DEPT. NAT. RES & ENV
PE902042

Esso Australia Ltd.

W1062

WELL COMPLETION REPORT

BLENNY-1
VOLUME 1
BASIC DATA

09 NOV 1992
PETROLEUM DIVISION

GIPPSLAND BASIN
VICTORIA

ESSO AUSTRALIA RESOURCES LIMITED

Compiled By:- D. Barwick
August 1992

WELL COMPLETION REPORT

VOLUME 1: BASIC DATA

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WELL DATA RECORD

BLENNY 1

LOCATION	:	Latitude : $38^{0}28'23.66"$ S Longitude : $147^{0}24'52.03"$E X= 536153m E Y= 5741580m N Map Projection: UTM Zone 55 Geographical Location: Bass Strait, Victoria Field : Wildcat
PERMIT	:	Vic/L15
ELEVATION	:	23 m
WATER DEPTH	:	40 m
TOTAL DEPTH	:	1423m MD (Driller) 1422m MD (Logger)
PLUG BACK TYPE	:	Cement Plug
REASONS FOR PLUGGING BACK	:	Abandonment
MOVE IN	:	30/04/92 1000 hrs
SPUDDED	:	01/05/92 0445 hrs
REACHED TD	:	07/05/92 1545 hrs
RIG RELEASED	:	11/05/92 0430 hrs
OPERATOR	:	Esso Australia Resources Ltd.
PERMITTEE OR LICENCEE	:	BHP Petroleum (Australia) Pty Ltd and Esso Australia Resources Ltd.
ESSO INTEREST	:	50%
OTHER INTEREST	:	BHP Petroleum (Bass Strait) Pty Ltd
CONTRACTOR	:	Atwood Oceanics
RIG NAME	:	Falcon
EQUIPMENT TYPE	:	Semi-submersible
TOTAL RIG DAYS	:	12
DRILLING PROJECT NO	:	L61012100
TYPE COMPLETION	:	Plugged and abandoned
WELL CLASSIFICATION	:	Before drilling: New Field Wildcat After drilling: Dry Hole

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BLENNY 1 FINAL WELL REPORT

Operations Summary

Moving/Mooring

The Falcon was towed from the Kingfish-9 location to Blenny-1 by the MV Lady Penelope. The anchors were run by the MV Lady Caroline and MV Lady Penelope. The anchors were then tension tested to 250 kips and the rig ballasted down to a drilling draft of 55 feet.

26" Hole Section

The temporary guide base (TGB) was run into the seafloor @ 63m, drill pipe was picked up and racked back in the derrick. A 26" bit and BHA made up, run into the TGB and the well spudded. A 26" hole was drilled to 175m and the hole swept with a high viscosity pill. A short trip was run to the seafloor, and the hole displaced with high viscosity mud. The 20" casing was run and cemented with the shoe at 158.7m. The Permanent Guide Base and BOP's were pressure tested and run to the seafloor. One joint of riser and a slip joint were then installed.

17 1/2" Hole Section

A 17 1/2" bit and BHA, was made up and ran into the hole. New hole was drilled from 151m (top of cement) to 755m. A high viscosity pill was pumped and bottoms up circulated. A short trip was made to the 20" casing shoe and the well monitored for lost circulation. The well took 60 bbls, the drill string was run into bottom and the well monitored again. The well took 8 barrels in 10 minutes, a 90 barrel lost circulation material (LCM) pill was mixed and pumped. New hole was drilled from 755m to 810m while monitoring the well (losing mud at 30 barrels per hour) and spotting LCM pills. Bottoms up were circulated and the string pulled out of the hole for logging. Schlumberger were rigged up and Sonic-Gamma Ray logs run from 810m to the 20" casing shoe. The wear bushing was pulled and the 13 3/8" casing run (shoe at 793.7m). The casing was cemented in place and the BOP's pressure tested.

12 1/4" Hole Section

A 12 1/4" bit and BHA were picked up and run into the hole. The top of the cement was tagged at 769m. The surface equipment was then tested and the float collar, cement, shoe and rat hole drilled out. 3 metres of new hole was drilled to 813m and a PIT test performed to 13ppg EMW. New 12 1/4" hole was then drilled to 1254m, where the bit was pulled due to poor penetration. New hole was then drilled to 1257.5m, where samples were circulated up for evaluation. There being no shows, the hole was drilled ahead to the eventual TD of 1423m, where bottoms up was circulated and the string pulled out of the hole so that Schlumberger could be rigged up. Electric logs were then run as follows.

Run 1	DLL-MSFL-AS-LDL-CNL-NGS-AMS
Run 2	SHDT-GR-AMS
Run 3	RFT-GR-AMS (16 Pretests)
Run 4	RFT-GR-AMS (2 samples)
Run 5	CSAT-GR-AMS (7 levels)
Run 6	CST (30 shot, bought 27)

Schlumberger were then rigged down and open ended drill pipe run in the hole to 1290m. A cement plug was then set from 1290m-1200m. The top of cement was tagged at 1204m. The string was pulled out of hole to 840m, excess drillpipe laid down and cement a plug set from 840m to 740m. A bridge plug was then set and the casing cut. The 13 3/8" casing was pulled out of hole and a plug set from 190 to 90m. The BOP stack and riser were pulled. The 20" casing was cut and pulled. The wellhead and Permanent Guide Base were

pulled and secured in the moonpool. The rig was ballasted to transit draft, the anchors recovered and the hole abandoned.

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BLENNY-1 FINAL WELL REPORT
CASING DATA

OD (In.)	WEIGHT (LB/FT)	GRADE	CONNECTION	LENGTH (M)	SHOE DEPTH (mMD-RKB)	CENTRALIZER POSITION	REMARKS
20	94	X-56	JV	12.32	158.70	NONE	FLOAT SHOE JOINT
20	94	X-56	JV	62.44		NONE	5 INTERMEDIATE JOINTS
20	129	X-52	JV x ALT-2	12.74		NONE	CROSSOVER JOINT
24	670	----	ALT-2	10.88		NONE	WH S/N # 856740-1 TOP OF WH @ 60m
				98.38			
13-3/8	54.5	K-55	BTC	11.63	793.69	1 ON STOP RING (@ MIDDLE)	FLOAT SHOE JOINT
	54.5	K-55	BTC	11.77		1 @ MIDDLE	FLOAT COLLAR JOINT
	54.5	K-55	BTC	591.26		1 IN MIDDLE OF FIRST 5 COLLARS	51 INTERMEDIATE JOINTS
	68	K-55	BTC	115.59		NONE COLLARS JTS 55-57	10 INTERMEDIATE JOINTS FOR CENTRALIZERS
	68	K-55	BTC	2.69		NONE	CASING HANGER PUP JOINT RKB TO H-OFF-60.75m 0.4m HGR ABOVE H-OFF
				732.94			

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BLENNY-1 FINAL WELL REPORT
CEMENT DATA

