845	646	28.1	185	245	1.22	.71	.73	1.13	1.09	1.03	D↑
141	0925	1360.0	31.8	1.36	1.87	57	3.86	3570	1338.2	1.07	1.07	3185	3424	30.2	29.7	78.22	64678	651	28.2	150	244	1.22	.67	.70	1.18	1.10	1.03	D
142	0942	1365.0	31.0	1.37	2.01	57	3.70	3490	1344.3	1.07	1.07	3149	4369	30.0	34.0	74.72	71721	656	28.4	161	244	1.23	.67	.70	1.13	1.09	1.03	D
143	0951	1370.0	35.5	1.37	2.05	57	4.02	3320	1346.8	1.07	1.07	3160	3151	30.2	31.9	73.93	76997	661	28.6	139	243	1.24	.66	.68	1.18	1.10	1.03	D
146	1002	1375.0	44.5	1.37	1.69	60	2.76	3500	1351.1	1.06	1.06	3129	2521	33.6	32.0	74.57	77679	666	28.6	165	243	1.24	.58	.60	1.15	1.09	1.03	D–
147	1009	1380.0	43.2	1.47	2.06	58	3.95	3490	1356.3	1.07	1.07	3153	2059	29.9	31.1	73.13	82028	671	28.7	122	241	1.25	.62	.64	1.14	1.10	1.03	D
148	1024	1385.0	35.4	1.33	2.03	59	3.33	3510	1362.1	1.07	1.07	3146	2083	29.6	31.7	73.29	87700	676	28.9	150	240	1.25	.64	.66	1.15	1.10	1.03	D
149	1034	1390.0	30.9	1.41	1.99	58	3.23	3440	1367.5	1.07	1.07	3153	2041	29.6	32.1	72.98	93764	681	29.0	169	239	1.26	.65	.67	1.14	1.11	1.03	D
150	1126	1395.0	24.7	1.43	2.13	58	3.01	3380	1370.0	1.07	1.07	3119	2019	29.0	26.5	72.82	102018	686	29.3	206	239	1.27	.69	.71	1.15	1.10	1.03	D
+ Survey at 1393m = 2 deg.																												
152	1135	1400.0	36.4	1.47	2.30	58	2.81	3450	1373.8	1.07	1.07	3148	2070	27.2	31.7	72.98	107181	691	29.4	137	239	1.27	.61	.63	1.14	1.10	1.03	D

SHELL DEV. AUST: BASKER SOUTH No.1

Data Printed at time 11:04 Date Dec 5 '83
Data Recorded at time 11:51 Date Dec 1 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
153	1151	1405.0	28.8	1.33	2.35	61	2.49	3390	1379.6	1.07	1.07	3141	2190	27.9	29.7	72.02	113887	696	29.6	189	238	1.28	.64	.66	1.15	1.10	1.03	D
154	1200	1410.0	31.7	1.31	2.01	61	2.48	3370	1384.2	1.07	1.07	3146	2181	28.2	30.6	71.39	119862	701	29.7	161	238	1.29	.63	.64	1.14	1.10	1.03	D
155	1220	1415.0	28.0	1.40	1.93	60	2.30	3490	1390.6	1.07	1.07	3153	1561	28.7	27.8	70.59	126767	706	29.9	188	237	1.29	.64	.66	1.15	1.10	1.03	D
156	1233	1420.0	24.3	1.41	2.05	59	2.00	3510	1397.1	1.07	1.07	3157	1654	28.4	30.9	70.43	134493	711	30.1	206	237	1.30	.64	.66	1.14	1.10	1.03	D
157	1252	1425.1	31.0	1.39	2.05	60	1.48	3280	1402.9	1.07	1.07	3149	1711	28.7	28.1	69.00	140822	716	30.3	171	237	1.31	.57	.59	1.15	1.10	1.03	D
158	1303	1430.1	28.2	1.44	2.16	61	1.36	3290	1408.4	1.07	1.07	3157	1536	28.5	30.7	68.05	147547	721	30.5	188	236	1.31	.58	.60	1.14	1.09	1.03	D
159	1324	1435.0	27.9	1.28	1.99	60	1.15	3420	1414.5	1.07	1.07	3165	1550	28.8	31.0	65.66	154327	726	30.7	198	236	1.32	.57	.58	1.15	1.09	1.03	D
160	1338	1440.0	22.3	1.36	2.02	60	1.61	3460	1420.0	1.07	1.07	3168	1720	28.7	31.3	64.55	162855	731	30.9	238	236	1.33	.64	.65	1.14	1.09	1.03	D
161	1400	1445.0	25.2	1.41	2.10	64	1.85	3390	1425.9	1.08	1.08	3160	1890	29.1	30.8	62.80	170369	736	31.1	201	235	1.34	.64	.65	1.15	1.09	1.03	D
162	1419	1450.0	28.7	1.34	2.03	59	2.35	3480	1431.0	1.08	1.08	3148	1874	28.7	31.5	64.07	177209	741	31.3	175	235	1.34	.63	.65	1.15	1.09	1.03	D
163	1431	1455.0	26.1	1.45	2.05	59	3.11	3430	1435.4	1.08	1.08	3169	1926	28.8	31.8	64.55	184432	746	31.4	190	235	1.35	.69	.71	1.16	1.10	1.03	D
164	1450	1460.0	30.2	1.42	2.26	59	2.82	3520	1440.2	1.08	1.08	3170	1937	28.8	31.3	67.09	190804	751	31.6	173	234	1.35	.64	.65	1.15	1.10	1.03	D↑
165	1500	1465.1	30.3	1.29	2.22	60	2.87	3340	1442.8	1.09	1.09	3172	1874	29.0	31.2	67.73	197104	756	31.8	167	234	1.37	.65	.66	1.16	1.10	1.03	D
166	1519	1470.0	24.6	1.40	2.09	58	5.20	3470	1449.5	1.09	1.09	3174	1907	28.6	31.8	69.95	205722	761	32.0	247	234	1.38	.77	.79	1.15	1.10	1.03	D
167	1532	1475.0	23.4	1.50	2.06	57	4.92	3480	1454.0	1.09	1.09	3162	2006	28.8	31.5	71.07	213767	766	32.2	213	234	1.38	.76	.79	1.16	1.11	1.03	D
168	1556	1480.0	21.0	1.49	2.12	58	4.67	3400	1461.2	1.09	1.09	3160	2355	28.9	29.2	58.03	223225	771	32.5	247	234	1.39	.78	.80	1.15	1.11	1.03	D
169	1611	1485.0	19.9	1.49	2.02	58	4.57	3460	1467.9	1.09	1.09	3166	2624	28.5	31.9	58.98	232664	776	32.7	248	234	1.40	.78	.81	1.16	1.11	1.03	D
170	1636	1490.0	22.6	1.46	1.98	57	4.30	3460	1473.5	1.09	1.09	3192	2694	29.0	29.5	60.73	242348	781	33.0	222	234	1.41	.75	.77	1.15	1.11	1.03	D
171	1648	1495.0	24.6	1.41	2.07	57	4.65	3480	1477.7	1.08	1.10	3191	2712	28.7	32.1	61.69	250041	786	33.2	205	234	1.42	.74	.77	1.16	1.11	1.03	D
172	1711	1500.0	21.9	1.42	2.16	56	4.56	3520	1482.7	1.08	1.08	3191	2634	29.3	30.1	61.37	260021	791	33.5	228	234	1.43	.76	.78	1.15	1.11	1.03	D
173	1725	1505.0	20.2	1.46	2.10	56	4.57	3490	1487.5	1.08	1.08	3192	2595	29.1	31.7	60.73	269334	796	33.7	251	234	1.44	.78	.80	1.16	1.11	1.03	D
174	1750	1510.0	18.7	1.51	2.01	56	4.30	3450	1493.5	1.08	1.08	3191	2610	29.3	31.4	60.42	280603	801	34.0	286	235	1.46	.78	.81	1.15	1.10	1.03	D
175	1812	1515.0	15.4	1.45	2.21	57	3.98	3450	1500.6	1.08	1.08	3191	2657	29.4	32.0	59.78	293043	806	34.3	313	235	1.47	.82	.34	1.16	1.10	1.03	D
176	1835	1520.0	20.1	1.50	2.25	61	4.46	3500	1506.4	1.08	1.08	3187	2566	29.6	31.8	59.14	303537	811	34.6	249	236	1.48	.80	.81	1.15	1.10	1.03	D
177	1843	1525.0	23.7	1.51	2.07	61	4.34	3500	1509.3	1.08	1.08	3183	2621	29.4	32.5	58.98	311560	816	34.8	215	235	1.49	.76	.77	1.17	1.10	1.03	D
178	1910	1530.0	22.5	1.48	2.25	57	4.19	3430	1513.9	1.08	1.08	3191	2666	29.7	32.1	58.67	321038	821	35.1	228	236	1.50	.75	.77	1.16	1.10	1.03	D
179	1924	1535.0	20.9	1.44	2.24	56	4.04	3440	1516.4	1.08	1.08	3186	2507	29.5	32.2	58.67	330070	826	35.3	247	236	1.51	.75	.78	1.17	1.10	1.03	D
180	1947	1540.0	22.0	1.51	2.32	59	4.12	3520	1522.6	1.09	1.09	3181	2481	29.5	31.8	58.98	339900	831	35.6	226	236	1.52	.76	.77	1.16	1.10	1.03	D
181	2007	1545.0	24.0	1.52	2.21	59	4.27	3480	1527.2	1.09	1.09	3180	2535	29.3	31.7	60.10	349003	836	35.8	213	236	1.53	.74	.76	1.17	1.10	1.03	DX
182	2017	1550.0	29.8	1.39	2.18	62	3.90	3480	1530.9	1.09	1.09	3173	2486	29.4	31.7	58.98	355377	841	36.0	167	235	1.53	.70	.71	1.16	1.10	1.03	D
183	2036	1555.0	27.4	1.43	2.17	61	4.24	3550	1534.9	1.09	1.09	3173	2588	29.2	31.4	59.62	363573	846	36.2	182	235	1.54	.72	.73	1.17	1.11	1.03	D
184	2046	1560.0	30.1	1.34	2.30	60	4.08	3570	1538.4	1.09	1.09	3180	2569	29.4	31.8	59.62	369904	851	36.4	160	235	1.55	.69	.71	1.16	1.11	1.03	D
185	2104	1565.1	32.0	1.29	2.22	60	4.24	3450	1542.9	1.09	1.09	3188	2523	29.3	31.2	59.94	377160	856	36.6	162	235	1.56	.68	.70	1.17	1.11	1.03	D
186	2114	1570.1	28.7	1.38	2.07	63	5.02	3470	1546.5	1.09	1.09	3172	2512	29.3	31.4	59.78	383775	861	36.7	171	234	1.56	.74	.75	1.16	1.11	1.03	D
187	2133	1575.0	26.7	1.39	2.36	61	5.18	3640	1552.8	1.09	1.09	3172	2510	29.0	31.2	58.98	391685	866	36.9	185	234	1.57	.75	.77	1.17	1.11	1.03	D
188	2143	1580.0	30.0	1.42	2.09	58	5.16	3640	1555.6	1.09	1.09	3178	2589	29.1	31.3	59.14	397974	871	37.1	169	234	1.58	.72	.74	1.16	1.12	1.03	D
189	2202	1585.0	31.5	1.40	2.07	58	5.27	3650	1563.2	1.09	1.09	3177	2490	28.9	30.3	58.03	405283	876	37.3	164	234	1.59	.71	.73	1.17	1.11	1.03	D
190	2212	1590.0	29.8	1.48	2.18	57	5.15	3580	1566.2	1.09	1.09	3180	2509	28.7	31.3	58.19	411583	881	37.5	165	233	1.59	.71	.74	1.16	1.11	1.03	D
191	2231	1595.0	36.5	1.42	2.06	58	5.16	3600	1572.6	1.09	1.09	3184	2496	28.8	30.0	57.39	418725	886	37.7	140	233	1.60	.68	.70	1.17	1.11	1.03	D
192	2243	1600.0	25.4	1.40	1.95	59	3.82	3380	1576.3	1.09	1.09	3180	2499	28.8	31.5	57.55	426162	891	37.9	193	233	1.61	.71	.72	1.17	1.11	1.03	D
193	2305	1605.1	24.8	1.35	1.98	57	3.73	3430	1583.5	1.09	1.09	3178	2498	28.9	30.8	57.08	434829	896	38.1	207	233	1.62	.70	.72	1.18	1.11	1.03	D
194	2314	1610.0	31.8	1.27	1.78	58	4.32	3580	1587.8	1.09	1.09	3177	2517	28.9	31.3	56.92	440716	901	38.2	156	232	1.62	.68	.70	1.17	1.11	1.03	D
195	2338	1615.0	20.3	1.35	1.87	59	4.02	3530	1595.6	1.09	1.09	3187	2562	28.8	31.0	56.44	450858	906	38.5	281	233	1.63	.76	.78	1.18	1.11	1.03	D
196	2356	1620.0	16.5	1.38	1.72	60	3.54	3550	1601.5	1.09	1.09	3180	2527	28.7	31.6	56.92	462343	911	38.8	315	233	1.65	.78	.80	1.17	1.11	1.03	D
Date Dec 2 '83																												
197	0017	1625.0	24.2	1.23	1.67	61	3.12	3480	1608.4	1.09	1.09	3170	2476	28.9	31.1	57.55	470758	916	39.0	214	233	1.66	.70	.71	1.18	1.11	1.03	D
198	0050	1630.0	11.7	1.42	1.98	60	3.11	3425	1615.9	1.09	1.09	3251	2470	29.2	31.3	55.50	486801	921	39.5	465	234	1.67	.83	.84	1.17	1.10	1.03	D↑
+ Survey at 1630m = 2.5 deg.																												
202	0225	1635.0	17.4	1.57	2.01	61	3.18	3490	1618.7	1.09	1.09	3157	2387	26.2	30.4	56.92	497129	926	39.7	287	234	1.68	.76	.77	1.23	1.11	1.03	D
203	0255	1640.0	13.6	1.53	2.01	61	3.71	3540	1625.7	1.09	1.09	3169	3236	28.1	30.6	56.44	511639	931	40.1	389	235	1.70	.83	.84	1.17	1.11	1.03	D

SHELL DEV. AUST: BASKER SOUTH No.1

Data Printed at time 11:09 Date Dec 5 '83
Data Recorded at time 03:12 Date Dec 2 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
204	0312	1645.0	17.6	1.58	2.05	61	4.17	3650	1630.6	1.09	1.09	3181	3278	28.4	31.9	55.80	522348	936	40.4	290	235	1.71	.80	.81	1.23	1.11	1.03	D
205	0337	1650.0	17.3	1.52	2.07	61	3.87	3550	1635.8	1.09	1.09	3165	3379	29.4	30.8	55.17	533844	941	40.7	285	236	1.72	.80	.81	1.17	1.11	1.03	D
206	0351	1655.0	20.4	1.49	1.99	62	3.75	3410	1638.6	1.09	1.09	3172	3170	29.3	32.3	54.69	543144	946	40.9	248	236	1.73	.76	.77	1.23	1.11	1.03	D
207	0415	1660.0	18.8	1.50	2.02	61	4.48	3450	1643.6	1.09	1.09	3161	3179	29.8	30.3	52.94	554382	951	41.2	267	236	1.74	.80	.81	1.17	1.11	1.03	D
208	0432	1665.0	17.3	1.55	2.12	59	4.37	3380	1648.0	1.09	1.09	3168	2374	29.8	33.2	52.47	565183	956	41.5	291	236	1.75	.81	.82	1.23	1.11	1.03	D
209	0455	1670.0	23.2	1.50	2.17	59	4.37	3560	1652.9	1.09	1.09	3174	1518	30.1	31.7	52.78	573867	961	41.8	223	236	1.76	.75	.76	1.18	1.11	1.03	D
210	0510	1675.0	20.7	1.56	2.16	57	4.44	3580	1657.4	1.09	1.09	3176	1513	23.9	34.3	52.47	582865	966	42.0	232	236	1.77	.77	.78	1.23	1.11	1.03	D
211	0546	1680.0	18.3	1.57	2.09	59	4.39	3450	1662.9	1.09	1.09	3142	1382	30.2	33.4	48.17	594287	971	42.3	280	237	1.78	.80	.82	1.18	1.10	1.03	D
212	0608	1685.0	13.5	1.52	1.98	62	4.05	3430	1665.0	1.09	1.09	3142	1429	30.7	35.1	50.24	608214	976	42.7	359	237	1.80	.85	.86	1.24	1.11	1.03	D
217	0641	1690.0	14.8	1.56	2.36	61	4.02	3420	1675.0	1.09	1.09	3151	1464	31.6	35.4	51.99	622097	981	43.0	342	238	1.81	.84	.85	1.23	1.10	1.03	D
218	0657	1695.0	18.6	1.49	1.98	61	3.92	3500	1680.0	1.09	1.09	3151	1309	31.8	35.8	54.85	632282	986	43.3	278	238	1.82	.79	.80	1.18	1.10	1.03	D
219	0723	1700.0	17.4	1.49	2.30	62	3.86	3560	1685.5	1.09	1.09	3161	1786	31.9	36.5	57.08	644253	991	43.6	293	239	1.83	.80	.80	1.23	1.11	1.03	D
220	0739	1705.0	15.0	1.55	2.02	62	4.05	3510	1687.2	1.09	1.09	3157	1914	32.5	36.9	55.65	654305	996	43.9	332	239	1.84	.83	.84	1.19	1.11	1.03	D
221	0803	1710.0	18.4	1.59	2.20	59	4.36	3510	1689.2	1.09	1.09	3150	1785	33.1	35.9	60.42	665246	1001	44.2	273	239	1.85	.79	.81	1.24	1.11	1.03	D
224	0829	1715.0	24.0	1.37	1.79	58	4.11	3590	1700.0	1.09	1.09	3134	1712	33.2	37.1	71.23	667976	1006	44.4	336	239	1.85	.74	.75	1.19	1.10	1.03	D↑
225	0840	1720.0	22.2	1.35	1.80	53	4.35	3440	1704.1	1.09	1.09	3156	1808	33.2	37.3	64.39	675118	1011	44.6	233	239	1.86	.74	.77	1.18	1.10	1.03	D
226	0902	1725.1	19.1	1.38	2.03	57	4.04	3530	1710.6	1.09	1.09	3141	2000	33.5	37.6	72.34	685414	1016	44.8	266	239	1.87	.77	.79	1.19	1.10	1.03	D
227	0918	1730.0	19.5	1.44	1.97	60	3.95	3520	1714.8	1.09	1.09	3161	1946	33.6	38.0	63.75	694951	1021	45.1	252	239	1.88	.77	.78	1.18	1.11	1.03	D
228	0943	1735.0	17.7	1.40	1.98	60	4.21	3500	1718.6	1.09	1.09	3157	1930	34.0	37.6	65.98	706730	1026	45.4	288	239	1.89	.80	.81	1.20	1.11	1.03	D
229	1003	1740.0	14.8	1.32	1.86	61	4.01	3600	1724.4	1.09	1.09	3162	1849	34.2	38.6	65.82	719493	1031	45.7	341	240	1.90	.83	.84	1.19	1.11	1.03	D
230	1031	1745.0	16.0	1.39	1.88	58	4.08	3440	1732.1	1.09	1.09	3161	1753	34.6	38.2	67.57	732553	1036	46.1	315	240	1.92	.81	.82	1.20	1.10	1.03	D
231	1053	1750.0	13.3	1.41	1.86	57	4.46	3500	1737.0	1.09	1.09	3165	2011	34.9	39.5	68.36	746670	1041	46.5	395	241	1.93	.86	.87	1.19	1.11	1.03	D
232	1121	1755.0	15.9	1.49	2.03	58	4.65	3640	1742.7	1.09	1.09	3153	1783	35.3	38.7	70.43	759833	1046	46.8	318	241	1.95	.83	.85	1.20	1.10	1.03	D
233	1139	1760.0	16.1	1.59	2.25	57	4.67	3470	1746.2	1.09	1.09	3157	1797	35.3	39.7	70.27	771493	1051	47.1	302	242	1.96	.83	.84	1.19	1.11	1.03	D
234	1203	1765.1	19.7	1.65	2.36	59	4.99	3590	1750.4	1.09	1.09	3165	1833	35.5	39.2	72.18	782628	1056	47.4	260	242	1.97	.81	.82	1.20	1.11	1.03	D
235	1216	1770.0	23.7	1.67	2.48	60	4.77	3520	1753.2	1.09	1.09	3172	1970	35.4	39.7	72.66	790516	1061	47.6	213	242	1.98	.77	.77	1.19	1.11	1.03	D
236	1243	1775.0	18.4	1.55	2.18	59	4.24	3600	1758.6	1.09	1.09	3181	2861	35.4	37.9	72.18	802400	1066	47.9	297	242	1.99	.79	.80	1.20	1.11	1.03	D
237	1300	1780.0	17.8	1.56	2.12	57	4.05	3610	1762.3	1.09	1.09	3175	3110	34.9	38.0	72.50	813015	1071	48.2	292	242	2.00	.78	.79	1.19	1.11	1.03	D
238	1327	1785.0	15.1	1.61	2.12	59	3.72	3630	1770.9	1.09	1.09	3179	3302	34.5	37.0	72.82	826055	1076	48.6	332	243	2.01	.81	.81	1.20	1.11	1.03	D
239	1349	1790.0	13.5	1.56	2.07	59	3.71	3600	1775.9	1.09	1.09	3173	3293	34.3	37.1	77.27	840103	1081	48.9	382	244	2.03	.83	.84	1.19	1.11	1.03	D
240	1423	1795.0	12.4	1.56	2.16	58	3.33	3540	1782.7	1.09	1.09	3183	3325	34.0	37.3	63.12	856255	1086	49.4	405	244	2.04	.83	.83	1.20	1.10	1.03	D
241	1445	1800.0	13.8	1.57	2.16	58	3.22	3500	1788.0	1.09	1.09	3186	3409	34.3	37.8	74.09	869944	1091	49.7	366	245	2.06	.80	.81	1.19	1.10	1.03	D
242	1516	1805.0	13.2	1.53	2.07	58	3.19	3620	1792.5	1.09	1.09	3179	3557	33.8	38.0	75.52	884687	1096	50.1	377	246	2.07	.81	.81	1.21	1.10	1.03	D
243	1544	1810.0	15.5	1.61	2.24	58	3.49	3540	1797.5	1.09	1.09	3171	1984	33.3	37.7	37.04	897242	1101	50.4	329	246	2.08	.79	.80	1.20	1.10	1.03	D
244	1601	1815.0	17.7	1.63	2.48	61	3.89	3560	1800.5	1.09	1.09	3180	1963	34.0	40.2	33.55	908014	1106	50.7	290	246	2.09	.79	.80	1.21	1.11	1.03	D
245	1627	1820.0	20.1	1.64	2.39	60	5.12	3570	1804.8	1.09	1.09	3171	3780	34.9	39.9	52.94	918904	1111	51.0	252	246	2.10	.81	.82	1.20	1.11	1.03	D
246	1641	1825.0	21.2	1.68	2.45	56	5.81	3590	1808.6	1.09	1.09	3176	3704	34.5	37.8	63.28	927807	1116	51.3	242	246	2.11	.81	.82	1.21	1.11	1.03	D
247	1704	1830.1	21.2	1.72	2.49	56	5.57	3690	1812.0	1.09	1.09	3180	3686	34.4	37.3	67.89	937723	1121	51.5	242	246	2.12	.80	.81	1.20	1.11	1.03	D
248	1719	1835.0	18.9	1.73	2.36	57	4.89	3630	1817.3	1.09	1.09	3188	3674	34.1	37.7	67.25	947614	1126	51.8	264	247	2.13	.80	.81	1.21	1.11	1.03	D
249	1742	1840.1	21.9	1.73	2.36	58	4.93	3600	1821.4	1.09	1.09	3179	3916	34.4	35.6	66.93	957321	1131	52.0	237	247	2.14	.78	.78	1.20	1.11	1.03	D
250	1753	1845.0	26.3	1.72	2.30	61	4.60	3570	1825.5	1.09	1.09	3180	3717	34.3	37.8	66.93	964420	1136	52.2	190	246	2.15	.74	.74	1.21	1.11	1.03	D

+ Survey at 1847m. Cannot retrieve. Pull out of hole. Survey = 3 deg.

+ RRB#4 (Rerun#5) DIAMANT BOART LX27HS 12.25" with a NEYRFOR turbodrill.

Date Dec 3 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
257	0348	1850.1	16.5	1.48	1.99	49	4.08	3630	1847.3	1.09	1.09	3149	2688	27.4	33.8	65.82	6598	3.0	.2	292	1584	2.16	.78	.80	1.23	1.10	1.03	D
258	0403	1855.0	18.9	1.49	1.90	49	4.48	3640	1847.3	1.09	1.09	3165	3191	29.9	37.4	64.55	16311	8.0	.4	266	767	2.17	.76	.79	1.20	1.10	1.03	D
259	0425	1860.0	20.6	1.48	2.18	49	3.98	3530	1847.3	1.09	1.09	3138	3035	32.4	37.0	65.03	26219	13.0	.7	245	578	2.18	.73	.75	1.24	1.10	1.03	D
260	0442	1865.0	18.3	1.42	1.90	49	4.15	3570	1847.3	1.09	1.09	3140	2920	33.9	38.1	65.03	36236	18.0	1.0	278	493	2.19	.75	.78	1.20	1.11	1.03	D
261	0504	1870.0	20.4	1.50	2.01	51	4.75	3700	1851.6	1.09	1.09	3161	4428	35.1	36.0	62.64	46247	23.0	1.3	246	446	2.20	.76	.78	1.24	1.11	1.03	D
262	0524	1875.0	26.8	1.54	2.06	51	5.21	3580	1856.0	1.08	1.09	3099	4133	34.8	36.5	66.14	53747	28.0	1.5	189	404	2.21	.72	.74	1.20	1.11	1.03	D↑

SHELL DEV. AUST: BASKER SOUTH No.1

Data Printed at time 11:14 Date Dec 5 '83
Data Recorded at time 05:37 Date Dec 3 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR
263	0537	1880.0	20.6	1.50	2.07	50	5.17	3660	1859.8	1.08	1.09	3176	4459	34.7	36.8	62.32	61825	33.0	1.7	251	375	2.22	.77	.79	1.24	1.11	1.03 D
264	0551	1885.0	21.2	1.50	2.06	50	5.32	3650	1864.2	1.08	1.09	3177	4570	34.7	37.2	64.71	70604	38.0	1.9	233	357	2.23	.77	.79	1.21	1.10	1.03 D
265	0611	1890.0	20.3	1.41	2.12	47	4.46	3630	1868.8	1.08	1.09	3172	4671	34.9	37.1	62.64	78519	43.0	2.1	248	341	2.23	.74	.77	1.24	1.10	1.03 D
266	0624	1895.0	23.3	1.43	1.93	47	4.52	3500	1874.4	1.08	1.09	3172	2735	35.0	37.7	64.55	86437	48.0	2.3	216	328	2.24	.72	.74	1.21	1.10	1.03 D
267	0650	1900.0	17.0	1.41	1.84	48	3.62	3580	1881.6	1.08	1.09	3173	2801	35.5	40.0	64.55	98258	53.0	2.7	296	327	2.25	.75	.77	1.24	1.10	1.03 D
268	0716	1905.0	17.4	1.40	2.06	47	3.86	3600	1888.2	1.08	1.09	3151	2847	37.0	40.0	68.84	109748	58.0	3.0	290	326	2.26	.75	.77	1.21	1.10	1.03 D↑
269	0732	1910.0	19.5	1.41	1.93	48	3.88	3520	1893.9	1.08	1.09	3165	2930	37.4	40.9	63.75	119275	63.0	3.2	264	321	2.27	.73	.76	1.24	1.10	1.03 D
270	0754	1915.0	20.0	1.46	2.01	49	3.84	3540	1898.3	1.08	1.09	3152	3047	37.9	40.2	66.62	128622	68.0	3.5	249	316	2.28	.73	.75	1.21	1.10	1.03 D
+ Trip to shoe due to washout in kelly																											
283	1448	1920.0	15.0	1.54	1.71	58	3.51	3570	1917.2	1.08	1.09	3214	3766	30.9	37.5	152.9	139638	73.0	3.8	330	314	2.29	.81	.81	1.26	1.09	1.03 D
284	1513	1925.0	20.8	1.45	1.88	57	4.40	3640	1917.2	1.08	1.09	3208	3597	34.0	38.6	155.3	150666	78.0	4.1	250	313	2.30	.78	.78	1.21	1.09	1.03 D
285	1527	1930.0	22.5	1.47	1.91	53	4.58	3590	1917.2	1.08	1.09	3211	3359	35.1	40.3	151.8	159056	83.0	4.3	224	308	2.31	.75	.76	1.26	1.09	1.03 D
286	1551	1935.0	20.7	1.45	1.87	54	4.38	3640	1917.9	1.08	1.09	3197	4929	36.5	39.8	148.2	169340	88.0	4.6	261	306	2.32	.76	.77	1.21	1.10	1.03 D
287	1607	1940.0	18.5	1.48	1.84	53	4.19	3700	1921.4	1.08	1.09	3199	5253	37.0	38.6	59.14	179615	93.0	4.8	267	304	2.33	.77	.79	1.26	1.10	1.03 D
288	1628	1945.0	24.3	1.52	1.98	52	4.53	3710	1925.1	1.08	1.09	3207	5376	36.8	36.4	58.98	188201	98.0	5.1	209	301	2.34	.73	.74	1.21	1.10	1.03 D
289	1640	1950.0	25.2	1.52	1.94	52	4.78	3690	1929.4	1.08	1.09	3218	5418	36.5	38.7	58.35	195662	103	5.3	199	296	2.35	.73	.74	1.26	1.10	1.03 D
290	1658	1955.0	30.2	1.56	2.09	50	4.51	3760	1933.2	1.08	1.09	3182	5548	36.6	36.6	57.08	202528	108	5.5	175	291	2.35	.68	.69	1.22	1.10	1.03 D
291	1707	1960.0	33.0	1.53	2.01	50	4.45	3750	1935.6	1.08	1.09	3192	4670	36.5	39.1	57.08	208216	113	5.6	150	284	2.36	.66	.67	1.26	1.10	1.03 D
292	1724	1965.0	33.7	1.51	1.88	51	4.99	3720	1939.2	1.08	1.09	3236	5240	36.7	37.3	57.24	214510	118	5.8	151	280	2.36	.67	.69	1.22	1.10	1.03 D
293	1742	1970.0	19.6	1.31	1.69	55	4.86	3670	1945.4	1.08	1.09	3184	5105	36.8	39.5	56.76	225427	123	6.1	265	280	2.38	.79	.80	1.27	1.10	1.03 D
294	1802	1975.0	24.4	1.43	1.91	54	4.84	3790	1951.8	1.08	1.09	3198	5010	37.2	39.0	56.12	233844	128	6.3	205	278	2.38	.74	.75	1.22	1.10	1.03 D
295	1811	1980.0	33.1	1.45	1.95	53	4.77	3560	1954.9	1.08	1.09	3230	5207	37.0	39.7	56.12	239562	133	6.4	156	273	2.39	.68	.69	1.27	1.10	1.03 D
296	1830	1985.0	26.8	1.28	1.76	53	4.59	3600	1961.4	1.08	1.09	3206	4953	37.2	39.4	54.53	247183	138	6.6	189	271	2.40	.71	.72	1.22	1.10	1.03 D
297	1849	1990.0	26.6	1.34	1.80	52	5.16	3740	1966.1	1.08	1.09	3030	4409	37.2	39.9	57.87	254640	143	6.8	191	269	2.40	.73	.74	1.27	1.10	1.03 D↑
298	1906	1995.0	17.6	1.16	1.64	58	5.35	3570	1970.8	1.08	1.09	3200	5083	37.1	40.1	54.37	265477	148	7.1	319	269	2.41	.84	.84	1.22	1.10	1.03 D
299	1924	2000.0	28.7	1.20	1.71	58	4.73	3640	1976.4	1.08	1.09	3145	4786	37.6	39.9	56.44	272671	153	7.3	177	267	2.42	.72	.72	1.27	1.10	1.03 D
300	1934	2005.0	31.5	1.23	1.52	56	4.78	3580	1980.2	1.08	1.09	3189	4945	37.6	39.9	53.90	278652	158	7.5	158	263	2.43	.70	.70	1.22	1.10	1.03 D
301	1957	2010.1	21.3	1.19	1.65	56	5.14	3530	1988.0	1.08	1.09	3177	4845	37.6	39.5	53.74	288729	163	7.8	258	264	2.44	.79	.79	1.27	1.10	1.03 D
302	2011	2015.0	21.5	1.20	1.45	56	4.96	3590	1992.0	1.08	1.09	3183	4661	37.5	40.5	53.90	297411	168	8.0	231	263	2.45	.78	.79	1.22	1.10	1.03 D
303	2028	2020.0	29.9	1.28	1.64	55	4.54	3600	1995.7	1.08	1.08	3175	4780	37.7	40.1	55.01	304104	173	8.2	175	260	2.45	.70	.70	1.27	1.10	1.03 D
304	2037	2025.0	33.9	1.31	1.76	55	4.26	3620	1999.3	1.08	1.08	3189	4238	37.5	40.3	54.21	309678	178	8.3	147	257	2.46	.66	.67	1.23	1.10	1.03 D
305	2102	2030.0	18.2	1.24	1.61	54	4.46	3730	2007.6	1.08	1.08	3225	4269	37.6	40.2	53.90	320453	183	8.6	377	258	2.47	.79	.80	1.28	1.10	1.03 D
306	2121	2035.0	15.5	1.22	1.55	54	4.11	3590	2013.5	1.08	1.08	3193	4220	38.0	40.7	55.17	332588	188	8.9	317	260	2.48	.81	.81	1.23	1.10	1.03 D
307	2149	2040.0	16.7	1.16	1.45	56	4.21	3520	2022.2	1.08	1.08	3177	4312	38.2	40.4	54.69	344104	193	9.2	303	261	2.49	.81	.81	1.28	1.10	1.03 D
308	2208	2045.0	16.0	1.31	1.61	55	4.93	3510	2028.5	1.08	1.08	3182	4431	38.2	41.1	54.85	355795	198	9.5	310	262	2.50	.84	.84	1.23	1.10	1.03 D
+ Survey at 2047m = 4.5 deg																											
310	2338	2050.0	24.4	1.34	1.83	54	5.18	3560	2032.7	1.08	1.08	3182	4275	34.8	36.6	59.14	364651	203	9.8	207	262	2.51	.76	.76	1.28	1.10	1.03 D
311	2356	2055.0	17.0	1.24	1.69	55	6.40	3710	2036.9	1.08	1.08	3251	2781	34.7	40.6	61.05	375763	208	10.1	312	263	2.52	.88	.88	1.23	1.10	1.03 D
Date Dec 4 '83																											
312	0020	2060.0	18.1	1.27	1.75	54	6.67	3610	2042.1	1.08	1.08	3188	3977	36.9	39.9	59.94	386971	213	10.4	281	264	2.53	.87	.87	1.28	1.10	1.03 D
313	0037	2065.0	17.8	1.14	1.50	55	6.82	3530	2046.3	1.08	1.08	3191	4057	37.7	41.1	59.94	397612	218	10.7	281	264	2.54	.88	.88	1.23	1.10	1.03 D
314	0103	2070.0	16.7	1.20	1.63	52	6.32	3570	2052.8	1.09	1.08	3184	2043	38.1	42.6	63.44	409807	223	11.0	301	266	2.56	.87	.88	1.28	1.10	1.03 D
315	0124	2075.0	14.1	1.14	1.45	54	7.50	3460	2058.0	1.08	1.08	3183	1917	39.3	43.0	62.16	423135	228	11.3	373	268	2.57	.95	.95	1.23	1.10	1.03 D
316	0155	2080.0	13.1	1.15	2.48	54	6.64	3520	2065.3	1.08	1.08	3172	1753	39.8	43.4	61.53	438573	233	11.8	380	271	2.58	.94	.94	1.28	1.10	1.03 D
317	0225	2085.0	13.3	1.14	2.48	55	6.52	3530	2071.5	1.08	1.08	3157	1965	40.5	43.1	61.85	453427	238	12.2	373	274	2.60	.94	.94	1.23	1.09	1.03 D
318	0242	2090.0	16.8	1.18	1.57	54	4.52	3580	2074.8	1.08	1.08	3165	1866	40.8	44.3	59.94	464510	243	12.5	298	274	2.61	.81	.82	1.28	1.10	1.03 D
319	0309	2095.0	15.1	1.16	1.90	55	5.79	3540	2079.3	1.08	1.08	3178	2035	41.3	44.2	59.94	477526	248	12.8	327	276	2.62	.88	.88	1.24	1.10	1.03 D
320	0327	2100.0	16.4	1.20	1.53	54	6.17	3650	2083.5	1.08	1.08	3187	1913	41.5	45.0	60.57	489049	253	13.1	311	276	2.63	.88	.88	1.29	1.10	1.03 D
321	0404	2105.0	10.3	1.11	1.37	56	6.34	3560	2091.2	1.08	1.08	3187	1893	41.8	44.9	62.16	508052	258	13.6	488	281	2.65	.99	.99	1.24	1.09	1.03 D
322	0449	2110.0	6.59	1.02	1.33	55	6.26	3590	2101.6	1.08	1.08	3199	1861	42.8	45.3	62.80	536735	263	14.4	822	290	2.68	1.08	1.08	1.24	1.09	1.03 D

SHELL DEV. AUST: BASKER SOUTH No.1

Data Printed at time 11:20 Date Dec 5 '83
Data Recorded at time 06:15 Date Dec 4 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
323	0615	2115.0	4.84	.98	2.49	53	8.36	3670	2110.5	1.09	1.09	3187	3433	41.4	44.2	66.46	583501	268	15.6	736	308	2.73	1.22	1.23	1.24	1.09	1.03	D
324	0654	2120.0	7.69	.99	1.33	53	8.64	3580	2111.5	1.09	1.09	3186	3352	41.5	44.2	70.91	608037	273	16.3	715	314	2.75	1.11	1.12	1.24	1.10	1.03	D
325	0728	2122.5	6.89	1.01	2.26	53	8.68	3560	2114.8	1.11	1.08	3183	3195	41.3	41.0	74.09	624757	275	16.7	745	320	2.77	1.14	1.14	1.24	1.10	1.03	D
326	0750	2125.0	6.97	.97	1.29	52	9.24	3630	2117.6	1.11	1.11	3190	3347	41.2	44.2	73.61	638385	278	17.1	755	324	2.78	1.15	1.15	1.24	1.10	1.03	D
327	0811	2127.5	6.94	1.02	1.30	52	9.81	3620	2120.3	1.11	1.11	3192	3254	41.5	44.4	73.61	651752	280	17.4	712	327	2.80	1.16	1.17	1.24	1.11	1.03	D
328	0830	2130.0	8.04	.98	1.18	52	9.00	3600	2121.9	1.11	1.11	3195	3134	41.8	44.6	73.93	663444	283	17.8	622	330	2.81	1.10	1.10	1.24	1.12	1.03	D
329	0901	2132.5	6.58	.99	2.22	52	9.46	3600	2124.8	1.10	1.11	3178	3313	41.5	44.1	74.57	679337	285	18.2	849	334	2.82	1.15	1.16	1.24	1.12	1.03	D
330	0921	2135.0	7.81	1.06	1.37	52	9.31	3660	2127.0	1.10	1.11	3203	3166	41.5	44.3	74.72	691306	288	18.5	666	337	2.84	1.11	1.11	1.24	1.12	1.03	D
331	0937	2137.5	9.11	1.11	1.42	52	9.75	3660	2129.1	1.10	1.11	3176	3148	41.7	44.4	75.04	701590	290	18.8	565	339	2.85	1.09	1.09	1.24	1.12	1.03	D
332	0950	2140.0	11.7	1.22	2.07	50	9.89	3700	2131.1	1.10	1.11	3180	3282	41.7	44.4	76.15	709563	293	19.0	427	339	2.86	1.03	1.03	1.24	1.12	1.03	D
333	1011	2142.5	10.7	1.10	2.13	52	8.76	3620	2132.1	1.10	1.11	3175	3331	41.6	43.5	77.11	719198	295	19.2	481	341	2.87	1.02	1.03	1.24	1.11	1.03	D
334	1033	2145.0	6.78	.99	1.36	53	8.82	3580	2134.9	1.10	1.11	3215	3237	41.4	44.3	77.27	733022	298	19.6	821	344	2.88	1.14	1.14	1.24	1.11	1.03	D
335	1048	2147.5	9.88	1.03	1.34	53	8.69	3660	2137.2	1.10	1.11	3228	3114	41.6	44.3	77.59	742546	300	19.9	535	345	2.89	1.05	1.05	1.24	1.11	1.03	D
336	1104	2150.0	9.65	1.05	1.36	53	8.81	3640	2140.2	1.10	1.11	3180	3220	41.6	44.1	77.74	752305	303	20.1	537	347	2.90	1.06	1.06	1.24	1.11	1.03	D
337	1139	2152.5	5.48	1.02	2.29	55	8.62	3600	2144.3	1.10	1.10	3174	3311	41.1	44.3	76.95	770459	305	20.6	1210	352	2.92	1.19	1.18	1.24	1.11	1.03	D
338	1156	2155.0	8.65	1.09	1.46	54	9.16	3710	2146.7	1.10	1.10	3177	3204	41.4	44.2	77.90	781327	308	20.9	595	354	2.93	1.10	1.10	1.24	1.11	1.03	D
339	1215	2157.5	8.11	1.08	1.42	55	8.55	3660	2149.6	1.10	1.10	3172	3058	41.4	44.1	79.02	792892	310	21.2	613	356	2.94	1.10	1.09	1.24	1.11	1.03	D
340	1239	2160.0	10.0	1.04	1.32	54	8.43	3700	2151.3	1.10	1.10	3172	3192	41.4	43.7	81.72	803658	313	21.5	505	358	2.95	1.04	1.04	1.24	1.11	1.03	D
341	1259	2162.5	7.55	.97	1.34	53	7.98	3660	2153.3	1.10	1.10	3185	3311	41.0	44.2	80.61	816149	315	21.8	592	360	2.96	1.08	1.08	1.24	1.11	1.03	D
342	1321	2165.0	6.79	.97	1.13	53	8.76	3650	2156.2	1.10	1.10	3192	3148	41.5	44.2	81.24	829898	318	22.2	742	363	2.98	1.13	1.13	1.24	1.11	1.03	D
343	1346	2167.5	6.03	.98	1.21	53	9.28	3630	2159.6	1.10	1.10	3187	3185	41.6	44.2	82.04	845488	320	22.6	820	367	2.99	1.18	1.18	1.24	1.11	1.03	D
344	1412	2170.0	8.93	1.06	1.41	53	9.11	3710	2162.3	1.10	1.10	3184	3273	41.6	42.1	82.04	857527	323	22.9	578	369	3.01	1.09	1.08	1.24	1.11	1.03	D
345	1422	2172.5	14.0	1.06	1.33	57	8.89	3750	2163.5	1.10	1.10	3200	3156	41.2	43.7	81.88	864225	325	23.1	348	369	3.01	.99	.98	1.24	1.11	1.03	D
346	1437	2175.0	9.91	1.04	1.21	58	9.08	3660	2165.0	1.10	1.10	3187	3255	41.2	44.0	82.36	873719	328	23.3	550	370	3.02	1.08	1.07	1.24	1.11	1.03	D
347	1519	2177.5	3.86	.98	1.26	57	8.82	3620	2169.7	1.09	1.10	3197	3272	41.4	43.9	82.83	899899	330	24.0	1554	377	3.05	1.28	1.27	1.24	1.11	1.03	D
348	1550	2180.0	8.06	1.03	1.25	55	8.80	3670	2174.4	1.09	1.10	3185	3144	40.9	44.1	69.80	913102	333	24.4	637	380	3.06	1.11	1.10	1.22	1.11	1.03	D
349	1617	2182.5	5.36	1.00	1.27	60	10.3	3690	2176.3	1.09	1.10	3204	3149	41.1	43.8	46.90	930805	335	24.9	1124	384	3.08	1.28	1.26	1.22	1.10	1.03	D
350	1658	2185.0	3.72	.99	1.14	60	10.6	3690	2179.8	1.09	1.10	3192	3105	41.2	43.4	47.54	956245	338	25.5	1448	391	3.11	1.38	1.36	1.24	1.10	1.03	D
351	1737	2187.5	4.11	.92	1.04	56	10.6	3700	2183.1	1.09	1.10	3184	3178	41.1	43.5	48.01	980268	340	26.1	1121	397	3.13	1.34	1.33	1.26	1.10	1.03	D
352	1821	2190.0	4.86	.97	1.19	57	10.7	3710	2185.0	1.09	1.10	3185	3065	40.1	43.3	50.08	915	343	26.7	1015	403	3.15	1.31	1.29	1.27	1.10	1.03	D
353	1846	2192.5	6.10	.95	1.18	57	10.9	3720	2186.6	1.09	1.10	3183	3091	40.5	42.9	50.24	16412	345	27.1	840	406	3.17	1.26	1.24	1.27	1.10	1.03	D
354	1906	2195.0	7.67	.99	1.33	57	11.0	3790	2187.8	1.09	1.10	3183	3129	40.6	43.1	50.72	28832	348	27.4	653	407	3.18	1.21	1.19	1.25	1.10	1.03	D
355	1917	2197.5	13.6	1.10	1.42	56	10.1	3720	2188.5	1.09	1.10	3181	3112	40.6	43.0	50.88	35696	350	27.6	369	407	3.19	1.04	1.02	1.23	1.10	1.03	D
356	2005	2200.0	3.95	.98	1.27	58	9.67	3790	2192.8	1.09	1.10	3184	3116	40.2	42.7	52.62	61450	353	28.3	1249	414	3.21	1.33	1.31	1.23	1.10	1.03	D
357	2048	2202.5	3.47	.94	1.10	58	9.86	3730	2198.1	1.09	1.10	3213	3105	40.3	42.5	54.06	88815	355	29.0	1501	421	3.24	1.37	1.35	1.25	1.10	1.03	D
358	2121	2205.0	4.50	.98	1.10	58	9.50	3740	2200.3	1.09	1.10	3187	3036	40.3	42.4	54.53	110070	358	29.6	1180	426	3.26	1.29	1.27	1.25	1.10	1.03	D
359	2200	2207.5	5.35	.99	1.42	57	9.60	3710	2202.1	1.09	1.10	3216	3139	40.4	41.1	54.85	129229	360	30.1	938	430	3.28	1.25	1.23	1.25	1.10	1.03	D
360	2220	2210.0	7.22	1.09	1.45	57	9.40	3740	2203.6	1.09	1.10	3178	3119	40.6	43.1	56.12	142281	363	30.4	682	432	3.29	1.17	1.15	1.24	1.10	1.03	D
361	2247	2212.5	5.59	1.09	1.36	57	9.73	3790	2205.6	1.09	1.10	3174	3218	41.1	43.0	55.17	159163	365	30.9	976	435	3.31	1.24	1.22	1.23	1.10	1.03	D
362	2312	2215.0	6.02	1.08	1.19	57	10.0	3800	2207.5	1.09	1.10	3190	3138	41.0	43.1	54.53	174867	368	31.3	853	437	3.33	1.23	1.21	1.23	1.10	1.03	D
363	2336	2217.5	10.3	1.24	1.59	56	9.83	4050	2210.0	1.09	1.10	3187	3054	40.9	42.6	53.90	184781	370	31.5	492	438	3.34	1.10	1.08	1.20	1.10	1.03	D
364	2347	2220.0	13.3	1.45	1.67	56	9.18	4020	2211.1	1.09	1.10	3194	3050	40.6	42.9	53.74	191776	373	31.7	366	438	3.34	1.01	1.00	1.17	1.10	1.03	D
365	2353	2222.5	23.8	1.58	1.80	54	6.49	4010	2211.6	1.09	1.10	3184	3019	40.4	43.2	53.58	195726	375	31.8	222	436	3.35	.80	.79	1.20	1.10	1.03	D
	Date	Dec 5 '83																										
366	0018	2225.0	20.4	1.54	2.49	53	3.03	3950	2212.6	1.09	1.10	3154	3178	40.5	41.0	63.28	200901	378	32.0	270	435	3.35	.70	.69	1.17	1.10	1.03	D↑
367	0028	2227.5	32.1	1.49	1.95	49	2.60	3870	2213.1	1.09	1.10	3169	3146	40.3	40.6	55.01	203372	380	32.0	187	433	3.35	.59	.59	1.19	1.10	1.03	D↑
368	0031	2230.0	35.9	1.58	2.14	48	2.34	3660	2213.4	1.09	1.10	3209	3216	40.0	41.7	52.78	205076	383	32.1	155	431	3.36	.55	.55	1.18	1.11	1.03	D
369	0035	2232.5	28.8	1.49	2.21	48	1.64	3640	2214.0	1.09	1.10	3230	3272	39.8	41.2	52.47	208300	385	32.2	195	429	3.36	.55	.55	1.19	1.11	1.03	D
370	0043	2235.0	23.8	1.59	2.17	47	1.61	3760	2214.7	1.09	1.10	3212	3220	39.4	42.2	52.15	212256	388	32.3	204	428	3.36	.58	.58	1.18	1.11	1.03	D
371	0102	2237.5	16.4	1.54	2.33	48	2.13	3990	2216.7	1.09	1.10	3207	3015	39.8	41.9	54.21	218955	390	32.4	358	427	3.37	.67	.67	1.19	1.11	1.03	D↑

SHELL DEV. AUST: BASKER SOUTH No.1

Data Printed at time 11:24 Date Dec 5 '83
Data Recorded at time Ø1:Ø8 Date Dec 5 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
372	Ø1Ø3	224Ø.Ø	23.Ø	1.48	1.82	47	3.38	376Ø	2218.Ø	1.Ø9	1.1Ø	3181	3233	39.9	38.8	51.35	223Ø47	393	32.6	226	426	3.37	.67	.67	1.18	1.11	1.Ø3	D
373	Ø117	2242.5	17.8	1.57	1.91	47	3.27	391Ø	222Ø.Ø	1.Ø9	1.1Ø	3183	3235	39.6	41.8	51.19	228155	395	32.7	288	425	3.37	.71	.71	1.19	1.11	1.Ø3	D
374	Ø126	2245.Ø	16.3	1.49	2.Ø6	48	3.12	387Ø	2223.7	1.Ø9	1.1Ø	3194	34Ø1	39.5	41.5	5Ø.88	233889	398	32.8	3Ø1	424	3.38	.73	.73	1.18	1.11	1.Ø3	D
375	Ø144	2247.5	18.3	1.45	1.84	5Ø	2.97	384Ø	2227.2	1.Ø9	1.1Ø	3168	3212	39.7	41.1	51.Ø3	239866	4ØØ	33.Ø	261	424	3.38	.71	.7Ø	1.2Ø	1.11	1.Ø3	D
376	Ø153	225Ø.Ø	16.9	1.49	1.84	49	3.29	385Ø	223Ø.8	1.Ø9	1.1Ø	3172	3215	39.7	41.2	49.6Ø	245399	4Ø3	33.2	286	423	3.39	.73	.73	1.18	1.11	1.Ø3	D
377	Ø2ØØ	2252.5	2Ø.6	1.49	1.88	49	2.72	391Ø	2233.2	1.Ø9	1.1Ø	3179	3239	39.1	41.7	48.49	249928	4Ø5	33.3	248	422	3.39	.67	.67	1.2Ø	1.11	1.Ø3	D

Pull out at 2254m to run logs and 9 5/8" casing. Survey = 7.5 deg.

SHELL DEV. AUST. : BASKER SOUTH No.1

Data Printed at time 14:22 Date Dec 21 '83
Data Recorded at time 10:56 Date Dec 8 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
NB#5 (Run#7) SMITH SVH 8.5" with 16,16,16 jets. Start depth 2257.5m. IADC bit condition T8 B4 G4.																												
Drill cement and shoe track from 2224.3m.																												
398	1356	2257.5	12.7	1.14	2.77	51	.75	1050	2229.7	1.09	1.10	1533	952	24.9	26.8	52.62	3859	3.5	1.6	1348	29178	.94	.64	.65	1.19	1.13	1.03	D↑
401	1637	2260.0	1.06	1.42	2.45	71	4.95	980	2259.7	1.10	1.11	1488	1308	24.7	30.8	51.03	14070	2.5	4.0	6714	10679	1.14	1.56	1.55	1.19	1.12	1.03	D↑
NB#6 (Run#8) SMITH SDGH 8.5" with 14,14,14 jets. Start depth 2261m. IADC bit condition T2 B2 G2.																												
Date Dec 9 '83																												
406	0722	2262.5	4.58	1.55	1.98	46	3.40	1330	2261.0	1.11	1.11	1567	1593	23.3	27.4	62.64	923	1.5	.3	1193	5371	.09	1.04	1.06	1.21	1.13	1.03	D
407	0739	2265.0	9.09	1.33	1.56	50	3.63	1330	2261.0	1.11	1.11	1574	1452	23.3	28.7	66.93	1753	4.0	.6	552	2340	.18	.93	.95	1.19	1.14	1.03	D
408	0803	2267.5	9.78	1.37	1.91	54	3.86	1400	2261.0	1.11	1.11	1616	1603	23.2	28.3	69.16	2713	6.5	.9	510	1664	.28	.95	.96	1.21	1.14	1.03	D
409	0836	2270.0	5.50	1.34	1.52	59	4.50	1440	2262.6	1.11	1.11	1619	1518	23.1	29.5	60.89	4340	9.0	1.4	1626	1458	.45	1.12	1.13	1.20	1.14	1.03	D
410	0358	2272.5	6.60	1.31	1.56	60	4.17	1470	2266.1	1.11	1.11	1616	1521	23.1	29.7	53.26	5702	11.4	1.7	803	1311	.58	1.06	1.07	1.18	1.14	1.03	D
411	0929	2275.0	4.92	1.28	1.48	60	4.87	1470	2269.7	1.11	1.11	1620	1568	24.1	30.5	52.78	7533	14.0	2.2	1043	1252	.75	1.17	1.17	1.17	1.14	1.03	D
412	1008	2277.5	5.23	1.29	1.90	61	5.14	1430	2272.8	1.11	1.11	1605	1641	25.3	30.0	51.83	9460	16.5	2.8	933	1226	.91	1.17	1.17	1.17	1.14	1.03	D
413	1045	2280.0	3.92	1.23	1.46	61	4.88	1430	2275.4	1.11	1.11	1607	1610	26.5	30.5	51.19	11768	19.0	3.4	1402	1227	1.10	1.22	1.22	1.18	1.14	1.03	D
414	1105	2282.5	7.68	1.28	1.49	61	4.83	1440	2276.9	1.11	1.11	1605	1584	27.0	30.8	50.56	12971	21.5	3.7	670	1161	1.19	1.07	1.06	1.16	1.14	1.03	D
415	1121	2285.0	9.56	1.29	1.50	61	5.16	1450	2278.4	1.11	1.11	1609	1574	27.1	30.8	51.19	13921	24.0	4.0	531	1095	1.26	1.04	1.03	1.13	1.14	1.03	D
418	1152	2287.5	10.3	1.23	1.93	60	4.48	1470	2280.0	1.11	1.11	1617	1489	23.5	30.5	50.56	15490	26.5	4.4	840	1071	1.37	.99	.98	1.16	1.14	1.03	D
Leak off test at 2288m.																												
NB#7 (Run#9) SMITH FDGH 8.5" with 10,10,11 jets. Start depth 2288m. IADC bit condition T3 B2 G4.																												
423	2133	2290.0	14.0	1.51	1.68	64	4.29	2400	2288.0	1.11	1.11	1420	1304	24.5	24.4	58.98	620	2.5	.2	340	2864	.05	.93	1.00	1.21	1.13	1.03	D
424	2139	2292.5	19.3	1.43	1.67	64	3.47	2400	2288.0	1.11	1.11	1423	1299	24.5	26.2	59.30	1019	4.5	.3	295	1733	.08	.82	.84	1.22	1.14	1.03	D
425	2143	2295.0	34.0	1.39	1.56	65	3.08	2400	2288.0	1.11	1.11	1423	1306	24.5	27.4	59.30	1301	7.0	.3	146	1154	.10	.69	.70	1.21	1.14	1.03	D
426	2200	2297.5	22.8	1.43	1.97	63	3.58	2430	2288.0	1.11	1.11	1435	1278	26.5	28.6	63.91	1771	9.5	.5	205	915	.13	.79	.80	1.22	1.14	1.03	D
427	2206	2300.1	24.5	1.44	1.69	63	4.73	2420	2288.0	1.11	1.11	1429	1304	26.4	28.5	62.01	2162	12.0	.6	213	771	.16	.82	.84	1.22	1.14	1.03	D
428	2213	2302.5	18.8	1.49	1.72	63	4.89	2420	2288.0	1.11	1.11	1427	1505	26.2	28.2	60.57	2641	14.5	.7	267	680	.20	.89	.90	1.22	1.14	1.03	D
429	2240	2305.1	18.4	1.45	1.71	61	4.94	2430	2288.0	1.10	1.11	1417	1242	27.5	29.1	69.32	3344	17.0	.9	288	654	.24	.89	.90	1.22	1.14	1.02	D↑
430	2252	2307.5	12.3	1.43	1.63	64	4.75	2430	2289.5	1.10	1.11	1427	1210	26.8	29.2	64.55	4109	19.5	1.1	422	619	.29	.97	.98	1.19	1.14	1.02	D
431	2305	2310.0	11.5	1.42	1.60	65	4.76	2450	2293.6	1.10	1.11	1430	1220	26.1	28.6	62.80	4938	22.0	1.3	427	597	.35	.99	1.00	1.16	1.14	1.02	D
432	2319	2312.5	10.6	1.43	1.65	65	4.63	2440	2297.8	1.10	1.11	1431	1250	26.7	29.5	61.85	5840	24.5	1.6	446	583	.41	1.01	1.01	1.13	1.14	1.02	D
433	2340	2315.0	12.9	1.39	1.63	65	5.18	2470	2303.5	1.10	1.11	1423	1288	28.7	30.0	58.03	6801	27.0	1.8	390	575	.47	.99	1.00	1.11	1.13	1.02	D
434	2352	2317.5	13.0	1.34	1.60	68	4.80	2460	2304.9	1.10	1.11	1427	1269	27.4	30.0	55.17	7581	29.5	2.0	384	559	.52	.98	.99	1.09	1.13	1.02	D
Date Dec 10 '83																												
435	0020	2320.0	5.46	1.32	1.61	68	5.45	2450	2310.1	1.10	1.11	1431	1428	27.6	30.9	52.62	9489	32.0	2.5	839	588	.64	1.22	1.21	1.10	1.13	1.02	D
436	0033	2322.5	11.5	1.41	1.65	68	5.36	2450	2312.4	1.10	1.11	1431	1410	28.1	31.2	52.15	10369	34.5	2.7	453	577	.69	1.04	1.04	1.09	1.13	1.02	D
437	0052	2325.0	15.5	1.39	1.88	63	5.63	2410	2314.4	1.10	1.11	1416	1399	29.4	31.5	52.94	11149	37.0	2.9	336	565	.73	.97	.97	1.06	1.13	1.02	D
438	0108	2327.5	9.12	1.34	1.57	64	5.59	2410	2318.0	1.10	1.11	1420	1402	28.9	31.6	50.88	12202	39.5	3.2	567	564	.79	1.09	1.09	1.06	1.13	1.02	D
439	0148	2330.0	3.67	1.41	1.65	65	6.12	2410	2322.9	1.10	1.11	1420	1363	28.7	31.8	50.88	14805	42.0	3.8	977	610	.93	1.33	1.33	1.06	1.13	1.01	D
440	0200	2332.5	13.0	1.46	1.69	64	5.55	2410	2324.7	1.10	1.11	1420	1366	28.6	31.6	50.40	15540	44.5	4.0	400	598	.97	1.01	1.01	1.04	1.13	1.01	D
441	0231	2335.0	6.83	1.39	1.86	65	6.29	2410	2327.9	1.10	1.10	1420	1377	28.4	32.0	49.45	17129	47.0	4.4	1212	609	1.05	1.20	1.19	1.06	1.13	1.01	D
442	0245	2337.5	10.8	1.42	1.80	64	5.68	2400	2328.6	1.10	1.10	1419	1407	29.1	32.4	48.81	18026	49.5	4.7	462	602	1.09	1.06	1.05	1.06	1.13	1.01	D
443	0251	2340.0	24.5	1.56	1.84	63	4.84	2400	2329.0	1.10	1.10	1419	1361	29.8	32.7	48.65	18413	52.0	4.8	206	583	1.11	.84	.83	1.05	1.13	1.01	D
444	0255	2342.5	38.7	1.53	1.76	63	4.75	2420	2329.3	1.10	1.10	1416	1315	30.6	32.6	48.33	18658	54.5	4.8	133	562	1.12	.73	.73	1.06	1.13	1.01	D
445	0313	2345.0	28.3	1.48	1.86	63	4.30	2430	2330.7	1.10	1.10	1418	1357	30.9	32.9	49.45	19102	57.0	5.0	195	548	1.14	.78	.77	1.06	1.13	1.01	D
446	0316	2347.5	38.4	1.80	1.87	58	5.14	2430	2331.5	1.10	1.10	1420	1347	30.7	33.0	48.17	19331	59.5	5.0	123	531	1.15	.73	.72	1.06	1.13	1.01	D
447	0322	2350.0	26.9	1.88	1.88	54	5.47	2450	2332.7	1.10	1.10	1420	1368	30.8	32.5	47.70	19625	62.0	5.1	188	517	1.16	.80	.80	1.06	1.13	1.01	D
448	0343	2352.5	26.2	1.84	1.90	55	3.46	2400	2333.9	1.10	1.10	1367	1225	31.6	31.8	54.21	20022	64.5	5.2	196	507	1.17	.73	.73	1.07	1.13	1.01	D↑
449	0346	2355.0	51.4	1.52	1.80	62	4.26	2440	2334.1	1.10	1.10	1415	1338	30.2	31.7	50.88	20203	67.0	5.3	106	491	1.18	.65	.64	1.06	1.14	1.01	D
450	0351	2357.5	26.0	1.65	1.94	61	5.42	2450	2334.3	1.10	1.10	1419	1389	30.3	32.6	47.86	20557	69.5	5.4	409	481	1.20	.83	.82	1.07	1.14	1.01	D
451	0413	2360.0	7.01	1.90	2.18	55	4.58	2430	2337.3	1.11	1.10	1420	1382	29.2	32.2	46.58	21701	72.0	5.7	796	488	1.24	1.06	1.05	1.06	1.14	1.01	D
Change active pits.																												

