W 676

DART-1.

WELL COMPLETION REPORT.

CONFIDENTIAL

W 676

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3 enclos.

CONFIDENTIAL

WELL COMPLETION REPORT

DART-1

ESSO AUSTRALIA LTD.

CONFIDENTIAL

I.F. CRISS

February, 1974

WELL COMPLETION REPORT

DART - 1

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2. Well Completion Log
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ESSO STANDARD OIL (AUSTRALIA) LTD.

COMPLETION REPORT

I WELL DATA RECORD

Date January 15, 1974

LOCATION

WELL NAME	STATE	PERMIT or LICENCE	GEOLOGICAL BASIN	FIELD
DART-1	VICTORIA	VIC P/1	GIPPSLAND	N.F.W.C.

CO-ORDINATES	X	Y	MAP PROJECTION	GEOGRAPHICAL DESCRIPTION
Lat. 38° 08' 11.970" S Long. 148° 55' 28.235" E	668,661 E	5,777,258 N	AMG Zone 55	6.5 m. S.W. Sole-1 12.5 m. S.E. Wahoo-1

ELEVATIONS & DEPTHS

ELEVATIONS	WATER DEPTH	TOTAL DEPTH	PLUG BACK DEPTH	REASONS FOR P.B.
Ground KB 32' RT Braden Head Top Deck Platform	407 feet	Avg.Angle Straight Hole. M.D. T.V.D. 4000 feet 1219 m.	525 feet 160 m.	Abandoned

DATES

MOVE IN	RIG UP	SPUDDED
November 15, 1973	November 15, 1973	November 16, 1973.
RIG DOWN COMPLETE	**RIG RELEASED**	**PROD.UNIT - Start Rigging Up**
November 22, 1973	November 22, 1973	-
PROD.UNIT - Rig Down Complete	**I.P. ESTABLISHED**	

MISCELLANEOUS

OPERATOR	PERMITTEE or LICENCEE	ESSO INTEREST	OTHER INTEREST
Esso Australia Ltd.	Hematite	Well 100% Other Nil	

CONTRACTOR	RIG NAME	EQUIPMENT TYPE
Global Marine A/Asia Pty. Ltd.	Glomar Conception	Floating Drilling Vessel

TOTAL RIG DAYS	DRILLING AFE NO.	COMPLETION NO.	TYPE COMPLETION
6.3 days	233-014		

LAHEE WELL CLASSIFICATION	Before Drilling	New Field Wildcat
	After Drilling	Unsuccessful New Field Wildcat With No Hydrocarbon Shows.

Geologist

WELL

DART-1

NOT APPLICABLE

II	INITIAL PRODUCTION TEST				
Date	WELL COMPLETION AS: Oil Well _____		Gas Well _____	Dry Hole _____	
Choke size, inch			Calculated P.I.		
Length of Test			Calculated A.O.F.		
Oil, BPD			Perforations		
Water, BPD			Shut-In BHP		
Gas, MCFD			Flowing BHP		
Gas Liquids, BPD			Shut-In Tubing Press		
Gas-Oil Ratio			Flowing-Tubing Press		
Gravity, API			Flowing Temperature		

III	PERFORATING RECORD (Prod.test, Completion, DST, FIT)					
INTERVAL	HPF	TOTAL SHOTS	SERV. CO.	DIFF. PRESS.	PERFORATION FLUID	SIZE AND TYPE GUN

_____

Engineer

IV CASING - LINER - TUBING RECORD

Type	Size	Weight	Grade	Thread	No. Joints	Amount	Depth
KB ELEVATION ABOVE CASINGHEAD						421.00	421.00
24"	PILE JOINT					36.48	457.48
	20"	91.5#	X52 LP	JV	9 + Float Shoe	367.34	824.82
KB ELEVATION ABOVE HANGER						426.00	426.00
	10-3/4"	40.5#	J-55	Butt	36 + Float Collar & Casing Hanger	1477.14	1903.14
	10-3/4"	40.5#	J-55	Butt	1 + Float Shoe	39.04	1942.18

