

WCR (VOL. 2)
BREAM-5
(W781)

ESSO EXPLORATION AND PRODUCTION
AUSTRALIA INC.

OIL and GAS DIVISION

WELL COMPLETION REPORT

16 SEP 1983 BREAM 5

W781 VOLUME II

**GIPPSLAND BASIN
VICTORIA**

ESSO AUSTRALIA LIMITED

Compiled by : G. Lindsay

May , 1983

BREAM-5

WELL COMPLETION REPORT

VOLUME II

(Interpretative Data)

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GEOLOGICAL AND GEOPHYSICAL ANALYSIS

<u>AGE</u>	<u>FORMATION/HORIZON</u>	<u>PREDICTED</u> <u>(m KB)</u>	<u>DEPTH</u>	
			<u>DRILLED</u> <u>(m KB)</u>	<u>(m Subsea)</u>
Recent to Miocene	Gippsland Limestone	79-1011	80.6-1180	59.6-1159
Miocene	Lakes Entrance Formation	1011-1858	1180-1864	1159-1843
Eocene to Upper Cretaceous	Latrobe Group	1858-T.D.	1864-T.D.	1843-T.D.
Eocene	Gurnard Formation	1858-1913	1864-1924	1843-1903
	TOTAL DEPTH	Initial 3000 Revised 3300	3322	3301

INTRODUCTION

The primary purpose of Bream-5 was to determine the eastern extent of the Bream Field and establish the reservoir quality of the strata. The secondary purpose was to test a large intra-Latrobe Group closure beneath the eastern half of the Bream Field.

PREVIOUS DRILLING HISTORY

The Bream oil and gas field has been penetrated by three exploration wells prior to Bream-5. These were Bream-2, Bream-3 and Bream-4A. Bream-1 and Bream-4 were abandoned before reaching the reservoir section. Bream-2 was drilled in April, 1969 to a T.D. of 3248m KB, Bream-3 in January 1970 to a T.D. of 3357m KB and Bream-4A in September 1981 to a T.D. of 2421m KB.

STRUCTURE

The underlying structural style of the Bream Field is of a WSW/ENE trending anticline superimposed on a deep graben complex. At the top of the Latrobe Group (Enclosure 1) the anticline has been modified by a series of shallow igneous intrusions (Enclosure 3), increasing the height of closure and producing closure over areas of no closure at depth.

Within the L. balmei zone the structure is intensely faulted and the faults show increasing displacement with depth. The faults generally strike northwest-southeast. A large deep closure occurs beneath the eastern half of the Top of Latrobe Group structure, and exists as a relatively simple faulted anticline at the M. diversus seismic marker but becomes much more complexly faulted at the level of the lower L. balmei seismic marker (Enclosure 2).

STRATIGRAPHY

The stratigraphic sequence encountered in Bream-5 was generally as predicted and with the same gross character as the other Bream wells (Enclosure 3).

Directly overlaying the top of Latrobe Group reservoirs are the mostly non-net glauconitic mudstones and siltstones of the Gurnard Formation. The Gurnard Formation is in turn overlain and sealed by the Lakes Entrance Formation.

The sandstones of the Latrobe Group "Coarse Clastics" deltaic/marginal marine sequence to a depth of -1926m provide the main reservoir. Beneath these sands to about -2140m the lower P. asperopolus and M. diversus zones consist of a lower net to gross sequence of coal seams, shale and thin sands. The upper 19m of this interval contained more shale than was predicted so that clear definition of the oil-water contact is not possible.

The underlying Upper L. balmei zone is composed of massive, thick channel sands with only relatively minor coals and shales to a depth of -2450m.

The Lower L. balmei zone consists of a sequence of backswamp and overbank shales and coals with only thin channel sands of fairly limited extent. It was within this interval that the majority of the intra-Latrobe Group hydrocarbon indications occurred. The top of this sequence represents a significant facies change into the Upper L. balmei zone.

HYDROCARBONS

Top of Latrobe Group

It was not possible to precisely position both the oil-water contact and the gas-oil contact due to the presence of non-net sediments in the reservoir.

The gas-oil contact falls within a two metre thick shale between -1917m and -1919m. A gas sample was recovered from a one metre thick sandstone at -1916 metres and an oil sample from the top of a thick sandstone unit at -1919 metres. Pressure data (Appendix 4) suggests a contact at about -1918 metres.

The results of the Bream-5 well failed to conclusively establish the oil-water contact due to the presence of a thicker than expected, essentially non-net interval between about -1926 metres and -1945 metres. These lithologies obscured the oil-water contact. Oil was recovered from a thin (about 0.25 metres thick) sandstone unit at about -1930.3 metres and water from a similar sandstone at about -1940.9 metres. A plot of the RFT pressure data from Bream-5 (Appendix 4) suggests that the oil-water contact may be as deep as about -1940 metres. This is 11 metres deeper than the Bream Field contact at -1929 metres.

It is believed that this apparent anomaly in the oil-water contact can be attributed to the differential drawdown between the Latrobe Group aquifer and the top of Latrobe Group reservoir at Bream-5 due to production from the major fields. The Bream Field water pressure gradient is mainly affected by the production from the Kingfish field 25 kilometres to the east. Hence, the water gradient in Bream-5 is more drawn down than that in Bream-4A some 10.4 km to the west. The thick non-net interval seen between -1926 metres and -1945 metres in Bream-5 appears to subcrop against the top of the Latrobe Group between Bream and Kingfish. This may have partially isolated the hydrocarbon column at Bream from the effects of the pressure drawdown. That is, the fluid system above -1926 metres is separate from the fluid system below -1945 metres at the Bream-5 location. The differential drawdown of the two fluid systems has given rise to the oil/water contact observed from the pressure data, being too deep.

With the current level of knowledge of the Bream field, the field is assumed to have a common oil-water and gas-oil contact of -1929 metres and -1916 metres respectively.

Intra-Latrobe Group

Bream-5 penetrated numerous hydrocarbons bearing sands between -2450 metres and -2960 metres. Within this interval some 21 RFT samples were attempted, resulting in two successful oil tests, nine successful gas tests and 10 inconclusive tests. Based on RFT recoveries and log analysis, the intervals intersected have been interpreted to represent nine separate hydrocarbon columns, six gas, one oil and gas and two oil. It is difficult to determine how many of these zones would be productive, if any. 'Net' oil sands total about 14 metres and 'net' gas sands about 27 metres. 'Net' is used here to mean hydrocarbon bearing sands having a porosity greater than 10%. Hydrocarbon fluorescence and cut were observed in drill cuttings of low porosity sandstones throughout the hole to T.D.