SHELL DEV. AUST. : BASKER SOUTH No.1

Data Printed at time 14:27 Date Dec 21 '83
Data Recorded at time 04:37 Date Dec 10 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
453	0437	2362.5	11.2	1.96	2.17	57	4.87	2410	2344.4	1.11	1.10	1408	1391	29.2	31.4	72.50	22624	74.5	6.0	439	490	1.28	.98	.97	1.04	1.14	1.01	D↑
454	0444	2365.0	21.5	1.50	1.80	62	5.17	2430	2348.4	1.11	1.10	1416	1355	27.6	31.3	77.43	23047	77.0	6.1	235	481	1.29	.87	.86	1.02	1.14	1.01	D
455	0456	2367.5	12.3	1.85	2.22	59	5.66	2410	2352.3	1.11	1.10	1416	1346	28.3	31.8	77.74	23745	79.5	6.3	657	479	1.32	.99	.98	1.00	1.15	1.01	D
456	0515	2370.0	7.83	2.17	2.22	55	6.06	2410	2358.9	1.11	1.10	1415	1332	29.1	31.8	78.54	24802	82.0	6.6	524	484	1.36	1.09	1.08	1.01	1.15	1.01	D
+ NB#8 (Run#10) SMITH FDGH 8.5" with 10,10,11 jets. Start depth 2372m. IADC bit condition T3 B2 G4.																												
460	1528	2372.5	5.45	2.35	2.74	50	4.17	2490	2372.0	1.11	1.11	1419	1335	23.4	25.0	45.31	1399	.5	.4	904	16339	.09	1.06	1.08	1.24	1.15	1.01	D
461	1549	2375.0	6.95	2.71	2.74	53	3.44	2490	2372.0	1.11	1.11	1423	1306	23.2	30.0	46.74	2519	3.0	.8	728	3483	.16	.97	.99	1.21	1.15	1.01	D
462	1618	2377.5	5.30	2.74	2.77	52	4.24	2500	2372.1	1.11	1.11	1427	1436	26.0	28.4	49.45	4003	5.5	1.2	986	2327	.25	1.07	1.09	1.18	1.15	1.01	D
463	1705	2380.0	2.89	2.80	2.92	57	5.39	2500	2375.6	1.11	1.11	1428	1280	27.7	29.9	52.94	6760	8.0	2.0	2045	2097	.42	1.29	1.30	1.20	1.15	1.01	D
464	1817	2382.5	3.27	2.89	2.93	61	5.90	2480	2379.7	1.11	1.11	1427	1233	28.6	30.8	56.12	9856	10.5	2.9	1774	2003	.61	1.31	1.31	1.22	1.15	1.01	D
465	1904	2385.0	2.85	2.92	2.96	61	5.51	2470	2381.5	1.11	1.11	1427	1225	29.1	30.6	56.60	12753	13.0	3.7	1774	1917	.77	1.32	1.32	1.24	1.15	1.01	D
466	1928	2387.5	6.27	2.92	2.96	60	7.87	2440	2382.6	1.11	1.11	1430	1203	29.3	31.6	49.13	14206	15.5	4.1	817	1737	.85	1.25	1.25	1.25	1.15	1.01	D
467	2007	2390.0	6.49	2.81	2.90	60	8.76	2440	2384.3	1.11	1.11	1408	1268	29.8	31.6	49.92	15952	18.0	4.5	787	1628	.94	1.28	1.27	1.25	1.15	1.01	D
468	2024	2392.5	7.58	2.92	2.94	65	9.17	2510	2385.3	1.10	1.11	1432	1357	30.1	31.7	48.01	17097	20.5	4.8	677	1503	1.01	1.27	1.26	1.26	1.15	1.01	D
469	2048	2395.0	6.36	2.91	2.93	64	10.7	2510	2388.2	1.10	1.11	1431	1280	30.3	31.8	47.86	18605	23.0	5.2	789	1424	1.10	1.37	1.36	1.28	1.15	1.01	D
470	2112	2397.5	6.19	2.84	2.86	64	10.8	2500	2390.1	1.10	1.11	1431	1342	30.4	31.4	47.38	20148	25.5	5.6	818	1363	1.19	1.39	1.38	1.31	1.15	1.01	D
471	2151	2400.0	5.83	2.86	2.89	62	11.2	2510	2393.8	1.10	1.11	1430	1452	30.3	32.3	46.90	22166	28.0	6.2	852	1336	1.30	1.42	1.41	1.35	1.14	1.01	D
472	2217	2402.5	5.63	2.84	2.89	65	11.3	2460	2396.5	1.10	1.10	1435	1471	30.5	31.6	47.54	23895	30.5	6.6	892	1299	1.40	1.44	1.43	1.38	1.14	1.01	D
473	2308	2405.0	5.32	2.78	2.89	66	11.3	2490	2399.8	1.10	1.10	1455	1378	30.5	32.0	48.17	26059	33.0	7.1	942	1283	1.52	1.46	1.44	1.41	1.14	1.01	D
474	2332	2407.5	5.58	2.83	2.87	66	11.1	2490	2402.1	1.10	1.10	1446	1392	30.5	31.5	49.60	27693	35.5	7.6	887	1251	1.60	1.44	1.42	1.43	1.14	1.01	D
+ NB#9 (Run#11) SMITH F2 8.5" with 10,10,11 jets. Start depth 2409m. IADC bit condition T2 B3 G4.																												
Date Dec 11 '83																												
480	0844	2410.1	4.65	1.99	2.22	60	7.14	2650	2409.0	1.11	1.11	1480	1631	25.7	19.6	54.69	863	1.1	.2	1019	9932	.01	1.29	1.30	1.25	1.15	1.01	D
481	0934	2412.5	2.86	1.79	2.13	52	8.03	2630	2409.0	1.11	1.11	1499	1556	25.5	30.1	68.36	3527	3.5	1.1	1701	4333	.05	1.41	1.43	1.28	1.15	1.01	D
482	1039	2415.0	2.38	1.80	2.32	51	11.2	2650	2412.4	1.11	1.11	1499	1577	28.5	31.8	76.95	6949	6.0	2.1	1664	3414	.11	1.59	1.61	1.25	1.15	1.01	D↑
483	1053	2417.5	10.8	2.20	2.49	47	13.3	2650	2412.9	1.11	1.11	1495	1562	28.9	32.6	77.11	7615	8.5	2.4	470	2559	.12	1.23	1.25	1.25	1.15	1.01	D
484	1114	2420.0	13.9	2.24	2.58	50	12.5	2540	2413.4	1.11	1.11	1458	1497	29.4	32.9	77.43	8308	11.0	2.6	356	2070	.13	1.16	1.17	1.23	1.15	1.01	D
485	1124	2422.5	14.0	2.17	2.43	54	15.5	2550	2413.5	1.11	1.11	1461	1511	29.8	33.1	77.27	8886	13.5	2.8	359	1758	.14	1.25	1.27	1.24	1.15	1.01	D
486	1136	2425.0	12.9	2.08	2.32	54	16.3	2550	2413.9	1.11	1.11	1462	1491	30.2	32.9	77.43	9514	16.0	3.0	398	1539	.15	1.30	1.32	1.27	1.15	1.01	D
487	1150	2427.5	10.9	2.15	2.44	53	15.8	2560	2414.7	1.11	1.11	1461	1534	30.6	33.2	77.27	10251	18.5	3.2	502	1395	.17	1.34	1.35	1.30	1.15	1.01	D
488	1223	2430.0	7.28	2.25	2.63	59	15.1	2540	2418.3	1.10	1.11	1454	1590	30.9	32.3	76.31	11660	21.0	3.6	660	1323	.19	1.47	1.48	1.34	1.15	1.01	D
489	1241	2432.5	8.26	2.23	2.49	62	14.8	2520	2422.6	1.10	1.11	1455	1579	31.0	32.0	77.43	12799	23.5	3.9	612	1249	.22	1.44	1.45	1.37	1.14	1.01	D
490	1302	2435.0	7.09	2.88	3.13	56	15.0	2530	2426.9	1.10	1.11	1457	1587	31.0	33.0	78.86	13991	26.0	4.2	717	1195	.24	1.47	1.48	1.41	1.14	1.01	D
491	1323	2437.5	9.00	3.09	3.15	57	14.8	2530	2428.4	1.10	1.11	1455	1541	31.2	33.9	75.84	14909	28.5	4.5	580	1150	.26	1.44	1.44	1.45	1.11	1.01	D↑
492	1343	2440.0	9.61	2.52	3.13	63	14.5	2540	2430.8	1.10	1.11	1457	1449	31.5	33.5	72.02	15932	31.0	4.8	1481	1091	.28	1.40	1.41	1.45	1.14	1.01	D
493	1351	2442.5	19.5	3.16	3.19	56	14.2	2520	2431.8	1.10	1.11	1450	1486	31.6	33.1	71.86	16415	33.5	4.9	278	1029	.28	1.15	1.16	1.45	1.14	1.01	D
494	1404	2445.0	27.6	2.95	3.19	57	13.9	2510	2433.1	1.10	1.11	1443	1484	31.8	32.9	73.77	16821	36.0	5.0	179	973	.29	1.05	1.06	1.45	1.14	1.01	D
495	1439	2447.5	6.05	3.05	3.16	57	14.4	2490	2437.1	1.10	1.11	1429	1442	32.0	33.0	73.61	18445	38.5	5.5	560	959	.32	1.50	1.51	1.48	1.14	1.01	D↑
496	1450	2450.0	13.2	2.69	3.17	63	14.5	2530	2438.1	1.10	1.11	1446	1528	32.0	33.6	69.32	19154	41.0	5.7	376	933	.34	1.31	1.31	1.46	1.14	1.01	D
497	1502	2452.5	13.1	3.14	3.19	57	14.5	2540	2440.0	1.10	1.11	1446	1592	32.1	33.7	68.21	19811	43.5	5.9	380	901	.35	1.28	1.29	1.43	1.14	1.01	D
498	1509	2455.0	20.1	3.14	3.19	57	13.9	2550	2441.6	1.10	1.11	1446	1539	32.1	33.7	67.73	20226	46.0	6.0	251	866	.35	1.14	1.14	1.46	1.14	1.01	D
499	1525	2457.5	22.5	3.05	3.17	56	13.9	2520	2445.3	1.10	1.11	1431	1494	32.2	33.4	69.00	20764	48.5	6.1	228	837	.36	1.10	1.11	1.43	1.14	1.01	D
500	1532	2460.0	21.3	3.12	3.13	57	13.4	2540	2446.1	1.10	1.11	1438	1516	32.3	33.2	68.05	21164	51.0	6.3	228	807	.37	1.11	1.11	1.46	1.14	1.01	D
501	1539	2462.5	22.8	3.11	3.15	58	14.7	2540	2446.5	1.10	1.11	1435	1546	32.3	33.6	67.41	21540	53.5	6.4	218	780	.38	1.12	1.13	1.43	1.14	1.01	D
502	1546	2465.0	20.4	3.11	3.16	58	15.2	2590	2446.8	1.10	1.11	1448	1525	32.2	34.0	67.73	21969	56.0	6.5	239	756	.39	1.17	1.17	1.39	1.14	1.01	D
503	1607	2467.5	16.7	3.13	3.20	58	15.1	2610	2449.0	1.10	1.11	1454	1505	32.1	34.6	68.68	22666	58.5	6.7	311	740	.40	1.23	1.23	1.35	1.14	1.01	D
504	1619	2470.0	12.0	3.11	3.20	60	15.2	2580	2451.6	1.10	1.11	1446	1547	32.3	34.1	67.09	23427	61.0	6.9	418	727	.41	1.34	1.34	1.34	1.14	1.01	D
505	1634	2472.5	10.1	3.07	3.16	59	14.6	2580	2456.3	1.10	1.11	1450	1531	32.4	33.3	66.62	24312	63.5	7.1	512	718	.43	1.37	1.37	1.35	1.14	1.01	D
506	1643	2475.0	17.0	3.14	3.17	56	14.2	2580	2457.8	1.10	1.11	1450	1472	32.4	34.1	66.30	24816	66.0	7.3	299	702	.44	1.19	1.19	1.32	1.14	1.01	D
507	1703	2477.5	18.2	3.13	3.20	58	12.5	2600	2463.3	1.10	1.11	1458	1466	32.4	34.0	66.93	25473	68.5	7.5	274	690	.45	1.13	1.13	1.28	1.14	1.01	D

SHELL DEV. AUST. : BASKER SOUTH No.1

Data Printed at time 10:17 Date Dec 21 '83
Data Recorded at time 17:10 Date Dec 11 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
508	1710	2480.0	21.8	3.25	3.31	56	12.8	2590	2465.7	1.10	1.11	1455	1456	32.4	33.8	66.14	25857	71.0	7.6	230	674	.46	1.08	1.09	1.25	1.14	1.01	D
509	1717	2482.5	21.6	3.28	3.31	54	13.5	2590	2466.2	1.10	1.11	1454	1498	32.4	34.0	65.98	26233	73.5	7.7	232	659	.46	1.09	1.10	1.22	1.14	1.01	D
510	1735	2485.0	20.4	3.22	3.31	55	12.7	2540	2468.9	1.10	1.11	1382	1270	32.4	34.2	70.27	26741	76.0	7.8	256	647	.47	1.09	1.09	1.19	1.14	1.01	D↑
511	1746	2487.5	13.5	3.24	3.32	59	14.6	2580	2470.9	1.10	1.11	1445	1499	32.3	33.6	65.98	27390	78.5	8.0	455	638	.49	1.28	1.28	1.20	1.14	1.01	D
512	1756	2490.0	15.5	3.19	3.34	61	14.6	2580	2472.7	1.10	1.11	1450	1463	32.3	34.1	65.66	27984	81.0	8.2	328	628	.50	1.25	1.25	1.22	1.14	1.01	D
513	1809	2492.5	10.9	3.16	3.35	61	14.6	2590	2475.5	1.10	1.11	1451	1515	32.3	33.2	65.50	28815	83.5	8.4	498	623	.51	1.35	1.35	1.25	1.14	1.01	D
514	1841	2495.0	7.53	3.17	3.28	61	15.4	2560	2483.3	1.10	1.11	1446	1471	32.1	33.6	65.98	30243	86.0	8.8	571	627	.54	1.49	1.49	1.22	1.14	1.01	D
515	1850	2497.5	17.2	3.27	3.31	61	14.7	2580	2485.0	1.10	1.11	1450	1541	32.1	33.6	64.39	30782	88.5	9.0	290	618	.55	1.23	1.23	1.21	1.14	1.01	D
516	1858	2500.0	17.7	3.30	3.32	61	15.2	2590	2486.7	1.10	1.11	1453	1471	32.1	34.0	64.39	31284	91.0	9.1	283	609	.56	1.23	1.22	1.21	1.14	1.01	D
517	1905	2502.5	22.5	3.32	3.34	58	15.0	2600	2488.1	1.10	1.11	1450	1480	32.1	34.0	64.39	31669	93.5	9.2	225	598	.57	1.14	1.14	1.20	1.14	1.01	D
518	1930	2505.0	16.3	3.28	3.34	60	15.2	2570	2492.3	1.11	1.11	1443	1453	32.1	33.5	65.50	32463	96.0	9.5	342	596	.58	1.25	1.25	1.20	1.14	1.01	D
519	1936	2507.5	27.1	3.29	3.31	56	15.4	2570	2492.8	1.11	1.11	1446	1482	32.2	33.7	64.39	32767	98.5	9.5	200	586	.59	1.08	1.08	1.18	1.14	1.01	D
520	1944	2510.0	17.4	3.30	3.31	55	16.0	2570	2493.4	1.11	1.11	1442	1426	32.2	33.9	63.91	33243	101	9.7	371	578	.60	1.22	1.22	1.18	1.14	1.01	D
521	1956	2512.5	12.5	3.30	3.34	61	16.0	2550	2494.5	1.11	1.11	1[illegible]39	1523	32.2	33.6	63.44	33971	103	9.9	392	574	.61	1.35	1.34	1.21	1.14	1.01	D
Survey at 2513m = 7.75 deg.																												
523	2150	2515.0	15.9	3.09	3.32	57	15.5	2570	2502.4	1.11	1.11	1435	1334	31.1	29.1	63.91	34752	106	10.1	324	572	.62	1.24	1.24	1.22	1.14	1.01	D
524	2158	2517.5	18.7	3.09	3.31	53	16.2	2580	2504.3	1.11	1.11	1442	1372	30.9	29.0	64.23	35177	108	10.3	264	565	.63	1.19	1.19	1.22	1.14	1.01	D
525	2209	2520.0	13.3	3.03	3.28	54	16.4	2570	2505.2	1.11	1.11	1442	1367	30.4	29.2	64.71	35793	111	10.4	458	561	.64	1.30	1.30	1.23	1.15	1.01	D
526	2220	2522.5	14.0	3.10	3.28	57	16.1	2580	2509.6	1.11	1.11	1442	1230	30.0	30.9	64.87	36402	113	10.6	347	556	.66	1.29	1.29	1.25	1.15	1.01	D
527	2243	2525.0	12.9	3.21	3.34	59	15.3	2580	2513.1	1.11	1.11	1446	1251	29.6	31.3	65.82	37257	116	10.9	375	554	.67	1.31	1.30	1.27	1.15	1.01	D
528	2257	2527.5	10.9	3.27	3.35	60	15.9	2600	2513.4	1.11	1.11	1453	1258	29.6	31.6	64.07	38091	118	11.1	509	552	.69	1.38	1.37	1.30	1.15	1.01	D
529	2316	2530.0	7.83	3.23	3.32	60	16.0	2600	2517.7	1.11	1.11	1454	1319	29.7	31.6	64.23	39238	121	11.4	708	554	.71	1.48	1.47	1.33	1.15	1.01	D
530	2358	2532.5	5.03	3.11	3.25	62	16.0	2580	2524.8	1.11	1.11	1450	1333	29.7	31.2	64.71	41320	123	12.0	1182	565	.75	1.62	1.61	1.30	1.15	1.01	D
Date Dec 12 '83																												
531	0026	2535.0	4.39	3.21	3.36	63	16.2	2580	2529.5	1.11	1.11	1454	1285	29.7	31.5	63.75	43048	126	12.4	1172	573	.78	1.67	1.67	1.33	1.14	1.01	D
532	0035	2537.5	16.5	3.34	3.36	59	15.5	2580	2530.6	1.11	1.11	1454	1182	29.8	31.6	63.59	43604	128	12.6	346	568	.80	1.24	1.23	1.32	1.14	1.01	D
533	0039	2540.0	31.5	3.33	3.36	60	12.9	2590	2531.3	1.11	1.11	1457	1211	29.8	31.7	63.44	43879	131	12.7	152	560	.80	.99	.98	1.33	1.15	1.01	D
534	0101	2542.5	24.0	3.13	3.35	57	11.6	2640	2532.3	1.11	1.11	1463	1193	29.8	31.6	73.29	44361	133	12.8	216	555	.81	1.02	1.01	1.32	1.15	1.01	D↑
535	0106	2545.1	27.9	3.19	3.27	53	13.1	2660	2532.6	1.11	1.11	1469	1268	29.7	31.5	69.80	44633	136	12.9	187	547	.81	1.00	.99	1.33	1.15	1.01	D
536	0114	2547.5	19.0	3.21	3.27	54	14.0	2680	2532.7	1.11	1.11	1471	1216	29.7	31.3	65.66	45051	138	13.0	303	542	.82	1.13	1.12	1.30	1.15	1.01	D
537	0122	2550.0	19.4	3.17	3.28	55	12.5	2680	2533.5	1.11	1.11	1472	1233	29.6	31.6	63.44	45475	141	13.1	256	537	.83	1.09	1.08	1.27	1.15	1.01	D
538	0145	2552.5	10.6	2.89	3.31	56	12.4	2620	2535.1	1.11	1.11	1457	1467	29.7	31.7	63.12	46398	143	13.4	441	537	.84	1.26	1.25	1.26	1.15	1.01	D↑
539	0153	2555.0	19.2	3.10	3.34	56	13.1	2620	2535.6	1.11	1.11	1461	1511	29.8	31.1	62.01	46835	146	13.5	268	533	.85	1.11	1.11	1.23	1.15	1.01	D
540	0209	2557.5	9.05	3.06	3.35	57	14.5	2620	2542.3	1.11	1.11	1461	1493	29.8	30.9	61.21	47797	148	13.8	746	533	.87	1.37	1.36	1.25	1.15	1.01	D
541	0218	2560.0	17.7	3.22	3.36	56	14.2	2620	2543.3	1.11	1.11	1461	1510	29.8	31.6	60.89	48259	151	14.0	281	529	.87	1.16	1.15	1.23	1.15	1.01	D
542	0234	2562.5	18.8	3.11	3.36	55	13.2	2620	2547.7	1.11	1.11	1461	1404	29.7	31.5	62.32	48768	153	14.1	272	525	.88	1.12	1.11	1.21	1.15	1.01	D
543	0242	2565.0	18.9	2.84	3.32	54	11.6	2630	2550.0	1.11	1.11	1463	1516	29.7	31.3	61.05	49203	156	14.2	251	521	.89	1.07	1.06	1.18	1.15	1.01	D
544	0255	2567.5	11.1	2.92	3.25	55	13.2	2640	2551.6	1.11	1.11	1464	1451	29.7	31.5	60.57	49950	158	14.5	438	520	.90	1.26	1.25	1.19	1.15	1.01	D
545	0312	2570.0	8.91	3.01	3.29	54	14.3	2640	2556.3	1.11	1.11	1464	1503	29.7	31.5	59.78	50870	161	14.7	568	521	.92	1.35	1.35	1.21	1.15	1.01	D
546	0343	2572.5	10.2	3.01	3.35	54	15.2	2660	2560.9	1.11	1.11	1476	1544	29.7	31.4	59.94	51808	163	15.0	506	521	.93	1.35	1.34	1.24	1.15	1.01	D
547	0351	2575.0	18.5	3.16	3.35	53	13.3	2670	2562.3	1.11	1.11	1480	1537	29.8	31.8	59.46	52242	166	15.2	270	518	.94	1.12	1.11	1.22	1.15	1.01	D
548	0409	2577.5	8.32	2.98	3.36	55	13.3	2670	2566.7	1.11	1.11	1480	1505	29.9	31.6	59.46	53244	168	15.5	945	519	.96	1.35	1.34	1.24	1.15	1.01	D
549	0423	2580.0	10.4	2.89	3.31	55	14.2	2670	2569.1	1.11	1.11	1478	1486	30.0	31.9	59.30	54053	171	15.7	503	518	.97	1.32	1.31	1.25	1.15	1.01	D
550	0456	2582.5	6.17	2.79	3.21	50	15.3	2600	2572.4	1.11	1.11	1460	1450	30.1	32.1	59.78	55175	173	16.1	836	522	.99	1.47	1.47	1.27	1.15	1.01	D
551	0529	2585.0	6.42	2.78	3.35	49	14.4	2610	2579.0	1.11	1.11	1464	1495	30.1	32.0	60.89	56840	176	16.6	849	530	1.02	1.43	1.42	1.31	1.14	1.01	D
552	0546	2587.5	8.84	2.85	3.32	49	14.6	2590	2581.0	1.11	1.11	1461	1485	30.0	32.2	61.85	57675	178	16.9	554	530	1.03	1.34	1.33	1.32	1.14	1.01	D
553	0618	2590.0	7.31	2.83	3.32	48	15.4	2560	2582.7	1.11	1.11	1449	1408	30.4	32.9	64.07	58792	181	17.3	697	533	1.05	1.41	1.40	1.35	1.15	1.01	D↑
NB#10 (Run#12) SMITH F2 8.5" with 10,10,11 jets. Start depth 2590m. IADC bit condition T5 B5 G8																												
559	1730	2592.5	2.21	2.22	2.93	60	12.5	2510	2590.0	1.11	1.11	1431	1770	27.0	31.5	67.25	4347	2.4	1.2	1029	6550	.08	1.72	1.73	1.30	1.14	1.01	D↑
560	1747	2595.0	8.94	2.63	2.93	62	13.4	2540	2590.6	1.11	1.11	1434	1505	28.1	32.0	66.62	5394	5.0	1.5	566	3499	.10	1.37	1.38	1.33	1.15	1.01	D

SHELL DEV. AUST. : BASKER SOUTH No.1

Data Printed at time 10:22 Date Dec 21 '83
Data Recorded at time 18:10 Date Dec 12 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
561	1810	2597.5	5.60	2.55	2.85	62	14.5	2560	2590.6	1.11	1.11	1435	1475	29.3	32.0	67.25	6800	7.5	1.8	750	2580	.13	1.49	1.50	1.36	1.15	1.01	D
562	1840	2600.0	7.82	2.39	2.85	63	14.2	2570	2591.2	1.11	1.11	1423	1502	30.1	33.5	70.11	8242	10.0	2.2	651	2121	.16	1.44	1.44	1.40	1.15	1.01	D
563	1900	2602.5	7.66	2.41	2.79	59	14.3	2570	2594.1	1.11	1.11	1425	1590	30.7	33.9	65.98	9435	12.4	2.5	636	1841	.18	1.43	1.44	1.42	1.15	1.01	D
564	1917	2605.0	8.36	2.36	2.60	60	14.3	2590	2596.2	1.11	1.11	1427	1537	31.3	34.7	64.39	10485	14.9	2.8	589	1628	.20	1.40	1.41	1.43	1.15	1.01	D
565	1945	2607.5	5.30	2.29	2.63	60	14.8	2570	2599.4	1.11	1.11	1427	1737	32.1	35.1	61.05	12202	17.5	3.3	1038	1525	.23	1.56	1.56	1.47	1.15	1.01	D
566	2021	2610.0	8.26	2.36	2.67	59	15.0	2580	2602.1	1.11	1.11	1427	1616	32.6	34.9	62.64	13468	20.0	3.7	622	1436	.26	1.43	1.44	1.47	1.15	1.01	D↑
567	2059	2612.5	3.95	2.30	2.54	59	15.2	2590	2606.9	1.11	1.11	1430	1546	32.7	34.5	62.96	15736	22.5	4.3	1388	1411	.30	1.66	1.66	1.52	1.15	1.01	D
568	2119	2615.0	7.42	2.41	2.74	58	15.0	2570	2609.1	1.11	1.11	1431	1504	32.8	35.0	63.28	16928	25.0	4.7	692	1339	.33	1.46	1.46	1.51	1.15	1.01	D
569	2142	2617.5	6.54	2.41	2.63	58	15.5	2580	2610.4	1.11	1.11	1431	1517	33.1	35.6	63.44	18261	27.5	5.0	777	1286	.35	1.51	1.52	1.51	1.15	1.01	D
570	2205	2620.0	12.0	2.24	2.54	60	15.9	2620	2611.7	1.11	1.11	1437	1520	33.3	35.2	63.91	19221	29.9	5.3	465	1228	.37	1.35	1.35	1.49	1.15	1.01	D
571	2220	2622.6	9.55	2.28	2.58	60	16.4	2620	2612.9	1.11	1.11	1438	1542	33.4	35.5	63.28	20169	32.5	5.6	486	1169	.39	1.43	1.43	1.48	1.15	1.01	D
572	2242	2625.0	6.86	2.21	2.48	62	16.6	2610	2615.6	1.11	1.11	1442	1518	33.7	35.0	63.59	21490	35.0	5.9	716	1136	.42	1.54	1.54	1.49	1.15	1.01	D
573	2304	2627.5	6.69	2.25	2.51	62	16.5	2620	2618.1	1.11	1.11	1442	1580	33.5	34.8	63.12	22886	37.5	6.3	759	1110	.45	1.55	1.55	1.52	1.15	1.01	D
574	2333	2630.0	7.90	2.30	2.49	62	15.3	2590	2621.5	1.11	1.11	1427	1607	33.4	35.3	62.96	24250	40.0	6.6	651	1086	.48	1.47	1.47	1.51	1.15	1.01	D
575	2353	2632.5	7.43	2.32	2.81	63	15.1	2580	2624.2	1.11	1.11	1425	1559	33.4	35.5	63.44	25538	42.5	7.0	616	1062	.50	1.48	1.48	1.51	1.15	1.01	D
Date Dec 13 '83																												
576	0009	2635.0	9.36	2.35	2.63	63	14.7	2580	2625.7	1.11	1.11	1423	1552	33.3	36.5	63.91	26516	45.0	7.2	534	1033	.52	1.40	1.40	1.49	1.15	1.01	D
577	0037	2637.5	7.76	2.36	2.68	63	15.5	2520	2628.1	1.11	1.11	1407	1558	33.6	36.5	65.50	27867	47.5	7.6	623	1016	.55	1.48	1.47	1.48	1.15	1.01	D
578	0048	2640.0	14.6	2.37	2.78	56	16.3	2590	2629.2	1.11	1.11	1426	1498	33.9	36.0	63.59	28448	50.0	7.8	350	983	.56	1.28	1.28	1.44	1.15	1.01	D
579	0109	2642.5	11.2	2.20	2.70	53	17.1	2650	2631.3	1.11	1.11	1442	1539	33.9	36.2	63.75	29165	52.5	8.0	647	958	.57	1.36	1.36	1.42	1.15	1.01	D
580	0131	2645.0	6.81	2.21	2.43	50	18.5	2640	2634.7	1.11	1.11	1446	1588	34.0	36.4	63.28	30260	55.0	8.4	784	947	.60	1.54	1.54	1.43	1.15	1.01	D
581	0158	2647.5	8.92	2.17	2.44	51	18.3	2670	2637.4	1.11	1.11	1452	1624	34.0	35.9	65.50	31283	57.5	8.7	599	936	.62	1.45	1.45	1.44	1.15	1.01	D
582	0213	2650.0	9.87	2.16	2.36	51	17.1	2640	2640.2	1.11	1.11	1446	1602	34.0	35.9	62.96	32039	60.0	9.0	496	918	.63	1.39	1.39	1.43	1.15	1.01	D
583	0235	2652.5	6.77	2.12	2.32	51	16.9	2630	2643.5	1.11	1.11	1441	1558	34.0	36.5	62.96	33206	62.5	9.3	752	910	.65	1.50	1.50	1.45	1.15	1.01	D
584	0245	2655.0	15.8	2.26	2.51	50	15.8	2640	2644.5	1.11	1.11	1443	1574	34.1	36.9	62.64	33681	65.0	9.5	313	888	.66	1.21	1.21	1.41	1.15	1.01	D
585	0301	2657.5	20.1	2.23	2.49	51	15.2	2660	2645.8	1.11	1.11	1450	1572	34.1	36.9	63.91	34194	67.5	9.6	250	867	.67	1.13	1.13	1.45	1.15	1.01	D
586	0313	2660.0	12.4	2.36	2.63	51	16.2	2650	2647.1	1.11	1.11	1446	1571	34.3	37.4	62.48	34821	70.0	9.9	318	852	.68	1.29	1.29	1.42	1.15	1.01	D
587	0326	2662.5	11.1	2.27	2.68	51	15.8	2630	2649.3	1.11	1.11	1438	1572	34.5	37.2	62.80	35513	72.5	10.1	713	836	.70	1.32	1.32	1.40	1.15	1.01	D
588	0340	2665.1	15.1	2.30	3.28	50	13.5	2610	2651.0	1.11	1.11	1435	1568	34.6	37.4	63.44	36188	75.0	10.3	404	823	.71	1.16	1.16	1.35	1.15	1.01	D
589	0404	2667.5	10.9	2.26	2.60	54	14.3	2540	2654.0	1.11	1.11	1437	1558	34.8	36.7	65.03	37129	77.5	10.6	450	814	.72	1.29	1.29	1.33	1.15	1.01	D
590	0423	2670.0	7.74	2.29	2.64	54	15.5	2570	2658.0	1.11	1.11	1438	1462	34.9	36.5	65.34	38190	80.0	10.9	618	809	.74	1.43	1.43	1.34	1.15	1.01	D
591	0451	2672.5	5.48	2.37	2.67	53	16.7	2590	2663.6	1.11	1.11	1438	1503	34.8	37.1	65.03	39686	82.5	11.3	1032	812	.77	1.57	1.57	1.38	1.15	1.01	D
592	0517	2675.0	5.70	2.37	2.70	54	17.8	2580	2666.8	1.10	1.11	1438	1446	35.0	38.4	65.18	41125	85.0	11.8	846	814	.80	1.60	1.59	1.42	1.15	1.01	D
593	0606	2677.5	4.23	2.20	2.64	54	16.3	2610	2671.8	1.10	1.11	1454	1540	35.2	38.1	64.23	43404	87.5	12.5	1177	831	.84	1.64	1.64	1.46	1.15	1.01	D
594	0637	2680.0	4.93	2.34	2.67	59	16.5	2640	2675.1	1.10	1.10	1453	1464	35.7	37.3	64.87	45204	90.0	13.0	1005	836	.88	1.64	1.63	1.50	1.14	1.01	D
595	0659	2682.5	6.83	2.60	2.93	58	16.5	2620	2675.9	1.10	1.11	1454	1519	35.7	38.5	64.39	46489	92.5	13.4	742	833	.90	1.53	1.52	1.51	1.14	1.01	D
596	0714	2685.0	7.49	2.56	2.86	58	16.1	2640	2676.9	1.10	1.11	1451	1514	35.9	39.3	64.23	47379	95.0	13.6	751	825	.92	1.49	1.48	1.51	1.14	1.01	D-
+ Survey at 2685m = 6.75 deg.																												
598	0927	2687.5	10.4	2.60	2.85	56	16.2	2640	2680.1	1.10	1.11	1435	1597	35.3	32.6	62.80	48524	97.5	14.0	478	823	.94	1.38	1.37	1.49	1.14	1.01	D
599	0950	2690.0	6.59	2.55	2.94	56	15.3	2630	2682.8	1.10	1.10	1436	1567	34.1	36.7	61.85	49807	100	14.4	747	821	.96	1.50	1.49	1.49	1.14	1.01	D
600	1003	2692.5	8.09	2.64	3.01	56	14.7	2620	2685.0	1.10	1.10	1440	1566	34.2	37.7	61.69	50357	102	14.7	630	817	.98	1.41	1.40	1.47	1.14	1.01	D
601	1040	2695.0	6.95	2.51	2.89	57	14.1	2680	2686.3	1.10	1.11	1454	1568	34.8	37.3	63.75	52259	105	15.1	788	817	1.01	1.44	1.43	1.46	1.14	1.01	D↑
602	1055	2697.5	10.5	2.11	2.45	52	14.9	2700	2688.4	1.10	1.11	1461	1522	35.1	37.1	62.01	53011	107	15.3	464	809	1.02	1.32	1.31	1.43	1.14	1.01	D
603	1108	2700.0	11.1	2.02	2.30	54	14.4	2680	2690.0	1.10	1.11	1461	1526	35.1	38.1	61.85	53732	110	15.5	458	801	1.03	1.30	1.29	1.39	1.14	1.01	D
604	1120	2702.5	13.0	2.04	2.64	53	14.9	2690	2691.5	1.10	1.11	1457	1542	35.2	38.5	62.01	54357	112	15.7	389	792	1.04	1.27	1.25	1.35	1.14	1.01	D
605	1144	2705.0	9.47	2.20	2.73	53	15.3	2610	2694.4	1.10	1.11	1434	1506	35.7	37.9	63.91	55307	115	16.0	663	787	1.05	1.37	1.36	1.35	1.14	1.01	D↑
606	1152	2707.5	18.4	2.23	3.00	57	15.3	2630	2694.9	1.10	1.10	1439	1515	35.8	37.2	62.48	55769	117	16.2	268	776	1.06	1.19	1.18	1.31	1.14	1.01	D
607	1204	2710.0	12.7	2.44	2.70	55	15.6	2630	2695.6	1.10	1.10	1438	1543	35.8	37.9	62.01	56421	120	16.4	408	768	1.08	1.30	1.28	1.29	1.15	1.01	D
608	1226	2712.5	6.87	2.35	2.67	57	15.7	2630	2699.8	1.10	1.10	1442	1486	35.9	39.1	61.85	57678	122	16.7	1020	768	1.10	1.50	1.48	1.32	1.15	1.01	D
609	1308	2715.0	6.29	2.28	2.79	57	15.4	2590	2704.9	1.10	1.10	1431	1382	36.1	38.4	61.53	59297	125	17.3	738	774	1.13	1.51	1.50	1.35	1.14	1.01	D

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
610	1329	2717.5	7.10	2.36	2.86	56	15.3	2530	2710.0	1.10	1.10	1434	1384	36.1	38.2	62.32	60498	127	17.6	682	772	1.15	1.47	1.46	1.38	1.14	1.01	D
611	1358	2720.0	5.22	2.32	2.51	57	15.8	2520	2712.8	1.10	1.11	1431	1357	36.1	38.7	62.80	62131	130	18.1	965	776	1.18	1.59	1.57	1.42	1.14	1.01	D
612	1429	2722.5	4.85	2.27	2.60	57	16.1	2540	2715.3	1.10	1.11	1435	1334	36.4	39.0	63.28	63934	132	18.6	1104	781	1.21	1.62	1.60	1.46	1.14	1.01	D
613	1621	2725.0	1.49	1.74	2.43	53	15.7	2510	2723.6	1.10	1.10	1431	1432	37.2	39.8	62.64	69350	135	20.3	3377	831	1.30	1.94	1.92	1.42	1.14	1.01	D
614	1642	2727.6	7.12	1.79	2.29	65	15.6	2540	2724.1	1.11	1.11	1429	1426	37.4	39.2	61.53	70763	137	20.7	819	829	1.33	1.53	1.50	1.43	1.14	1.01	D
615	1653	2730.0	13.2	2.00	2.33	62	15.3	2540	2724.2	1.11	1.11	1427	1410	37.4	39.1	61.37	71453	140	20.9	374	821	1.34	1.32	1.30	1.41	1.14	1.01	D
616	1711	2732.5	8.36	1.87	2.20	63	15.4	2540	2724.4	1.11	1.11	1427	1407	37.3	39.0	61.05	72602	142	21.2	751	817	1.36	1.46	1.44	1.41	1.14	1.01	D
617	1741	2735.0	8.09	1.72	2.10	64	15.8	2560	2724.9	1.11	1.11	1423	1434	37.1	39.8	61.05	73958	145	21.5	648	815	1.39	1.48	1.45	1.42	1.15	1.01	D
618	1758	2737.5	8.50	1.69	1.93	64	16.1	2550	2726.6	1.11	1.11	1423	1481	37.1	39.5	60.73	75080	147	21.8	595	811	1.41	1.47	1.45	1.43	1.15	1.01	D
619	1825	2740.0	5.61	2.18	2.39	59	15.9	2540	2731.7	1.11	1.11	1424	1455	37.2	39.3	60.73	76688	150	22.3	700	812	1.44	1.57	1.54	1.46	1.15	1.01	D
620	1857	2742.5	6.96	2.12	2.40	60	15.9	2540	2734.5	1.11	1.11	1423	1430	37.0	38.7	61.53	78260	152	22.7	717	813	1.47	1.50	1.47	1.47	1.15	1.01	D↑
621	1914	2745.0	9.37	1.81	2.26	63	15.9	2560	2737.0	1.11	1.11	1423	1456	36.9	37.3	60.73	79277	155	23.0	538	809	1.48	1.43	1.40	1.46	1.15	1.01	D
622	1939	2747.6	6.11	1.73	2.01	63	16.2	2520	2738.6	1.11	1.11	1423	1315	36.1	36.6	63.12	80884	157	23.4	789	809	1.51	1.57	1.54	1.48	1.15	1.01	D
623	1951	2750.0	11.7	1.86	2.07	63	15.9	2550	2740.8	1.11	1.11	1423	1388	35.7	36.4	63.28	81666	160	23.6	429	803	1.53	1.36	1.33	1.46	1.15	1.01	D
624	2013	2752.6	13.9	1.88	2.16	63	16.1	2590	2742.1	1.11	1.11	1431	1405	35.3	36.0	61.05	82594	162	23.8	387	798	1.55	1.32	1.29	1.43	1.15	1.01	D↑
625	2026	2755.0	11.7	1.90	2.13	66	16.3	2600	2743.8	1.11	1.11	1435	1460	34.9	35.3	59.62	83412	165	24.0	429	792	1.56	1.39	1.35	1.41	1.15	1.01	D
626	2037	2757.5	12.9	1.98	2.17	65	15.7	2590	2745.1	1.11	1.11	1435	1412	34.7	35.2	59.78	84148	167	24.2	376	786	1.57	1.34	1.30	1.38	1.15	1.01	D
627	2048	2760.0	14.0	1.99	2.20	65	17.1	2600	2746.2	1.11	1.11	1435	1471	34.5	35.5	59.78	84842	170	24.4	357	780	1.59	1.35	1.31	1.36	1.16	1.01	D
628	2122	2762.5	7.58	1.82	2.14	66	17.2	2560	2750.7	1.11	1.11	1423	1483	34.0	34.9	59.78	86443	172	24.8	697	780	1.62	1.55	1.51	1.38	1.15	1.01	D
629	2137	2765.0	9.49	1.76	2.02	67	16.5	2540	2753.1	1.11	1.11	1423	1458	33.8	34.9	60.89	87507	175	25.1	537	776	1.64	1.46	1.42	1.39	1.15	1.01	D
630	2150	2767.5	11.6	1.82	2.05	66	15.7	2530	2755.6	1.11	1.11	1423	1441	33.6	35.0	61.21	88372	177	25.3	441	771	1.65	1.37	1.34	1.38	1.15	1.01	D
631	2201	2770.0	14.5	1.90	2.43	66	15.6	2530	2757.9	1.11	1.11	1424	1398	33.5	34.9	61.05	89052	180	25.5	362	765	1.67	1.30	1.27	1.36	1.15	1.01	D
632	2225	2772.5	10.5	1.87	2.10	66	15.3	2570	2761.1	1.11	1.11	1423	1430	33.3	34.2	60.89	90205	182	25.8	489	763	1.69	1.39	1.35	1.35	1.15	1.01	D
633	2237	2775.0	12.1	1.96	2.49	65	15.8	2570	2761.7	1.11	1.11	1426	1458	33.2	34.4	60.89	90987	185	26.0	427	758	1.70	1.36	1.32	1.34	1.15	1.01	D
634	2251	2777.5	10.7	1.93	2.32	65	15.4	2570	2763.8	1.11	1.11	1423	1403	33.0	34.4	60.73	91903	187	26.2	460	754	1.72	1.38	1.35	1.34	1.15	1.01	D
635	2320	2780.0	7.92	1.81	2.35	66	15.5	2600	2768.4	1.11	1.11	1434	1496	32.8	34.1	62.80	93392	190	26.6	725	754	1.74	1.48	1.44	1.36	1.15	1.01	D↑
636	2346	2782.5	5.72	1.64	1.97	65	15.6	2600	2772.6	1.11	1.11	1435	1426	32.6	33.7	60.26	95106	192	27.0	958	756	1.77	1.58	1.54	1.39	1.15	1.01	D
	Date	Dec 14 '83																										
637	0009	2785.0	6.39	1.68	1.98	65	15.4	2590	2777.0	1.11	1.11	1438	1487	32.4	33.7	60.26	96644	195	27.4	813	756	1.80	1.53	1.49	1.41	1.15	1.01	D
638	0022	2787.5	12.2	1.82	2.18	63	15.6	2600	2779.2	1.11	1.11	1438	1422	32.3	33.6	60.26	97423	197	27.6	411	752	1.81	1.34	1.30	1.40	1.15	1.01	D
639	0056	2790.0	6.20	1.70	2.35	64	15.4	2620	2781.8	1.11	1.11	1440	1410	32.1	33.8	61.53	99160	200	28.0	637	754	1.84	1.54	1.50	1.41	1.15	1.01	D
640	0108	2792.5	12.2	1.81	2.09	63	15.4	2610	2782.7	1.11	1.11	1442	1440	32.1	34.1	59.78	99926	202	28.2	421	749	1.86	1.34	1.30	1.40	1.15	1.01	D
641	0125	2795.0	8.88	1.84	2.22	63	16.0	2630	2784.3	1.11	1.11	1444	1526	32.2	33.8	60.10	100990	205	28.5	598	747	1.88	1.45	1.40	1.39	1.15	1.01	D
642	0138	2797.5	10.9	1.87	2.33	63	16.0	2620	2786.8	1.11	1.11	1442	1436	32.2	34.1	59.94	101854	207	28.7	448	743	1.89	1.38	1.34	1.38	1.15	1.01	D
643	0212	2800.0	8.19	1.75	2.18	63	15.4	2620	2789.5	1.11	1.11	1442	1439	32.1	33.3	59.62	103328	210	29.1	598	744	1.92	1.46	1.41	1.39	1.15	1.01	D
644	0235	2802.5	6.56	1.69	2.05	65	16.4	2600	2793.4	1.11	1.11	1443	1441	32.1	33.4	59.30	104802	212	29.5	841	744	1.94	1.56	1.52	1.41	1.15	1.01	D
645	0256	2805.0	7.10	1.71	2.18	65	16.6	2620	2796.7	1.11	1.11	1442	1438	32.0	33.2	59.30	106192	215	29.9	730	743	1.97	1.54	1.50	1.43	1.15	1.01	D
646	0313	2807.5	8.55	1.88	2.28	63	16.4	2610	2799.0	1.11	1.11	1446	1456	31.9	33.7	59.30	107315	217	30.1	589	742	1.99	1.48	1.43	1.43	1.15	1.01	D
647	0345	2810.0	2.37	1.44	1.57	68	16.7	2570	2801.5	1.11	1.11	1438	1403	31.8	33.4	59.78	108895	220	30.5	2051	746	2.02	1.89	1.84	1.43	1.15	1.01	D
648	0447	2812.5	3.98	1.69	2.24	62	17.1	2590	2808.4	1.11	1.11	1442	1440	32.0	33.5	58.03	112683	222	31.6	415	757	2.09	1.72	1.68	1.47	1.15	1.01	D
649	0513	2815.0	5.73	1.73	2.09	63	17.8	2590	2809.2	1.11	1.11	1442	1596	32.0	33.7	58.03	114367	225	32.0	857	759	2.12	1.64	1.59	1.51	1.15	1.01	D
650	0543	2817.5	5.03	1.64	1.94	64	18.1	2590	2310.7	1.11	1.11	1442	1623	32.1	33.8	57.87	116292	227	32.5	1054	761	2.15	1.70	1.64	1.55	1.15	1.01	D
653	0624	2820.0	6.96	1.52	1.63	61	18.1	2640	2813.2	1.11	1.11	1454	1446	32.1	33.8	57.24	117193	230	32.9	353	760	2.15	1.59	1.54	1.30	1.14	1.01	D
654	0643	2822.5	7.82	1.74	2.05	59	16.1	2640	2815.7	1.11	1.11	1451	1509	32.3	34.7	57.24	118336	232	33.2	602	759	2.17	1.48	1.43	1.30	1.15	1.01	D
655	0705	2825.0	6.76	1.71	2.02	59	16.1	2640	2818.3	1.11	1.11	1454	1499	32.6	35.2	57.24	119663	235	33.5	661	759	2.20	1.52	1.47	1.30	1.15	1.01	D
656	0727	2827.5	6.99	1.76	2.12	59	16.8	2630	2820.1	1.11	1.11	1454	1564	32.7	35.0	56.92	120945	237	33.9	698	758	2.22	1.53	1.48	1.30	1.15	1.01	D
NB#11 (Run#13) SMITH F3 8.5" with 10,10,11 jets. Start depth 2828m. IADC bit condition T4 B6 G0.																												
662	1820	2830.0	8.14	1.87	2.12	65	12.8	2580	2828.0	1.11	1.11	1456	1531	25.4	28.3	57.55	970	2.0	.2	655	5955	.02	1.39	1.40	1.33	1.14	1.01	D
663	1833	2832.5	11.6	1.86	2.06	65	13.2	2580	2828.0	1.11	1.11	1458	1570	25.3	31.2	57.87	1824	4.5	.5	430	2897	.03	1.30	1.31	1.33	1.15	1.01	D
664	1908	2835.0	4.17	1.78	1.99	66	13.8	2570	2828.0	1.11	1.11	1459	1790	28.0	31.6	58.83	4171	7.0	1.1	1651	2272	.08	1.62	1.63	1.33	1.15	1.01	D

SHELL DEV. AUST. : BASKER SOUTH No.1

Data Printed at time 10:33 Date Dec 21 '83
Data Recorded at time 19:56 Date Dec 14 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
665	1956	2837.5	5.08	1.74	2.01	66	14.0	2530	2832.1	1.11	1.11	1446	1530	29.8	33.8	60.26	6490	9.5	1.7	1017	2034	.13	1.57	1.58	1.33	1.15	1.01	D↑
666	2017	2840.0	6.87	1.82	2.05	63	15.2	2540	2834.2	1.11	1.11	1453	1544	31.2	34.3	61.21	7867	12.0	2.1	718	1752	.16	1.51	1.51	1.33	1.15	1.01	D
667	2041	2842.5	6.28	1.79	2.13	63	15.0	2560	2835.3	1.11	1.11	1454	1563	32.2	35.1	61.37	9367	14.5	2.4	805	1577	.19	1.53	1.55	1.33	1.15	1.01	D
668	2113	2845.0	4.63	1.79	2.07	63	15.2	2570	2837.7	1.11	1.11	1450	1548	33.2	36.4	61.21	11434	17.0	3.0	1298	1504	.23	1.63	1.64	1.33	1.15	1.01	D
669	2144	2847.5	7.30	1.81	2.06	64	15.5	2580	2840.7	1.11	1.11	1453	1510	33.6	37.0	59.78	12984	19.5	3.4	709	1418	.26	1.50	1.52	1.33	1.15	1.01	D
670	2208	2850.0	6.09	1.82	2.06	64	15.7	2560	2843.4	1.11	1.11	1453	1498	34.1	37.5	59.62	14554	22.0	3.8	1043	1349	.29	1.56	1.58	1.33	1.15	1.01	D
671	2233	2852.5	5.97	1.79	2.06	64	15.7	2570	2844.9	1.11	1.11	1454	1568	34.6	37.4	59.94	16175	24.5	4.2	817	1296	.33	1.57	1.58	1.33	1.15	1.01	D
672	2302	2855.0	5.35	1.79	2.07	65	15.7	2560	2847.7	1.11	1.11	1450	1591	34.9	37.0	60.57	18017	27.0	4.7	948	1266	.37	1.60	1.61	1.33	1.15	1.01	D
673	2336	2857.5	6.56	1.80	2.02	66	15.4	2550	2850.3	1.11	1.11	1446	1605	34.8	36.6	60.26	19738	29.5	5.1	746	1231	.40	1.54	1.55	1.33	1.15	1.01	D
Date Dec 15 '83																												
674	0019	2860.0	3.52	1.71	1.98	68	15.2	2520	2854.3	1.11	1.11	1446	1526	35.1	38.2	61.21	22635	32.0	5.8	2191	1246	.46	1.73	1.73	1.33	1.15	1.01	D
675	0055	2862.5	4.10	1.75	2.12	67	15.8	2520	2857.7	1.11	1.11	1446	1547	35.4	37.1	61.21	25065	34.5	6.4	1109	1243	.51	1.70	1.70	1.33	1.15	1.01	D
676	0120	2865.0	6.01	1.80	2.20	66	15.7	2520	2859.5	1.11	1.11	1448	1569	35.1	37.1	61.21	26737	37.0	6.9	835	1216	.55	1.58	1.58	1.33	1.15	1.01	D
677	0144	2867.5	12.3	1.88	2.63	60	15.6	2530	2860.3	1.11	1.11	1446	1498	34.8	36.8	60.89	27643	39.5	7.1	404	1170	.57	1.33	1.34	1.33	1.15	1.01	D
678	0211	2870.0	5.53	1.83	2.01	56	16.4	2530	2852.2	1.11	1.11	1451	1501	34.8	37.5	60.73	29154	42.0	7.6	926	1154	.60	1.57	1.58	1.33	1.15	1.01	D
679	0231	2872.5	7.58	1.83	2.09	55	16.7	2530	2863.5	1.11	1.11	1450	1996	34.9	37.7	60.73	30251	44.5	7.9	644	1127	.62	1.48	1.49	1.33	1.15	1.01	D
680	0313	2875.0	3.57	1.74	2.06	56	17.6	2520	2868.7	1.11	1.11	1450	1458	35.1	37.0	60.42	32611	47.0	8.6	1545	1141	.67	1.75	1.76	1.33	1.15	1.01	D
681	0352	2877.5	5.76	1.79	2.67	54	15.4	2590	2872.3	1.11	1.11	1473	1542	34.7	36.5	59.94	34215	49.5	9.1	932	1133	.70	1.52	1.53	1.33	1.15	1.01	D
682	0433	2880.0	3.67	1.70	2.09	57	14.9	2600	2875.0	1.11	1.11	1473	1552	34.5	36.8	59.78	36557	52.0	9.8	1455	1145	.74	1.65	1.66	1.33	1.15	1.01	D
683	0517	2882.5	3.71	1.75	2.01	55	15.3	2590	2878.3	1.11	1.11	1471	1478	34.7	37.1	60.89	38815	54.5	10.5	1389	1156	.78	1.65	1.66	1.33	1.15	1.01	D↑
684	0612	2885.0	4.34	1.78	2.33	55	16.2	2510	2881.3	1.11	1.11	1440	1896	34.5	37.1	62.80	40931	57.0	11.1	1142	1159	.82	1.64	1.65	1.33	1.15	1.01	D↑
685	0649	2887.5	4.48	1.81	3.01	57	15.4	2490	2883.4	1.11	1.11	1457	1489	34.5	37.1	61.53	42965	59.5	11.7	1030	1161	.86	1.62	1.62	1.33	1.14	1.01	D
686	0710	2890.0	7.31	1.82	2.05	54	15.9	2600	2884.9	1.11	1.11	1477	1542	34.4	36.3	61.05	44081	62.0	12.0	722	1142	.88	1.47	1.48	1.33	1.14	1.01	D
687	0305	2892.5	2.71	1.82	2.35	57	16.2	2660	2887.7	1.11	1.11	1476	1633	34.6	38.0	61.05	47217	64.5	12.9	1128	1169	.94	1.80	1.80	1.33	1.14	1.01	D
688	0354	2895.0	4.19	1.84	2.35	57	17.4	2610	2891.0	1.11	1.11	1457	1530	35.2	37.6	61.85	49575	66.9	13.6	1113	1177	.98	1.71	1.71	1.33	1.14	1.01	D↑
689	0922	2897.6	5.48	1.84	2.14	55	16.1	2560	2892.5	1.11	1.11	1460	1561	35.3	37.2	60.42	51132	69.5	14.1	931	1167	1.01	1.57	1.57	1.33	1.14	1.01	D
690	0948	2900.0	5.56	1.91	2.26	55	15.5	2660	2893.6	1.11	1.11	1457	1554	35.4	37.4	59.94	52588	72.0	14.5	879	1158	1.04	1.54	1.54	1.33	1.14	1.01	D
691	1029	2902.5	3.64	1.80	2.24	55	16.2	2640	2896.7	1.10	1.11	1446	1548	35.0	37.5	60.73	54877	74.5	15.2	1565	1165	1.08	1.70	1.70	1.33	1.14	1.01	D
692	1112	2905.0	5.99	1.83	2.13	55	15.6	2680	2899.8	1.11	1.11	1457	1585	34.8	37.0	60.89	56507	77.0	15.7	901	1162	1.11	1.53	1.52	1.33	1.14	1.01	D
693	1142	2907.5	5.07	1.80	2.13	55	15.1	2680	2901.9	1.11	1.11	1461	1701	34.7	38.2	61.85	58140	79.5	16.2	1028	1156	1.13	1.57	1.56	1.33	1.14	1.01	D
694	1209	2910.0	5.53	1.91	2.28	55	15.0	2670	2904.1	1.11	1.11	1465	1576	34.9	37.2	63.12	59654	82.0	16.7	840	1149	1.16	1.53	1.52	1.33	1.14	1.01	D
695	1257	2912.5	3.11	1.83	2.36	55	15.6	2660	2907.7	1.11	1.11	1465	1545	34.9	37.2	64.55	62316	84.5	17.5	1540	1162	1.21	1.73	1.72	1.33	1.14	1.01	D
696	1343	2915.0	4.16	1.79	2.24	58	15.0	2590	2911.0	1.11	1.11	1461	1529	34.7	36.4	67.09	64645	87.0	18.1	1195	1166	1.25	1.63	1.62	1.33	1.14	1.01	D
697	1418	2917.5	4.26	1.83	2.21	60	14.9	2590	2912.7	1.10	1.11	1454	1559	34.7	36.9	67.57	66753	89.5	18.7	1152	1166	1.29	1.63	1.62	1.33	1.14	1.01	D
698	1442	2920.0	6.23	1.89	2.17	59	14.7	2600	2913.9	1.11	1.11	1454	1563	34.7	36.8	67.73	68199	92.0	19.1	791	1157	1.31	1.51	1.49	1.33	1.14	1.01	D
699	1516	2922.5	4.41	1.82	2.21	60	14.8	2600	2916.7	1.11	1.11	1457	1550	34.7	36.7	68.52	70264	94.5	19.7	1357	1156	1.35	1.62	1.60	1.33	1.14	1.01	D
700	1607	2925.0	3.85	1.80	2.16	61	14.1	2510	2920.8	1.11	1.11	1454	1595	34.7	36.4	67.73	73002	97.0	20.4	1195	1164	1.39	1.64	1.62	1.33	1.14	1.01	D
701	1645	2927.5	3.91	1.79	2.13	61	13.7	2660	2923.0	1.10	1.11	1451	1589	34.7	36.8	65.98	75370	99.5	21.0	1251	1165	1.43	1.62	1.60	1.33	1.14	1.01	D
702	1715	2930.0	5.05	1.82	2.06	61	12.7	2680	2924.9	1.11	1.11	1454	1603	34.7	36.9	65.18	77191	102	21.5	957	1162	1.46	1.51	1.49	1.33	1.14	1.01	D
703	1823	2932.5	11.3	1.79	2.32	66	9.19	2560	2928.2	1.10	1.11	1416	1636	34.8	38.6	63.75	78168	104	21.8	500	1150	1.48	1.19	1.17	1.31	1.14	1.01	D↑
707	1905	2935.0	10.4	1.87	2.13	67	11.4	2670	2929.3	1.11	1.11	1453	1553	35.2	36.6	63.44	80309	107	22.4	522	1144	1.51	1.29	1.27	1.33	1.14	1.01	D
708	1952	2937.5	3.03	1.70	2.12	66	13.9	2570	2931.5	1.11	1.11	1450	1592	34.8	37.0	64.07	83418	109	23.1	1639	1155	1.57	1.72	1.70	1.34	1.14	1.01	D
709	2045	2940.0	2.70	1.60	1.83	67	14.1	2650	2936.5	1.11	1.11	1453	1582	34.6	36.6	63.91	86961	112	24.0	1810	1170	1.63	1.77	1.74	1.33	1.14	1.01	D
710	2203	2942.5	2.48	1.64	1.95	66	14.1	2650	2939.8	1.11	1.11	1446	1603	34.4	35.7	62.64	91575	114	25.2	2333	1193	1.71	1.79	1.76	1.34	1.14	1.01	D
711	2250	2945.0	3.16	1.68	1.78	64	14.3	2640	2941.6	1.10	1.11	1446	1553	34.3	35.7	63.28	94651	117	25.9	1566	1201	1.76	1.72	1.69	1.33	1.14	1.01	D
712	2317	2947.5	5.62	1.75	2.20	60	13.1	2680	2942.5	1.11	1.11	1460	1495	34.2	36.0	65.50	96282	119	26.4	917	1195	1.78	1.49	1.46	1.35	1.14	1.01	D
713	2354	2950.0	3.50	1.66	2.74	57	13.3	2650	2944.6	1.10	1.11	1452	1460	34.2	36.5	65.82	98444	122	27.0	1871	1195	1.82	1.61	1.59	1.38	1.14	1.01	D
Date Dec 16 '83																												
714	0045	2952.5	3.89	1.61	2.13	63	14.5	2660	2948.7	1.11	1.11	1454	1535	34.4	37.6	68.68	101231	124	27.7	1130	1200	1.86	1.66	1.62	1.35	1.14	1.01	D
715	0058	2955.0	11.6	1.82	2.12	61	13.7	2660	2949.2	1.11	1.11	1457	1544	34.5	36.9	64.87	102019	127	27.9	431	1185	1.88	1.31	1.27	1.33	1.14	1.01	D

SHELL DEV. AUST. : BASKER SOUTH No.1

Data Printed at time 14:44 Date Dec 21 '83
Data Recorded at time 01:30 Date Dec 16 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
716	0130	2957.5	4.69	1.78	2.25	62	14.0	2620	2950.5	1.11	1.11	1457	1462	34.6	37.2	62.16	104013	129	28.5	895	1183	1.91	1.58	1.55	1.37	1.14	1.01	D
717	0145	2960.0	10.2	1.87	2.07	62	13.4	2640	2951.2	1.11	1.11	1467	1477	34.7	37.3	61.37	104917	132	28.7	479	1170	1.92	1.33	1.30	1.36	1.14	1.01	D
718	0212	2962.5	9.88	1.88	2.17	62	13.0	2570	2953.0	1.11	1.11	1443	1471	34.8	36.1	63.91	106130	134	29.0	539	1160	1.94	1.34	1.30	1.35	1.14	1.01	D
719	0245	2965.0	4.57	1.83	2.18	64	13.3	2570	2956.5	1.10	1.11	1442	1447	34.3	35.9	60.42	108235	137	29.6	1913	1159	1.97	1.57	1.53	1.38	1.14	1.01	D
720	0342	2967.5	2.63	1.65	2.03	64	14.0	2550	2964.1	1.10	1.11	1441	1614	34.2	36.4	57.71	111916	139	30.5	2112	1172	2.03	1.76	1.72	1.35	1.14	1.01	D
721	0412	2970.0	4.90	1.78	2.25	63	13.3	2500	2965.5	1.10	1.11	1438	1434	34.3	36.4	54.69	113879	142	31.0	1017	1169	2.07	1.55	1.51	1.37	1.14	1.01	D
722	0451	2972.5	5.60	1.80	2.16	64	12.6	2580	2967.0	1.11	1.11	1446	1493	34.1	36.2	56.44	115838	144	31.5	862	1167	2.09	1.49	1.45	1.39	1.14	1.01	D
723	0504	2975.0	11.9	1.86	2.12	64	12.7	2580	2967.5	1.11	1.11	1449	1394	34.0	36.5	54.06	116639	147	31.7	416	1154	2.11	1.28	1.24	1.37	1.14	1.01	D
724	0517	2977.5	11.8	1.90	2.26	63	12.5	2580	2967.9	1.11	1.11	1446	1342	34.1	36.8	53.42	117438	149	32.0	424	1142	2.12	1.27	1.23	1.35	1.14	1.01	D
725	0616	2980.1	4.47	1.78	2.30	64	11.5	2400	2971.1	1.10	1.11	1370	1273	33.8	35.7	56.44	119762	152	32.6	2247	1145	2.16	1.51	1.47	1.35	1.14	1.01	D↑
727	0737	2985.0	4.70	1.81	2.36	63	14.2	2560	2979.4	1.10	1.11	1458	1442	34.1	36.6	48.01	124008	157	33.7	684	1142	2.22	1.57	1.53	1.35	1.14	1.01	D
728	0817	2987.5	4.29	1.83	2.36	64	4.16	2590	2979.9	1.10	1.11	1454	1439	34.4	36.1	52.47	126452	160	34.4	3054	1146	2.26	1.60	1.56	1.35	1.14	1.01	D
729	0924	2990.0	3.75	1.79	2.36	60	14.4	2540	2986.6	1.10	1.11	1451	1403	34.4	37.4	51.35	130197	162	35.4	1431	1160	2.32	1.65	1.61	1.39	1.14	1.01	D↑
730	1016	2992.5	2.88	1.65	2.25	64	14.3	2540	2988.5	1.11	1.11	1454	1437	34.9	38.3	53.90	133534	164	36.3	1524	1168	2.37	1.74	1.69	1.35	1.14	1.01	D
731	1051	2995.0	4.26	1.80	2.32	6:	14.2	2550	2989.8	1.11	1.11	1450	1464	34.9	38.6	58.67	135715	167	36.8	1694	1168	2.41	1.62	1.57	1.39	1.14	1.01	D
732	1149	2997.5	2.55	1.73	2.29	62	14.4	2480	2993.7	1.10	1.11	1450	1435	35.5	38.1	64.87	139445	169	37.8	1857	1180	2.47	1.78	1.73	1.35	1.14	1.01	D

NB#12 (Run#14) VAREL 537 8.5" with 10,10,11 jets. Start depth 2999m. IADC bit condition T3 B5 G0.

Date Dec'17 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
736	0855	3000.0	2.65	2.14	2.24	47	8.55	2650	2999.0	1.11	1.11	1435	1320	23.2	27.8	61.21	1097	1.0	.4	2190	13041	.02	1.44	1.47	1.34	1.14	1.01	D
737	0910	3001.0	3.92	2.08	2.21	50	13.8	2570	2999.0	1.11	1.11	1435	1274	23.7	30.3	62.16	1851	2.0	.6	1284	7061	.03	1.56	1.60	1.33	1.14	1.01	D
738	0922	3002.0	5.04	2.08	2.25	50	13.9	2550	2999.0	1.10	1.11	1438	1323	24.5	30.9	62.16	2442	3.0	.8	1006	5044	.04	1.49	1.52	1.34	1.14	1.01	D
739	0940	3003.0	3.23	2.03	2.13	50	14.0	2520	2999.0	1.10	1.11	1442	1777	25.9	31.8	62.64	3372	4.0	1.1	1545	4165	.06	1.63	1.66	1.33	1.14	1.01	D
740	0959	3004.0	3.23	2.01	2.09	51	13.8	2530	2999.3	1.10	1.11	1443	1721	27.3	32.2	62.96	4312	5.0	1.5	1561	3661	.07	1.62	1.65	1.34	1.14	1.01	D
741	1010	3005.0	5.23	2.02	2.17	51	14.5	2530	2999.7	1.11	1.11	1442	1672	27.9	32.8	64.07	4906	6.0	1.6	1022	3217	.08	1.51	1.54	1.35	1.14	1.01	D
742	1022	3006.0	5.16	1.99	2.20	52	14.7	2530	3000.4	1.10	1.11	1442	1611	28.6	33.0	64.87	5502	7.0	1.8	934	2876	.10	1.53	1.56	1.37	1.14	1.01	D
743	1027	3007.0	12.4	2.03	2.16	53	14.3	2530	3000.7	1.11	1.11	1445	1608	28.9	33.0	65.18	5757	8.0	1.9	443	2569	.10	1.26	1.29	1.35	1.14	1.01	D
744	1103	3008.0	4.73	1.93	2.10	51	14.0	2530	3002.6	1.10	1.11	1444	1315	30.0	33.7	68.21	6742	9.0	2.3	1219	2469	.12	1.52	1.55	1.37	1.14	1.01	D
745	1126	3009.0	2.71	1.92	2.06	50	14.6	2510	3003.8	1.11	1.11	1454	1419	30.5	34.5	65.34	7855	10.0	2.6	2296	2416	.14	1.70	1.73	1.36	1.14	1.01	D
746	1202	3010.0	1.65	1.87	1.99	53	15.0	2570	3007.5	1.11	1.11	1447	1404	31.6	35.5	65.03	9794	11.0	3.2	3651	2462	.17	1.88	1.91	1.37	1.14	1.01	D
747	1226	3011.0	2.83	1.84	2.01	42	13.9	2590	3007.9	1.11	1.11	1446	1407	32.1	35.6	66.30	10743	12.0	3.6	1882	2417	.19	1.61	1.65	1.36	1.14	1.01	D
748	1241	3012.0	4.08	1.89	2.02	46	13.8	2560	3008.6	1.10	1.11	1446	1490	32.4	35.4	68.52	11433	13.0	3.8	1159	2324	.20	1.53	1.56	1.37	1.14	1.01	D
749	1302	3013.0	2.82	1.85	1.97	48	13.4	2530	3009.3	1.11	1.11	1449	1434	32.7	35.8	70.75	12464	13.9	4.2	2198	2295	.22	1.63	1.66	1.36	1.14	1.01	D
750	1317	3014.0	4.12	1.88	1.98	49	14.1	2590	3009.7	1.10	1.11	1442	1447	32.9	35.6	69.95	13166	15.0	4.4	1230	2220	.23	1.56	1.58	1.37	1.14	1.01	D
751	1328	3015.0	5.25	1.94	2.16	48	14.1	2620	3010.0	1.11	1.11	1441	1428	33.1	36.0	69.16	13716	16.0	4.6	862	2134	.24	1.48	1.51	1.39	1.14	1.01	D
752	1343	3016.0	4.04	1.89	1.99	50	15.0	2640	3010.6	1.10	1.11	1438	1412	33.2	36.1	68.84	14448	17.0	4.9	1436	2031	.25	1.59	1.62	1.40	1.14	1.01	D
753	1359	3017.0	3.67	1.88	1.98	50	15.1	2660	3011.6	1.11	1.11	1442	1447	33.4	36.6	68.68	15282	18.0	5.2	1371	2046	.27	1.63	1.66	1.42	1.14	1.01	D
754	1431	3018.0	3.41	1.86	2.06	51	14.4	2700	3013.0	1.11	1.11	1450	1489	33.5	36.4	69.16	16336	19.0	5.5	1381	2027	.29	1.63	1.65	1.43	1.14	1.01	D↑
755	1448	3019.0	3.46	1.93	2.03	50	13.9	2690	3014.1	1.11	1.11	1455	1432	33.8	35.9	70.11	17202	20.0	5.8	1542	1998	.30	1.60	1.63	1.45	1.14	1.01	D
756	1501	3020.0	4.59	1.98	2.12	50	14.1	2680	3015.5	1.11	1.11	1450	1403	34.0	35.8	70.43	17852	21.0	6.0	1118	1955	.31	1.53	1.55	1.46	1.14	1.01	D
757	1519	3021.0	3.46	1.90	2.05	51	14.7	2680	3016.4	1.10	1.11	1454	1444	34.1	36.1	70.75	18762	22.0	6.3	1967	1933	.33	1.64	1.66	1.48	1.14	1.01	D
758	1537	3022.0	3.16	1.89	1.98	52	14.8	2680	3017.7	1.10	1.11	1454	1470	34.1	36.6	70.75	19729	23.0	6.6	1550	1918	.35	1.67	1.69	1.50	1.14	1.01	D
759	1552	3023.0	4.13	1.91	2.01	52	13.2	2700	3018.0	1.10	1.11	1454	1449	34.3	36.3	70.75	20474	24.0	6.9	1224	1887	.36	1.54	1.56	1.51	1.14	1.01	D
760	1603	3024.0	5.39	1.91	2.05	52	13.4	2700	3018.6	1.11	1.11	1454	1442	34.4	36.4	70.59	21055	25.0	7.0	958	1849	.37	1.47	1.49	1.51	1.14	1.01	D
761	1622	3025.0	3.20	1.91	2.02	52	14.6	2700	3019.9	1.11	1.11	1454	1509	34.5	36.9	69.95	22020	26.0	7.4	1541	1838	.39	1.66	1.68	1.53	1.14	1.01	D
762	1639	3026.0	3.46	1.91	2.02	52	14.4	2720	3020.9	1.11	1.11	1454	1452	34.6	37.2	69.95	22921	27.0	7.6	1513	1825	.40	1.63	1.65	1.55	1.14	1.01	D
763	1656	3027.0	3.61	1.92	2.01	52	14.4	2720	3021.7	1.11	1.11	1454	1460	34.8	38.3	69.95	23781	28.0	7.9	1404	1807	.42	1.62	1.64	1.56	1.14	1.01	D
764	1726	3028.0	4.46	1.92	2.07	46	14.4	2700	3023.3	1.11	1.11	1442	1433	35.2	38.3	69.64	24511	29.0	8.2	1082	1799	.43	1.53	1.55	1.57	1.14	1.01	D
765	1744	3029.1	3.62	1.95	2.10	44	13.9	2720	3024.4	1.10	1.11	1446	1418	35.6	38.6	68.05	25303	30.0	8.5	1321	1789	.44	1.55	1.58	1.58	1.14	1.01	D
766	1805	3030.0	2.61	1.94	2.03	45	14.6	2690	3025.5	1.10	1.11	1442	1438	35.7	39.9	69.32	26263	31.0	8.9	1770	1788	.46	1.68	1.71	1.60	1.14	1.01	D
767	1827	3031.0	2.87	1.93	2.05	45	14.2	2660	3026.9	1.10	1.11	1444	1381	36.2	40.0	71.23	27240	32.0	9.2	1855	1790	.47	1.64	1.66	1.62	1.14	1.01	D

SHELL DEV. AUST. : BASKER SOUTH No.1

Data Printed at time 10:44 Date Dec 21 '83
Data Recorded at time 18:49 Date Dec 17 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
768	1849	3032.0	2.53	1.88	2.02	45	14.7	2640	3027.9	1.11	1.11	1444	1423	36.5	40.1	72.18	28274	33.0	9.6	1829	1793	.49	1.70	1.72	1.63	1.14	1.01	D
769	1902	3033.0	4.96	1.90	2.03	45	14.7	2640	3028.7	1.11	1.11	1446	1424	36.7	40.2	72.02	28824	34.0	9.8	1134	1772	.50	1.50	1.52	1.62	1.14	1.01	D
770	1914	3034.0	4.85	1.92	2.07	45	15.1	2640	3029.3	1.10	1.11	1446	1475	36.8	40.7	72.18	29379	35.0	10.0	983	1749	.51	1.51	1.54	1.60	1.14	1.01	D
771	1920	3035.0	10.4	1.97	2.09	45	14.1	2650	3029.5	1.11	1.11	1446	1390	36.9	40.7	72.18	29635	36.0	10.1	500	1715	.51	1.26	1.28	1.62	1.14	1.01	D
772	1925	3036.0	12.4	2.01	2.09	44	14.9	2650	3029.7	1.10	1.11	1446	1420	36.9	40.9	72.34	29849	37.0	10.2	401	1679	.52	1.22	1.25	1.60	1.14	1.01	D
773	1929	3037.0	12.7	2.01	2.09	43	15.5	2640	3029.9	1.11	1.11	1446	1394	37.0	41.0	72.50	30045	38.0	10.3	388	1644	.52	1.23	1.26	1.62	1.14	1.01	D
774	1951	3038.0	7.32	2.02	2.14	48	14.0	2670	3030.6	1.10	1.11	1450	1393	37.2	40.3	72.18	30559	39.0	10.5	962	1625	.53	1.38	1.40	1.60	1.14	1.01	D
775	2018	3039.0	2.30	1.92	2.03	50	14.3	2650	3031.9	1.11	1.11	1452	1381	37.6	40.6	73.61	31869	40.0	10.9	2073	1640	.55	1.73	1.75	1.62	1.14	1.01	D
776	2034	3040.0	3.62	1.94	2.05	49	14.3	2630	3033.3	1.11	1.11	1451	1283	37.6	40.4	75.04	32694	41.0	11.2	1423	1634	.56	1.60	1.61	1.63	1.14	1.01	D
777	2045	3041.0	5.27	1.96	2.12	49	13.0	2630	3034.7	1.11	1.11	1454	1339	37.7	40.8	73.93	33238	42.0	11.4	960	1617	.57	1.45	1.46	1.61	1.14	1.01	D
778	2106	3042.0	2.88	1.94	2.07	50	14.8	2630	3037.4	1.11	1.11	1453	1301	37.8	41.0	73.77	34273	43.0	11.7	2021	1620	.59	1.69	1.71	1.63	1.14	1.01	D
779	2125	3043.0	3.16	1.95	2.12	50	14.3	2560	3038.4	1.11	1.11	1454	1268	38.0	40.8	73.61	35236	44.0	12.0	1607	1620	.61	1.65	1.66	1.65	1.14	1.01	D
780	2150	3044.0	3.63	1.95	2.14	52	13.5	2640	3039.4	1.10	1.11	1438	1300	37.9	40.2	70.43	36223	45.0	12.4	1422	1620	.62	1.59	1.60	1.65	1.14	1.01	D
781	2205	3045.0	3.95	1.97	2.36	52	14.2	2720	3040.0	1.11	1.11	1439	1320	37.7	41.3	69.00	36976	46.0	12.6	1281	1611	.64	1.59	1.60	1.64	1.14	1.01	D
782	2226	3046.0	2.92	1.92	2.17	52	14.5	2690	3041.6	1.11	1.11	1430	1328	37.6	40.6	69.32	38053	47.0	13.0	2119	1614	.65	1.68	1.70	1.66	1.14	1.01	D
783	2252	3047.0	4.81	1.99	2.14	45	14.1	2670	3042.6	1.11	1.11	1426	1339	37.7	41.3	68.21	38740	48.0	13.2	1380	1612	.66	1.49	1.50	1.64	1.14	1.01	D
784	2258	3048.0	10.2	2.02	2.18	46	13.5	2670	3042.9	1.11	1.11	1427	1336	37.7	40.9	68.36	39002	49.0	13.3	479	1584	.67	1.25	1.27	1.66	1.14	1.01	D
785	2302	3049.0	13.0	2.02	2.10	46	13.0	2680	3043.0	1.11	1.11	1429	1339	37.7	41.3	68.52	39215	50.0	13.4	385	1561	.67	1.18	1.19	1.64	1.14	1.01	D
786	2316	3050.0	4.33	1.95	2.16	44	13.8	2680	3043.8	1.11	1.11	1431	1388	37.9	41.3	68.68	39821	51.0	13.6	1214	1552	.68	1.50	1.52	1.62	1.14	1.01	D
787	2339	3051.0	2.80	1.87	2.01	46	13.9	2680	3045.3	1.11	1.11	1431	1346	38.0	41.5	69.00	40855	52.0	14.0	2143	1558	.70	1.64	1.66	1.63	1.14	1.01	D
	Date Dec 18 '83																											
788	0004	3052.0	2.23	1.85	1.98	48	13.9	2630	3046.0	1.11	1.11	1423	1374	38.2	41.7	69.32	42073	53.0	14.4	2115	1569	.72	1.72	1.73	1.65	1.14	1.01	D
789	0023	3053.0	3.18	1.89	2.02	47	14.1	2630	3048.6	1.11	1.11	1420	1343	38.4	41.8	69.64	42971	54.0	14.7	1507	1570	.73	1.62	1.63	1.65	1.14	1.01	D
790	0038	3054.0	4.13	1.92	2.05	47	14.0	2640	3049.9	1.11	1.11	1422	1345	38.5	41.9	69.64	43651	55.0	15.0	1249	1563	.74	1.54	1.56	1.64	1.14	1.01	D
791	0050	3055.0	4.81	1.97	2.12	47	14.2	2640	3050.5	1.11	1.11	1423	1359	38.6	42.2	69.80	44240	56.0	15.2	1066	1554	.75	1.50	1.52	1.62	1.14	1.01	D
792	0108	3056.0	12.3	2.00	2.12	46	14.1	2660	3050.9	1.11	1.11	1427	1447	38.6	41.2	74.09	44526	57.0	15.3	392	1544	.76	1.26	1.27	1.63	1.11	1.01	DX
793	0116	3057.0	14.1	2.13	2.26	51	13.8	2680	3051.1	1.11	1.11	1430	1284	38.5	41.3	69.80	44911	58.0	15.5	387	1524	.76	1.20	1.21	1.62	1.14	1.01	D
794	0125	3058.0	6.62	2.09	2.22	52	14.4	2670	3051.4	1.11	1.11	1427	1306	38.6	41.6	69.95	45373	59.0	15.6	1616	1511	.77	1.44	1.45	1.60	1.14	1.01	D
795	0141	3059.0	3.59	2.12	2.26	53	14.2	2670	3052.1	1.11	1.11	1431	1335	38.6	41.7	70.59	46256	60.0	15.9	1497	1509	.78	1.62	1.63	1.60	1.14	1.01	D
796	0156	3060.0	4.24	2.00	2.13	54	14.5	2670	3053.0	1.10	1.11	1431	1333	38.6	41.7	71.07	47053	61.0	16.1	1224	1505	.80	1.59	1.59	1.60	1.14	1.01	D
797	0212	3061.0	3.61	1.95	2.07	54	14.4	2670	3054.1	1.11	1.11	1431	1432	38.7	41.9	70.27	47919	62.0	16.4	1225	1502	.81	1.63	1.64	1.62	1.14	1.01	D
798	0222	3062.0	5.74	1.99	2.16	54	14.2	2660	3055.3	1.10	1.11	1431	1439	38.7	41.8	70.59	48490	63.0	16.6	863	1492	.82	1.49	1.50	1.60	1.14	1.01	D
799	0226	3063.0	14.5	2.06	2.14	54	14.1	2670	3055.7	1.11	1.11	1431	1389	38.8	41.7	70.75	48705	64.0	16.6	338	1474	.83	1.22	1.22	1.62	1.14	1.01	D
800	0241	3064.0	12.6	2.07	2.21	56	13.9	2720	3056.0	1.11	1.11	1443	1299	38.6	41.1	71.54	49014	65.0	16.7	445	1459	.83	1.27	1.27	1.60	1.14	1.01	D
801	0245	3065.0	15.5	2.10	2.22	56	13.8	2730	3056.8	1.11	1.11	1446	1295	38.6	41.1	71.70	49231	66.0	16.8	318	1441	.84	1.20	1.20	1.62	1.14	1.01	D
802	0304	3066.0	7.59	2.02	2.16	54	13.7	2690	3058.1	1.11	1.11	1432	1240	38.5	40.3	72.50	49800	67.0	17.0	490	1433	.84	1.40	1.40	1.60	1.14	1.01	D
803	0311	3067.0	8.10	1.99	2.18	57	13.7	2660	3058.6	1.11	1.11	1427	1260	38.4	40.6	72.18	50231	67.9	17.1	669	1422	.85	1.39	1.39	1.58	1.14	1.01	D
804	0326	3068.0	3.88	1.97	2.22	57	13.2	2660	3059.6	1.10	1.11	1427	1306	38.3	41.3	72.82	51102	69.0	17.4	1067	1419	.87	1.58	1.58	1.58	1.14	1.01	D
805	0334	3069.0	7.89	1.96	2.07	56	12.7	2650	3060.0	1.11	1.11	1427	1327	38.3	41.6	72.82	51526	70.0	17.5	638	1407	.87	1.35	1.36	1.56	1.14	1.01	D
806	0345	3070.0	5.27	1.96	2.09	55	12.9	2640	3060.6	1.11	1.11	1427	1272	38.3	41.0	73.29	52156	71.0	17.7	792	1401	.88	1.47	1.48	1.54	1.14	1.01	D
807	0400	3071.0	3.99	1.97	2.07	56	13.4	2640	3062.5	1.11	1.11	1427	1244	38.3	41.1	73.61	52994	72.0	17.9	1233	1399	.90	1.57	1.57	1.54	1.14	1.01	D
808	0413	3072.0	5.09	1.97	2.13	55	13.4	2630	3064.7	1.10	1.11	1427	1267	38.3	41.5	73.93	53660	72.9	18.1	1112	1395	.91	1.50	1.50	1.53	1.14	1.01	D
809	0425	3073.0	4.69	1.95	2.05	54	13.3	2640	3065.6	1.11	1.11	1430	1253	38.2	41.3	74.25	54331	74.0	18.3	1053	1388	.92	1.52	1.52	1.53	1.14	1.01	D
810	0435	3074.0	6.10	2.00	2.20	55	13.5	2620	3067.0	1.11	1.11	1427	1243	37.9	41.3	74.25	54877	75.0	18.5	923	1381	.93	1.46	1.46	1.51	1.14	1.01	D
811	0502	3075.0	3.57	1.90	2.10	55	13.7	2680	3069.0	1.11	1.11	1438	1286	38.0	41.3	74.09	56020	76.0	18.8	1471	1385	.95	1.61	1.61	1.53	1.14	1.01	D↑
812	0527	3076.0	2.40	1.95	2.10	53	14.1	2640	3070.9	1.10	1.11	1427	1267	38.1	41.9	73.93	57343	77.0	19.3	3007	1394	.97	1.73	1.74	1.54	1.14	1.01	D
813	0541	3077.0	4.37	1.96	2.17	52	13.9	2640	3072.1	1.11	1.11	1427	1253	38.2	41.7	74.25	58080	78.0	19.5	1247	1392	.98	1.55	1.55	1.55	1.14	1.01	D
814	0601	3078.0	2.82	1.94	2.05	55	13.8	2640	3073.9	1.11	1.11	1431	1279	38.4	41.5	74.72	59197	79.0	19.8	1910	1395	1.00	1.69	1.69	1.57	1.14	1.01	D
815	0623	3079.0	2.89	1.93	2.03	56	14.2	2600	3074.8	1.11	1.11	1428	1205	38.6	41.2	75.36	60425	80.0	20.2	1740	1400	1.02	1.70	1.70	1.58	1.14	1.01	D
816	0635	3080.0	4.90	1.93	2.13	57	14.0	2630	3075.5	1.11	1.11	1427	1263	38.9	41.5	70.43	61084	81.0	20.4	977	1395	1.03	1.54	1.54	1.58	1.14	1.01	D