V CEMENT RECORD

String	- 20"	10-3/4"	
Type of Cement	1100 sx Aust N, tailed in 350 sx Aust N+2% $CaCl_2$	290 sx Aust N + 1% $CaCl_2$	
Number of FT^3	1711	342	
Average weight of slurry	15.6 ppg	15.6 ppg	
Cement Top	Sea Floor	1150' (calc.)	
Casing Tested with	500 psi	1500 psi	
Number of Centralizers	6	10	
Number of Scratchers	-	-	
Stage Collar etc.	-	-	
Remarks		Test formation to 14.0 ppg equivalent	

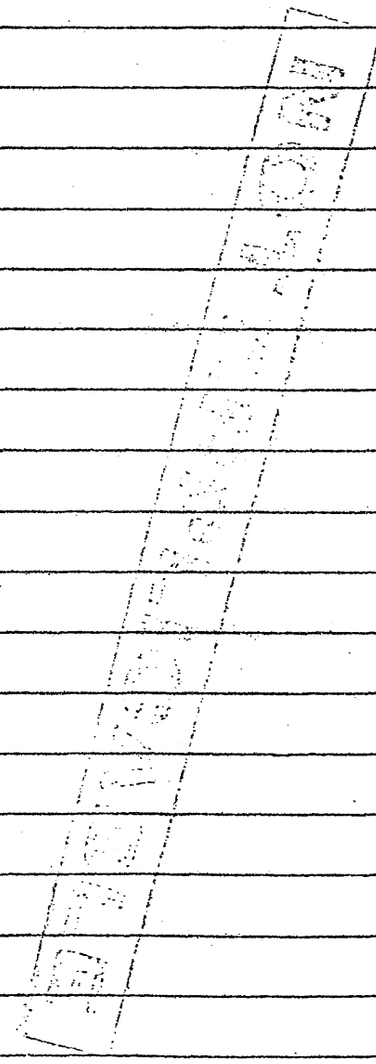
R.W. Oliver
Engineer

NOT APPLICABLE

VI SUBSURFACE COMPLETION EQUIPMENT

DATE COMPLETED _____

Schematic	Equipment Description	Length	Depth



_____
Engineer

WELL DART-1

VII SAMPLES, CONVENTIONAL CORES, SW CORES

INTERVAL	TYPE	RECOVERED	INTERVAL	TYPE	RECOVERED
825'-4000'	5 sets washed and dried samples	Every 10-30 feet			
825'-4000'	1 set unwashed samples	Every 10-30 feet			
825'-4000'	Canned samples	Every 100 feet			
2010'-3980'	Sidewall Cores - 1 Gun	Shot 30 Recovered 28			

VIII WIRELINE LOGS AND SURVEYS (Incl. FIT)

Type & Scale	From To	Type & Scale	From To
BHCS/GR 5" & 2"	1994' - 827' SLK 1994' - 400' GR		
ISF/SLK/SP 5" & 2"	3998' - 1955'		
FDC/CNL/GR 5" & 2"	4002' - 2600' FDC/CNL 4002' - 1810 G.R.		
4 Arm Dipmeter 10"=100'	3999' - 2900'		
Velocity Survey 5 Depths	3994' - 2746'		

Geologist

WELL DART-1

IX FORMATION TOPS/Zones

NAME	Tops M.D.	Tops Sub-sea	Gross Interval (ft)	Net Pay (ft). Gas	Net Pay (ft). Oil	REMARKS
GIPPSLAND FORMATION - Miocene	439'	- 407'	2585'			
LATROBE GROUP	3024'	-2992'	660'			
PALEOCENE						
L. balmei	3024'	-2992'	436'			
T. longus	3460'	-3428	226'			
STRZELECKI GP.	3686'	-3654'	314' +			
Lower Cretaceous C. hughesii						

X GEOLOGIC ANALYSIS (Pre Drilling prognosis Vs actual results)

Pre-Drill

The Dart structure is situated on a south-west plunging nose some 250 feet downdip from the Sole anticlinal structure. This compressional nose is a function of major right lateral shear systems, intermittently active since Early Cretaceous. Some 600 feet of Latrobe section was anticipated, predominantly coarse to fine grained sands with interbedded shales and minor coals of Paleocene age.