GEOPHYSICAL ANALYSIS

The east Bream predrill structural configuration was confirmed by the results of the Bream-5A well.

The primary target horizon, the 'Top of Latrobe Group Coarse Clastics' came in 11 metres low to prediction representing an error of 0.58%.

The deep hydrocarbon accumulations were intersected within the zone anticipated, adding confidence to the deep Bream structural interpretation (enclosure 2).

The error in mapping of the "Top of Latrobe Group Coarse Clastics" horizon has been attributed to inaccuracies occurring in the predrill velocity field.

Reinterpretation of the velocity field resulted only in a deepening of the "Top of Latrobe Group Coarse Clastics" horizon in the east Bream region.

FIGURES

BREAM - 5 STRATIGRAPHIC TABLE

MM YEARS	EPOCH	SERIES	FORMATION HORIZON	PALYNOLOGICAL ZONATION SPORE - POLLEN ASSEMBLAGE ZONES A.D. PARTIDGE/H.E. STACEY	PLANKTONIC FORAMINIFERAL ZONATIONS D. TAYLOR	DRILL DEPTH * (METRES)	SUBSEA DEPTH * (METRES)	THICKNESS (METRES)						
0			SEAFLOOR			80.6	59.6							
5	PLEIST	E L	GIPPSLAND LIMESTONE		A 1	1180	1159	1099						
		E M			A 2									
	L E	A 3												
	L M	A 4												
10	MIOCENE	LATE			LAKES ENTRANCE FORMATION					B 1	1864	1843	684	
		MIDDLE								B 2				
		EARLY								C				
	OLIGOCENE	LATE								D 1				
		EARLY								D 2				
										E 1				
25	EOCENE	LATE			LATROBE GROUP					E 2	1864	1843	60	
		MIDDLE								F				
		EARLY	G											
	PALEOCENE	LATE	H 1											
		EARLY	H 2											
			I 1											
35	PALEOCENE	LATE	LATROBE GROUP			I 2	1864	1843		1398+				
		EARLY				J 1								
						J 2								
	UPPER CRETACEOUS	LATE				Upper <i>N. asperus</i>								K
		EARLY				Middle <i>N. asperus</i>								
						Lower <i>N. asperus</i>								
60	UPPER CRETACEOUS	LATE			LATROBE GROUP				<i>P. asperopolus</i>		1924	1903	1398+	
		EARLY							Upper <i>M. diversus</i>					
									Middle <i>M. diversus</i>					
	PALEOCENE	LATE							Lower <i>M. diversus</i>					
		EARLY							Upper <i>L. balmei</i>					
									Lower <i>L. balmei</i>					
65	UPPER CRETACEOUS	LATE	LATROBE GROUP				<i>T. longus</i>	(T.D.)	(T.D.)	1398+				
		EARLY					<i>T. lilliei</i>							

* Depths are True Vertical Depths

APPENDIX 1

APPENDIX 1

MICROPALAEONTOLOGICAL ANALYSIS

APPENDIX
FORAMINIFERAL ANALYSIS, BREAM-5
GIPPSLAND BASIN

by

John Rexilius.

ESSO Australia Ltd.

December 10, 1982.

Palaeontology Report 1982/47.

0283L.

INTERPRETATIVE DATA

INTRODUCTION

SUMMARY TABLE

GEOLOGICAL COMMENTS

DISCUSSION OF ZONES

REFERENCES

FORAMINIFERAL DATA SHEET

TABLE 1 - INTERPRETATIVE DATA - BREAM-5.

INTRODUCTION

Thirty four (34) sidewall core samples were processed for foraminiferal analysis in Bream-5 from 1125 to 1921 metres. Both planktonic and benthonic foraminiferal faunas have been scrutinized, with emphasis on the planktonics. Adequate planktonic foraminiferal faunas occur in most samples with the exception of samples of Gurnard Formation between 1885 and 1921m which are either barren or contain rare, very poorly preserved planktonics.

Tables 1 and 2 provide a summary (Basic and Interpretative) of the palaeontological analysis in Bream-5. A summary of the biostratigraphic breakdown of the stratigraphic units in Bream-5 is given below.

SUMMARY

AGE	UNIT	ZONE	DEPTH (m)
Recent-Late Pliocene	Gippsland Formation	(not sampled)	(seafloor to 1125m)
Late Pliocene-Mid Miocene		A-4 to C	1125m
-----lithological change at 1180m-----			
Mid Miocene		D-1 to D-2	1350-1425
latest Early Miocene	Lakes	E-2	1500
Early Miocene	Entrance	F	1575-1650
Early Miocene	Formation	G	1725-1825
Early Miocene		H-1	1830-1860
-----log break at 1864m-----			
Late Eocene	Gurnard	K	1865-1869
Mid/Late Eocene	Formation	K to N	1873-1881
-		Indeterminate	1885-1921
-----log break at 1924m-----			
Eocene-Late Cretaceous	Latrobe Group (coarse clastics)	(not sampled)	(1924-TD)

GEOLOGICAL EVENTS

The upper sample of Gurnard Formation (SWC29-1865m) in Bream-5 is Late Oligocene (Zone K) in age. On the basis of sonic log characteristics the top of the Gurnard Formation is placed at 1864m.

The lower sample of Lakes Entrance Formation (SWC30-1860m) is Early Miocene (Zone H-1) in age. Sonic log correlation in the basal Lakes Entrance Formation over the Bream field shows that Zones J-2 are probably absent at Bream-5 and that Zone I-1 is probably present between 1860 and 1864m. The Lakes Entrance Formation appears to unconformably overlay the Gurnard Formation at Bream-5. The hiatus between the two units spans the Early Oligocene and the early part of the Late Oligocene. The Oligocene is represented by thin beds on the flanks of the Bream field (in Bream-4A it is less than 20m thick and in Bream-5 it is less than 4m thick) and relatively thin beds on the structural highs at Bream-3 (102m thick) and Bream-4A (102m thick).

DISCUSSION CONCLUSIONS

The Terrestrial stratigraphy in Bream-5 is based on the Gippsland Basin palaeontological studies of Taylor (in prep.) (1960,1971); Blow (1969,1979); Postuma (1971); Stainforth (1975) and Hornibrook (1982) have also been consulted.