Data [illegible]corSHHLatDEVme 06:42 Date Dec 18 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
817	0642	3081.0	7.25	1.96	2.09	56	14.0	2620	3075.8	1.11	1.11	1427	1227	39.0	41.6	55.80	61518	82.0	20.5	725	1386	1.04	1.43	1.42	1.56	1.14	1.01	D
818	0652	3082.0	5.98	1.97	2.16	56	13.9	2580	3076.1	1.11	1.11	1430	1229	39.0	41.9	58.67	62079	83.0	20.7	750	1379	1.05	1.48	1.47	1.55	1.14	1.01	D
819	0700	3083.0	7.40	2.01	2.10	56	14.3	2590	3076.7	1.11	1.11	1430	1199	39.0	42.4	59.78	62532	84.0	20.8	682	1371	1.06	1.43	1.43	1.53	1.14	1.01	D
820	0711	3084.0	5.45	1.97	2.09	57	14.4	2610	3077.4	1.10	1.11	1430	1174	39.0	42.7	61.37	63159	85.0	21.0	914	1365	1.07	1.53	1.52	1.52	1.14	1.01	D
821	0742	3085.0	2.99	1.94	2.05	54	14.5	2610	3078.6	1.11	1.11	1431	1219	39.1	42.3	62.32	64446	86.0	21.4	1841	1373	1.09	1.69	1.69	1.54	1.14	1.01	D
822	0756	3086.0	4.30	1.95	2.09	54	14.2	2640	3079.6	1.11	1.11	1431	1271	39.3	42.9	62.64	65179	87.0	21.6	1091	1370	1.10	1.57	1.57	1.55	1.14	1.01	D
823	0810	3087.0	4.08	1.95	2.10	53	14.1	2600	3081.0	1.10	1.11	1431	1275	39.5	43.5	63.59	65968	88.0	21.9	1131	1368	1.11	1.58	1.57	1.55	1.14	1.01	D
824	0828	3088.0	3.28	1.93	2.02	52	14.0	2620	3083.1	1.10	1.11	1434	1263	39.8	43.7	63.91	66905	89.0	22.2	1620	1370	1.13	1.64	1.63	1.57	1.14	1.01	D
825	0847	3089.0	3.32	1.94	2.02	53	14.4	2610	3084.2	1.10	1.11	1434	1277	40.4	43.8	64.55	67881	90.0	22.5	1577	1371	1.14	1.65	1.65	1.59	1.14	1.01	D
826	0901	3090.0	3.71	1.95	2.18	54	14.1	2630	3084.8	1.11	1.11	1435	1309	40.6	44.2	64.71	68673	91.0	22.7	1371	1371	1.16	1.61	1.61	1.60	1.14	1.01	D
828	0918	3091.0	3.74	1.98	2.18	53	14.2	2620	3085.9	1.11	1.11	1435	1312	40.8	44.4	64.55	69547	92.0	23.0	1311	1370	1.17	1.61	1.60	1.59	1.14	1.01	D
829	0922	3092.0	13.2	2.03	2.16	53	13.9	2700	3086.1	1.10	1.11	1431	1288	40.9	44.4	61.69	69792	93.0	23.1	399	1359	1.18	1.24	1.23	1.59	1.14	1.01	D
830	0933	3093.0	5.43	1.98	2.41	55	13.8	2730	3086.9	1.10	1.11	1436	1343	41.0	44.8	61.05	70380	94.0	23.2	1503	1354	1.18	1.50	1.49	1.58	1.14	1.01	D
831	1001	3094.0	5.93	1.95	2.02	53	14.3	2700	3088.3	1.11	1.11	1423	1337	40.9	42.4	62.80	71468	95.0	23.6	1239	1356	1.20	1.48	1.47	1.58	1.14	1.01	D
832	1020	3095.0	3.05	1.94	2.09	53	14.2	2670	3089.4	1.11	1.11	1420	1265	40.5	44.7	64.71	72466	96.0	23.9	1781	1359	1.22	1.67	1.66	1.59	1.14	1.01	D
833	1038	3096.0	3.11	1.92	2.03	54	14.3	2660	3090.4	1.11	1.11	1422	1295	40.6	45.8	66.62	73448	97.0	24.2	1612	1361	1.23	1.67	1.66	1.61	1.14	1.01	D
834	1054	3097.0	3.88	1.91	2.02	54	13.8	2630	3092.6	1.11	1.11	1420	1385	40.9	45.4	70.27	74283	97.9	24.4	1288	1361	1.25	1.59	1.58	1.60	1.14	1.01	D
835	1103	3098.0	6.14	1.93	2.13	54	13.8	2630	3093.1	1.11	1.11	1422	1249	41.1	45.2	71.07	74785	99.0	24.6	803	1355	1.26	1.46	1.45	1.59	1.14	1.01	D
836	1121	3099.0	3.43	1.94	2.14	53	14.1	2650	3093.8	1.10	1.11	1421	1250	41.4	45.0	69.80	75734	100	24.9	1341	1355	1.27	1.63	1.63	1.59	1.14	1.01	D
837	1134	3100.0	4.75	1.96	2.14	54	13.7	2660	3094.6	1.10	1.11	1423	1252	41.5	45.1	70.27	76407	101	25.1	1079	1352	1.28	1.53	1.52	1.58	1.14	1.01	D
838	1146	3101.0	4.99	1.94	2.14	54	14.0	2660	3095.2	1.10	1.11	1423	1294	41.7	43.6	72.82	77055	102	25.3	1098	1349	1.29	1.52	1.51	1.57	1.14	1.01	D
839	1159	3102.0	4.45	1.94	2.30	54	13.7	2670	3095.9	1.11	1.11	1423	1241	41.6	43.6	72.50	77795	103	25.5	1162	1347	1.31	1.54	1.53	1.56	1.14	1.01	D
840	1212	3103.0	4.69	1.90	2.05	55	13.4	2680	3096.6	1.11	1.11	1423	1295	41.5	44.6	73.29	78503	104	25.7	1075	1344	1.32	1.53	1.52	1.55	1.14	1.01	D
841	1243	3104.0	3.27	1.81	1.97	48	13.9	2670	3098.5	1.10	1.11	1459	1487	40.8	43.2	75.04	79413	105	26.1	2547	1348	1.33	1.61	1.60	1.56	1.14	1.01	D
842	1302	3105.1	3.12	1.79	2.06	48	14.7	2780	3100.0	1.11	1.11	1457	1475	40.7	43.8	76.79	80317	106	26.4	1766	1350	1.34	1.65	1.65	1.57	1.14	1.01	D
843	1316	3106.1	4.20	1.88	2.13	47	14.3	2780	3101.2	1.11	1.11	1464	1455	40.7	45.0	76.15	80979	107	26.6	1093	1348	1.35	1.54	1.54	1.57	1.14	1.01	D
844	1329	3107.0	4.58	1.86	2.09	46	14.7	2750	3102.1	1.11	1.11	1451	1512	40.8	43.8	77.90	81567	108	26.8	1072	1345	1.36	1.53	1.53	1.56	1.14	1.01	D
845	1340	3108.0	3.43	1.91	2.12	46	14.9	2760	3102.9	1.11	1.11	1453	1405	40.9	43.8	78.70	82076	109	27.0	1356	1345	1.37	1.62	1.62	1.57	1.14	1.01	D
846	1349	3109.0	8.74	1.91	2.10	46	13.8	2770	3103.5	1.11	1.11	1454	1464	40.8	44.7	79.49	82510	110	27.2	663	1336	1.38	1.31	1.30	1.54	1.14	1.01	D
847	1415	3110.0	2.31	1.76	1.88	46	15.0	2780	3104.8	1.10	1.11	1454	1444	40.5	45.2	82.36	83732	111	27.6	2116	1343	1.40	1.74	1.73	1.56	1.14	1.01	D
848	1443	3111.0	2.91	1.83	2.06	49	14.5	2770	3106.5	1.10	1.11	1454	1525	40.9	43.5	82.04	84766	112	27.9	1766	1347	1.41	1.67	1.66	1.58	1.14	1.01	D
849	1447	3112.0	13.3	1.94	2.10	49	14.1	2770	3106.8	1.10	1.11	1454	1462	41.0	43.6	81.88	84969	113	28.0	367	1339	1.42	1.21	1.20	1.56	1.14	1.01	D
850	1501	3113.0	15.9	1.98	2.16	49	13.5	2710	3107.2	1.10	1.11	1446	1442	41.2	43.2	83.95	85219	114	28.1	360	1331	1.42	1.15	1.14	1.58	1.14	1.01	DX
851	1515	3114.0	4.22	1.91	2.62	49	14.4	2750	3108.9	1.10	1.11	1450	1514	41.2	44.1	79.49	85904	115	28.3	1716	1329	1.43	1.56	1.55	1.58	1.14	1.01	D
852	1534	3115.1	3.43	1.83	1.97	50	15.3	2760	3109.7	1.11	1.11	1452	1448	41.3	45.0	78.54	86864	116	28.6	1697	1332	1.45	1.65	1.64	1.59	1.14	1.01	D
853	1555	3116.0	2.49	1.81	1.94	50	15.5	2750	3110.5	1.10	1.11	1450	1456	41.5	44.9	77.74	87944	117	29.0	1896	1336	1.46	1.76	1.75	1.61	1.14	1.01	D
854	1610	3117.0	4.05	1.84	2.01	50	15.3	2730	3111.7	1.11	1.11	1449	1472	41.6	44.6	77.90	88685	118	29.2	1125	1334	1.48	1.60	1.59	1.61	1.14	1.01	D
855	1624	3118.0	4.35	1.87	2.03	52	15.0	2730	3113.3	1.10	1.11	1446	1354	41.7	44.5	78.06	89401	119	29.5	1138	1333	1.49	1.59	1.57	1.60	1.14	1.01	D
856	1629	3119.0	12.1	1.99	2.24	50	14.8	2730	3113.8	1.11	1.11	1442	1456	41.7	44.6	77.74	89650	120	29.6	449	1325	1.49	1.27	1.26	1.61	1.14	1.01	D
857	1632	3120.0	17.4	2.00	2.25	50	14.9	2730	3113.9	1.10	1.11	1446	1376	41.7	44.6	77.59	89829	121	29.6	301	1317	1.49	1.17	1.15	1.60	1.14	1.01	D
858	1635	3121.0	19.3	2.03	2.43	50	15.0	2730	3114.1	1.11	1.11	1446	1370	41.7	44.7	77.74	89977	122	29.7	256	1308	1.50	1.14	1.13	1.61	1.14	1.01	D
863	1704	3123.0	16.4	1.82	2.10	53	11.9	2760	3115.2	1.11	1.11	1454	1409	41.4	44.2	77.27	90767	124	29.9	140	1287	1.51	1.12	1.10	1.61	1.14	1.01	D
864	1731	3126.0	7.87	1.92	2.13	53	14.4	2760	3115.4	1.11	1.11	1458	1435	41.2	44.1	76.15	91350	127	30.1	983	1274	1.52	1.40	1.38	1.58	1.14	1.01	D
865	1742	3127.1	6.01	1.88	2.05	53	14.5	2750	3115.8	1.10	1.11	1457	1421	41.1	44.4	76.63	91910	128	30.3	1075	1271	1.53	1.48	1.46	1.56	1.14	1.01	D
866	1808	3128.0	5.43	1.93	2.22	52	15.1	2760	3116.9	1.11	1.11	1457	1377	41.1	44.8	75.84	93292	129	30.7	1713	1278	1.55	1.52	1.50	1.55	1.14	1.01	D
867	1828	3129.0	3.02	1.87	2.05	53	15.2	2760	3120.1	1.11	1.11	1457	1412	41.3	44.2	75.04	94366	130	31.1	1819	1281	1.57	1.71	1.69	1.55	1.14	1.01	D
868	1844	3130.0	3.59	1.88	2.05	54	15.5	2710	3123.7	1.11	1.11	1446	1592	41.3	44.5	75.20	95228	131	31.3	1447	1281	1.58	1.67	1.65	1.58	1.14	1.01	D
869	1907	3131.0	2.71	1.91	2.24	53	16.0	2700	3125.6	1.10	1.11	1446	1517	41.3	43.7	74.88	96452	132	31.7	1868	1286	1.60	1.77	1.75	1.60	1.14	1.01	D
870	1937	3132.1	3.12	1.92	2.18	52	15.4	2550	3127.9	1.11	1.11	1398	1415	41.2	43.6	79.97	97576	133	32.1	1388	1289	1.62	1.70	1.69	1.62	1.14	1.01	D
871	1956	3133.0	2.62	1.92	2.12	45	15.6	2620	3129.0	1.11	1.11	1416	1447	41.0	43.8	74.72	98405	134	32.4	1621	1291	1.64	1.72	1.71	1.64	1.14	1.01	D

SHELL DEV. AUST. : BASKER SOUTH No.1

Data Printed at time 10:55 Date Dec 21 '83
Data Recorded at time 20:22 Date Dec 18 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
872	2022	3134.0	2.31	1.86	2.16	44	14.5	2610	3130.4	1.11	1.11	1415	1502	41.0	44.8	75.04	99576	135	32.8	2220	1298	1.65	1.71	1.70	1.66	1.14	1.01	D
873	2040	3135.1	3.60	1.84	2.05	44	14.2	2600	3131.1	1.10	1.11	1416	1390	41.0	44.9	75.20	100372	136	33.1	1531	1299	1.67	1.57	1.56	1.64	1.14	1.01	D
874	2055	3136.0	3.44	1.90	2.14	44	13.8	2600	3131.8	1.11	1.11	1416	1383	41.1	44.9	75.68	101033	137	33.3	1378	1299	1.67	1.57	1.56	1.63	1.14	1.01	D
875	2100	3137.0	13.2	1.98	2.22	44	14.4	2600	3131.9	1.10	1.11	1416	1379	41.0	44.2	76.47	101234	138	33.4	420	1292	1.68	1.19	1.18	1.64	1.14	1.01	D
876	2119	3138.0	3.09	1.89	2.01	44	15.3	2590	3132.9	1.10	1.11	1416	1320	41.2	44.7	77.43	102102	139	33.7	1503	1295	1.69	1.65	1.64	1.65	1.14	1.01	D
877	2134	3139.0	2.26	1.86	2.03	44	15.4	2610	3133.4	1.11	1.11	1416	1258	41.4	44.3	77.27	102769	140	34.0	1661	1297	1.70	1.75	1.74	1.66	1.14	1.01	D
878	2157	3140.0	3.38	1.91	2.33	44	14.8	2600	3134.7	1.10	1.11	1413	1327	41.6	44.8	77.43	103788	141	34.4	1588	1299	1.72	1.60	1.59	1.65	1.14	1.01	D
879	2202	3141.0	13.3	1.93	2.13	43	13.5	2610	3135.0	1.11	1.11	1412	1301	41.6	44.8	78.06	103981	142	34.5	383	1292	1.72	1.16	1.15	1.66	1.14	1.01	D
880	2221	3142.0	11.3	1.91	2.06	45	13.8	2740	3136.6	1.11	1.11	1446	1395	41.8	43.8	81.08	104356	143	34.6	440	1288	1.72	1.23	1.22	1.65	1.14	1.01	D↑
881	2233	3143.0	5.07	1.90	2.07	49	14.4	2760	3137.3	1.11	1.11	1454	1403	41.9	44.5	77.11	104938	144	34.8	2478	1285	1.73	1.51	1.49	1.63	1.14	1.01	D
882	2254	3144.1	2.99	1.86	2.03	55	14.8	2770	3138.3	1.11	1.11	1454	1442	42.0	44.5	76.79	106078	145	35.1	1869	1289	1.75	1.70	1.68	1.64	1.14	1.01	D
883	2303	3145.0	6.44	1.94	2.12	54	15.0	2760	3138.9	1.10	1.11	1454	1429	41.9	44.2	76.79	106575	146	35.3	802	1286	1.76	1.48	1.46	1.62	1.14	1.01	D
884	2327	3146.0	2.39	1.92	2.03	54	15.0	2770	3141.3	1.11	1.11	1456	1420	41.8	45.5	76.63	107878	147	35.7	1612	1290	1.78	1.78	1.75	1.64	1.14	1.01	D
885	2335	3147.0	7.05	1.98	2.20	53	14.7	2780	3141.4	1.11	1.11	1454	1439	41.8	45.8	76.95	108339	148	35.8	899	1287	1.79	1.44	1.42	1.62	1.14	1.01	D
886	2342	3148.0	9.44	1.97	2.17	53	15.2	2770	3142.4	1.10	1.11	1454	1402	41.8	45.2	77.27	108682	149	35.9	537	1282	1.79	1.37	1.35	1.60	1.14	1.01	D
887	2347	3149.0	11.4	2.01	2.17	53	14.1	2770	3142.6	1.11	1.11	1454	1424	41.8	45.7	77.59	108953	150	36.0	428	1276	1.80	1.28	1.26	1.62	1.14	1.01	D
888	2355	3150.0	8.22	1.98	2.17	54	14.9	2780	3142.9	1.11	1.11	1454	1427	41.8	46.0	77.59	109352	151	36.1	828	1271	1.80	1.40	1.38	1.60	1.14	1.01	D
	Date	Dec 19 '83																										
889	0010	3151.0	3.82	1.98	2.22	53	15.0	2770	3143.7	1.11	1.11	1454	1442	41.9	45.9	78.54	110170	152	36.4	804	1272	1.82	1.63	1.61	1.60	1.14	1.01	D
890	0025	3152.0	11.7	2.03	2.20	54	11.9	2770	3145.0	1.10	1.11	1446	1394	42.0	45.2	80.61	110620	153	36.5	404	1268	1.82	1.22	1.19	1.60	1.14	1.01	D
891	0028	3153.0	17.6	2.04	2.17	53	12.4	2770	3145.0	1.10	1.11	1450	1387	42.0	45.3	79.18	110801	154	36.6	380	1262	1.83	1.11	1.09	1.60	1.14	1.01	D
892	0042	3154.0	9.78	1.77	2.22	53	12.1	2750	3145.1	1.10	1.11	1438	1407	41.9	44.7	81.56	111176	155	36.7	618	1257	1.83	1.26	1.24	1.60	1.14	1.01	D
893	0110	3155.0	2.18	1.91	2.09	56	13.0	2760	3147.9	1.11	1.11	1446	1407	41.7	45.8	77.43	112760	156	37.2	2065	1264	1.85	1.73	1.71	1.61	1.14	1.01	D
894	0143	3156.0	1.76	1.88	2.06	57	12.9	2740	3150.9	1.10	1.11	1447	1340	41.8	45.6	77.43	114663	157	37.7	2783	1273	1.88	1.79	1.77	1.63	1.14	1.01	D
895	0205	3157.0	2.65	1.90	2.03	56	13.2	2730	3154.0	1.11	1.11	1450	1407	41.9	45.9	77.43	115951	158	38.1	1893	1277	1.90	1.69	1.66	1.64	1.14	1.01	D
896	0213	3158.0	9.01	1.94	2.16	56	12.8	2730	3154.2	1.10	1.11	1446	1443	41.9	45.9	77.43	116327	159	38.2	598	1272	1.91	1.33	1.30	1.63	1.14	1.01	D
897	0228	3159.0	3.80	1.91	2.05	57	12.7	2740	3154.7	1.11	1.11	1446	1369	41.9	46.3	78.22	117211	160	38.5	1053	1273	1.92	1.57	1.54	1.62	1.14	1.01	D
898	0247	3160.0	3.14	1.91	2.05	56	13.2	2740	3155.2	1.10	1.11	1446	1372	42.0	46.3	79.18	118304	161	38.8	1441	1275	1.94	1.64	1.61	1.61	1.14	1.01	D
899	0315	3161.1	5.77	1.93	2.05	56	11.9	2830	3156.1	1.10	1.11	1464	1373	41.9	46.0	80.92	119371	162	39.0	977	1274	1.95	1.42	1.39	1.60	1.14	1.01	D
900	0339	3162.0	2.47	1.93	2.21	56	12.3	2790	3157.8	1.11	1.11	1465	1379	42.0	46.1	79.81	120403	163	39.4	1532	1278	1.97	1.67	1.64	1.60	1.14	1.01	D
901	0345	3163.0	10.4	2.01	2.25	57	12.0	2790	3158.1	1.11	1.11	1465	1405	42.1	46.6	80.13	120718	164	39.5	487	1273	1.97	1.26	1.23	1.60	1.14	1.01	D
902	0349	3164.0	14.4	2.03	2.17	57	12.0	2790	3158.4	1.10	1.11	1465	1397	42.1	46.3	80.13	120954	165	39.6	353	1268	1.98	1.18	1.15	1.60	1.14	1.01	D
903	0357	3165.0	6.94	1.97	2.16	57	11.8	2790	3158.8	1.10	1.11	1465	1430	42.2	47.0	80.13	121448	166	39.7	1144	1264	1.98	1.37	1.34	1.58	1.14	1.01	D
904	0423	3166.0	2.35	1.89	2.02	58	12.3	2800	3160.1	1.10	1.11	1469	1375	42.4	46.7	80.29	122944	167	40.1	2162	1270	2.00	1.69	1.66	1.59	1.14	1.01	D
905	0439	3167.0	3.66	1.92	2.07	59	12.3	2790	3161.1	1.11	1.11	1465	1314	42.6	46.6	80.29	123859	168	40.4	1479	1270	2.02	1.57	1.54	1.58	1.14	1.01	D
906	0502	3168.0	2.53	1.90	2.14	59	12.8	2800	3163.0	1.11	1.11	1469	1352	42.7	47.0	80.61	125228	169	40.8	1833	1274	2.04	1.69	1.66	1.59	1.14	1.01	D
907	0506	3169.0	14.3	2.04	2.22	58	11.7	2800	3164.0	1.11	1.11	1466	1383	42.7	47.0	80.61	125471	170	40.9	349	1268	2.04	1.17	1.14	1.58	1.14	1.01	D
908	0529	3170.0	5.66	1.94	2.22	58	12.1	2660	3165.2	1.11	1.11	1428	1339	42.8	45.7	83.31	126393	171	41.1	1436	1269	2.05	1.44	1.41	1.57	1.14	1.01	D↑
909	0543	3171.0	4.19	2.01	2.22	55	11.6	2790	3165.6	1.11	1.11	1465	1341	42.8	46.1	80.61	127181	172	41.4	1018	1268	2.07	1.49	1.46	1.55	1.14	1.01	D
910	0601	3172.0	3.26	1.95	2.06	56	11.9	2770	3166.7	1.12	1.11	1465	1367	42.8	47.0	80.92	128197	173	41.7	2185	1273	2.08	1.57	1.54	1.54	1.14	1.01	D
911	0615	3173.0	4.51	2.01	2.28	55	13.0	2750	3167.2	1.12	1.11	1457	1349	42.9	47.0	81.03	128934	174	41.9	1117	1269	2.09	1.52	1.49	1.53	1.14	1.01	D
912	0630	3174.0	3.94	1.98	2.21	55	13.2	2750	3169.0	1.12	1.11	1456	1268	43.1	47.2	81.24	129767	175	42.1	1317	1269	2.10	1.57	1.54	1.53	1.14	1.01	D
913	0638	3175.0	7.47	1.95	2.07	56	12.7	2750	3169.6	1.12	1.11	1457	1408	43.2	46.7	81.24	130214	176	42.3	711	1265	2.11	1.37	1.34	1.51	1.14	1.01	D
914	0649	3176.0	5.58	1.95	2.16	55	13.0	2750	3169.8	1.12	1.11	1457	1348	43.3	47.3	81.24	130809	177	42.5	722	1263	2.12	1.46	1.43	1.50	1.14	1.01	D
915	0702	3177.0	4.42	1.94	2.09	55	13.5	2750	3170.9	1.12	1.11	1455	1226	43.4	47.5	81.88	131552	178	42.7	1233	1262	2.13	1.54	1.51	1.50	1.14	1.01	D
916	0716	3178.1	4.58	1.99	2.25	55	13.6	2750	3171.6	1.12	1.11	1457	1278	43.5	47.1	81.56	132320	179	42.9	1265	1262	2.14	1.53	1.50	1.50	1.15	1.01	D
917	0720	3179.0	14.5	2.09	2.22	54	12.9	2750	3171.8	1.12	1.11	1456	1229	43.5	47.3	81.40	132532	180	43.0	334	1257	2.14	1.18	1.15	1.50	1.15	1.01	D
918	0734	3180.0	16.9	2.01	2.33	54	11.5	2680	3172.5	1.12	1.11	1435	1237	43.6	45.6	83.95	132933	181	43.1	280	1253	2.15	1.09	1.05	1.50	1.15	1.01	D↑
919	0754	3181.0	2.64	1.97	2.22	55	12.7	2730	3174.0	1.12	1.11	1446	1202	43.4	47.1	71.23	134057	182	43.4	2674	1256	2.16	1.64	1.61	1.51	1.15	1.01	D
920	0819	3182.0	2.61	1.94	2.25	56	13.8	2720	3176.5	1.12	1.11	1446	1255	43.6	47.5	72.34	135461	183	43.9	2441	1261	2.19	1.69	1.65	1.53	1.16	1.01	D

SHELL DEV. AUST. : BASKER SOUTH No.1

Data Printed at time 01:53 Date Dec 25 '83
Data Recorded at time 08:33 Date Dec 19 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
921	0833	3183.0	4.56	1.95	2.07	55	14.1	2720	3177.1	1.12	1.11	1446	1358	43.8	47.9	72.34	136199	184	44.1	1100	1259	2.20	1.54	1.50	1.53	1.16	1.01	D
922	0842	3184.0	6.34	2.17	2.58	54	14.1	2740	3178.5	1.12	1.11	1450	1274	44.0	47.9	72.66	136694	185	44.2	772	1257	2.20	1.44	1.40	1.51	1.16	1.01	D
923	0848	3185.0	9.00	2.34	2.56	55	13.5	2740	3179.0	1.12	1.11	1450	1262	44.1	47.3	72.66	137051	186	44.3	574	1253	2.21	1.32	1.29	1.50	1.15	1.01	D
924	0855	3186.0	9.11	2.32	2.44	55	14.0	2740	3179.9	1.12	1.12	1453	1287	44.2	47.3	72.98	137415	187	44.4	530	1249	2.22	1.34	1.30	1.48	1.16	1.01	D
925	0905	3187.0	5.23	2.23	2.47	56	14.5	2750	3180.5	1.12	1.12	1450	1254	44.3	47.9	72.82	138044	188	44.6	1154	1248	2.22	1.52	1.48	1.48	1.16	1.01	D
926	0930	3188.0	2.55	2.20	2.43	57	14.6	2750	3181.4	1.12	1.12	1450	1235	44.4	47.8	72.34	139427	189	45.0	2723	1251	2.25	1.73	1.69	1.49	1.16	1.01	D
927	1022	3188.6	2.21	2.17	2.43	57	14.6	2810	3186.7	1.12	1.12	1457	2538	44.7	48.2	71.54	140286	190	45.3	2207	1254	2.26	1.78	1.74	1.50	1.15	1.01	D↑
5	2033	3190.0	4.76	1.92	2.09	44	11.0	2660	3189.0	1.12	1.12	1427	1480	31.6	23.9	56.76	578	1.0	.2	3654	12414	.01	1.36	1.39	1.37	1.15	1.01	D
6	2043	3191.0	5.93	2.03	2.10	49	14.8	2680	3189.0	1.12	1.12	1438	1412	30.2	33.1	56.92	1090	1.9	.4	1085	6869	.02	1.45	1.49	1.38	1.15	1.01	D
7	2050	3192.0	8.59	2.04	2.09	49	14.7	2680	3189.0	1.12	1.12	1474	1514	29.6	33.8	57.24	1424	3.0	.5	567	4607	.03	1.34	1.37	1.38	1.16	1.01	D
8	2056	3193.1	10.9	2.03	2.09	49	14.4	2680	3189.0	1.12	1.12	1446	1441	29.3	35.2	56.28	1711	4.0	.6	502	3582	.03	1.27	1.30	1.37	1.16	1.01	D
9	2107	3194.0	5.28	2.06	2.59	50	14.1	2650	3189.0	1.12	1.12	1450	1527	29.4	36.8	56.76	2271	5.0	.8	646	3050	.04	1.47	1.50	1.38	1.16	1.01	D
10	2111	3195.1	15.1	2.10	2.12	52	14.1	2660	3189.0	1.12	1.12	1450	1526	29.8	37.2	57.24	2487	6.0	.9	352	2599	.05	1.18	1.21	1.37	1.16	1.01	D
11	2119	3196.0	6.99	2.10	2.12	54	14.8	2670	3189.0	1.12	1.12	1453	1561	30.2	37.2	57.87	2911	7.0	1.0	1760	2335	.06	1.43	1.46	1.38	1.16	1.01	D
12	2126	3197.1	9.14	2.10	2.12	59	14.6	2660	3189.0	1.12	1.12	1454	1585	31.0	37.9	58.35	3309	8.0	1.1	552	2109	.07	1.38	1.40	1.39	1.15	1.01	D
13	2138	3198.0	18.2	2.05	2.12	65	14.2	2690	3189.0	1.12	1.12	1461	1727	31.7	35.7	64.39	3563	9.0	1.2	272	1911	.07	1.19	1.21	1.37	1.16	1.01	D
14	2145	3199.0	7.23	2.12	2.51	59	14.8	2710	3189.3	1.12	1.12	1465	1711	31.9	33.2	60.10	4044	10.0	1.3	500	1787	.08	1.45	1.47	1.39	1.16	1.01	D
15	2213	3200.0	9.95	2.10	2.22	55	14.7	2570	3190.6	1.12	1.12	1420	1359	32.4	35.9	63.28	4451	10.9	1.4	538	1690	.09	1.33	1.36	1.39	1.15	1.01	D↑
16	2224	3201.0	4.94	1.98	2.67	51	14.8	2580	3192.6	1.12	1.12	1420	1350	32.7	36.4	60.10	5023	12.0	1.6	1029	1632	.10	1.52	1.55	1.40	1.15	1.01	D
17	2241	3202.0	3.74	1.96	2.12	57	14.8	2590	3194.3	1.12	1.12	1421	1380	33.1	36.6	57.71	5944	13.0	1.9	1450	1602	.12	1.63	1.65	1.41	1.16	1.01	D
18	2256	3203.0	3.73	2.00	2.12	57	15.4	2590	3196.8	1.12	1.12	1421	1411	33.5	37.1	56.92	6836	14.0	2.2	1314	1580	.14	1.65	1.68	1.43	1.16	1.01	D
19	2310	3204.0	4.37	1.98	2.12	57	15.3	2600	3198.6	1.12	1.12	1423	1378	33.8	37.5	57.39	7639	15.0	2.4	1142	1554	.16	1.60	1.63	1.44	1.16	1.01	D
20	2324	3205.0	4.31	1.97	2.10	57	16.1	2590	3199.4	1.12	1.12	1420	1375	34.2	38.0	58.35	8416	16.0	2.6	1176	1534	.17	1.63	1.66	1.45	1.16	1.01	D
21	2342	3206.0	3.35	1.98	2.18	56	16.7	2580	3200.8	1.12	1.12	1423	1369	34.2	38.9	59.94	9421	17.0	2.9	1412	1525	.20	1.73	1.75	1.44	1.16	1.01	D
22	2358	3207.0	3.67	1.97	2.10	57	16.2	2550	3201.9	1.12	1.12	1420	1381	34.6	38.8	61.85	10350	18.0	3.2	1345	1517	.22	1.69	1.71	1.46	1.15	1.01	D
	Date Dec 20 '83																											
23	0007	3208.0	6.64	1.95	2.07	57	14.9	2540	3202.6	1.12	1.12	1423	1352	35.0	38.2	62.01	10874	19.0	3.3	828	1478	.23	1.47	1.49	1.47	1.15	1.01	D
24	0029	3209.0	4.93	1.96	2.18	58	15.2	2590	3203.6	1.12	1.12	1434	1381	35.6	37.8	64.07	11749	20.0	3.6	921	1465	.24	1.57	1.59	1.49	1.16	1.01	D
25	0048	3210.0	3.29	1.94	2.14	60	14.2	2570	3205.0	1.12	1.12	1430	1432	35.7	38.2	62.32	12384	21.0	3.9	1519	1471	.27	1.66	1.68	1.51	1.16	1.01	D
26	0054	3211.0	8.25	2.01	2.16	60	13.9	2580	3205.3	1.12	1.12	1431	1356	35.8	37.9	62.01	13282	22.0	4.0	691	1432	.28	1.39	1.40	1.49	1.16	1.01	D
27	0058	3212.0	15.6	2.07	2.21	59	14.0	2570	3205.5	1.12	1.12	1431	1400	35.8	38.5	61.85	13506	23.0	4.1	320	1381	.28	1.20	1.22	1.48	1.16	1.01	D
28	0103	3213.0	12.6	2.06	2.18	59	14.1	2580	3205.9	1.12	1.12	1431	1369	35.9	38.7	61.69	13787	24.0	4.2	392	1340	.29	1.27	1.28	1.46	1.16	1.01	D
Circulate returns at 3212m. No shows.																												
30	0252	3214.0	3.69	1.92	2.16	56	14.4	2580	3213.0	1.12	1.12	1431	1510	39.5	41.3	60.26	15408	25.0	4.6	1280	1384	.32	1.62	1.63	1.49	1.15	1.01	D
31	0309	3215.0	3.57	1.83	2.01	56	14.5	2580	3213.0	1.12	1.12	1431	1508	39.4	41.5	59.14	16360	26.0	4.9	1414	1385	.34	1.63	1.65	1.51	1.15	1.01	D
32	0316	3216.0	9.28	1.96	2.17	55	13.7	2590	3213.0	1.12	1.12	1431	1487	39.4	41.5	59.46	16706	27.0	5.0	495	1355	.34	1.32	1.34	1.49	1.15	1.01	D
33	0319	3217.0	17.4	2.04	2.24	54	14.3	2590	3213.0	1.12	1.12	1431	1512	39.4	41.5	59.46	16892	28.0	5.1	290	1316	.35	1.16	1.18	1.51	1.15	1.01	D
34	0334	3218.0	16.5	2.02	2.18	54	12.7	2620	3213.0	1.12	1.12	1433	1401	39.2	41.1	61.37	17256	29.0	5.2	307	1290	.35	1.13	1.15	1.49	1.16	1.01	D
35	0340	3219.0	10.4	2.02	2.22	55	13.3	2570	3213.0	1.12	1.12	1426	1356	39.2	41.2	61.37	17588	30.0	5.3	1593	1262	.36	1.28	1.30	1.47	1.16	1.01	D
36	0405	3220.0	3.37	1.90	2.07	60	14.3	2580	3213.4	1.12	1.12	1423	1355	39.1	41.6	61.37	19092	31.0	5.7	1569	1291	.39	1.66	1.67	1.50	1.16	1.01	D
37	0418	3221.0	4.60	1.91	2.09	61	14.3	2570	3214.1	1.12	1.12	1427	1381	39.1	41.8	61.69	19898	32.0	5.9	1136	1282	.41	1.57	1.58	1.51	1.16	1.01	D
38	0438	3222.1	3.10	1.89	1.99	61	14.5	2570	3215.4	1.12	1.12	1426	1351	39.2	41.7	61.53	21135	33.0	6.3	2059	1294	.43	1.69	1.70	1.53	1.16	1.01	D
39	0455	3223.0	3.37	1.88	1.98	61	14.3	2570	3218.1	1.12	1.12	1425	1349	39.2	41.8	61.37	22139	34.0	6.5	1587	1297	.45	1.66	1.67	1.55	1.16	1.01	D
40	0511	3224.0	3.65	1.91	2.03	61	14.4	2570	3219.3	1.12	1.12	1427	1361	39.3	41.4	61.21	23151	35.0	6.8	1429	1300	.48	1.64	1.65	1.57	1.16	1.01	D
41	0523	3225.0	5.17	1.90	2.10	61	14.2	2570	3219.9	1.12	1.12	1427	1422	39.2	41.5	61.21	23847	35.9	7.0	1029	1291	.49	1.54	1.55	1.57	1.16	1.01	D
42	0537	3226.0	4.03	1.90	2.02	61	14.4	2570	3221.0	1.12	1.12	1427	1713	39.2	41.3	61.37	24701	37.0	7.2	1209	1286	.51	1.62	1.62	1.58	1.16	1.01	D
43	0601	3227.1	5.94	1.89	2.01	57	14.1	2600	3222.0	1.12	1.12	1431	1362	39.0	41.0	62.48	25560	37.9	7.5	814	1287	.52	1.48	1.49	1.57	1.16	1.01	D
44	0619	3228.0	3.03	1.89	2.05	56	13.8	2600	3223.1	1.12	1.12	1432	1422	38.8	40.8	61.37	26596	39.0	7.8	1415	1292	.54	1.65	1.66	1.59	1.15	1.01	D
45	0619	3228.0	3.03	1.89	2.05	56	13.8	2600	3223.1	1.12	1.12	1432	1422	38.8	40.8	61.37	26596	39.0	7.8	1415	1292	.54	1.65	1.66	1.59	1.16	1.01	D
46	0634	3229.0	3.45	1.89	2.32	56	14.4	2590	3224.0	1.12	1.12	1435	1398	38.5	41.3	62.16	27438	40.0	8.0	1344	1291	.56	1.64	1.65	1.60	1.16	1.01	D

SHELL DEV. AUST. : BASKER SOUTH No.1

Data Printed at time 01:59 Date Dec 25 '83
Data Recorded at time 06:48 Date Dec 20 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
47	0648	3230.0	4.53	1.86	2.01	56	14.1	2600	3225.0	1.12	1.12	1435	1465	38.5	41.3	62.48	28194	41.0	8.3	1160	1287	.57	1.55	1.56	1.60	1.16	1.01	D
48	0702	3231.0	4.19	1.84	1.94	57	14.2	2600	3226.0	1.12	1.12	1435	1360	38.6	41.8	62.80	29000	42.0	8.5	1198	1285	.59	1.58	1.59	1.60	1.16	1.01	D
49	0719	3232.0	3.43	1.86	2.06	56	14.2	2540	3227.0	1.12	1.12	1416	1332	38.8	41.6	63.28	29988	43.0	8.8	1383	1288	.61	1.63	1.64	1.61	1.16	1.01	D
50	0725	3233.0	11.6	2.00	2.17	54	13.4	2540	3227.3	1.12	1.12	1416	1319	38.8	41.5	63.12	30275	44.0	8.9	532	1269	.61	1.25	1.26	1.60	1.16	1.01	D
51	0728	3234.0	15.8	2.02	2.16	54	13.5	2570	3227.5	1.12	1.12	1417	1323	38.8	41.5	62.80	30475	44.9	9.0	323	1249	.62	1.16	1.17	1.61	1.16	1.01	D
52	0743	3235.0	3.92	1.90	2.35	56	14.7	2600	3228.4	1.12	1.12	1435	1306	38.8	41.8	64.07	31322	46.0	9.2	1547	1248	.64	1.61	1.62	1.62	1.16	1.01	D
53	0757	3236.0	4.56	1.86	1.99	56	14.2	2610	3229.4	1.12	1.12	1435	1262	38.8	42.1	65.50	32064	47.0	9.4	1155	1247	.65	1.55	1.56	1.61	1.16	1.01	D
54	0816	3237.0	7.43	1.87	2.12	57	13.6	2630	3230.3	1.12	1.12	1442	1287	38.7	40.4	68.36	32712	47.9	9.6	681	1240	.66	1.40	1.40	1.59	1.16	1.01	D
55	0832	3238.0	3.77	2.09	2.28	58	14.3	2600	3231.4	1.12	1.12	1435	1261	38.8	40.9	67.73	33678	49.0	9.9	1433	1244	.68	1.62	1.62	1.59	1.16	1.01	D
56	0850	3239.0	3.27	2.15	2.32	58	14.3	2600	3233.6	1.12	1.12	1435	1293	38.7	41.8	68.36	34696	50.0	10.2	1725	1247	.70	1.66	1.65	1.61	1.16	1.01	D
57	0910	3240.0	2.96	2.14	2.26	58	14.0	2600	3235.2	1.12	1.12	1435	1376	38.7	41.1	68.68	35886	51.0	10.5	1717	1256	.72	1.67	1.68	1.63	1.16	1.02	D
58	0928	3241.0	3.45	2.15	2.28	58	14.0	2600	3236.4	1.12	1.12	1435	1393	38.8	41.5	69.48	36915	52.0	10.8	1438	1261	.74	1.63	1.63	1.64	1.16	1.02	D
59	0946	3242.0	3.17	1.86	2.24	59	14.1	2600	3237.7	1.12	1.12	1438	1389	38.8	41.2	70.43	37989	53.0	11.1	1614	1265	.76	1.66	1.66	1.65	1.16	1.02	D
60	1010	3243.0	2.53	1.79	1.91	59	14.2	2610	3239.1	1.12	1.12	1438	1431	38.8	41.6	70.43	39396	54.0	11.5	1899	1279	.79	1.73	1.73	1.67	1.15	1.02	D
61	1021	3244.0	5.68	1.84	2.03	59	13.4	2620	3239.5	1.12	1.12	1435	1432	38.7	41.6	70.59	40027	55.0	11.7	772	1272	.80	1.47	1.47	1.65	1.16	1.03	D
62	1026	3245.0	11.6	1.92	2.05	58	13.5	2610	3239.8	1.12	1.12	1438	1453	38.7	41.3	70.91	40333	56.0	11.8	357	1257	.81	1.27	1.27	1.67	1.16	1.03	D
63	1042	3246.1	11.9	1.87	2.09	56	13.3	2540	3240.6	1.12	1.12	1408	1456	38.7	41.5	73.93	40797	57.0	11.9	438	1247	.82	1.25	1.25	1.65	1.16	1.03	D↑
64	1047	3247.0	13.5	1.94	2.07	54	13.4	2540	3240.8	1.12	1.12	1412	1400	38.7	41.5	73.13	41020	58.0	12.0	350	1231	.82	1.20	1.21	1.67	1.16	1.03	D
65	1052	3248.0	11.3	1.91	2.05	54	13.6	2530	3240.9	1.12	1.12	1409	1373	38.7	41.5	72.66	41304	59.0	12.1	469	1218	.83	1.26	1.26	1.65	1.16	1.03	D
66	1103	3249.0	5.48	1.83	1.98	55	14.0	2620	3241.5	1.12	1.12	1438	1435	38.7	41.7	70.59	41899	60.0	12.3	1077	1213	.84	1.48	1.49	1.63	1.16	1.03	D
67	1119	3250.0	3.78	1.78	2.05	54	13.7	2620	3242.2	1.12	1.12	1438	1427	38.7	42.2	72.50	42783	61.0	12.5	1418	1216	.85	1.57	1.58	1.62	1.16	1.04	D
68	1131	3251.0	4.48	1.78	1.87	55	13.9	2610	3242.8	1.12	1.12	1438	1426	38.8	42.4	73.13	43441	62.0	12.7	1030	1212	.86	1.54	1.54	1.60	1.16	1.04	D
72	1205	3253.0	2.68	1.79	2.02	56	14.5	2610	3247.1	1.12	1.12	1438	1410	39.2	42.9	73.61	45386	64.0	13.3	1444	1220	.90	1.71	1.71	1.60	1.16	1.04	D
73	1220	3254.0	4.17	1.79	1.93	55	14.2	2610	3248.8	1.12	1.12	1440	1375	39.3	42.2	74.57	46179	65.0	13.6	1123	1220	.92	1.57	1.57	1.60	1.16	1.04	D
74	1234	3255.0	4.39	1.76	1.93	55	13.5	2610	3249.6	1.12	1.12	1439	1479	39.5	42.2	74.72	46944	66.0	13.8	1205	1221	.93	1.53	1.53	1.58	1.16	1.05	D
75	1259	3256.0	6.15	1.78	2.07	59	13.6	2600	3251.2	1.12	1.12	1438	1481	39.5	41.4	78.38	47573	67.0	14.0	883	1215	.94	1.46	1.45	1.57	1.16	1.05	D↑
76	1310	3257.0	5.31	1.73	1.95	59	13.7	2610	3251.9	1.12	1.12	1442	1532	39.5	41.4	77.59	48235	68.0	14.2	987	1211	.95	1.50	1.50	1.55	1.16	1.05	D
77	1318	3258.1	8.76	1.69	2.24	56	13.6	2620	3252.1	1.12	1.12	1443	1534	39.4	41.8	77.27	48651	68.9	14.3	728	1204	.96	1.34	1.34	1.53	1.16	1.05	D
78	1327	3259.0	6.63	1.69	1.79	57	12.7	2620	3252.6	1.12	1.12	1446	1490	39.4	42.4	76.95	49158	70.0	14.4	805	1197	.97	1.40	1.39	1.51	1.16	1.05	D
79	1335	3260.0	6.56	1.70	1.88	57	13.5	2620	3253.0	1.12	1.12	1446	1515	39.3	42.6	77.43	49654	71.0	14.6	742	1189	.98	1.42	1.42	1.50	1.16	1.05	D
80	1340	3261.0	13.1	1.75	2.03	56	13.4	2620	3253.3	1.12	1.12	1446	1488	39.3	42.7	76.95	49912	72.0	14.7	365	1178	.99	1.22	1.22	1.48	1.16	1.05	D
81	1344	3262.1	17.7	1.81	1.94	56	15.2	2630	3253.7	1.12	1.12	1446	1513	39.3	42.6	77.27	50112	73.0	14.7	320	1167	.99	1.18	1.18	1.50	1.16	1.06	D
82	1348	3263.0	11.7	1.81	1.98	56	14.2	2630	3254.0	1.12	1.12	1446	1499	39.4	42.7	77.11	50382	74.0	14.8	362	1155	.99	1.28	1.28	1.48	1.16	1.06	D
83	1403	3264.0	8.74	1.71	1.90	56	13.9	2630	3254.9	1.12	1.12	1447	1518	39.4	42.1	79.97	50869	75.0	15.0	641	1150	1.00	1.35	1.35	1.47	1.16	1.07	D
84	1416	3265.0	4.73	1.79	2.21	55	14.4	2630	3255.4	1.12	1.12	1448	1502	39.6	42.2	73.13	51573	76.0	15.2	806	1149	1.01	1.53	1.53	1.47	1.16	1.07	D
85	1503	3266.0	1.94	1.74	2.10	58	14.0	2600	3259.6	1.12	1.12	1442	1475	39.9	42.8	70.75	53508	76.9	15.8	2164	1173	1.05	1.79	1.79	1.47	1.16	1.07	D
86	1509	3267.0	6.30	1.75	1.84	59	13.7	2600	3261.5	1.12	1.12	1445	1487	40.0	42.9	70.59	54144	78.0	15.9	853	1168	1.06	1.45	1.45	1.46	1.16	1.07	D
87	1521	3268.0	7.95	1.64	2.22	38	14.0	2620	3263.3	1.12	1.12	1447	1450	40.2	42.8	72.18	54478	79.0	16.0	642	1160	1.07	1.27	1.29	1.44	1.16	1.07	D
88	1531	3269.0	6.03	1.69	1.94	49	12.9	2630	3264.2	1.12	1.12	1450	1502	40.3	42.7	71.70	54965	80.0	16.2	653	1156	1.07	1.39	1.39	1.43	1.16	1.07	D
89	1541	3270.0	5.65	1.67	1.87	50	13.6	2630	3264.9	1.12	1.12	1450	1504	40.4	42.8	71.54	55497	81.0	16.4	936	1154	1.08	1.43	1.43	1.42	1.16	1.07	D
90	1556	3271.0	3.87	1.62	1.80	51	13.9	2620	3265.2	1.12	1.12	1450	1529	40.5	43.3	71.86	56277	82.0	16.6	1418	1154	1.10	1.56	1.56	1.43	1.16	1.07	D
91	1612	3272.0	3.01	1.61	1.76	52	14.8	2620	3265.6	1.12	1.12	1449	1500	40.7	44.0	72.50	57034	83.0	16.9	1755	1156	1.11	1.67	1.66	1.45	1.16	1.07	D
92	1624	3273.0	5.03	1.62	1.75	52	14.9	2620	3266.2	1.12	1.12	1450	1586	40.8	44.4	73.45	57694	84.0	17.1	897	1154	1.12	1.52	1.52	1.46	1.16	1.07	D
93	1635	3274.0	5.58	1.60	1.72	52	14.6	2630	3267.4	1.12	1.12	1450	1493	40.9	44.4	73.45	58256	85.0	17.3	870	1151	1.13	1.48	1.48	1.47	1.16	1.07	D
94	1659	3275.0	4.03	1.72	2.16	60	15.1	2600	3269.7	1.12	1.12	1444	1503	41.2	42.8	72.02	59251	86.0	17.5	1203	1154	1.15	1.63	1.62	1.48	1.16	1.07	D
95	1719	3276.0	2.99	1.69	2.16	59	15.7	2620	3271.4	1.12	1.12	1450	1567	41.3	44.1	71.54	60443	87.0	17.9	1519	1160	1.17	1.74	1.73	1.50	1.16	1.07	D
96	1735	3277.0	3.72	1.71	1.82	59	15.2	2610	3272.0	1.12	1.12	1439	1505	41.2	44.5	73.93	61359	88.0	18.1	1281	1161	1.19	1.66	1.65	1.52	1.16	1.07	D
97	1751	3278.0	3.79	1.73	1.87	60	14.8	2630	3273.4	1.12	1.12	1446	1496	41.3	44.3	72.82	62299	89.0	18.4	1329	1163	1.21	1.64	1.63	1.53	1.16	1.07	D
98	1818	3279.0	2.22	1.71	1.88	60	14.9	2540	3274.9	1.12	1.12	1446	1523	41.5	44.4	72.50	63915	90.0	18.9	2036	1175	1.24	1.80	1.79	1.55	1.16	1.07	D
99	1834	3280.0	3.85	1.71	1.97	60	14.6	2640	3275.8	1.12	1.12	1443	1490	41.6	44.7	72.50	64871	91.0	19.1	1359	1177	1.26	1.63	1.62	1.57	1.16	1.07	D

SHELL DEV. AUST. : BASKER SOUTH No.1

Data Printed at time 02:04 Date Dec 25 '83
Data Recorded at time 18:45 Date Dec 20 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
100	1845	3281.0	5.38	1.73	1.97	60	14.7	2630	3276.4	1.12	1.12	1442	1536	41.6	45.0	72.50	65533	92.0	19.3	993	1174	1.27	1.54	1.52	1.56	1.16	1.07	D
101	1853	3282.0	7.22	1.77	1.95	60	15.3	2630	3276.9	1.12	1.12	1438	1511	41.7	45.0	72.50	66010	93.0	19.4	683	1168	1.28	1.47	1.46	1.55	1.16	1.07	D
102	1902	3283.0	6.30	1.82	1.99	59	15.5	2630	3277.8	1.12	1.12	1440	1538	41.7	44.9	72.50	66573	94.0	19.6	851	1164	1.29	1.51	1.50	1.53	1.16	1.07	D
103	1924	3284.0	5.29	1.81	1.94	57	14.6	2660	3278.4	1.12	1.12	1448	1489	41.8	43.2	72.98	67370	94.9	19.8	975	1165	1.30	1.52	1.51	1.53	1.16	1.07	D
104	1937	3285.0	4.90	1.82	1.91	57	14.8	2650	3278.8	1.12	1.12	1442	1491	41.9	43.6	72.18	68077	95.0	20.0	976	1163	1.32	1.55	1.54	1.53	1.16	1.07	D
105	1949	3286.0	4.92	1.80	2.17	58	15.2	2640	3279.5	1.12	1.12	1443	1500	41.7	45.0	72.50	68790	97.0	20.2	1027	1162	1.33	1.57	1.55	1.53	1.16	1.07	D
106	1959	3287.0	5.60	1.81	1.99	57	13.9	2650	3280.3	1.12	1.12	1443	1484	41.6	45.3	73.29	69379	98.0	20.4	837	1158	1.34	1.48	1.47	1.52	1.16	1.07	D
107	2018	3288.0	3.30	1.78	1.87	58	14.6	2650	3282.4	1.12	1.12	1442	1445	41.6	45.3	74.25	70440	99.0	20.7	1854	1162	1.36	1.66	1.65	1.54	1.16	1.07	D
108	2033	3289.0	3.97	1.76	1.86	58	14.6	2650	3283.3	1.12	1.12	1446	1515	41.6	45.0	76.63	71307	100	21.0	1348	1163	1.38	1.61	1.59	1.56	1.16	1.07	D
109	2057	3290.0	2.44	1.74	1.83	58	14.9	2640	3285.3	1.12	1.12	1445	1464	41.5	45.2	80.61	72741	101	21.4	1959	1172	1.40	1.76	1.75	1.57	1.16	1.07	D
110	2113	3291.0	3.57	1.77	1.90	58	15.7	2660	3286.7	1.12	1.12	1452	1522	41.6	45.3	74.09	73684	102	21.6	1281	1173	1.42	1.68	1.67	1.59	1.16	1.07	D
111	2128	3292.0	4.05	1.79	1.91	58	15.4	2680	3287.7	1.12	1.12	1455	1514	41.8	45.0	74.25	74548	103	21.9	1289	1174	1.44	1.64	1.62	1.61	1.16	1.07	D
112	2151	3293.0	8.68	1.82	1.97	58	13.8	2610	3288.7	1.12	1.12	1432	1443	42.0	44.7	76.79	75091	104	22.0	571	1171	1.45	1.36	1.35	1.59	1.16	1.07	D↑
113	2203	3294.0	4.87	1.85	2.09	53	13.6	2590	3289.3	1.12	1.12	1432	1542	42.1	43.4	74.25	75723	105	22.2	799	1169	1.45	1.49	1.48	1.57	1.16	1.07	D
114	2216	3295.0	4.68	1.85	2.33	52	13.6	2600	3289.8	1.12	1.12	1432	1665	42.0	44.6	71.54	76388	106	22.4	1085	1169	1.47	1.50	1.49	1.55	1.16	1.06	D
115	2221	3296.0	10.4	1.90	2.13	52	13.3	2600	3290.1	1.12	1.12	1431	1660	41.9	45.0	71.70	76680	107	22.5	492	1161	1.47	1.26	1.25	1.57	1.16	1.05	D
116	2236	3297.0	4.05	1.82	2.02	53	14.4	2610	3291.1	1.12	1.12	1435	1505	41.9	45.0	72.98	77456	108	22.8	1351	1162	1.48	1.57	1.56	1.57	1.16	1.06	D
117	2252	3298.0	3.76	1.84	2.05	53	14.4	2610	3292.2	1.12	1.12	1435	1518	41.9	45.2	74.41	78307	109	23.1	1366	1163	1.50	1.59	1.58	1.57	1.16	1.06	D
118	2320	3299.0	2.21	1.80	1.93	54	15.0	2620	3293.7	1.12	1.12	1435	1531	42.0	45.8	74.41	79783	110	23.5	2027	1173	1.52	1.77	1.76	1.59	1.16	1.05	D
119	2328	3300.0	6.90	1.84	2.33	53	14.2	2620	3294.5	1.12	1.12	1435	1541	42.1	45.9	74.57	80241	111	23.7	754	1170	1.53	1.41	1.40	1.57	1.16	1.05	D
120	2339	3301.0	5.61	1.91	2.29	53	14.9	2620	3295.5	1.12	1.12	1435	1550	42.1	46.2	74.25	80796	112	23.8	842	1167	1.54	1.50	1.48	1.56	1.16	1.05	D
	Date	Dec 21 '83																										
121	0000	3302.0	2.87	1.80	1.95	54	14.8	2610	3297.4	1.12	1.12	1433	1570	42.5	46.3	73.61	81952	113	24.2	1764	1172	1.56	1.69	1.68	1.57	1.16	1.04	D
122	0027	3303.0	3.74	1.83	2.07	52	13.4	2660	3298.4	1.12	1.12	1446	1481	42.7	43.7	74.25	82921	114	24.5	1360	1175	1.58	1.56	1.54	1.57	1.16	1.04	D
123	0103	3304.0	1.68	1.76	1.87	55	13.1	2610	3301.0	1.12	1.12	1435	1449	42.5	46.0	74.09	84913	115	25.1	2636	1192	1.61	1.78	1.76	1.59	1.15	1.04	D
124	0125	3305.0	2.67	1.80	1.93	55	13.1	2600	3302.2	1.12	1.12	1431	1436	42.7	46.4	74.25	86142	116	25.5	1822	1197	1.63	1.65	1.64	1.60	1.15	1.03	D
125	0135	3306.0	6.21	1.86	1.99	56	12.5	2600	3302.8	1.12	1.12	1432	1423	42.8	46.2	74.25	86687	117	25.6	863	1194	1.64	1.40	1.39	1.59	1.15	1.03	D
126	0150	3307.0	4.03	1.84	1.98	56	12.9	2600	3303.1	1.12	1.12	1431	1469	42.9	46.3	74.25	87525	118	25.9	1634	1194	1.65	1.53	1.51	1.57	1.15	1.02	D
127	0158	3308.0	7.33	1.89	2.35	55	12.6	2600	3303.2	1.12	1.12	1431	1455	43.0	46.6	74.25	87970	119	26.0	683	1190	1.66	1.36	1.34	1.55	1.16	1.02	D
128	0213	3309.0	3.89	1.83	2.02	56	12.9	2600	3303.7	1.12	1.12	1430	1439	43.1	46.6	74.25	88812	120	26.3	1616	1190	1.67	1.54	1.52	1.54	1.16	1.02	D
129	0239	3310.0	2.35	1.87	1.98	56	13.0	2600	3304.7	1.12	1.12	1428	1463	43.4	46.7	74.25	90250	121	26.7	2361	1198	1.70	1.69	1.67	1.56	1.16	1.02	D
130	0306	3311.0	2.14	1.85	1.93	56	13.2	2600	3306.8	1.12	1.12	1427	1460	43.6	47.3	74.25	91784	122	27.1	2312	1207	1.72	1.72	1.70	1.58	1.15	1.01	D
131	0335	3312.0	3.33	1.90	2.06	57	12.8	2590	3308.8	1.12	1.12	1427	1485	43.8	43.6	77.27	92935	123	27.5	1509	1211	1.74	1.59	1.57	1.58	1.15	1.01	D
132	0341	3313.0	10.2	2.00	2.09	59	12.0	2590	3309.2	1.12	1.12	1427	1437	43.8	44.1	75.84	93281	124	27.6	508	1206	1.74	1.26	1.24	1.58	1.15	1.01	D
133	0354	3314.0	4.68	1.93	2.07	58	12.8	2600	3309.6	1.12	1.12	1427	1449	43.3	45.0	74.41	94025	125	27.8	1338	1204	1.76	1.50	1.48	1.56	1.15	1.01	D
134	0407	3315.0	4.71	1.93	2.14	58	12.7	2590	3310.1	1.12	1.12	1427	1466	43.5	46.2	74.09	94769	126	28.0	1104	1203	1.77	1.49	1.47	1.55	1.16	1.01	D
135	0426	3316.0	3.10	1.89	2.06	57	12.6	2600	3310.8	1.12	1.12	1427	1433	43.2	46.7	74.09	95854	127	28.3	2720	1206	1.79	1.60	1.58	1.55	1.16	1.01	D
136	0451	3317.0	2.43	1.87	1.98	56	14.0	2600	3311.7	1.12	1.12	1428	1442	43.4	47.1	74.25	97261	128	28.7	2036	1213	1.81	1.72	1.70	1.57	1.16	1.01	D
137	0514	3318.0	2.62	1.86	1.94	56	14.5	2590	3314.0	1.12	1.12	1427	1423	43.7	47.0	74.09	98563	129	29.1	1937	1218	1.83	1.72	1.69	1.58	1.15	1.01	D
138	0537	3319.0	2.53	1.90	2.10	55	14.6	2580	3315.7	1.12	1.12	1426	1443	43.9	46.8	74.09	99327	130	29.5	1918	1223	1.85	1.73	1.70	1.60	1.15	1.01	D
139	0548	3320.0	5.38	1.93	2.05	55	14.1	2580	3316.0	1.12	1.12	1423	1473	43.9	47.1	74.09	100453	131	29.7	1002	1221	1.86	1.49	1.47	1.58	1.15	1.01	D
140	0612	3321.0	2.53	1.93	2.01	55	14.6	2580	3317.0	1.12	1.12	1423	1478	43.9	47.0	74.09	101769	132	30.1	2092	1227	1.88	1.73	1.70	1.60	1.15	1.01	D
141	0650	3322.0	3.05	2.01	2.30	56	14.1	2600	3318.3	1.12	1.12	1427	1448	43.7	44.3	74.88	103111	133	30.5	1621	1236	1.91	1.66	1.63	1.61	1.15	1.01	D
142	0708	3323.0	3.22	2.04	2.13	60	14.2	2590	3319.2	1.12	1.12	1427	1418	43.2	46.0	76.31	104218	134	30.8	1534	1237	1.92	1.67	1.64	1.62	1.15	1.01	D
143	0718	3324.1	6.40	2.11	2.21	60	14.0	2590	3320.1	1.12	1.12	1427	1446	43.2	45.9	76.00	104819	135	31.0	609	1234	1.93	1.47	1.43	1.60	1.15	1.01	D
144	0738	3325.0	2.58	2.04	2.25	61	14.7	2590	3320.9	1.12	1.12	1427	1414	43.2	46.0	74.72	106029	136	31.3	2409	1237	1.95	1.75	1.72	1.62	1.15	1.01	D
145	0759	3326.0	2.86	2.02	2.18	61	14.0	2590	3321.5	1.12	1.12	1425	1448	43.3	45.8	75.20	107346	137	31.7	1727	1241	1.98	1.70	1.67	1.63	1.15	1.01	D
146	0819	3327.0	3.05	2.03	2.21	61	14.1	2600	3322.6	1.12	1.12	1425	1331	43.3	45.7	76.15	108524	138	32.0	1657	1244	2.00	1.68	1.65	1.64	1.15	1.01	D
147	0826	3328.0	8.41	2.14	2.43	59	13.7	2600	3322.9	1.12	1.12	1427	1382	43.4	45.8	76.31	108950	139	32.1	623	1239	2.01	1.37	1.34	1.62	1.16	1.01	D
148	0841	3329.0	3.70	2.04	2.16	60	14.5	2610	3324.4	1.12	1.12	1429	1399	43.3	45.8	76.31	109875	140	32.4	1549	1240	2.02	1.64	1.60	1.61	1.16	1.01	D

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
149	0904	3330.0	2.61	2.03	2.16	60	14.4	2600	3325.2	1.12	1.12	1424	1356	43.4	45.9	76.63	111259	141	32.8	2005	1244	2.05	1.73	1.70	1.63	1.16	1.01	D
150	0942	3331.0	2.31	2.05	2.18	60	14.3	2560	3326.9	1.12	1.12	1412	1421	43.4	44.6	78.22	113147	142	33.3	2144	1254	2.08	1.77	1.73	1.65	1.15	1.01	D
151	1013	3332.0	1.94	2.00	2.09	61	14.0	2590	3329.4	1.12	1.12	1423	1296	43.0	45.6	77.11	115027	143	33.8	2590	1263	2.11	1.81	1.77	1.67	1.15	1.01	D
152	1035	3333.0	2.84	1.97	2.16	61	13.5	2590	3330.2	1.12	1.12	1420	1321	42.8	46.0	77.11	116330	144	34.2	1655	1267	2.13	1.68	1.64	1.67	1.15	1.01	D
153	1111	3334.0	1.68	1.93	2.10	61	13.9	2640	3331.2	1.12	1.12	1435	1343	42.8	44.5	77.43	118550	145	34.8	2558	1279	2.17	1.85	1.81	1.69	1.15	1.01	D
154	1140	3335.0	1.94	1.93	2.01	61	15.5	2640	3332.2	1.12	1.12	1435	1323	42.4	44.7	77.74	120357	146	35.3	2508	1287	2.20	1.87	1.83	1.71	1.15	1.01	D
155	1200	3336.0	3.13	1.95	2.07	61	15.7	2630	3333.1	1.12	1.12	1432	1326	42.3	44.9	78.22	121538	147	35.6	1665	1289	2.22	1.74	1.69	1.71	1.15	1.01	D
156	1225	3337.0	2.37	1.94	2.05	61	16.0	2630	3333.6	1.12	1.12	1435	1335	42.2	43.9	80.92	123060	148	36.0	2108	1294	2.25	1.83	1.79	1.73	1.15	1.01	D
157	1249	3338.0	2.44	1.96	2.06	61	16.3	2630	3334.6	1.12	1.12	1435	1368	42.1	43.9	81.56	124561	149	36.4	1996	1299	2.28	1.83	1.79	1.75	1.15	1.01	D
158	1325	3339.0	1.69	1.95	2.05	61	16.7	2640	3336.2	1.12	1.12	1435	1397	41.9	43.7	82.04	126726	150	37.0	3297	1310	2.32	1.96	1.91	1.77	1.15	1.01	D
NB#14 (Run#16) SMITH F3 8.5". 10,10,11 jets. Start depth 3341m.																												
Date Dec 22 '83																												
165	2315	3342.0	4.71	2.15	2.33	20	14.4	2770	3341.0	1.13	1.13	1427	1822	25.4	28.0	77.27	259	1.0	.2	1920	12709	.00	1.24	1.32	1.39	1.16	1.01	D
166	2324	3343.0	7.07	2.18	2.39	35	17.8	2750	3341.0	1.13	1.13	1431	1830	25.0	30.1	76.79	550	2.0	.4	698	6710	.01	1.38	1.43	1.41	1.16	1.01	D
167	2336	3344.0	4.84	2.17	2.43	45	16.4	2680	3341.0	1.13	1.13	1435	1788	25.0	32.3	75.84	1113	3.0	.6	910	4810	.02	1.53	1.57	1.42	1.16	1.01	D
168	2353	3345.0	3.56	2.16	2.41	64	15.9	2640	3341.0	1.13	1.13	1433	1564	26.2	33.6	75.20	2189	4.0	.8	1235	3962	.05	1.71	1.73	1.41	1.16	1.01	D
Date Dec 23 '83																												
169	0010	3346.0	3.60	2.19	2.33	65	15.9	2640	3341.0	1.13	1.13	1435	1777	27.2	36.0	75.04	3266	5.0	1.1	1421	3446	.07	1.71	1.73	1.42	1.16	1.01	D
170	0030	3347.1	3.14	2.18	2.33	67	15.8	2670	3341.6	1.13	1.13	1431	1274	29.6	35.1	76.00	4633	6.0	1.5	1661	3156	.10	1.75	1.77	1.41	1.16	1.01	D
171	0048	3348.0	3.21	2.27	2.77	67	16.0	2670	3343.3	1.13	1.13	1427	1349	30.6	35.1	76.95	5839	7.0	1.8	1635	2937	.13	1.76	1.77	1.42	1.16	1.01	D
172	0107	3349.0	3.65	2.24	2.44	66	15.1	2500	3344.4	1.13	1.13	1371	1079	31.6	35.7	79.97	6955	8.0	2.0	1434	2741	.16	1.69	1.70	1.41	1.16	1.01	D
173	0120	3350.0	4.77	2.32	2.49	60	15.8	2700	3345.3	1.13	1.13	1443	1307	32.1	35.2	78.86	7725	9.0	2.2	1130	2548	.17	1.60	1.62	1.42	1.16	1.01	D
174	0200	3351.0	2.61	2.20	2.51	63	15.2	2720	3347.1	1.13	1.13	1454	1302	33.1	36.9	80.29	9706	10.0	2.8	3487	2551	.22	1.77	1.78	1.41	1.16	1.01	D
175	0228	3352.0	2.21	2.05	2.25	70	14.0	2670	3348.6	1.13	1.13	1450	1421	33.9	38.6	77.11	11615	11.0	3.2	2563	2529	.25	1.80	1.81	1.42	1.16	1.01	D
176	0236	3353.0	7.60	2.13	2.21	71	13.8	2670	3349.3	1.13	1.13	1450	1436	34.0	39.1	77.27	12175	12.0	3.3	690	2365	.27	1.45	1.46	1.44	1.16	1.01	D
177	0251	3354.0	3.90	2.07	2.24	74	14.4	2670	3350.6	1.13	1.13	1450	1451	34.8	38.4	77.11	13346	12.9	3.6	1632	2293	.30	1.67	1.68	1.45	1.16	1.01	D
178	0322	3355.0	1.93	2.00	2.32	76	15.4	2680	3351.1	1.13	1.13	1452	1398	35.7	39.0	77.59	15658	14.0	4.1	2981	2307	.35	1.92	1.92	1.44	1.16	1.01	D
179	0345	3356.0	2.57	2.11	2.24	75	15.0	2670	3351.9	1.13	1.13	1450	1244	35.2	39.2	79.18	17375	15.0	4.5	1887	2277	.39	1.81	1.82	1.45	1.16	1.01	D
180	0358	3357.0	4.48	2.17	2.37	75	14.5	2680	3353.4	1.13	1.13	1453	1515	35.5	39.8	77.74	18377	16.0	4.7	1145	2204	.42	1.64	1.64	1.47	1.16	1.01	D
181	0411	3358.0	4.79	2.19	2.32	75	14.4	2680	3354.0	1.13	1.13	1450	1394	36.7	40.1	78.05	19313	17.0	4.9	1034	2135	.44	1.61	1.62	1.48	1.16	1.01	D
182	0421	3359.0	6.08	2.20	2.33	74	14.2	2690	3354.5	1.13	1.13	1450	1390	36.9	40.7	78.06	20052	18.0	5.1	864	2069	.46	1.54	1.54	1.50	1.16	1.01	D
183	0429	3360.0	7.51	2.24	2.37	74	14.5	2700	3354.7	1.13	1.13	1453	1396	36.9	40.8	77.27	20651	19.0	5.2	670	1994	.47	1.49	1.49	1.50	1.16	1.01	D
184	0457	3361.0	7.02	2.27	2.40	73	14.8	2700	3355.4	1.13	1.13	1454	1370	37.2	40.9	78.22	21613	20.0	5.5	758	1960	.49	1.51	1.51	1.51	1.16	1.01	D
185	0518	3362.0	2.88	2.16	2.26	74	15.3	2670	3356.3	1.13	1.13	1446	1374	37.5	40.7	77.59	23166	21.0	5.9	1802	1949	.52	1.79	1.79	1.53	1.16	1.01	D
186	0548	3363.0	2.07	2.03	2.18	76	16.3	2660	3358.7	1.13	1.13	1447	1343	38.0	41.3	77.43	25424	22.0	6.3	2293	1975	.58	1.93	1.92	1.51	1.17	1.01	D
187	0609	3364.0	2.76	2.01	2.10	76	16.2	2650	3360.4	1.13	1.13	1446	1347	38.2	41.1	77.74	27050	23.0	6.7	1889	1969	.62	1.84	1.83	1.53	1.17	1.01	D
188	0630	3365.0	3.00	2.06	2.18	76	16.1	2660	3361.6	1.13	1.13	1446	1334	38.4	41.4	77.43	28587	24.0	7.0	1742	1958	.66	1.81	1.80	1.54	1.17	1.01	D
189	0641	3366.0	5.56	2.13	2.22	75	15.9	2660	3362.1	1.13	1.13	1446	1309	38.5	41.2	77.43	29410	25.0	7.2	953	1913	.67	1.62	1.61	1.56	1.17	1.01	D
190	0658	3367.0	3.26	2.13	2.22	76	16.6	2670	3362.6	1.13	1.13	1446	1364	38.5	41.0	77.27	30746	26.0	7.5	1508	1895	.71	1.80	1.79	1.58	1.17	1.01	D
191	0715	3368.0	3.47	2.12	2.37	75	16.3	2650	3363.5	1.13	1.13	1440	1352	38.6	41.1	79.65	32041	27.0	7.8	1465	1878	.74	1.77	1.76	1.60	1.17	1.01	D
192	0731	3369.0	4.68	2.15	2.26	72	16.0	2620	3364.0	1.13	1.13	1425	1561	38.8	41.9	79.97	33012	28.0	8.0	1122	1851	.76	1.66	1.65	1.62	1.17	1.01	D↑
193	0757	3370.0	3.93	2.12	2.28	66	15.6	2660	3365.1	1.13	1.13	1445	1344	38.9	40.9	79.97	34292	29.0	8.4	1391	1843	.79	1.67	1.67	1.63	1.17	1.01	D↑
194	0816	3371.0	3.40	2.12	2.29	66	15.7	2660	3366.5	1.13	1.13	1446	1411	38.9	40.7	79.65	35494	30.0	8.7	1587	1833	.81	1.72	1.71	1.65	1.17	1.01	D
195	0834	3372.0	3.37	2.05	2.14	66	15.8	2660	3367.5	1.13	1.13	1446	1318	38.9	41.3	79.65	36643	31.0	8.9	1525	1822	.84	1.72	1.72	1.67	1.17	1.01	D
196	0858	3373.0	2.50	1.97	2.06	66	16.4	2650	3369.0	1.13	1.13	1449	1329	39.1	42.0	79.65	38228	32.0	9.3	1868	1825	.87	1.83	1.83	1.69	1.17	1.01	D
197	0941	3374.0	2.43	2.03	2.71	62	14.9	2680	3370.6	1.13	1.13	1454	1350	39.4	42.2	80.29	39826	33.0	9.8	2032	1834	.91	1.77	1.76	1.72	1.17	1.01	D↑
198	1003	3375.0	2.23	2.00	2.10	64	15.8	2690	3372.0	1.13	1.13	1457	1388	39.6	42.3	78.06	41530	34.0	10.2	2252	1846	.94	1.83	1.83	1.74	1.17	1.01	D
199	1033	3376.0	2.38	2.06	2.17	63	15.9	2700	3373.0	1.13	1.13	1454	1368	39.6	43.0	78.06	43112	35.0	10.6	1898	1854	.98	1.81	1.81	1.76	1.17	1.01	D
200	1054	3377.0	2.83	2.04	2.13	64	15.7	2710	3373.8	1.13	1.13	1454	1425	39.9	43.4	77.74	44458	36.0	11.0	1780	1851	1.00	1.76	1.75	1.77	1.17	1.01	D
201	1112	3378.0	3.48	2.01	2.33	63	15.7	2700	3374.4	1.13	1.13	1453	1425	40.1	43.6	78.06	45555	37.0	11.3	1488	1842	1.03	1.69	1.68	1.76	1.17	1.01	D