Variations in intra-Latrobe seismic reflection character on line G69B-393 between Sole-1 and Dart, indicated possible lateral facies changes within the Latrobe group. These changes in reflection character were probably a function of shear faulting, active during, and hence influencing, local Latrobe deposition.

Abnormally high amplitude response on seismic reflections from the Latrobe unconformity were thought indicative of hydrocarbon accumulation. Also, apparent phase reversals at the lateral limits of these high amplitudes on the Western and Southern margins on several seismic lines all occur at a common depth, thereby defining what could be a gas/water or oil/water interface.

Post-Drill

The Dart-1 well encountered no hydrocarbon shows. This suggests that the postulated updip seal required for the stratigraphic accumulation was absent. Lithologies were generally as predicted, but the Latrobe group sands were encountered, some 102' below the expected depth, at -2992'. This was due to a faster velocity in the Miocene section than interpreted from seismic velocity analysis. The 660' of Latrobe section intersected by the well contained excellent reservoir sands, often coarse grained and unconsolidated, with porosities above 30%.

The unconsolidated nature of the Latrobe sands results in a decrease in interval velocity and formation density when compared to the overlying Gippsland marls. The combination of these effects generates a large negative reflection co-efficient and was responsible for the high amplitude seismic event at the top of Latrobe.

The permeability barrier necessary to separate Dart from the updip Sole structure was absent due possibly to one of the following reasons:

(i) The shear faulting evident in the lower Cretaceous Strzelecki Group in the Sole-Dart area had been inactive during the Tertiary period, or

(ii) If the shear faulting affected post-Strzelecki sediments, the unconsolidated sandy nature of the Latrobe Group prevented this faulting from influencing sand continuity.

(iii) The improved reservoir sands at Dart-1, when compared to Sole-1, indicate little chance of facies change to a more shaley Latrobe section between the wells and formation of a permeability barrier is therefore unlikely.

Geologist

APPENDIX I

WELL COMPLETION REPORT

DART-1

SIDEWALL CORE DESCRIPTIONS

PAGE 1 OF 2

ATT 30 REC 28

DATE 21 Nov. 1973

1

SWC RUN NO

1

IES RUN NO

ESSO AUSTRALIA LTD.

SIDEWALL CORE DESCRIPTIONS

SERVICE CO SCHLUMB.