DATE (1992)	TYPE JOB	INTERVAL (mMD-RKB)	TYPE CEMENT	VOLUME (SX)	SLURRY WEIGHT (PPG)	ADDITIVES	MIX WATER	REMARKS
1-MAY	20" PRIMARY LEAD	158.7-63	CLASS "G"	360	12.5	3.1% PH-GEL	FW	CEMENT THROUGH DP STINGER. CMT VOLUME CALCULATED TO PROVIDE 100% EXCESS ABOVE GAUGE HOLE VOLUME WITH TOC @ SEAFLOOR. CEMENT RETURNs OBSERVED AT ML.
1-MAY	20" PRIMARY TAIL		CLASS "G"	585	15.8	----	SW	
4-MAY	13-3/8" PRIMARY	793.69-294	CLASS "G"	1000	15.8	----	FW	CMT VOLUME BASED ON GAUGE HOLE HOLE DIAMETER-NO CALIPER RUN. BUMPED PLUG W/ 1500 PSI. NO LR.
9-MAY	P & A PLUG No.1	1290-1204	CLASS "G"	300	15.9	----	FW	SPOT ACROSS LATROBE TOP-NO HCs. TAGGED WITH 15 KIPS S/O OEDP.
9-MAY	P & A PLUG No.2	840-740	CLASS "G"	310	15.9	----	SW	NOT TAGGED SINCE EZSV BP SET @ 695m AND P/T TO 1500 PSI-10 MINs.
10-MAY	P & A PLUG No.3	190-90	CLASS "G"	437	15.9	2% CaCl2	SW	13-3/8" STUB AND SURFACE PLUG. TESTED TO 500 PSI.

5. SAMPLES, CONVENTIONAL CORES, SIDEWALL CORES

BLENNY 1

Interval (m)	Type
810-1423mKB	3 set washed and oven dried, 1 set lightly washed, air dried and bagged samples.
	810-1100mKB Every 10m.
	1100-1423mKB Every 5m.
1205-1340.5mKB	Sidewall Cores. 30 Shot, 1 misfire, recovered 28, bought 27.

6. WIRELINE LOGS AND SURVEYS

BLENNY 1

Type and Scale		From	To
	Suite 1		
AS-GR-AMS	1:200	157m	810m
	Suite 2		
DLL-MSFL-AS-LDL-CNL-NGS-AMS	1:200	792m	1403m
RFT-GR-AMS	(16 Pretests/2 samples)	1252m	1366m
SHDT-GR-AMS	1:200	1175m	1395m
CSAT-GR-AMS (Checkshot)	(7 levels)	880m	1386m
CST (Sidewall Cores)	(30 shots)	1205m	1340.5m

SUMMARY OF WIRELINE FORMATION TEST PROGRAMME BLENNY 1

Test	Depth (m)	Chamber (l)	Recovery Oil (l)	Recovery Gas (ft3)	Water (l)	Filt (1)	Form Press. (Psia)	Hydro Press. (Psia)	Remarks
1/1	1252.0	Pretest	-	-	-	-		2043	Tight/Aborted
1/2	1255.5	Pretest	-	-	-	-		2050	Tight/Aborted
1/3	1259.5	Pretest	-	-	-	-	1781.1	2056	Good Test
1/4	1265.5	Pretest	-	-	-	-	1790.4	2067	Good Test
1/5	1268.5	Pretest	-	-	-	-	1795.0	2072	Good Test
1/6	1280.0	Pretest	-	-	-	-	1810.8	2091	Good Test
1/7	1283.0	Pretest	-	-	-	-	1815.0	2096	Good Test
1/8	1305.0	Pretest	-	-	-	-	1846.8	2131	Good Test
1/9	1313.0	Pretest	-	-	-	-	1857.9	2147	Good Test
1/10	1320.0	Pretest	-	-	-	-	1867.6	2159	Good Test
1/11	1325.5	Pretest	-	-	-	-	1875.1	2168	Good Test
1/12	1330.0	Pretest	-	-	-	-	1881.4	2176	Good Test
1/13	1341.0	Pretest	-	-	-	-	1897.7	2195	Good Test
1/14	1356.0	Pretest	-	-	-	-	1918.7	2220	Good Test
1/15	1366.0	Pretest	-	-	-	-	1932.8	2238	Good Test
1/16	1261.0	Pretest	-	-	-	-	1783.6	2059	Good Test
2/17	1257.5	45.4	0.0	RTSTM	3.0	-	1781.3	2054	Smp 1 Poor perm.
		3.8	0.00	0.00	1.50	-	1778.0	2052	Smp 2 Poor perm.

TEMPERATURE RECORD BLENNY 1						
LOGGING RUN	THERMO DEPTH (M)	MAX REC TEMP (C^{0})	CIRCULATION TIME (t_k) (hours)	TIME AFTER CIRCULATION STOPPED (t)	HORNER TEMP (C^{0})	GEOTHERMAL GRADIENT (C^{0}/km)
Suite 1						
AS-GR-AMS	807	33		2.5		
Suite 2						
DLL-MSFL-LDL-CNL-AS-NGS-AMS	1403	64	.5	7	71.8	42.4
SHDT-GR-AMS	1395	67		11.5	71.8	42.4
RFT-GR-AMS (PRE-TEST)	1366	68		25.5	71.8	42.4
CSAT-GR-AMS	1366	70		29	71.8	42.4
CST'S	1386				71.8	42.4