INDETERMINED INTERVAL: 1885-1921m.
The Gurnard Formation (in samples between 1885 and 1921m) is barren of planktonic foraminifera with the exception of SWC18 at 1909m which contains rare, very poorly preserved planktonics. Agglutinated benthonic foraminifera are present in most samples but there is a sporadic occurrence of calcareous benthonics. The foraminiferal assemblages within the interval 1885-1921m are not age diagnostic. Palaeontological evidence (Macphail 1982) indicates that the interval is Middle/Late Eocene in age and assignable to the Macphail Zone.

ZONES 1873-1881m.
The occurrence of Globigerinatheka index at 1881m indicates assignment to Zones K to N while the presence of Globigerina linape throughout the interval 1873-1881m indicates assignment to Zone K. The absence of Globigerina brevis (which defines

the base of Zone K in Taylor's Gippsland Basin zonation) in the interval does not dismiss assignment to Zone K because the yield of planktonic foraminifera is very low. The meagre planktonic foraminiferal assemblages within the interval 1873-1881m are Zones K to N (Mid/Late Eocene) in age.

ZONE K : 1865-1869m.

The appearance uphole of Globigerina brevis at 1869m defines the base of definite Zone K in Bream-5. The extinction of Globigerina linaperta at 1865m defines the top of Zone K. The Late Eocene (Zone K) assignment for the interval 1865-1869m based on planktonic foraminifera is confirmed by Macphail (1982) who records spore pollen assemblages of the Late Eocene Upper N. asperus Zone in the same interval.

ZONE H-1 : 1830-1860m.

The first appearance uphole of Globigerina woodi connecta at 1860m defines the base of Zone H-1 in Bream-5. The top of Zone H-1 is defined by the first appearance of Globigerinoides trilobus at 1825m.

ZONE G : 1725-1825m.

The uphole entry of Globigerinoides trilobus at 1825m defines the base of Zone G in Bream-5. The top of Zone G is defined by the evolutionary appearance of Globigerinoides bisphericus from G. trilobus at 1650m. Zone G planktonic foraminiferal faunas in Bream-5 are diverse and well preserved.

ZONE F : 1575-1650m.

A typical Zone F planktonic foraminiferal fauna comprising Globigerinoides bisphericus and advanced forms of G. trilobus occur within the interval 1575-1650m.

ZONE E-2 : 1500m.

A well preserved, diverse Zone E-2 planktonic foraminiferal assemblage comprising Praeorbulina glomerosa without the Orbulina plexus, occurs in SWC 46 at 1500m.

ZONES D-1 to D-2 : 1350-1425m.

The first appearance uphole of Orbulina univera at 1425m defines the base of Zone D-2 in Bream-5. The extinction of Globorotalia miozea at 1350m defines the top of Zone D-1.

ZONES A-4 to C : 1125m.

The association of Globorotalia conomiozea with G. miozea conoidea indicates that SWC 51 at 1125m can be no older than Zone C and no younger than Zone A-4. A more refined age assignment is not possible because of the low diversity of planktonic foraminifera.

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M I C R O P A L E O N T O L O G I C A L D A T A S H E E T

B A S I N : GIPPSLAND

ELEVATION: KB: 2JM GL: -58M

WELL NAME: BREAM-5

TOTAL DEPTH: 3325M

A G E	FORAM. ZONULES	H I G H E S T D A T A					L O W E S T D A T A					
		Preferred Depth	Rtg	Alternate Depth	Rtg	Two Way Time	Preferred Depth	Rtg	Alternate Depth	Rtg	Two Way Time	
PLEIS-TOCENE	A ₁											
	A ₂											
PLIO-CENE	A ₃											
	A ₄	1125	2									
	B ₁											
	B ₂											
M I O C E N E	L A T E	C					1125	2				
		M I D D L E	D ₁	1350	0							
			D ₂					1425	0			
	E A R L Y	E ₁										
		E ₂	1500	0			1500	0				
		F	1575	0			1650	0				
		G	1725	0			1825	0				
		H ₁	1830	0			1860	0				
	O L I G O C E N E	L A T E	H ₂									
			I ₁									
I ₂												
E A R L Y		J ₁										
		J ₂										
		K	1865	1			1869	1				
E O C - E N E	Pre-K											

COMMENTS: Adequate planktonic foraminiferal assemblages occur in most samples with the exception of samples of Gurnard Formation between 1885 and 1921m which are either barren or contain rare, very poorly preserved planktonics. The lowermost sample of Lakes Entrance Formation is Zone H-1 in age. The interval 1860 to 1864m (basal Lakes Entrance Formation) may contain a condensed Oligocene section. Sonic log correlation with Bream-3 indicates that Zone I is present and Zones J-1 and J-2 are absent within this interval.

- CONFIDENCE RATING:
- 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).

NOTE: If an entry is given a 3 or 4 confidence rating, an alternative depth with a better confidence rating should be entered, if possible. If a sample cannot be assigned to one particular zone, then no entry should be made, unless a range of zones is given where the highest possible limit will appear in one zone and the lowest possible limit in another.

DATA RECORDED BY: M.J. Hannah

DATA REVISED BY: J.P. Rexilius

DATE: 31 August, 1982.

DATE: 10 December, 1982.

TABLE - 1
 SUMMARY OF PALAEOLOGICAL ANALYSIS
 BREAM-5, GIPPSLAND BASIN
 INTERPRETATIVE DATA

NATURE OF SAMPLE	DEPTH (M)	MICRO- FOSSIL YIELD	PRESERVATION	DIVERSITY	ZONE	RATING	AGE
SWC 51	1125	Moderate	Moderate	Moderately low	A-4 to C	2	Late Pliocene-Mid Miocene
SWC 48	1350	Moderate	Moderate	Moderate	D-1 to D-2	0	Mid Miocene
SWC 47	1425	High	Good	High	D-1 to D-2	0	Mid Miocene
SWC 46	1500	High	Good	High	E-2	0	latest Early Miocene
SWC 45	1575	High	Good	Moderate	F	0	Early Miocene
SWC 44	1650	High	Good	Moderate	F	0	Early Miocene
SWC 43	1725	High	Good	Moderate	G	0	Early Miocene
SWC 42	1800	High	Good	High	G	0	Early Miocene
SWC 41	1805	High	Good	Moderately high	G	0	Early Miocene
SWC 40	1810	High	Moderate-poor	Moderately high	G	0	Early Miocene
SWC 39	1815	High	Good	Moderate	G	0	Early Miocene
SWC 38	1820	High	Good	High	G	0	Early Miocene
SWC 37	1825	Moderate	Moderate-poor	Moderately high	G	0	Early Miocene
SWC 36	1830	High	Poor	Moderately low	H-1	1	Early Miocene
SWC 35	1835	High	Moderate-good	Moderately high	H-1	0	Early Miocene
SWC 34	1840	High	Poor	Moderately low	H-1	0	Early Miocene
SWC 33	1845	Moderately high	Poor	Low	H-1	2	Early Miocene