GEOLOGIST J. BLACK

WELL DARI

NO.	DEPTH	REC	ROCK TYPE	MODIFIERS	CAL	COLOR	INDUR DEG	GRAIN SIZE	SRTG	RND	DISS CLAY	STAIN	FLOURESCENCE % RK	FLOURESCENCE DISTR	FLOURESCENCE INTEN	FLOURESCENCE COLOR	CUT FLUOR. INTEN	CUT FLUOR. COLOR	CUT RESIDUE QUAN	CUT RESIDUE COLOR	SHOW	PROB PROD	REMARKS - GAS
1a	1	2	3	4	5	6	7	8	9	10	11	12	RK	14	15	16	17	18	19	20	21	22	23
1	3980	15/8	Ss	Lithic, Arg	-	LT GR	Fri	F	Mod	Aug	+15	-	-	-	-	-	-	-	-	-	-	Wtr	Redc. 612N LTH C_1, 400
2	3963	0	No Recov. - Pulled off																				
3	3870	13/8	Sh	Silty,	-	LT GR	Frm	-															C_1, tr
4	3812	13/4	Ss	Sh.LAM,ARG	V	GR	FRM	VF	MOD	ANG	TZO	-	-	-	-	-	-	-	-	-	-	-	C_1,350, C_2 tr
5	3726	1½	Sh	Carb Frag	-	GR	FRM																C_1 100
6	3686	13/8	Ss	ARG,LAM.SH	V	GR	FRM	F	MOD	SA	+20	-	-	-	-	-	-	-	-	-	-	-	
7	3626	0	NO	RECOV. - PULLED	OFF																		
8	3544	1¼	CL		S1	GR	SFT																C_1 tr
9	3489	13/4	SST	GRN SD.50%	-	GRN	FRI	F/CRS	P	SD/SR	+15												C_1 100, C_2 50
				GLAUC.																			
10	3430	1½	Ss	Clean	-	WH	UNC.	M	W	SR												WTR	
11	3374	13/4	Ss	PYR,Clean	-	WH	UNC.	F/M	P	SR												WTR	
12	3321	1½	COAL	DIRTY,BRIT		BLK																	C_1 1200, C_2 400
13	3306	15/8	SLI CARB		-	GR	FRM																C_1 100
14	3274	1¼	Ss	CLEAN	-	WH	UNC.	F/CRS	P	SA/SR													
15	3216	1½	Ss	THIN CARB	-	GR	FRI	VF	M	SA	+15	-	-	-	-	-	-	-	-	-	-	WTR	C_1 200, C_2 50
				LAMINAE																			
16	3100	13/8	Ss	CLEAN	-	WA	UNC	F	W	SR	-	-	-	-	-	-	-	-	-	-	-	WTR	
17	3074	1¼	Ss	CLEAN	-	WH	UNC	F	W	SR	-	-	-	-	-	-	-	-	-	-	-	WTR	C_1 100
18	3026	1½	CL	V.GLAUC.VPYR-		GRN GR	SFT																C_1 600, C_2 300, C_3
19	3000	3/4	MARL	V.GLAUC	V	LT GR	SFT																
20	2970	1¼	MARL	FOSS	V	LT GR	FRM																
21	2933	1¼	MARL	FOSS	V	LT GR	FRM																
22	2897	1½	MARL		V	LT GR	FRM																
23	2846	1¼	MARL		V	LT GR	FRM																
24	2743	13/8	MARL	FOSS	V	LT GR	FRM																
25	2620	1½	MARL	FOSS	V	LT GR	FRM																
26	2510	1½	MARL	FOSS	V	LT GR	FRM																

FORM B 257 3/72

PAGE 2 OF 2

ATT 30 REC 28

DATE 21 Nov 1973

ESSO AUSTRALIA LTD.

SIDEWALL CORE DESCRIPTIONS

IES RUN NO ..... SWC RUN NO .....

WELL DART

GEOLOGIST J. BLACK

SERVICE CO SCHLUMB

NO. 1a	DEPTH 1	REC 2	ROCK TYPE 3	MODIFIERS 4	CAL 5	COLOR 6	INDUR DEG 7	GRAIN SIZE 8	SRTG 9	RND 10	DISS CLAY 11	STAIN 12	FLOURESCENCE % RK	FLOURESCENCE DISTR 14	FLOURESCENCE INTEN 15	FLOURESCENCE COLOR 16	CUT FLUOR. INTEN 17	CUT FLUOR. COLOR 18	CUT RESIDUE QUAN 19	CUT RESIDUE COLOR 20	SHOW 21	PROB PROD 22	REMARKS - GAS 23
27	2382	1½	MARL	V.FOSS	V	LT GR	FRM																
28	2220	1½	MARL	FOSS,GLAUC?	V	LT GR	FRM																
29	2110	3/8	MARL	V.FOSS	V	LT GR	FRM																
30	2010	13/8	MARL	V.FOSS	V	LT GR	FRM																