SHELL DEV. AUST. : BASKER SOUTH No.1

Data Printed at time 02:16 Date Dec 25 '83
Data Recorded at time 11:27 Date Dec 23 '83

F#	TIME	DEPTH m	ROP m/hr	TORQUE AVG	TORQUE MAX	RPM AVG	FOB AVG	PUMP PRES	RTRNS DEPTH	MD spc grv IN	MD spc grv OUT	FLOW/MIN IN	FLOW/MIN OUT	TEMP (C) IN	TEMP (C) OUT	PVT	THIS BIT REVS	THIS BIT m	THIS BIT hrs	COST INST	COST RUN	EST TW	DXC	NX	NXB	ECD	EST FM PR	
202	1127	3379.0	3.75	2.07	2.26	62	15.8	2710	3374.9	1.13	1.13	1454	1429	40.3	44.0	78.22	46505	38.0	11.5	1298	1827	1.05	1.67	1.67	1.75	1.17	1.01	D
203	1209	3380.0	3.87	2.11	2.32	64	15.8	2680	3376.6	1.13	1.13	1446	1432	40.7	43.2	77.74	47975	39.0	11.9	1306	1833	1.07	1.67	1.66	1.73	1.17	1.01	D
204	1221	3381.0	4.91	2.04	2.14	64	15.0	2690	3377.0	1.13	1.13	1446	1479	40.8	44.2	77.90	48733	40.0	12.1	1049	1810	1.09	1.58	1.57	1.71	1.17	1.01	D
205	1243	3382.0	2.75	1.91	2.13	65	15.6	2680	3378.4	1.13	1.13	1450	1453	40.9	44.4	78.06	50162	41.0	12.5	2465	1811	1.12	1.77	1.76	1.73	1.17	1.01	D
206	1300	3383.0	3.53	1.99	2.28	65	15.8	2680	3379.0	1.13	1.13	1447	1458	41.1	44.5	78.06	51293	42.0	12.8	1444	1802	1.14	1.70	1.69	1.72	1.17	1.01	D
207	1306	3384.0	8.99	2.10	2.20	65	16.5	2690	3379.0	1.13	1.13	1447	1473	41.2	44.6	78.06	51720	43.0	12.9	559	1773	1.15	1.45	1.44	1.70	1.17	1.01	D
208	1315	3385.0	7.19	2.10	2.17	65	16.4	2690	3379.0	1.13	1.13	1449	1506	41.3	44.7	78.06	52249	44.0	13.0	748	1751	1.16	1.51	1.50	1.68	1.17	1.01	D
209	1324	3386.0	6.56	2.12	2.22	64	16.0	2690	3379.6	1.13	1.13	1449	1491	41.4	44.9	78.06	52829	45.0	13.2	749	1726	1.17	1.52	1.51	1.66	1.17	1.01	D
210	1339	3387.0	3.88	2.05	2.22	65	15.9	2690	3380.7	1.13	1.13	1446	1488	41.5	45.3	78.22	53841	46.0	13.5	2125	1717	1.20	1.68	1.65	1.65	1.17	1.01	D
211	1354	3388.0	4.13	2.06	2.16	65	16.3	2680	3381.6	1.13	1.13	1450	1480	41.7	45.5	78.22	54800	47.0	13.7	1195	1707	1.22	1.68	1.65	1.65	1.17	1.01	D
212	1441	3389.0	3.48	2.05	2.67	64	16.2	2670	3384.5	1.13	1.13	1438	1431	41.6	44.3	79.97	56811	47.9	14.2	1582	1730	1.26	1.72	1.70	1.67	1.17	1.01	D
213	1502	3390.0	2.62	2.06	2.29	66	16.6	2670	3386.7	1.13	1.13	1445	1469	41.6	45.4	80.13	58257	49.0	14.6	2752	1730	1.29	1.83	1.81	1.69	1.17	1.01	D
214	1522	3391.0	3.00	2.04	2.17	67	16.3	2670	3387.8	1.13	1.13	1446	1485	41.9	46.0	80.29	59604	50.0	14.9	1697	1729	1.31	1.78	1.76	1.71	1.17	1.01	D
215	1546	3392.0	2.58	2.02	2.12	67	16.4	2670	3388.3	1.13	1.13	1445	1464	42.3	46.0	80.45	61204	51.0	15.3	1883	1735	1.35	1.83	1.81	1.74	1.17	1.01	D
216	1558	3393.0	4.91	2.04	2.32	67	16.6	2670	3388.7	1.13	1.13	1443	1447	42.4	46.2	80.77	61997	52.0	15.5	1014	1720	1.37	1.64	1.62	1.72	1.17	1.01	D
217	1618	3394.0	4.04	2.04	2.29	62	16.5	2670	3389.8	1.13	1.13	1449	1474	42.7	46.0	80.77	63019	53.0	15.8	1341	1714	1.39	1.67	1.66	1.70	1.17	1.01	D
218	1636	3395.0	3.26	2.00	2.21	62	16.5	2670	3390.5	1.13	1.13	1446	1479	42.9	46.0	80.92	64132	54.0	16.1	1588	1712	1.41	1.74	1.72	1.70	1.17	1.01	D
219	1655	3396.0	3.23	1.99	2.18	62	17.0	2670	3391.2	1.13	1.13	1446	1472	43.0	45.6	80.92	65297	55.0	16.4	1702	1708	1.43	1.76	1.74	1.72	1.17	1.01	D
220	1719	3397.0	2.53	1.94	2.14	64	17.8	2710	3392.9	1.13	1.13	1457	1461	43.0	45.9	79.81	66831	56.0	16.8	2007	1715	1.47	1.87	1.85	1.74	1.17	1.01	D
221	1750	3398.0	2.57	1.90	2.03	62	17.0	2520	3394.4	1.13	1.13	1435	1337	42.9	44.7	82.20	68294	57.0	17.2	1779	1718	1.50	1.83	1.81	1.76	1.17	1.01	D
222	1823	3399.0	1.85	1.92	2.09	60	16.8	2670	3396.0	1.13	1.13	1448	1353	42.4	46.0	82.67	70261	58.0	17.8	2551	1735	1.54	1.91	1.89	1.78	1.17	1.01	D
223	1851	3400.0	2.13	1.95	2.05	60	16.9	2660	3397.4	1.13	1.13	1449	1363	42.6	46.3	83.95	71986	59.0	18.3	2349	1746	1.57	1.87	1.85	1.81	1.17	1.01	D
224	1919	3401.0	2.22	1.94	2.05	60	16.7	2660	3398.1	1.13	1.13	1448	1288	42.9	46.4	84.42	73640	60.0	18.7	2463	1755	1.60	1.85	1.83	1.83	1.17	1.01	D
225	1945	3402.0	2.21	1.90	2.05	60	16.9	2660	3399.0	1.13	1.13	1449	1311	43.1	46.8	84.10	75244	61.0	19.2	2403	1763	1.64	1.86	1.84	1.85	1.17	1.01	D
226	1956	3403.0	6.02	2.00	2.29	59	16.7	2560	3399.3	1.13	1.13	1450	1303	43.1	46.7	84.10	75846	62.0	19.3	906	1748	1.65	1.55	1.52	1.82	1.17	1.01	D
227	2008	3404.0	4.81	1.99	2.21	59	16.6	2560	3399.8	1.13	1.13	1453	1310	43.2	46.5	84.26	76568	63.0	19.5	1025	1736	1.66	1.61	1.59	1.80	1.17	1.01	D
228	2029	3405.0	2.81	1.86	2.05	61	16.9	2660	3400.5	1.13	1.13	1450	1344	43.4	46.2	83.95	77881	64.0	19.9	2311	1738	1.69	1.79	1.77	1.79	1.17	1.01	D
229	2047	3405.0	3.16	1.90	2.07	60	16.6	2670	3401.2	1.13	1.13	1454	1321	43.3	46.2	84.26	78977	65.0	20.2	1563	1733	1.71	1.74	1.71	1.77	1.17	1.01	D
230	2106	3407.0	3.32	1.86	2.02	61	17.0	2660	3401.8	1.13	1.13	1453	1360	43.5	45.9	84.58	80095	66.0	20.5	1534	1730	1.73	1.75	1.72	1.76	1.17	1.01	D
231	2148	3408.0	2.35	1.84	1.98	61	16.4	2600	3404.4	1.13	1.13	1420	1338	43.0	44.6	85.38	81837	67.0	21.0	2232	1742	1.77	1.83	1.80	1.77	1.17	1.01	D
232	2209	3409.0	3.01	1.87	2.16	61	15.6	2650	3405.3	1.13	1.13	1431	1298	42.8	45.5	77.59	83060	68.0	21.3	1831	1741	1.79	1.73	1.70	1.76	1.17	1.01	D
233	2225	3410.0	3.68	1.92	2.13	60	16.2	2660	3406.5	1.13	1.13	1432	1303	42.6	45.7	77.90	84017	69.0	21.6	1455	1736	1.81	1.68	1.65	1.74	1.17	1.01	D
234	2243	3411.0	3.25	1.89	2.06	60	16.5	2650	3407.0	1.13	1.13	1435	1310	42.6	45.6	78.38	85142	70.0	21.9	1448	1731	1.83	1.73	1.70	1.72	1.17	1.01	D
235	2303	3412.0	2.85	1.90	2.07	61	15.5	2660	3407.6	1.13	1.13	1438	1315	42.7	46.2	79.49	86370	71.0	22.2	1750	1731	1.85	1.74	1.71	1.72	1.17	1.01	D
236	2316	3413.0	4.89	1.90	2.09	60	15.8	2670	3408.1	1.13	1.13	1435	1339	42.7	46.1	79.81	87115	72.0	22.4	1013	1720	1.87	1.59	1.56	1.70	1.17	1.01	D
237	2333	3414.0	2.72	1.88	2.09	61	16.1	2660	3409.2	1.13	1.13	1438	1284	42.8	46.2	79.18	88474	73.0	22.8	3353	1722	1.89	1.77	1.74	1.70	1.17	1.01	D
238	2347	3415.0	3.77	1.95	2.24	61	16.1	2670	3409.9	1.13	1.13	1435	1302	42.9	46.2	78.86	89046	74.0	22.9	2022	1709	1.90	1.68	1.64	1.69	1.17	1.01	D
Date Dec 24 '83																												
239	0004	3416.0	3.38	1.93	2.14	61	16.0	2660	3411.0	1.13	1.13	1435	1285	43.0	45.6	78.70	90117	75.0	23.2	1547	1705	1.92	1.71	1.67	1.68	1.17	1.01	D
240	0011	3417.0	8.51	2.04	2.21	61	15.1	2670	3411.2	1.13	1.13	1438	1292	43.0	45.6	79.33	90548	76.0	23.3	646	1691	1.93	1.41	1.37	1.66	1.17	1.01	D
241	0054	3418.0	3.02	1.90	2.18	62	14.9	2640	3413.9	1.13	1.13	1428	1275	42.6	44.5	81.08	92526	77.0	23.9	1786	1704	1.97	1.70	1.67	1.66	1.17	1.01	D
242	0116	3419.0	2.72	1.96	2.14	64	14.6	2650	3414.9	1.13	1.13	1431	1266	42.4	45.0	81.08	93908	78.0	24.2	1810	1705	1.99	1.73	1.70	1.66	1.17	1.01	D
243	0142	3420.0	2.31	1.98	2.25	65	15.5	2640	3417.0	1.13	1.13	1431	1242	42.3	45.6	81.24	95590	79.0	24.7	2074	1711	2.02	1.82	1.78	1.68	1.17	1.01	D

TD at 3420m.

Run wireline logs : DLL-MSFL-Cal-GR-SP, LDL-CNL-Cal-GR, BHC-GR-CBL-VDL, HDT, Velocity Survey, CST.

APPENDIX C

ii. Drilling Data Plots

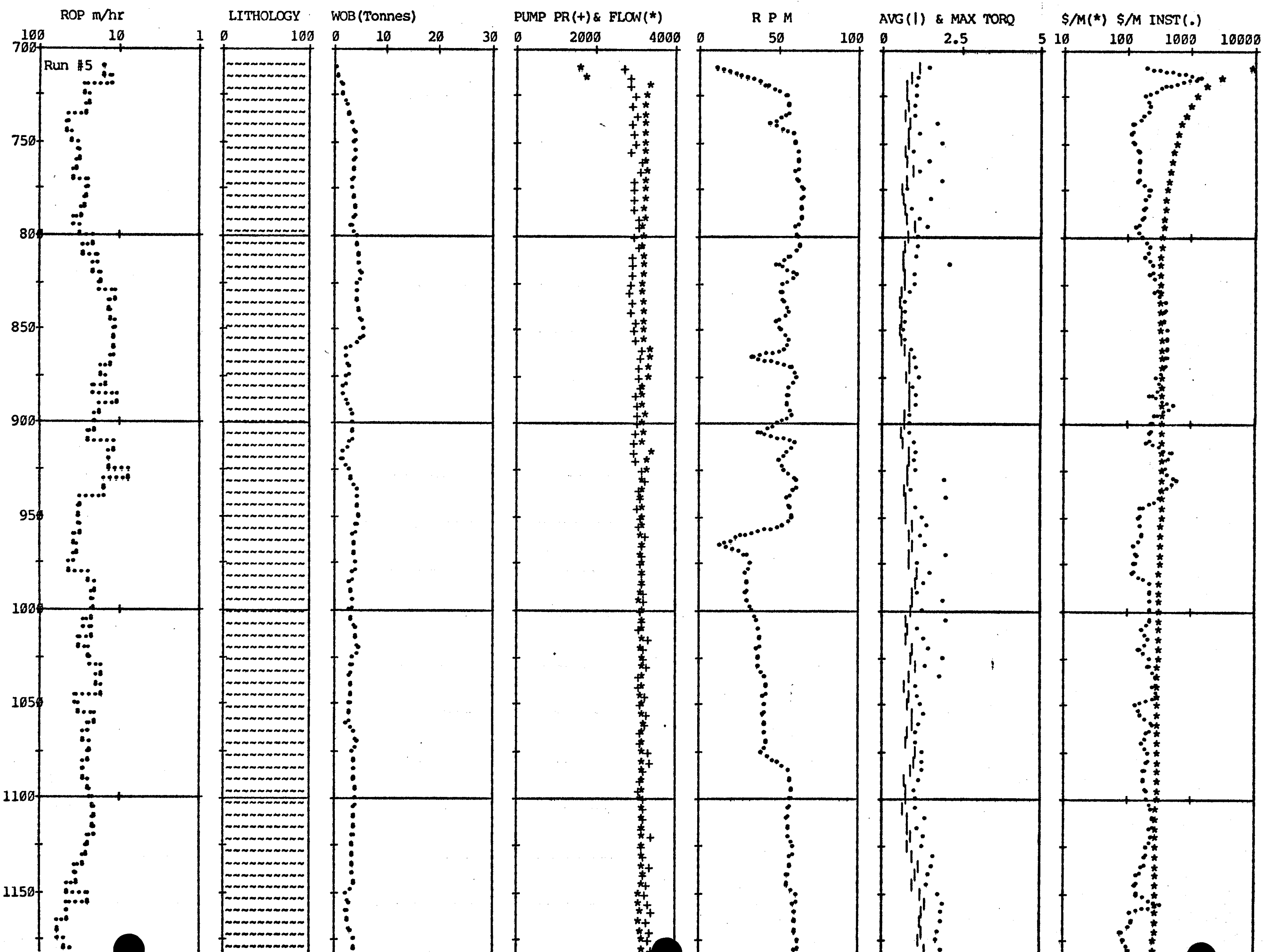
(a) 1:2000 ROP-LITHOLOGY-WOB-PUMP PRESSURE & FLOW-RPM AVERAGE & MAXIMUM TORQUE-$/M & $/M INST.

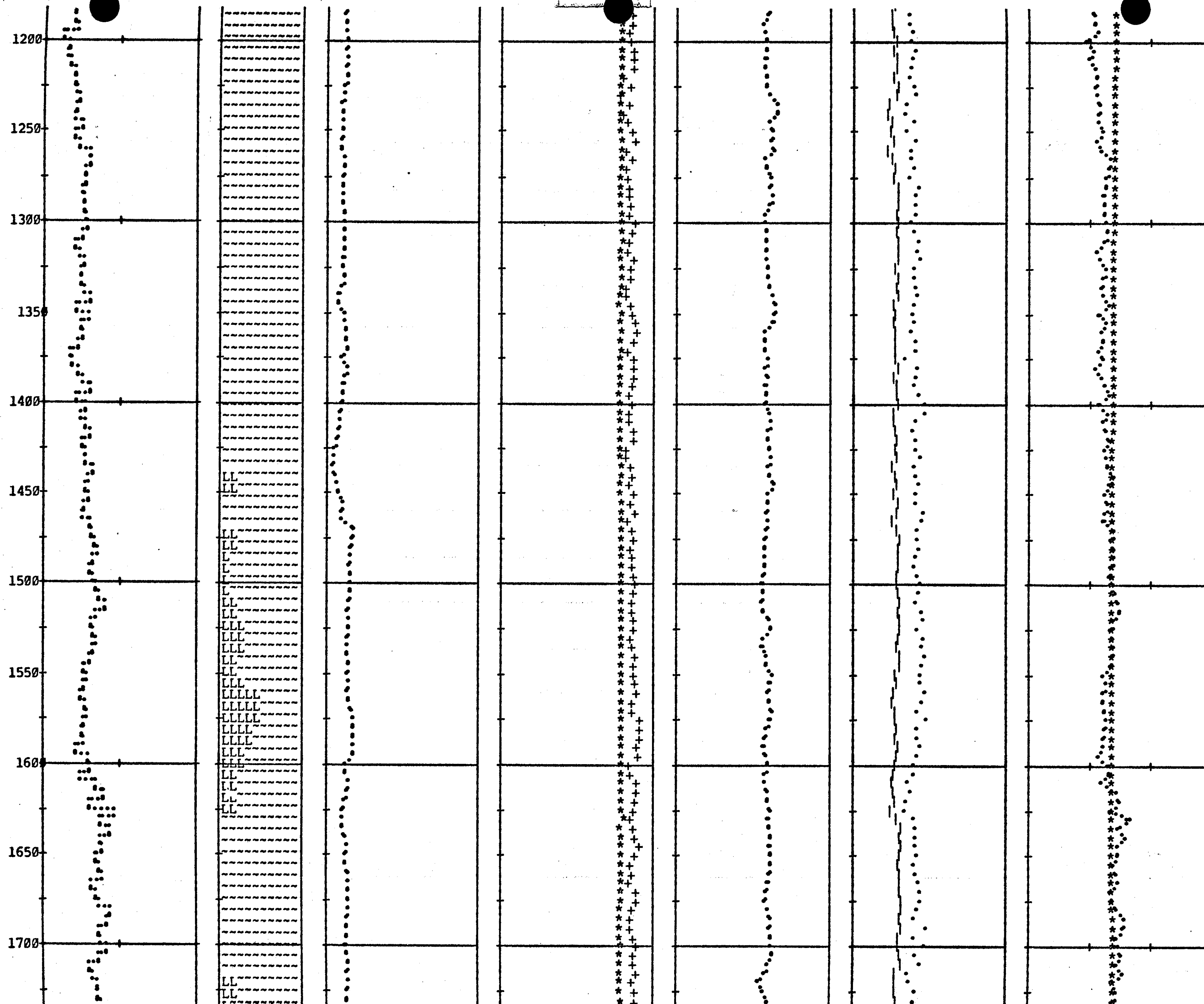
(b) 1:2000 ROP-DXC & TREND-LITHOLOGY-TOTAL GAS-ESTIMATED PORE PRESSURE & ECD-TEMPERATURE IN & OUT

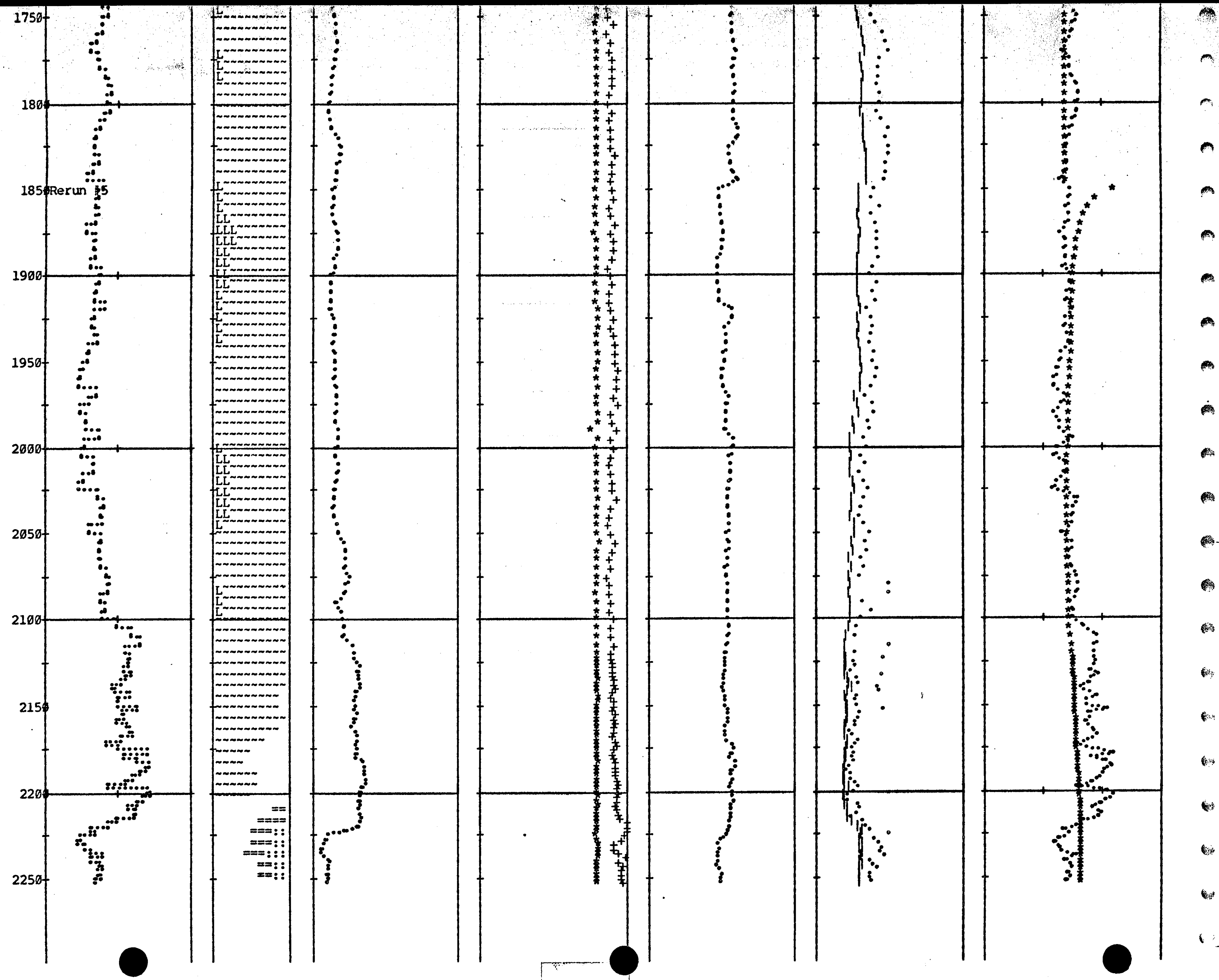
(a) 1:2000 ROP-LITHOLOGY-WOB-PUMP PRESSURE & FLOW-
RPM AVERAGE & MAXIMUM TORQUE-$/M & $/M INST.

SHELL DEV. AUST: BASKER SOUTH No.1

OFFLINE PLOT, SCALE OF 1 : 2000

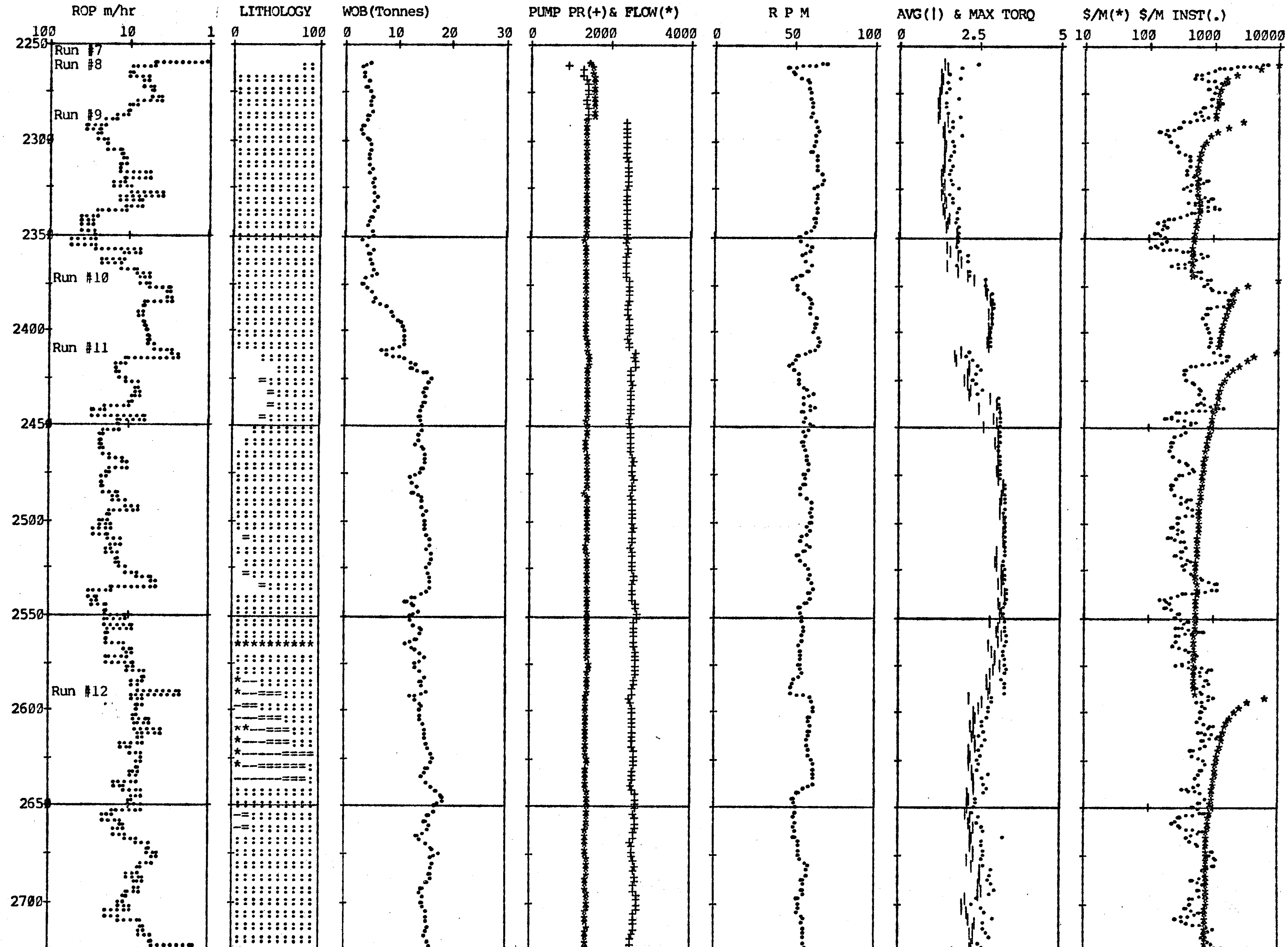


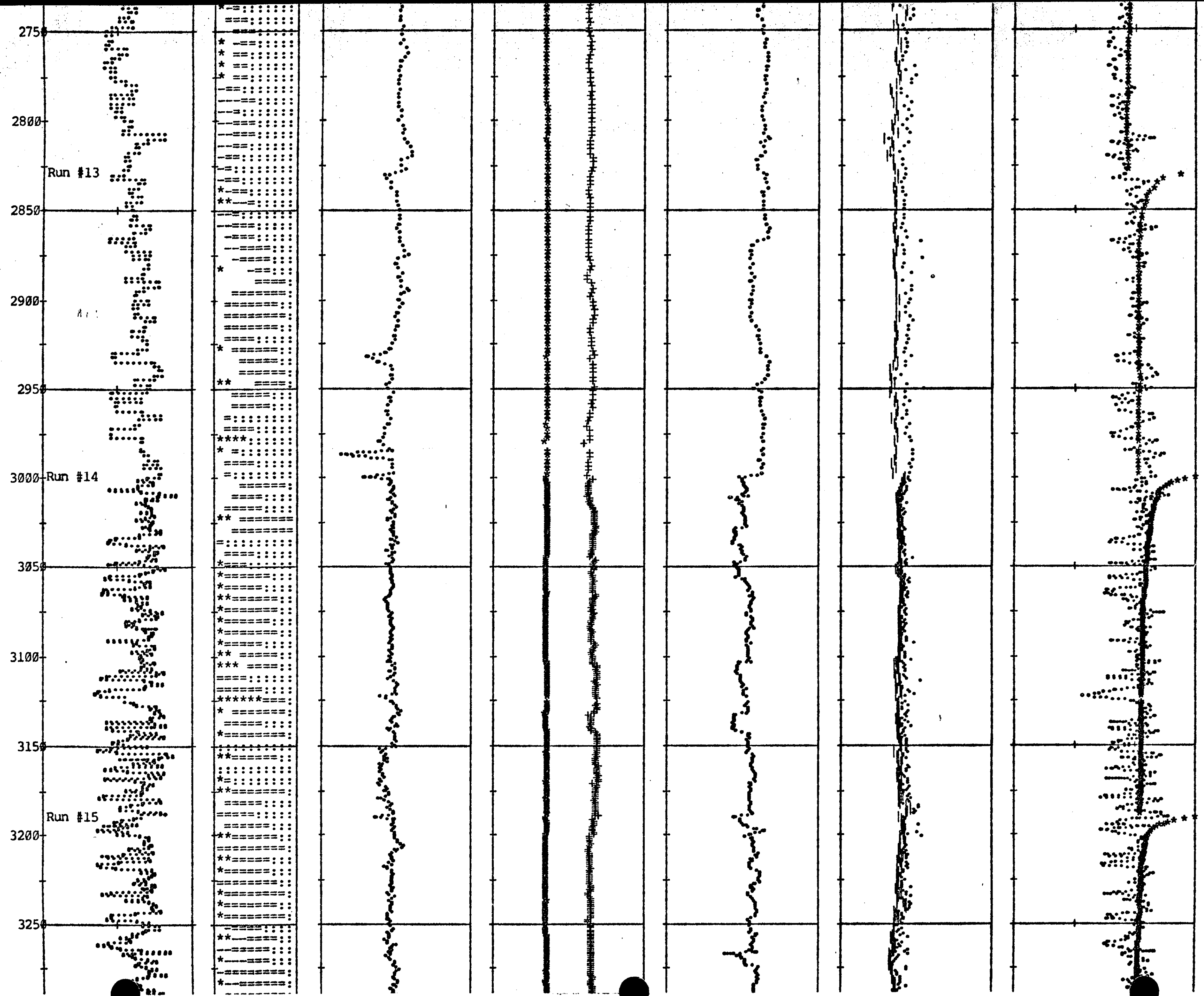

1200
1250
1300
1350
1400
1450
1500
1550
1600
1650
1700

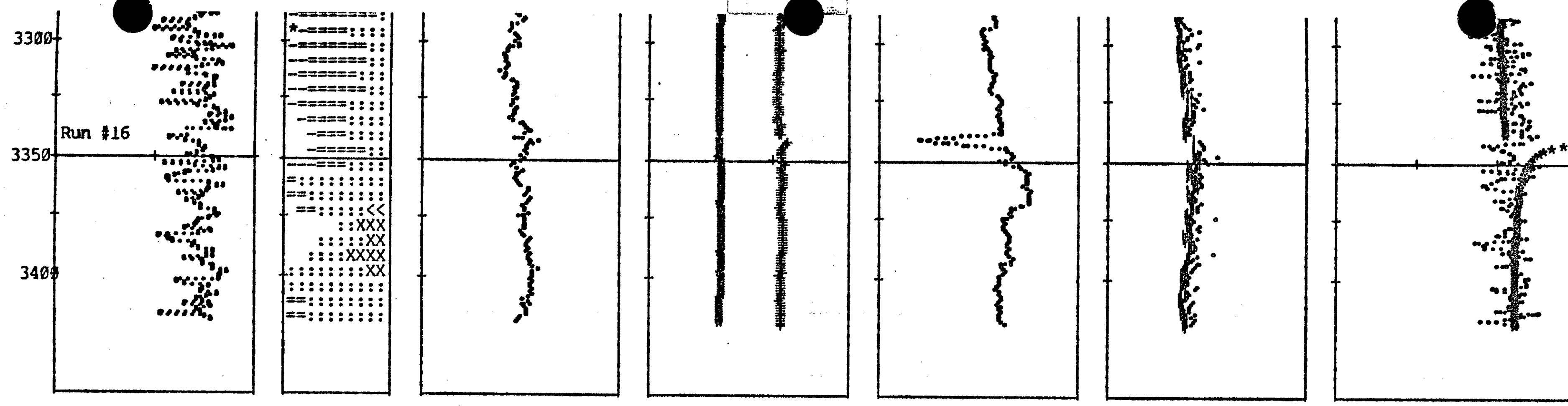

1750
1800
1850Rerun #5
1900
1950
2000
2050
2100
2150
2200
2250

SHELL DEV. AUST: BASKER SOUTH No.1

OFFLINE PLOT, SCALE OF 1 : 2000



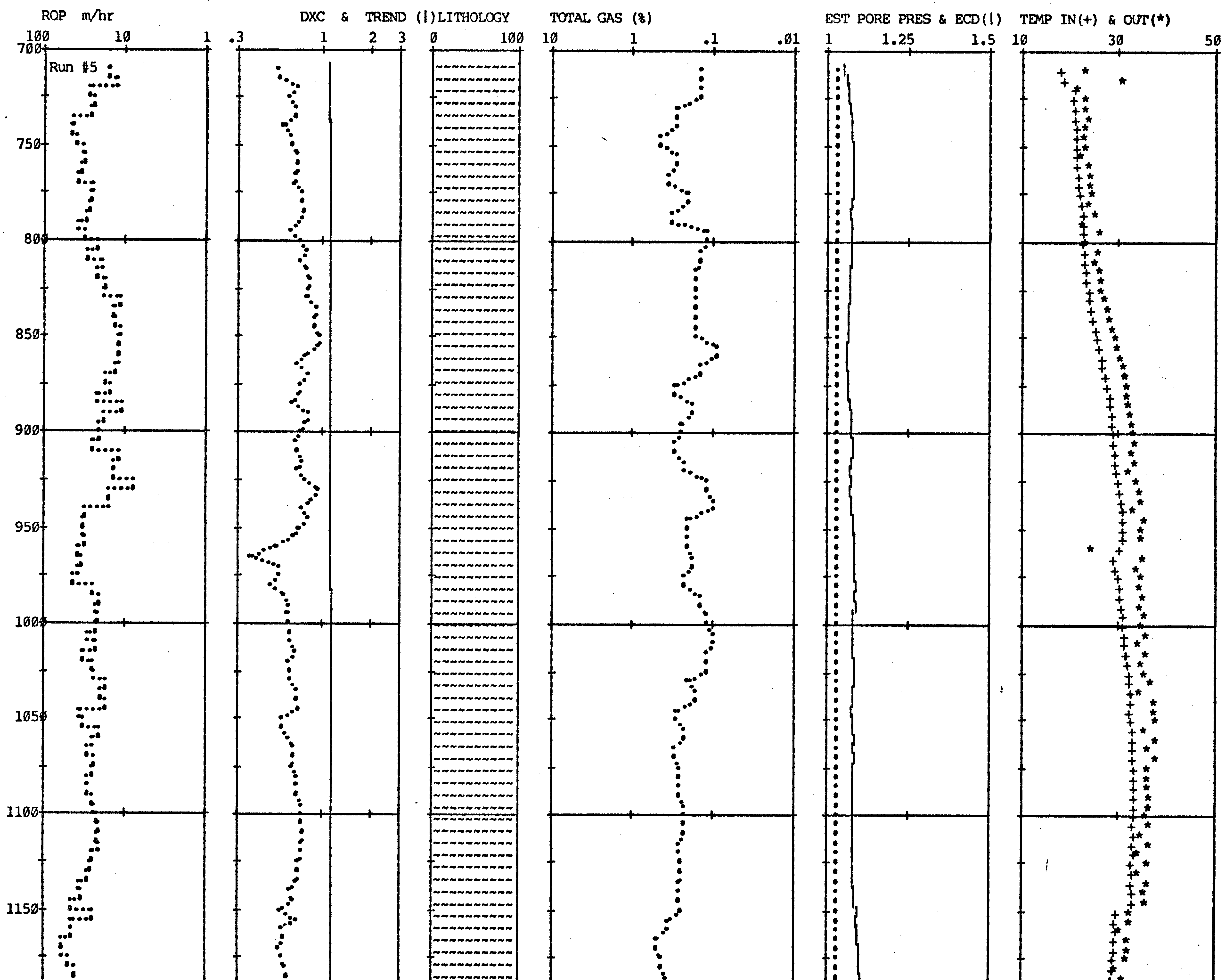

2750
2800
Run #13
2850
2900
2950
3000
Run #14
3050
3100
3150
Run #15
3200
3250

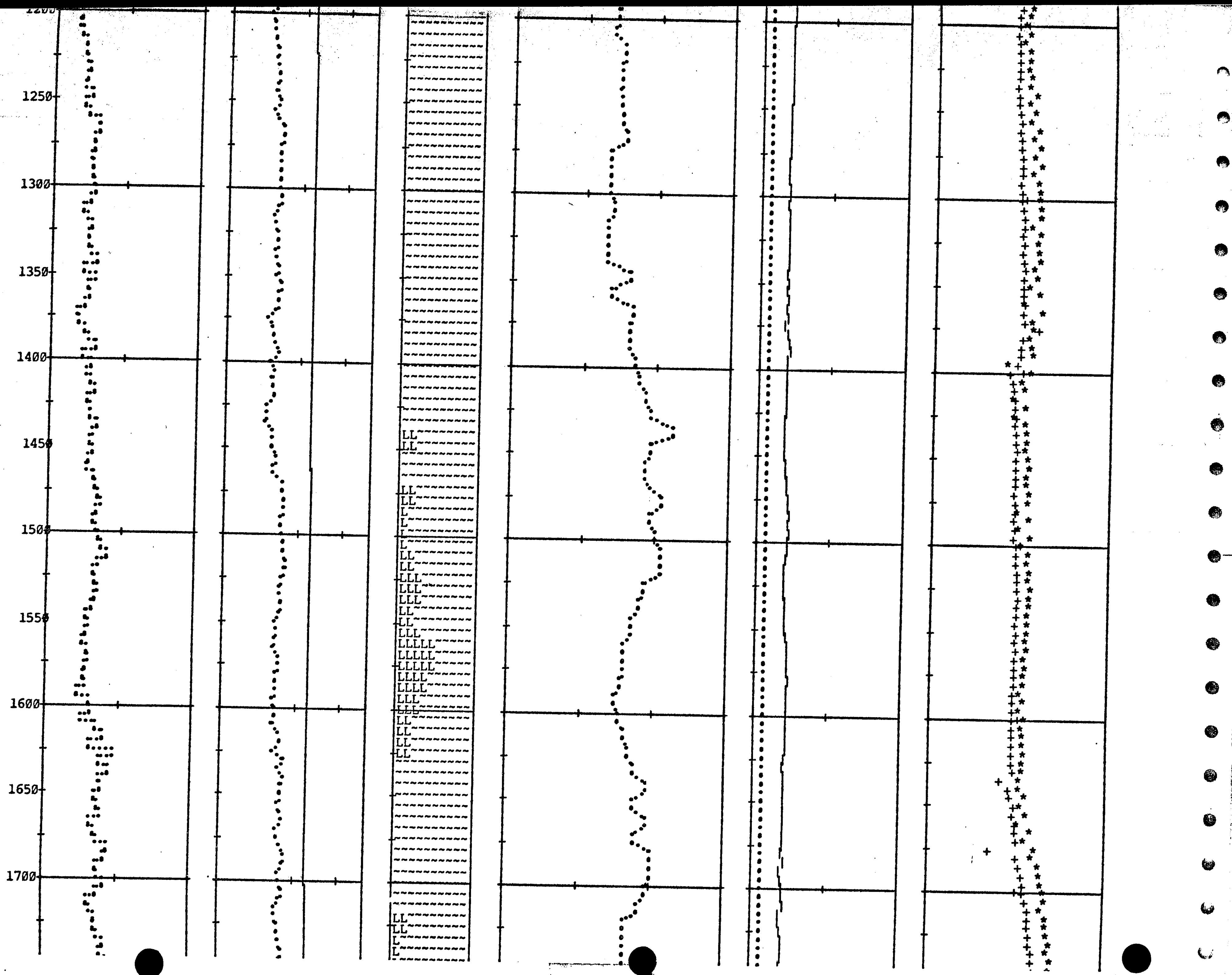

3300
3350
3400
Run #16

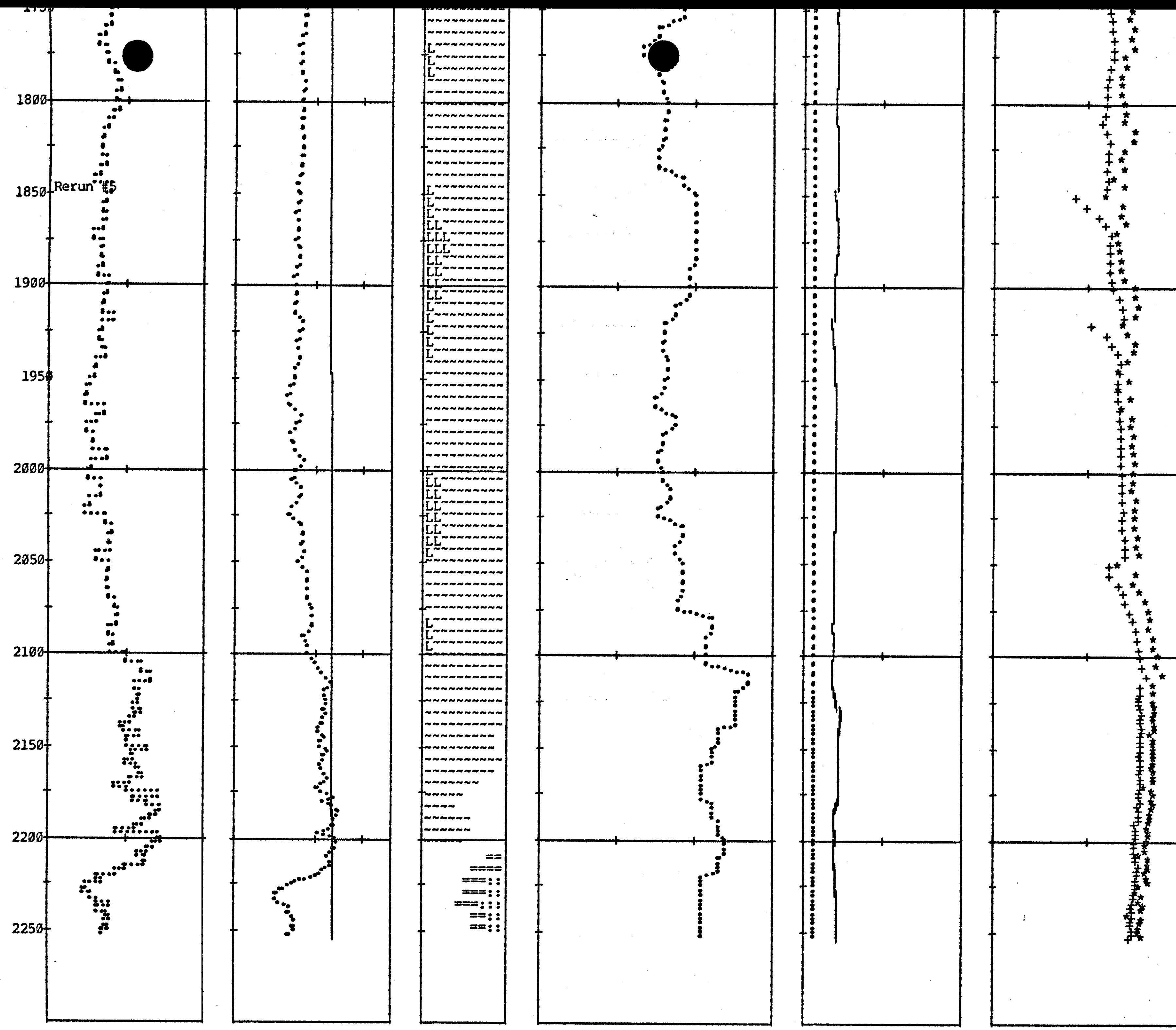
(b) 1:2000 ROP-DXC & TREND-LITHOLOGY-TOTAL GAS-ESTIMATED PORE PRESSURE & ECD-TEMPERATURE IN & OUT

SHELL DEV. AUST: BASKER SOUTH No.1

ONLINE PLOT, SCALE OF 1 : 2000

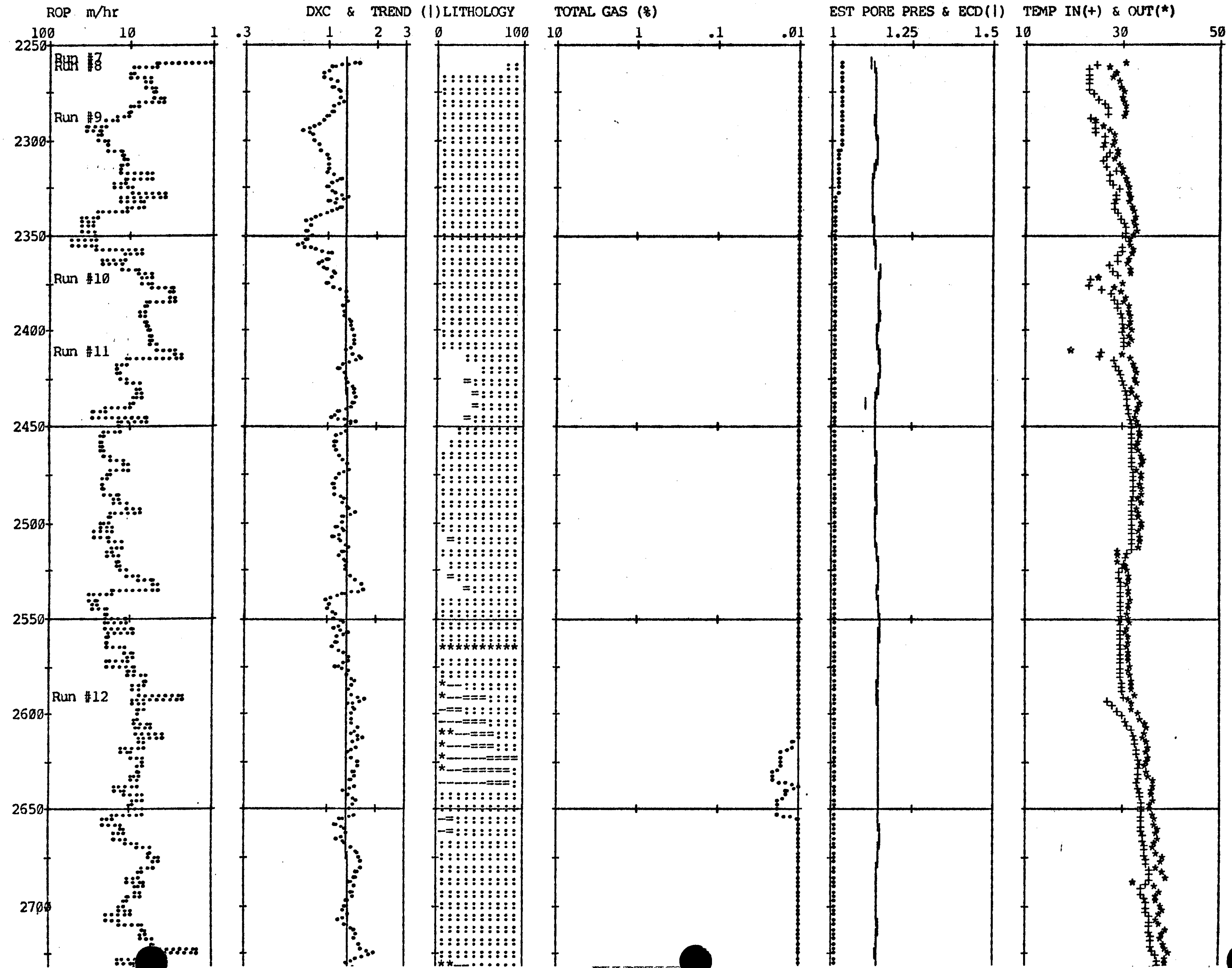


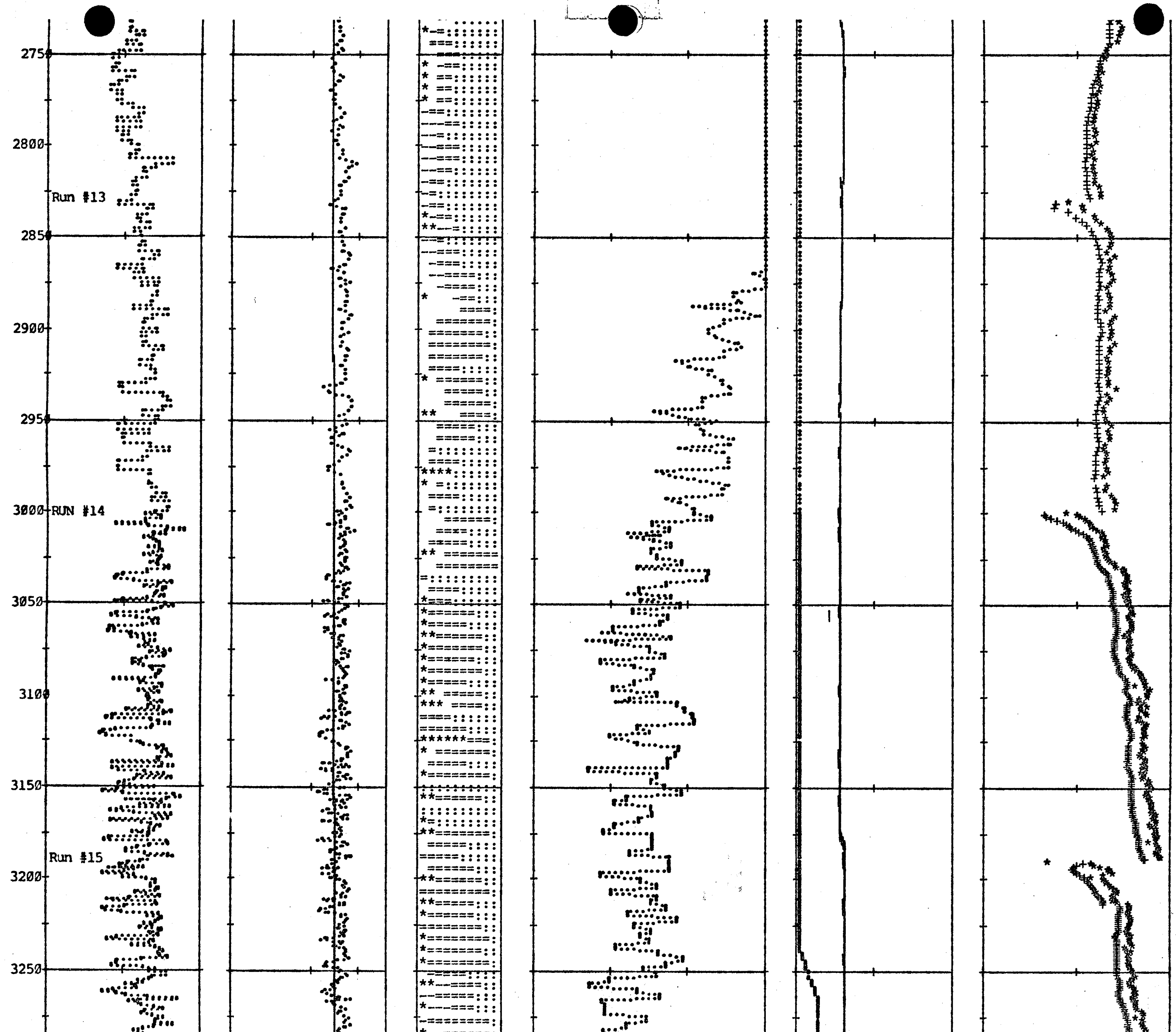

1250
1300
1350
1400
1450
1500
1550
1600
1650
1700

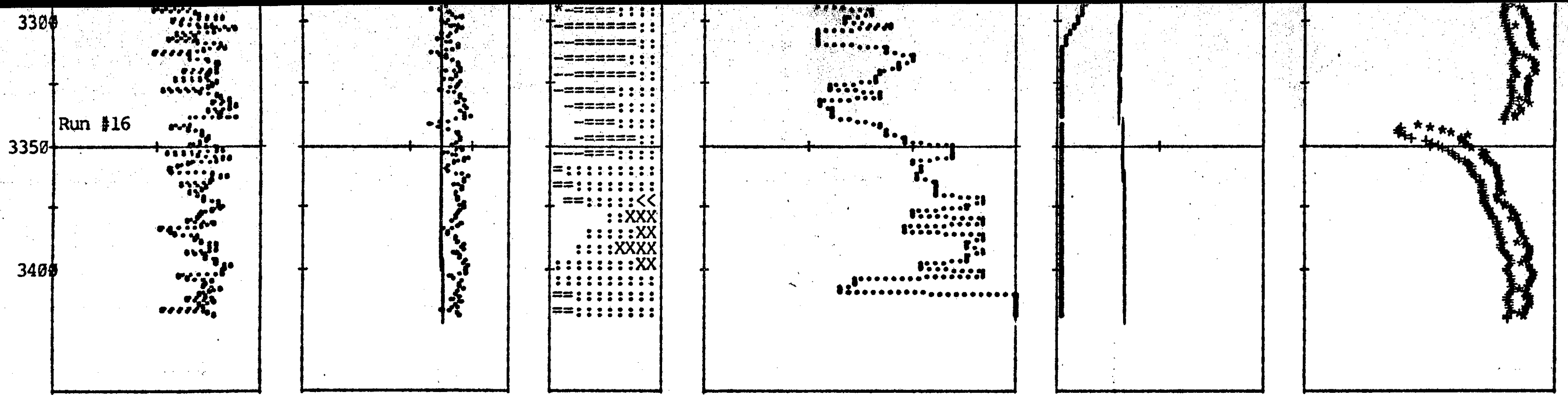

1800
Rerun #5
1850
1900
1950
2000
2050
2100
2150
2200
2250

SHELL DEV. AUST: BASKER SOUTH No.1

OFFLINE PLOT, SCALE OF 1 : 2000




2750
2800
Run #13
2850
2900
2950
3000 RUN #14
3050
3100
3150
Run #15
3200
3250


3300
Run #16
3350
3400

APPENDIX D

MORNING GEOLOGICAL ENGINEERING REPORTS

EXLOG

GEMDAS LOGGING REPORT NO. 1

COMPANY: SHELL PET. DEV. WELL: BASKER SOUTH #1

DATE: 30-11-83 TIME: 06⁰⁰

DEPTH: 884 m LAST REPORT DEPTH:

RIG OPERATIONS: Drilling Ahead.

REPORT BY: T. JANOWICZ REPORT RECEIVED BY: D. Slatterlee (SIGNED) (OPERATOR)

DRILLING REPORT

Bit No.: Run # 5 Type: 2x27HS DIAMANT BOART Size: 12¼" Jets: TFA 1.05 sq in

On Bit: Footage: 178 m Hours: 9.4 ROP: 18.9 m/hr WOB: 0-5 tonne RPM: 650-600

Pump Press: 3050 psi SPM: 200 Torque: .6-.8 kN.m TBR: 356500 CP I: $ 363 CP B: $ 364

HYDRAULICS REPORT

Mud Density In: 1.06 sg Mud Density Out: 1.06 sg ECD: 1.08 sg PV/YP: 12/11

Gels: – Salinity: – PPM Cl Solids: – %

Hole Volume: 146 m^3 Annular Volume: 132.8 m^3 Tubing Volume: 7.5 m^3 Displaced Volume: 5.7 m^3

Carbide Lag—Calculated Lag: 36 minutes Flowrate: 3200 l/min

Drillpipe Annular Vel (Max. Dia. Sec.): 25.3 m/min Drillpipe Annular Vel (Open Hole): 66 m/min

Drill Collar Annular Vel (Open Hole): 73.3 m/min Critical Vel: 83.8 m/min

Pressure Loss System: 2510 psi Pressure Loss Bit: 540 psi – % Pressure Loss: 44% –

Nozzel Vel: – Jet Impact Force: 459 kg HHP: 266 hp

PRESSURE PARAMETERS

Drilling Exponent: 0.9 to 0.7 Flowline Temperature: 32 °C

Shale Density: Shale Factor: –

Background Gas: 0.09-0.4% Max. Formation Gas: 0.4% @ 740 m Trip Gas: @

Other Gas:

Fill: Tight Hole:

Cavings: Est %: Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: .378 sg Min. Estimated Fracture Pressure (Open Hole): 1.52 sg at Shoe

Estimated Pore Pressure: 1.03 sg Min. Estimated Pore Pressure (Open Hole): 1.03 sg @

Max. Estimated Pore Pressure (Open Hole): 1.03 sg @ Estimated Fracture Pressure at TD: 1.61 sg

Comments:

through Marl with up to 10% Calcarenite

Pit #1/52 m^3 #2/18.2 m^3 #3 0 #4/58.5 m^3 #5/

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EXLOG

GEMDAS LOGGING REPORT NO. 2

COMPANY SHELL PET. DEV. WELL BASKER SOUTH - 1
DATE 1/12/83 TIME 06[00]
DEPTH 1285m LAST REPORT DEPTH 884m
RIG OPERATIONS Drill Ahead
REPORT BY T. JANOWICZ REPORT RECEIVED BY H. FLINK (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: Run #5 Type: LX 27HS DIAMANT BOART Size: 12¼" Jets: TFA 1.05 sq in
On Bit: Footage: 576 m Hours: 25.8 ROP: 22.3 m/hr ave. WOB: 0-4 tonnes RPM: 650
Pump Press: 3310 psi SPM: 199 Torque: .8-1.1 knm TBR: 968455 CP I: $ 187 CP B: $ 255

HYDRAULICS REPORT

Mud Density In: 1.07 sg Mud Density Out: 1.07 sg ECD: 1.09 sg PV/YP: 12/11
Gels: - Salinity: PPM Cl Solids: - %
Hole Volume: 176 m^3 Annular Volume: 157.5 m^3 Tubing Volume: 11.2 m^3 Displaced Volume: 7.4 m^3
Carbide Lag—Calculated Lag: 9946 stks - 9946 stks Flowrate: 3142 lpm
Drillpipe Annular Vel (Max. Dia. Sec.): 16.5 m/min Drillpipe Annular Vel (Open Hole): 65.6 m/min
Drill Collar Annular Vel (Open Hole): 75.6 m/min Critical Vel: 85.5 m/min
Pressure Loss System: 2784 psi Pressure Loss Bit: 526 psi % Pressure Loss: 15.9%
Nozzel Vel: 78.3 m/sec Jet Impact Force: 446 Kg HHP: 254.5 hp

PRESSURE PARAMETERS

Drilling Exponent: 0.6 to 0.8 Flowline Temperature: 33.4°C
Shale Density: - Shale Factor: -
Background Gas: 0.09 - 0.5% Max. Formation Gas: 0.5% @ 1170m Trip Gas: 0 @ 1145m
Other Gas: Nil
Fill: Tight Hole:
Cavings: Est %: Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0.249 sg Min. Estimated Fracture Pressure (Open Hole): 1.52 sg at shoe.
Estimated Pore Pressure: 1.03 sg Min. Estimated Pore Pressure (Open Hole): 1.03 sg @
Max. Estimated Pore Pressure (Open Hole): 1.03 sg @ Estimated Fracture Pressure at TD: 1.87 sg

Comments:
Survey at bit depth 956 m + 1145 m = 2° + 1½°
Wiper trip of 5 stands at 1145 m - no drag.
Booster pump off at 1255 m to reduce mud loss over shakers.
Lithology: Marl + up to 10% Calcarenite

Pit #1/55.4 m^3 #2/19 m^3 #3/24 m^3 #4/58 m^3 #5/0 m^3

EXLOG

GEMDAS LOGGING REPORT NO. 3

COMPANY Shell Dev. Aust. WELL Basker South - 1

DATE 2/12/83 TIME 06⁰⁰

DEPTH 1683 m LAST REPORT DEPTH 1285 m

RIG OPERATIONS Drill Ahead

REPORT BY T. JANOWICZ REPORT RECEIVED BY H. Flink (SIGNED) (OPERATOR)

DRILLING REPORT

Bit No.: Run #5 Type: D. Boart LX27HS Size: 12¼" Jets: TFA 1.05 sq in

On Bit: Footage: 974 m Hours: 42.5 ROP: 22.9 m/h WOB: 4 tonne RPM: 660

Pump Press: 3500 psi SPM: 200 Torque: 1.1-1.5 knm TBR: 1,601,470 CP I: $ 356 CP B: $ 937

HYDRAULICS REPORT

Mud Density In: 1.09 sg Mud Density Out: 1.09 sg ECD: 1.11 sg PV/YP: 11/10

Gels: – Salinity: – PPM Cl Solids: – %

Hole Volume: 206.8 m^3 Annular Volume: 182.9 m^3 Tubing Volume: 14.9 m^3 Displaced Volume: 8.9 m^3

Carbide Lag—Calculated Lag: 11563 stks Flowrate: 3164 l/min

Drillpipe Annular Vel (Max. Dia. Sec.): 20.9 m/min Drillpipe Annular Vel (Open Hole): ~~60.4 m/min~~ 49.9 m/min

Drill Collar Annular Vel (Open Hole): 76.1 m/min Critical Vel: 78.8 m/min

Pressure Loss System: 2957 psi Pressure Loss Bit: 543 psi % Pressure Loss: 16%

Nozzel Vel: 78.9 m/sec Jet Impact Force: 461 kg HHP: 265 hp

PRESSURE PARAMETERS

Drilling Exponent: 0.7 – 0.85 Flowline Temperature: 34.5 °C

Shale Density: – Shale Factor: –

Background Gas: .06 – .5% Max. Formation Gas: 0.5% @ 1320 m Trip Gas: Nil @

Other Gas: Nil

Fill: Tight Hole:

Cavings: Est %: Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0.181 sg Min. Estimated Fracture Pressure (Open Hole): 1.52 sg @ Shoe

Estimated Pore Pressure: 1.03 sg Min. Estimated Pore Pressure (Open Hole): 1.03 sg @

Max. Estimated Pore Pressure (Open Hole): 1.03 sg @ – Estimated Fracture Pressure at TD: 2.1 sg

Comments: Surveys at bit depth 1393 m and 1630 m both = 2°
5 stand wiper trip @ 1630 m - No drag.

Lithology: Marl with minor Calcarenite

Pit #1. 37.5 m^3 2. 12.2 m^3 3. 77 m^3 4. 62.7 m Trip. 0

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GEMDAS LOGGING REPORT NO. 4

EXLOG (SM)

COMPANY Shell Dev. Aust. WELL Basker South -1
DATE 3/12/83 TIME 06^{00}
DEPTH 1885 m LAST REPORT DEPTH 1683m
RIG OPERATIONS Drilling ahead.
REPORT BY T. JANOWICZ REPORT RECEIVED BY H. Flink SIGNED (OPERATOR)

DRILLING REPORT

Bit No.: Rerun # 5 Type: D. Boart LX27HS Size: 12¼" Jets: TFA 1.05 sq in
On Bit: Footage: 38 m Hours: 1.9 ROP: 20m/h WOB: 5 tonnes RPM: 650
Pump Press: 3600psi SPM: 200 Torque: 1.5 knm TBR: 70604 CP I: $ 233 CP B: $ 357

HYDRAULICS REPORT

Mud Density In: 1.08 sg Mud Density Out: 1.08 sg ECD: 1.10 sg PV/YP: 10/10
Gels: — Salinity: — PPM Cl Solids: — %
Hole Volume: 222 m³ Annular Volume: 196 m³ Tubing Volume: 16.8 m³ Displaced Volume: 9.6m³
Carbide Lag—Calculated Lag: 60 min / 12368 stks Flowrate: 3164 l/min
Drillpipe Annular Vel (Max. Dia. Sec.): 19.3 m/min Drillpipe Annular Vel (Open Hole): 49.9 m/min
Drill Collar Annular Vel (Open Hole): 76.1 m/min Critical Vel: 79 m/min
Pressure Loss System: 3062psi Pressure Loss Bit: 538 psi % Pressure Loss: 15
Nozzel Vel: 78.9 m/sec Jet Impact Force: 457 Kg HHP: 262hp

PRESSURE PARAMETERS

Drilling Exponent: 0.7 – 0.8 Flowline Temperature: 36.9°C
Shale Density: — Shale Factor: —
Background Gas: 0.1 – 0.5 % Max. Formation Gas: 0.5% @ 1770m Trip Gas: Nil @
Other Gas: Nil
Fill: none Tight Hole: none
Cavings: Est %: Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: .163sg Min. Estimated Fracture Pressure (Open Hole): 1.52sg at shoe
Estimated Pore Pressure: 1.03 sg Min. Estimated Pore Pressure (Open Hole): 1.03sg @
Max. Estimated Pore Pressure (Open Hole): 1.03sg @ Estimated Fracture Pressure at TD: 2.1 sg

Comments: Pull out at 1847m to retrieve stuck survey tool. Clean trip. Rerun bit and drill ahead

Lithology = Marl and Calcarenite

Pit #1 48.9m³ #2 15.9m³ #3 87.9m³ #4 61.7m³ TRIP 0

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EXLOG

GEMDAS LOGGING REPORT NO. 5

COMPANY: Shell Dev. Aust. WELL: Basker South 1

DATE: 4/12/83 TIME: 06⁰⁰

DEPTH: 2113m LAST REPORT DEPTH: 1885m

RIG OPERATIONS: Drill ahead.

REPORT BY: T. JANOWICZ REPORT RECEIVED BY: H. FLINK (SIGNED) (OPERATOR)

DRILLING REPORT

Bit No.: Rerun #5 Type: D.Boart 4x27HS Size: 12¼" Jets: TFA 1.05 sq in.