FIGURES

LOCALITY MAP
BLENNY-1

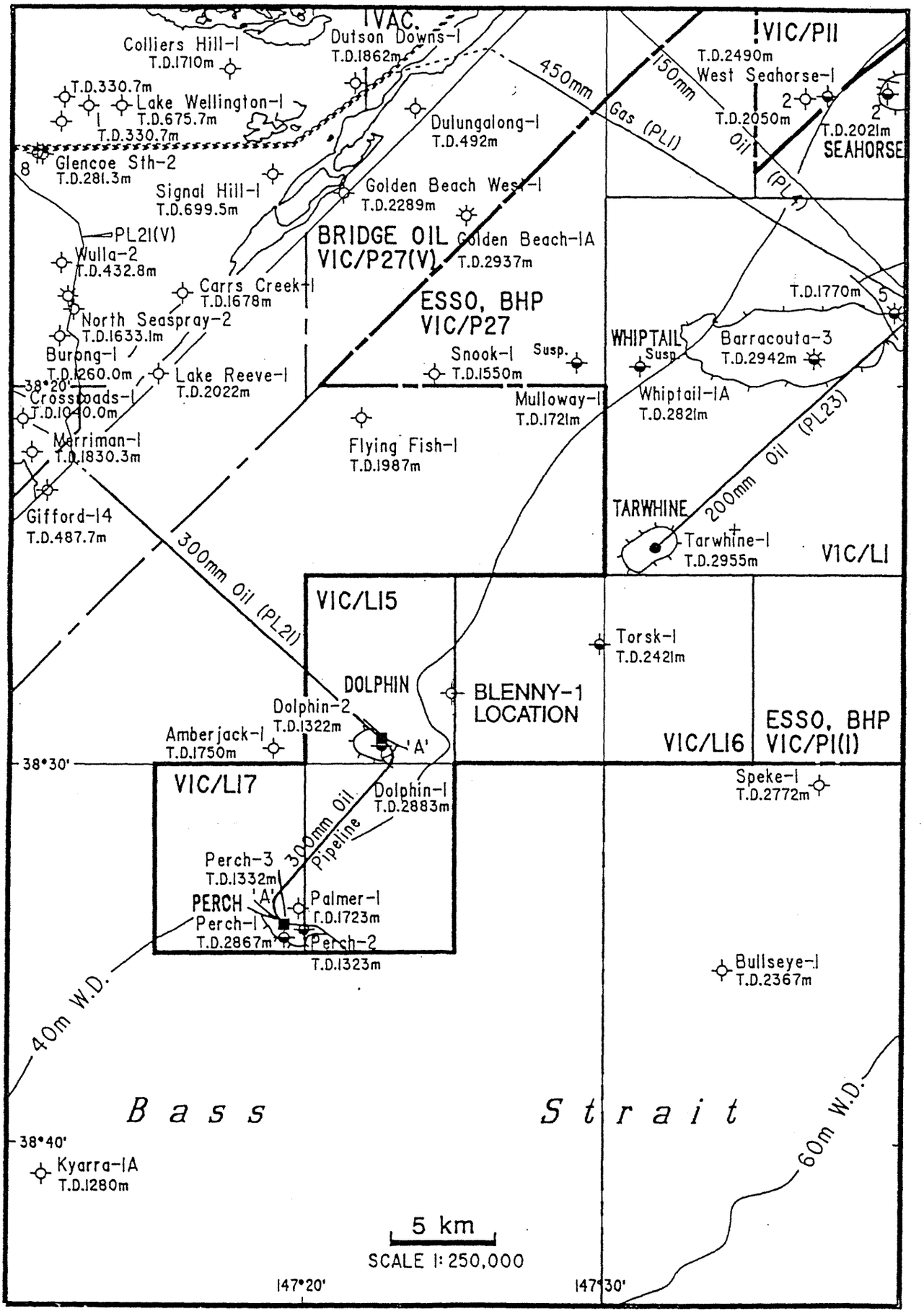

Figure 1

DFT.GIPPS.LOC.BLENNY 5-91

Dwg 2504/OP/1

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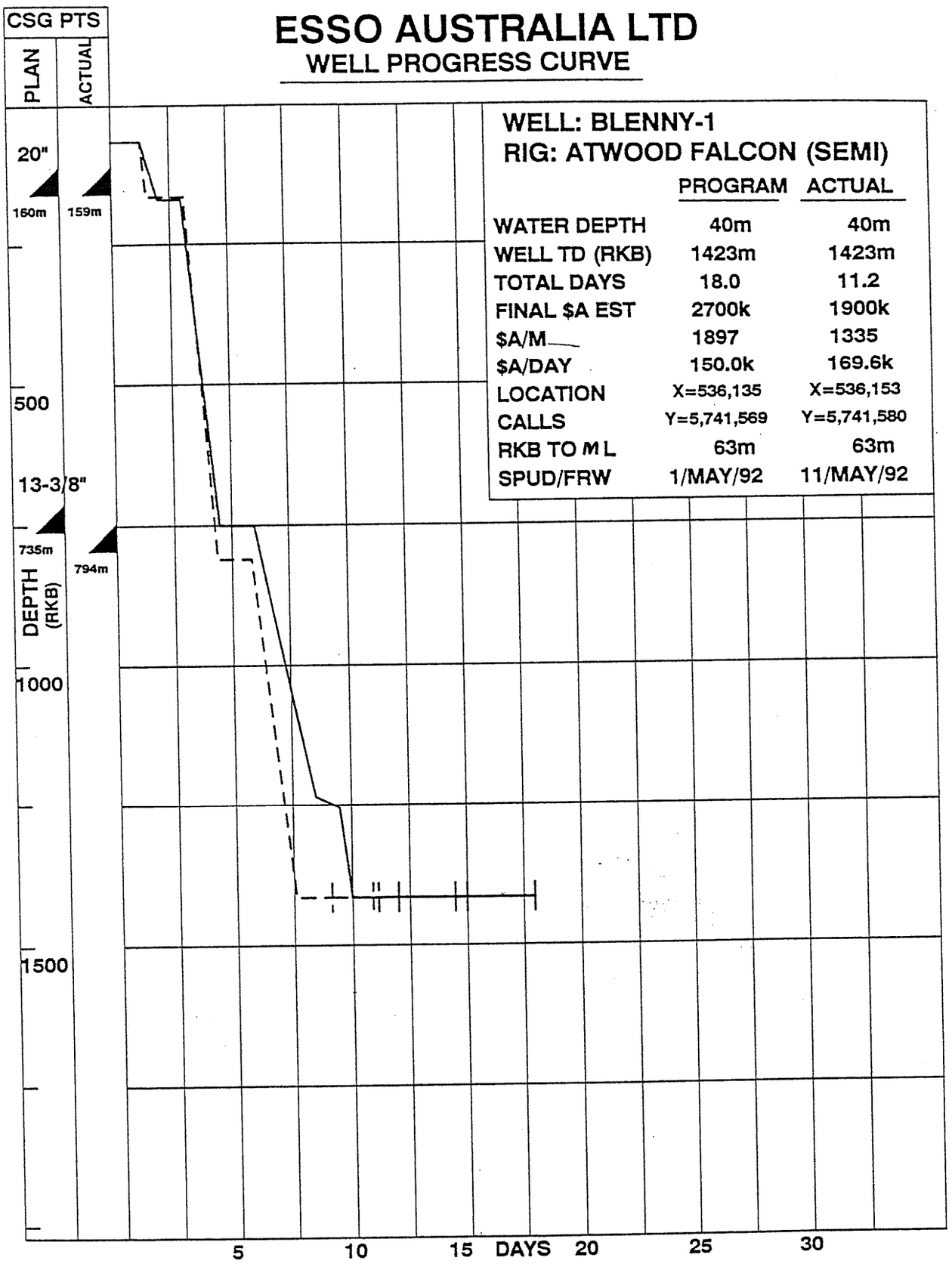
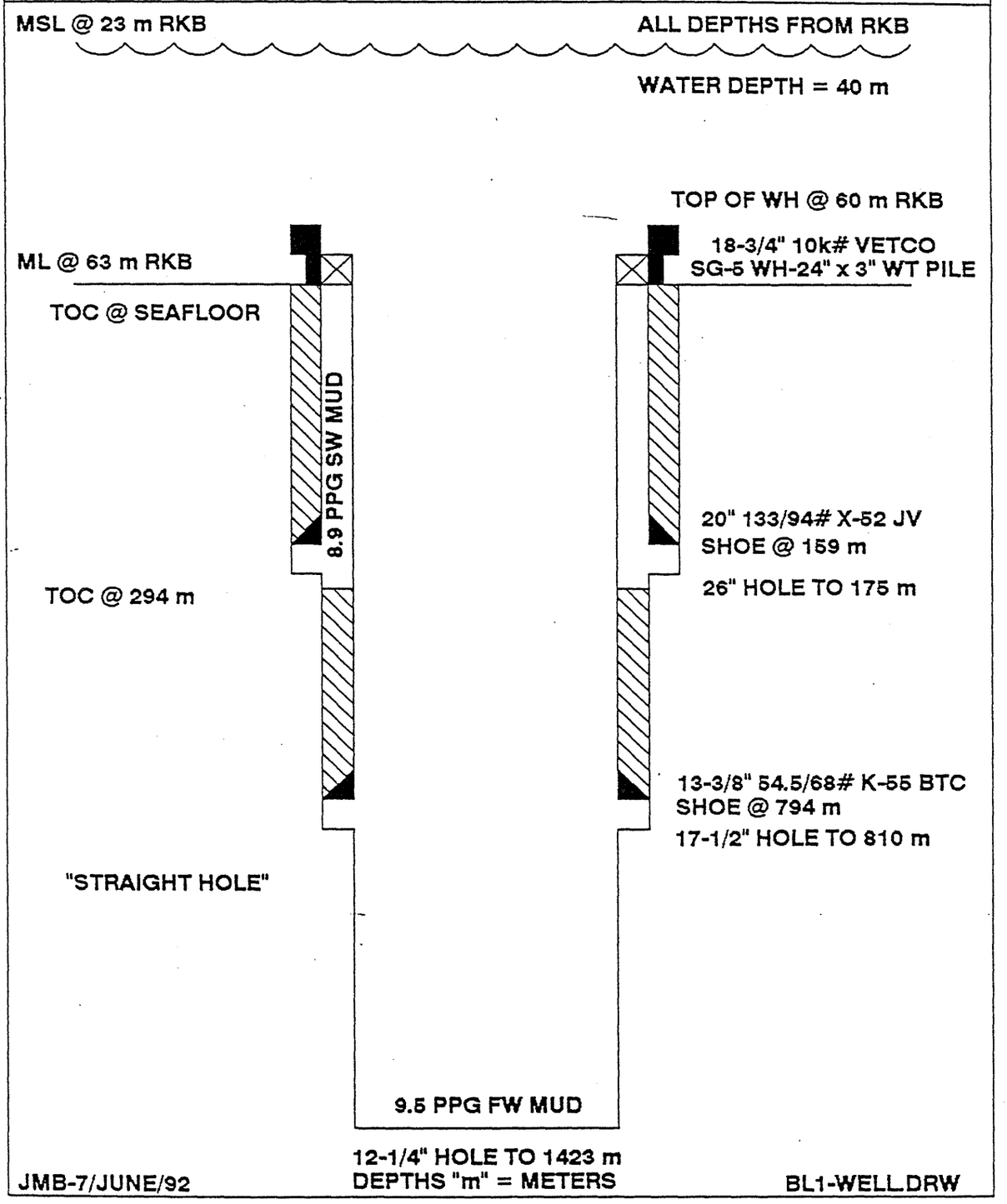
WELL PROGRESS CURVE