TABLE - 1 (2)
 SUMMARY OF PALAEOLOGICAL ANALYSIS
 BREAM-5, GIPPSLAND BASIN
 INTERPRETATIVE DATA

NATURE OF SAMPLE	DEPTH (M)	MICRO- FOSSIL YIELD	PRESERVATION	DIVERSITY	ZONE	RATING	AGE
SWC 32	1850	High	Poor	Moderate	H-1	0	Early Miocene
SWC 31	1855	High	Moderate	Moderate	H-1	1	Early Miocene
SWC 30	1860	High	Moderate	Moderate	H-1	0	Early Miocene
SWC 29	1865	High	Poor	Moderate	K	1	Late Eocene
SWC 28	1869	Moderate	Poor	Moderate	K	1	Late Eocene
SWC 27	1873	Low	Poor	Low	K/N	2	Mid/Late Eocene
SWC 26	1877	Moderate	Poor	Moderately low	K/N	2	Mid/Late Eocene
SWC 25	1881	Very low	Very poor	Moderately low	K/N	2	Mid/Late Eocene
SWC 24	1885	Barren planktonics		-	-	-	-
SWC 23	1889	Barren planktonics		-	-	-	-
SWC 22	1893	Barren planktonics		-	-	-	-
SWC 21	1897	Barren planktonics		-	-	-	-
SWC 20	1901	Barren planktonics		-	-	-	-
SWC 19	1905	Barren planktonics		-	-	-	-
SWC 18	1909	Barren planktonics		-	-	-	-
SWC 17	1913	Barren planktonics		-	-	-	-
SWC 15	1921	Barren planktonics		-	-	-	-

BASIC DATA

TABLE 2 : FORAMINIFERAL DATA, BREAM-5.
RANGE CHART : TERTIARY PLANKTONIC FORAMINIFERA.
RANGE CHART : TERTIARY BENTHONIC FORAMINIFERA

TABLE-2
FORAMINIFERAL DATA
BREAM-5, GIPPSLAND BASIN
BASIC DATA

SAMPLE NO.	DEPTH (M)	MICROFOSSIL YIELD	PRESERVATION	DIVERSITY
SWC 51	1125	Moderate	Moderate	Moderately low
SWC 48	1350	Moderate	Moderate	Moderate
SWC 47	1425	High	Good	High
SWC 46	1500	High	Good	High
SWC 45	1575	High	Good	Moderate
SWC 44	1650	High	Good	Moderate
SWC 43	1725	High	Good	Moderate
SWC 42	1800	High	Good	High
SWC 41	1805	High	Good	Moderate
SWC 40	1810	High	Moderate-Poor	Moderately high
SWC 39	1815	High	Good	Moderate
SWC 38	1820	High	Good	High
SWC 37	1825	Moderate	Moderate-Poor	Moderately high
SWC 36	1830	High	Poor	Moderately low
SWC 35	1835	High	Moderate-Good	Moderately high
SWC 34	1840	High	Poor	Moderately low
SWC 33	1845	Moderately high	Poor	Low
SWC 32	1850	High	Poor	Moderate
SWC 31	1855	High	Moderate	Moderate
SWC 30	1860	High	Moderate	Moderate
SWC 29	1865	High	Poor	Moderate
SWC 28	1869	Moderate	Poor	Moderate
SWC 27	1873	Low	Poor	Low
SWC 26	1877	Moderate	Poor	Moderately low
SWC 25	1881	Very low	Very poor	Moderately low
SWC 24	1886	Barren planktonics	-	-
SWC 23	1889	Barren planktonics	-	-
SWC 22	1893	Barren planktonics	-	-
SWC 21	1897	Barren planktonics	-	-
SWC 20	1901	Barren planktonics	-	-
SWC 19	1905	Barren planktonics	-	-
SWC 18	1909	Barren planktonics	-	-
SWC 17	1913	Barren planktonics	-	-
SWC 15	1921	Barren planktonics	-	-

SAMPLE TYPE OR NO.	DEPTHS (m)																									
	51	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24
<i>Orbulina universa</i>																										
<i>Globigerina woodi woodi</i>																										
<i>Globoquadrina dehiscens s.s.</i>																										
<i>Globorotalia conomiozea</i>																										
<i>G. miozea conoidea</i>																										
<i>G. miozea miozea</i>																										
<i>G. praemenardii</i>																										
<i>Globigerinoides trilobus</i>																										
<i>G. bisphericus</i>																										
<i>Globigerina bulloides</i>																										
<i>Globorotalia praescitula</i>																										
<i>Praeorbulina glomerosa</i>																										
<i>Globigerina praebulloides</i>																										
<i>Globigerinoides bisphericus-trilobus</i>																										
<i>Globoquadrina advena</i>																										
<i>G. dehiscens s.l.</i>																										
<i>Catapsydrax dissimilis</i>																										
<i>Globigerina obesa</i>																										
<i>G. woodi connecta</i>																										
<i>Globorotalia bella</i>																										
<i>G. continuosa</i>																										
<i>G. zealandica zealandica</i>																										
<i>Globigerina ouachitaensis</i>																										
<i>Indeterminate globigerinids</i>																										
<i>Globorotalia nana nana</i>																										
<i>G. kugleri</i>																										
<i>Globigerina tripartita</i>																										
<i>Chiloguembelina cubensis</i>																										
<i>Globigerina angiporoides</i>																										
<i>G. euapertura</i>																										
<i>G. euapertura-ampliapertura</i>																										
<i>G. linaperta</i>																										
<i>Globorotalia gemma</i>																										
<i>Globigerina brevis</i>																										
<i>Globigerinatheka index</i>																										
<i>Globorotalia sp. 1</i>																										