On Bit: Footage: 266m Hours: 15.4 ROP: 17.3 WOB: 5-7 tonne RPM: 655

Pump Press: 3570psi SPM: 202 Torque: 1-1.5knm TBR: 536735 CP I: $ 822 CP B: $ 290

HYDRAULICS REPORT

Mud Density In: 1.1 sg Mud Density Out: 1.1 sg ECD: 1.11 sg PV/YP: 10/10

Gels: – Salinity: – PPM Cl Solids: – %

Hole Volume: 239.8 m³ Annular Volume: 210.3 m³ Tubing Volume: 18.9 m³ Displaced Volume: 10.5 m³

Carbide Lag—Calculated Lag: 13292 stks / 62.4 min (boost) Flowrate: 3210 l/min

Drillpipe Annular Vel (Max. Dia. Sec.): 21.1 m/min Drillpipe Annular Vel (Open Hole): 50.7 m/min

Drill Collar Annular Vel (Open Hole): 77.3 m/min Critical Vel: 78 m/min

Pressure Loss System: 2990 psi Pressure Loss Bit: 580 psi % Pressure Loss: 16%

Nozzel Vel: 81.1 m/sec Jet Impact Force: 486 kg HHP: 287

PRESSURE PARAMETERS

Drilling Exponent: .7 - 1.2 Flowline Temperature: 44.4°C

Shale Density: – Shale Factor: –

Background Gas: 0.06 - 0.3% Max. Formation Gas: 0.3% @ 2020m Trip Gas: Nil @

Other Gas: Nil

Fill: Tight Hole:

Cavings: Est %: Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: .147 sg Min. Estimated Fracture Pressure (Open Hole): 1.52sg at shoe

Estimated Pore Pressure: 1.03sg Min. Estimated Pore Pressure (Open Hole): 1.03sg @

Max. Estimated Pore Pressure (Open Hole): 1.03sg @ Estimated Fracture Pressure at TD: 2.15 sg

Comments: Trip to shoe @ 1915 m due to wash in Kelly. Hole clean
Increase in drill rate over interval 1941 - 1945m is probable indicator of Top of Lakes Entrance formation
Survey @ 2047m = (2032m) 4½°

Lithology: Marl with trace to 5% Claystone & trace Calcarenite

Pit #1 2.49m³ #2 16.2 m³ #3 87.5m³ #4 61.9m³ Trip 0

EL P/N 18429 MAY 1980

EXLOG

GEMDAS LOGGING REPORT NO. 6

COMPANY: Shell Dev. Aust. WELL: Basker South 1
DATE: 5/12/83 TIME: 06⁰⁰
DEPTH: 2254 m LAST REPORT DEPTH: 2113m
RIG OPERATIONS: Pull out of hole.
REPORT BY: T. JANOWICZ REPORT RECEIVED BY: H. FLINK (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: Rerun #5 Type: D.BOART LX27HS Size: 12¼" Jets: TFA 1.05 sq in
On Bit: Footage: 407 m Hours: 33.4 ROP: 12.2 m/hr WOB: 8-10 tonnes RPM: 660
Pump Press: 3850 psi SPM: 201 Torque: 0.9-1.5 knm TBR: 1255823 CP I: $ 248 CP B: $ 422

HYDRAULICS REPORT

Mud Density In: 1.09 sg Mud Density Out: 1.09 sg ECD: 1.10 PV/YP: 7/11
Gels: – Salinity: – PPM Cl Solids: – %
Hole Volume: 250.6 m³ Annular Volume: 219.2 m³ Tubing Volume: 20.3 m³ Displaced Volume: 11 m³
Carbide Lag—Calculated Lag: 13858 stks / 65.8 min Flowrate: 3179
Drillpipe Annular Vel (Max. Dia. Sec.): 20.9 m/min (boost) Drillpipe Annular Vel (Open Hole): 50.2 m/min
Drill Collar Annular Vel (Open Hole): 76.5 m/min Critical Vel: 83.9 m/min
Pressure Loss System: 3302 psi Pressure Loss Bit: 548 psi % Pressure Loss: 14%
Nozzel Vel: 79.3 m/sec Jet Impact Force: 466 kg HHP: 269 hp

PRESSURE PARAMETERS

Drilling Exponent: 0.55 - 1.25 Flowline Temperature: 41.7°C
Shale Density: – Shale Factor: –
Background Gas: 0.01 - .08 Max. Formation Gas: .08 @ 2215 - 2250 Trip Gas: – @
Other Gas: Nil
Fill: Tight Hole:
Cavings: Est %: Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0.135 sg Min. Estimated Fracture Pressure (Open Hole): 1.52 at shoe
Estimated Pore Pressure: 1.03 sg Min. Estimated Pore Pressure (Open Hole): 1.03 sg @
Max. Estimated Pore Pressure (Open Hole): 1.03 sg @ Estimated Fracture Pressure at TD: 2.3 sg

Comments:
Top of Flounder ≈ 2205m - Silty claystone
Flow check @ 2224m. no flow
Circulate at 2254m. Drop survey. Pull out of hole
Lithology. Siltstone - argillaceous

Pit #1 44.1 m³ 2 14.9 m³ 3 81.4 m³ 4 59.5 m³ TRIP 3.96 m³

EL P/N 18429 MAY 1980

EXLOG

GEMDAS LOGGING REPORT NO. 7

COMPANY Shell Dev. Aust. WELL Barker South 1

DATE 6/12/83 TIME 06⁰⁰

DEPTH 2254 m LAST REPORT DEPTH 2254 m

RIG OPERATIONS Prepare to run 9 5/8" casing

REPORT BY T. JANOWICZ REPORT RECEIVED BY H. FLINK (SIGNED) (OPERATOR)

DRILLING REPORT

Bit No.: Type: Size: Jets:

On Bit: Footage: Hours: ROP: WOB: RPM:

Pump Press: SPM: Torque: TBR: CP I: $ CP B: $

HYDRAULICS REPORT

Mud Density In: Mud Density Out: ECD: PV/YP:

Gels: Salinity: PPM Cl Solids: %

Hole Volume: Annular Volume: Tubing Volume: Displaced Volume:

Carbide Lag—Calculated Lag: Flowrate:

Drillpipe Annular Vel (Max. Dia. Sec.): Drillpipe Annular Vel (Open Hole):

Drill Collar Annular Vel (Open Hole): Critical Vel:

Pressure Loss System: Pressure Loss Bit: % Pressure Loss:

Nozzel Vel: Jet Impact Force: HHP:

PRESSURE PARAMETERS

Drilling Exponent: Flowline Temperature:

Shale Density: Shale Factor:

Background Gas: Max. Formation Gas: @ Trip Gas: @

Other Gas:

Fill: Tight Hole:

Cavings: Est %: Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0.135 sg Min. Estimated Fracture Pressure (Open Hole): 1.52 sg @ shoe

Estimated Pore Pressure: 1.03 sg Min. Estimated Pore Pressure (Open Hole): 1.03 sg @

Max. Estimated Pore Pressure (Open Hole): 1.03 sg @ Estimated Fracture Pressure at TD: 2.3 sg

Comments:

Clean trip out of hole.

Run Wireline Logs: DLL-MSFL-GR-SP-CAL

LDL-CAL-GR

LSS-GR

CST.

Pit 1 52.2 m³ 2 18 m³ 3 74.8 m³ 4 58.7 m³ TRIP 4.9 m³

EXLOG — GEMDAS LOGGING REPORT NO. 8

COMPANY Shell Dev. Aust. WELL Barker South 1

DATE 7 Dec 83 TIME 06⁰⁰

DEPTH 2254m LAST REPORT DEPTH 2254m

RIG OPERATIONS Running 9 5/8" Casing

REPORT BY T. Janowicz REPORT RECEIVED BY H. Flink (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: ______ Type: ______ Size: ______ Jets: ______

On Bit: Footage: ______ Hours: ______ ROP: ______ WOB: ______ RPM: ______

Pump Press: ______ SPM: ______ Torque: ______ TBR: ______ CP I: $ ______ CP B: $ ______

HYDRAULICS REPORT

Mud Density In: ______ Mud Density Out: ______ ECD: ______ PV/YP: ______

Gels: ______ Salinity: ______ PPM Cl Solids: ______ %

Hole Volume: ______ Annular Volume: ______ Tubing Volume: ______ Displaced Volume: ______

Carbide Lag—Calculated Lag: ______ Flowrate: ______

Drillpipe Annular Vel (Max. Dia. Sec.): ______ Drillpipe Annular Vel (Open Hole): ______

Drill Collar Annular Vel (Open Hole): ______ Critical Vel: ______

Pressure Loss System: ______ Pressure Loss Bit: ______ % Pressure Loss: ______

Nozzel Vel: ______ Jet Impact Force: ______ HHP: ______

PRESSURE PARAMETERS

Drilling Exponent: ______ Flowline Temperature: ______

Shale Density: ______ Shale Factor: ______

Background Gas: ______ Max. Formation Gas: ______ @ ______ Trip Gas: ______ @ ______

Other Gas: ______

Fill: ______ Tight Hole: ______

Cavings: Est %: ______ Average Size: ______

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: ______ Min. Estimated Fracture Pressure (Open Hole): 1.52 sg at shoe

Estimated Pore Pressure: 1.03 sg Min. Estimated Pore Pressure (Open Hole): 1.03 sg @ ______

Max. Estimated Pore Pressure (Open Hole): 1.03 sg @ ______ Estimated Fracture Pressure at TD: 2.3 sg

Comments: Wiper trip to bottom. -27 tonne drag on 1st few stands so wash and ream back to bottom. Then trip out.

EXLOG

GEMDAS LOGGING REPORT NO. 9

COMPANY Shell Dev. Aust. WELL Basker South 1

DATE 8 Dec '83 TIME 06⁰⁰

DEPTH 2254 m LAST REPORT DEPTH 2254m

RIG OPERATIONS Run In Hole with 8½ Bit.

REPORT BY T. JANOWICZ REPORT RECEIVED BY H. FLINK (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: Type: Size: Jets:

On Bit: Footage: Hours: ROP: WOB: RPM:

Pump Press: SPM: Torque: TBR: CP I: $ CP B: $

HYDRAULICS REPORT

Mud Density In: Mud Density Out: ECD: PV/YP:

Gels: Salinity: PPM Cl Solids: %

Hole Volume: Annular Volume: Tubing Volume: Displaced Volume:

Carbide Lag—Calculated Lag: Flowrate:

Drillpipe Annular Vel (Max. Dia. Sec.): Drillpipe Annular Vel (Open Hole):

Drill Collar Annular Vel (Open Hole): Critical Vel:

Pressure Loss System: Pressure Loss Bit: % Pressure Loss:

Nozzel Vel: Jet Impact Force: HHP:

PRESSURE PARAMETERS

Drilling Exponent: Flowline Temperature:

Shale Density: Shale Factor:

Background Gas: Max. Formation Gas: @ Trip Gas: @

Other Gas:

Fill: Tight Hole:

Cavings: Est %: Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: Min. Estimated Fracture Pressure (Open Hole): Awaiting FIT

Estimated Pore Pressure: 1·03 sg Min. Estimated Pore Pressure (Open Hole): 1·03sg @

Max. Estimated Pore Pressure (Open Hole): 1·03sg @ Estimated Fracture Pressure at TD: 2·3sg

Comments:
Run and cement 9⅝" casing. Test stack.
Break down 8½" BHA.
Makeup 6½' B.H.A.
R.I.H with 8½ Bit

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EXLOG (SM)

GEMDAS LOGGING REPORT NO. 10

COMPANY Shell Dev. Aust. WELL Basker South 1

DATE 9 Dec 1983 TIME 0600

DEPTH 2261m LAST REPORT DEPTH 2254m

RIG OPERATIONS Running in hole.

REPORT BY T. JANOWICZ REPORT RECEIVED BY H. FLINK (SIGNED) (OPERATOR)

DRILLING REPORT

Bit No.: NB #5 (Run #7) Type: SMITH SVH Size: 8½" Jets: 3×16

On Bit: Footage: 3.5m Hours: 4.4 ROP: 0.79 m/hr WOB: 5-6 tonne RPM: 70

Pump Press: 990 psi SPM: 78 Torque: 1.4kmm TBR: 20565 CP I: $ 8986 CP B: $ 10709

HYDRAULICS REPORT

Mud Density In: 1.11 sg Mud Density Out: 1.11 sg ECD: 1.13 sg PV/YP: 11/10

Gels: – Salinity: – PPM Cl Solids: – %

Hole Volume: 129.5 m³ Annular Volume: 98.2 m³ Tubing Volume: 19.6 m³ Displaced Volume: 11.7 m³

Carbide Lag—Calculated Lag: 5176 stks / 66 min Flowrate: 1488 l/min

Drillpipe Annular Vel (Max. Dia. Sec.): 7.8 m/min Drillpipe Annular Vel (Open Hole): –

Drill Collar Annular Vel (Open Hole): 97.9 m/min Critical Vel: 105.4 m/min

Pressure Loss System: 612 psi Pressure Loss Bit: 378 psi % Pressure Loss: 38%

Nozzel Vel: 65.3 m/sec Jet Impact Force: 183 kg HHP: 86.8 hp

PRESSURE PARAMETERS

Drilling Exponent: 1.8 Flowline Temperature: 29.8°C

Shale Density: – Shale Factor: –

Background Gas: Nil – trace Max. Formation Gas: @ Trip Gas: @

Other Gas: Nil

Fill: Tight Hole:

Cavings: Est %: Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: Min. Estimated Fracture Pressure (Open Hole): Awaiting FIT

Estimated Pore Pressure: 1.03 sg Min. Estimated Pore Pressure (Open Hole): 1.03 sg @

Max. Estimated Pore Pressure (Open Hole): 1.03 sg @ Estimated Fracture Pressure at TD: 2.3 sg

Comments:

Drill to 2261m. Drop survey + pull out of hole.

Run gyro survey.

Run in NB#5 (Run #8) SMITH SDGH 8½" 3×14 jets.

EXLOG

GEMDAS LOGGING REPORT NO. 11

COMPANY: Shell Dev. Aust. — WELL: Basker South 1

DATE: 10 Dec 1983 — TIME: 06⁰⁰

DEPTH: 2372 m — LAST REPORT DEPTH: 2261m

RIG OPERATIONS: Circulating before tripping bit.

REPORT BY: T. JANOWICZ — REPORT RECEIVED BY: H. FLINK (SIGNED) (OPERATOR)

DRILLING REPORT

Bit No.: Run #9 — Type: SMITH FDGH — Size: 8½" — Jets: 10,10,11

On Bit: Footage: 84 m — Hours: 7·1 — ROP: 11.8 m/hr. — WOB: 5-8 tonne — RPM: 55-65

Pump Press: 2440 psi — SPM: 75 — Torque: 1·4-2 kNm — TBR: 26251 — CP I: $ 861 — CP B: $ 500

HYDRAULICS REPORT

Mud Density In: 1·11 sg — Mud Density Out: 1·11 sg — ECD: 1·15 sg — PV/YP: 15/16

Gels: — — Salinity: — PPM Cl — Solids: %

Hole Volume: 133·6 m^3 — Annular Volume: 100·8 m^3 — Tubing Volume: 20·6 m^3 — Displaced Volume: 12·2 m^3

Carbide Lag—Calculated Lag: 5309 stks / 71 min — Flowrate: 1423 l/min

Drillpipe Annular Vel (Max. Dia. Sec.): 7·49 m/min — Drillpipe Annular Vel (Open Hole): —

Drill Collar Annular Vel (Open Hole): 93·61 m/min — Critical Vel: 141.8 m/min

Pressure Loss System: 459 psi — Pressure Loss Bit: 1981 psi — % Pressure Loss: 81

Nozzel Vel: 149.3 m/sec — Jet Impact Force: 400 kg — HHP: 434 hp

PRESSURE PARAMETERS

Drilling Exponent: — — Flowline Temperature: 32·2°C

Shale Density: — Shale Factor: —

Background Gas: Nil - Trace — Max. Formation Gas: @ — Trip Gas: Nil @

Other Gas: Nil

Fill: — Tight Hole:

Cavings: Est %: — Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: ·512 sg — Min. Estimated Fracture Pressure (Open Hole): 1·65 sg in loose sand.

Estimated Pore Pressure: 1·01 sg — Min. Estimated Pore Pressure (Open Hole): 1·01 sg @

Max. Estimated Pore Pressure (Open Hole): 1·03 sg @ 2263 m — Estimated Fracture Pressure at TD: 1·66 sg (sand)

Comments: Conduct leak-off test at 2288 m.
Drill break at 2291m - up to 35 m/hr.
Flow check at 2995m - no flow. 2343m - no flow
Circulate bottom sample at 2372m prior to tripping bit

Lithology = Sandstone

Pit #1, 58·2 m^3 2, 18·9 m^3 3, 0 m^3 4, 67·6 m^3 TRIP TANK, 0 m^3

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EXLOG

GEMDAS LOGGING REPORT NO. 12

COMPANY: SHELL DEV. AUST. WELL: BASKER SOUTH 1

DATE: 11 Dec. 1983 TIME: 06⁰⁰

DEPTH: 2409m LAST REPORT DEPTH: 2372m

RIG OPERATIONS: R.I.H. with J2 8½" new bit

REPORT BY: T. JANOWICZ REPORT RECEIVED BY: H. FLINK (OPERATOR) SIGNED

DRILLING REPORT

Bit No.: Run #10 Type: SMITH FDGH Size: 8½" Jets: 10,10,11

On Bit: Footage: 37m Hours: 8 ROP: 4.6m/hr. WOB: 6-12 tonne RPM: 65

Pump Press: 2490psi SPM: 75 Torque: 2.5-2.9kNm TBR: 29,512 CP I: $ 968 CP B: $ 1262

HYDRAULICS REPORT

Mud Density In: 1.10+ sg Mud Density Out: 1.10+ sg ECD: 1.14sg PV/YP: 15/16

Gels: — Salinity: — PPM Cl Solids: — %

Hole Volume: 135m³ Annular Volume: 101.6m³ Tubing Volume: 20.9m³ Displaced Volume: 12.4m³

Carbide Lag—Calculated Lag: 5355 stks/71 min. Flowrate: 1423 l/min

Drillpipe Annular Vel (Max. Dia. Sec.): 7.49 m/min Drillpipe Annular Vel (Open Hole): —

Drill Collar Annular Vel (Open Hole): 93.6 m/min Critical Vel: 142.7 m/min

Pressure Loss System: 527psi Pressure Loss Bit: 1963 psi % Pressure Loss: 77

Nozzel Vel: 149.3 m/sec Jet Impact Force: 396 kg HHP: 431 hp

PRESSURE PARAMETERS

Drilling Exponent: .96 – 1.4 Flowline Temperature: 32 °C

Shale Density: — Shale Factor: —

Background Gas: NIL TO TRACE Max. Formation Gas: @ Trip Gas: NIL @ 2372m

Other Gas: NIL

Fill: Tight Hole:

Cavings: Est %: Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: .515 sg Min. Estimated Fracture Pressure (Open Hole): 1.65sg in loose sand.

Estimated Pore Pressure: 1.01sg Min. Estimated Pore Pressure (Open Hole): 1.01sg @

Max. Estimated Pore Pressure (Open Hole): 1.03sg @ 2263m Estimated Fracture Pressure at TD: 1.67sg (loose Sand)

Comments: Circulate at 2409m. P.O.O.H.
Run In Hole with new bit

LITHOLOGY - Sandstone with trace silt & clay.

Pit #1, 50.3m³ 2, 11.6m³ 3, 11.5m³ 4, 65m³ TRIP TANK. 0m³ at 0000hrs

EXLOG

GEMDAS LOGGING REPORT NO. 13

COMPANY: Shell Dev. Aust. WELL: Basker South 1

DATE: 12 Dec. 1983 TIME: 06⁰⁰

DEPTH: 2589 m LAST REPORT DEPTH: 2409 m

RIG OPERATIONS: Drilling ahead

REPORT BY: T. JANOWICZ REPORT RECEIVED BY: H. FLINK (OPERATOR) SIGNED

DRILLING REPORT

Bit No.: Run # 11 Type: SMITH F2 Size: 8½" Jets: 10, 10, 11

On Bit: Footage: 180 m Hours: 17.2 ROP: 10.5 m/hr WOB: 15-16 tonne RPM: 50-60

Pump Press: 2650 psi SPM: 77 Torque: 1.8-3.2 kNm TBR: 58422 CP I: $ 715 CP B: $ 533

HYDRAULICS REPORT

Mud Density In: 1.11 sg Mud Density Out: 1.11 sg ECD: 1.15 sg PV/YP: 15/14

Gels: — Salinity: — PPM Cl Solids: — %

Hole Volume: 141.4 m³ Annular Volume: 105.8 m³ Tubing Volume: 22.6 m³ Displaced Volume: 13 m³

Carbide Lag—Calculated Lag: 5574 stks / 72 min. Flowrate: 1461 l/min

Drillpipe Annular Vel (Max. Dia. Sec.): 77 m/min Drillpipe Annular Vel (Open Hole): 104.6 m/min

Drill Collar Annular Vel (Open Hole): 96.1 m/min Critical Vel: 133.3 m/min

Pressure Loss System: Pressure Loss Bit: 2089 psi % Pressure Loss: 77

Nozzel Vel: 153 m/sec. Jet Impact Force: 421 kg HHP: 470 hp

PRESSURE PARAMETERS

Drilling Exponent: 1.05-1.5 Flowline Temperature: 32.2°C

Shale Density: — Shale Factor: —

Background Gas: TRACE Max. Formation Gas: @ Trip Gas: NIL @ 2409 m.

Other Gas: NIL

Fill: — Tight Hole: —

Cavings: Est %: — Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: .471 sg Min. Estimated Fracture Pressure (Open Hole): 1.65 sg in loose sand

Estimated Pore Pressure: 1.01 sg Min. Estimated Pore Pressure (Open Hole): 1.01 sg @

Max. Estimated Pore Pressure (Open Hole): 1.03 sg @ 2263 m Estimated Fracture Pressure at TD: 1.68 (Sand)

Comments: Flow check at 2443 m – no flow.
Survey at 2513 m with 3 stand wiper trip – no drag.
Flow check at 2543 m – no flow.

Lithology: Sandstone with 5% coal.

Pit #1, 46.6 m³ #2, 15.5 m³ #3, 12.6 m³ #4, 65.6 m³ TRIP TANK 0

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GEMDAS LOGGING REPORT NO. 14

EXLOG (SM)

COMPANY Shell Dev. Aust. WELL Basker South 1
DATE 13 Dec. 1983 TIME 06 00
DEPTH 2677m LAST REPORT DEPTH 2589m
RIG OPERATIONS Drilling ahead
REPORT BY T. Janowicz REPORT RECEIVED BY H. Flink (SIGNED) (OPERATOR)

DRILLING REPORT

Bit No.: Run # 12 Type: SMITH F2 Size: 8½" Jets: 10, 10, 11
On Bit: Footage: 87m Hours: 12.5 ROP: 6.96 m/hr WOB: 15 - 18 tonne RPM: 55 - 65
Pump Press: 2650 psi SPM: 76 Torque: 2.1 - 2.4 kNm TBR: 43090 CP I: $ 1440 CP B: $ 882

HYDRAULICS REPORT

Mud Density In: 1.10+ sg Mud Density Out: 1.10+ sg ECD: 1.14 sg PV/YP: 17/16
Gels: — Salinity: — PPM Cl Solids: — %
Hole Volume: 144.7 m³ Annular Volume: 107.9 m³ Tubing Volume: 23.4 m³ Displaced Volume: 13.4 m³
Carbide Lag—Calculated Lag: 5685 stks / 75 min Flowrate: 1442 l/min
Drillpipe Annular Vel (Max. Dia. Sec.): 7.6 m/min Drillpipe Annular Vel (Open Hole): 60.2 m/min
Drill Collar Annular Vel (Open Hole): 94.9 m/min Critical Vel: 147.3 m/min
Pressure Loss System: 634 psi Pressure Loss Bit: 2016 psi % Pressure Loss: 75
Nozzel Vel: 151.3 m/sec Jet Impact Force: 407 kg HHP: 448 hp

PRESSURE PARAMETERS

Drilling Exponent: 1.1 - 1.5 Flowline Temperature: 38.4 °C
Shale Density: — Shale Factor: —
Background Gas: .01% - .02% Max. Formation Gas: @ Trip Gas: 26ppm C_1 @ 2590m
Other Gas: Nil
Fill: Tight Hole:
Cavings: Est %: Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0.456 sg Min. Estimated Fracture Pressure (Open Hole): 1.65 sg in loose sand
Estimated Pore Pressure: 1.01 sg Min. Estimated Pore Pressure (Open Hole): 1.01 sg @
Max. Estimated Pore Pressure (Open Hole): 1.03 sg @ 2263m Estimated Fracture Pressure at TD: 1.68 (sand)

Comments: Circulate returns and pull out of hole at 2590m.
Run in Run # 12, SMITH F2
Flow check at 2642m - no flow.

Lithology: Interbedded Sand, Silt, Shale and occassional coal.

Pit #1, 49.1m³ 2, 15.9m³ 3, 12m³ 4, 65.4m³ TRIP TANK, 0m³

EXLOG (SM)

GEMDAS LOGGING REPORT NO. 15

COMPANY: Shell Dev. Aust. WELL: Basker South 1

DATE: 14 Dec 1983 TIME: 06⁰⁰

DEPTH: 2818 m LAST REPORT DEPTH: 2677 m

RIG OPERATIONS: Drilling Ahead

REPORT BY: T. Janowicz REPORT RECEIVED BY: H. Flink (SIGNED) (OPERATOR)

DRILLING REPORT

Bit No.: Run #12 Type: SMITH F2 Size: 8½" Jets: 10,10,11

On Bit: Footage: 228 m Hours: 32.7 ROP: 7 m/hr WOB: 15-17 tonne RPM: 65

Pump Press: 2590 psi SPM: 76 Torque: 1.7-2.6 TBR: 116960 CP I: $ 988 CP B: $ 762

HYDRAULICS REPORT

Mud Density In: 1.11 sg Mud Density Out: 1.11 sg ECD: 1.15 sg PV/YP: 15/14

Gels: – Salinity: – PPM Cl Solids: – %

Hole Volume: 149.9 m³ Annular Volume: 111.3 m³ Tubing Volume: 24.7 m³ Displaced Volume: 13.9 m³

Carbide Lag—Calculated Lag: 5862 stks – 77 min Flowrate: 1442 l/min

Drillpipe Annular Vel (Max. Dia. Sec.): 7.6 m/min Drillpipe Annular Vel (Open Hole): 60.2 m/min

Drill Collar Annular Vel (Open Hole): 94.9 m/min Critical Vel: 133.3 m/min

Pressure Loss System: 555 psi Pressure Loss Bit: 2035 psi % Pressure Loss: 75

Nozzel Vel: 151 m/sec Jet Impact Force: 411 kg HHP: 452 hp

PRESSURE PARAMETERS

Drilling Exponent: 1.3 – 1.7 Flowline Temperature: 33.9 °C

Shale Density: – Shale Factor: –

Background Gas: TRACE Max. Formation Gas: 80 ppm @ 2745 m Trip Gas: NIL @ 2685 m

Other Gas: NIL

Fill: – Tight Hole: –

Cavings: Est %: – Average Size: –

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0.431 sg Min. Estimated Fracture Pressure (Open Hole): 1.65 sg in loose sand

Estimated Pore Pressure: 1.01 sg Min. Estimated Pore Pressure (Open Hole): 1.01 sg @

Max. Estimated Pore Pressure (Open Hole): 1.03 sg @ 2263 m Estimated Fracture Pressure at TD: 1.69 sg (sand)

Comments: Survey at 2685 m – no drag when pulling back 3 stands to retrieve survey.

Lithology – Interbedded Sandstone, Siltstone, Shale, Claystone with occassional coals.

Pit #1, 43 m³ 2, 14.7 m³ 3, 12 m³ 4, 65.3 m³ TRIPTANK, 0 m³

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GEMDAS LOGGING REPORT NO. 16

EXLOG

COMPANY: Shell Dev. Aust. WELL: Basker South 1
DATE: 15 Dec 1983 TIME: 06[00]
DEPTH: 2885m LAST REPORT DEPTH: 2818m
RIG OPERATIONS: Drilling Ahead.
REPORT BY: T. JANOWICZ REPORT RECEIVED BY: D. SATTERLEE (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: Run # 13 Type: SMITH F3 Size: 8½" Jets: 10,10,11
On Bit: Footage: 57m Hours: 10.9 ROP: 5.2 m/hr ave. WOB: 16 tonne RPM: 55, 65
Pump Press: 2590 psi SPM: 78 Torque: 1.7-1.9 kNm TBR: 40407 CP I: $ 1126 CP B: $ 1155

HYDRAULICS REPORT

Mud Density In: 1.10+ sg Mud Density Out: 1.10+ sg ECD: 1.14 sg PV/YP: 14/14
Gels: — Salinity: — PPM Cl Solids: — %
Hole Volume: 152.4 m³ Annular Volume: 112.8 m³ Tubing Volume: 25.3 m³ Displaced Volume: 14.2 m³
Carbide Lag—Calculated Lag: 5944 stks / 77 min Flowrate: 1472 l/min
Drillpipe Annular Vel (Max. Dia. Sec.): 7.75 m/min Drillpipe Annular Vel (Open Hole): 61.5 m/min
Drill Collar Annular Vel (Open Hole): 96.85 m/min Critical Vel: 131.5 m/min
Pressure Loss System: 479 psi Pressure Loss Bit: 2111 psi % Pressure Loss: 76
Nozzel Vel: 154.5 m/sec Jet Impact Force: 426 kg HHP: 479

PRESSURE PARAMETERS

Drilling Exponent: 1.4 – 1.6 Flowline Temperature: 37.3 °C
Shale Density: — Shale Factor: —
Background Gas: Tr – .016% Max. Formation Gas: .016% @ 2870 m Trip Gas: 0.015% @ 2828 m
Other Gas: Nil
Fill: Tight Hole:
Cavings: Est %: Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: .422 sg Min. Estimated Fracture Pressure (Open Hole): 1.65 sg in loose sand.
Estimated Pore Pressure: 1.01 sg Min. Estimated Pore Pressure (Open Hole): 1.01 sg @
Max. Estimated Pore Pressure (Open Hole): 1.03 sg @ 2263 m Estimated Fracture Pressure at TD: 1.69 (sand)

Comments: Pull out of hole at 2828 m. Drag of up to 38 tonne on 1st eleven stands. All previous connections to the bit trip were clean. Run in SMITH F3. Ream 2810 m to 2828 m and drill ahead.

Lithology: Interbedded Sand, Silt, clay, shale and coal.

Pit #1, 45.9 m³ 2, 14.9 m³ 3, 35.3 m³ 4, 65 m³ TRIP TANK 0 m³

EL P/N 18429 MAY 1980

EXLOG

GEMDAS LOGGING REPORT NO. 17

COMPANY Shell Dev. Aust. WELL Basker South 1

DATE 16 Dec 83 TIME 06^00

DEPTH 2980m. LAST REPORT DEPTH 2885m

RIG OPERATIONS DRILL 8½" HOLE WITH NB#11.

REPORT BY D. NEW REPORT RECEIVED BY D. SATTERLEE. (OPERATOR) SIGNED

DRILLING REPORT

Bit No.: NB# RUN 13 Type: SMITH F3 Size: 8½" Jets: 10, 10, 11

On Bit: Footage: 152m Hours: 32.5 ROP: 4.7 m/HR WOB: 14-15 RPM: 68

Pump Press: 2580 SPM: 76 Torque: TBR: 117438 CP I: $ 424 CP B: $ 1142

HYDRAULICS REPORT

Mud Density In: 1.11 Mud Density Out: 1.11 ECD: 1.14 PV/YP: 16/12.

Gels: Salinity: PPM Cl Solids: %

Hole Volume: 155.8m³ Annular Volume: 115.1m³ Tubing Volume: 26.2m³ Displaced Volume: 14.5m³

Carbide Lag—Calculated Lag: @ 78 MIN - 79 MIN. Flowrate: 1446 L/MIN.

Drillpipe Annular Vel (Max. Dia. Sec.): 7.6 m/min Drillpipe Annular Vel (Open Hole): 60.4m/MIN

Drill Collar Annular Vel (Open Hole): 95.1 m/min. Critical Vel: 126.9 m/min.

Pressure Loss System: 544 psi Pressure Loss Bit: 2036 psi % Pressure Loss: 79%

Nozzel Vel: 151.7 m. Jet Impact Force: 411 kg HHP: 454 HP.

PRESSURE PARAMETERS

Drilling Exponent: 1.27 (S/S) - 1.80 (SHALE) Flowline Temperature: 36.8°C.

~~Shale~~ Bulk Density: 1.84 - 1.86 Shale Factor: —

Background Gas: 0.02-0.04 Max. Formation Gas: 0.27 @ 2935 Trip Gas: — @ —

Other Gas: NIL

Fill: NIL Tight Hole: NIL

Cavings: Est %: MINOR. Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0.41 SG Min. Estimated Fracture Pressure (Open Hole): 1.65

Estimated Pore Pressure: 1.01 SG Min. Estimated Pore Pressure (Open Hole): 1.01 @ T.D.

Max. Estimated Pore Pressure (Open Hole): 1.03 @ 2263 m Estimated Fracture Pressure at TD: 1.69 (S/S)

Comments: PIT No1: 41.8m³ PIT No2: 13.1m³ PIT No3: EMPTY
PIT No4 64.1m³. TRIP TANK: EMPTY.
LITH: INTERBEDDED SANDSTONE, SILTSTONE CLAYSTONE AND SHALE.
CARBIDE RUN AT 2941m INDICATES IN GAUGE HOLE.

APPARENT FILL ~~AT~~ ON CONNECTION AT m WAS DUE
TO CASING PROTECTOR FALLING OFF ~~DP~~ DRILL PIPE.
SUGGEST CHECKING ALL PROCTECTORS ON NEXT TRIP.

EL P/N 18429 MAY 1980

EXLOG

GEMDAS LOGGING REPORT NO. 18

COMPANY SHELL DEV AUST WELL BASHER SOUTH No.1

DATE 17TH DEC 1983 TIME 06:00 HRS

DEPTH 2999m LAST REPORT DEPTH 2980m

RIG OPERATIONS DRILL TO 2999m. CIRC. BTMS UP POOH. TEST STACK, RIH

REPORT BY D. NEW REPORT RECEIVED BY ______ SIGNED (OPERATOR)

DRILLING REPORT

Bit No.: NB#11 RUN 13 Type: HTC F3 Size: 8½" Jets: 10, 10, 11

On Bit: Footage: 171 m Hours: 39.3 ROP: 4.3 m/HR WOB: 15 RPM: 65

Pump Press: 2580 SPM: 77 Torque: 1.65 - 2.4 TBR: 140445 CP I: $ 1857 CP B: $ 1180

HYDRAULICS REPORT

Mud Density In: 1.11 Mud Density Out: 1.11 ECD: 1.14 PV/YP: 17/13

Gels: ______ Salinity: ______ PPM Cl Solids: ______ %

Hole Volume: 156.5m³ Annular Volume: 115.5m³ Tubing Volume: 26.4m³ Displaced Volume: 14.6m³

Carbide Lag—Calculated Lag: 78min / 80min Flowrate: 1445 L/MIN

Drillpipe Annular Vel (Max. Dia. Sec.): 7.6 m/min Drillpipe Annular Vel (Open Hole): 60.3 m/min

Drill Collar Annular Vel (Open Hole): 60.3 m/min Critical Vel: 133.9 m/min

Pressure Loss System: 544 psi Pressure Loss Bit: 2036 psi % Pressure Loss: 79%

Nozzel Vel: 151.6 m/sec Jet Impact Force: 410 kg HHP: 453 kg

PRESSURE PARAMETERS

Drilling Exponent: 1.51 - 1.78 Flowline Temperature: 38.1

Shale Density: 1.82 - 1.86 Shale Factor: —

Background Gas: 0.04 - 0.08 Max. Formation Gas: — @ — Trip Gas: — @ —

Other Gas: NIL

Fill: NIL Tight Hole: MAX 28T BETWEEN 2911m AND 2654m AVG 5-10T.

Cavings: Est %: MINOR Average Size: SMALL

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: ______ Min. Estimated Fracture Pressure (Open Hole): 1.65

Estimated Pore Pressure: 1.01 SG Min. Estimated Pore Pressure (Open Hole): 1.01 SG @

Max. Estimated Pore Pressure (Open Hole): ~~1.07~~ 1.03 @ ~~2263~~ T.D. Estimated Fracture Pressure at TD: 1.69

Comments: PIT VOLS AT 06:00 WHILE RUNNING IN HOLE PIT #1: 48.5
PIT No2: 16.4 PIT No3: EMPTY PIT No4: 63.8 TRIP TANK EMPTY.

LITH: SANDSTONE, CLAYSTONE AND SILTSTONE WITH MINOR COAL.

PRESSURE TRENDS NORMAL

EXLOG (SM)

GEMDAS LOGGING REPORT NO. 19

COMPANY: SHELL DEV AUST. WELL: BASKER SOUTH No 1
DATE: 18 TH DEC. 1983 TIME: 06:00 HRS
DEPTH: 3078m LAST REPORT DEPTH: 2999m
RIG OPERATIONS: RIH. DRILL AHEAD WITH NB#12.
REPORT BY: D. NEW. REPORT RECEIVED BY: ______ SIGNED (OPERATOR)

DRILLING REPORT

Bit No.: NB#12 RUN14 Type: VAREL 537 Size: 8 1/2" Jets: 10,10,11
On Bit: Footage: 79m Hours: 19.8HRS ROP: 4.0 m/HR. WOB: 14-15T RPM: 55-60
Pump Press: 2640 SPM: 75 Torque: 1.9-2.2 TBR: 59616 CP I: $ 1247 CP B: $ 1392

HYDRAULICS REPORT

Mud Density In: 1.10+ Mud Density Out: 1.11-1.09. ECD: 1.14 PV/YP: 14/13.
Gels: – Salinity: – PPM Cl Solids: – %
Hole Volume: 159.4m³ Annular Volume: 117.3m³ Tubing Volume: 27.1m³ Displaced Volume: 14.9m³
Carbide Lag—Calculated Lag: 80min – 82min (6183STKS) Flowrate: 1429 L/min.
Drillpipe Annular Vel (Max. Dia. Sec.): 7.5 m/min Drillpipe Annular Vel (Open Hole): 59.7 m/min
Drill Collar Annular Vel (Open Hole): 94 m/min. Critical Vel: 127 m/min
Pressure Loss System: 652psi Pressure Loss Bit: 1988psi % Pressure Loss: 75%
Nozzel Vel: 150.0 m/SEC Jet Impact Force: 401kg HHP: 437.9HP.

PRESSURE PARAMETERS

Drilling Exponent: 1.20(S/S) – 1.88(CL/S) Flowline Temperature: 41.6°C
~~Shale~~ BULK Density: 1.80 – 1.84 Shale Factor: –
Background Gas: 0.1 – 0.5% Max. Formation Gas: 2% @ 3069m Trip Gas: 0.08% @ 2999m
Other Gas: NIL
Fill: NIL Tight Hole: NIL
Cavings: Est %: UP TO 20% COAL Average Size: SMALL

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0.399 S.G Min. Estimated Fracture Pressure (Open Hole): 1.65(S/S)
Estimated Pore Pressure: 1.01 Min. Estimated Pore Pressure (Open Hole): 1.01 @
Max. Estimated Pore Pressure (Open Hole): 1.03 @ Estimated Fracture Pressure at TD: 1.70(S/S

Comments: PIT No1: 56.2m³ PIT No2: 18.5m³ PIT No3: EMPTY
PIT No4: 63.9m³ TRIP TANK: EMPTY
HAD TO PUMP 680 STKS TO FILL DRILL PIPE AFTER RIH. (TOTAL CAPACITY OF D.P: 1391 STKS).
CHANGE IN DXC TREND AND INCREASING GAS VALUES PROBABLY DUE TO INCREASING CARBONACEOUS MATTER/COAL IN THE SECTION RATHER THAN INCREASED FORMATION PRESSURE.
LITHOLOGY: SILTSTONE AND SANDSTONE WITH COMMON COAL
ALL GAS PEAKS WERE DUE TO COAL.

EXLOG

GEMDAS LOGGING REPORT NO. 20

COMPANY: SHELL DEV. AUST. WELL: BASHER SOUTH No1

DATE: 19TH DEC 1983. TIME: 06:00 HRS

DEPTH: 3172m LAST REPORT DEPTH: 3078m

RIG OPERATIONS: DRILL 8½" HOLE WITH NB#12

REPORT BY: D. NEW REPORT RECEIVED BY: ______ SIGNED (OPERATOR)

DRILLING REPORT

Bit No.: NB#12 RUN 14 Type: VAREL 537 Size: 8½ Jets: 10,10,11.

On Bit: Footage: 173 Hours: 41·7 ROP: 4·1 m/HR. WOB: 13-15 RPM: 50-60

Pump Press: 2780 SPM: 77 Torque: 1·8-2·3 TBR: 128197. CP I: $ 2350 CP B: $ 1270

HYDRAULICS REPORT

Mud Density In: 1·12 Mud Density Out: 1·12 ECD: 1·16 PV/YP: 14/15

Gels: ______ Salinity: ______ PPM Cl Solids: ______ %

Hole Volume: 162·9m³ Annular Volume: 119·6m³ Tubing Volume: 28m³ Displaced Volume: 15·3m³

Carbide Lag—Calculated Lag: 5755 - 6301 Flowrate: 1465 L/MIN

Drillpipe Annular Vel (Max. Dia. Sec.): 7·7 m/min Drillpipe Annular Vel (Open Hole): 61·2m/min

Drill Collar Annular Vel (Open Hole): 96·4 m/min Critical Vel: 134·6 m/min

Pressure Loss System: 661 psi Pressure Loss Bit: 2119 psi % Pressure Loss: 76%

Nozzel Vel: 154 m/sec Jet Impact Force: 427kg HHP: 478 HP

PRESSURE PARAMETERS

Drilling Exponent: 1·15 (CS/S) - 1·77 (ST/S) Flowline Temperature: 47·1°C

Shale Density: 1·78 - 1·80 Shale Factor: ______

Background Gas: 0·1 - 0·2% Max. Formation Gas: 2·3% @ 3141m Trip Gas: – @ –

Other Gas: NIL

Fill: ON CONN AT 3122m Tight Hole: NIL

Cavings: Est %: UP TO 20% COAL Average Size: SMALL

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0·387 SG. Min. Estimated Fracture Pressure (Open Hole): 1·65 SG

Estimated Pore Pressure: 1·01 SG Min. Estimated Pore Pressure (Open Hole): 1·01 @ ______

Max. Estimated Pore Pressure (Open Hole): 1·03 SG @ ______ Estimated Fracture Pressure at TD: 1·74 SG

Comments: PIT No1: ~~8~~60·7m³, PIT No2: 20·3m³ PIT No3 = 13·1m³
PIT No4 = 63·8m³ TRIP TANK EMPTY.

ANY DEVIATION FROM NORMAL PRESSURE TRENDS (DXC GAS ETC) DUE TO LITHOLOGICAL VARIATIONS

LITH: SILTSTONE WITH LESSER SANDSTONE INTERBEDS AND ~~M~~ COMMON COAL.

EXLOG

GEMDAS LOGGING REPORT NO. 21

COMPANY: SHELL DEV AUST
WELL: BASHER SOUTH No 1
DATE: 28/12/83
TIME: 06:00 HRS
DEPTH: 3227m
LAST REPORT DEPTH: 3172m
RIG OPERATIONS: C.R. POOH. CHANGE BIT. RIH AND DRILL AHEAD
REPORT BY: D. NEW.
REPORT RECEIVED BY: ______ SIGNED (OPERATOR)

DRILLING REPORT

Bit No.: NB#13 (RUN 15) Type: SMITH F3 Size: 8½" Jets: 10,10,11

On Bit: Footage: 38m Hours: 7.5 ROP: 5.1 m/HR WOB: 15T RPM: 55-60

Pump Press: 2570 SPM: 75 Torque: 1.7-2.0 TBR: 25560 CP I: $ 872 CP B: $ 1287

HYDRAULICS REPORT

Mud Density In: 1.12 Mud Density Out: 1.12 ECD: 1.15 PV/YP: 13/11

Gels: ______ Salinity: ______ PPM Cl Solids: ______ %

Hole Volume: 164.9m³ Annular Volume: 120.9m³ Tubing Volume: 28.5m³ Displaced Volume: 15.5m³

Carbide Lag—Calculated Lag: 5816 (77min) - 6368 (85min) Flowrate: 1430 L/MIN

Drillpipe Annular Vel (Max. Dia. Sec.): 7.5 m/min Drillpipe Annular Vel (Open Hole): 59.7 m/min

Drill Collar Annular Vel (Open Hole): 94.0 m/min Critical Vel: 114.1 m/min

Pressure Loss System: 553 psi Pressure Loss Bit: 2017 psi % Pressure Loss: 78%

Nozzel Vel: 150 m/sec Jet Impact Force: 407 kg HHP: 444 HP

PRESSURE PARAMETERS

Drilling Exponent: 1.13 (S/S) - 1.73 (ST/S) Flowline Temperature: 40.8°C

~~Shale~~ Bulk Density: 1.80 SG. Shale Factor: —

Background Gas: 0.4 - 0.8% Max. Formation Gas: 1.9% (COAL) @ ______ Trip Gas: 0.6% @ 3189m

Other Gas: NIL

Fill: MINOR Tight Hole: UP TO 25T. DRAG ON TRIP OUT.

Cavings: Est %: MINOR - 20% (COAL) Average Size: SMALL

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0.370 SG. Min. Estimated Fracture Pressure (Open Hole): 1.65 SG EMW

Estimated Pore Pressure: 1.01 SG EMW Min. Estimated Pore Pressure (Open Hole): 1.01 @ ______

Max. Estimated Pore Pressure (Open Hole): 1.03 SG @ ______ Estimated Fracture Pressure at TD: 1.74 SG

Comments: PIT No1: 47.2m³ PIT No.2: 15.5m³ PIT No.3: 12.5m³
PIT No.4: 63.3m³ TRIP TANK EMPTY.
NB#12 (RUN 14) DRILLED 190m IN 45.3 HRS (ON BOTTOM) AT AN AVERAGE ROP OF 4.2m/HR
CIRCULATE BOTTOMS UP AT 3212m - NO SHOW DRILL AHEAD
PORE PRESSURE ESTIMATED AT 1.01SG EMW (NORMAL)

EL P/N 18429 MAY 1980

EXLOG (SM)

GEMDAS LOGGING REPORT NO. 22

COMPANY: SHELL DEV AUST — WELL: BASHER SOUTH No1

DATE: 21/12/83 — TIME: 06:00 HRS

DEPTH: 3321m — LAST REPORT DEPTH: 3227 m

RIG OPERATIONS: DRILL 8½" HOLE

REPORT BY: D. NEW — REPORT RECEIVED BY: ______ SIGNED (OPERATOR)

DRILLING REPORT

Bit No.: NBH13 (RUN 15) Type: SMITH F3 Size: 8½" Jets: 10,10,11

On Bit: Footage: 132 m Hours: 29.9 HRS ROP: 4.4 m/HR WOB: 15 RPM: 55

Pump Press: 2590psi SPM: 75 Torque: 1.9 - 2.4 TBR: 101769 CP I: $ 2300 CP B: $ 1226

HYDRAULICS REPORT

Mud Density In: 1.12+ Mud Density Out: 1.12 ECD: 1.16 PV/YP: 12/15

Gels: Salinity: PPM Cl Solids: %

Hole Volume: 168.3m³ Annular Volume: 123.1m³ Tubing Volume: 29.4m³ Displaced Volume: 15.8m³

Carbide Lag—Calculated Lag: 5921 (79min) - 6485(86 Flowrate: 1423 L/min

Drillpipe Annular Vel (Max. Dia. Sec.): 75m/min Drillpipe Annular Vel (Open Hole): 59.4 m/min

Drill Collar Annular Vel (Open Hole): 93.6 m/min Critical Vel: 130 m/min

Pressure Loss System: 590psi Pressure Loss Bit: 2000psi % Pressure Loss: 77%

Nozzel Vel: 149.3m/sec Jet Impact Force: 404 kg HHP: 438.7 HP

PRESSURE PARAMETERS

Drilling Exponent: 1.16 (S/S) - 1.82 (SHALE) Flowline Temperature: 47.1°C

~~Shale~~ BULK Density: 1.78 - 1.74 Shale Factor: —

Background Gas: 0.2 - 0.4% Max. Formation Gas: 2.3% (COAL) @ 3257m Trip Gas: — @

Other Gas: NIL

Fill: NIL Tight Hole: NIL

Cavings: Est %: UP TO 40% IN COAL. Average Size: <10mm.

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0.36 SG. Min. Estimated Fracture Pressure (Open Hole): 1.65 SG EMW

Estimated Pore Pressure: 1.01 - ~~@~~1.02 SG Min. Estimated Pore Pressure (Open Hole): 1.01 @

Max. Estimated Pore Pressure (Open Hole): 1.07 SG @ 3290m Estimated Fracture Pressure at TD: 1.78 SG

Comments: PIT No1: 55.5m³, PIT No2: 18.8m³ PIT No3: 24.6m³ PIT No4: 63.2m³. TRIP TANK EMPTY

INCREASED ROP AND GAS AND CAVINGS BETWEEN ABOUT 3280m AND 3300m INDICATE THAT PORE PRESSURE MAY HAVE INCREASED OVER THIS INTERVAL TO AN ESTIMATED MAXIMUM OF 1.07 SG. BELOW 3300m PORE PRESSURE APPEARS TO HAVE RETURNED TO NORMAL

LITH: SILTSTONE WITH SHALE/COAL INTERBEDS AND OCCASIONAL SANDSTONE.

EXLOG (SM)

GEMDAS LOGGING REPORT NO. 23

COMPANY SHELL DEV AUST   WELL BASHER SOUTH No1
DATE 22/12/83   TIME 06:00 HRS
DEPTH 3341m   LAST REPORT DEPTH 3321m
RIG OPERATIONS DRILL TO 3341m. POOH. REPAIR BLOCKS ECT.
REPORT BY D. NEW   REPORT RECEIVED BY ______ SIGNED (OPERATOR)

DRILLING REPORT

Bit No.: NBH13 (RUN15) Type: SMITH F3 Size: 8½" Jets: 10,10,11
On Bit: Footage: 152m Hours: 37.5m ROP: 4.05m/HR WOB: 13-15 RPM: 55-60
Pump Press: 2610 SPM: 75 Torque: 1.9-2.3 TBR: 128690 CP I: $ 2788 CP B: $ 1320

HYDRAULICS REPORT

Mud Density In: 1.13 SG Mud Density Out: 1.13 SG ECD: 1.17 SG PV/YP: 17/16
Gels: ______ Salinity: ______ PPM Cl Solids: ______ %
Hole Volume: 169 m^3 Annular Volume: 123.6 m^3 Tubing Volume: 29.6 m^3 Displaced Volume: 15.9 m^3
Carbide Lag—Calculated Lag: 5944 (80 min) - 6510 (87 min) Flowrate: 1427 L/MIN
Drillpipe Annular Vel (Max. Dia. Sec.): 7.5 m/min Drillpipe Annular Vel (Open Hole): 59.6 m/min
Drill Collar Annular Vel (Open Hole): 93.9 m/min Critical Vel: 144.5 m/min
Pressure Loss System: 582 psi Pressure Loss Bit: 2028 psi % Pressure Loss: 78%
Nozzel Vel: 149.7 m/sec Jet Impact Force: 409 kg. HHP: 446 HP.

PRESSURE PARAMETERS

Drilling Exponent: 1.37 - 1.96 Flowline Temperature: 43.7°C.
~~Shale~~ BULK Density: 1.76 - 1.78 SG Shale Factor: —
Background Gas: 0.02 - 0.1% Max. Formation Gas: 0.92% (COAL) @ ______ Trip Gas: — @ —
Other Gas: NIL
Fill: NIL Tight Hole: UP TO 31T. DRAG FROM STANDS 3-10.
Cavings: Est %: MINOR Average Size: SMALL

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: ______ Min. Estimated Fracture Pressure (Open Hole): 1.65
Estimated Pore Pressure: 1.01 - 1.02 SG Min. Estimated Pore Pressure (Open Hole): 1.01 @ ______
Max. Estimated Pore Pressure (Open Hole): 1.07 @ 3300m Estimated Fracture Pressure at TD: 1.78 SG

Comments: PIT VOLS (OUT OF HOLE), PIT No1: 47.8 m^3, PIT No2: 16.1 m^3
PIT No 3: 25.0 m^3. PIT No 4: 62.7 m^3. TRIP TANK: 3.24 m^3.

PRESSURE TRENDS HAVE RETURNED TO NORMAL AND PORE PRESSURE IS NOW ESTIMATED TO BE 1.01 - 1.02 SG EMW.

TIGHT HOLE ON TRIP OUT POSSIBLY DUE TO STABILIZER BALLING UP IN MUD FILTRATE OR DUE TO JUNK (PIPE RUBBERS ?).

GEMDAS LOGGING REPORT NO. 24

EXLOG

COMPANY: Shell Dev. Aust. WELL: Barker South 1

DATE: 23-12-83 TIME: 06:00

DEPTH: 3364 m LAST REPORT DEPTH: 3341 m

RIG OPERATIONS: Drilling Ahead.

REPORT BY: T. JANOWICZ REPORT RECEIVED BY: D. SATTERLEE (SIGNED) (OPERATOR)

DRILLING REPORT

Bit No.: Run #16 Type: SMITH F3 Size: 8½" Jets: 10,10,11

On Bit: Footage: 23 m Hours: 6.6 ROP: 3.5 m/hr WOB: 15 Tonne RPM: 65-75

Pump Press: 2670 psi SPM: 76 Torque: 2.0-2.2 kNm TBR: 26116 CP I: $ 1757 CP B: $ 1963

HYDRAULICS REPORT

Mud Density In: 1.13 sg Mud Density Out: 1.13 sg ECD: 1.17 sg PV/YP: 17/16

Gels: — Salinity: — PPM Cl Solids: — %

Hole Volume: 169.8 m³ Annular Volume: 124 m³ Tubing Volume: 29.8 m³ Displaced Volume: 16 m³

Carbide Lag—Calculated Lag: 5968 - 6537 stks Flowrate: 1446 l/min

Drillpipe Annular Vel (Max. Dia. Sec.): 7.6 m/min Drillpipe Annular Vel (Open Hole): 60.2 m/min

Drill Collar Annular Vel (Open Hole): 94.9 m/min Critical Vel: 144.8 m/min

Pressure Loss System: 809 psi Pressure Loss Bit: 2065 psi % Pressure Loss: 72

Nozzel Vel: 151.3 m/sec Jet Impact Force: 417 kg HHP: 459 hp

PRESSURE PARAMETERS

Drilling Exponent: 1.5 - 1.9 Flowline Temperature: 41.4°C

Shale Density: — Shale Factor: —

Background Gas: .04 - 0.19% Max. Formation Gas: 0.19% @ 3340 m Trip Gas: 1.2% @ 3341 m

Other Gas: Nil

Fill: Tight Hole:

Cavings: Est %: MINOR Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0.351 sg Min. Estimated Fracture Pressure (Open Hole): 1.65 sg

Estimated Pore Pressure: 1.01 sg Min. Estimated Pore Pressure (Open Hole): 1.01 sg @

Max. Estimated Pore Pressure (Open Hole): 1.07 sg @ 3300 m Estimated Fracture Pressure at TD: 1.78 sg

Comments: Midnight - 3345.5 m, 4.5 m/1 hour.

Lithology

Interbedded Siltstone, Sandstone with some claystone (Shale)

Pit #1, 58 m³ #2, 19.6 m³ #3, 24.5 m³ #4, 62.2 m³ #5, 0 m³

EXLOG

GEMDAS LOGGING REPORT NO. 25

COMPANY: Shell Dev. Aust. WELL: Basker South 1

DATE: 24 Dec 1983 TIME: 06°°

DEPTH: 3420 m LAST REPORT DEPTH: 3364 m

RIG OPERATIONS: Circulating

REPORT BY: T. JANOWICZ REPORT RECEIVED BY: D. SATTERLEE (OPERATOR) SIGNED

DRILLING REPORT

Bit No.: Run # 16 Type: SMITH F3 Size: 8½" Jets: 10 10 11

On Bit: Footage: 79 m Hours: 24.8 hrs ROP: 3.2 m/hr. WOB: 16 tonne RPM: 65

Pump Press: 2640 psi SPM: 75 Torque: 1.8-2.2 kNm TBR: 95590 CP I: $ 2074 CP B: $ 1711

HYDRAULICS REPORT

Mud Density In: 1.13 sg Mud Density Out: 1.13 sg ECD: 1.16 sg PV/YP: 16/14

Gels: – Salinity: – PPM Cl Solids: – %

Hole Volume: 171.9 m³ Annular Volume: 155.7 m³ Tubing Volume: 30.3 m³ Displaced Volume: 16.2 m³

Carbide Lag—Calculated Lag: 6032 stks - 6608 stks Flowrate: 1423 l/min

Drillpipe Annular Vel (Max. Dia. Sec.): 7.5 m/min Drillpipe Annular Vel (Open Hole): 59.4 m/min

Drill Collar Annular Vel (Open Hole): 93.6 m/min Critical Vel: 134.1 m/min

Pressure Loss System: 777 psi Pressure Loss Bit: 2011 psi % Pressure Loss: 72

Nozzel Vel: 149 m/sec Jet Impact Force: 406 kg HHP: 441 hp

PRESSURE PARAMETERS

Drilling Exponent: 1.6 - 1.8 Flowline Temperature: 45.5°C

Shale Density: – Shale Factor: –

Background Gas: .025 - .425 % Max. Formation Gas: .425% @ 3410 m Trip Gas: @

Other Gas: Nil

Fill: Tight Hole: 3167 - 3224 m

Cavings: Est %: MINOR Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: .344 sg Min. Estimated Fracture Pressure (Open Hole): 1.65 sg

Estimated Pore Pressure: 1.01 sg Min. Estimated Pore Pressure (Open Hole): 1.01 sg @

Max. Estimated Pore Pressure (Open Hole): 1.07 sg @ 3300 m Estimated Fracture Pressure at TD: 1.98 sg (tuff)

Comments: Midnight - 3416 m 75 m/23.1 hours.
Drill to 3420 m. Circulate bottoms up.
15 Stand wiper trip. Overpull 15 tonne 3224 m - 3196 m
8 tonne 3196 - 3167 m
Circulate bottoms up

Lithology. Sand, silt and volcanics
Pit #1, 60.3 m³ 2, 20 m³ 3, 32.2 m³ 4, 62.2 m³ Trip 0 m³

EL P/N 18429 MAY 1980

EXLOG

GEMDAS LOGGING REPORT NO. 26

COMPANY Shell Dev. Aust. WELL Basker South 1

DATE 25 Dec '83 TIME 0600

DEPTH ______ LAST REPORT DEPTH 3420m

RIG OPERATIONS ______

REPORT BY T. Janowicz REPORT RECEIVED BY D. Satterlee (OPERATOR)
SIGNED

DRILLING REPORT

Bit No.: ______ Type: ______ Size: ______ Jets: ______

On Bit: Footage: ______ Hours: ______ ROP: ______ WOB: ______ RPM: ______

Pump Press: ______ SPM: ______ Torque: ______ TBR: ______ CP I: $ ______ CP B: $ ______

HYDRAULICS REPORT

Mud Density In: ______ Mud Density Out: ______ ECD: ______ PV/YP: ______

Gels: ______ Salinity: ______ PPM Cl Solids: ______ %

Hole Volume: ______ Annular Volume: ______ Tubing Volume: ______ Displaced Volume: ______

Carbide Lag—Calculated Lag: ______ Flowrate: ______

Drillpipe Annular Vel (Max. Dia. Sec.): ______ Drillpipe Annular Vel (Open Hole): ______

Drill Collar Annular Vel (Open Hole): ______ Critical Vel: ______

Pressure Loss System: ______ Pressure Loss Bit: ______ % Pressure Loss: ______

Nozzel Vel: ______ Jet Impact Force: ______ HHP: ______

PRESSURE PARAMETERS

Drilling Exponent: ______ Flowline Temperature: ______

Shale Density: ______ Shale Factor: ______

Background Gas: ______ Max. Formation Gas: ______ @ ______ Trip Gas: ______ @ ______

Other Gas: ______

Fill: ______ Tight Hole: ______

Cavings: Est %: ______ Average Size: ______

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: ______ Min. Estimated Fracture Pressure (Open Hole): 1.65 sg

Estimated Pore Pressure: 1.01 sg Min. Estimated Pore Pressure (Open Hole): 1.01 sg @ ______

Max. Estimated Pore Pressure (Open Hole): 1.07 sg @ 3300 m Estimated Fracture Pressure at TD: 1.98 sg

Comments: Pull out of hole with Run #16. Overpull negligible.
Run Wireline Logs.

EL P/N 18429 MAY 1980

THIS REPORT IS GOVERNED BY THE TERMS AND CONDITIONS AS SET FORTH ON THE REVERSE SIDE

EXLOG (SM)

GEMDAS LOGGING REPORT NO. 27

COMPANY Shell Dev. Aust. WELL Basker South 1

DATE 26-12-83 TIME 06⁰⁰

DEPTH 3420 m LAST REPORT DEPTH 3420 m

RIG OPERATIONS Run RFT.

REPORT BY T. JANOWICZ REPORT RECEIVED BY D. SATTERLEE SIGNED (OPERATOR)

DRILLING REPORT

Bit No.: ______ Type: ______ Size: ______ Jets: ______

On Bit: Footage: ______ Hours: ______ ROP: ______ WOB: ______ RPM: ______

Pump Press: ______ SPM: ______ Torque: ______ TBR: ______ CP I: $ ______ CP B: $ ______

HYDRAULICS REPORT

Mud Density In: ______ Mud Density Out: ______ ECD: ______ PV/YP: ______

Gels: ______ Salinity: ______ PPM Cl Solids: ______ %

Hole Volume: ______ Annular Volume: ______ Tubing Volume: ______ Displaced Volume: ______

Carbide Lag—Calculated Lag: ______ Flowrate: ______

Drillpipe Annular Vel (Max. Dia. Sec.): ______ Drillpipe Annular Vel (Open Hole): ______

Drill Collar Annular Vel (Open Hole): ______ Critical Vel: ______

Pressure Loss System: ______ Pressure Loss Bit: ______ % Pressure Loss: ______

Nozzel Vel: ______ Jet Impact Force: ______ HHP: ______

PRESSURE PARAMETERS

Drilling Exponent: ______ Flowline Temperature: ______

Shale Density: ______ Shale Factor: ______

Background Gas: ______ Max. Formation Gas: ______ @ ______ Trip Gas: 0.8% @ 3420 m

Other Gas: ______

Fill: ______ Tight Hole: ______

Cavings: Est %: ______ Average Size: ______

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: ______ Min. Estimated Fracture Pressure (Open Hole): ______

Estimated Pore Pressure: ______ Min. Estimated Pore Pressure (Open Hole): ______ @ ______

Max. Estimated Pore Pressure (Open Hole): ______ @ ______ Estimated Fracture Pressure at TD: ______

Comments:

Wiper Trip To Bottom - Trip Out Clean.

Run RFT.

Pit #1, 47.5 m³ 2, 16.2 m³ 3, 0 m³ 4, 62.5 m³ Trip, 3.3 m³

EL P/N 18429 MAY 1980

EXLOG

GEMDAS LOGGING REPORT NO. 28

COMPANY Shell Pet. Dev. WELL Basker South 1

DATE 27-12-83 TIME 06 00

DEPTH LAST REPORT DEPTH 3420m

RIG OPERATIONS

REPORT BY T. Janowicz REPORT RECEIVED BY D. Satterlee (OPERATOR) SIGNED

DRILLING REPORT

Bit No.: Type: Size: Jets:

On Bit: Footage: Hours: ROP: WOB: RPM:

Pump Press: SPM: Torque: TBR: CP I: $ CP B: $

HYDRAULICS REPORT

Mud Density In: Mud Density Out: ECD: PV/YP:

Gels: Salinity: PPM Cl Solids: %

Hole Volume: Annular Volume: Tubing Volume: Displaced Volume:

Carbide Lag—Calculated Lag: Flowrate:

Drillpipe Annular Vel (Max. Dia. Sec.): Drillpipe Annular Vel (Open Hole):

Drill Collar Annular Vel (Open Hole): Critical Vel:

Pressure Loss System: Pressure Loss Bit: % Pressure Loss:

Nozzel Vel: Jet Impact Force: HHP:

PRESSURE PARAMETERS

Drilling Exponent: Flowline Temperature:

Shale Density: Shale Factor:

Background Gas: Max. Formation Gas: @ Trip Gas: @

Other Gas:

Fill: Tight Hole:

Cavings: Est %: Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: Min. Estimated Fracture Pressure (Open Hole):

Estimated Pore Pressure: Min. Estimated Pore Pressure (Open Hole): @

Max. Estimated Pore Pressure (Open Hole): @ Estimated Fracture Pressure at TD:

Comments:

Complete Wireline logs.
Set Cement plugs + abandon well.

APPENDIX E

WEEKLY GEOLOGICAL ENGINEERING REPORTS

EXPLORATION
LOGGING
OF AUSTRALIA INC.
The liability of members is limited
Inc. in Nevada, U.S.A.

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Carlisle
West Australia 6101

Phone: (09) 361 4437, 361 4963
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SHELL DEV. AUST.

BASKER SOUTH -1

EXLOG UNIT 216

Report by T. Janowicz

GEOLOGICAL - ENGINEERING REPORT #1

Spud - 2254m

23rd Nov - 5th Dec 1983

OPERATIONS SUMMARY

Basker South -1 was spudded at 10.30 hrs 23/11.83 with a 36" hole opener which jetted from 264m to 266m and drilled from 266m to 316m. Deviation at 316m was 0.5 deg. Four joints of 310 lb/ft 30" casing were run to 311m and cemented with 15 metric tonne class G at 1.54sg and 14 metric tonne class G at 1.95sg which was displaced with 4.3m^ seawater.
Run #1 (NB#1) a SMITH DSJ 26" drilled cement, the shoe and washed the 36" pocket.

Run #2 (NB#2) SMITH SDGH 12.25" with 3x20 jets drilled a pilot hole to 706m in 16 hours at an average ROP of 24.3 m/hr.
Deviation at 500m was 0.5 deg. A survey at 706m was a missrun.

Run #3 (RRB#1) SMITH DSJ 26" with 3x20 jets opened the 12.25" pilot hole to 26".

36 joints of VETCO LS 133 lb/ft 20" casing were then run to 700m. This was cemented with 81 metric tonne class G with 2% calcium chloride and 3% bentonite at 1.49sg, tailed by 26 metric tonne class G mixed with seawater, at a slurry density of 1.92sg.

After running the riser and BOP, Run #4 (NB#3) SMITH DSJ 17.5" with 3x16 jets drilled cement, the shoe and 3m of new formation to 709m where an FIT was conducted. The formation broke down at an imposed pressure of 500psi with an 1.03sg mud. This corresponds to a formation fracture pressure of 1.52sg.

Run #5 (NB#4) DIAMANT BOART LX27HS 12.25" with TFA 1.05 sq in was run with a NEYRFOR T2A turbodrill. It drilled to 1847m in 52.4 hours at an average ROP of 21.7m/hr where it was tripped to retrieve a stuck survey tool. Surveys at 956m (941m), 1145m (1130m), 1393m (1378m), 1630m (1615m) and 1847m (1832m) yielded deviations of 2 deg, 1.5 deg, 2 deg, 2.5 deg and 3 deg. No drag was evident during a 5 stand wiper trip at 1630m or while tripping at 1847m. The bit was rerun and continued drilling to 2254m averaging 12.2m/hr over the interval 1847m to 2254m. A survey at 2047m (2032m) gave a deviation of 4.5 deg. No drag was recorded during a wiper trip to the shoe at 1915m to replace the kelly due to a washout. Again no drag was evident while tripping the bit at 2254m to run wireline logs and 9 5/8" casing. No flow was observed from a flow check at 2224m.

Current operation is tripping the bit.

EXPLORATION
LOGGING
OF AUSTRALIA INC.
The liability of members is limited
Inc. in Nevada, U.S.A.

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Phone (09) 361 4437, 361 4963
Telex AA 92372

DRILLING PARAMETERS

Run#	Type	Jets	Interval metres	Bit m	Hrs	Ave ROP	WOB tonnes	RPM	Torque kNm	T B G
1	SMITH DSJ		Drill cement							1 1 Ø
2	SMITH SDGH	3x2Ø	316-7Ø6	39Ø	16	24.3	5	1ØØ		1 2 Ø
3	SMITH DSJ	3x2Ø	316-7Ø6	39Ø	3.5	111	5	75		2 2 Ø
4	SMITH DSJ	3x16	7Ø6-7Ø9	3	Drill cement					1 1 Ø
5	DIAMANT BOART LX27HS	TFA 1.Ø5	7Ø9-1847	1138	52.4	21.7	4	65Ø	Ø.5-1.5	
5RR	DIAMANT BOART LX27HS	TFA 1.Ø5	1847-2254	4Ø7	33.4	12.2	1Ø	66Ø	Ø.5-1.5	4Ø% worn

HYDRAULICS

Run#	5	5RR
Jets	TFA 1.Ø5	TFA 1.Ø5
Interval (m)	7Ø9-1847	1847-2254
Mud density (sg)	1.Ø6-1.Ø9	1.Ø9-1.1Ø
ECD (sg)	1.Ø8-1.1Ø	1.1Ø-1.11
PV/YP	11/1Ø	7/11
Flow rate.(l/min)	3164	3179
Pump pressure (psi)	35ØØ	385Ø
Average vel (m/min)		
Riser (boost)	2Ø.9	2Ø.9
Pipe-hole	49.9	5Ø.2
Collars-hole	76.1	76.5
Critical	78.8	83.9
Jet velocity (m/sec)	78.9	79.3
Bit press loss (psi/%)	543/16	548/14
Impact force (kg)	461	466
Bit power (hp)	265	269

HOLE CONDITION AND PORE PRESSURE

Good hole condition is indicated by trouble free trips. Current fracture gradient is estimated to be 2.3sg in argillaceous siltstone.

Normal pore pressure has been assumed to be 1.Ø3sg as measured in surrounding wells. No evidence of abnormal pore pressure has been observed.

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GEOLOGY

Formation	Interval	Lithology	Gas
Gippsland Limestone	709-1945m	Marl & minor Calcarenite	0.1-0.4%
Lakes Entrance	1945-2210m	Marl & minor Calcarenite	0.04-0.36%
Flounder	2210-2254m	Argillaceous Siltstone and Silty Claystone	0.02-0.04%

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SHELL DEV. AUST.

BASKER SOUTH -1

EXLOG UNIT 216

Report by T. Janowicz

GEOLOGICAL - ENGINEERING REPORT #2

2254m - 2533m

5th Dec - 12th Dec 1983

OPERATIONS SUMMARY

Wireline logs were run as follows :

DLL-MSFL-GR-SP-Cal	2249m - 699m
LDL-GR-Cal	2251m - 699m
LSS-GR	2248m - 699m
CST	(shot 51, lost 5, empty 1)

Rerun #6 (RRB#2) SMITH SDGH 12.25" drilled 3.5m to 2257.5m while milling junk and cleaning the hole prior to running the 9 5/8" casing. Drag of 30 tonnes was recorded when initially pulling the bit. After reaming back to bottom and pumping a high viscosity slug, no drag was encountered when pulling the bit to surface.

166 joints of N80 47 lb/ft 20" casing were run to 2249m. The casing was cemented with 70 metric tonnes class "G" with 3% bentonite, at 1.48sg and 3.25 metric tonnes class "G" with 0.2% HR-7, at 1.90sg.

After testing the stack, Run #7 (NB#5) SMITH SVH 8.5" with 3x16 jets drilled cement, the shoe and new formation to 2261m. The hole deviation at 2261m (2260m) was 7 deg.

Following a Gyro survey, Run #8 (NB#6) SMITH SDGH 8.5" with 3x14 jets drilled to 2288m, a distance of 27m in 4.5 hours at an average ROP of 6 m/hr.
A leak off test conducted at 2288m reached an EMG of 1.82sg without achieving formation breakdown. No drag was encountered during the trip.

Run #9 (NB#7) SMITH FDGH 8.5" with 10,10,11 jets drilled to 2372m, a distance of 84m in 7.1 hours at an average ROP of 11.8 m/hr. No flow was in evidence during flow checks at 2295m and 2343m. The survey at 2372m (2370m) yielded a deviation of 7.25 deg.