FORM R 257 3-72

APPENDIX II

WELL COMPLETION REPORT

DART-1

SAMPLE DESCRIPTIONS

SAMPLE DESCRIPTIONS

DART-1

J. Black
November 17, 1973

DEPTH	%	DESCRIPTION
		26" hole drilled to 892' 20" casing run to 825' and cement with 1450 sacks. Water depth 398' drilling with seawater. Probably some mudstone in solution.
890 - 920	100%	Cement caving.
920 - 950	50 50	Cement caving. Siltstone, light grey very calcareous, firm, fossiliferous with abundant shell fragments trace glauconite.
950 - 980	40 60	Cement caving. Siltstone, as above with abundant shell fragments.
980 -1010	10 90	Cement cavings. Siltstone, as above
1010-1040	100	Siltstone, as above with trace of pyrite.
1040-1070	100	Siltstone, as above
1070-1100	100	Siltstone, as above, trace pyrite.
1100-1130	100	Siltstone, as above, with abundant fossilferous fragments.
1160-1190	100	Siltstone, as above
1190-1220	100	Siltstone, light grey, very calcareous, firm, trace glauconite, fossiliferous.
1220-1250	100	Siltstone, as above, with scattered shell fragments.
1250-1280	100	Siltstone, as above.
1280-1310	100	Siltstone, as above.
1310-1340	100	Siltstone, as above.
1340-1370	100	Siltstone, as above.
1370-1400	100	Siltstone, as above.
1400-1430	100	Siltstone, as above with trace pyrite.
1430-1470	100	Siltstone, as above.
1470-1490	100	Siltstone, as above.
1490-1520	100	Siltstone, with trace sand.
1520-1550	100	Siltstone, with trace sand.
1550-1580	100	Siltstone, with increasing sand grains with large forams.
1580-1610	100	Siltstone, " " " " " " "
1610-1640	100	Silstone, " " " " " " "
1640-1670	100	Siltstone, grey, sandy, glauconite, very fossiliferous abundant fossiliferous fragments.
1670-1700	100	Siltstone, as above with some very soft light grey mudstone.
1700-1730	100	Siltstone, as above, large forams.

Dart-1

DEPTH	%	DESCRIPTION
1730-1760	100	Siltstone, light grey, moderately firm, very fossiliferous, slightly argillaceous with some light grey, very soft marl.
1760-1790	100	Siltstone, as above with abundant shell fragments, trace pyrite.
1790-1820	100	Siltstone, as above with scattered grey cryptocrystalline limestone.
1820-1850	80	Siltstone, as above.
	20	Marl, light grey, very soft, sticky.
1850-1880	80	Siltstone, as above.
	20	Marl, as above.
1880-1910	80	Siltstone, as above
	20	Marl, as above.
1910-1940	70	Siltstone, as above.
	30	Marl, as above.
1940-1970	60	Siltstone, as above
	40	Marl, as above.
1970-2000	50	Siltstone, as above.
	50	Marl, as above.
		November 19, 1973
		Ran BHCS/GR 1994'-827' (Schlumberger T.D. 2000')
		Ran 10-3/4" casing to 1942' cemented with 290 sacks.
		Pressure checked Form. after drilling shoe to 14#/gal equivalent.
2000-2030	100	Cement cavings.
2030-2060	60	Cement cavings.
	40	Marl, light grey, very soft, sticky.
2060-2090	20	Siltstone, light grey, firm, calcareous, fossiliferous, trace glauconite, trace pyrite.
	80	Marl, very light grey to white, soft, sticky, very fossiliferous, abundant forams.
2090-2120	10	Siltstone, as above
	90	Marl, as above.
2120-2150	100	Marl, as above
2150-2180	100	Marl, as above
2180-2210	100	Marl, as above
2210-2240	100	Marl, abundant small forams
2240-2270	100	Marl, as above, with some shell fragments.
2270-2300	100	Marl, as above
2300-2330	100	Marl, as above.
2330-2360	100	Marl, as above.
2360-2390	100	Marl, as above.
2390-2420	100	Marl, as above with trace medium grey limestone.
2420-2450	100	Marl, as above.
2450-2480	100	Marl, as above with trace light grey siltstone.