C=CORE S=SIDEWALL CORE
T=CUTTINGS J=JUNK BASKET

--- Rare
— Few
███ Common
████ Abundant

SAMPLE TYPE OR NO. *	DEPTH (m)									
	23	22	21	20	19	18	17	15		
<i>Orbulina universa</i>										
<i>Globigerina woodi woodi</i>										
<i>Globoquadrina dehiscens s.s.</i>										
<i>Globorotalia conomiozea</i>										
<i>G. miozea conoidea</i>										
<i>G. miozea miozea</i>										
<i>G. praemenardii</i>										
<i>Globigerinoides trilobus</i>										
<i>G. bisphericus</i>										
<i>Globigerina bulloides</i>										
<i>Globorotalia praescitula</i>										
<i>Praeorbulina glomerata</i>										
<i>Globigerina praebulloides</i>										
<i>Globigerinoides bisphericus-trilobus</i>										
<i>Globoquadrina advena</i>										
<i>G. dehiscens s.l.</i>										
<i>Catapsydrax dissimilis</i>										
<i>Globigerina obesa</i>										
<i>G. woodi connecta</i>										
<i>Globorotalia bella</i>										
<i>G. continuosa</i>										
<i>G. zealandica zealandica</i>										
<i>Globigerina ouachitaensis</i>										
<i>Indeterminate globigerinids</i>										
<i>Globorotalia nana nana</i>										
<i>G. kugleri</i>										
<i>Globigerina tripartita</i>										
<i>Chiloguembelina cubensis</i>										
<i>Globigerina angiporoides</i>										
<i>G. euapertura</i>										
<i>G. euapertura-ampliapertura</i>										
<i>G. linaperta</i>										
<i>Globorotalia gemma</i>										
<i>Globigerina brevis</i>										
<i>Globigerinatheka index</i>										
<i>Globorotalia sp. 1</i>										

* C=CORE S=SIDEWALL CORE
T=CUTTINGS J=JUNK BASKET

SAMPLE TYPE OR NO. *	S		S		S		S		S		S		S		S		S		S		S		S		S		S		S		S		
	DEPTH																																
Uvigerina (costate)																																	
Lenticulina spp																																	
Lagena flatulenta																																	
Indeterminate rotalids																																	
Cyroidinoides spp.																																	
Lagena sp.1																																	
Cibicides spp.																																	
Haplophragmoides spp.																																	
Sphaeroidina bulloides																																	
Bolivina spp.																																	
Uvigerina (spinose)																																	
Dentalina (costate)																																	
Dentalina(non-costate)																																	
Siphonina sp.1																																	
Fissurina sp.1																																	
Lagena sulcata																																	
Pullenia bulloides																																	
Ammobaculites spp																																	
Marssonella spp.																																	
Textularia spp.																																	
Indeterminate agglutinates																																	
Pullenia quinqueloba																																	
Quinqueloculina spp.																																	
Gaudyrina spp.																																	
Triloculina spp.																																	
Cassidulina spp.																																	
Lagena sp.2																																	
Dorothia spp.																																	
Trifarina bradyi																																	
Bathysiphon spp.																																	
Pullenia sp.1																																	
Lagena sp.3																																	
Spiroloculina sp.1																																	
Ammodiscus spp.																																	
Anomalina sp.1																																	
Fronicularia sp.1																																	
Indeterminate nodosarians																																	
Lagena hexagona																																	
Lagena sp.4																																	
Bolivina (reticulate)																																	
Cassidulina subglobosa																																	
Indet. calc. benthonics																																	

* C= CORE S= SIDEWALL CORE
T= CUTTINGS J= JUNK BASKET

--- RARE
- - - FEW
████████ COMMON

SAMPLE TYPE OR NO. *	DEPTHS							
	1889 S	1893 S	1897 S	1901 S	1905 S	1909 S	1913 S	1921 S
FOSSIL NAMES								
<i>Uvigerina (costate)</i>								
<i>Lenticulina spp</i>								
<i>Lagena fiatulenta</i>								
<i>Indeterminate rotalids</i>			---					
<i>Gyroidinoides spp.</i>								
<i>Lagena sp.1</i>								
<i>Cibicides spp.</i>								
<i>Haplophragmoides spp.</i>					---			
<i>Sphaeroidina bulloides</i>								
<i>Bolivina spp.</i>								
<i>Uvigerina (spinose)</i>								
<i>Dentalina (costate)</i>								
<i>Dentalina(non-costate)</i>								
<i>Siphonina sp.1</i>								
<i>Fissurina sp.1</i>								
<i>Lagena sulcata</i>								
<i>Pullenia bulloides</i>								
<i>Ammobaculites spp</i>								
<i>Marssonella spp.</i>								
<i>Textularia spp.</i>								
<i>Indeterminate agglutinates</i>				---		---		
<i>Pullenia quinqueloba</i>								
<i>Quinqueloculina spp.</i>								
<i>Gaudyrina spp.</i>				---		---		
<i>Triloculina spp.</i>								
<i>Cassidulina spp.</i>								
<i>Lagena sp.2</i>								
<i>Dorochia spp.</i>				---		---		
<i>Trifarina bradyi</i>								
<i>Bathysiphon spp.</i>								
<i>Pullenia sp.1</i>								
<i>Lagena sp.3</i>								
<i>Spiroloculina sp.1</i>								
<i>Ammodiscus spp.</i>								
<i>Anomalina sp.1</i>								
<i>Fronicularia sp.1</i>								
<i>Indeterminate nodosarians</i>								
<i>Lagena hexagona</i>								
<i>Lagena sp.4</i>								
<i>Bolivina (reticulate)</i>								
<i>Cassidulina subglobosa</i>								
<i>Indet. calc. benthonics</i>					---			

* C= CORE S= SIDEWALL CORE
 T= CUTTINGS J= JUNK BASKET

--- RARE
 --- FEW
 --- COMMON

APPENDIX 2

A P P E N D I X 2

P A L Y N O L O G I C A L A N A L Y S I S

APPENDIX
PALYNOLOGICAL ANALYSIS, BREAM - 5
GIPPSLAND BASIN
by
M.K. Macphail

INTERPRETATIVE DATA

INTRODUCTION

SUMMARY TABLE

GEOLOGICAL COMMENTS

DISCUSSION OF AGE ZONES

TABLE - 1 INTERPRETATIVE DATA

PALYNOLOGY DATA SHEET

INTRODUCTION

Sixty three (63) sidewall cores, six core chips and eight cuttings samples were processed and examined for spore-pollen and dinoflagellates. Recovery was usually low and preservation poor, although diversity was sufficiently high to enable confident age determinations. Sidewall cores within the section 2114.0 to 2416.5m are misplaced (SWC Nos. 154-171, see Summary Table and Biostratigraphy Section). This section has been dated using cuttings.