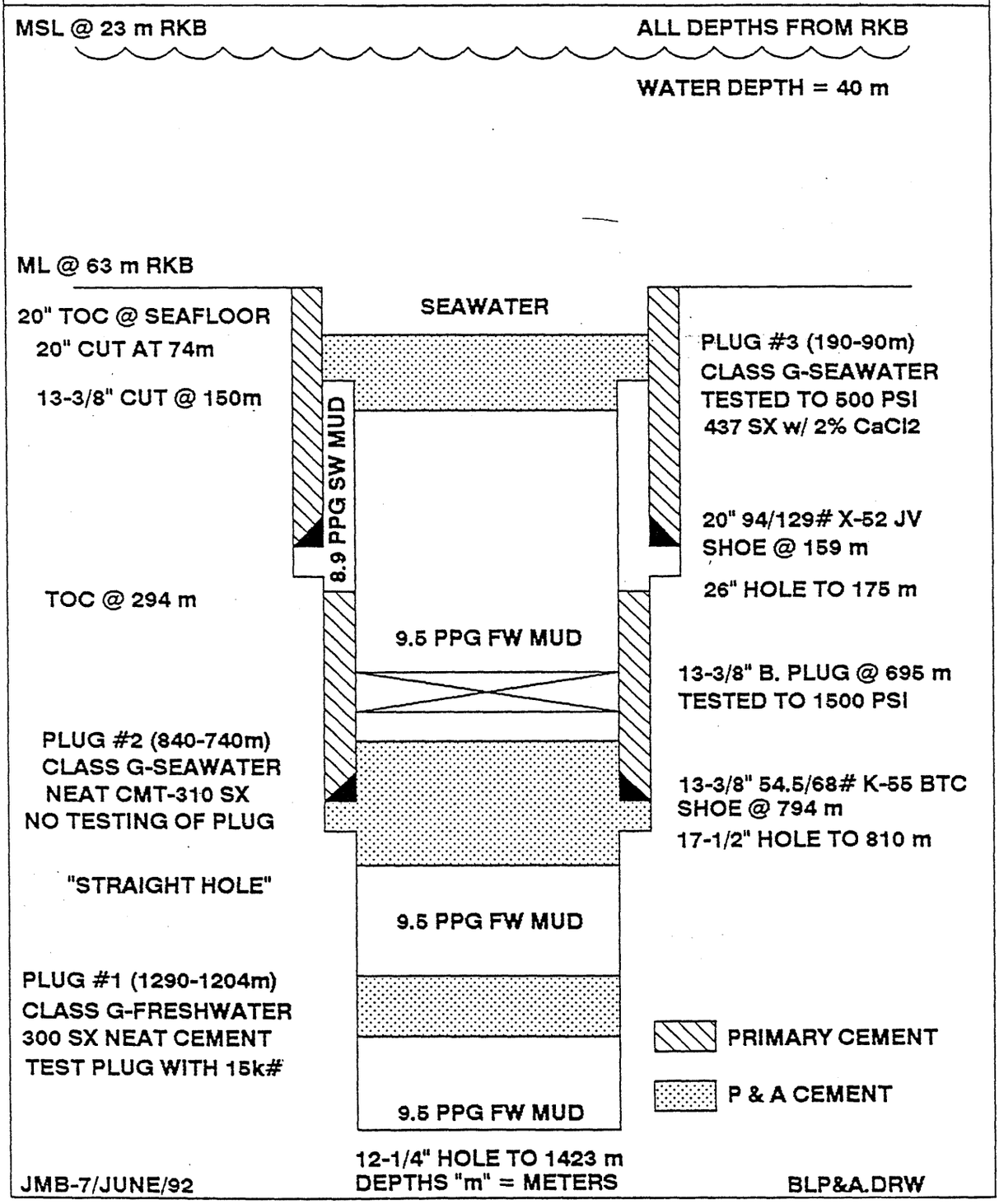
WELL: BLENNY-1
RIG: ATWOOD FALCON (SEMI)

	PROGRAM	ACTUAL
WATER DEPTH	40m	40m
WELL TD (RKB)	1423m	1423m
TOTAL DAYS	18.0	11.2
FINAL $A EST	2700k	1900k
$A/M	1897	1335
$A/DAY	150.0k	169.6k
LOCATION	X=536,135	X=536,153
CALLS	Y=5,741,569	Y=5,741,580
RKB TO ML	63m	63m
SPUD/FRW	1/MAY/92	11/MAY/92