Run# 10 (NB#8) SMITH FDGH 8.5" with 10,10,11 jets drilled to 2409m, a distance of 37m in 8 hours at an average ROP of 4.6 m/hr. The hole deviation at 2409m (2407m) was 7.5 deg. No drag was recorded while tripping the bit.

Run #11 (NB#9) SMITH F2 8.5" with 10,10,11 jets was run in and is currently drilling ahead. No flow was seen during a flow check at 2443m. No drag was encountered during a 3 stand wiper trip at 2513m to retrieve a survey. Deviation at 2513m (2512m) was 7.75 deg

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DRILLING PARAMETERS

Run#	Type	Jets	Interval metres	Bit m	Hrs	Ave ROP	WOB tonnes	RPM	Torque kNm	T	B	G
6	SMITH SDGH	2Ø,2Ø,2Ø	2254-2257.5	3.5	Wiper trip & mill junk					1	2	Ø
7	SMITH SVH	16,16,16	2257.5-2261	3.5	4.4	Ø.8	5	7Ø	1.4-1.6	8	4	4
8	SMITH SDGH	14,14M14	2261-2288	27	4.5	6	6	6Ø	1.5-1.8	2	2	2
9	SMITH FDGH	1Ø,1Ø,11	2288-2372	84	7.1	11.8	8	6Ø	1.4-2.Ø	3	2	4
1Ø	SMITH FDGH	1Ø,1Ø,11	2372-2409	37	8	4.6	12	65	2.5-2.9	3	2	4
11	SMITH FDGH	1Ø,1Ø,11	2409-									

HYDRAULICS

Run#	7	8	9	1Ø
Jets	16,16,16	14,14,14	1Ø,1Ø,11	1Ø,1Ø,11
Interval (m)	2257.5-2261	2261-2288	2288-2372	2372-24Ø9
Mud density (sg)	1.11	1.1Ø	1.11	1.1Ø5
ECD (sg)	1.13	1.14	1.15	1.14
PV/YP	11/1Ø	13/13	15/16	15/16
Flow rate (l/min)	1488	1617	1423	1423
Pump pressure (psi)	99Ø	147Ø	244Ø	249Ø
Average vel (m/min)				
Riser	7.8	8.5	7.5	7.5
Pipe-hole	-	-	-	-
Collars-hole	97.9	1Ø6.4	93.6	93.6
Critical	1Ø5.4	125	141.8	142.7
Jet velocity (m/sec)	65.3	92.6	149.3	149.3
Bit press loss (psi/%)	612/38	756/55	459/81	527/77
Impact force (kg)	183	279	4ØØ	396
Bit power (hp)	87	188	434	431

HOLE CONDITION AND PORE PRESSURE

Except for one case of overpull during a wiper trip prior to running the 9 5/8" casing, no drag has been experienced during any other trips. Carbide lags show the hole to be in gauge.

Upon entering the fresh water sediments of the Latrobe Group Sandstones, the formation pore pressure is assumed to have decreased from 1.Ø3sg to 1.Ø1sg. No evidence of anomylous pore pressure has been sighted.

A leak-off test at 2288m was taken to 1.82sg EMG without formation breakdown but it is felt that this may have been conducted in the more cemented sands at the top of the Latrobe sediments and that the loose sands below 2295m would fracture at an estimated 1.65sg EMG. This estimate is based upon data from the Basker #1, Bignose #1 and Volador #1 wells.

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GEOLOGY

Formation	Interval	LITHOLOGY	Gas
Flounder	2254-2258m	Argillaceous Siltstone and Silty Claystone	trace - 0.04%
Latrobe Group	2258-2410m	Sandstone	trace
	2410-2450m	Sandy Claystone	trace
	2450-2533m	Sandstone	trace

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SHELL DEV. AUST.

BASKER SOUTH No.1

EXLOG UNIT 216

Report by D. New

GEOLOGICAL - ENGINEERING REPORT No.3

2533m - 3150m

12th Dec - 19th Dec 1983

OPERATIONS SUMMARY

Continued drilling with NB#9 (run#11) to 2590m where bottoms up were circulated, a survey run and the bit pulled. NB#9 drilled from 2409m to 2590m, a distance of 181m in 17.3hrs (on bottom) at an average rate of penetration of 10.3 m/hr.

After changeing the BHA. due to the build up in deviation NB#10 (run#12), a SMITH F2 was run with the last single being reamed to bottom. At 2685m returns were circulated for 15 min, a survey dropped and a three stand wiper trip made to retrieve the survey. Drilling then continued to 2828m where returns were circulated for 30 min, a.survey dropped and the bit pulled. NB#10 drilled from 2590m to 2828m, a distance of 238m, in 34.0 hrs (on bottom) at an average rate of penetration of 7.0 m/hr.

After succesfully testing the BOP's NB#12 (run 13), a VAREL 537 (F3 equivelent) was run and drilled from 2999m to 3189m, a distance of 190m in 45.3 hrs (on bottom) at an average rate of penetration of 4.2 m/hr.

Hole condition appears to be good with carbide and other lag data indicating an in gauge hole. Tight hole was recorded from the first 11 stands on the trip out at 2828m with a maximum drag of 38 tonnes. On the trip out at 2999m up to 28 tonnes drag was recorded from stands 3-12. This drag was probably due to clay/filter cake balling up round the stabilizers and/or bit. The stiffer BHA used appeared to be sucessfull in controling the deviation as deviation surveys gave inclinations of 5.75 deg at 2685m, 5.75 deg at 2828m, 5.0 deg at 2989m and 3.5 deg at 3179m. Flow checks were made as necessary with no flow being recorded.

DRILLING PARAMETERS

Bit#/ run#	Type	Jets	Interval metres	Bit m	Hrs	Ave ROP	WOB tonnes	RPM	Torque kNm	T	B	G
NB#9	SMITH F2	10,10,11	2409-2590	181	17.3	10.5	15	65	2.7-3.4	2	3	4
NB#10	SMITH F2	10,10,11	2590-2828	238	34.0	7.0	15-16	65	1.4-2.9	5	5	8
NB#11	SMITH F3	10,10,11	2828-2999	171	39.3	4.3	15	65	1.7-2.4	4	6	0
NB#12	VAREL 537	10,10,11	2999-3189	190	45.3	4.2	15	55-65	1.7-2.6	3	5	0

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HYDRAULICS

Bit#:	9	10	11	12
Run#:	11	12	13	14
Jets:	10,10,11	10,10,11	10,10,11	10,10,11
Interval (m):	2409-2590	2590-2828	2828-2999	2999-3189
Mud density (sg):	1.11	1.11	1.11	1.11-1.12
ECD (sg):	1.14	1.14	1.14	1.14-1.15
PV/YP:	15/14	15/14	16/12	14/15
Flow rate (l/min):	1461	1442	1446	1465
Pump pressure (psi):	2650	2590	2580	2780
Annular vel (m/min)				
Riser:	7.7	7.6	7.6	7.7
Drill pipe/hole:	60.9	60.2	60.4	61.2
Collars/hole:	96.1	94.9	95.1	96.4
Critical vel:	133.3	133.3	126.9	134.6
Jet velocity (m/sec):	153.1	151.4	151.7	154.4
Bit press loss (psi/%):	2039/77	2035/76	2036/79	2119/76
Impact force (kg):	421	411	411	427
Bit power (hp):	470	452	454	478

PRESSURE ANALYSIS

Pore pressure appeared to remain normal at 1.01 sg EMW through this section of hole. The increased gas and shift in DXC were interpreted as being due to increasing amount of coal/carbonaceous material in the section.

The minimum fracture pressure is estimated to be 1.65sg EMW and it is therfore unlikly that the formation will be fractured by the 1.11-1.12 sg mud being used.

GEOLOGY AND SHOWS

Formation	Interval	Lithology	Gas
Latrobe Group	2530-2565	Sandstone	Trace
	2565-2672	Interbedded siltstone shale and sandstone with minor coal.	Trace
	2672-2723	Sandstone	Trace
	2723-2970	Interbedded siltstone,claystone and sandstone with lesser shale and minor coal.	Trace-0.28%
	2970-3150	Siltstone with sandstone interbeds and common coal.	0.06-2.3%

No shows were seen with all the gas comming from coals. Very rare hydrocarbon fluorescence was occasionaly noted and it would appear that the section is water saturated. The virtual complete lack of hydrocarbons <u>may</u> implie a lack of seal, either horizontal or vertical at this depth.

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SHELL DEV. AUST.

BASKER SOUTH -1

EXLOG UNIT 216

GEOLOGICAL - ENGINEERING REPORT #4

3150m - 3420m (TD)

19th Dec - 26th Dec 1983

Report by T. Janowicz

OPERATIONS SUMMARY

Run #15 (NB#13) SMITH F3 with 10,10,11 jets drilled to 3341m, a distance of 152m in 37.5 hours at an average ROP of 4 m/hr. Returns were circulated at 3212m with no shows. An increase in cavings and a decrease in Dxc trend suggested an increase in pore pressure from 3240m to a maximum 1.07sg at 3280m, then decreasing to a normal 1.01sg by 3310m. The hole deviation at 3341m (3329m) was 3 deg.

Run #16 (NB#14) SMITH F3 with 10,10,11 jets drilled to TD at 3420m, a distance of 71m in 24.8 hours at an average ROP of 3.2 m/hr. Trip gas from 3341m was 1.2%. Hole deviation at 3420m (3408m) was 2.5 deg.
Overpull of 15 tonnes and 8 tonnes was recorded over the intervals 3224m - 3196m and 3196m - 3167m during a 15 stand wiper trip at 3420m. No drag was observed when pulling out of the hole to run wireline logs.

Wireline logs were run as follows: DLL-MSFL-Cal-GR-SP
LDL-CNL-Cal-GR
BHC-GR-CBL-VDL
HDT
Velocity Survey

Following a wiper trip from which 0.8% trip gas was observed, wireline logs
RFT x2
CST 1 gun were run.

Only formation water and a small volume of gas were recovered from the RFT's.

The well was determined to be dry and was plugged and abandoned.

DRILLING PARAMETERS

Run#	Type	Jets	Interval metres	Bit m	Hrs	Ave ROP	WOB tonnes	RPM	Torque kNm	T	B	G
15	SMITH F3	10,10,11	3189-3341	152	37.5	4	15	60	1.9-2.3	2	4	0
16	SMITH F3	10,10,11	3341-3420	79	24.8	3.2	16	60	1.8-2.2	2	2	0

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HYDRAULICS

Run#	15	16
Jets	10,10,11	10,10,11
Interval (m)	3199-3341	3341-3420
Mud density (sg)	1.13	1.13
ECD (sg)	1.17	1.16
PV/YP	17/16	16/14
Flow rate (l/min)	1427	1423
Pump pressure (psi)	2610	2640
Average vel (m/min)		
Riser	7.5	7.5
Pipe-hole	59.6	59.4
Collars-hole	93.9	93.6
Critical	144.5	134.1
Jet velocity (m/sec)	149.7	149
Bit press loss (psi/%)	2028/78	2011/72
Impact force (kg)	409	406
Bit power (hp)	446	441

HOLE CONDITION AND PORE PRESSURE

Drag of 15 tonnes max. was recorded over the interval 3224-3196m during a wiper trip. However none was observed on pulling out of the hole immediately after the wiper trip. No overpull was observed during connections indicating good hole condition.

An increase in cavings and a decrease in Dxc trend suggested an increase in pore pressure over the interval 3240m to 3280m, from 1.01sg to an estimated 1.07sg. Over the next 30m, these pressure indicators gradually diminished, indicating a return to normal pore pressure of 1.01sg.

GEOLOGY

Formation	Interval	Lithology	Gas
Latrobe Group	3150-3370	Siltstone with sandstone interbeds and minor coals	1.8%-0.1%
	3370-3395	Volcanics, sandstone and weathered volcanics	0.1%-0.05%
	3395-3420	Sandstone with some silts.	0.05%-0.01%

APPENDIX F

HYDRAULICS ANALYSES

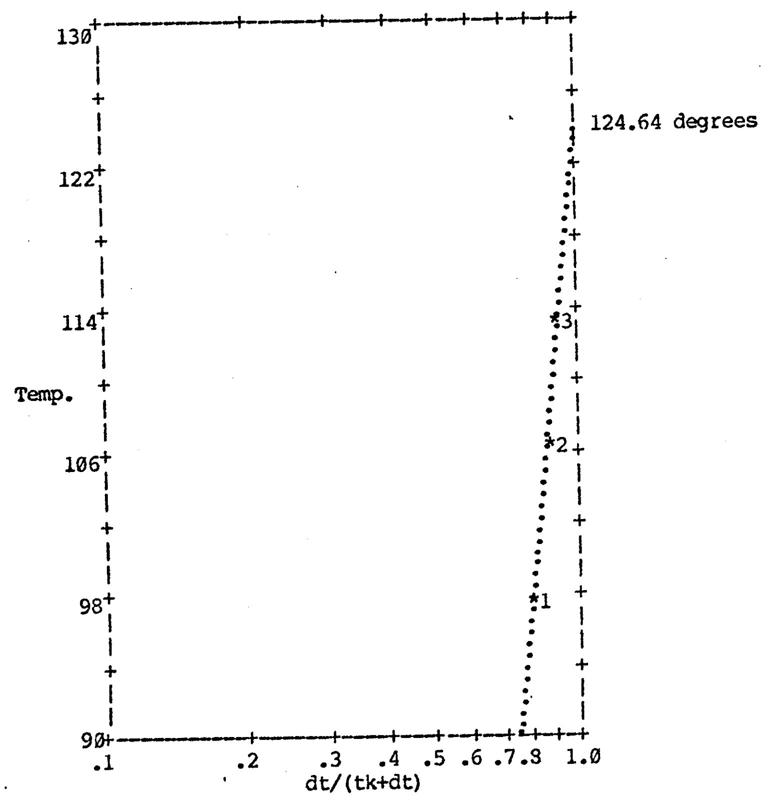
BOTTOM HOLE TEMPERATURE CALCULATION

LOG RUN #	TIME SINCE CIRCLN. (dt)	MEASURED B.H.T.	dt / tk+dt
1	7.75	98.00	.795
2	13.75	107.00	.873
3	19.00	114.00	.905

CIRCULATION TIME (tk) = 2.00 hours

HORNER - FERTL METHOD

BOTTOM HOLE TEMPERATURE = 124.64 degrees



SHELL DEV. AUST: BASKER SOUTH No.1
Date : 30 Nov 83 Time : 05:31

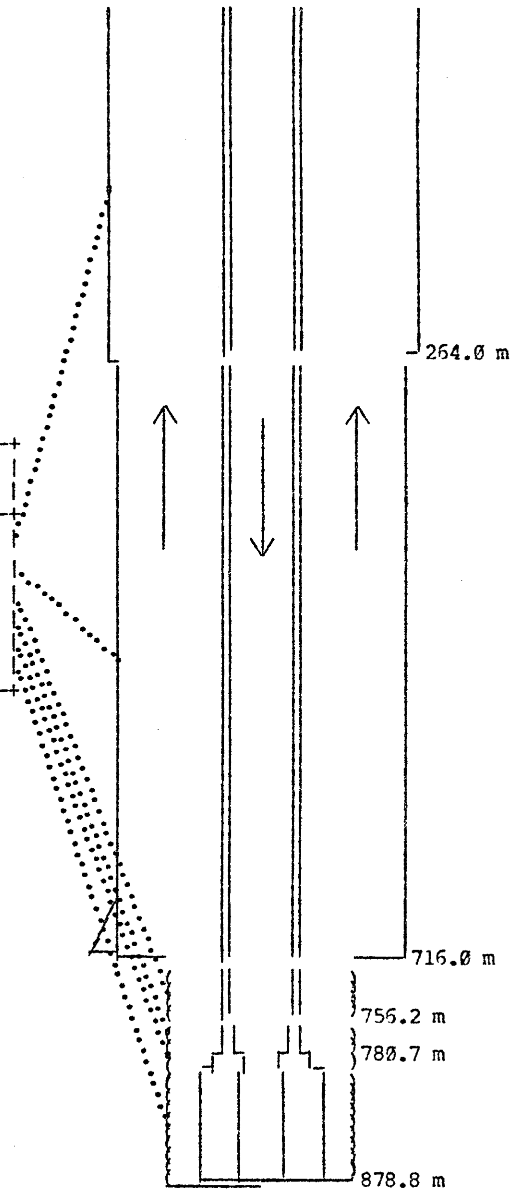
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	12.00 cP
YIELD POINT	11.00 lb/cft^2
POWER LAW k	.5476
POWER LAW n	.6057
DEPTH	878.8 m
VERTICAL DEPTH	878.8 m
DEPTH OF RETURNS	867.6 m
CUTTINGS BULK DENSITY	2.20 spc grv
MUD DENSITY	1.06 spc grv
ACTIVE SURFACE MUD VOLUME	139.97 m^3
FLOW RATE	3200 L/min
BOOSTER FLOW	1600 L/min
PUMP PRESSURE	3050 psi
PUMP L/stk	15.82 L/stk
BIT NOZZLES	18, 18, 18, 18

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	25.26	47.60	LAMINAR	.6
264.0	716.0	452.0	18.730/ 5.000	19.38	49.55	LAMINAR	.9
716.0	756.2	40.2	12.250/ 5.000	50.50	66.04	LAMINAR	.4
756.2	780.7	24.5	12.250/ 5.000	50.50	66.04	LAMINAR	.3
780.7	791.0	10.3	12.250/ 6.250	56.89	71.97	LAMINAR	.2
791.0	878.8	87.8	12.250/ 8.000	73.38	83.84	LAMINAR	2.7

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.250	5.000	4.276
18.730	6.250	5.000	4.276
12.250	6.250	5.000	4.276
12.250	6.250	5.000	3.500
12.250	6.250	6.250	2.250
12.250	8.000	8.000	2.813



MUD HYDROSTATIC	1.05 spc grv
FLOW CONTRIBUTION	.00 spc grv
CUTTINGS CONTRIBUTION	.03 spc grv
EQUIVALENT CIRCULATING DENSITY	1.08 spc grv

SURFACE PRESSURE LOSS	74 psi	NOZZLE VELOCITY	79.8 m/sec
PIPEBORE PRESSURE LOSS	621 psi	HYDRAULIC POWER	266.5 hp
ANNULAR PRESSURE LOSS	5 psi	JET IMPACT FORCE	459 kg
BIT PRESSURE LOSS	540 psi	% OF PRESS LOSS AT BIT	44
TOTAL CALC. PRESS LOSS	1240 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 202 s.p.m.		
(1) Pipe Capacity	47.40	7.54	476	2.4		
(2) Pipe Displacement	35.83	5.70	360	1.8		
(3) Total Annulus	835.23	132.79	8394	36.3	<- LAG	B
(4) Mud in active pits	880.38	139.97	8848	43.7		
Circulation (1) + (3)	882.62	140.33	8870	38.7		B
Hole Volume (1)+(2)+(3)	918.45	146.02	9230	45.6		
Total Mud Circulation	1763.01	280.30	17718	82.4		B

B : Time Corrected for Booster Pump Flow

SHELL DEV. AUST: BASKER SOUTH No.1
Date : 1 Dec 83 Time : Ø5:22

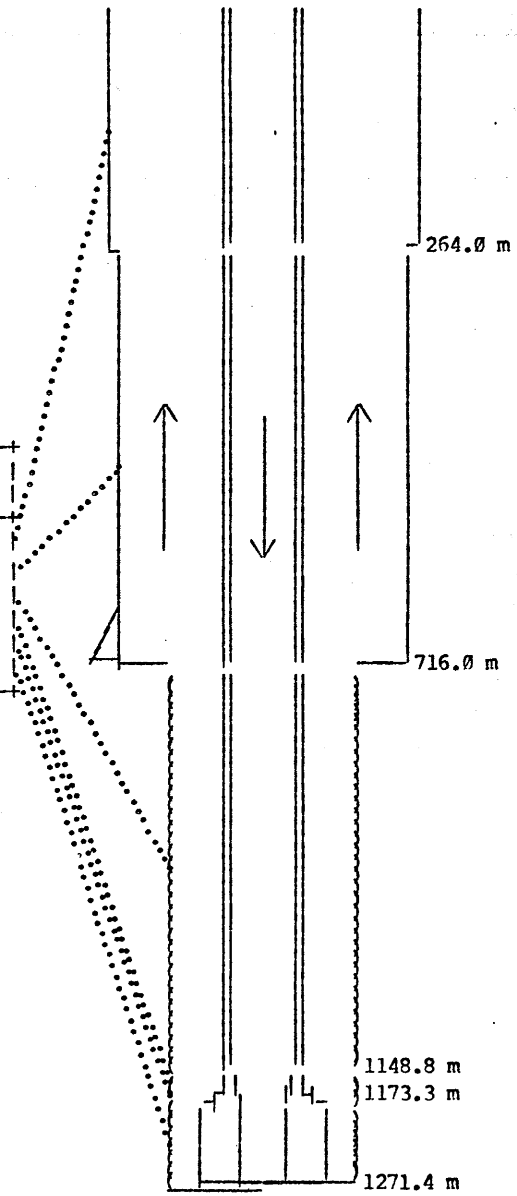
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	12.ØØ cP
YIELD POINT	11.ØØ lb/cft^2
POWER LAW k	.5476
POWER LAW n	.6Ø57
DEPTH	1271.4 m
VERTICAL DEPTH	1271.1 m
DEPTH OF RETURNS	1249.4 m
CUTTINGS BULK DENSITY	2.2Ø spc grv
MUD DENSITY	1.07 spc grv
ACTIVE SURFACE MUD VOLUME	142.83 m^3
FLOW RATE	3142 L/min
BOOSTER FLOW	Ø L/min
PUMP PRESSURE	331Ø psi
PUMP L/stk	15.82 L/stk
BIT NOZZLES	18, 18, 18, 18

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
.Ø	264.Ø	264.Ø	2Ø.ØØØ/ 5.ØØØ	16.54	47.28	LAMINAR	.4
264.Ø	716.Ø	452.Ø	18.73Ø/ 5.ØØØ	19.03	49.22	LAMINAR	.9
716.Ø	1148.8	432.8	12.25Ø/ 5.ØØØ	49.59	65.6Ø	LAMINAR	4.6
1148.8	1173.3	24.5	12.25Ø/ 5.ØØØ	49.59	65.6Ø	LAMINAR	.3
1173.3	1183.6	1Ø.3	12.25Ø/ 6.25Ø	55.87	71.49	LAMINAR	.2
1183.6	1271.4	87.8	12.25Ø/ 8.25Ø	75.63	85.52	LAMINAR	3.1

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
2Ø.ØØØ	6.25Ø	5.ØØØ	4.276
18.73Ø	6.25Ø	5.ØØØ	4.276
12.25Ø	6.25Ø	5.ØØØ	4.276
12.25Ø	6.25Ø	5.ØØØ	3.5ØØ
12.25Ø	6.25Ø	6.25Ø	2.813
12.25Ø	8.25Ø	8.25Ø	2.813



MUD HYDROSTATIC	1.Ø5 spc grv
FLOW CONTRIBUTION	.Ø1 spc grv
CUTTINGS CONTRIBUTION	.Ø4 spc grv
EQUIVALENT CIRCULATING DENSITY	1.Ø9 spc grv

SURFACE PRESSURE LOSS	72 psi	NOZZLE VELOCITY	78.4 m/sec
PIPEBORE PRESSURE LOSS	72Ø psi	HYDRAULIC POWER	254.7 hp
ANNULAR PRESSURE LOSS	9 psi	JET IMPACT FORCE	447 kg
BIT PRESSURE LOSS	526 psi	% OF PRESS LOSS AT BIT	4Ø
TOTAL CALC. PRESS LOSS	1327 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 199 s.p.m.	
1) Pipe Capacity	7Ø.37	11.19	7Ø7	3.6	
2) Pipe Displacement	46.2Ø	7.35	464	2.3	
3) Total Annulus	989.64	157.34	9946	5Ø.1	<- LAG
4) Mud in active pits	898.37	142.83	9Ø28	45.5	
Circulation (1) + (3)	1Ø6Ø.Ø1	168.53	1Ø653	53.6	
Hole Volume (1)+(2)+(3)	11Ø6.21	175.87	11117	56.Ø	
Total Mud Circulation	1958.38	311.36	19681	99.1	

SHELL DEV. AUST: BASKER SOUTH No.1
Date : 2 Dec 83 Time : 05:27

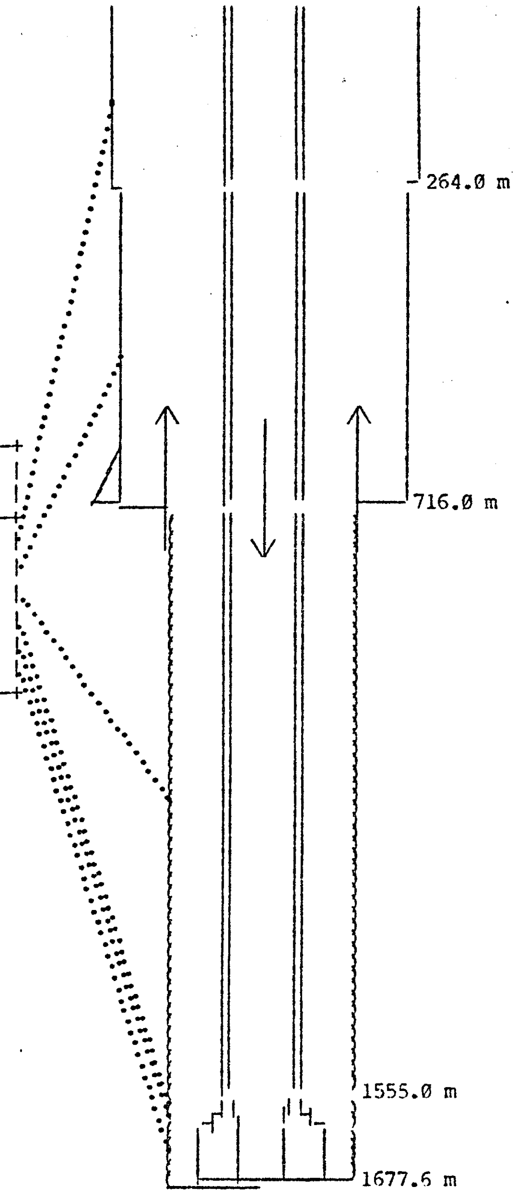
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	11.00 cP
YIELD POINT	10.00 lb/cft^2
POWER LAW k	.4939
POWER LAW n	.6077
DEPTH	1677.6 m
VERTICAL DEPTH	1677.1 m
DEPTH OF RETURNS	1659.4 m
CUTTINGS BULK DENSITY	2.20 spc grv
MUD DENSITY	1.09 spc grv
ACTIVE SURFACE MUD VOLUME	131.26 m^3
FLOW RATE	3164 L/min
BOOSTER FLOW	800 L/min
PUMP PRESSURE	3500 psi
PUMP L/stk	15.82 L/stk
BIT NOZZLES	18, 18, 18, 18

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
.0	264.0	264.0	20.000/ 5.000	20.86	43.48	LAMINAR	.4
264.0	716.0	452.0	18.730/ 5.000	19.17	45.27	LAMINAR	.8
716.0	1555.0	839.0	12.250/ 5.000	49.93	60.41	LAMINAR	8.1
1555.0	1579.5	24.5	12.250/ 5.000	49.93	60.41	LAMINAR	.2
1579.5	1589.8	10.3	12.250/ 6.250	56.25	65.86	LAMINAR	.1
1589.8	1677.6	87.8	12.250/ 8.250	76.15	78.85	LAMINAR	2.8

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.250	5.000	4.276
18.730	6.250	5.000	4.276
12.250	6.250	5.000	4.276
12.250	6.250	5.000	3.500
12.250	6.250	6.250	2.813
12.250	8.250	8.250	2.813



MUD HYDROSTATIC	1.08 spc grv
FLOW CONTRIBUTION	.01 spc grv
CUTTINGS CONTRIBUTION	.02 spc grv
EQUIVALENT CIRCULATING DENSITY	1.11 spc grv

SURFACE PRESSURE LOSS	74 psi	NOZZLE VELOCITY	78.9 m/sec
PIPEBORE PRESSURE LOSS	881 psi	HYDRAULIC POWER	264.9 hp
ANNULAR PRESSURE LOSS	13 psi	JET IMPACT FORCE	461 kg
BIT PRESSURE LOSS	543 psi	% OF PRESS LOSS AT BIT	36
TOTAL CALC. PRESS LOSS	1511 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 200 s.p.m.		
1) Pipe Capacity	94.04	14.95	945	4.7		
2) Pipe Displacement	55.85	8.88	561	2.8		
3) Total Annulus	1150.57	182.93	11563	54.6	<- LAG	B
4) Mud in active pits	825.60	131.26	8297	41.5		
Circulation (1) + (3)	1244.61	197.88	12508	59.4		B
Hole Volume (1)+(2)+(3)	1300.46	206.76	13069	65.3		
Total Mud Circulation	2070.21	329.14	20805	100.8		B

B : Time Corrected for Booster Pump Flow

SHELL DEV. AUST: BASKER SOUTH No.1
Date : 3 Dec 83 Time : 05:45

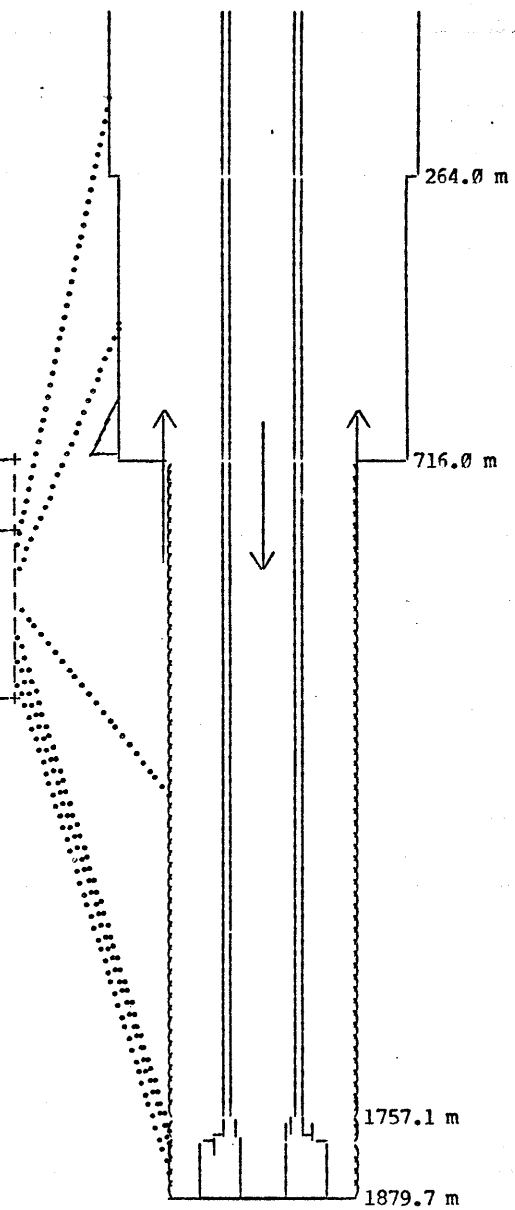
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	10.00 cP
YIELD POINT	10.00 lb/cft^2
POWER LAW k	.5412
POWER LAW n	.5850
DEPTH	1879.7 m
VERTICAL DEPTH	1879.0 m
DEPTH OF RETURNS	1859.6 m
CUTTINGS BULK DENSITY	2.20 spc grv
MUD DENSITY	1.08 spc grv
ACTIVE SURFACE MUD VOLUME	132.61 m^3
FLOW RATE	3164 L/min
BOOSTER FLOW	500 L/min
PUMP PRESSURE	3600 psi
PUMP L/stk	15.82 L/stk
BIT NOZZLES	18, 18, 18, 18

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
.0	264.0	264.0	20.000/ 5.000	19.28	44.95	LAMINAR	.4
264.0	716.0	452.0	18.730/ 5.000	19.17	46.71	LAMINAR	.9
716.0	1757.1	1041.1	12.250/ 5.000	49.93	61.40	LAMINAR	10.1
1757.1	1781.6	24.5	12.250/ 5.000	49.93	61.40	LAMINAR	.2
1781.6	1791.9	10.3	12.250/ 6.250	56.25	66.64	LAMINAR	.1
1791.9	1879.7	87.8	12.250/ 8.250	76.15	79.05	LAMINAR	2.8

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.250	5.000	4.276
18.730	6.250	5.000	4.276
12.250	6.250	5.000	4.276
12.250	6.250	5.000	3.500
12.250	6.250	6.250	2.813
12.250	8.250	8.250	2.813



MUD HYDROSTATIC	1.07 spc grv
FLOW CONTRIBUTION	.01 spc grv
CUTTINGS CONTRIBUTION	.02 spc grv
EQUIVALENT CIRCULATING DENSITY	1.10 spc grv

SURFACE PRESSURE LOSS	74 psi	NOZZLE VELOCITY	78.9 m/sec
PIPEBORE PRESSURE LOSS	915 psi	HYDRAULIC POWER	262.4 hp
ANNULAR PRESSURE LOSS	15 psi	JET IMPACT FORCE	457 kg
BIT PRESSURE LOSS	538 psi	% OF PRESS LOSS AT BIT	35
TOTAL CALC. PRESS LOSS	1541 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 200 s.p.m.	
1) Pipe Capacity	105.81	16.82	1063	5.3	
2) Pipe Displacement	60.65	9.64	610	3.0	
3) Total Annulus	1230.63	195.65	12368	59.7 <- LAG	B
4) Mud in active pits	834.09	132.61	8382	41.9	
Circulation (1) + (3)	1336.45	212.48	13431	65.0	B
Hole Volume (1)+(2)+(3)	1397.10	222.12	14041	70.2	
Total Mud Circulation	2170.54	345.09	21813	106.9	B

B : Time Corrected for Booster Pump Flow

SHELL DEV. AUST: BASKER SOUTH No.1
Date : 4 Dec 83 Time : 06:01

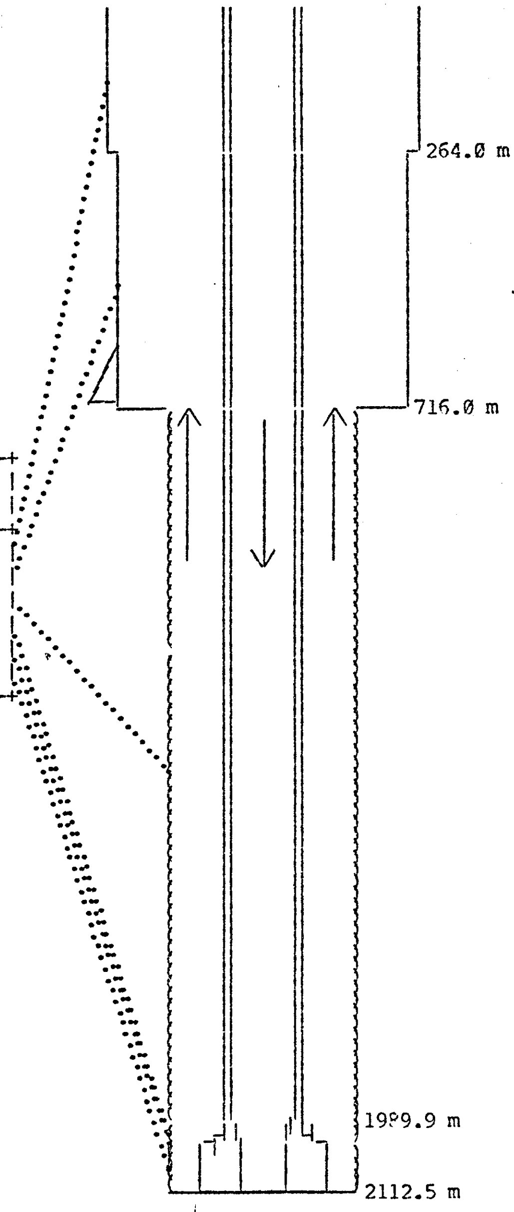
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	10.00 cP
YIELD POINT	10.00 lb/cft^2
POWER LAW k	.5412
POWER LAW n	.5850
DEPTH	2112.5 m
VERTICAL DEPTH	2111.2 m
DEPTH OF RETURNS	2109.1 m
CUTTINGS BULK DENSITY	2.20 spc grv
MUD DENSITY	1.10 spc grv
ACTIVE SURFACE MUD VOLUME	132.66 m^3
FLOW RATE	3210 L/min
BOOSTER FLOW	800 L/min
PUMP PRESSURE	3570 psi
PUMP L/stk	15.82 L/stk
BIT NOZZLES	18, 18, 18, 18

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
.0	264.0	264.0	20.000/ 5.000	21.10	44.37	LAMINAR	.5
264.0	716.0	452.0	18.730/ 5.000	19.44	46.10	LAMINAR	.9
716.0	1989.9	1273.9	12.250/ 5.000	50.66	60.61	LAMINAR	12.5
1989.9	2014.5	24.5	12.250/ 5.000	50.66	60.61	LAMINAR	.2
2014.5	2024.8	10.3	12.250/ 6.250	57.07	65.79	LAMINAR	.1
2024.8	2112.5	87.8	12.250/ 8.250	77.26	78.03	LAMINAR	2.8

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.250	5.000	4.276
18.730	6.250	5.000	4.276
12.250	6.250	5.000	4.276
12.250	6.250	5.000	3.500
12.250	6.250	6.250	2.813
12.250	8.250	8.250	2.813



MUD HYDROSTATIC	1.10 spc grv
FLOW CONTRIBUTION	.01 spc grv
CUTTINGS CONTRIBUTION	.00 spc grv
EQUIVALENT CIRCULATING DENSITY	1.11 spc grv

SURFACE PRESSURE LOSS	77 psi	NOZZLE VELOCITY	81.1 m/sec
PIPEBORE PRESSURE LOSS	1040 psi	HYDRAULIC POWER	286.8 hp
ANNULAR PRESSURE LOSS	17 psi	JET IMPACT FORCE	486 kg
BIT PRESSURE LOSS	580 psi	% OF PRESS LOSS AT BIT	34
TOTAL CALC. PRESS LOSS	1713 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 203 s.p.m.		
1) Pipe Capacity	119.38	18.98	1200	5.9		
2) Pipe Displacement	66.19	10.52	665	3.3		
3) Total Annulus	1322.90	210.32	13295	62.4	<- LAG	B
4) Mud in active pits	834.41	132.66	8386	41.3		
Circulation (1) + (3)	1442.28	229.30	14495	68.3		B
Hole Volume (1)+(2)+(3)	1508.46	239.83	15160	74.7		
Total Mud Circulation	2276.68	361.96	22880	109.7		B

B : Time Corrected for Booster Pump Flow

SHELL DEV. AUST: BASKER SOUTH No.1
Date : 5 Dec 83 Time : 04:23

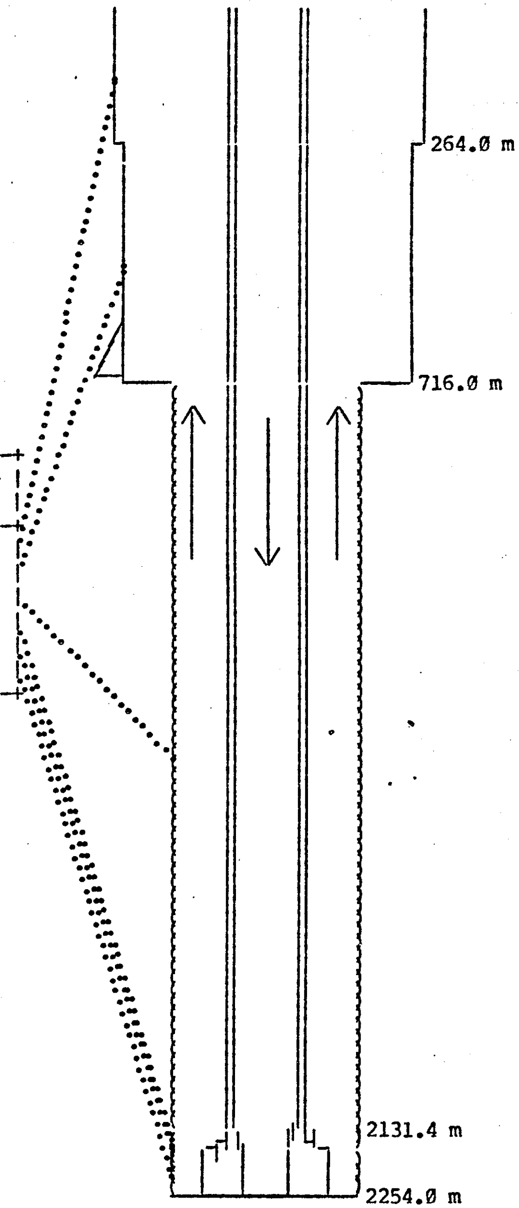
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	7.00	cP
YIELD POINT	11.00	lb/cft^2
POWER LAW k	.9668	
POWER LAW n	.4739	
DEPTH	2254.0	m
VERTICAL DEPTH	2252.2	m
DEPTH OF RETURNS	2252.8	m
CUTTINGS BULK DENSITY	2.20	spc grv
MUD DENSITY	1.09	spc grv
ACTIVE SURFACE MUD VOLUME	118.50	m^3
FLOW RATE	3179	L/min
BOOSTER FLOW	800	L/min
PUMP PRESSURE	3850	psi
PUMP L/stk	15.82	L/stk
BIT NOZZLES	18, 18, 18, 18	

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
.0	264.0	264.0	20.000/ 5.000	20.94	54.76	LAMINAR	.7
264.0	716.0	452.0	18.730/ 5.000	19.26	56.37	LAMINAR	1.2
716.0	2131.4	1415.4	12.250/ 5.000	50.17	69.32	LAMINAR	16.1
2131.4	2155.9	24.5	12.250/ 5.000	50.17	69.32	LAMINAR	.3
2155.9	2166.2	10.3	12.250/ 6.250	56.52	73.76	LAMINAR	.2
2166.2	2254.0	87.8	12.250/ 8.250	76.51	83.90	LAMINAR	2.9

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.250	5.000	4.276
18.730	6.250	5.000	4.276
12.250	6.250	5.000	4.276
12.250	6.250	5.000	3.500
12.250	6.250	6.250	2.813
12.250	8.250	8.250	2.813



MUD HYDROSTATIC	1.09	spc grv
FLOW CONTRIBUTION	.01	spc grv
CUTTINGS CONTRIBUTION	.00	spc grv
EQUIVALENT CIRCULATING DENSITY	1.10	spc grv

SURFACE PRESSURE LOSS	75 psi	NOZZLE VELOCITY	79.3 m/sec
PIPEBORE PRESSURE LOSS	884 psi	HYDRAULIC POWER	268.7 hp
ANNULAR PRESSURE LOSS	21 psi	JET IMPACT FORCE	466 kg
BIT PRESSURE LOSS	548 psi	% OF PRESS LOSS AT BIT	36
TOTAL CALC. PRESS LOSS	1528 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 201 s.p.m.		
1) Pipe Capacity	127.62	20.29	1283	6.4		
2) Pipe Displacement	69.55	11.06	699	3.5		
3) Total Annulus	1378.94	219.23	13858	65.8	<- LAG	B
4) Mud in active pits	745.34	118.50	7491	37.3		
Circulation (1) + (3)	1506.56	239.52	15141	72.2		B
Hole Volume (1)+(2)+(3)	1576.11	250.58	15840	78.8		
Total Mud Circulation	2251.91	358.02	22631	109.5		B

B : Time Corrected for Booster Pump Flow

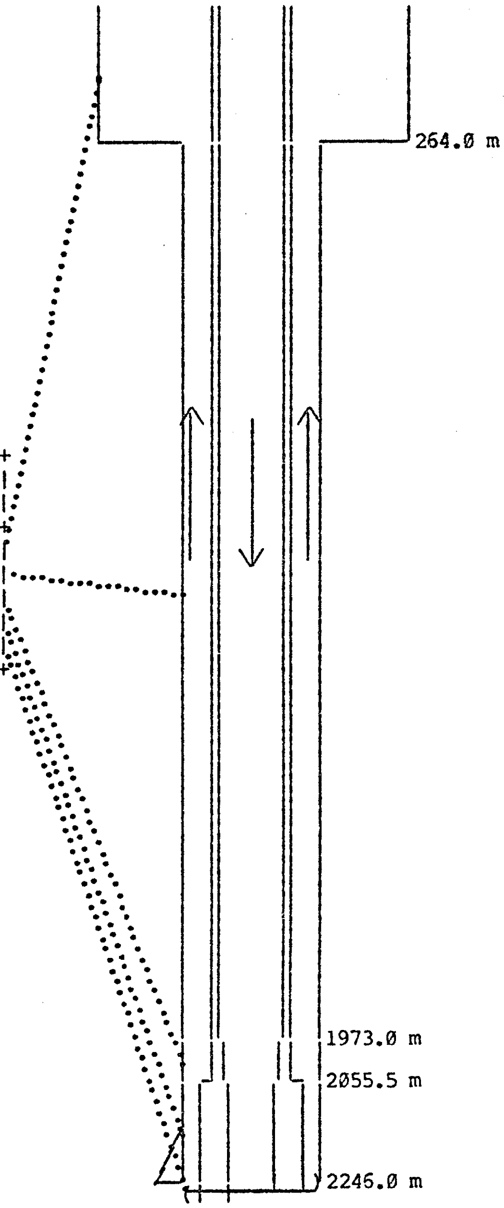
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	11.00 cP
YIELD POINT	10.00 lb/cft^2
POWER LAW k	.4939
POWER LAW n	.6077
DEPTH	2261.0 m
VERTICAL DEPTH	2258.5 m
DEPTH OF RETURNS	2261.0 m
CUTTINGS BULK DENSITY	2.20 spc grv
MUD DENSITY	1.11 spc grv
ACTIVE SURFACE MUD VOLUME	120.08 m^3
FLOW RATE	1488 L/min
BOOSTER FLOW	0 L/min
PUMP PRESSURE	990 psi
PUMP L/stk	18.98 L/stk
BIT NOZZLES	16, 16, 16

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.83	42.91	LAMINAR	.2
264.0	1973.0	1709.0	8.681/ 5.000	58.31	80.58	LAMINAR	57.6
1972.7	2055.5	82.6	8.681/ 5.000	58.31	80.58	LAMINAR	2.8
2055.3	2246.0	190.5	8.681/ 6.500	88.69	101.48	LAMINAR	17.7
2245.8	2261.0	15.0	8.500/ 6.500	97.89	105.41	LAMINAR	1.7

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.681	6.375	5.000	3.500
8.681	6.500	6.500	2.813
8.500	6.500	6.500	2.813



MUD HYDROSTATIC	1.11 spc grv
FLOW CONTRIBUTION	.02 spc grv
CUTTINGS CONTRIBUTION	0.00 spc grv
EQUIVALENT CIRCULATING DENSITY	1.13 spc grv

SURFACE PRESSURE LOSS	19 psi	NOZZLE VELOCITY	65.3 m/sec
PIPEBORE PRESSURE LOSS	412 psi	HYDRAULIC POWER	86.8 hp
ANNULAR PRESSURE LOSS	80 psi	JET IMPACT FORCE	183 kg
BIT PRESSURE LOSS	378 psi	% OF PRESS LOSS AT BIT	43
TOTAL CALC. PRESS LOSS	889 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 78 s.p.m.	
(1) Pipe Capacity	123.37	19.61	1033	13.2	
(2) Pipe Displacement	73.46	11.68	615	7.8	
(3) Total Annulus	617.89	98.24	5176	66.0	<- LAG
(4) Mud in active pits	755.28	120.08	6327	80.7	
Circulation (1) + (3)	741.25	117.85	6209	79.2	
Hole Volume (1)+(2)+(3)	814.71	129.53	6825	87.0	
Total Mud Circulation	1496.53	237.93	12536	159.9	

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 10 Dec 83 Time : 05:43

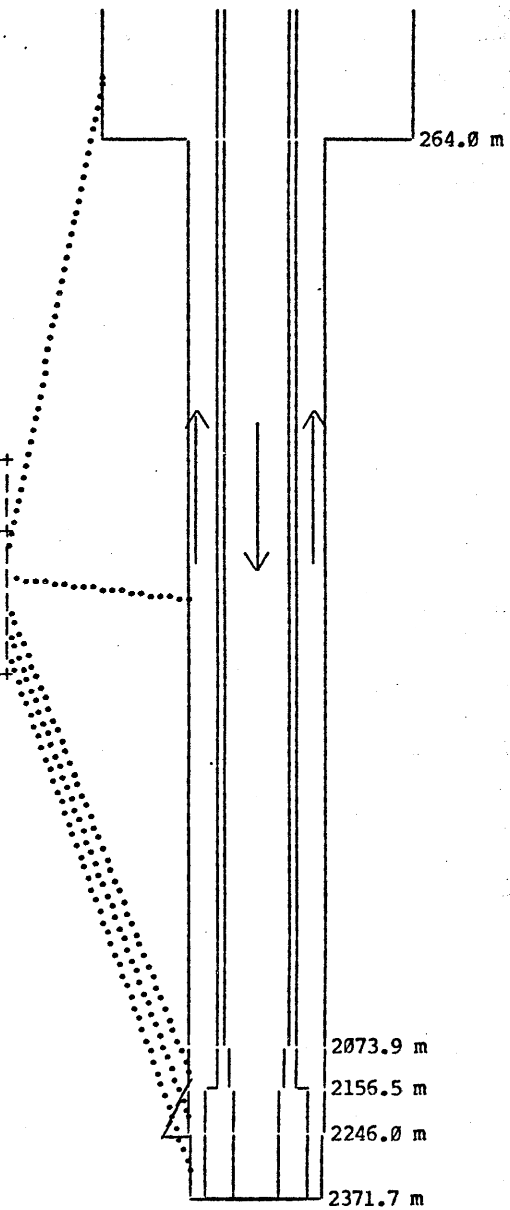
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	15.00	cP
YIELD POINT	16.00	lb/cft^2
POWER LAW k	.9237	
POWER LAW n	.5694	
DEPTH	2371.7	m
VERTICAL DEPTH	2368.4	m
DEPTH OF RETURNS	2360.6	m
CUTTINGS BULK DENSITY	2.20	spc grv
MUD DENSITY	1.11	spc grv
ACTIVE SURFACE MUD VOLUME	149.18	m^3
FLOW RATE	1423	L/min
BOOSTER FLOW	0	L/min
PUMP PRESSURE	2440	psi
PUMP L/stk	18.98	L/stk
BIT NOZZLES	11, 10, 10	

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.49	62.42	LAMINAR	.4
264.0	2073.9	1809.9	8.681/ 5.000	55.77	110.98	LAMINAR	92.9
2073.9	2156.5	82.6	8.681/ 5.000	55.77	110.98	LAMINAR	4.2
2156.5	2246.0	89.5	8.681/ 6.500	84.82	136.98	LAMINAR	12.3
2245.8	2371.7	125.7	8.500/ 6.500	93.61	141.80	LAMINAR	20.9

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.681	6.375	5.000	3.500
8.681	6.500	6.500	2.813
8.500	6.500	6.500	2.813



MUD HYDROSTATIC	1.10	spc grv
FLOW CONTRIBUTION	.04	spc grv
CUTTINGS CONTRIBUTION	.01	spc grv
EQUIVALENT CIRCULATING DENSITY	1.15	spc grv

SURFACE PRESSURE LOSS	17 psi	NOZZLE VELOCITY	149.3 m/sec
PIPEBORE PRESSURE LOSS	431 psi	HYDRAULIC POWER	434.5 hp
ANNULAR PRESSURE LOSS	131 psi	JET IMPACT FORCE	400 kg
BIT PRESSURE LOSS	1981 psi	% OF PRESS LOSS AT BIT	77
TOTAL CALC. PRESS LOSS	2560 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 75 s.p.m.
1) Pipe Capacity	129.50	20.59	1085	14.5
2) Pipe Displacement	76.95	12.23	645	8.6
3) Total Annulus	633.76	100.76	5309	70.8 <- LAG
4) Mud in active pits	938.31	149.18	7860	104.8
Circulation (1) + (3)	763.26	121.35	6393	85.3
Hole Volume (1)+(2)+(3)	840.21	133.58	7038	93.9
Total Mud Circulation	1701.57	270.53	14253	190.1

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 11 Dec 83 Time : 00:26

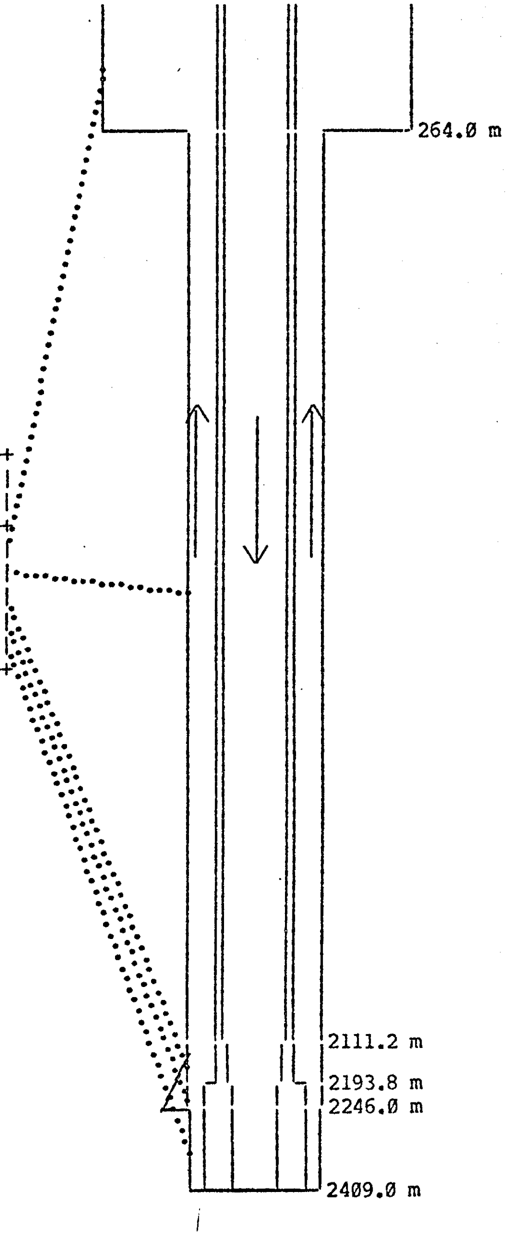
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	15.00 cP
YIELD POINT	16.00 lb/cft^2
POWER LAW k	.9237
POWER LAW n	.5694
DEPTH	2409.0 m
VERTICAL DEPTH	2405.3 m
DEPTH OF RETURNS	2404.4 m
CUTTINGS BULK DENSITY	2.20 spc grv
MUD DENSITY	1.10 spc grv
ACTIVE SURFACE MUD VOLUME	119.94 m^3
FLOW RATE	1423 L/min
BOOSTER FLOW	0 L/min
PUMP PRESSURE	2490 psi
PUMP L/stk	18.98 L/stk
BIT NOZZLES	11, 10, 10

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.49	62.82	LAMINAR	.4
264.0	2111.2	1847.2	8.681/ 5.000	55.77	111.68	LAMINAR	94.8
2111.0	2193.8	82.6	8.681/ 5.000	55.77	111.68	LAMINAR	4.2
2193.6	2246.0	52.2	8.681/ 6.500	84.82	137.85	LAMINAR	7.2
2245.8	2409.0	163.0	8.500/ 6.500	93.61	142.70	LAMINAR	27.1

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.681	6.375	5.000	3.500
8.681	6.500	6.500	2.813
8.500	6.500	6.500	2.813



MUD HYDROSTATIC	1.10 spc grv
FLOW CONTRIBUTION	.04 spc grv
CUTTINGS CONTRIBUTION	.00 spc grv
EQUIVALENT CIRCULATING DENSITY	1.14 spc grv

SURFACE PRESSURE LOSS	17 psi	NOZZLE VELOCITY	149.3 m/sec
PIPEBORE PRESSURE LOSS	433 psi	HYDRAULIC POWER	430.6 hp
ANNULAR PRESSURE LOSS	134 psi	JET IMPACT FORCE	396 kg
BIT PRESSURE LOSS	1963 psi	% OF PRESS LOSS AT BIT	77
TOTAL CALC. PRESS LOSS	2547 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 75 s.p.m.
1) Pipe Capacity	131.67	20.93	1103	14.7
2) Pipe Displacement	77.85	12.38	652	8.7
3) Total Annulus	639.27	101.64	5355	71.4 <- LAG
4) Mud in active pits	754.40	119.94	6319	84.3
Circulation (1) + (3)	770.94	122.57	6458	86.1
Hole Volume (1)+(2)+(3)	848.79	134.95	7110	94.8
Total Mud Circulation	1525.34	242.51	12777	170.4

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 12 Dec 83 Time : 05:48

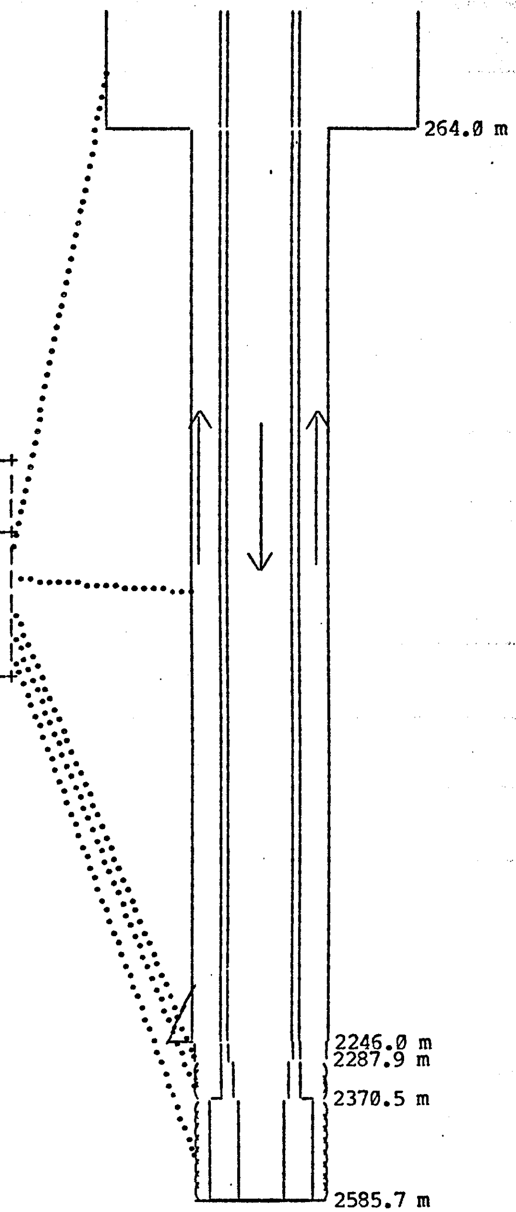
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	15.00 cP
YIELD POINT	14.00 lb/cft^2
POWER LAW k	.7089
POWER LAW n	.6015
DEPTH	2585.7 m
VERTICAL DEPTH	2580.4 m
DEPTH OF RETURNS	2580.2 m
CUTTINGS BULK DENSITY	2.50 spc grv
MUD DENSITY	1.11 spc grv
ACTIVE SURFACE MUD VOLUME	131.31 m^3
FLOW RATE	1461 L/min
BOOSTER FLOW	0 L/min
PUMP PRESSURE	2650 psi
PUMP L/stk	18.98 L/stk
BIT NOZZLES	11, 10, 10

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.69	54.98	LAMINAR	.3
264.0	2246.0	1982.0	8.681/ 5.000	57.26	102.31	LAMINAR	92.0
2245.8	2287.9	41.9	8.500/ 5.000	61.03	104.58	LAMINAR	2.2
2287.8	2370.5	82.6	8.500/ 5.000	61.03	104.58	LAMINAR	4.4
2370.4	2585.7	215.2	8.500/ 6.500	96.12	133.31	LAMINAR	33.5

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.500	6.375	5.000	4.276
8.500	6.375	5.000	3.500
8.500	6.500	6.500	2.813



MUD HYDROSTATIC	1.11 spc grv
FLOW CONTRIBUTION	.04 spc grv
CUTTINGS CONTRIBUTION	.01 spc grv
EQUIVALENT CIRCULATING DENSITY	1.15 spc grv

SURFACE PRESSURE LOSS	18 psi	NOZZLE VELOCITY	153.3 m/sec
PIPEBORE PRESSURE LOSS	483 psi	HYDRAULIC POWER	470.4 hp
ANNULAR PRESSURE LOSS	132 psi	JET IMPACT FORCE	421 kg
BIT PRESSURE LOSS	2089 psi	% OF PRESS LOSS AT BIT	77
TOTAL CALC. PRESS LOSS	2722 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 77 s.p.m.	
1) Pipe Capacity	141.97	22.57	1189	15.4	
2) Pipe Displacement	82.10	13.05	688	8.9	
3) Total Annulus	665.42	105.79	5574	72.4	<- LAG
4) Mud in active pits	825.91	131.31	6918	89.9	
Circulation (1) + (3)	807.39	128.36	6763	87.8	
Hole Volume (1)+(2)+(3)	889.49	141.42	7451	96.8	
Total Mud Circulation	1633.30	259.67	13681	177.7	

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 13 Dec 83 Time : 05:37

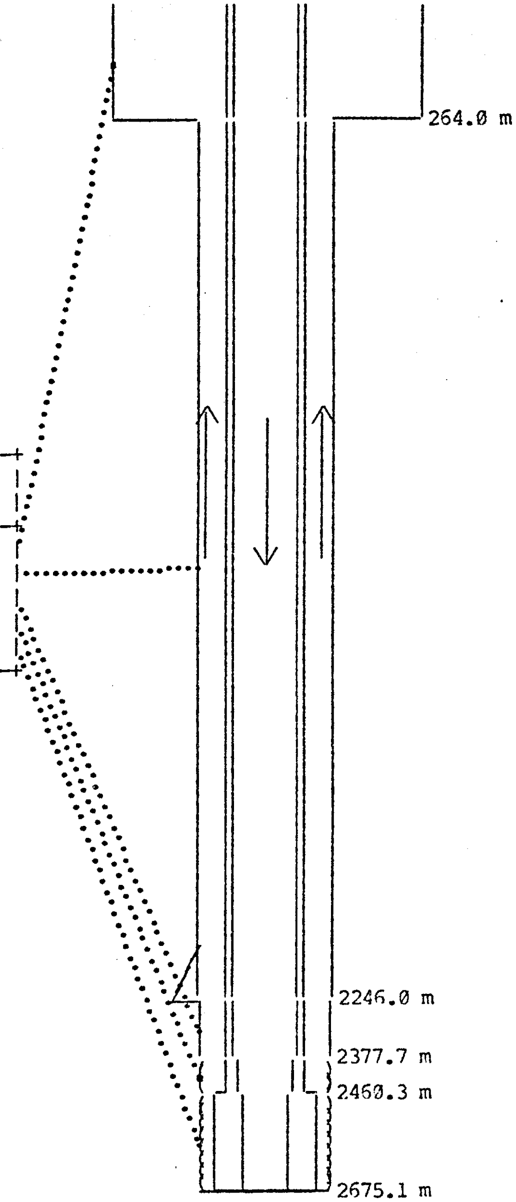
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	17.00 cP
YIELD POINT	16.00 lb/cft^2
POWER LAW k	.8166
POWER LAW n	.5995
DEPTH	2675.1 m
VERTICAL DEPTH	2669.0 m
DEPTH OF RETURNS	2668.0 m
CUTTINGS BULK DENSITY	2.50 spc grv
MUD DENSITY	1.10 spc grv
ACTIVE SURFACE MUD VOLUME	139.37 m^3
FLOW RATE	1442 L/min
BOOSTER FLOW	0 L/min
PUMP PRESSURE	2650 psi
PUMP L/stk	18.98 L/stk
BIT NOZZLES	11, 10, 10

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.59	61.00	LAMINAR	.4
264.0	2246.0	1982.0	8.681/ 5.000	56.51	113.18	LAMINAR	104
2245.8	2377.7	131.7	8.500/ 5.000	60.23	115.68	LAMINAR	7.9
2377.4	2460.3	82.6	8.500/ 5.000	60.23	115.68	LAMINAR	4.9
2460.0	2675.1	214.8	8.500/ 6.500	94.86	147.29	LAMINAR	37.7

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.500	6.375	5.000	4.276
8.500	6.375	5.000	3.500
8.500	6.500	6.500	2.813



MUD HYDROSTATIC	1.10 spc grv
FLOW CONTRIBUTION	.04 spc grv
CUTTINGS CONTRIBUTION	.01 spc grv
EQUIVALENT CIRCULATING DENSITY	1.14 spc grv

SURFACE PRESSURE LOSS	17 psi	NOZZLE VELOCITY	151.3 m/sec
PIPEBORE PRESSURE LOSS	497 psi	HYDRAULIC POWER	448.1 hp
ANNULAR PRESSURE LOSS	155 psi	JET IMPACT FORCE	407 kg
BIT PRESSURE LOSS	2016 psi	% OF PRESS LOSS AT BIT	75
TOTAL CALC. PRESS LOSS	2686 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 76 s.p.m.	
1) Pipe Capacity	147.19	23.40	1233	16.2	
2) Pipe Displacement	84.21	13.39	705	9.3	
3) Total Annulus	678.67	107.90	5685	74.8	<- LAG
4) Mud in active pits	876.61	139.37	7343	96.7	
Circulation (1) + (3)	825.86	131.30	6918	91.1	
Hole Volume (1)+(2)+(3)	910.07	144.69	7623	100.3	
Total Mud Circulation	1702.47	270.67	14261	187.7	

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 14 Dec 83 Time : 05:60

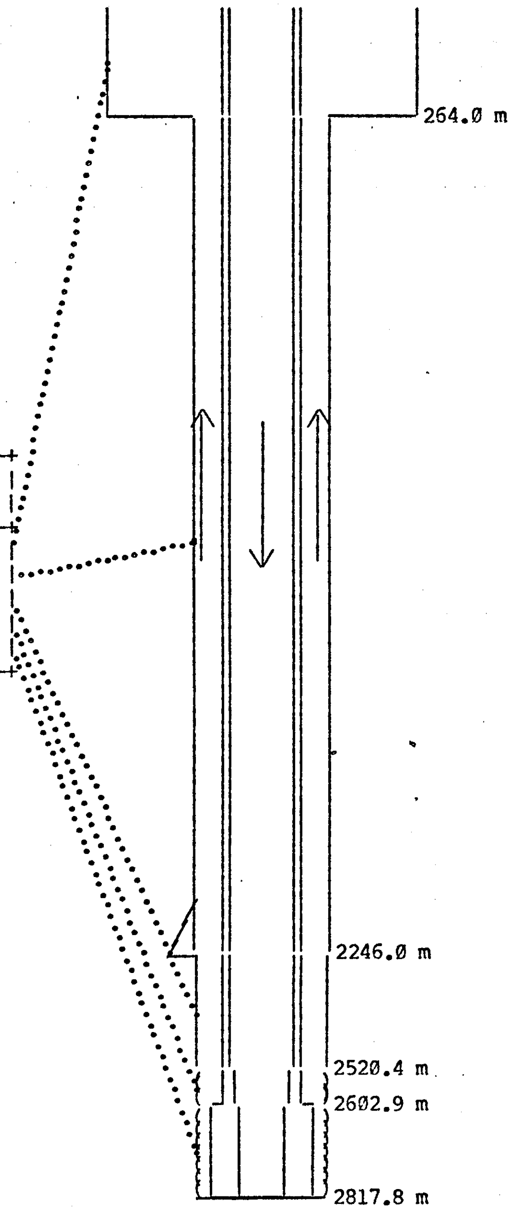
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	15.00 cP
YIELD POINT	14.00 lb/cft^2
POWER LAW k	.7089
POWER LAW n	.6015
DEPTH	2817.8 m
VERTICAL DEPTH	2811.0 m
DEPTH OF RETURNS	2810.8 m
CUTTINGS BULK DENSITY	2.50 spc grv
MUD DENSITY	1.11 spc grv
ACTIVE SURFACE MUD VOLUME	117.71 m^3
FLOW RATE	1442 L/min
BOOSTER FLOW	0 L/min
PUMP PRESSURE	2590 psi
PUMP L/stk	18.98 L/stk
BIT NOZZLES	11, 10, 10

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.59	54.98	LAMINAR	.3
264.0	2246.0	1982.0	8.681/ 5.000	56.52	102.31	LAMINAR	91.3
2245.8	2520.4	274.4	8.500/ 5.000	60.24	104.58	LAMINAR	14.4
2520.1	2602.9	82.6	8.500/ 5.000	60.24	104.58	LAMINAR	4.3
2602.7	2817.8	214.8	8.500/ 6.500	94.88	133.31	LAMINAR	33.1

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.500	6.375	5.000	4.276
8.500	6.375	5.000	3.500
8.500	6.500	6.500	2.813



MUD HYDROSTATIC	1.11 spc grv
FLOW CONTRIBUTION	.04 spc grv
CUTTINGS CONTRIBUTION	.01 spc grv
EQUIVALENT CIRCULATING DENSITY	1.15 spc grv

SURFACE PRESSURE LOSS	18 psi	NOZZLE VELOCITY	151.3 m/sec
PIPEBORE PRESSURE LOSS	501 psi	HYDRAULIC POWER	452.4 hp
ANNULAR PRESSURE LOSS	144 psi	JET IMPACT FORCE	411 kg
BIT PRESSURE LOSS	2035 psi	% OF PRESS LOSS AT BIT	75
TOTAL CALC. PRESS LOSS	2697 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 76 s.p.m.
1) Pipe Capacity	155.50	24.72	1303	17.1
2) Pipe Displacement	87.64	13.93	734	9.7
3) Total Annulus	699.78	111.26	5862	77.1 <- LAG
4) Mud in active pits	740.37	117.71	6202	81.6
Circulation (1) + (3)	855.28	135.98	7164	94.3
Hole Volume (1)+(2)+(3)	942.91	149.91	7898	103.9
Total Mud Circulation	1595.65	253.69	13366	175.9

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 15 Dec 83 Time : 05:49

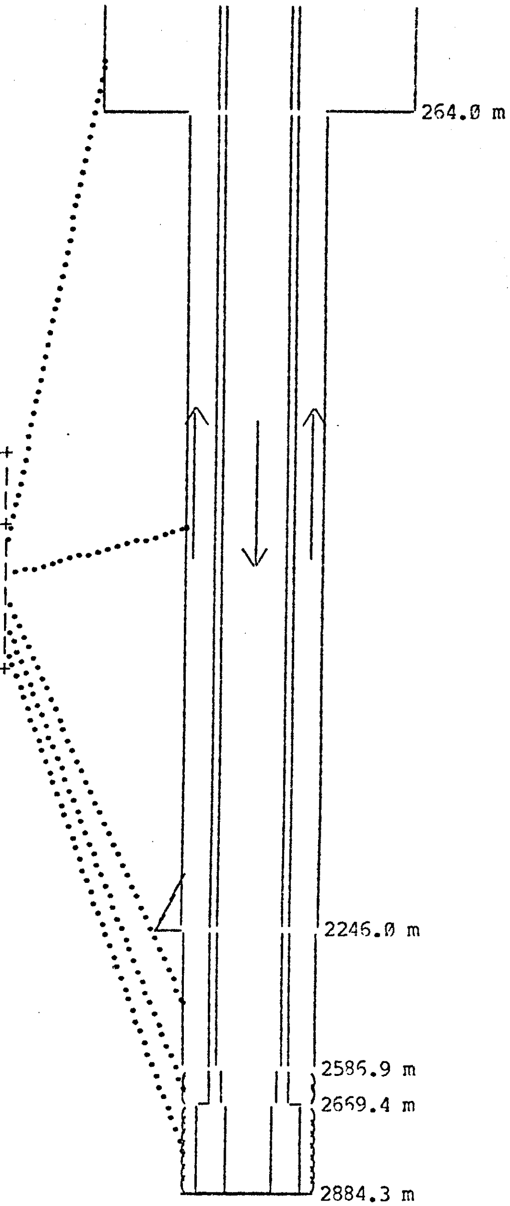
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	14.00 cP
YIELD POINT	14.00 lb/cft^2
POWER LAW k	.7577
POWER LAW n	.5850
DEPTH	2884.3 m
VERTICAL DEPTH	2877.0 m
DEPTH OF RETURNS	2879.5 m
CUTTINGS BULK DENSITY	2.50 spc grv
MUD DENSITY	1.11 spc grv
ACTIVE SURFACE MUD VOLUME	131.02 m^3
FLOW RATE	1472 L/min
BOOSTER FLOW	0 L/min
PUMP PRESSURE	2590 psi
PUMP L/stk	18.98 L/stk
BIT NOZZLES	11, 10, 10