Palynological zones and lithological facies division for the base of the Lakes Entrance Formation to the total depth of the well are given below. The occurrences of the more stratigraphically important species are tabulated in the accompanying range chart.

SUMMARY

UNIT/FACIES	ZONE	DEPTH (Metres)
Lakes Entrance Formation	<u>P. tuberculatus</u>	1860.0
Gurnard Formation	Upper <u>N. asperus</u>	1865.0-1869.0
	Middle <u>N. asperus</u>	1873.0-1905.0
	Lower <u>N. asperus</u>	1909.0-1923.0
Latrobe Group Coarse Clastics	Lower <u>N. asperus</u>	1925.0-1935.0
	<u>P. asperopolus</u>	1948.5-2029.0
	Upper <u>M. diversus</u>	2065
	Middle <u>M. diversus</u>	2120*
	Lower <u>M. diversus</u>	2145* -2170*
	Upper <u>L. balmei</u>	2225* -2280*
	Lower <u>L. balmei</u>	2310* -2698.0
	<u>T. longus</u>	2740.4-3305.0
<u>T. lilliei</u>	3320.0	

* = Zone depth based on cuttings.

GEOLOGICAL COMMENTS

1. The Bream-5 well contains a continuous sequence of zones from the Late Cretaceous T. lilliei Zone up to and possibly including the Middle/Late Eocene Upper N. asperus Zone.

2. The base of the Lakes Entrance Formation, picked on log and lithological characteristics as occurring at 1864.0m, is above the first appearance of a P. tuberculatus Zone flora, present in the uppermost sample from the Gurnard Formation at 1865.0m (SWC29). The same phenomenon has been recorded by Stacy (1982) in the Bream-4A well. Foraminiferal data (Rexilius 1982) makes it clear that a major unconformity or period of non-deposition occupying all or part of the Early/Middle Oligocene occurs between the top of the Gurnard and base of the Lakes Entrance Formation (1865.0 to 1860.0) in Bream-5. Accordingly the presence of the P. tuberculatus Zone flora at 1865.0m in Bream-5 is believed to be due to bioturbation, or reworking of very top of Gurnard Formation during basal Oligocene. The same may be true of the P. tuberculatus Zone flora in the top sample of the Gurnard Formation in the Bream-4A well.

3. The Gurnard Formation picked on log characteristics extends from 1865.0 to 1924.0m and contains good Lower N. asperus and Middle N. asperus Zone spore-pollen and dinoflagellate assemblages. From the sidewall core descriptions, a facies change from glauconitic sandstones to glauconitic shales and siltstones occurs between 1889.0 to 1885.0m, within the Middle N. asperus Zone. The uppermost two sidewall core samples in the Gurnard Formation at 1869.0m and 1865.0m, contain mixed, probably bioturbated, Middle/Upper N. asperus Zone and Upper N. asperus/P. tuberculatus Zone floras. The interval has been provisionally dated as upper N. asperus Zone in age, but it is noted that sediments of this age are absent in the Bream-4A well (Stacy *ibid*).

4. Glauconite sandstones, which are apparently homogenous with those in the lower section of the Gurnard Formation, extend for 5m below the picked base of the Formation - from 1925.0 to 1929.0m. Spore-pollen and dinoflagellate assemblages are virtually identical throughout and these may be a case for extending the base of the Gurnard Formation to 1929.0m.

5. The highest sidewall core sample of the Latrobe Group Sediments, which lack glauconite (1935.0m), is dated as Lower N. asperus Zone in age. This age-determination is based on frequent Nothofagidites pollen. The highest coal sample, at 1950.7m, is P. asperopolus Zone in age, indicating that the transition from a fluvial/deltaic to a marine environment occurred close to the Lower N. asperus/P. asperopolus Zone boundary. It is unclear whether hydrocarbon-bearing sands recorded at approximately 1940-1945m. are lower N. asperus or P. asperopolus Zone in age.

6. Cuttings from sediment infilling a probable channel, picked on seismic data as occurring between 2157 to 2219m, are Lower M. diversus Zone in age. The sample (2170-75m) contained frequent specimens of an unidentified Deflandrea sp. and rare Apectodinium hyperacantha. The age dating of these dinoflagellates suggest (i) that the cutting of the channel relates to the eustatic fall of sea level at the end of the Upper L. balmei Zone and (ii) the channel was subsequently filled by the A. hyperacantha Zone transgression described by Partridge (1976). The base of the channel, picked on seismic data at 2219m, is 6m above the highest cuttings sample containing a good L. balmei palynoflora.

7. The age/depth relationships of pre-Eocene strata correspond well with that predicted by seismic stratigraphy. It is noted that the Upper L. balmei seismic marker at 2305m is close to the highest cuttings sample containing a possible Lower L. balmei Zone palynoflora. The Lower L. balmei seismic marker (2672m) falls within the Lower L. balmei Zone but is within 70m of the highest good T. longus Zone assemblage (2740.4m).

8. Two marine transgressions are recorded within the Lower L. balmei Zone sediments, at 2472.0 and 2588.0m. Neither contained the marker dinoflagellate species for the Eisenackia crassitabulata Zone or the Trithyrodinium evittii Zone marine transgressions recognised by Partridge (1976).

9. The well bottomed in T. lillieii Zone sediments close to the T. longus/T. lillieii Zone boundary.

DISCUSSION OF ZONES

The zone boundaries have been established using the criteria of Stover & Evans (1973), Stover & Partridge (1973), Partridge (1976) and subsequent revisions.

Tricolporites lilliei Zone: 3320.0m.

This zone is represented by the basal sample only. The age determination is based on the occurrence of Tricolporites lilliei and frequent Nothofagidites endurus and the absence of definite indicator species of the Tricolites longus Zone.

Tricolpites longus Zone: 2740.4 to 3305.0m

Samples from this section are dominated by gymnosperm, Proteacidites and Nothofagidites pollen but the majority contained species which first appear in zone: Tricolpites longus, T. waiparensis, Tetracolporites verrucosus, Proteacidites otwayensis, P. palisadus, P. reticuloconcavus and P. wahooensis. Gambierina rudata was mostly uncommon relative to Nothofagidites spp., indicating that the criterion of abundance of Gambierina: Nothofagidites pollen, established by Stover & Evans (1973) to separate the T. longus and T. lilliei Zones, is unreliable. The base of the zone is defined by the simultaneous first appearances of Tricolpites waiparensis, Tetracolporites verrucosus and Proteacidites wahooensis. The top of the zone is placed at 2740.4m, based on the simultaneous last appearances of Tricolporites lilliei, Triporopollenites sectilis and Tricolpites waiparensis. The highest occurrence of Tricolpites longus is at 3284.0m.