DART-1

DEPTH	%	DESCRIPTION
2480-2510	100	Marl, as above with trace light grey sandstone.
2510-2540	100	Marl, light grey, soft, sticky, fossiliferous.
2540-2570	100	Marl, many small forams
2570-2600	100	Marl, as above.
2600-2630	100	Marl, very soft, slightly silty.
2630-2660	100	Marl, as above
2660-2690	100	Marl, as above
2690-2720	100	Marl, as above
2720-2750	100	Marl, as above
[illegible]-2780	100	Marl, as above
2780-2810	100	Marl, as above
2810-2840	100	Marl, as above
2840-2870	100	Marl, as above
2870-2900	100	Marl, as above
2900-2930	100	Marl, as above
2930-2960	100	Marl, trace glauconite.
2960-2990	100	Marl, increasing glauconite.
2990-3020	100	Marl, as above
[illegible]-3035	100	Sand, white medium to very coarse unconsolidated quartz, subrounded to rounded, good porosity and permeability, no shows. Top Latrobe 3026' on drill break
3035-3050	90 10	Sand, as above Siltstone, grey, sandy moderately firm.
3050-3080	90 10	Sand, as above, trace black brittle coal. Siltstone, as above
3080-3110	50 50	Sand, as above, with trace pyrite. Marl, as above ,probably cavings
3110-3140	80 20	Sand, as above Marl, cavings
3140-3170	70 30	Sand Marl, cavings? Trace glauconite
3170-3200	70 30	Sand Marl
3200-3230	100	Sand, white, medium to very coarse to pebbly, pyrite.
3230-3260	100	Sand, white, medium to very coarse to pebbly, pyrite.

DEPTH	%	DESCRIPTION
3260-3290	100	Sand, as above, with trace coal and pyrite
3290-3320	100	Sand, as above with trace coal and pyrite
3320-3350	100	Sand, as above with trace coal and pyrite
3350-3380	100	Sand, as above with trace coal and pyrite
3380-3410	100	Sand, as above, with increase in pyrite
3410-3440	100	Sand, as above, with increase in pyrite
3440-3470	100	Sand, as above, with increase in pyrite
3470-3500	100	Sand, as above, with increase in pyrite
3500-3530	100	Sand, very coarse to coarse white unconsolidated quartz with trace green quartz.
[illegible]0-3560	100	Sand, coarse to very coarse, subangular to angular quartz, with trace green quartz. Probably top Strzelecki ± 3530'
3560-3590	100	Sand, mostly quartz with few lithics (POH to CB at 3649')
3590-3620	100	Sand, frosty white, with some dark lithics, unconsolidated coarse to very coarse, pebbly, subangular to angular quartz.
3620-3650	100	Sand, as above with trace pyrite.
3650-3680	100	Sand, trace pink grains.
3680-3710	80	Sand, as above but medium to coarse grained angular quartz with medium grains predominant.
3[illegible]0-3740	80 20	Sand, as above trace green grains Marl, cavings
3740-3770	70 30	Sand, as above Marl, light grey, caving?
3770-3800	50 50	Sand, white with abundant green and dark grey lithics, very fine to fine grained, unconsolidated. Clay, marl grey, calcareous, very soft, sticky. Top Strzelecki???
3800-3830	60 40	Sand, white, quartz with green and dark green lithics. Clay, as above
3830-3860	50 50	Sand, very fine to fine with abundant multi-coloured angular grains Clay, medium grey to brown grey, very soft, sticky, calcareous.
3860-3890	50 50	Sand, mostly very fine to medium white quartz, trace lithics. Clay as above
3890-3920	60 40	Sand, as above, trace glauconite? scattered shell fragments Clay, as above
3920-3950	60 40	Sand, as above Clay
3950-3980	50 40 10	Sand Clay Coal-soft, black.