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.75	56.10	LAMINAR	.4
264.0	2246.0	1982.0	8.681/ 5.000	57.70	101.95	LAMINAR	91.5
2245.8	2586.9	340.9	8.500/ 5.000	61.49	104.13	LAMINAR	17.9
2586.8	2669.4	82.6	8.500/ 5.000	61.49	104.13	LAMINAR	4.3
2669.1	2884.3	214.8	8.500/ 6.500	96.85	131.50	LAMINAR	32.7

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.500	6.375	5.000	4.276
8.500	6.375	5.000	3.500
8.500	6.500	6.500	2.813



MUD HYDROSTATIC	1.10 spc grv
FLOW CONTRIBUTION	.04 spc grv
CUTTINGS CONTRIBUTION	.00 spc grv
EQUIVALENT CIRCULATING DENSITY	1.14 spc grv

SURFACE PRESSURE LOSS	18 psi	NOZZLE VELOCITY	154.5 m/sec
PIPEBORE PRESSURE LOSS	511 psi	HYDRAULIC POWER	479.0 hp
ANNULAR PRESSURE LOSS	147 psi	JET IMPACT FORCE	426 kg
BIT PRESSURE LOSS	2111 psi	% OF PRESS LOSS AT BIT	76
TOTAL CALC. PRESS LOSS	2787 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 78 s.p.m.	
1) Pipe Capacity	159.37	25.34	1335	17.2	
2) Pipe Displacement	89.23	14.19	747	9.6	
3) Total Annulus	709.61	112.82	5944	76.6	<- LAG
4) Mud in active pits	824.09	131.02	6903	89.0	
Circulation (1) + (3)	868.99	138.16	7279	93.8	
Hole Volume (1)+(2)+(3)	958.22	152.35	8027	103.5	
Total Mud Circulation	1693.08	269.18	14182	182.8	

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 16 Dec 83 Time : 05:53

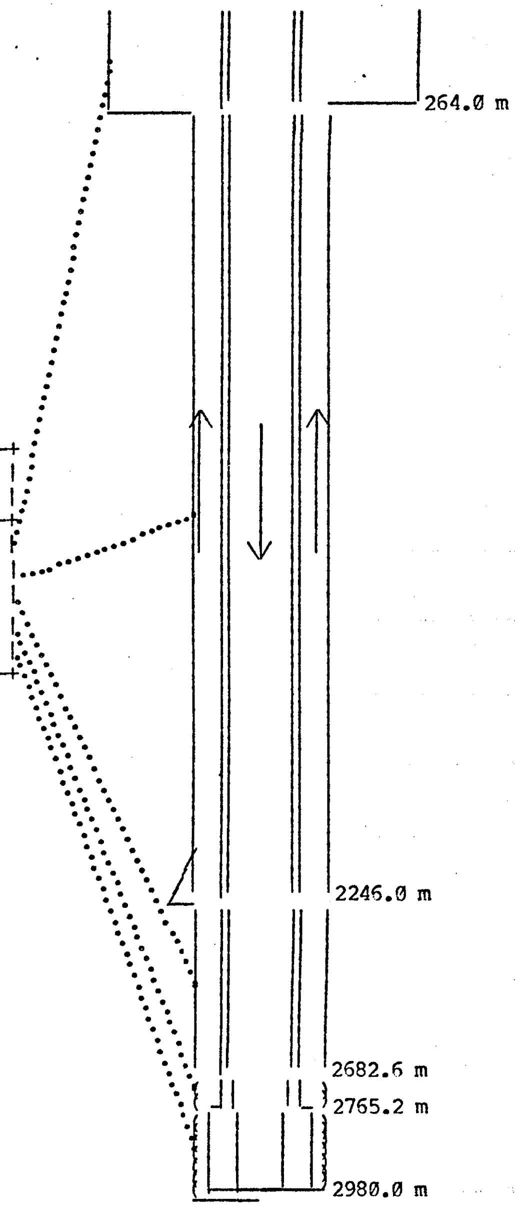
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	16.00 cP
YIELD POINT	12.00 lb/cft^2
POWER LAW k	.5007
POWER LAW n	.6521
DEPTH	2980.0 m
VERTICAL DEPTH	2972.1 m
DEPTH OF RETURNS	2970.9 m
CUTTINGS BULK DENSITY	1.90 spc grv
MUD DENSITY	1.11 spc grv
ACTIVE SURFACE MUD VOLUME	121.90 m^3
FLOW RATE	1446 L/min
BOOSTER FLOW	0 L/min
PUMP PRESSURE	2580 psi
PUMP L/stk	18.98 L/stk
BIT NOZZLES	11, 10, 10

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.61	46.95	LAMINAR	.3
264.0	2246.0	1982.0	8.681/ 5.000	56.67	94.29	LAMINAR	81.7
2245.8	2682.6	436.6	8.500/ 5.000	60.40	96.64	LAMINAR	20.6
2682.5	2765.2	82.6	8.500/ 5.000	60.40	96.64	LAMINAR	3.9
2765.1	2980.0	214.8	8.500/ 6.500	95.13	126.96	LAMINAR	31.2

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.500	6.375	5.000	4.276
8.500	6.375	5.000	3.500
8.500	6.500	6.500	2.813



MUD HYDROSTATIC	1.10 spc grv
FLOW CONTRIBUTION	.03 spc grv
CUTTINGS CONTRIBUTION	.01 spc grv
EQUIVALENT CIRCULATING DENSITY	1.14 spc grv

SURFACE PRESSURE LOSS	18 psi	NOZZLE VELOCITY	151.7 m/sec
PIPEBORE PRESSURE LOSS	541 psi	HYDRAULIC POWER	453.9 hp
ANNULAR PRESSURE LOSS	138 psi	JET IMPACT FORCE	411 kg
BIT PRESSURE LOSS	2036 psi	% OF PRESS LOSS AT BIT	75
TOTAL CALC. PRESS LOSS	2732 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 76 s.p.m.
(1) Pipe Capacity	164.95	26.23	1382	18.1
(2) Pipe Displacement	91.53	14.55	767	10.1
(3) Total Annulus	723.78	115.07	6063	79.6 <- LAG
(4) Mud in active pits	766.73	121.90	6423	84.3
Circulation (1) + (3)	888.73	141.30	7445	97.7
Hole Volume (1)+(2)+(3)	980.26	155.85	8211	107.8
Total Mud Circulation	1655.46	263.20	13867	182.0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 17 Dec 83 Time : 06:29

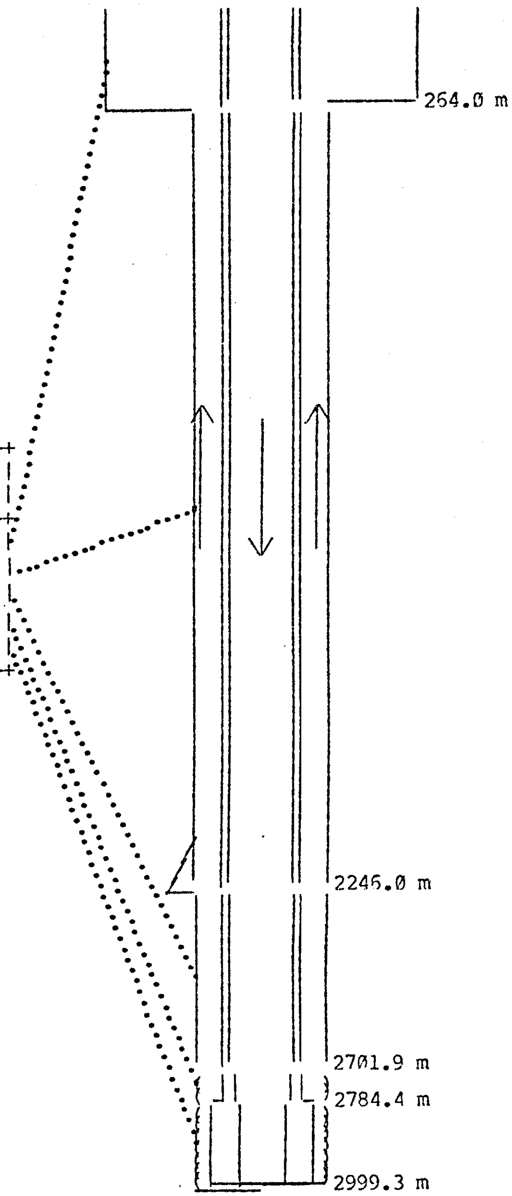
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	17.00 cP
YIELD POINT	13.00 lb/cft^2
POWER LAW k	.5512
POWER LAW n	.6477
DEPTH	2999.3 m
VERTICAL DEPTH	2991.2 m
DEPTH OF RETURNS	2998.7 m
CUTTINGS BULK DENSITY	1.82 spc grv
MUD DENSITY	1.11 spc grv
ACTIVE SURFACE MUD VOLUME	135.04 m^3
FLOW RATE	1445 L/min
BOOSTER FLOW	0 L/min
PUMP PRESSURE	2580 psi
PUMP L/stk	18.98 L/stk
BIT NOZZLES	11, 10, 10

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.60	50.01	LAMINAR	.3
264.0	2246.0	1982.0	8.681/ 5.000	56.63	99.76	LAMINAR	88.1
2245.8	2701.9	455.9	8.500/ 5.000	60.35	102.23	LAMINAR	23.2
2701.7	2784.4	82.6	8.500/ 5.000	60.35	102.23	LAMINAR	4.2
2784.3	2999.3	214.8	8.500/ 6.500	95.06	133.93	LAMINAR	33.5

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.500	6.375	5.000	4.276
8.500	6.375	5.000	3.500
8.500	6.500	6.500	2.813



MUD HYDROSTATIC	1.10 spc grv
FLOW CONTRIBUTION	.04 spc grv
CUTTINGS CONTRIBUTION	.00 spc grv
EQUIVALENT CIRCULATING DENSITY	1.14 spc grv

SURFACE PRESSURE LOSS	18 psi	NOZZLE VELOCITY	151.6 m/sec
PIPEBORE PRESSURE LOSS	551 psi	HYDRAULIC POWER	452.9 hp
ANNULAR PRESSURE LOSS	149 psi	JET IMPACT FORCE	410 kg
BIT PRESSURE LOSS	2034 psi	% OF PRESS LOSS AT BIT	74
TOTAL CALC. PRESS LOSS	2751 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 76 s.p.m.	
1) Pipe Capacity	166.07	26.40	1391	18.3	
2) Pipe Displacement	92.00	14.63	771	10.1	
3) Total Annulus	726.63	115.52	6087	79.9	<- LAG
4) Mud in active pits	849.38	135.04	7115	93.5	
Circulation (1) + (3)	892.70	141.93	7478	98.2	
Hole Volume (1)+(2)+(3)	984.70	156.55	8248	108.3	
Total Mud Circulation	1742.08	276.97	14593	191.7	

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 18 Dec 83 Time : 05:39

HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	14.00 cP
YIELD POINT	13.00 lb/cft^2
POWER LAW k	.6550
POWER LAW n	.6027
DEPTH	3076.8 m
VERTICAL DEPTH	3068.2 m
DEPTH OF RETURNS	3071.7 m
CUTTINGS BULK DENSITY	1.84 spc grv
MUD DENSITY	1.10 spc grv
ACTIVE SURFACE MUD VOLUME	144.30 m^3
FLOW RATE	1429 L/min
BOOSTER FLOW	0 L/min
PUMP PRESSURE	2640 psi
PUMP L/stk	18.98 L/stk
BIT NOZZLES	11, 10, 10

CALCULATED RESULTS:

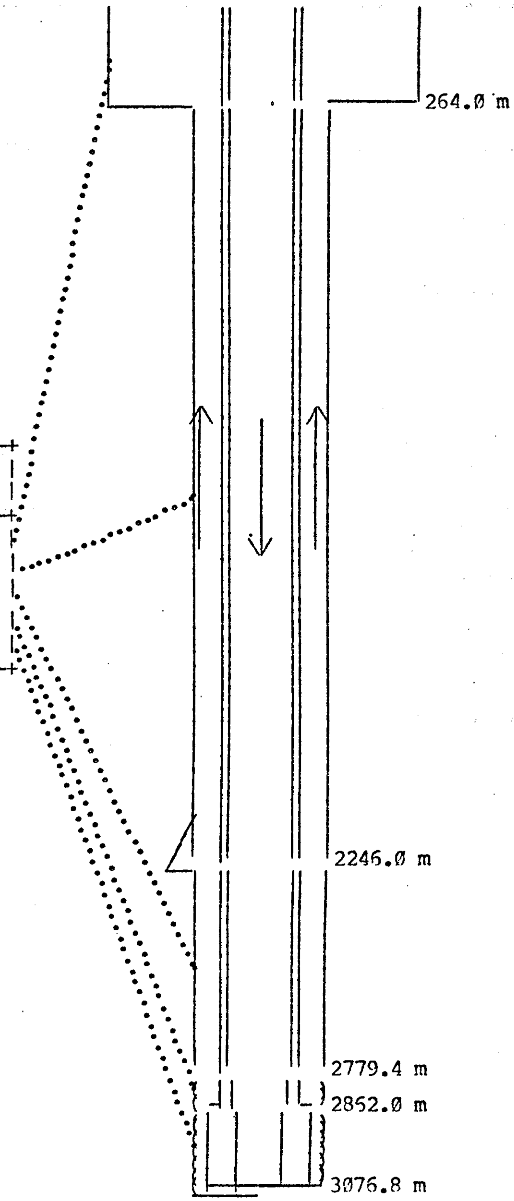
FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.52	52.28	LAMINAR	.3
264.0	2246.0	1982.0	8.681/ 5.000	56.01	97.46	LAMINAR	84.4
2245.8	2779.4	533.4	8.500/ 5.000	59.70	99.63	LAMINAR	25.8
2779.2	2862.0	82.6	8.500/ 5.000	59.70	99.63	LAMINAR	4.0
2861.8	3076.8	214.8	8.500/ 6.500	94.03	127.08	LAMINAR	30.7

MUD HYDROSTATIC	1.10 spc grv
FLOW CONTRIBUTION	.03 spc grv
CUTTINGS CONTRIBUTION	.00 spc grv
EQUIVALENT CIRCULATING DENSITY	1.14 spc grv

SURFACE PRESSURE LOSS	17 psi	NOZZLE VELOCITY	150.0 m/sec
PIPEBORE PRESSURE LOSS	513 psi	HYDRAULIC POWER	437.9 hp
ANNULAR PRESSURE LOSS	145 psi	JET IMPACT FORCE	401 kg
BIT PRESSURE LOSS	1988 psi	% OF PRESS LOSS AT BIT	75
TOTAL CALC. PRESS LOSS	2664 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 75 s.p.m.
(1) Pipe Capacity	170.59	27.12	1429	19.0
(2) Pipe Displacement	93.86	14.92	786	10.4
(3) Total Annulus	738.10	117.35	6183	82.1 <- LAG
(4) Mud in active pits	907.62	144.30	7603	101.0
Circulation (1) + (3)	908.70	144.47	7612	101.1
Hole Volume (1)+(2)+(3)	1002.56	159.39	8398	111.5
Total Mud Circulation	1816.32	288.77	15215	202.0

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.500	6.375	5.000	4.276
8.500	6.375	5.000	3.500
8.500	6.500	6.500	2.813



SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 19 Dec 83 Time : 06:00

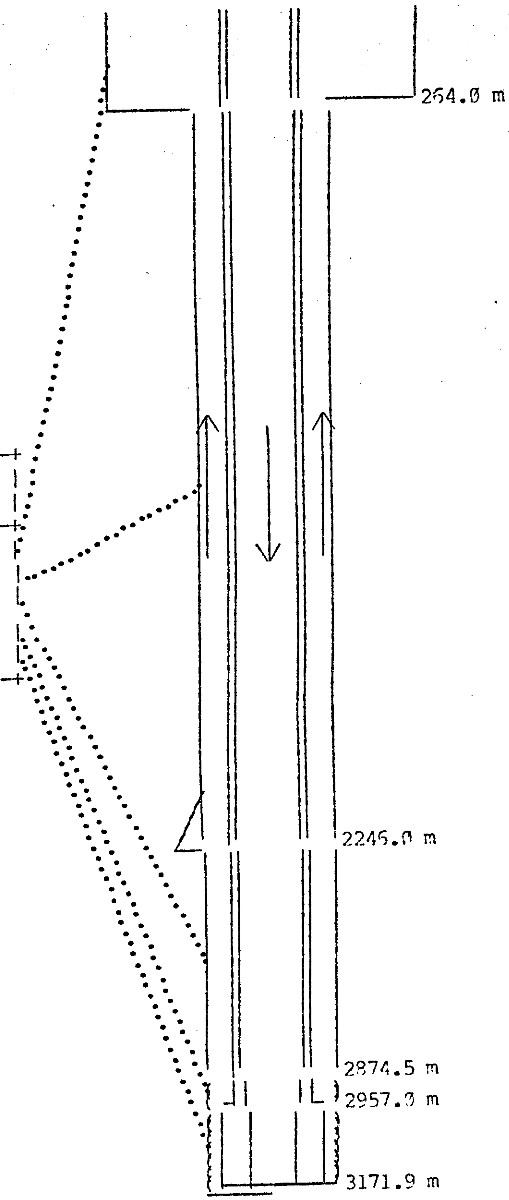
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	14.00 cP
YIELD POINT	15.00 lb/cft^2
POWER LAW k	.8699
POWER LAW n	.5683
DEPTH	3171.9 m
VERTICAL DEPTH	3162.6 m
DEPTH OF RETURNS	3166.6 m
CUTTINGS BULK DENSITY	1.82 spc grv
MUD DENSITY	1.12 spc grv
ACTIVE SURFACE MUD VOLUME	150.91 m^3
FLOW RATE	1465 L/min
BOOSTER FLOW	0 L/min
PUMP PRESSURE	2780 psi
PUMP L/stk	18.98 L/stk
BIT NOZZLES	11, 10, 10

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.71	59.35	LAMINAR	.4
264.0	2246.0	1982.0	8.681/ 5.000	57.41	105.38	LAMINAR	96.9
2245.8	2874.5	628.5	8.500/ 5.000	61.19	107.54	LAMINAR	34.8
2874.3	2957.0	82.6	8.500/ 5.000	61.19	107.54	LAMINAR	4.6
2956.9	3171.9	214.8	8.500/ 6.500	96.37	134.56	LAMINAR	34.0

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.500	6.375	5.000	4.276
8.500	6.375	5.000	3.500
8.500	6.500	6.500	2.813



MUD HYDROSTATIC	1.12 spc grv
FLOW CONTRIBUTION	.04 spc grv
CUTTINGS CONTRIBUTION	.00 spc grv
EQUIVALENT CIRCULATING DENSITY	1.16 spc grv

SURFACE PRESSURE LOSS	18 psi	NOZZLE VELOCITY	153.7 m/sec
PIPEBORE PRESSURE LOSS	544 psi	HYDRAULIC POWER	478.3 hp
ANNULAR PRESSURE LOSS	171 psi	JET IMPACT FORCE	427 kg
BIT PRESSURE LOSS	2119 psi	% OF PRESS LOSS AT BIT	74
TOTAL CALC. PRESS LOSS	2852 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 77 s.p.m.	
1) Pipe Capacity	176.13	28.00	1475	19.1	
2) Pipe Displacement	95.14	15.29	805	10.4	
3) Total Annulus	752.17	119.59	6301	81.6	<- LAG
4) Mud in active pits	949.20	150.91	7951	103.0	
Circulation (1) + (3)	928.30	147.59	7776	100.7	
Hole Volume (1)+(2)+(3)	1024.44	162.87	8581	111.2	
Total Mud Circulation	1877.50	298.50	15727	203.8	
HOLE OUT OF GAUGE:					
CIRCULATION CORRECTION FACTOR =	.9298				
Corrected Annulus	687.00	109.22	5755	74.6	<- LAG
Corrected Hole	959.28	152.51	8035	104.1	

EXLOG

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 21 Dec 83 Time : 06:06

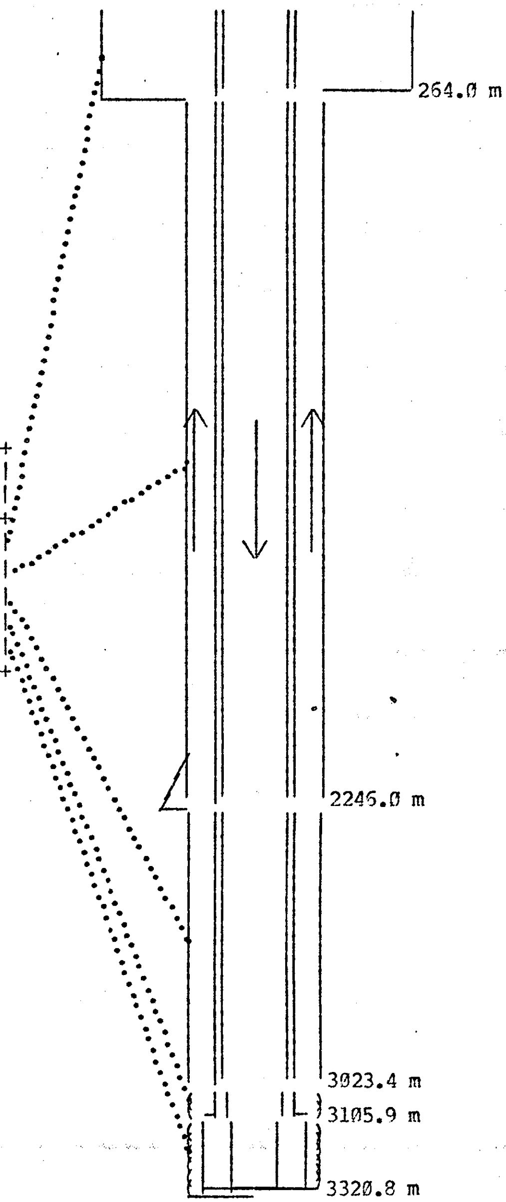
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	12.00 cP
YIELD POINT	15.00 lb/cft^2
POWER LAW k	1.0226
POWER LAW n	.5305
DEPTH	3320.8 m
VERTICAL DEPTH	3310.5 m
DEPTH OF RETURNS	3316.8 m
CUTTINGS BULK DENSITY	1.78 spc grv
MUD DENSITY	1.12 spc grv
ACTIVE SURFACE MUD VOLUME	144.10 m^3
FLOW RATE	1423 L/min
BOOSTER FLOW	0 L/min
PUMP PRESSURE	2590 psi
PUMP L/stk	18.98 L/stk
BIT NOZZLES	10, 10, 11

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.49	61.84	LAMINAR	.5
264.0	2246.0	1982.0	8.681/ 5.000	55.78	104.31	LAMINAR	94.0
2245.3	3023.4	777.4	8.500/ 5.000	59.45	105.25	LAMINAR	41.5
3023.3	3105.9	82.6	8.500/ 5.000	59.45	105.25	LAMINAR	4.4
3105.9	3320.8	214.8	8.500/ 6.500	93.63	130.30	LAMINAR	31.7

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.500	6.375	5.000	4.276
8.500	6.375	5.000	3.500
8.500	6.500	6.500	2.813



MUD HYDROSTATIC	1.12 spc grv
FLOW CONTRIBUTION	.04 spc grv
CUTTINGS CONTRIBUTION	.00 spc grv
EQUIVALENT CIRCULATING DENSITY	1.16 spc grv

SURFACE PRESSURE LOSS	17 psi	NOZZLE VELOCITY	149.3 m/sec
PIPEBORE PRESSURE LOSS	506 psi	HYDRAULIC POWER	438.7 hp
ANNULAR PRESSURE LOSS	172 psi	JET IMPACT FORCE	404.kg
BIT PRESSURE LOSS	2000 psi	% OF PRESS LOSS AT BIT	74
TOTAL CALC. PRESS LOSS	2696 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 75 s.p.m.	
1) Pipe Capacity	184.81	29.38	1548	20.6	
2) Pipe Displacement	99.72	15.85	835	11.1	
3) Total Annulus	774.20	123.09	6485	86.5	<- LAG
4) Mud in active pits	906.36	144.10	7592	101.2	
Circulation (1) + (3)	959.00	152.47	8033	107.1	
Hole Volume (1)+(2)+(3)	1058.73	168.32	8868	118.3	
Total Mud Circulation	1865.37	296.57	15625	208.4	
HOLE OUT OF GAUGE:					
CIRCULATION CORRECTION FACTOR =		.9298			
Corrected Annulus	706.88	112.38	5921	79.0	<- LAG
Corrected Hole	991.40	157.62	8305	110.7	

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 23 Dec 83 , Time : 05:38

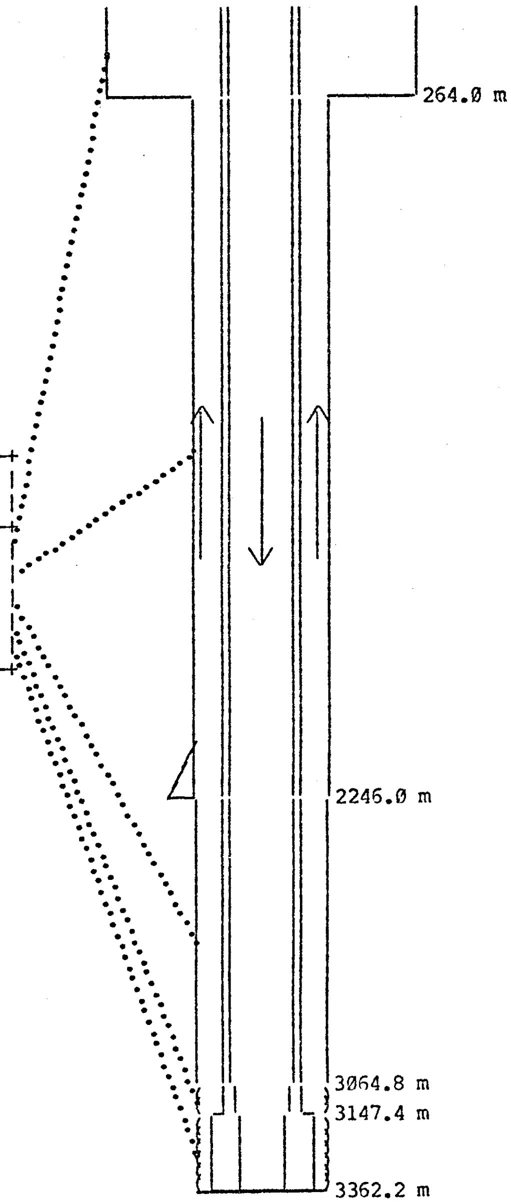
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY 17.00 cP
YIELD POINT 16.00 lb/cft^2
POWER LAW k .8166
POWER LAW n .5995
DEPTH 3362.2 m
VERTICAL DEPTH 3351.7 m
DEPTH OF RETURNS 3357.0 m
CUTTINGS BULK DENSITY 2.50 spc grv
MUD DENSITY 1.13 spc grv
ACTIVE SURFACE MUD VOLUME 147.51 m^3
FLOW RATE 1442 L/min
BOOSTER FLOW 0 L/min
PUMP PRESSURE 2670 psi
PUMP L/stk 18.98 L/stk
BIT NOZZLES 10, 10, 11

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.59	59.95	LAMINAR	.4
264.0	2246.0	1982.0	8.681/ 5.000	56.51	111.24	LAMINAR	104
2245.8	3064.8	818.8	8.500/ 5.000	60.23	113.69	LAMINAR	49.0
3064.8	3147.4	82.6	8.500/ 5.000	60.23	113.69	LAMINAR	4.9
3147.4	3362.2	214.8	8.500/ 6.500	94.86	144.76	LAMINAR	37.7

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.500	6.375	5.000	4.276
8.500	6.375	5.000	3.500
8.500	6.500	6.500	2.813



MUD HYDROSTATIC 1.13 spc grv
FLOW CONTRIBUTION .04 spc grv
CUTTINGS CONTRIBUTION .00 spc grv
EQUIVALENT CIRCULATING DENSITY 1.17 spc grv

SURFACE PRESSURE LOSS 18 psi
PIPEBORE PRESSURE LOSS 594 psi
ANNULAR PRESSURE LOSS 196 psi
BIT PRESSURE LOSS 2065 psi
TOTAL CALC. PRESS LOSS 2874 psi

NOZZLE VELOCITY 151.3 m/sec
HYDRAULIC POWER 459.1 hp
JET IMPACT FORCE 417 kg
% OF PRESS LOSS AT BIT 72

VOLUMES:	bbl	m^3	Strokes	Minutes @ 76 s.p.m.
1) Pipe Capacity	187.23	29.77	1568	20.6
2) Pipe Displacement	100.72	16.01	844	11.1
3) Total Annulus	780.33	124.06	6537	86.0 <- LAG
4) Mud in active pits	927.81	147.51	7772	102.3
Circulation (1) + (3)	967.56	153.83	8105	106.7
Hole Volume (1)+(2)+(3)	1068.28	169.84	8949	117.8
Total Mud Circulation	1895.37	301.34	15877	209.0
HOLE OUT OF GAUGE:				
CIRCULATION CORRECTION FACTOR =	.9298			
Corrected Annulus	712.41	113.26	5968	78.5 <- LAG
Corrected Hole	1000.36	159.04	8380	110.3

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 24 Dec 83 Time : 05:19

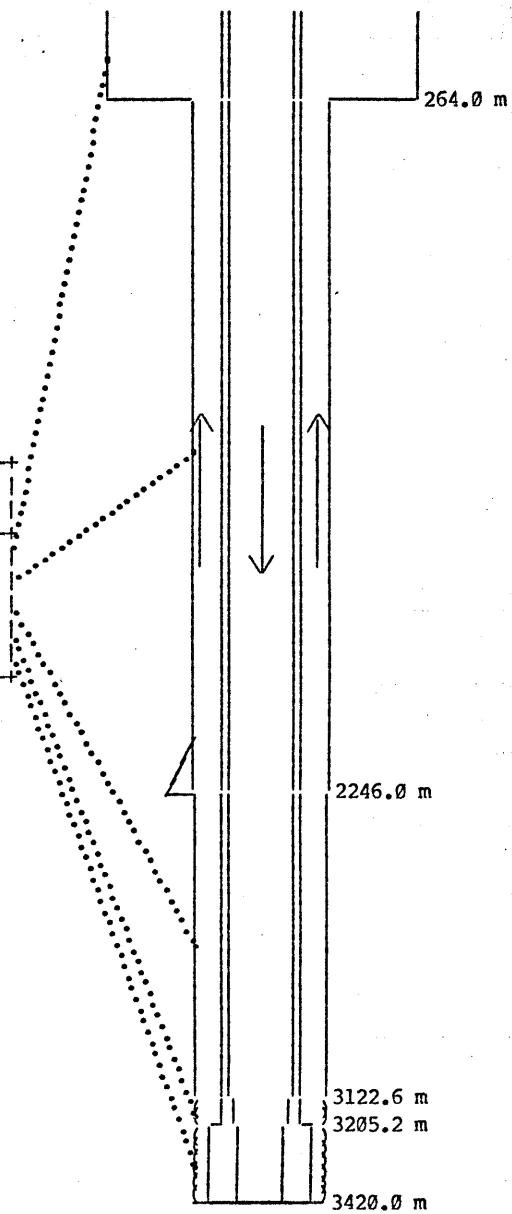
HYDRAULICS CALCULATIONS

PLASTIC VISCOSITY	16.00 cP
YIELD POINT	14.00 lb/cft^2
POWER LAW k	.6675
POWER LAW n	.6167
DEPTH	3420.0 m
VERTICAL DEPTH	3411.7 m
DEPTH OF RETURNS	3419.9 m
CUTTINGS BULK DENSITY	2.50 spc grv
MUD DENSITY	1.13 spc grv
ACTIVE SURFACE MUD VOLUME	146.95 m^3
FLOW RATE	1423 L/min
BOOSTER FLOW	0 L/min
PUMP PRESSURE	2640 psi
PUMP L/stk	18.98 L/stk
BIT NOZZLES	10, 10, 11

CALCULATED RESULTS:

FROM m	TO m	LENGTH m	ANNULUS/PIPE in	ANN VELO. m/min	CRIT VELO m/min	FLOW REGIME	PRESS LOSS psi
0.0	264.0	264.0	20.000/ 5.000	7.49	53.57	LAMINAR	.3
264.0	2246.0	1982.0	8.681/ 5.000	55.77	101.94	LAMINAR	91.5
2245.8	3122.6	876.6	8.500/ 5.000	59.44	104.28	LAMINAR	46.1
3122.4	3205.2	82.6	8.500/ 5.000	59.44	104.28	LAMINAR	4.3
3205.0	3420.0	214.8	8.500/ 6.500	93.61	134.11	LAMINAR	33.7

Annulus Diam	Pipe j.d.	Pipe o.d.	Pipe i.d.
20.000	6.375	5.000	4.276
8.681	6.375	5.000	4.276
8.500	6.375	5.000	4.276
8.500	6.375	5.000	3.500
8.500	6.500	6.500	2.813



MUD HYDROSTATIC	1.13 spc grv
FLOW CONTRIBUTION	.04 spc grv
CUTTINGS CONTRIBUTION	.00 spc grv
EQUIVALENT CIRCULATING DENSITY	1.16 spc grv

SURFACE PRESSURE LOSS	17 psi	NOZZLE VELOCITY	149.3 m/sec
PIPEBORE PRESSURE LOSS	583 psi	HYDRAULIC POWER	441.1 hp
ANNULAR PRESSURE LOSS	176 psi	JET IMPACT FORCE	406 kg
BIT PRESSURE LOSS	2011 psi	% OF PRESS LOSS AT BIT	72
TOTAL CALC. PRESS LOSS	2788 psi		

VOLUMES:	bbl	m^3	Strokes	Minutes @ 75 s.p.m.	
(1) Pipe Capacity	130.59	30.30	1596	21.3	
(2) Pipe Displacement	102.11	16.23	855	11.4	
(3) Total Annulus	788.88	125.42	6608	88.1	<- LAG
(4) Mud in active pits	924.29	146.95	7742	103.3	
Circulation (1) + (3)	979.47	155.72	8205	109.4	
Hole Volume (1)+(2)+(3)	1081.58	171.96	9060	120.8	
Total Mud Circulation	1903.76	302.67	15947	212.7	
HOLE OUT OF GAUGE:					
CIRCULATION CORRECTION FACTOR =		.9298			
Corrected Annulus	720.12	114.49	6032	80.5	<- LAG
Corrected Hole	1012.82	161.03	8484	113.2	

APPENDIX G

LAG DATA PRINTOUT

SHELL DEV. AUST: BASKER SOUTH No.1
Date : 5 Dec 83 Time : 08:38

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm
7	711.1	1.55	66	0	~~~~~~~~~~~	.1400	800	0	0	0	0
8	715.0	1.55	66	0	~~~~~~~~~~~	.1400	800	0	0	0	0
9	720.0	1.55	66	0	~~~~~~~~~~~	.1400	892	0	0	0	0
10	725.0	1.55	66	0	~~~~~~~~~~~	.1400	892	0	0	0	0
11	730.0	1.55	66	0	~~~~~~~~~~~	.2800	2240	0	0	0	0
12	735.0	1.55	66	0	~~~~~~~~~~~	.2800	2240	0	0	0	0
13	740.0	1.55	64	0	~~~~~~~~~~~	.2800	4208	0	0	0	0
14	745.0	1.55	64	0	~~~~~~~~~~~	.4400	3400	0	0	0	0
15	750.1	1.55	64	0	~~~~~~~~~~~	.4400	3400	0	0	0	0
16	755.0	1.56	74	2	~~~~~~~~~~~	.2800	2600	0	0	0	0
17	760.0	1.56	74	2	~~~~~~~~~~~	.2800	2600	0	0	0	0
18	765.0	1.56	74	2	~~~~~~~~~~~	.3600	2950	0	0	0	0
19	770.0	1.56	74	2	~~~~~~~~~~~	.3600	2950	0	0	0	0
20	775.0	1.56	76	4	~~~~~~~~~~~	.2000	2295	0	0	0	0
21	780.0	1.56	76	4	~~~~~~~~~~~	.2000	2295	0	0	0	0
22	785.0	1.58	76	4	~~~~~~~~~~~	.3200	2933	0	0	0	0
23	790.1	1.58	76	4	~~~~~~~~~~~	.3200	2933	0	0	0	0
24	795.0	1.58	68	2	~~~~~~~~~~~	.1200	1220	0	0	0	0
25	800.0	1.58	68	2	~~~~~~~~~~~	.1200	1220	0	0	0	0
26	805.0	1.58	68	2	~~~~~~~~~~~	.1400	1380	0	0	0	0
27	810.2	1.58	68	2	~~~~~~~~~~~	.1400	1380	0	0	0	0
28	815.0	1.58	58	2	~~~~~~~~~~~	.1600	1520	0	0	0	0
29	820.1	1.58	58	2	~~~~~~~~~~~	.1600	1520	0	0	0	0
30	825.1	1.55	58	4	~~~~~~~~~~~	.1600	1545	0	0	0	0
31	830.0	1.55	58	4	~~~~~~~~~~~	.1600	1545	0	0	0	0
32	835.0	1.55	50	4	~~~~~~~~~~~	.1600	1550	0	0	0	0
33	840.1	1.55	50	4	~~~~~~~~~~~	.1600	1550	0	0	0	0
34	845.1	1.55	50	4	~~~~~~~~~~~	.1600	1593	0	0	0	0
35	850.0	1.55	50	4	~~~~~~~~~~~	.1600	1593	0	0	0	0
36	855.1	1.55	50	4	~~~~~~~~~~~	.0900	892	0	0	0	0
37	860.0	1.55	50	4	~~~~~~~~~~~	.0900	892	0	0	0	0
38	865.0	1.55	50	4	~~~~~~~~~~~	.1400	1300	0	0	0	0
39	870.0	1.55	50	4	~~~~~~~~~~~	.1400	1300	0	0	0	0
40	875.0	1.55	52	4	~~~~~~~~~~~	.3000	3060	0	0	0	0
41	880.0	1.55	52	4	~~~~~~~~~~~	.3000	3060	0	0	0	0
42	885.0	1.55	52	4	~~~~~~~~~~~	.1800	1842	0	0	0	0
43	890.0	1.55	52	4	~~~~~~~~~~~	.1800	1842	0	0	0	0
44	895.0	1.55	60	4	~~~~~~~~~~~	.2400	2293	0	0	0	0
45	900.0	1.55	60	4	~~~~~~~~~~~	.2400	2293	0	0	0	0
46	905.0	1.58	60	4	~~~~~~~~~~~	.3000	3092	0	0	0	0
47	910.0	1.58	60	4	~~~~~~~~~~~	.3000	3092	0	0	0	0
48	915.0	1.58	60	4	~~~~~~~~~~~	.2200	2233	0	0	0	0
49	920.1	1.58	46	7	~~~~~~~~~~~	.2200	2233	0	0	0	0
50	925.0	1.58	46	7	~~~~~~~~~~~	.1200	1280	0	0	0	0
51	930.0	1.58	46	7	~~~~~~~~~~~	.1200	1280	0	0	0	0
52	935.0	1.58	46	7	~~~~~~~~~~~	.1000	1073	0	0	0	0
53	940.0	1.58	46	7	~~~~~~~~~~~	.1000	1073	0	0	0	0
54	945.0	1.58	66	4	~~~~~~~~~~~	.2000	1950	0	0	0	0
55	950.0	1.58	66	4	~~~~~~~~~~~	.2000	1950	0	0	0	0
56	955.0	1.58	66	4	~~~~~~~~~~~	.2000	1912	0	0	0	0
57	960.0	1.58	59	4	~~~~~~~~~~~	.2000	1912	0	0	0	0
58	965.0	1.58	59	4	~~~~~~~~~~~	.1800	1785	0	0	0	0

LAG DATA PRINT

SHELL DEV. AUST: BASKER SOUTH No.1
Date : 5 Dec 83 Time : 08:41

FILE#	DEPTH	BULK DENSITY spc grv	CALC/	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm
59	970.0	1.58	59	4	~~~~~~~~~~~	.1800	1785	0	0	0	0
60	975.0	1.58	59	4	~~~~~~~~~~~	.2200	2213	0	0	0	0
61	980.0	1.58	64	3	~~~~~~~~~~~	.2200	2231	0	0	0	0
62	985.0	1.58	64	3	~~~~~~~~~~~	.1400	1470	0	0	0	0
63	990.0	1.61	64	3	~~~~~~~~~~~	.1400	1470	0	0	0	0
64	995.0	1.61	64	3	~~~~~~~~~~~	.1200	1275	0	0	0	0
65	1000.0	1.61	64	3	~~~~~~~~~~~	.1200	1275	0	0	0	0
66	1005.1	1.61	64	3	~~~~~~~~~~~	.1000	1020	0	0	0	0
67	1010.0	1.61	64	3	~~~~~~~~~~~	.1000	1020	0	0	0	0
68	1015.0	1.61	64	3	~~~~~~~~~~~	.1200	1275	0	0	0	0
69	1020.0	1.61	64	3	~~~~~~~~~~~	.1200	1275	0	0	0	0
70	1025.0	1.61	74	3	~~~~~~~~~~~	.1200	1275	0	0	0	0
71	1030.0	1.55	68	3	~~~~~~~~~~~	.2000	1912	0	0	0	0
72	1035.0	1.55	68	3	~~~~~~~~~~~	.1600	1660	0	0	0	0
73	1040.0	1.55	68	3	~~~~~~~~~~~	.1600	1660	0	0	0	0
74	1045.0	1.55	68	3	~~~~~~~~~~~	.2800	2770	0	0	0	0
75	1050.0	1.55	68	3	~~~~~~~~~~~	.2800	2770	0	0	0	0
76	1055.0	1.55	68	3	~~~~~~~~~~~	.2200	2150	0	0	0	0
77	1060.0	1.55	59	2	~~~~~~~~~~~	.2200	2150	0	0	0	0
78	1065.0	1.55	59	2	~~~~~~~~~~~	.3000	2903	0	0	0	0
79	1070.0	1.58	59	2	~~~~~~~~~~~	.3000	2903	0	0	0	0
80	1075.0	1.58	59	2	~~~~~~~~~~~	.2600	2577	0	0	0	0
81	1080.1	1.58	68	2	~~~~~~~~~~~	.2500	2577	0	0	0	0
82	1085.0	1.58	68	2	~~~~~~~~~~~	.2600	2577	0	0	0	0
83	1090.0	1.58	68	2	~~~~~~~~~~~	.2600	2577	0	0	0	0
84	1095.0	1.58	68	2	~~~~~~~~~~~	.2200	2150	0	0	0	0
85	1100.0	1.58	63	4	~~~~~~~~~~~	.2200	2150	0	0	0	0
86	1105.0	1.58	68	4	~~~~~~~~~~~	.2200	2150	0	0	0	0
87	1110.1	1.55	68	4	~~~~~~~~~~~	.2200	2150	0	0	0	0
88	1115.0	1.55	58	4	~~~~~~~~~~~	.2600	2550	0	0	0	0
89	1120.0	1.55	65	5	~~~~~~~~~~~	.2600	2550	0	0	0	0
90	1125.1	1.55	65	5	~~~~~~~~~~~	.2400	2405	0	0	0	0
91	1130.0	1.55	65	5	~~~~~~~~~~~	.2400	2405	0	0	0	0
92	1135.0	1.55	65	5	~~~~~~~~~~~	.2600	2620	0	0	0	0
93	1140.0	1.55	65	5	~~~~~~~~~~~	.2600	2620	0	0	0	0
94	1145.0	1.55	65	5	~~~~~~~~~~~	.2600	2620	0	0	0	0
97	1150.0	1.55	65	5	~~~~~~~~~~~	.2400	2491	0	0	0	0
98	1155.2	1.55	65	5	~~~~~~~~~~~	.3600	3522	0	0	0	0
99	1160.0	1.55	65	5	~~~~~~~~~~~	.3600	3522	0	0	0	0
100	1165.1	1.55	65	5	~~~~~~~~~~~	.5000	5000	0	0	0	0
101	1170.0	1.55	65	5	~~~~~~~~~~~	.5000	5000	0	0	0	0
102	1175.0	1.55	65	5	~~~~~~~~~~~	.4200	4295	0	0	0	0
103	1180.0	1.55	65	5	~~~~~~~~~~~	.4200	4295	0	0	0	0
104	1185.1	1.55	65	5	~~~~~~~~~~~	.3800	3820	0	0	0	0
105	1190.0	1.55	65	5	~~~~~~~~~~~	.3800	3820	0	0	0	0
106	1195.0	1.58	64	4	~~~~~~~~~~~	.4000	3865	0	0	0	0
107	1200.0	1.58	64	4	~~~~~~~~~~~	.4000	3865	0	0	0	0
108	1205.0	1.58	64	2	~~~~~~~~~~~	.4500	4330	0	0	0	0
109	1210.0	1.58	58	2	~~~~~~~~~~~	.4500	4380	0	0	0	0
110	1215.0	1.58	58	2	~~~~~~~~~~~	.3200	3265	0	0	0	0
111	1220.0	1.58	58	2	~~~~~~~~~~~	.3200	3265	0	0	0	0
112	1225.0	1.58	58	2	~~~~~~~~~~~	.3600	3780	0	0	0	0

SHELL DEV. AUST: BASKER SOUTH No.1
Date : 5 Dec 83 Time : Ø8:43

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/ %	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm
113	123Ø.Ø	1.58	58	2	~~~~~~~~~~~	.36ØØ	378Ø	Ø	Ø	Ø	Ø
114	1235.Ø	1.58	6Ø	2	~~~~~~~~~~~	.36ØØ	378Ø	Ø	Ø	Ø	Ø
115	124Ø.Ø	1.58	6Ø	2	~~~~~~~~~~~	.38ØØ	378Ø	Ø	Ø	Ø	Ø
116	1245.Ø	1.58	6Ø	2	~~~~~~~~~~~	.36ØØ	36ØØ	Ø	Ø	Ø	Ø
117	125Ø.Ø	1.58	6Ø	2	~~~~~~~~~~~	.35ØØ	35ØØ	Ø	Ø	Ø	Ø
118	1255.Ø	1.58	62	5	~~~~~~~~~~~	.34ØØ	3436	Ø	Ø	Ø	Ø
119	126Ø.Ø	1.58	62	5	~~~~~~~~~~~	.34ØØ	3436	Ø	Ø	Ø	Ø
12Ø	1265.Ø	1.58	62	5	~~~~~~~~~~~	.3ØØØ	3Ø92	Ø	Ø	Ø	Ø
121	127Ø.Ø	1.58	62	5	~~~~~~~~~~~	.3ØØØ	3Ø92	Ø	Ø	Ø	Ø
123	1275.Ø	1.58	62	5	~~~~~~~~~~~	.5ØØØ	4982	Ø	Ø	Ø	Ø
124	128Ø.1	1.58	62	4	~~~~~~~~~~~	.5ØØØ	4982	Ø	Ø	Ø	Ø
125	1285.Ø	1.58	62	4	~~~~~~~~~~~	.48ØØ	48ØØ	Ø	Ø	Ø	Ø
126	129Ø.Ø	1.58	62	4	~~~~~~~~~~~	.48ØØ	48ØØ	Ø	Ø	Ø	Ø
127	1295.Ø	1.55	62	4	~~~~~~~~~~~	.48ØØ	48ØØ	Ø	Ø	Ø	Ø
128	13ØØ.Ø	1.55	52	4	~~~~~~~~~~~	.48ØØ	48ØØ	Ø	Ø	Ø	Ø
129	13Ø5.Ø	1.55	62	4	~~~~~~~~~~~	.42ØØ	483Ø	Ø	Ø	Ø	Ø
13Ø	131Ø.Ø	1.55	62	4	~~~~~~~~~~~	.42ØØ	483Ø	Ø	Ø	Ø	Ø
131	1315.Ø	1.55	62	4	~~~~~~~~~~~	.52ØØ	5154	Ø	Ø	Ø	Ø
132	132Ø.Ø	1.55	62	4	~~~~~~~~~~~	.52ØØ	5154	Ø	Ø	Ø	Ø
133	1325.Ø	1.55	62	4	~~~~~~~~~~~	.52ØØ	5154	Ø	Ø	Ø	Ø
134	133Ø.Ø	1.55	62	4	~~~~~~~~~~~	.52ØØ	5154	Ø	Ø	Ø	Ø
135	1335.Ø	1.55	55	3	~~~~~~~~~~~	.52ØØ	5154	Ø	Ø	Ø	Ø
136	134Ø.Ø	1.55	55	3	~~~~~~~~~~~	.52ØØ	5154	Ø	Ø	Ø	Ø
138	1345.Ø	1.55	55	3	~~~~~~~~~~~	.24ØØ	24Ø5	Ø	Ø	Ø	Ø
139	135Ø.Ø	1.57	6Ø	3	~~~~~~~~~~~	.24ØØ	24Ø5	Ø	Ø	Ø	Ø
14Ø	1355.1	1.57	6Ø	3	~~~~~~~~~~~	.44ØØ	445Ø	Ø	Ø	Ø	Ø
141	136Ø.Ø	1.57	64	2	~~~~~~~~~~~	.44ØØ	445Ø	Ø	Ø	Ø	Ø
142	1365.Ø	1.57	64	2	~~~~~~~~~~~	.22ØØ	2236	Ø	Ø	Ø	Ø
143	137Ø.Ø	1.57	64	2	~~~~~~~~~~~	.22ØØ	2236	Ø	Ø	Ø	Ø
146	1375.Ø	1.57	64	2	~~~~~~~~~~~	.24ØØ	24Ø8	Ø	Ø	Ø	Ø
147	138Ø.Ø	1.57	56	2	~~~~~~~~~~~	.24ØØ	24Ø8	Ø	Ø	Ø	Ø
148	1385.Ø	1.57	56	2	~~~~~~~~~~~	.24ØØ	24Ø8	Ø	Ø	Ø	Ø
149	139Ø.Ø	1.57	56	2	~~~~~~~~~~~	.24ØØ	24Ø8	Ø	Ø	Ø	Ø
15Ø	1395.Ø	1.57	56	2	~~~~~~~~~~~	.2ØØØ	2Ø62	Ø	Ø	Ø	Ø
152	14ØØ.Ø	1.58	67	3	~~~~~~~~~~~	.2ØØØ	2Ø62	Ø	Ø	Ø	Ø
153	14Ø5.Ø	1.58	67	3	~~~~~~~~~~~	.18ØØ	17ØØ	Ø	Ø	Ø	Ø
154	141Ø.Ø	1.58	67	3	~~~~~~~~~~~	.18ØØ	17ØØ	Ø	Ø	Ø	Ø
155	1415.Ø	1.58	67	3	~~~~~~~~~~~	.14ØØ	1376	Ø	Ø	Ø	Ø
156	142Ø.Ø	1.58	4Ø	2	~~~~~~~~~~~	.14ØØ	1376	Ø	Ø	Ø	Ø
157	1425.1	1.58	4Ø	2	~~~~~~~~~~~	.12ØØ	12Ø4	Ø	Ø	Ø	Ø
158	143Ø.1	1.58	4Ø	2	~~~~~~~~~~~	.12ØØ	12Ø4	Ø	Ø	Ø	Ø
159	1435.Ø	1.58	62	3	LL~~~~~~~~~	.Ø6ØØ	67Ø	Ø	Ø	Ø	Ø
16Ø	144Ø.Ø	1.55	62	3	LL~~~~~~~~~	.Ø6ØØ	67Ø	Ø	Ø	Ø	Ø
161	1445.Ø	1.55	62	3	LL~~~~~~~~~	.12ØØ	1238	Ø	Ø	Ø	Ø
162	145Ø.Ø	1.55	62	3	~~~~~~~~~~~	.12ØØ	1238	Ø	Ø	Ø	Ø
163	1455.Ø	1.55	62	3	~~~~~~~~~~~	.14ØØ	1449	Ø	Ø	Ø	Ø
164	146Ø.Ø	1.55	66	4	~~~~~~~~~~~	.14ØØ	1449	Ø	Ø	Ø	Ø
165	1465.1	1.55	66	4	~~~~~~~~~~~	.14ØØ	1449	Ø	Ø	Ø	Ø
166	147Ø.Ø	1.55	66	4	LL~~~~~~~~~	.12ØØ	1135	Ø	Ø	Ø	Ø
167	1475.Ø	1.55	66	4	LL~~~~~~~~~	.Ø8ØØ	78Ø	Ø	Ø	Ø	Ø
168	148Ø.Ø	1.55	5Ø	2	LL~~~~~~~~~	.Ø8ØØ	78Ø	Ø	Ø	Ø	Ø
169	1485.Ø	1.55	5Ø	2	L~~~~~~~~~~	.12ØØ	1135	Ø	Ø	Ø	Ø

SHELL DEV. AUST: BASKER SOUTH No.1
Date : 5 Dec 83 Time : 08:45

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/ DOLOM %		LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm
170	1490.0	1.55	50	2	L~~~~~~~~~	.1200	1135	0	0	0	0
171	1495.0	1.55	50	2	L~~~~~~~~~	.1000	1033	0	0	0	0
172	1500.0	1.55	57	3	L~~~~~~~~~	.1000	1033	0	0	0	0
173	1505.0	1.55	57	3	L~~~~~~~~~	.0800	826	0	0	0	0
174	1510.0	1.55	57	3	LL~~~~~~~~	.0800	826	0	0	0	0
175	1515.0	1.55	57	3	LL~~~~~~~~	.0800	774	0	0	0	0
176	1520.0	1.61	62	3	LLL~~~~~~~	.0800	774	0	0	0	0
177	1525.0	1.61	62	3	LLL~~~~~~~	.1400	1428	0	0	0	0
178	1530.0	1.61	62	3	LLL~~~~~~~	.1400	1428	0	0	0	0
179	1535.0	1.61	62	3	LLL~~~~~~~	.1600	1650	0	0	0	0
180	1540.0	1.61	69	3	LL~~~~~~~~	.1600	1650	0	0	0	0
181	1545.0	1.61	69	3	LL~~~~~~~~	.2000	1978	0	0	0	0
182	1550.0	1.61	69	3	LLL~~~~~~~	.2000	1978	0	0	0	0
183	1555.0	1.61	69	3	LLL~~~~~~~	.2000	1978	0	0	0	0
184	1560.0	1.55	60	3	LLLLL~~~~~	.2600	2580	0	0	0	0
185	1565.1	1.55	60	3	LLLLL~~~~~	.2600	2580	0	0	0	0
186	1570.1	1.55	60	3	LLLLL~~~~~	.2600	2550	0	0	0	0
187	1575.0	1.55	45	3	LLLLL~~~~~	.2600	2550	0	0	0	0
188	1580.0	1.55	45	3	LLLL~~~~~~	.2800	2838	0	0	0	0
189	1585.0	1.55	45	3	LLLL~~~~~~	.2800	2838	0	0	0	0
190	1590.0	1.55	45	3	LLL~~~~~~~	.3400	3440	0	0	0	0
191	1595.0	1.55	45	3	LLL~~~~~~~	.3400	3440	0	0	0	0
192	1600.0	1.55	40	4	LL~~~~~~~~	.3000	2920	0	0	0	0
193	1605.1	1.55	40	4	LL~~~~~~~~	.3000	2920	0	0	0	0
194	1610.0	1.55	40	4	LL~~~~~~~~	.2400	2405	0	0	0	0
195	1615.0	1.55	40	4	LL~~~~~~~~	.2400	2405	0	0	0	0
196	1620.0	1.55	45	5	LL~~~~~~~~	.2100	2150	0	0	0	0
197	1625.0	1.55	45	5	LL~~~~~~~~	.2100	2150	0	0	0	0
198	1630.0	1.55	50	3	~~~~~~~~~~	.1800	1849	0	0	0	0
202	1635.0	1.57	50	3	~~~~~~~~~~	.1800	1849	0	0	0	0
203	1640.0	1.57	50	3	~~~~~~~~~~	.1200	1161	8	4	0	0
204	1645.0	1.57	50	3	~~~~~~~~~~	.1200	1161	8	4	0	0
205	1650.0	1.57	44	4	~~~~~~~~~~	.1800	1806	22	15	0	0
206	1655.0	1.57	44	4	~~~~~~~~~~	.1800	1806	22	15	0	0
207	1660.0	1.57	45	7	~~~~~~~~~~	.1200	1161	8	5	0	0
208	1665.0	1.57	45	7	~~~~~~~~~~	.1200	1161	8	5	0	0
209	1670.0	1.57	45	7	~~~~~~~~~~	.1700	1651	5	5	0	0
210	1675.0	1.57	45	7	~~~~~~~~~~	.1700	1651	5	5	0	0
211	1680.0	1.56	45	5	~~~~~~~~~~	.1000	1083	5	0	0	0
212	1685.0	1.56	45	5	~~~~~~~~~~	.1000	1033	0	0	0	0
217	1690.0	1.56	45	5	~~~~~~~~~~	.1000	1032	0	0	0	0
218	1695.0	1.56	45	5	~~~~~~~~~~	.1000	1032	0	0	0	0
219	1700.0	1.56	45	5	~~~~~~~~~~	.1200	1238	8	4	0	0
220	1705.0	1.56	52	3	~~~~~~~~~~	.1200	1238	8	4	0	0
221	1710.0	1.56	52	3	~~~~~~~~~~	.1500	1500	0	0	0	0
224	1715.0	1.56	52	3	~~~~~~~~~~	.1500	1500	15	2	0	0
225	1720.0	1.55	50	2	LL~~~~~~~~	.2200	2270	15	9	0	0
226	1725.1	1.55	50	2	LL~~~~~~~~	.2200	2270	15	9	0	0
227	1730.0	1.55	50	2	L~~~~~~~~~	.2200	2322	15	9	0	0
228	1735.0	1.55	50	2	L~~~~~~~~~	.2200	2322	15	9	0	0
229	1740.0	1.55	52	4	L~~~~~~~~~	.2200	2150	22	12	0	0
230	1745.0	1.55	52	4	L~~~~~~~~~	.2200	2150	22	12	0	0

SHELL DEV. AUST: BASKER SOUTH No.1
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LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC %	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm
231	1750.0	1.53	52	4	~~~~~~~~~~	.1400	1290	9	5	0	0
232	1755.0	1.53	52	4	~~~~~~~~~~	.1400	1290	9	5	0	0
233	1760.0	1.53	57	3	~~~~~~~~~~	.3000	2924	40	16	0	0
234	1765.1	1.53	57	3	L~~~~~~~~~	.3000	2924	40	16	0	0
235	1770.0	1.53	57	3	L~~~~~~~~~	.4600	3870	68	32	0	0
236	1775.0	1.53	57	3	L~~~~~~~~~	.4600	3870	68	32	0	0
237	1780.0	1.53	54	2	L~~~~~~~~~	.3000	2752	60	32	0	0
238	1785.0	1.53	54	2	L~~~~~~~~~	.3000	2752	60	32	0	0
239	1790.0	1.53	54	2	~~~~~~~~~~	.2600	2528	35	15	0	0
240	1795.0	1.53	54	2	~~~~~~~~~~	.2600	2528	35	15	0	0
241	1800.0	1.55	60	3	~~~~~~~~~~	.2200	2180	20	8	0	0
242	1805.0	1.55	60	3	~~~~~~~~~~	.2200	2180	20	8	0	0
243	1810.0	1.55	60	3	~~~~~~~~~~	.2400	2236	32	15	0	0
244	1815.0	1.55	60	3	~~~~~~~~~~	.2400	2236	32	15	0	0
245	1820.0	1.55	60	3	~~~~~~~~~~	.2600	2400	40	18	0	0
246	1825.0	1.55	60	3	~~~~~~~~~~	.3000	2838	40	20	0	0
247	1830.1	1.55	60	3	~~~~~~~~~~	.3000	2838	40	20	0	0
248	1835.0	1.55	65	4	~~~~~~~~~~	.3000	2838	40	20	0	0
249	1840.1	1.55	65	4	~~~~~~~~~~	.1400	1340	22	11	0	0
250	1845.0	1.55	65	4	L~~~~~~~~~	.1400	1340	22	11	0	0
257	1850.1	1.55	76	5	L~~~~~~~~~	.1000	954	15	7	0	0
258	1855.0	1.55	76	5	L~~~~~~~~~	.1000	954	15	7	0	0
259	1860.0	1.55	76	5	LL~~~~~~~~	.1000	980	11	4	0	0
260	1865.0	1.55	76	5	LL~~~~~~~~	.1000	980	11	4	0	0
261	1870.0	1.57	66	6	LLL~~~~~~~	.1000	1083	15	8	0	0
262	1875.0	1.57	66	6	LLL~~~~~~~	.1000	1083	15	8	0	0
263	1880.0	1.57	66	6	LL~~~~~~~~	.1000	1083	15	8	0	0
264	1885.0	1.57	66	6	LL~~~~~~~~	.1000	1083	15	8	0	0
265	1890.0	1.57	67	10	LL~~~~~~~~	.1200	1200	22	10	0	0
266	1895.0	1.57	67	10	LL~~~~~~~~	.1200	1200	22	10	0	0
267	1900.0	1.57	67	10	LL~~~~~~~~	.1200	1200	22	10	0	0
268	1905.0	1.57	67	10	LL~~~~~~~~	.1200	1200	22	10	0	0
269	1910.0	1.55	64	2	L~~~~~~~~~	.1800	1704	30	12	0	0
270	1915.0	1.55	64	2	L~~~~~~~~~	.1800	1704	30	12	0	0
283	1920.0	1.55	61	3	L~~~~~~~~~	.2400	2322	35	15	0	0
284	1925.0	1.55	61	3	L~~~~~~~~~	.2400	2322	35	15	0	0
285	1930.0	1.55	61	3	L~~~~~~~~~	.2600	2500	37	15	0	0
286	1935.0	1.55	61	3	L~~~~~~~~~	.2600	2500	37	15	0	0
287	1940.0	1.55	64	3	~~~~~~~~~~	.2200	2150	30	10	0	0
288	1945.0	1.55	64	3	~~~~~~~~~~	.2200	2150	30	10	0	0
289	1950.0	1.52	64	3	~~~~~~~~~~	.2400	2236	40	17	0	0
290	1955.0	1.52	64	3	~~~~~~~~~~	.2400	2236	40	17	0	0
291	1960.0	1.52	48	3	~~~~~~~~~~	.3200	2924	55	25	0	0
292	1965.0	1.52	48	3	~~~~~~~~~~	.3200	2924	55	25	0	0
293	1970.0	1.52	48	3	~~~~~~~~~~	.1800	1720	20	7	0	0
294	1975.0	1.52	48	3	~~~~~~~~~~	.1800	1720	20	7	0	0
295	1980.0	1.52	58	4	~~~~~~~~~~	.2600	2580	30	15	0	0
296	1985.0	1.52	58	4	~~~~~~~~~~	.2600	2580	30	15	0	0
297	1990.0	1.52	58	4	~~~~~~~~~~	.3000	2752	30	22	0	0
298	1995.0	1.52	58	4	L~~~~~~~~~	.3000	2752	30	22	0	0
299	2000.0	1.52	38	4	LL~~~~~~~~	.2600	2580	28	5	0	0
300	2005.0	1.52	38	4	LL~~~~~~~~	.2600	2580	28	5	0	0

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FILE#	DEPTH	BULK DENSITY spc grv	CALC/	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm
301	2010.1	1.52	38	4	LL~~~~~~~~~	.2000	1978	12	4	0	0
302	2015.0	1.52	38	4	LL~~~~~~~~~	.2000	1978	12	4	0	0
303	2020.0	1.52	46	4	LL~~~~~~~~~	.3000	3000	25	11	0	0
304	2025.0	1.52	46	4	LL~~~~~~~~~	.3000	3000	25	11	0	0
305	2030.0	1.49	46	4	LL~~~~~~~~~	.1400	1376	10	3	0	0
306	2035.0	1.49	46	4	LL~~~~~~~~~	.1400	1376	10	3	0	0
307	2040.0	1.49	40	3	L~~~~~~~~~~	.1800	1720	12	5	0	0
308	2045.0	1.49	40	3	L~~~~~~~~~~	.1800	1720	12	5	0	0
310	2050.0	1.49	40	3	~~~~~~~~~~~	.1400	1376	12	5	0	0
311	2055.0	1.49	40	3	~~~~~~~~~~~	.1400	1376	12	5	0	0
312	2060.0	1.49	30	3	~~~~~~~~~~~	.1400	1505	50	10	0	0
313	2065.0	1.49	30	3	~~~~~~~~~~~	.1400	1505	50	10	0	0
314	2070.0	1.49	30	3	~~~~~~~~~~~	.1600	1634	16	2	0	0
315	2075.0	1.49	30	3	~~~~~~~~~~~	.1600	1634	16	2	0	0
316	2080.0	1.49	26	2	L~~~~~~~~~~	.0600	620	2	1	0	0
317	2085.0	1.49	26	2	L~~~~~~~~~~	.0600	620	2	1	0	0
318	2090.0	1.49	24	1	L~~~~~~~~~~	.0700	774	2	1	0	0
319	2095.0	1.49	24	1	L~~~~~~~~~~	.0700	774	2	1	0	0
320	2100.0	1.49	26	1	~~~~~~~~~~~	.0700	774	1	0	0	0
321	2105.0	1.49	26	1	~~~~~~~~~~~	.0700	774	1	0	0	0
322	2110.0	1.49	26	1	~~~~~~~~~~~	.0200	130	0	0	0	0
323	2115.0	1.49	26	1	~~~~~~~~~~~	.0200	130	0	0	0	0
324	2120.0	1.49	24	1	~~~~~~~~~~~	.0300	309	0	0	0	0
325	2122.5	1.49	24	1	~~~~~~~~~~~	.0300	309	0	0	0	0
326	2125.0	1.49	24	1	~~~~~~~~~~~	.0300	309	0	0	0	0
327	2127.5	1.49	24	1	~~~~~~~~~~~	.0300	309	0	0	0	0
328	2130.0	1.49	24	1	~~~~~~~~~~~	.0300	309	0	0	0	0
329	2132.5	1.49	24	1	~~~~~~~~~~~	.0300	309	0	0	0	0
330	2135.0	1.49	24	1	~~~~~~~~~~~	.0300	309	0	0	0	0
331	2137.5	1.49	24	1	~~~~~~~~~~~	.0300	309	0	0	0	0
332	2140.0	1.44	14	1	~~~~~~~~~~	.0500	480	0	0	0	0
333	2142.5	1.44	14	1	~~~~~~~~~~	.0500	480	0	0	0	0
334	2145.0	1.44	14	1	~~~~~~~~~~	.0500	480	0	0	0	0
335	2147.5	1.44	14	1	~~~~~~~~~~	.0500	480	0	0	0	0
336	2150.0	1.44	14	1	~~~~~~~~~~	.0600	654	0	0	0	0
337	2152.5	1.44	14	1	~~~~~~~~~~	.0600	654	0	0	0	0
338	2155.0	1.44	14	1	~~~~~~~~~~~	.0600	654	0	0	0	0
339	2157.5	1.44	14	1	~~~~~~~~~~~	.0600	654	0	0	0	0
340	2160.0	1.44	28	2	~~~~~~~~~~	.0800	702	0	0	0	0
341	2162.5	1.44	28	2	~~~~~~~~~~	.0800	702	0	0	0	0
342	2165.0	1.44	28	2	~~~~~~~~~	.0800	702	0	0	0	0
343	2167.5	1.44	28	2	~~~~~~~~~	.0800	702	0	0	0	0
344	2170.0	1.44	28	2	~~~~~~~~	.0800	740	0	0	0	0
345	2172.5	1.44	28	2	~~~~~~~~	.0800	740	0	0	0	0
346	2175.0	1.44	28	2	~~~~~	.0800	740	0	0	0	0
347	2177.5	1.44	28	2	~~~~~	.0800	740	0	0	0	0
348	2180.0	1.42	30	2	~~~~	.0600	516	0	0	0	0
349	2182.5	1.42	30	2	~~~~	.0600	516	0	0	0	0
350	2185.0	1.42	30	2	~~~~	.0600	516	0	0	0	0
351	2187.5	1.42	30	2	~~~~	.0600	516	0	0	0	0
352	2190.0	1.42	30	2	~~~~~~	.0500	464	0	0	0	0
353	2192.5	1.42	30	2	~~~~~~	.0500	464	0	0	0	0

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SHELL DEV. AUST: BASKER SOUTH No.1
Date : 5 Dec 83 Time : 08:52

FILE#	DEPTH	BULK DENSITY spc grv	CALC/	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm
354	2195.0	1.42	30	2	~~~~~~	.0500	464	0	0	0	0
355	2197.5	1.42	30	2	~~~~~~	.0500	464	0	0	0	0
356	2200.0	1.42	24	2	~~~~~	.0400	380	0	0	0	0
357	2202.5	1.42	24	2	~~~~~	.0400	380	0	0	0	0
358	2205.0	1.42	24	2	==	.0400	380	0	0	0	0
359	2207.5	1.42	24	2	==	.0400	380	0	0	0	0
360	2210.0	1.42	24	2	==	.0500	464	0	0	0	0
361	2212.5	1.42	24	2	==	.0500	464	0	0	0	0
362	2215.0	1.42	22	4	====	.0500	464	0	0	0	0
363	2217.5	1.42	24	2	====	.0500	464	0	0	0	0
364	2220.0	1.44	7	2	===::	.0800	688	55	2	0	0
365	2222.5	1.44	7	2	===::	.0800	688	55	2	0	0
366	2225.0	1.44	7	2	===::	.0800	688	55	2	0	0
367	2227.5	1.44	7	2	===::	.0800	688	55	2	0	0
368	2230.0	1.44	7	3	===:::	.0800	600	2	2	0	0
369	2232.5	1.44	7	3	===:::	.0800	600	2	2	0	0
370	2235.0	1.44	7	3	===:::	.0800	600	2	2	0	0
371	2237.5	1.44	7	3	===:::	.0800	600	2	2	0	0
372	2240.0	1.44	3	1	==::	.0800	602	15	2	0	0
373	2242.5	1.44	3	1	==::	.0800	602	15	2	0	0
374	2245.0	1.44	3	1	==::	.0800	602	15	2	0	0
375	2247.5	1.44	3	1	==::	.0800	602	15	2	0	0
376	2250.0	1.44	2	0	=::	.0800	600	15	2	0	0
377	2252.5	1.44	2	0	=::	.0800	600	15	2	0	0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 21 Dec 83' Time : 13:23