Lower L. balmei Zone: 2310-15 to 2698.0m

The section is characterized by the general L. balmei Zone indicators, e.g. Polycolpites langstonii, frequent to abundant Lygistepollenites balmei and Australopollis obscurus, in association with Tetracolporites verrucosus, a species which ranges no higher than the Lower L. balmei Zone. The base of the zone is picked at 2698.0m on the occurrence of these species in an assemblage lacking definite T. longus Zone indicators. Integricorpus antipodus, a species which first appears in the Lower L. balmei Zone is present at 2687.0m. The top of the zone is based on the last appearance of Tetracolporites verrucosus at 2310-15m. There is some uncertainty about the age-determination since this cuttings sample also contained the late Cretaceous species Tetracopollis securus and

Gambierina rudata. An alternative pick is at 2472.0m, based on the abundant occurrence of the dinoflagellates Glaphyrocysta retiintextum and Svalbardella australina in association with Lygistepollenites balmei and Australopollis obscurus but not Apectodinium homomorpha. This indicates the marine transgression is likely to be Lower, not Upper, L. balmei Zone in age.

Upper L. balmei Zone: 2280-85m

The interval from 2175 to 2472m comprises either barren or misplaced sidewall core samples. The only reliable age determination is based on coal in cuttings from the interval 2280-85m. This sample is dated as Upper L. balmei Zone in age on the occurrence of Tetracolporites multistrixis and T. textus in association with Australopollis obscurus and (common) Lygistepollenites balmei. The position of the M. diversus/L. balmei Zone boundary lies in the barren interval between 2175m and the highest occurrence of Lygistepollenites balmei at 2225-30m.

Lower M. diversus Zone: 2170-75 to 2145-50m

Lower M. diversus Zone assemblages, characterized by Malvacipollis diversus, Ilexpollenites anguloclavatus and Proteacidites lapis, occur in two cuttings samples - at 2145-50m and 2170-75m. The former (a coal) is of interest as it contained Beaupreadites elegansiformis, a species which is usually not found below Middle M. diversus Zone sediments. The presence of Tetracolporites textus and the absence of other definite spore-pollen markers of the Middle M. diversus strongly supports a Lower M. diversus Zone age. Spore-pollen at 2145-50m is swollen, suggesting the interval has been subjected to liquid hydrocarbons at one time (see Macphail 1982).

Middle M. diversus Zone: 2120-25m

The occurrence of Proteacidites leightonii, Liliacidites lanceolatus and Malvacipollis diversus in cuttings from 2120-25m indicates the sample is no older than Middle M. diversus Zone in age. The absence of Proteacidites pachypolus and Myrtacidites tenuis indicates the interval is no younger than Middle M. diversus Zone in age.

Upper M. diversus Zone: 2065m

As with the Middle M. diversus Zone, the Upper M. diversus Zone sediments are represented by one cuttings sample only, at 2065m. The age-determination is confirmed by the presence of low but

approximately equal number of Malvacipollis diversus and Proteacidites pachypolus. Since the sample is located only 6m below the base of the 9-5/8" casing, it is less likely to be contaminated and therefore has a better confidence rating than is usually the case with cuttings.

P. asperopolus Zone: 1948.5 to 2029.0m

Samples within this interval are dominated by Haloragacidites harrisii and Proteacidites species including P. asperopolus and often frequent to common P. pachypolus. Nothofagidites emarcidus/heterus is frequent in three samples, core chips at 1954.5m and 1959.9m and a coal at 1954.94m, but the presence of Myrtaceidites tenuis in these, as well as adjacent samples in which Nothofagidites is rare, confirm a P. asperopolus Zone age-determination. The coal at 1954.94m is of interest in that it contains the rare species Droseridites tholus and one of the earliest (Early/Middle Eocene) records for Quintinia psilatispora. The base of the zone is picked on the first occurrence of frequent Proteacidites pachypolus with Myrtaceidites tenuis at 2029.0m. This sample contains infrequent dinoflagellate cysts. The first occurrence of Proteacidites asperopolus is at 2017.5m. The top of the zone is placed at 1948.5m, based on the occurrence of Proteacidites asperopolus, P. pachypolus and Sapotaceoidae-pollenites rotundus with Spinizonocolpites prominatus, a species which last appears in this zone.

Lower N. asperus Zone: 1897.0 to 1935.0

The base of the zone is placed at the marked increase in Nothofagidites spp. abundance from rare at 1948.5m to dominant in a sparse assemblage at 1935.0m. The Lower N. asperus Zone indicator dinoflagellate species Areosphaeridium diktyoplokus occurs at 1928.0m together with Proteacidites asperopolus, a species which ranges no higher than the Lower N. asperus Zone. Both species, Proteacidites pachypolus and (frequent to common) Nothofagidites spp occur in all samples up to 1909.0m. The top of the zone is placed at 1909.0m, based on the highest occurrences of Areosphaeridium diktyoplokus and Proteacidites asperopolus in an assemblage lacking indicator species of the Middle N. asperus Zone.

Middle N. asperus Zone: 1873.0 to 1905.0m

The base of the zone is picked on the first appearance of the indicator species for the Middle N. asperus Zone, Triorites

magnificus, at 1905.0m. This sample contains Proteacidites reticulatus, a species which appears late in the Lower N. asperus Zone but then becomes common in the Middle N. asperus Zone. Also present are Diporites delicatus and Areosphaeridium diktyoplokus, species which are characteristic of sediments no younger than Lower N. asperus Zone in age. It is therefore likely the sample is near the base of the Middle N. asperus Zone, possibly within the Deflandrea heterophylcta Zone since this is the most common dinoflagellate species in the sample. Otherwise dinoflagellate and spore-pollen species diagnostic of the Middle N. asperus Zone are not recorded until 1881.0m. This sample contains the first good specimens of Vozzhenikova extensa, Corrudinium incompositum, and Proteacidites rectomarginis as well as the highest appearance of Proteacidites pachypolus. The top of the zone is picked at 1873.0m, based on the frequent occurrence of the Middle N. asperus dinoflagellate species Corrudinium incompositum.