Dart-1

DEPTH	%	DESCRIPTION
3980 - 4000	60	Sand, as above with trace coal.
T.D.	40	Clay

APPENDIX III

WELL COMPLETION REPORT

PART - 1

PALEONTOLOGY

By D. Taylor

BASIN GIPPSLAND BY David Taylor

WELL NAME DART -1 DATE 12-12-74 ELEV. _____

Foram Zonules

		Highest Data	Quality	2 Way Time	Lowest Data	Quality	2 Way Time
MIOCENE	A						
	Alternate						
	B						
	Alternate						
	C	2010	1		2510	0	
	Alternate						
	D_1	2520	0		2743	1	
	Alternate						
	D_2	2848	1		2897	2	
	Alternate						
	E	2933	0		2933	0	
	Alternate						
	F	2970	0		2970	0	
	Alternate						
	G						
	Alternate						
	H_1						
	Alternate						
	H_2						
	Alternate						
OLIGOCENE	I_1						
	Alternate						
	I_2						
	Alternate						
	J_1						
	Alternate						
	J_2						
	Alternate						
EOC.	K						
	Alternate						
	Pre K						

Side wall core at 3000' did not contain a very diagnostic fauna and could range from Zone H-1 to F.

Side wall core at 3026 contained indeterminate glauconitic moulds of foraminifera

COMMENTS:

Note: If highest or lowest data is a 3 or 4, then an alternate 0, 1, 2 highest or lowest data will be filled in if control is available.

If a sample cannot be interpreted to be one zonule, as apart from the other, no entry should be made.

0 SWC or Core - Complete assemblage (very high confidence).
1 SWC or Core - Almost complete assemblage (high confidence).
2 SWC or Core - Close to zonule change but able to interpret (low confidence).
3 Cuttings - Complete assemblage (low confidence).
4 Cuttings - Incomplete assemblage, next to uninterpretable or SWC with depth suspicion (very low confidence).

Date Revised _____

By _____

APPENDIX IV

WELL COMPLETION REPORT

DART-1

PALYNOLOGY

By L. Stover

BASIN Gippsland DATE January 1974

WELL NAME Dart-1 ELEVATION +32' (KB); + 31' (DF)

AGE	PALYNOLOGIC ZONES	HIGHEST DATA					LOWEST DATA				
		Preferred Depth	Rtg	Alternate Depth	Rtg	2 way time	Preferred Depth	Rtg.	Alternate Depth	Rtg.	2 way time
OLIGO-MIOC.	T. bellus										
	P. tuberculatus	3026	1				3026	1			
EOCENE	U. N. asperus										
	L. N. asperus										
	P. asperopolus										
	U. M. diversus										
	L. M. diversus										
PALEO-CENE	L. balmei	3216	1				3430	0			
	T. longus	3544	1				3540	1			
LATE CRETACEOUS	T. lilliei										
	N. senectus										
	C. trip./T.pach.										
	C. distocarin.										
	T. pannosus										
EARLY CRETACEOUS	C. paradoxa										
	C. striatus										
	U. C. hughesii	3812	1				3980	2			
	L. C. hughesii										
	C. stylosus										
Pre-Cretaceous											

COMMENTS: Early Cretaceous present from 3686 to 3980 feet, but only the sample from 3812 feet could be assigned confidently to a spore-pollen zone.

RATINGS:
0; SWC or CORE, EXCELLENT CONFIDENCE, assemblage with zone species of spores, pollen and microplankton.
1; SWC or CORE, GOOD CONFIDENCE, assemblage with zone species of spores and pollen or microplankton.
2; SWC or CORE, POOR CONFIDENCE, assemblage with non-diagnostic spores, pollen and/or microplankton.
3; CUTTINGS, FAIR CONFIDENCE, assemblage with zone species of either spores and pollen or microplankton, or both.
4; CUTTINGS, NO CONFIDENCE, assemblage with non-diagnostic spores, pollen and/or microplankton.

NOTE: If a sample cannot be assigned to one particular zone, then no entry should be made. Also, if an entry is given a 3 or 4 confidence rating, an alternate depth with a better confidence rating should be entered, if possible.