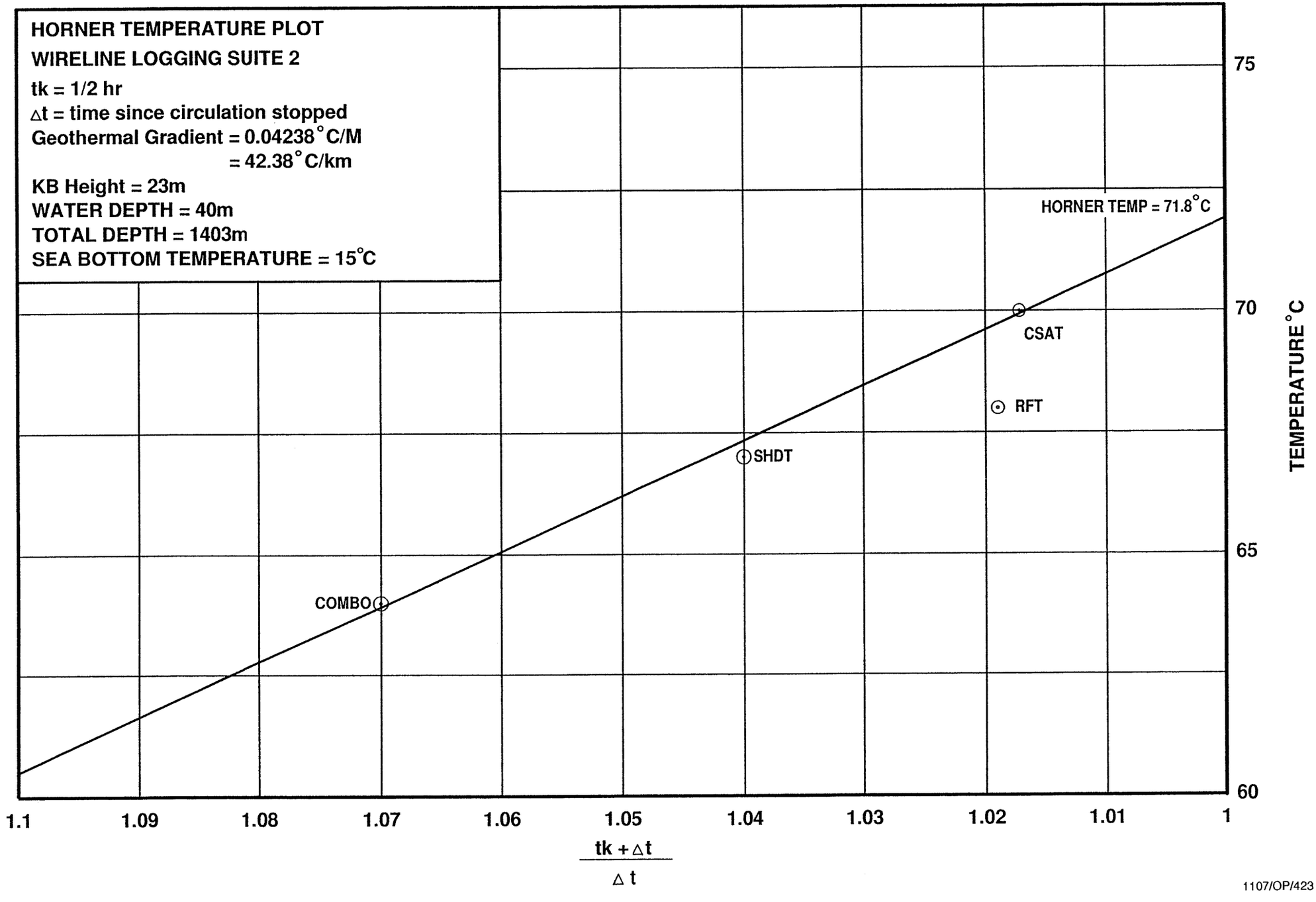
ESSO AUSTRALIA LTD.
BLENNY-1 FINALIZED WELL SKETCH



ESSO AUSTRALIA LTD.
BLENNY-1 P & A WELLBORE SKETCH



BLENNY - 1


HORNER TEMPERATURE PLOT
WIRELINE LOGGING SUITE 2
tk = 1/2 hr
Δt = time since circulation stopped
Geothermal Gradient = 0.04238°C/M
= 42.38°C/km
KB Height = 23m
WATER DEPTH = 40m
TOTAL DEPTH = 1403m
SEA BOTTOM TEMPERATURE = 15°C
HORNER TEMP = 71.8°C
CSAT
RFT
SHDT
COMBO
75
70
65
60
TEMPERATURE °C
1.1
1.09
1.08
1.07
1.06
1.05
1.04
1.03
1.02
1.01
1
tk + Δt / Δ t

APPENDIX 1

BLENNY 1

Lithology Descriptions

Depth (m)	%	Description
810-20	80	LIMESTONE: Calcarenite, white to off white, finely crystalline, trace glauconite, trace fossil fragments, hard, blocky.
	20	CLAYSTONE: Pale greyish green, firm, slightly calcareous, trace disseminated pyrite, blocky.
820-30	90	LIMESTONE: As above, calcarenite.
	10	CLAYSTONE: Grey to dark grey, firm, moderately calcareous, laminated, sub blocky.
830-40	90	LIMESTONE: As above, calcarenite, trace coral fragments.
	10	CLAYSTONE: As above, also pale greyish green, abundant cement cavings.
840-50	70	LIMESTONE: Calcarenite, off white, fine to medium crystalline, recrystallised, abundant micritic matrix, common fossil fragments, common medium to coarse round quartz, trace glauconite, hard to very hard, no porosity, no show.
	30	CLAYSTONE: Grey to dark grey, firm, slightly calcareous, laminated, subfissile.
850-60	80	LIMESTONE: Calclutite, white to off white, occasionally recrystallised, trace fossil fragments, slightly to moderately argillaceous, slightly dolomitic, hard, blocky.
	20	CLAYSTONE: Grey to light greenish grey, soft to firm slightly to moderately calcareous, sub blocky.
860-70	60	LIMESTONE: Calclutite, as above.
	40	CLAYSTONE: As above.
870-80	60	LIMESTONE: Calclutite, as above, becoming light grey and very argillaceous, grading to very calcareous claystone in part.
	40	CLAYSTONE: As above, becoming light grey, very calcareous, trace pyrite.
880-90	70	CLAYSTONE: Light grey to occasionally grey, soft to firm, hygroturgid, soluble, very calcareous, trace carbonaceous specks and detritus, blocky.
	30	LIMESTONE: Calclutite, as above.
890-900	80	CLAYSTONE: As above.
	20	LIMESTONE: Calclutite, as above becoming predominantly very light grey, very argillaceous grading to calcareous claystone.