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/ %	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
398	2257.5	1.45	1	6	::	.0020	34	15	2	0	0	0	0
42	2260.0	1.45	1	6	::	.0020	34	0	0	0	0	0	0
406	2262.5	1.87	1	6	:::::::::::	.0020	34	0	0	0	0	0	0
407	2265.0	1.87	1	6	:::::::::::	.0020	25	0	0	0	0	0	0
408	2267.5	1.87	1	6	:::::::::::	.0020	25	0	0	0	0	0	0
409	2270.0	1.87	1	6	:::::::::::	.0080	87	0	0	0	0	0	0
410	2272.5	1.87	1	6	:::::::::::	.0080	87	0	0	0	0	0	0
411	2275.0	1.87	0	2	:::::::::::	.0040	50	0	0	0	0	0	0
412	2277.5	1.87	0	2	:::::::::::	.0040	50	0	0	0	0	0	0
413	2280.0	1.87	0	2	:::::::::::	0.0000	17	0	0	0	0	0	0
414	2282.5	1.87	0	2	:::::::::::	0.0000	17	0	0	0	0	0	0
415	2285.0	1.87	0	2	:::::::::::	0.0000	16	0	0	0	0	0	0
418	2287.5	1.87	0	2	:::::::::::	0.0000	17	0	0	0	0	0	0
423	2290.0	1.87	0	1	:::::::::::	0.0000	17	0	0	0	0	0	0
424	2292.5	1.87	0	1	:::::::::::	0.0000	1	0	0	0	0	0	0
425	2295.0	1.87	0	1	:::::::::::	0.0000	1	0	0	0	0	0	0
426	2297.5	1.87	0	1	:::::::::::	0.0000	1	0	0	0	0	0	0
427	2300.1	1.87	0	1	:::::::::::	0.0000	1	0	0	0	0	0	0
428	2302.5	1.87	0	0	:::::::::::	0.0000	1	0	0	0	0	0	0
429	2305.1	1.87	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
430	2307.5	1.87	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
431	2310.0	1.87	0	0	:::::::::::	0.0000	17	0	0	0	0	0	0
432	2312.5	1.87	0	0	:::::::::::	0.0000	17	0	0	0	0	0	0
433	2315.0	1.87	0	0	:::::::::::	.0020	25	0	0	0	0	0	0
434	2317.5	1.87	0	0	:::::::::::	.0020	20	0	0	0	0	0	0
435	2320.0	1.87	0	0	:::::::::::	0.0000	17	0	0	0	0	0	0
436	2322.5	1.90	0	0	:::::::::::	0.0000	9	0	0	0	0	0	0
437	2325.0	1.90	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
438	2327.5	1.90	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
439	2330.0	1.90	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
440	2332.5	1.90	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
441	2335.0	1.90	0	1	:::::::::::	0.0000	2	0	0	0	0	0	0
442	2337.5	1.90	0	1	:::::::::::	0.0000	2	0	0	0	0	0	0
443	2340.0	1.90	0	0	:::::::::::	0.0000	1	0	0	0	0	0	0
444	2342.5	1.90	0	0	:::::::::::	0.0000	1	0	0	0	0	0	0
445	2345.0	1.90	0	0	:::::::::::	0.0000	1	0	0	0	0	0	0
446	2347.5	1.90	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
447	2350.0	1.90	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
448	2352.5	1.90	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
449	2355.0	1.90	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
450	2357.5	1.90	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
451	2360.0	1.90	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
453	2362.5	1.90	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
454	2365.0	1.90	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
455	2367.5	1.90	0	0	:::::::::::	0.0000	1	0	0	0	0	0	0
456	2370.0	1.90	0	0	:::::::::::	0.0000	4	0	0	0	0	0	0
460	2372.5	1.90	0	0	:::::::::::	0.0000	1	0	0	0	0	0	0
461	2375.0	1.90	0	0	:::::::::::	0.0000	1	0	0	0	0	0	0
462	2377.5	1.90	0	0	:::::::::::	0.0000	1	0	0	0	0	0	0
463	2380.0	1.82	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
464	2382.5	1.82	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
465	2385.0	1.82	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 21 Dec 83 Time : 13:30

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
466	2387.5	1.82	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
467	2390.0	1.82	0	0	:::::::::::	0.0000	1	0	0	0	0	0	0
468	2392.5	1.82	0	0	:::::::::::	0.0000	1	0	0	0	0	0	0
469	2395.0	1.82	0	1	:::::::::::	0.0000	1	0	0	0	0	0	0
470	2397.5	1.82	0	1	:::::::::::	0.0000	2	0	0	0	0	0	0
471	2400.0	1.82	0	0	:::::::::::	0.0000	3	0	0	0	0	0	0
472	2402.5	1.82	0	0	:::::::::::	0.0000	3	0	0	0	0	0	0
473	2405.0	1.82	0	0	:::::::::::	0.0000	3	0	0	0	0	0	0
474	2407.5	1.82	0	0	:::::::::::	0.0000	3	0	0	0	0	0	0
480	2410.1	1.64	0	1	:::::::	0.0000	2	0	0	0	0	0	0
481	2412.5	1.64	0	1	:::::::	0.0000	2	0	0	0	0	0	0
482	2415.0	1.64	0	1	:::::	0.0000	2	0	0	0	0	0	0
483	2417.5	1.64	0	1	:::::	0.0000	2	0	0	0	0	0	0
484	2420.0	1.64	0	1	:::::::	0.0000	2	0	0	0	0	0	0
485	2422.5	1.64	0	1	:::::::	0.0000	2	0	0	0	0	0	0
486	2425.0	1.64	0	1	=::::::	0.0000	2	0	0	0	0	0	0
487	2427.5	1.64	0	1	=::::::	0.0000	2	0	0	0	0	0	0
488	2430.0	1.64	0	1	=:::::	0.0000	2	0	0	0	0	0	0
489	2432.5	1.64	0	1	=:::::	0.0000	2	0	0	0	0	0	0
490	2435.0	1.64	0	1	=:::::	0.0000	2	0	0	0	0	0	0
491	2437.5	1.64	0	1	=:::::	0.0000	2	0	0	0	0	0	0
492	2440.0	1.64	0	0	=::::::	0.0000	10	0	0	0	0	0	0
493	2442.5	1.64	0	0	=::::::	0.0000	10	0	0	0	0	0	0
494	2445.0	1.62	0	0	:::::::	.0060	60	0	0	0	0	0	0
495	2447.5	1.62	0	0	:::::::	.0050	60	0	0	0	0	0	0
496	2450.0	1.73	0	0	::::::::	.0050	60	0	0	0	0	0	0
497	2452.5	1.73	0	0	::::::::	.0050	60	0	0	0	0	0	0
498	2455.0	1.87	0	0	:::::::::	.0050	65	0	0	0	0	0	0
499	2457.5	1.87	0	0	:::::::::	.0050	65	0	0	0	0	0	0
500	2460.0	1.92	0	0	:::::::::::	.0050	70	0	0	0	0	0	0
501	2462.5	1.92	0	0	:::::::::::	.0040	42	0	0	0	0	0	0
502	2465.0	1.92	0	0	:::::::::::	.0020	30	0	0	0	0	0	0
503	2467.5	1.92	0	0	:::::::::::	0.0000	10	0	0	0	0	0	0
504	2470.0	1.92	0	0	:::::::::::	0.0000	3	0	0	0	0	0	0
505	2472.5	1.92	0	0	:::::::::::	0.0000	3	0	0	0	0	0	0
506	2475.0	1.92	0	0	:::::::::::	0.0000	3	0	0	0	0	0	0
507	2477.5	1.92	0	0	:::::::::::	0.0000	3	0	0	0	0	0	0
508	2480.0	1.92	0	0	:::::::::::	0.0000	1	0	0	0	0	0	0
509	2482.5	1.92	0	0	:::::::::::	0.0000	1	0	0	0	0	0	0
510	2485.0	1.92	0	0	:::::::::::	0.0000	1	0	0	0	0	0	0
511	2487.5	1.92	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
512	2490.0	1.92	0	0	:::::::::::	0.0000	2	0	0	0	0	0	0
513	2492.5	1.92	0	0	:::::::::::	0.0000	3	0	0	0	0	0	0
514	2495.0	1.92	0	0	:::::::::::	0.0000	3	0	0	0	0	0	0
515	2497.5	1.92	0	0	:::::::::::	0.0000	3	0	0	0	0	0	0
516	2500.0	1.90	0	0	:::::::::::	0.0000	3	0	0	0	0	0	0
517	2502.5	1.90	0	0	:::::::::::	0.0000	3	0	0	0	0	0	0
518	2505.0	1.90	0	0	=:::::::::	0.0000	3	0	0	0	0	0	0
519	2507.5	1.90	0	0	=:::::::::	0.0000	3	0	0	0	0	0	0
520	2510.0	1.90	0	1	:::::::::::	0.0000	3	0	0	0	0	0	0
521	2512.5	1.90	0	1	:::::::::::	0.0000	3	0	0	0	0	0	0
523	2515.0	1.90	0	1	::::::::::	0.0000	3	0	0	0	0	0	0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 21 Dec 83 Time : 13:37

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/ %	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
524	2517.5	1.90	0	1	:::::::::	0.0000	3	0	0	0	0	0	0
525	2520.0	1.90	0	1	:::::::::	0.0000	3	0	0	0	0	0	0
526	2522.5	1.90	0	0	=::::::::	0.0000	3	0	0	0	0	0	0
527	2525.0	1.90	0	0	=::::::::	0.0000	3	0	0	0	0	0	0
528	2527.5	1.90	0	0	=::::::::	0.0000	3	0	0	0	0	0	0
529	2530.0	1.64	0	1	==::::::	0.0000	4	0	0	0	0	0	0
530	2532.5	1.64	0	1	=::::::	0.0000	4	0	0	0	0	0	0
531	2535.0	1.74	0	2	=:::::	0.0000	4	0	0	0	0	0	0
532	2537.5	1.78	0	2	::::::::::	0.0000	4	0	0	0	0	0	0
533	2540.0	1.78	0	2	::::::::::	0.0000	4	0	0	0	0	0	0
534	2542.5	1.78	0	2	::::::::::	0.0000	4	0	0	0	0	0	0
535	2545.1	1.78	0	2	::::::::::	0.0000	4	0	0	0	0	0	0
536	2547.5	1.78	0	2	::::::::::	0.0000	4	0	0	0	0	0	0
537	2550.0	1.78	0	2	::::::::::	0.0000	4	0	0	0	0	0	0
538	2552.5	1.78	0	2	::::::::::	0.0000	4	0	0	0	0	0	0
539	2555.0	1.78	0	2	::::::::::	.0020	34	0	0	0	0	0	0
540	2557.5	1.78	0	2	::::::::::	.0020	34	0	0	0	0	0	0
541	2560.0	1.78	0	2	::::::::::	.0020	30	0	0	0	0	0	0
542	2562.5	1.78	0	2	::::::::::	.0020	30	0	0	0	0	0	0
543	2565.0	1.78	0	2	**********	0.0000	17	0	0	0	0	0	0
544	2567.5	1.78	0	2	::::::::::	0.0000	17	0	0	0	0	0	0
545	2570.0	1.78	0	2	::::::::::	0.0000	0	0	0	0	0	0	0
546	2572.5	1.86	0	2	*:::::::::	0.0000	17	0	0	0	0	0	0
547	2575.0	1.85	0	1	*:::::::::	0.0000	17	0	0	0	0	0	0
548	2577.5	1.86	0	1	::::::::::	0.0000	17	0	0	0	0	0	0
549	2580.0	1.86	0	1	*-=:::::::	0.0000	17	0	0	0	0	0	0
550	2582.5	1.86	0	0	*--:::::::	.0020	34	0	0	0	0	0	0
551	2585.0	1.86	0	1	*-==::::::	.0080	85	0	0	0	0	0	0
552	2587.5	1.86	0	2	*--===::::	.0060	65	0	0	0	0	0	0
553	2590.0	1.86	0	0	*--===::::	.0060	65	0	0	0	0	0	0
559	2592.5	1.86	0	0	-==:::::::	.0100	116	5	2	0	0	0	0
560	2595.0	1.86	0	0	-==:::::::	.0100	116	5	2	0	0	0	0
561	2597.5	1.86	0	0	-==:::::::	.0100	116	5	2	0	0	0	0
562	2600.0	1.86	0	0	---===::::	.0060	78	4	1	0	0	0	0
563	2602.5	1.86	0	0	---===::::	.0060	78	4	1	0	0	0	0
564	2605.0	1.88	0	0	----====::	.0080	78	4	2	0	0	0	0
565	2607.5	1.88	0	0	**--===:::	.0080	78	4	2	0	0	0	0
566	2610.0	1.88	0	0	**--===:::	.0080	78	4	2	0	0	0	0
567	2612.5	1.88	0	0	**--===:::	.0080	78	4	2	0	0	0	0
568	2615.0	1.88	0	0	*---===:::	.0120	130	12	1	0	0	0	0
569	2617.5	1.88	0	0	*---===:::	.0120	130	12	1	0	0	0	0
570	2620.0	1.88	0	2	*-----====	.0160	139	14	1	0	0	0	0
571	2622.6	1.88	0	2	*-----====	.0160	139	14	1	0	0	0	0
572	2625.0	1.88	0	2	*--======:	.0160	174	3	0	0	0	0	0
573	2627.5	1.88	0	2	*--======:	.0160	174	3	0	0	0	0	0
574	2630.0	1.88	0	0	------===:	.0200	192	7	0	0	0	0	0
575	2632.5	1.88	0	0	------===:	.0200	192	7	0	0	0	0	0
576	2635.0	1.88	0	0	------===:	.0200	192	7	0	0	0	0	0
577	2637.5	1.82	0	2	--===:::::	.0060	61	4	0	0	0	0	0
578	2640.0	1.82	0	0	::::::::::	.0140	156	8	0	0	0	0	0
579	2642.5	1.82	0	0	::::::::::	.0140	156	8	0	0	0	0	0
580	2645.0	1.82	0	0	::::::::::	.0180	174	10	0	0	0	0	0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 21 Dec 83 Time : 13:44

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
581	2647.5	1.82	0	0	::::::::::	.0180	174	10	0	0	0	0	0
582	2650.0	1.82	0	1	-=::::::::	.0180	180	6	0	0	0	0	0
583	2652.5	1.82	0	1	-=::::::::	.0180	180	6	0	0	0	0	0
584	2655.0	1.82	0	1	::::::::::	.0040	50	1	0	0	0	0	0
585	2657.5	1.82	0	1	::::::::::	.0040	50	1	0	0	0	0	0
586	2660.0	1.82	0	1	-=::::::::	.0060	70	1	0	0	0	0	0
587	2662.5	1.82	0	1	-=::::::::	.0060	70	1	0	0	0	0	0
588	2665.1	2.00	0	1	::::::::::	0.0000	2	0	0	0	0	0	0
589	2667.5	2.00	0	1	::::::::::	0.0000	2	0	0	0	0	0	0
590	2670.0	2.00	0	1	::::::::::	0.0000	0	0	0	0	0	0	0
591	2672.5	2.00	0	1	::::::::::	0.0000	0	0	0	0	0	0	0
592	2675.0	2.00	0	1	::::::::::	0.0000	0	0	0	0	0	0	0
593	2677.5	2.00	0	1	::::::::::	0.0000	0	0	0	0	0	0	0
594	2680.0	2.00	0	3	::::::::::	0.0000	0	0	0	0	0	0	0
595	2682.5	2.00	0	3	::::::::::	0.0000	0	0	0	0	0	0	0
596	2685.0	2.00	0	3	::::::::::	0.0000	0	0	0	0	0	0	0
598	2687.5	2.00	0	3	::::::::::	0.0000	0	0	0	0	0	0	0
599	2690.0	2.00	0	3	::::::::::	0.0000	0	0	0	0	0	0	0
600	2692.5	2.00	0	3	::::::::::	0.0000	0	0	0	0	0	0	0
601	2695.0	2.00	0	2	::::::::::	0.0000	0	0	0	0	0	0	0
602	2697.5	2.00	0	2	::::::::::	0.0000	0	0	0	0	0	0	0
603	2700.0	2.00	0	2	::::::::::	0.0000	3	0	0	0	0	0	0
604	2702.5	2.00	0	2	::::::::::	0.0000	3	0	0	0	0	0	0
605	2705.0	2.00	0	2	::::::::::	0.0000	3	0	0	0	0	0	0
606	2707.5	2.00	0	2	::::::::::	0.0000	3	0	0	0	0	0	0
607	2710.0	2.00	0	2	::::::::::	0.0000	3	0	0	0	0	0	0
608	2712.5	2.00	0	2	::::::::::	0.0000	3	0	0	0	0	0	0
609	2715.0	2.00	2	2	::::::::::	0.0000	4	0	0	0	0	0	0
610	2717.5	2.00	2	2	::::::::::	0.0000	4	0	0	0	0	0	0
611	2720.0	2.00	2	2	::::::::::	0.0000	4	0	0	0	0	0	0
612	2722.5	2.00	2	2	::::::::::	0.0000	4	0	0	0	0	0	0
613	2725.0	1.95	2	2	=:::::::::	0.0000	4	0	0	0	0	0	0
614	2727.6	1.95	2	2	=:::::::::	0.0000	4	0	0	0	0	0	0
615	2730.0	1.95	0	2	**--::::::	0.0000	4	0	0	0	0	0	0
616	2732.5	1.95	0	2	**--::::::	0.0000	4	0	0	0	0	0	0
617	2735.0	1.95	0	2	*-=:::::::	0.0000	4	0	0	0	0	0	0
618	2737.5	1.95	0	2	==::::::::	0.0000	4	0	0	0	0	0	0
619	2740.0	1.95	0	2	===::::::	0.0000	4	0	0	0	0	0	0
620	2742.5	1.95	0	2	===::::::	0.0000	4	0	0	0	0	0	0
621	2745.0	1.76	0	2	***** =:::	.0080	80	0	0	0	0	0	0
622	2747.6	1.76	0	2	===:::::	0.0000	5	0	0	0	0	0	0
623	2750.0	1.84	0	2	**-==:::::	0.0000	1	0	0	0	0	0	0
624	2752.6	1.84	0	2	**-==:::::	0.0000	1	0	0	0	0	0	0
625	2755.0	1.84	0	0	* -==:::::	0.0000	1	0	0	0	0	0	0
626	2757.5	1.84	0	0	* -==:::::	0.0000	1	0	0	0	0	0	0
627	2760.0	1.84	0	0	* ==::::::	0.0000	2	0	0	0	0	0	0
628	2762.5	1.84	0	0	* ==::::::	0.0000	2	0	0	0	0	0	0
629	2765.0	1.84	0	0	* ==::::::	0.0000	2	0	0	0	0	0	0
630	2767.5	1.84	0	0	* ==::::::	0.0000	2	0	0	0	0	0	0
631	2770.0	1.90	0	0	* ==::::::	0.0000	2	0	0	0	0	0	0
632	2772.5	1.90	0	0	* ==::::::	0.0000	2	0	0	0	0	0	0
633	2775.0	1.90	0	0	-==::::::	0.0000	2	0	0	0	0	0	0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 21 Dec 83 Time : 13:50

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/ %	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
634	2777.5	1.90	0	0	-==::::::	0.0000	2	0	0	0	0	0	0
635	2780.0	1.90	0	0	-==:::::::	0.0000	4	0	0	0	0	0	0
636	2782.5	1.90	0	0	-==:::::::	0.0000	4	0	0	0	0	0	0
637	2785.0	1.95	0	0	---==:::::	0.0000	4	0	0	0	0	0	0
638	2787.5	1.95	0	0	---==:::::	0.0000	4	0	0	0	0	0	0
639	2790.0	1.95	0	0	--=:::::::	0.0000	4	0	0	0	0	0	0
640	2792.5	1.95	0	0	--=:::::::	0.0000	4	0	0	0	0	0	0
641	2795.0	1.95	0	0	-==:::::::	0.0000	4	0	0	0	0	0	0
642	2797.5	1.95	0	0	--===:::::	0.0000	4	0	0	0	0	0	0
643	2800.0	1.95	0	0	--===:::::	0.0000	4	0	0	0	0	0	0
644	2802.5	1.95	0	0	--===:::::	0.0000	4	0	0	0	0	0	0
645	2805.0	1.95	0	2	--===:::::	0.0000	4	0	0	0	0	0	0
646	2807.5	1.95	0	2	--===:::::	0.0000	4	0	0	0	0	0	0
647	2810.0	1.95	0	2	--==::::::	0.0000	4	0	0	0	0	0	0
648	2812.5	1.95	0	2	--==::::::	0.0000	4	0	0	0	0	0	0
649	2815.0	1.86	0	2	-==:::::::	0.0000	3	0	0	0	0	0	0
650	2817.5	1.86	0	2	-==:::::::	0.0000	3	0	0	0	0	0	0
653	2820.0	1.86	0	2	-=::::::::	0.0000	3	0	0	0	0	0	0
654	2822.5	1.86	0	2	-=::::::::	0.0000	3	0	0	0	0	0	0
655	2825.0	1.86	0	2	-=::::::::	0.0000	3	0	0	0	0	0	0
656	2827.5	1.86	0	2	-=::::::::	0.0000	3	0	0	0	0	0	0
662	2830.0	1.86	1	4	-==:::::::	.0040	40	0	0	0	0	0	0
663	2832.5	1.86	1	4	-==:::::::	.0040	40	0	0	0	0	0	0
664	2835.0	1.86	1	4	*-==::::::	.0040	40	0	0	0	0	0	0
665	2837.5	1.86	1	4	*-==::::::	.0040	40	0	0	0	0	0	0
666	2840.0	1.86	1	4	**--=:::::	.0020	34	0	0	0	0	0	0
667	2842.5	1.86	1	4	**--=:::::	.0020	34	0	0	0	0	0	0
668	2845.0	1.90	0	3	*--==:::::	.0060	61	0	0	0	0	0	0
669	2847.5	1.90	0	3	*--==:::::	.0060	61	0	0	0	0	0	0
670	2850.0	1.90	0	3	--=:::::::	0.0000	15	0	0	0	0	0	0
671	2852.5	1.90	0	3	--=:::::::	0.0000	15	0	0	0	0	0	0
672	2855.0	1.90	0	3	--===:::::	.0030	87	0	0	0	0	0	0
673	2857.5	1.90	0	3	--===:::::	.0080	87	0	0	0	0	0	0
674	2860.0	1.90	0	4	-===:::::	0.0000	5	0	0	0	0	0	0
675	2862.5	1.90	0	4	-===:::::	0.0000	10	0	0	0	0	0	0
676	2865.0	1.90	0	4	-===:::::	.0040	50	0	0	0	0	0	0
677	2867.5	1.90	0	4	--====:::	.0100	100	0	0	0	0	0	0
678	2870.0	1.90	0	4	--====:::	.0140	158	0	0	0	0	0	0
679	2872.5	1.90	0	4	--====:::	.0080	85	0	0	0	0	0	0
680	2875.0	1.86	0	4	-====:::	.0020	20	0	0	0	0	0	0
681	2877.5	1.86	0	4	-====:::	.0080	91	0	0	0	0	0	0
682	2880.0	1.85	0	4	* -==:::	.0260	270	0	0	0	0	0	0
683	2882.5	1.86	0	4	* -==:::	.0260	270	0	0	0	0	0	0
684	2885.0	1.86	0	4	-==::::	.0200	209	0	0	0	0	0	0
685	2887.5	1.84	0	2	====:	.0840	818	17	0	0	0	0	0
686	2890.0	1.84	0	2	====::	.0220	231	0	0	0	0	0	0
687	2892.5	1.84	0	2	======::	.0120	122	0	0	0	0	0	0
688	2895.0	1.84	0	0	=======:	.0340	348	0	0	0	0	0	0
689	2897.6	1.84	0	0	=======:	.0340	348	0	0	0	0	0	0
690	2900.0	1.84	0	0	=======::	.0540	540	7	0	0	0	0	0
691	2902.5	1.84	0	0	* ======::	.0540	535	6	0	0	0	0	0
692	2905.0	1.84	0	0	=====:::	.0420	435	0	0	0	0	0	0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 21 Dec 83 Time : 13:57

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
693	2907.5	1.86	0	0	========:	.0220	235	0	0	0	0	0	0
694	2910.0	1.86	0	0	=====::::	.0200	213	0	0	0	0	0	0
695	2912.5	1.86	0	0	=======::	.0340	348	0	0	0	0	0	0
696	2915.0	1.86	0	0	=======::	.0340	348	0	0	0	0	0	0
697	2917.5	1.86	0	0	** ======:	.1400	1224	92	17	0	0	0	0
698	2920.0	1.86	0	0	====:::::	.0920	809	83	41	0	0	0	0
699	2922.5	1.86	0	0	======:::	.0480	443	43	3	0	0	0	0
700	2925.0	1.86	0	0	* ======::	.0540	509	34	0	0	0	0	0
701	2927.5	1.86	0	0	====:::	.0360	351	6	0	0	0	0	0
702	2930.0	1.86	0	0	====::	.0360	351	6	0	0	0	0	0
703	2932.5	1.86	0	0	=====::	.0280	281	6	0	0	0	0	0
707	2935.0	1.86	0	0	=::::::::	.0300	313	0	0	0	0	0	0
708	2937.5	1.86	0	0	==:::::::	.0640	522	6	0	0	0	0	0
709	2940.0	1.86	0	0	======:	.0660	609	28	0	0	0	0	0
710	2942.5	1.86	0	0	======:	.0660	609	28	0	0	0	0	0
711	2945.0	1.86	0	0	** ====:	.2700	2262	172	42	0	0	0	0
712	2947.5	1.86	0	0	* =====:::	.1260	1151	104	19	0	0	0	0
713	2950.0	1.86	0	0	=====::::	.0420	261	84	4	0	0	0	0
714	2952.5	1.86	0	0	=====:::	.0760	557	79	16	0	0	0	0
715	2955.0	1.86	0	0	=====:::	.0620	431	68	19	0	0	0	0
716	2957.5	1.86	0	0	=====:::	.0620	431	68	19	0	0	0	0
717	2960.0	1.86	0	0	===::::::	.0260	243	11	0	0	0	0	0
718	2962.5	1.86	0	0	=:::::::::	.0300	282	9	0	0	0	0	0
719	2965.0	1.86	0	0	=::::::::	.1300	974	143	15	0	0	0	0
720	2967.5	1.86	0	0	====:::::	.0340	318	17	0	0	0	0	0
721	2970.0	1.86	0	0	====:::::	.0300	278	13	0	0	0	0	0
722	2972.5	1.86	0	0	====:::::	.0300	278	13	0	0	0	0	0
723	2975.0	1.86	0	0	=:::::::::	.0300	282	14	0	0	0	0	0
724	2977.5	1.86	0	0	****::::::	.2400	1957	150	44	0	0	0	0
725	2980.1	1.82	0	0	* =:::::::	.1680	1270	143	41	0	0	0	0
727	2985.0	1.82	0	0	=::::::::	.0300	278	12	1	0	0	0	0
728	2987.5	1.82	0	0	====:::::	.0360	355	7	1	0	0	0	0
729	2990.0	1.82	0	0	====:::::	.0360	355	7	1	0	0	0	0
730	2992.5	1.82	0	0	===::::::	.1860	1589	94	19	0	0	0	0
731	2995.0	1.82	0	0	=::::::::	.1240	1048	59	26	0	0	0	0
732	2997.5	1.82	0	0	=::::::::	.0800	705	22	8	0	0	0	0
736	3000.0	1.78	0	0	** =====::	.0800	664	96	10	0	0	0	0
737	3001.0	1.78	0	0	** =====::	.0800	664	96	10	0	0	0	0
738	3002.0	1.78	0	5	======:	.0500	473	20	6	0	0	0	0
739	3003.0	1.78	0	5	======:	.0500	473	20	6	0	0	0	0
740	3004.0	1.78	0	5	======:	.0500	473	20	6	0	0	0	0
741	3005.0	1.78	0	5	* =====:::	.2320	2247	193	65	0	0	0	0
742	3006.0	1.78	0	5	* =====:::	.2820	2247	193	65	0	0	0	0
743	3007.0	1.78	0	5	* =====:::	.2820	2247	193	65	0	0	0	0
744	3008.0	1.78	0	5	====::::	.1660	1357	130	19	0	0	0	0
745	3009.0	1.78	0	5	====::::	.1660	1357	130	19	0	0	0	0
746	3010.0	1.78	0	5	====::::	.1660	1357	130	19	0	0	0	0
747	3011.0	1.78	0	5	*** ====:	.5800	4969	322	93	0	0	0	0
748	3012.0	1.78	0	5	=======:	.2200	1834	122	35	0	0	0	0
749	3013.0	1.78	0	0	** =====:	.2700	2275	152	44	0	0	0	0
750	3014.0	1.78	0	0	=====::::	.5420	4698	282	92	0	0	0	0
751	3015.0	1.78	0	0	=====::::	.2720	2349	140	46	0	0	0	0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 21 Dec 83 Time : 14:Ø4

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/ %	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
752	3Ø16.Ø	1.78	Ø	Ø	=====::::	.272Ø	2349	14Ø	46	Ø	Ø	Ø	Ø
753	3Ø17.Ø	1.78	Ø	Ø	========:	.162Ø	1319	117	19	Ø	Ø	Ø	Ø
754	3Ø18.Ø	1.78	Ø	Ø	========:	.162Ø	1319	117	19	Ø	Ø	Ø	Ø
755	3Ø19.Ø	1.78	Ø	Ø	========:	.162Ø	1319	117	19	Ø	Ø	Ø	Ø
756	3Ø2Ø.Ø	1.78	Ø	Ø	** =======	.298Ø	261Ø	125	43	Ø	Ø	Ø	Ø
757	3Ø21.Ø	1.78	Ø	Ø	** =======	.298Ø	261Ø	125	43	Ø	Ø	Ø	Ø
758	3Ø22.Ø	1.78	Ø	Ø	** =======	.298Ø	261Ø	125	43	Ø	Ø	Ø	Ø
759	3Ø23.Ø	1.78	Ø	Ø	* =======	.244Ø	2175	86	31	Ø	Ø	Ø	Ø
76Ø	3Ø24.Ø	1.78	Ø	Ø	* =======	.244Ø	2175	86	31	Ø	Ø	Ø	Ø
761	3Ø25.Ø	1.78	Ø	Ø	* =======	.244Ø	2175	86	31	Ø	Ø	Ø	Ø
762	3Ø26.Ø	1.78	Ø	Ø	========	.116Ø	1Ø5Ø	4Ø	15	Ø	Ø	Ø	Ø
763	3Ø27.Ø	1.78	Ø	Ø	========	.116Ø	1Ø5Ø	4Ø	15	Ø	Ø	Ø	Ø
764	3Ø28.Ø	1.78	Ø	Ø	========	.116Ø	1Ø5Ø	4Ø	15	Ø	Ø	Ø	Ø
765	3Ø29.1	1.78	Ø	Ø	* ========	.44ØØ	3512	286	1Ø9	Ø	Ø	Ø	Ø
766	3Ø3Ø.Ø	1.78	Ø	Ø	* ========	.44ØØ	3512	286	1Ø9	Ø	Ø	Ø	Ø
767	3Ø31.Ø	1.78	Ø	Ø	* ========	.44ØØ	3512	286	1Ø9	Ø	Ø	Ø	Ø
768	3Ø32.Ø	1.8Ø	Ø	Ø	====::::	.Ø54Ø	516	15	Ø	Ø	Ø	Ø	Ø
769	3Ø33.Ø	1.8Ø	Ø	Ø	=:::::::::	.Ø54Ø	516	15	Ø	Ø	Ø	Ø	Ø
77Ø	3Ø34.Ø	1.8Ø	Ø	Ø	=:::::::::	.Ø54Ø	516	15	Ø	Ø	Ø	Ø	Ø
771	3Ø35.Ø	1.8Ø	Ø	Ø	=:::::::::	.Ø56Ø	484	36	Ø	Ø	Ø	Ø	Ø
772	3Ø36.Ø	1.8Ø	Ø	Ø	=:::::::::	.Ø56Ø	484	36	Ø	Ø	Ø	Ø	Ø
773	3Ø37.Ø	1.8Ø	Ø	Ø	=:::::::::	.Ø56Ø	484	36	Ø	Ø	Ø	Ø	Ø
774	3Ø38.Ø	1.8Ø	Ø	Ø	=====:::	.186Ø	154Ø	114	3Ø	Ø	Ø	Ø	Ø
775	3Ø39.Ø	1.8Ø	Ø	Ø	=====:::	.186Ø	154Ø	114	3Ø	Ø	Ø	Ø	Ø
776	3Ø4Ø.Ø	1.8Ø	Ø	Ø	=====:::	.186Ø	154Ø	114	3Ø	Ø	Ø	Ø	Ø
777	3Ø41.Ø	1.8Ø	Ø	Ø	====:::::	.434Ø	3551	229	113	Ø	Ø	Ø	Ø
778	3Ø42.Ø	1.8Ø	Ø	Ø	====:::::	.434Ø	3551	229	113	Ø	Ø	Ø	Ø
779	3Ø43.Ø	1.8Ø	Ø	Ø	====:::::	.434Ø	3551	229	113	Ø	Ø	Ø	Ø
78Ø	3Ø44.Ø	1.8Ø	Ø	Ø	**=====:::	.596Ø	4Ø12	714	178	Ø	Ø	Ø	Ø
781	3Ø45.Ø	1.78	Ø	Ø	* =====:::	.162Ø	1Ø83	193	48	Ø	Ø	Ø	Ø
782	3Ø46.Ø	1.78	Ø	Ø	* =====:::	.162Ø	1Ø83	193	48	Ø	Ø	Ø	Ø
783	3Ø47.Ø	1.78	Ø	Ø	*===::::::	.412Ø	35Ø6	171	93	Ø	Ø	Ø	Ø
784	3Ø48.Ø	1.78	Ø	Ø	*===::::::	.412Ø	35Ø6	171	93	Ø	Ø	Ø	Ø
785	3Ø49.Ø	1.78	Ø	Ø	*===::::::	.412Ø	35Ø6	171	93	Ø	Ø	Ø	Ø
786	3Ø5Ø.Ø	1.78	Ø	Ø	======:::	.122Ø	1Ø9Ø	57	25	Ø	Ø	Ø	Ø
787	3Ø51.Ø	1.78	Ø	Ø	======:::	.122Ø	1Ø9Ø	57	26	Ø	Ø	Ø	Ø
788	3Ø52.Ø	1.78	Ø	Ø	======:::	.122Ø	1Ø9Ø	57	26	Ø	Ø	Ø	Ø
789	3Ø53.Ø	1.78	Ø	Ø	*======:::	.51ØØ	426Ø	246	116	Ø	Ø	Ø	Ø
79Ø	3Ø54.Ø	1.78	Ø	Ø	*======:::	.51ØØ	425Ø	246	116	Ø	Ø	Ø	Ø
791	3Ø55.Ø	1.78	Ø	Ø	*======:::	.51ØØ	426Ø	246	116	Ø	Ø	Ø	Ø
792	3Ø56.Ø	1.78	Ø	4	*===::::::	.178Ø	1661	47	15	Ø	Ø	Ø	Ø
793	3Ø57.Ø	1.78	Ø	4	*===::::::	.173Ø	1661	47	15	Ø	Ø	Ø	Ø
794	3Ø58.Ø	1.78	Ø	4	*===::::::	.178Ø	1661	47	15	Ø	Ø	Ø	Ø
795	3Ø59.Ø	1.78	Ø	4	*=====::::	.22ØØ	2132	62	31	Ø	Ø	Ø	Ø
796	3Ø6Ø.Ø	1.78	Ø	4	*=====::::	.22ØØ	2132	62	31	Ø	Ø	Ø	Ø
797	3Ø61.Ø	1.78	Ø	4	*=====::::	.22ØØ	2132	62	31	Ø	Ø	Ø	Ø
798	3Ø62.Ø	1.78	Ø	4	***===::::	.95ØØ	8494	357	1Ø8	Ø	Ø	Ø	Ø
799	3Ø63.Ø	1.78	Ø	4	***===::::	.95ØØ	8494	357	1Ø8	Ø	Ø	Ø	Ø
8ØØ	3Ø64.Ø	1.78	Ø	4	***===::::	.95ØØ	8494	357	1Ø8	Ø	Ø	Ø	Ø
8Ø1	3Ø65.Ø	1.78	Ø	4	****====::	1.28ØØ	12134	513	153	Ø	Ø	Ø	Ø
8Ø2	3Ø66.Ø	1.78	Ø	4	**======::	.36ØØ	3412	144	43	Ø	Ø	Ø	Ø
8Ø3	3Ø67.Ø	1.78	Ø	4	**======::	.36ØØ	3412	144	43	Ø	Ø	Ø	Ø

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 21 Dec 83 Time : 14:10

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
804	3068.0	1.78	0	4	**======::	.1600	1534	51	14	0	0	0	0
805	3069.0	1.78	0	4	**======::	.1600	1534	51	14	0	0	0	0
806	3070.0	1.78	0	4	****====::	2.0100	19180	640	180	12	0	0	0
807	3071.0	1.78	0	3	**======::	.8340	7569	286	70	5	0	0	0
808	3072.0	1.78	0	3	**======::	.8340	7569	286	70	5	0	0	0
809	3073.0	1.78	0	3	*=======::	.3100	2865	108	27	0	0	0	0
810	3074.0	1.78	0	3	*=======::	.3100	2865	108	27	0	0	0	0
811	3075.0	1.78	0	3	*=======::	.3100	2865	108	27	0	0	0	0
812	3076.0	1.78	0	3	*=======::	.3100	2865	108	27	0	0	0	0
813	3077.0	1.78	0	3	*======:::	.1920	1635	131	23	0	0	0	0
814	3078.0	1.78	0	3	*======:::	.1920	1635	131	23	0	0	0	0
815	3079.0	1.78	0	3	*======:::	.1920	1635	131	23	0	0	0	0
816	3080.0	1.78	0	3	*****===::	1.3300	11275	751	152	18	0	0	0
817	3081.0	1.78	0	3	*****===::	1.3300	11275	751	152	18	0	0	0
818	3082.0	1.78	0	3	*****===::	1.3300	11275	751	152	18	0	0	0
819	3083.0	1.78	0	3	*========:	.4820	4767	171	71	7	0	0	0
820	3084.0	1.78	0	3	*========:	.4820	4767	171	71	7	0	0	0
821	3085.0	1.78	0	3	*========:	.4820	4767	171	71	7	0	0	0
822	3086.0	1.78	0	1	*=======::	.2660	2255	171	24	2	0	0	0
823	3087.0	1.78	0	1	*=======::	.2660	2255	171	24	2	0	0	0
824	3088.0	1.78	0	1	*=======::	.2660	2255	171	24	2	0	0	0
825	3089.0	1.80	0	1	*========:	.2980	2610	95	59	3	0	0	0
826	3090.0	1.80	0	1	*========:	.2980	2610	95	59	3	0	0	0
828	3091.0	1.80	0	1	*========:	.2980	2610	95	59	3	0	0	0
829	3092.0	1.80	0	1	*=====::::	.4840	3985	271	108	18	0	0	0
830	3093.0	1.80	0	1	*=====::::	.4840	3985	271	108	18	0	0	0
831	3094.0	1.80	0	1	*=====::::	.4840	3985	271	108	18	0	0	0
832	3095.0	1.80	0	1	****** ===	.9240	7958	393	171	21	0	0	0
833	3096.0	1.80	0	1	****** ===	.9240	7958	393	171	21	0	0	0
834	3097.0	1.80	0	1	****** ===	.9240	7958	393	171	21	0	0	0
835	3098.0	1.80	0	1	** =====::	.2420	1983	129	62	7	0	0	0
836	3099.0	1.80	0	1	** =====::	.2420	1983	129	62	7	0	0	0
837	3100.0	1.80	0	1	** =====::	.2420	1983	129	62	7	0	0	0
838	3101.0	1.80	0	0	****** ==:	.5600	3941	393	279	21	0	0	0
839	3102.0	1.80	0	0	****** ==:	.5600	3941	393	279	21	0	0	0
840	3103.0	1.80	0	0	****** ==:	.8640	7007	524	143	37	0	0	0
841	3104.0	1.80	0	0	*** ====::	.1340	1038	114	27	6	0	0	0
842	3105.1	1.80	0	0	*** ====::	.1340	1038	114	27	6	0	0	0
843	3106.1	1.80	0	0	*** ====::	.1340	1038	114	27	6	0	0	0
844	3107.0	1.80	0	0	* ====::::	.1060	904	48	24	3	0	0	0
845	3108.0	1.80	0	0	* ====::::	.1060	904	48	24	3	0	0	0
846	3109.0	1.80	0	0	* ====::::	.1060	904	48	24	3	0	0	0
847	3110.0	1.80	0	0	====::::::	.0860	735	43	15	0	0	0	0
848	3111.0	1.80	0	0	====::::::	.0860	735	43	15	0	0	0	0
849	3112.0	1.80	0	0	====::::::	.0860	735	43	15	0	0	0	0
850	3113.0	1.80	0	0	====::::::	.0820	704	42	14	0	0	0	0
851	3114.0	1.80	0	0	====::::::	.0820	704	42	14	0	0	0	0
852	3115.1	1.80	0	0	====::::::	.0820	704	42	14	0	0	0	0
853	3116.0	1.80	0	0	======::::	.4440	3514	214	142	21	0	0	0
854	3117.0	1.80	0	0	======::::	.4440	3514	214	142	21	0	0	0
855	3118.0	1.80	0	0	======::::	.4440	3514	214	142	21	0	0	0
856	3119.0	1.80	0	0	=:::::::::	.3160	2595	142	78	14	0	0	0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 21 Dec 83 Time : 15:Ø2

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/ DOLOM %		LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
857	312Ø.Ø	1.8Ø	Ø	Ø	=:::::::::	.316Ø	2595	142	78	14	Ø	Ø	Ø
858	3121.Ø	1.8Ø	Ø	Ø	******===:	1.Ø4ØØ	8ØØ4	758	142	27	Ø	Ø	Ø
863	3123.Ø	1.8Ø	Ø	Ø	******===:	1.Ø4ØØ	8ØØ4	758	142	27	Ø	Ø	Ø
864	3126.Ø	1.8Ø	Ø	Ø	*======:::	.442Ø	3828	1Ø9	114	21	Ø	Ø	Ø
865	3127.1	1.8Ø	Ø	Ø	*======:::	.442Ø	3828	1Ø9	114	21	Ø	Ø	Ø
866	3128.Ø	1.8Ø	Ø	2	* =======:	.128Ø	1121	63	11	Ø	Ø	Ø	Ø
867	3129.Ø	1.8Ø	Ø	2	* =======:	.128Ø	1121	63	11	Ø	Ø	Ø	Ø
868	313Ø.Ø	1.8Ø	Ø	2	* =======:	.128Ø	1121	63	11	Ø	Ø	Ø	Ø
869	3131.Ø	1.8Ø	Ø	2	=======:	.142Ø	1155	1Ø4	18	Ø	Ø	Ø	Ø
87Ø	3132.1	1.8Ø	Ø	2	=======:	.142Ø	1155	1Ø4	18	Ø	Ø	Ø	Ø
871	3133.Ø	1.8Ø	Ø	2	=======:	.142Ø	1155	1Ø4	18	Ø	Ø	Ø	Ø
872	3134.Ø	1.8Ø	Ø	2	=====::::	.178Ø	1575	85	15	Ø	Ø	Ø	Ø
873	3135.1	1.8Ø	Ø	2	=====::::	.178Ø	1575	85	15	Ø	Ø	Ø	Ø
874	3136.Ø	1.8Ø	Ø	2	=====::::	.178Ø	1575	85	15	Ø	Ø	Ø	Ø
875	3137.Ø	1.8Ø	Ø	2	=====::::	.178Ø	1575	85	15	Ø	Ø	Ø	Ø
876	3138.Ø	1.8Ø	Ø	2	=====::::	.178Ø	1575	85	15	Ø	Ø	Ø	Ø
877	3139.Ø	1.8Ø	Ø	2	=====::::	.178Ø	1575	85	15	Ø	Ø	Ø	Ø
878	314Ø.Ø	1.8Ø	Ø	2	********=:	1.93ØØ	16275	1ØØ8	264	34	Ø	Ø	Ø
879	3141.Ø	1.8Ø	Ø	2	********=:	1.93ØØ	16275	1ØØ8	264	34	Ø	Ø	Ø
88Ø	3142.Ø	1.8Ø	Ø	2	********=:	1.93ØØ	16275	1ØØ8	264	34	Ø	Ø	Ø
881	3143.Ø	1.8Ø	Ø	2	*========:	.248Ø	2262	71	28	3	Ø	Ø	Ø
882	3144.1	1.8Ø	Ø	2	*========:	.248Ø	2262	71	28	3	Ø	Ø	Ø
883	3145.Ø	1.8Ø	Ø	2	*========:	.248Ø	2262	71	28	3	Ø	Ø	Ø
884	3146.Ø	1.8Ø	Ø	2	===:::::::	.294Ø	2458	171	45	4	Ø	Ø	Ø
885	3147.Ø	1.8Ø	Ø	2	===:::::::	.294Ø	2458	171	45	4	Ø	Ø	Ø
886	3148.Ø	1.8Ø	Ø	2	===:::::::	.294Ø	2458	171	45	4	Ø	Ø	Ø
887	3149.Ø	1.78	Ø	Ø	::::::::::	.196Ø	1671	72	43	3	Ø	Ø	Ø
888	315Ø.Ø	1.78	Ø	Ø	::::::::::	.196Ø	1671	72	43	3	Ø	Ø	Ø
889	3151.Ø	1.78	Ø	Ø	::::::::::	.196Ø	1671	72	43	3	Ø	Ø	Ø
89Ø	3152.Ø	1.78	Ø	Ø	::::::::::	.12ØØ	974	71	31	4	Ø	Ø	Ø
891	3153.Ø	1.78	Ø	Ø	::::::::::	.12ØØ	974	71	31	4	Ø	Ø	Ø
892	3154.Ø	1.78	Ø	Ø	::::::::::	.12ØØ	974	71	31	4	Ø	Ø	Ø
893	3155.Ø	1.78	Ø	Ø	**======::	.618Ø	4872	378	167	13	Ø	Ø	Ø
894	3156.Ø	1.78	Ø	Ø	**======::	.618Ø	4872	378	167	13	Ø	Ø	Ø
895	3157.Ø	1.78	Ø	Ø	**======::	.618Ø	4872	378	167	13	Ø	Ø	Ø
896	3158.Ø	1.78	Ø	Ø	***======:	.912Ø	7569	429	211	16	Ø	Ø	Ø
897	3159.Ø	1.78	Ø	Ø	***======:	.912Ø	7569	429	211	16	Ø	Ø	Ø
898	316Ø.Ø	1.78	Ø	Ø	***======:	.912Ø	7569	429	211	16	Ø	Ø	Ø
899	3161.1	1.78	Ø	Ø	::::::::::	.29ØØ	2224	254	57	4	Ø	Ø	Ø
9ØØ	3162.Ø	1.78	Ø	Ø	::::::::::	.29ØØ	2224	254	57	4	Ø	Ø	Ø
9Ø1	3163.Ø	1.78	Ø	Ø	::::::::::	.29ØØ	2224	254	57	4	Ø	Ø	Ø
9Ø2	3164.Ø	1.78	Ø	Ø	*=====::::	.276Ø	2161	184	77	3	Ø	Ø	Ø
9Ø3	3165.Ø	1.78	Ø	Ø	*=====::::	.276Ø	2161	184	77	3	Ø	Ø	Ø
9Ø4	3166.Ø	1.78	Ø	Ø	*=====::::	.276Ø	2161	184	77	3	Ø	Ø	Ø
9Ø5	3167.Ø	1.78	Ø	Ø	*=::::::::	.418Ø	3349	212	118	14	Ø	Ø	Ø
9Ø6	3168.Ø	1.78	Ø	Ø	*=::::::::	.418Ø	3349	212	118	14	Ø	Ø	Ø
9Ø7	3169.Ø	1.78	Ø	Ø	*=::::::::	.418Ø	3349	212	118	14	Ø	Ø	Ø
9Ø8	317Ø.Ø	1.78	Ø	Ø	**===:::::	.888Ø	7282	429	217	22	Ø	Ø	Ø
9Ø9	3171.Ø	1.78	Ø	Ø	**===:::::	.888Ø	7282	429	217	22	Ø	Ø	Ø
91Ø	3172.Ø	1.78	Ø	Ø	**===:::::	.888Ø	7282	429	217	22	Ø	Ø	Ø
911	3173.Ø	1.78	Ø	Ø	**=======:	1.23ØØ	1Ø441	472	282	19	Ø	Ø	Ø
912	3174.Ø	1.78	Ø	Ø	**=======:	1.23ØØ	1Ø441	472	282	19	Ø	Ø	Ø

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 21 Dec 83 Time : 14:17

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/ DOLOM %		LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
913	3175.0	1.78	0	0	**=======:	1.2300	10441	472	282	19	0	0	0
914	3176.0	1.78	0	0	=:::::::::	.2840	2244	165	81	4	0	0	0
915	3177.0	1.78	0	0	=:::::::::	.2840	2244	165	81	4	0	0	0
916	3178.1	1.78	0	0	=:::::::::	.2840	2244	165	81	4	0	0	0
917	3179.0	1.78	0	0	=====::::	.2840	2256	166	83	4	0	0	0
918	3180.0	1.78	0	0	=====::::	.2840	2256	166	83	4	0	0	0
919	3181.0	1.78	0	0	=====::::	.2840	2256	166	83	4	0	0	0
920	3182.0	1.78	0	0	*=::::::::	.2760	2271	129	77	4	0	0	0
921	3183.0	1.78	0	0	*=::::::::	.2760	2271	129	77	4	0	0	0
922	3184.0	1.78	0	0	*=::::::::	.2760	2271	129	77	4	0	0	0
923	3185.0	1.78	0	0	=====:::::	.5500	4385	321	155	9	0	0	0
924	3186.0	1.78	0	0	=====:::::	.5500	4385	321	155	9	0	0	0
925	3187.0	1.78	0	0	=====:::::	.5500	4385	321	155	9	0	0	0
926	3188.0	1.78	0	0	========:	.1700	1607	43	4	0	0	0	0
927	3188.6	1.78	0	0	========:	.1700	1607	43	4	0	0	0	0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 25 Dec 83 Time : 02:25

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/ DOLOM %		LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
5	3190.0	1.78	0	0	========:	.1700	1607	43	4	0	0	0	0
6	3191.0	1.78	0	0	======:::	.1700	1607	43	4	0	0	0	0
7	3192.0	1.78	0	0	======:::	.1700	1607	43	4	0	0	0	0
8	3193.1	1.78	0	0	======:::	.1700	1607	43	4	0	0	0	0
9	3194.0	1.78	0	0	=====::::	.1700	1607	43	4	0	0	0	0
10	3195.1	1.78	0	0	=====::::	.1700	1607	43	4	0	0	0	0
11	3196.0	1.78	0	0	=====::::	.1700	1607	43	4	0	0	0	0
12	3197.1	1.76	0	0	*******=::	1.3340	12251	244	186	14	0	0	0
13	3198.0	1.76	0	0	*******=::	1.3340	12251	244	186	14	0	0	0
14	3199.0	1.76	0	0	*******=::	1.3340	12251	244	186	14	0	0	0
15	3200.0	1.76	0	0	**======::	.4020	3411	158	87	4	0	0	0
16	3201.0	1.76	0	0	**======::	.4020	3411	158	87	4	0	0	0
17	3202.0	1.76	0	0	**======::	.4020	3411	158	87	4	0	0	0
18	3203.0	1.76	0	0	========:	.2440	2083	89	66	3	0	0	0
19	3204.0	1.76	0	0	========:	.2440	2083	89	66	3	0	0	0
20	3205.0	1.76	0	0	========:	.2440	2083	89	66	3	0	0	0
21	3206.0	1.76	0	0	=========:	.9660	8004	543	186	9	0	0	0
22	3207.0	1.76	0	0	=========:	.9660	8004	543	186	9	0	0	0
23	3208.0	1.76	0	0	=========:	.9660	8004	543	186	9	0	0	0
24	3209.0	1.76	0	0	::::::::::	.2400	2213	124	74	2	0	0	0
25	3210.0	1.76	0	0	::::::::::	.2400	2213	124	74	2	0	0	0
26	3211.0	1.76	0	0	::::::::::	.2400	2213	124	74	2	0	0	0
27	3212.0	1.76	0	0	**=====:::	.2960	2751	107	62	3	0	0	0
28	3213.0	1.76	0	0	**=====:::	.2960	2751	107	62	3	0	0	0
30	3214.0	1.76	0	0	**=====:::	.2960	2751	107	62	3	0	0	0
31	3215.0	1.76	0	0	::::::::::	.1840	1627	51	42	2	0	0	0
32	3216.0	1.76	0	0	::::::::::	.1840	1627	51	42	2	0	0	0
33	3217.0	1.76	0	0	::::::::::	.1840	1627	51	42	2	0	0	0
34	3218.0	1.78	0	0	*======:::	.5860	4738	348	139	8	0	0	0
35	3219.0	1.78	0	0	*======:::	.5860	4738	348	139	8	0	0	0
36	3220.0	1.78	0	0	*======:::	.5860	4738	348	139	8	0	0	0
37	3221.0	1.78	0	0	*======:::	.1360	1096	64	31	2	0	0	0
38	3222.1	1.78	0	0	*======:::	.1360	1096	64	31	2	0	0	0
39	3223.0	1.78	0	0	*======:::	.1360	1096	64	31	2	0	0	0
40	3224.0	1.78	0	0	========::	.4900	4019	343	127	11	0	0	0
41	3225.0	1.78	0	0	========::	.4900	4019	343	127	11	0	0	0
42	3226.0	1.78	0	0	========::	.4900	4019	343	127	11	0	0	0
43	3227.1	1.78	0	0	========::	.2920	2366	164	74	4	0	0	0
44	3228.0	1.78	0	0	========::	.2920	2366	164	74	4	0	0	0
45	3228.0	1.78	0	0	========::	.2920	2366	164	74	4	0	0	0
46	3229.0	1.78	0	0	========::	.2920	2366	164	74	4	0	0	0
47	3230.0	1.78	0	0	*========:	.4100	3656	236	108	9	0	0	0
48	3231.0	1.78	0	0	*========:	.4100	3656	236	108	9	0	0	0
49	3232.0	1.78	0	0	*========:	.4100	3656	236	108	9	0	0	0
50	3233.0	1.78	0	0	==::::::::	.3100	2345	139	65	4	0	0	0
51	3234.0	1.78	0	0	==::::::::	.3100	2345	139	65	4	0	0	0
52	3235.0	1.78	0	0	==::::::::	.3100	2345	139	65	4	0	0	0
53	3236.0	1.78	0	0	*=======::	.8400	7644	562	193	21	0	0	0
54	3237.0	1.78	0	0	*=======::	.8400	7644	562	193	21	0	0	0
55	3238.0	1.78	0	0	*=======::	.8400	7644	562	193	21	0	0	0
56	3239.0	1.78	0	0	=========:	.2340	1827	150	74	3	0	0	0
57	3240.0	1.78	0	0	=========:	.2340	1827	150	74	3	0	0	0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 25 Dec 83 Time : 02:31

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/ %	DOLOM %	LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
58	3241.0	1.78	0	0	=========:	.2340	1827	150	74	3	0	0	0
59	3242.0	1.78	0	0	*========:	.1100	835	69	37	0	0	0	0
60	3243.0	1.78	0	0	*========:	.1100	835	69	37	0	0	0	0
61	3244.0	1.78	0	0	*========:	.1100	835	69	37	0	0	0	0
62	3245.0	1.74	0	0	=:::::::::	.1900	1566	94	46	4	0	0	0
63	3246.1	1.74	0	0	=:::::::::	.1900	1566	94	46	4	0	0	0
64	3247.0	1.74	0	0	=:::::::::	.1900	1566	94	46	4	0	0	0
65	3248.0	1.74	0	0	*==:::::::	.3680	2847	265	101	7	0	0	0
66	3249.0	1.74	0	0	*==:::::::	.3680	2847	265	101	7	0	0	0
67	3250.0	1.74	0	0	*==:::::::	.3680	2847	265	101	7	0	0	0
68	3251.0	1.74	0	0	-====::::	.2440	2012	114	73	4	0	0	0
72	3253.0	1.74	0	0	-====::::	.2440	2010	114	73	4	0	0	0
73	3254.0	1.72	0	4	*--====:::	1.0460	8352	605	233	54	0	0	0
74	3255.0	1.72	0	4	*--====:::	1.0460	8352	605	233	54	0	0	0
75	3256.0	1.72	0	4	*--====:::	1.0460	8352	605	233	54	0	0	0
76	3257.0	1.72	0	4	**--====::	1.8940	13921	1716	411	90	0	0	0
77	3258.1	1.72	0	4	**--====::	1.8940	13921	1716	411	90	0	0	0
78	3259.0	1.72	0	4	**--====::	1.8940	13921	1716	411	90	0	0	0
79	3260.0	1.72	0	4	*--=====::	.4520	3776	162	116	17	0	0	0
80	3261.0	1.72	0	4	*--=====::	.4520	3776	162	116	17	0	0	0
81	3262.1	1.72	0	4	*--=====::	.4520	3776	162	116	17	0	0	0
82	3263.0	1.72	0	4	--=====:::	.2260	1732	142	71	7	0	0	0
83	3264.0	1.72	0	4	--=====:::	.2260	1732	142	71	7	0	0	0
84	3265.0	1.72	0	4	--=====:::	.2260	1732	142	71	7	0	0	0
85	3266.0	1.72	0	2	*---====::	1.3140	10491	756	310	54	0	0	0
86	3267.0	1.72	0	2	*---====::	1.3140	10491	756	310	54	0	0	0
87	3268.0	1.72	0	2	*---====::	1.3140	10491	756	310	54	0	0	0
88	3269.0	1.74	0	2	*---===:::	1.1600	9135	686	312	42	0	0	0
89	3270.0	1.74	0	2	*---===:::	1.1600	9135	686	312	42	0	0	0
90	3271.0	1.74	0	2	*---===:::	1.1600	9135	686	312	42	0	0	0
91	3272.0	1.74	0	2	---=====::	1.1500	9207	686	241	39	0	0	0
92	3273.0	1.74	0	2	---=====::	1.1500	9207	686	241	39	0	0	0
93	3274.0	1.74	0	2	---=====::	1.1500	9207	686	241	39	0	0	0
94	3275.0	1.74	0	2	-========:	.3360	2453	256	108	17	0	0	0
95	3276.0	1.74	0	2	-========:	.3360	2453	256	108	17	0	0	0
96	3277.0	1.74	0	2	-========:	.3360	2453	256	108	17	0	0	0
97	3278.0	1.74	0	2	--=======:	.6240	4872	397	174	12	0	0	0
98	3279.0	1.74	0	2	--=======:	.6240	4872	397	174	12	0	0	0
99	3280.0	1.74	0	2	--=======:	.6240	4372	397	174	12	0	0	0
100	3281.0	1.74	0	3	*--======:	1.2200	9614	854	258	21	0	0	0
101	3282.0	1.74	0	3	*--======:	1.2200	9614	854	258	21	0	0	0
102	3283.0	1.74	0	3	*--======:	1.2200	9614	854	258	21	0	0	0
103	3284.0	1.74	0	3	-========:	.3940	2994	282	121	8	0	0	0
104	3285.0	1.74	0	3	-========:	.3940	2994	282	121	8	0	0	0
105	3286.0	1.74	0	3	-========:	.3940	2994	282	121	8	0	0	0
106	3287.0	1.74	0	3	-========:	.2460	2007	115	69	5	0	0	0
107	3288.0	1.74	0	3	-========:	.2460	2007	115	69	5	0	0	0
108	3289.0	1.74	0	3	-========:	.2460	2007	115	69	5	0	0	0
109	3290.0	1.74	0	3	-=====::::	.7660	6094	428	209	21	0	0	0
110	3291.0	1.74	0	3	-=====::::	.7660	6094	428	209	21	0	0	0
111	3292.0	1.74	0	3	-=====::::	.7660	6094	428	209	21	0	0	0
112	3293.0	1.74	0	3	*-====::::	.8120	6612	429	194	18	0	0	0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 25 Dec 83 Time : 02:37

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/ DOLOM %		LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
113	3294.0	1.74	0	3	*-====::::	.8120	6612	429	194	18	0	0	0
114	3295.0	1.74	0	3	*-====::::	.8120	6612	429	194	18	0	0	0
115	3296.0	1.74	0	4	--====::::	.2400	2186	129	65	7	0	0	0
116	3297.0	1.74	0	4	--====::::	.2400	2186	129	65	7	0	0	0
117	3298.0	1.74	0	4	--====::::	.2400	2186	129	65	7	0	0	0
118	3299.0	1.76	0	4	-=======::	.4380	3593	221	108	7	0	0	0
119	3300.0	1.76	0	4	-=======::	.4380	3593	221	108	7	0	0	0
120	3301.0	1.76	0	4	-=======::	.4380	3593	221	108	7	0	0	0
121	3302.0	1.76	0	4	--=======:	.1600	1305	107	34	3	0	0	0
122	3303.0	1.76	0	4	--=======:	.1600	1305	107	34	3	0	0	0
123	3304.0	1.76	0	4	--=======:	.1600	1305	107	34	3	0	0	0
124	3305.0	1.76	0	4	---=====::	.8160	6612	486	173	16	0	0	0
125	3306.0	1.76	0	4	---=====::	.8160	6612	486	173	16	0	0	0
126	3307.0	1.76	0	4	---=====::	.8160	6612	486	173	16	0	0	0
127	3308.0	1.76	0	3	--======::	.8120	6473	386	217	41	0	0	0
128	3309.0	1.76	0	3	--======::	.8120	6473	386	217	41	0	0	0
129	3310.0	1.76	0	3	--======::	.8120	6473	386	217	41	0	0	0
130	3311.0	1.76	0	3	--======::	.1780	1542	128	5	0	0	0	0
131	3312.0	1.76	0	3	--======::	.1780	1542	128	5	0	0	0	0
132	3313.0	1.76	0	3	--======::	.1780	1542	128	5	0	0	0	0
133	3314.0	1.76	0	3	-======:::	.1000	912	57	33	2	0	0	0
134	3315.0	1.76	0	3	-======:::	.1000	912	57	33	2	0	0	0
135	3316.0	1.76	0	3	-======:::	.1000	912	57	33	2	0	0	0
136	3317.0	1.76	0	3	-=======::	.1320	1075	69	37	2	0	0	0
137	3318.0	1.76	0	3	-=======::	.1320	1075	69	37	2	0	0	0
138	3319.0	1.76	0	3	-=======::	.1320	1075	69	37	2	0	0	0
139	3320.0	1.76	0	3	--======::	.2020	1663	121	40	3	0	0	0
140	3321.0	1.76	0	3	--======::	.2020	1663	121	40	3	0	0	0
141	3322.0	1.76	0	3	--======::	.2020	1663	121	40	3	0	0	0
142	3323.0	1.76	0	3	--======::	.2220	1824	132	44	4	0	0	0
143	3324.1	1.76	0	3	--======::	.2220	1824	132	44	4	0	0	0
144	3325.0	1.76	0	3	--======::	.2220	1824	132	44	4	0	0	0
145	3326.0	1.76	0	4	-=====::::	.6300	5237	286	139	20	0	0	0
146	3327.0	1.76	0	4	-=====::::	.6300	5237	286	139	20	0	0	0
147	3328.0	1.76	0	4	-=====::::	.6300	5237	286	139	20	0	0	0
148	3329.0	1.76	0	4	-====::::	.2000	922	57	17	0	0	0	0
149	3330.0	1.76	0	4	-====::::	.2000	922	57	17	0	0	0	0
150	3331.0	1.76	0	4	-====::::	.2000	922	57	17	0	0	0	0
151	3332.0	1.76	0	4	-====::::	.7920	679	53	9	0	0	0	0
152	3333.0	1.76	0	4	-====::::	.7920	679	53	9	0	0	0	0
153	3334.0	1.76	0	4	-====::::	.7920	679	53	9	0	0	0	0
154	3335.0	1.76	0	4	-===::::	.5960	522	29	4	0	0	0	0
155	3336.0	1.76	0	4	-===::::	.5960	522	29	4	0	0	0	0
156	3337.0	1.76	0	4	-===::::	.5960	522	29	4	0	0	0	0
157	3338.0	1.76	0	4	-===::::	.5960	522	29	4	0	0	0	0
158	3339.0	1.76	0	4	-===::::	.5960	522	29	4	0	0	0	0
165	3342.0	1.82	0	2	==::::	.2000	1888	50	38	0	0	0	0
166	3343.0	1.82	0	2	==::::	.2000	1888	50	38	0	0	0	0
167	3344.0	1.82	0	2	-=====::	.1800	1740	70	46	0	0	0	0
168	3345.0	1.82	0	2	-=====::	.1800	1740	70	46	0	0	0	0
169	3346.0	1.82	0	2	-=====::	.1800	1740	70	46	0	0	0	0
170	3347.1	1.82	0	2	---===::::	.1200	1131	28	23	0	0	0	0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 25 Dec 83 Time : 02:43

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/ DOLOM %		LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
171	3348.0	1.82	0	2	---===::::	.1200	1131	28	23	0	0	0	0
172	3349.0	1.82	0	2	---===::::	.1200	1131	28	23	0	0	0	0
173	3350.0	1.82	0	2	---===::::	.0400	452	2	1	0	0	0	0
174	3351.0	1.82	0	2	---===::::	.0400	452	2	1	0	0	0	0
175	3352.0	1.82	0	2	---===::::	.0400	452	2	1	0	0	0	0
176	3353.0	1.82	0	2	-===::::::	.0400	500	10	8	0	0	0	0
177	3354.0	1.82	0	2	-===::::::	.0400	500	10	8	0	0	0	0
178	3355.0	1.82	0	2	-===::::::	.0400	500	10	8	0	0	0	0
179	3356.0	1.82	0	2	=:::::::::	.1000	1009	64	10	0	0	0	0
180	3357.0	1.82	0	2	=:::::::::	.1000	1009	64	10	0	0	0	0
181	3358.0	1.82	0	10	=:::::::::	.1000	1009	64	10	0	0	0	0
182	3359.0	1.82	0	10	=:::::::::	.0300	700	15	5	0	0	0	0
183	3360.0	1.82	0	10	=:::::::::	.0300	700	15	5	0	0	0	0
184	3361.0	1.82	0	10	=:::::::::	.0300	700	15	5	0	0	0	0
185	3362.0	1.82	0	10	==::::::::	.0900	870	50	15	0	0	0	0
186	3363.0	1.82	0	10	==::::::::	.0900	870	50	15	0	0	0	0
187	3364.0	1.82	0	10	==::::::::	.0900	870	50	15	0	0	0	0
188	3365.0	1.82	0	10	==::::::::	.0500	636	5	2	0	0	0	0
189	3366.0	1.82	0	10	==::::::::	.0500	636	5	2	0	0	0	0
190	3367.0	1.82	0	10	==::::::::	.0500	636	5	2	0	0	0	0
191	3368.0	1.82	0	10	==::::::::	.0500	636	5	2	0	0	0	0
192	3369.0	1.82	0	8	====::::<	.0500	600	5	2	0	0	0	0
193	3370.0	1.82	0	8	====::::<	.0500	600	5	2	0	0	0	0
194	3371.0	1.82	0	8	==::::<<	.0200	250	3	1	0	0	0	0
195	3372.0	1.82	0	8	====::::<	.0200	250	3	1	0	0	0	0
196	3373.0	1.82	0	8	====::::<	.0200	250	3	1	0	0	0	0
197	3374.0	1.82	0	8	::XX	.0300	300	3	1	0	0	0	0
198	3375.0	1.82	0	8	::XX	.0300	300	3	1	0	0	0	0
199	3376.0	1.82	0	8	::XX	.0300	300	3	1	0	0	0	0
200	3377.0	1.82	0	8	::XXX	.1000	926	32	3	0	0	0	0
201	3378.0	1.82	0	8	::XXX	.1000	926	32	3	0	0	0	0
202	3379.0	1.82	0	8	::XXX	.1000	926	32	3	0	0	0	0
203	3380.0	1.82	0	8	:XXX	.0200	240	3	0	0	0	0	0
204	3381.0	1.82	0	8	:XXX	.0200	240	3	0	0	0	0	0
205	3382.0	1.82	0	8	:XXX	.0200	240	3	0	0	0	0	0
206	3383.0	1.82	0	8	:::::XX	.1200	1175	47	4	0	0	0	0
207	3384.0	1.80	0	8	:::::XX	.1200	1175	47	4	0	0	0	0
208	3385.0	1.80	0	8	:::::XX	.1200	1175	47	4	0	0	0	0
209	3386.0	1.80	0	8	:::::XX	.0200	235	6	1	0	0	0	0
210	3387.0	1.80	0	8	:::::XX	.0200	235	6	1	0	0	0	0
211	3388.0	1.80	0	8	:::::XX	.0200	235	6	1	0	0	0	0
212	3389.0	1.80	0	8	::::XXXX	.0300	260	6	1	0	0	0	0
213	3390.0	1.80	0	8	::::XXXX	.0300	260	6	1	0	0	0	0
214	3391.0	1.80	0	8	::::XXXX	.0300	260	6	1	0	0	0	0
215	3392.0	1.80	0	8	::::::XX	.0200	210	5	1	0	0	0	0
216	3393.0	1.80	0	8	::::::XX	.0200	210	5	1	0	0	0	0
217	3394.0	1.80	0	8	::::::XX	.0200	210	5	1	0	0	0	0
218	3395.0	1.80	0	8	::::::::XX	.0300	290	6	1	0	0	0	0
219	3396.0	1.80	0	8	::::::::XX	.0300	290	6	1	0	0	0	0
220	3397.0	1.80	0	8	::::::::XX	.0300	290	6	1	0	0	0	0
221	3398.0	1.80	0	20	::::::::::	.0800	766	43	4	0	0	0	0
222	3399.0	1.80	0	20	::::::::::	.0800	766	43	4	0	0	0	0

SHELL DEV. AUST. : BASKER SOUTH No.1
Date : 25 Dec 83 Time : 02:48

LAG DATA PRINT

FILE#	DEPTH	BULK DENSITY spc grv	CALC/ DOLOM %		LITHOLOGY	TOTAL GAS %	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	iC5 ppm	CO2 ppm	H2S ppm
223	3400.0	1.80	0	20	|::::::::::::|	.0800	766	43	4	0	0	0	0
224	3401.0	1.80	0	20	|::::::::::::|	.0200	200	4	0	0	0	0	0
225	3402.0	1.80	0	20	|::::::::::::|	.0200	200	4	0	0	0	0	0
226	3403.0	1.80	0	20	|::::::::::::|	.0200	200	4	0	0	0	0	0
227	3404.0	1.80	0	20	|==::::::::::|	.3500	4245	200	56	5	0	0	0
228	3405.0	1.80	0	20	|==::::::::::|	.3500	4245	200	56	5	0	0	0
229	3406.0	1.80	0	20	|==::::::::::|	.3500	4245	200	56	5	0	0	0
230	3407.0	1.80	0	20	|==::::::::::|	.5000	4245	200	56	5	0	0	0
231	3408.0	1.80	0	20	|==::::::::::|	.5000	4245	200	56	5	0	0	0
232	3409.0	1.80	0	20	|==::::::::::|	.5000	4245	200	56	5	0	0	0
233	3410.0	1.80	0	20	|==::::::::::|	.0100	95	5	2	0	0	0	0
234	3411.0	1.80	0	20	|==::::::::::|	.0100	95	5	2	0	0	0	0
235	3412.0	1.80	0	20	|==::::::::::|	.0100	95	5	2	0	0	0	0
236	3413.0	1.80	0	20	|==::::::::::|	.0100	95	5	2	0	0	0	0
237	3414.0	1.80	0	20	|==::::::::::|	.0100	95	5	2	0	0	0	0
238	3415.0	1.80	0	20	|==::::::::::|	.0100	95	5	2	0	0	0	0
239	3416.0	1.80	0	20	|==::::::::::|	.0100	95	5	2	0	0	0	0
240	3417.0	1.82	0	18	|==::::::::::|	.0100	106	6	3	0	0	0	0
241	3418.0	1.82	0	18	|==::::::::::|	.0100	106	6	3	0	0	0	0
242	3419.0	1.82	0	18	|==::::::::::|	.0100	106	6	3	0	0	0	0
243	3420.0	1.82	0	18	|==::::::::::|	.0100	106	6	3	0	0	0	0

APPENDIX H

FORMATION EVALUATION LOG

PE602291

This is an enclosure indicator page.
The enclosure PE602291 is enclosed within the container PE903478 at this location in this document.

The enclosure PE602291 has the following characteristics:

ITEM_BARCODE =	PE602291
CONTAINER_BARCODE =	PE903478
NAME =	Formation Evaluation Log/Mud Log
BASIN =	GIPPSLAND
PERMIT =	VIC/P19
TYPE =	WELL
SUBTYPE =	WELL_LOG
DESCRIPTION =	Basker south 1 Formation Evaluation Log/Mud Log (enclosure from Final Well Report—attachment to WCR)
REMARKS =	
DATE_CREATED =	24/12/83
DATE_RECEIVED =	14/05/84
W_NO =	W839
WELL_NAME =	Basker South-1
CONTRACTOR =	Exploration Logging Australian Inc
CLIENT_OP_CO =	Shell Development (Australia) Pty Ltd