DATE RECORDED BY: L. E. Stover DATE January 1974

DATA REVISED BY: _____ DATE _____

PALYNOLOGICAL DETERMINATIONS FOR DART-1, GIPPSLAND BASIN, AUSTRALIA

by

Lewis E. Stover

SUMMARY

SWC	Depth	Zone	Age	Assemblage
18	3026'	*P. tuberculatus*	Oligocene	Mostly dinoflagellates
15	3216'	*L. balmei*	Paleocene	Spore-pollen
14	3274'	Indeterminate		
13	3306'	*L. balmei*	Paleocene	Spore-pollen
12	3321'	Indeterminate		Spore-pollen
11	3374'	*L. balmei*	Paleocene	Rare dinoflagellates and spore-pollen
10	3430'	*L. balmei*	Paleocene	Spore-pollen and abundant dinoflagellates
8	3544'	*T. longus*	Paleocene	Spore-pollen
6	3686'		Early Cretaceous	Spore-pollen
5	3726'		Early Cretaceous	Spore-pollen
4	3812'	Upper *C. hughesii*	Early Cretaceous	Spore-pollen
3	3870'		Early Cretaceous	Spore-pollen
1	3980'	*C. hughesii* (undiff.)	Early Cretaceous	Spore-pollen

The Oligocene *P. tuberculatus* zone assemblage is composed primarily of marine forms while both non-marine assemblages composed entirely of land derived spore-pollen and marginal marine assemblages consisting of spore-pollen and dinoflagellates were recovered from the Paleocene *L. balmei* zone. Only non-marine assemblages were obtained from the Paleocene *T. longus* zone and from the Early Cretaceous interval.

Spore-pollen preservation is good to excellent and in those assemblages with common to abundant specimens, the species diversity is moderate to high.

PE905446

This is an enclosure indicator page.
The enclosure PE905446 is enclosed within the container PE905445 at this location in this document.

The enclosure PE905446 has the following characteristics:

ITEM_BARCODE	= PE905446
CONTAINER_BARCODE	= PE905445
NAME	= Dart 1 Structure Map Top La Trobe (encl. 1, WCR)
BASIN	= GIPPSLAND
PERMIT	= VIC/P1
TYPE	= SEISMIC
SUBTYPE	= HRZN_CONTR_MAP
DESCRIPTION	= Dart Prospect Structure Map - Top La Trobe Group. Enclosure 1 of WCR.
REMARKS	=
DATE_CREATED	= 31/01/74
DATE_RECEIVED	=
W_NO	= W676
WELL_NAME	= Dart-1
CONTRACTOR	= Esso Australia Ltd
CLIENT_OP_CO	= Esso Australia Ltd

(Inserted by DNRE - Vic Govt Mines Dept)

PE603722

This is an enclosure indicator page.
The enclosure PE603722 is enclosed within the container PE905445 at this location in this document.

The enclosure PE603722 has the following characteristics:

ITEM_BARCODE	= PE603722
CONTAINER_BARCODE	= PE905445
NAME	= Dart 1 Well Completion Log (encl. 2, WCR)
BASIN	= GIPPSLAND
PERMIT	= VIC/P1
TYPE	= WELL
SUBTYPE	= COMPLETION_LOG
DESCRIPTION	= Dart 1 Well Completion Log. Enclosure 2 of WCR.
REMARKS	=
DATE_CREATED	= 31/01/74
DATE_RECEIVED	=
W_NO	= W676
WELL_NAME	= Dart-1
CONTRACTOR	= Esso Australia Ltd
CLIENT_OP_CO	= Esso Australia Ltd

(Inserted by DNRE - Vic Govt Mines Dept)

PE905447

This is an enclosure indicator page.
The enclosure PE905447 is enclosed within the container PE905445 at this location in this document.

The enclosure PE905447 has the following characteristics:

ITEM_BARCODE	= PE905447
CONTAINER_BARCODE	= PE905445
NAME	= Dart 1 Time Depth Curve (encl. 3, WCR)
BASIN	= GIPPSLAND
PERMIT	= VIC/P1
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Dart 1 Time Depth Curve. Enclosure 3 of WCR.
REMARKS	=
DATE_CREATED	= 20/11/73
DATE_RECEIVED	=
W_NO	= W676
WELL_NAME	= Dart-1
CONTRACTOR	= Esso Australia Ltd
CLIENT_OP_CO	= Esso Australia Ltd

(Inserted by DNRE - Vic Govt Mines Dept)