BLENNY 1

Depth (m)	%	Description
900-10	60	CLAYSTONE: Light grey to grey, firm, moderately to slightly calcareous, trace micro fossils, bioturbated in part, carbonaceous specks, trace scattered pyrite, blocky.
	40	LIMESTONE: Calcarenite, white to off white, very fine crystalline, abundant fossil fragments of coral, bryozoans, echinoids, argillaceous matrix in part, hard, blocky, dolomitic.
910-20	70	CLAYSTONE: Predominantly light grey, as above grading to argillaceous limestone in part.
	30	LIMESTONE: Calclutite, off white to light grey, very argillaceous dolomitic, carbonaceous specks, trace pyrite nodules, rare to trace glauconite, firm, blocky.
920-30	100	CLAYSTONE: Light grey, slightly calcareous in part, firm, soluble, sub blocky to subfissile.
930-40	90	CLAYSTONE: As above.
	10	LIMESTONE: Calclutite, as above, very argillaceous.
940-50	90	CLAYSTONE: Off white to light grey, very slightly calcareous, firm to moderately hard, carbonaceous specks and detrius, occasional fossil fragments, trace pyrite, blocky, soluble in part.
	10	LIMESTONE: Off white, hard, crystalline, blocky, common fossil fragments, trace glauconite.
950-60	90	CLAYSTONE: As above.
	10	LIMESTONE: As above.
960-70	90	CLAYSTONE: As above.
	10	LIMESTONE: As above.
970-80	100	CLAYSTONE: Light grey, soft to firm, slightly calcareous, trace silt in part, trace carbonaceous specks, trace forams, soluble in part, blocky.
980-90	100	CLAYSTONE: As above.
990-1000	100	CLAYSTONE: As above, trace coral fragments,
	TR	DOLOMITE: Light yellow brown to tan, translucent to opaque, microcystalline, slightly argillaceous very hard.
1000-10	100	CLAYSTONE: As above, moderately calcareous in part.

Depth (m)	%	Description
1010-20	100	CLAYSTONE: As above.
1020-30	100	CLAYSTONE: As above, light grey, occasional specks grey and dark grey, soft to firm, slightly to occasionally moderately calcareous, trace silt in part, trace to common carbonaceous specks and detritus, trace disseminated pyrite in part, trace forams, soluble, blocky to subfissile.
1030-50	100	CLAYSTONE: As above, non silty.
1050-70	100	CLAYSTONE: As above, non silty calcareous.
1070-80	100	CLAYSTONE: As above.
1080-90	100	CLAYSTONE: As above.
1090-1100	100	CLAYSTONE: Off white to light grey to light greenish grey, occasionally yellowish, soft to firm, soluble, slightly calcareous, trace pyrite, blocky.
1100-10	100	CLAYSTONE: As above.
1110-15	100	CLAYSTONE: As above, trace forams.
1115-20	100	CLAYSTONE: As above, trace calcite in part, trace forams.
1120-30	100	CLAYSTONE: As above, trace calcite in part, trace forams.
1130-40	100	CLAYSTONE: Light grey to light greenish grey, firm to moderately hard, subrounded, trace pyrite, trace glauconite, slightly to moderately calcareous, soluble, trace forams, sub blocky to subfissile.
1140-45	100	CLAYSTONE: As above.
1145-55	100	CLAYSTONE: As above.
1155-60	100	CLAYSTONE: As above.
1160-65	100	CLAYSTONE: As above, becoming generally calcareous.
1165-75	100	CLAYSTONE: Off white to very light grey, firm, soluble, slightly to moderately calcareous, trace glauconite, trace forams, sub blocky to blocky.
1175-85	100	CLAYSTONE: As above.

Depth (m)	%	Description
1185-95	100	CLAYSTONE: As above, common forams, trace echinoid fossil fragments.
1195-1200	100	CLAYSTONE: As above, glauconite becoming common.
1200-10	100	CLAYSTONE: As above.
1210-20	100	CLAYSTONE: As above.
1220-30	100	CLAYSTONE: Light greyish brown, firm to moderately hard, slightly calcareous, abundant glauconite, blocky.
1230-40	20 80	CLAYSTONE (1): As above. CLAYSTONE (2): Light to dark green, firm to moderately hard, non calcareous, predominantly glauconitic ooids, trace pyrite, trace forams, blocky, soluble.
1235-40	20 80	CLAYSTONE (2): As above. CLAYSTONE (3): Brown to light brown in part, firm, slightly dolomitic, micromicaceous, trace to common glauconite, trace pyrite nodules, subfissile, soluble.
1240-45	100	CLAYSTONE (3): As above.
1245-50	100	CLAYSTONE (3): As above, abundant disseminated and nodular pyrite, common glauconite.
1250-54	80 20	CLAYSTONE (3): As above. SANDSTONE: White, colourless, transparent to opaque, very coarse to granular, well rounded, well sorted, very strong pyrite cement, very hard, nil porosity, no show.
1254-58	20 70 10	CLAYSTONE (3): As above. SANDSTONE: As above, subangular to well rounded, well sorted, moderately to very strong pyrite cement, trace glauconite, hard to very hard, nil porosity, no show. COAL: Black to very dark brown, earthy to subvitreous, hard, blocky to subfissile, argillaceous.
1258-60	40 60	SANDSTONE: As above friable to unconsolidated, poorly cemented, inferred fair porosity, no show. CLAYSTONE: Brown, firm to hard, soluble, very micaceous, non calcareous, subfissile.
1260-63	80 20	SANDSTONE: As above, no show. CLAYSTONE: As above.

BLENNY 1

Depth (m)	%	Description
1263-65	20	SANDSTONE: As above, loose, no show.
	80	CLAYSTONE: As above, brown, firm to hard, non calcareous, slightly silty, micromicaceous, soluble, subfissile.
1265-70	80	SANDSTONE: Arkose, white to colourless, very coarse to granular, angular to subrounded, well sorted, predominantly quartz, up to 20% white to creamy feldspar, unconsolidated, good inferred porosity, no show.
	20	CLAYSTONE: As above with coaly streaks and laminae.
1270-75	20	SANDSTONE: As above.
	50	CLAYSTONE: As above, also becoming grey brown, soft to hard.
	20	SILTSTONE: Light brown, off white, argillaceous in part, commonly sandy, soft to firm, carbonaceous laminae, micromicaceous, friable, dolomitic and very hard in part.
	10	COAL: Black, dull, firm to hard, blocky, argillaceous in part.
1275-80	80	SANDSTONE: Light brown, fine grained, well sorted, angular, moderate dolomitic cement, common interstitial clay, hard to very hard, no porosity, no show.
	20	CLAYSTONE: As above.
1280-85	30	CLAYSTONE: Greenish grey, non calcareous, firm to hard, subfissile
	40	SILTSTONE: Brown to light brown, firm to hard, soluble, argillaceous micromicaceous, carbonaceous, subfissile
	20	SANDSTONE: As above.
	10	COAL: Black, dull to subvitreous, hard, trace pyrite, slightly argillaceous in part, blocky.
1285-90	50	SANDSTONE: As above.
	40	CLAYSTONE: As above. Trace fossil fragments.
	10	SILTSTONE: As above, becoming very argillaceous and grades to silty claystone.
1290-95	20	COAL: As above.
	20	SANDSTONE: White, translucent, fine to medium, angular, well sorted, moderate silica cement, trace interstitial clay, friable to hard, trace to poor porosity, no show.
	60	CLAYSTONE: As above, becoming predominantly brown, firm, carbonaceous, non calcareous, laminated, fissile.

BLENNY 1

Depth (m)	%	Description
1295-1300	80	SANDSTONE: White to off white, very coarse to granular, well sorted, angular, unconsolidated. Trace pyrite overgrowths, no show.
	20	CLAYSTONE: Light grey, brown, firm to hard, blocky to subfissile, soluble in part.
1300-05	100	SANDSTONE: Off white, very coarse to granular, well sorted, angular to well rounded, unconsolidated, trace interstitial clay, trace chert, predominantly quartz, 10% white to cream feldspars, good inferred porosity, no show.
1305-10	100	SANDSTONE: As above, trace pyrite nodules, 10-15% feldspar.
1310-20	80	SANDSTONE: As above.
	20	CLAYSTONE: Tan to light brown, light grey, firm to hard, micromicaceous in part silty in part, non calcareous to slightly calcareous, soluble in part, platy in part, subfissile.
1320-25	20	COAL: Black, firm to hard, dull lustre, rarely subvitreous, argillaceous in part, blocky to platy.
	10	CLAYSTONE: As above.
	70	SANDSTONE: White to colourless, translucent, very coarse to granular, well sorted, angular, occasionally subrounded to rounded, unconsolidated, no show.
1325-30	100	SANDSTONE: As above, very angular, up to 20% white feldspar.
1330-35	90	SANDSTONE: As above, with 20% feldspar.
	10	COAL: Black, dull to subvitreous, hard, blocky to platy, conchoidal fracture, argillaceous in part.
1335-40	50	SANDSTONE: As above, predominantly granular, trace feldspar,
	20	CLAYSTONE: Light greenish grey, smooth, firm to hard, soluble, dolomitic.
	30	SILSTONE: Light brown, very argillaceous in part, micaceous in part, carbonaceous specks and laminae, trace glauconite, non calcareous, soluble in part, blocky to platy, subfissile, very sandy in part.
1340-45	30	SILSTSTONE: As above.
	70	SANDSTONE: White, colourless, translucent to transparent, fine to granular, predominantly very coarse to granular, poor sorting, angular, friable, moderate to weak silica cement, trace

Depth (m)	%	Description
		interstitial clay, less than 10% feldspars, no show.
1345-55	100	SANDSTONE: As above, very coarse to granular, well sorted, unconsolidated, clean, 10% feldspars, no show.
1355-60	80	SANDSTONE: As above, very coarse to granular, angular, well sorted, unconsolidated, 10% feldspar, no show.
	20	COAL: Black to very dark brown, dull to earthy, hard, blocky, very argillaceous, grading to carbonaceous claystone.
1360-65	100	SANDSTONE: As above, white, very coarse to granular, angular, well sorted, unconsolidated, clean, trace garnet, 10% white feldspar.
1365-75	100	SANDSTONE: As above less than 10% feldspar, trace pyrite nodules.
1375-85	100	SANDSTONE: As above, trace feldspar.
1385-90	100	SANDSTONE: As above, trace feldspar.
1390-95	90	SANDSTONE: As above, trace feldspar.
	5	COAL: Black, dull, hard, brittle, blocky, slightly argillaceous.
	5	CLAYSTONE: Light grey, firm to hard, subfissile.
1395-1405	90	SANDSTONE: As above, 10% felspar, trace mica, moderate silica cement.
	10	CLAYSTONE: Light grey, firm to hard, blocky to subfissile, slightly dolomitic.
1405-10	100	SANDSTONE: White, colourless, translucent, very coarse to granular, angular to subrounded, predominantly angular, well sorted, common quartz, over growths, friable, trace mica, generally clean, friable, predominantly quartz, up to 10% feldspar, no show.
1410-15	90	SANDSTONE: As above.
	10	CLAYSTONE: Light brown to tan, silty, slightly dolomitic, micromicaceous, occasional carbonaceous specks, blocky, firm.
1415-20	50	COAL: Black, subvitreous, hard, brittle, conchoidal fracture, blocky.
	30	CLAYSTONE: As above, common grey, predominantly hygroturgid and soluble.
	20	SANDSTONE: As above.

BLENNY 1

Depth (m)	%	Description
1420-25	100	SANDSTONE: White, colourless, granular to very coarse, angular to subangular, well sorted, quartz over growths, clean, trace mica, trace to 10% feldspar, trace lithic grains, friable to unconsolidated, no show.

APPENDIX 2

BLENNY-1

Core Descriptions

No cores were cut in Blenny-1

APPENDIX 3

BLENNY-1

Sidewall Core Descriptions

No.	Depth (m)	Rec. (mm)	Description (Gas C1/C2/C3/C4/C5)
1	1340.5	-	Misfire
2	1339	Broken 30	Thinly laminated claystone and siltstone. CLAYSTONE: Dark brown, firm to moderately hard, slightly silty, non calcareous, blocky SILTSTONE: Off white to light brown, argillaceous, firm to friable, non calcareous. GAS: 64/27.3/1.3/5/2.4
3	1324	Broken	CLAYSTONE/SHALE: Dark brown, non calcareous, micaceous, coaly specks and micro laminae, firm to hard, subfissile GAS: 50.2/48.4/1.4
4	1315	Broken 35	SANDSTONE (1) Mottled off white to grey, fine to very coarse, very poor sorting, subrounded to angular, trace silica cement, abundant light grey clay matrix, nil porosity, friable, no show. SANDSTONE (2) Sharp contact with (1) light orange brown, fine to very coarse, predominantly fine, moderately to well sorted, angular, weak silica cement, common argillaceous matrix, friable, poor porosity, no show. GAS: 26.9/41.8/26.1/5.2/-
5	1298.5	30	SANDSTONE: As sandstone (1) above predominantly grey, occasionally round granules, abundant clay matrix, nil porosity, no show. GAS: 27.4/46.9/19.6/6.1/TR
6	1293.7	Broken 35	Sandstone with inter laminated claystone. SANDSTONE: Off white to light grey, fine grained, well sorted, angular, weak silica cement, common silty and clay matrix, friable, poor porosity, no show. CLAYSTONE: Grey to brown, firm, silty to sandy, non calcareous, blocky. GAS: 32.3/45.3/17.9/4.5/TR
7	1289	Broken 40	SHALE: Brown to dark brown, hard, trace silt, mica and pyrite, non calcareous, fissile. GAS: 50/35.1/11/3.9/TR
8	1285	Broken 40	SHALE: As above, with off white siltstone microlaminations. GAS: 59/29.8/4/5.2/2
9	1280	Broken 40	SANDSTONE: Off white, fine to medium grained, subangular to angular, well sorted, weak to trace silica cement, abundant white interstitial clay, common to

No.	Depth (m)	Rec. (mm)	Description (Gas C1/C2/C3/C4/C5)
			abundant white mica, trace black lithic grains, trace weathered feldspar, friable, trace to poor porosity, no show. GAS: 61.9/16.3/13.6/8.2/-
10	1276.7	Broken 45	SHALE: Brown to dark brown, hard, trace siltstone, trace mica, trace pyrite, calcareous, fissile, trace scattered angular quartz, common burrows infilled with white fine grained argillaceous sand. GAS: 63/34.9/1.1/1.0/TR
11	1274.8	Broken 45	Interlaminate shale and siltstone. SILTSTONE: White, friable, clean. SHALE: As above. GAS: 69.6/28.7/1/0.7/TR
12	1267	Broken 45	Interlaminate siltstone and shale SILTSTONE: As above. SHALE: As above. GAS: 64/33/3/TR/TR
13	1265	Trace	SANDSTONE: Off white, very fine to very coarse, poor sorting, subrounded to subangular, trace silica cement, common clay matrix, trace mica, trace feldspars, trace black mineral grains, friable to unconsolidated, poor porosity, no show.
14	1262	Broken 40	Sandstone with interlaminated claystone. SANDSTONE: White to off white, very fine grained to silt, subangular, well sorted, friable, poor cement, non calcareous, common argillaceous matrix, poor to fair porosity, no show. CLAYSTONE: Dark brown, silty, non calcareous, scattered very coarse quartz grains, subfissile. GAS: 42.7/47.3/3.7/3/2.9
15	1259.5	Broken 45	SANDSTONE: Dark brown, very fine to very coarse, very poor sorting, angular, weakly cemented, non calcareous, trace mica, and feldspars, abundant brown interstitial clay, friable, very poor porosity, no show. GAS: 21.9/21/6.8/25.1/18.6/6.6/TR
16	1257.8	40	SANDSTONE: Off white streaked light brown, very fine to very coarse, occasionally scattered grains, very poor sorting, angular, friable, abundant clay matrix, trace micromica, trace mineral granules, very poor porosity, uniform very dull yellow fluorescence, no cut, weak milky white crush cut, trace residue. GAS: 13.7/7/7.7/28.8/26.3/18.5/TR

Sidewall Core Descriptions

No.	Depth (m)	Rec. (mm)	Description (Gas C1/C2/C3/C4/C5)
17	1256	Broken	SANDSTONE: Dark grey, very fine to very coarse, very poor sorting, subangular to well rounded, trace dolomitic cement, abundant grey clay matrix, common disseminated pyrite, trace glauconite, trace mica, friable, nil to poor porosity, no show. GAS: 4.5/2.9/4.8/24.8/24.4/38.6/TR
18	1252.5	30	SANDSTONE: As above, with abundant weak pyritic cement, trace feldspars, no show. GAS: 1.9/1.8/8.2/24.3/27.6/36.2/TR
19	1250.5	Broken	SANDY CLAYSTONE: Dark green grey, hard, abundant medium to very coarse angular to well rounded quartz grains, abundant glauconite grains, common pyrite nodules and disseminated pyrite, trace mica, blocky. GAS: 23.1/4.2/9.3/22.6/23.9/16.9/TR
20	1249.5	45	CLAYSTONE: As above, with abundant glauconite and pyrite, no sand, plastic. GAS: 23.5/4.6/17.1/19.4/21.2/14.2/TR
21	1244.0	Broken 45	CLAYSTONE: Dark grey, firm to hard, plastic very to predominantly pyritic with abundant glauconite, trace silt.
22	1239.5	40	CLAYSTONE: Brown to grey brown, common glauconite, slightly silty, trace micromica, slightly to moderately calcareous hard, blocky.
23	1236.7	Broken 50	CLAYSTONE: Dark brown, firm to moderatley hard, subfissile, abundant glauconite, common pyrite, trace fossils, very calcareous.
24	1234	40	CLAYSTONE: As above, with abundant glauconitic ooids, silty and sandy grading to argillaceous siltstone. 40% glauconite.
25	1230.5	40	SILTSTONE: Dark green, moderately hard, 80% glauconite, blocky, slightly calcareous, hygroturgid.
26	1227.6	Broken	CLAYSTONE: Brown, firm to moderately hard, smooth, common pyritic trace fossils, sub blocky, plastic, very calcareous.
27	1223		Lost.
28	1218.7	45	CLAYSTONE: Light to medium grey brown, firm to moderately hard, plastic, moderately calcareous, trace pyrite.
29	1214.5	40	CLAYSTONE: Light brown grey, firm to moderately hard, plastic, moderately to very calcareous, abundant microfossils.

Sidewall Core Descriptions

No.	Depth (m)	Rec. (mm)	Description (Gas C1/C2/C3/C4/C5)
30	1205	45	CLAYSTONE: Light grey, soft, plastic, slightly calcareous, abundant forams.

APPENDIX 4

RFT SAMPLE TEST REPORT

WELL: Blenny 1

OBSERVER: Jon Reeve DATE: 08/05/92 RUN NO: 2

	CHAMBER 1 (12 gal)		CHAMBER 2 (1 gal)	
SEAT NO	2/17		2/17	
DEPTH	1257.5	m	1257.5	m
A. RECORDING TIMES				
Tool Set	1500	hrs	-	hrs
Time Open	8	mins	-	mins
Chamber Open	1508	hrs	1731	hrs
Chamber Full	-	mins	-	mins
Seal Chamber	1725	hrs	1832	hrs
Fill Time	137	mins	61	mins
Finish Build Up	1725	hrs	1832	hrs
Build Up Time	-	mins	-	mins
Tool Retract	-	hrs	18.39	hrs
Total Time	-	mins	219	mins
B. SAMPLE PRESSURE				
Initial Hydrostatic	2054	psia	-	psia
Initial Form'n Press	1781	psia		psia
Initial Flowing Press	106.6	psia	38.5	psia
Final Flowing Press	64.4	psia	58.2	psia
Final Form'n Press	-	psia	1777	psia
Final Hydrostatic	-	psia	2052	psia
C. TEMPERATURE				
Temperature @ Sample Depth	63	deg C	63.2	deg C
Rm @ Sample Depth	0.14	ohm.m	0.14	ohm.m
D. SAMPLE RECOVERY				
Surface Pressure	15	psia	0	psia
Amt Gas	RTSTM	cu ft	-	cu fit
Amt Oil	0	lit	0	lit
Amt Water (Total)	3	lit	1.5	lit
Amt Others	0	lit	0	lit

WELL: Blenny 1 SEAT NO: 2/17

OBSERVER: Jon Reeve DATE: 08/05/92 RUN NO: 2

E. SAMPLE PROPERTIES		
Gas Composition		
C1	80 ppm	0 ppm
C2	5 ppm	0 ppm
C3	5 ppm	0 ppm
C4	15 ppm	0 ppm
C5	17 ppm	0 ppm
C6+	0 ppm	0 ppm
CO2/H2S	0%/0ppm	0%/0 ppm
Oil Properties	deg API @ - deg C	-deg API @ -deg C
Colour	-	Trace oily sheen on
Flourescence	-	surface. Moderate
GOR	-	yellow fluorescence.
Pour Point	-	-
Water Properties		
Resistivity	0.306ohm-m @ 19 deg C	0.319 ohm-m @ 19 deg C
NaCl Equivalent	24000 ppm	23000 ppm
Cl-titrated	13000mg/l ppm	13000mg/l ppm
Tritium	- DPM	- DPM
ph	8.8	8.8
Est Water Type	Muddy Filtrate with	Filtrate with
	formation water	formation water
F. MUD FILTRATE PROPERTIES		
Resistivity	0.227 ohm-m @ 20 deg C	0.227 ohm-m @ 27 deg C
NaCl Equivalent	31000 ppm	31000 ppm
Cl-titrated	18000mg/l ppm	18000mg/l ppm
pH	8.9	8.9
Tritium in Mud	- DPM	- DPM
G. GENERAL CALIBRATION		
Mud Weight	9.5 ppg	9.5 ppg
Calc Hydrostatic	2034 psi	2034 psi
Serial No. (Preserved)	-	-
Choke Size/Probe Type	1x40000/MARTINEAU	1x20000/MARTINEAU
REMARKS	Chamber not filled.	Chamber not filled

APPENDIX 5

BLENNY-1

Velocity Survey

Distributed Under Separate Cover