Upper N. asperus Zone: 1869.0 to 1865.0m

Two samples are provisionally identified as being Upper N. asperus Zone in age. The lower most at 1869.0m contains Proteacidites truncatus, a rare species which is recorded as early as the Middle N. asperus Zone, Proteacidites leightonii which ranges no higher than the Middle N. asperus zone, Foveotriletes crater which first appears at the top of the Middle N. asperus Zone in the Bass Basin but rarely before the P. tuberculatus Zone in the Gippsland Basin, and Foveotriletes lacunosus, an indicator species for the P. tuberculatus Zone. The sample contains a K-Zone foraminiferal assemblage (Rexilius 1982), the chronostratigraphic equivalent of the Upper N. asperus Zone but comprising species which range into the Middle N. asperus Zone.

The uppermost sample, at 1865.0, contains a K-Zone foraminiferal assemblage and a P. tuberculatus Zone spore-pollen assemblage. The age-determination is based upon the abundance of pelletal glauconite, indicating the sediment forms part of the Gurnard Formation. Its position, immediately below the base of the Lakes Entrance Formation, makes incorporation of Oligocene spore-pollen by bioturbation a strong possibility.

P. tuberculatus Zone 1860.0 to 1840.0

The regular occurrence of Cyatheacidites annulatus in these glauconite-free calcareous sediments, confirms a P. tuberculatus Zone age for the interval.

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TABLE 1
SUMMARY OF PALYNOLOGICAL ANALYSIS, BREAM-5, GIPPSLAND BASIN.
 INTERPRETATIVE DATA

SAMPLE	DEPTH (M)	YIELD	DIVERSITY SPORE POLLEN	LITHOLOGY	ZONE	AGE	CONFIDENCE RATING	COMMENTS
SWC 34	1840.0	Low	Low	Mdst.calc.	<u>P.tuberculatus</u>	Post Eocene	0	<u>C.annulatus</u>
SWC 30	1860.0	Very Low	Low	Mdst.calc.	<u>P.tuberculatus</u>	Post Eocene	0	<u>C.annulatus</u>
SWC 29	1865.0	Good	Moderate	Sltst.glau.	Upper <u>N.asperus</u>	Late Eocene	2	<u>C.annulatus</u> , <u>Q.psilatispora</u>
SWC 28	1869.0	Good	High	Sltst.glau.	Upper <u>N.asperus</u>	Late Eocene	2	<u>P.truncatus</u> , <u>F.crater</u>
SWC 27	1873.0	Fair	Low	Sltst.glau.	Middle <u>N.asperus</u>	Late Eocene	1	<u>Corrudinium incompositum</u>
SWC 26	1877.0	Very Low	Moderate	Sltst.glau.	<u>N.asperus</u>	Middle/Late Eocene	-	<u>P.vesicus</u> , <u>N.falcatus</u>
SWC 25	1881.0	Good	Moderate	Sltst.glau.	Middle <u>N.asperus</u>	Middle/Late Eocene	0	<u>P.pachypolus</u> , <u>P.rectomarginus</u> <u>Corrudinium incompositum</u> , <u>Vozzhenikova extensa</u>
SWC 24	1885.0	Good	Moderate	Sh.glau.	<u>N.asperus</u>	Middle/Late Eocene	-	<u>P.pachypolus</u> , <u>T.simatus</u>
SWC 23	1889.0	Very Low	Low	Ss.glau.	Middle <u>N.asperus</u>	Middle/Late Eocene	2	<u>Vozzhennikovia cf.extensa</u>
SWC 22	1893.0	Very Low	Low	Ss.glau.	<u>N.asperus</u>	Middle/Late Eocene	-	Frequent <u>N.emarcidus/heterus</u>
SWC 21	1897.0	Fair	Low	Ss.glau.	Middle <u>N.asperus</u>	Middle Eocene	2	<u>P.reticulatus</u> , <u>M.diversus</u>
SWC 20	1900.9	Low	Moderate	Ss.glau.	Middle <u>N.asperus</u>	Middle Eocene	2	<u>P.pachypolus</u> , <u>Areosphaeridium</u> <u>diktyoplokus</u>
SWC 19	1905.0	Fair	High	Ss.glau.	Middle <u>N.asperus</u>	Middle Eocene	2	<u>A.diktyoplokus</u> , <u>D.delicatus</u> <u>T.magnifus</u>
SWC 18	1909.0	Fair	High	Ss.glau.	Lower <u>N.asperus</u>	Middle Eocene	1	<u>R.trophus</u> , <u>P.asperopolus</u>
SWC 17	1912.9	Very Low	Low	Ss.glau.	Indeterminate	-	-	

SUMMARY OF PALYNOLOGICAL ANALYSIS, BREAM-5, GIPPSLAND BASIN.

INTERPRETATIVE DATA

SAMPLE	DEPTH (M)	YIELD	DIVERSITY SPORE POLLEN	LITHOLOGY	ZONE	AGE	CONFIDENCE RATING	COMMENTS
SWC 15	1921.0	Low	Moderate	Ss.glau.	Lower <u>N.asperus</u>	Middle Eocene	1	<u>A.diktyplokus</u> , <u>P.asperopolus</u>
SWC 14	1923.0	Low	Moderate	Ss.glau.	Lower <u>N.asperus</u>	Middle Eocene	1	<u>A.diktyplokus</u> , <u>P.asperopolus</u>
SWC 13	1925.0	Fair	Moderate	Ss.glau.	Lower <u>N.asperus</u>	Middle Eocene	1	<u>A.diktyplokus</u> , <u>P.asperopolus</u>
SWC 12	1927.0	Very Low	Low	Ss.	Lower <u>N.asperus</u>	Middle Eocene	1	<u>A.diktyplokus</u> , <u>D.phosphoritica</u>
SWC 11	1928.0	Fair	Moderate	Ss.glau.	Lower <u>N.asperus</u>	Middle Eocene	1	<u>A.diktyplokus</u> , <u>P.asperopolus</u>
SWC 9	1935.0	Very Low	Low	Ss.	Lower <u>N.asperus</u>	Middle Eocene	2	Frequent <u>N.emaricidus/heterus</u>
SWC 8	1937.0	Barren	-	Ss.	-	-	-	
Core	1948.5	Fair	Moderate	Sh.	<u>P.asperopolus</u>	Early/ Middle Eocene	2	<u>P.asperopolus</u> , <u>P.pachypolus</u> , <u>S.prominatus</u>
Core	1950.7	Fair	Moderate	Coal	<u>P.asperopolus</u>	Early/ Middle Eocene	2	
Core	1954.5	Fair	High	Sh.	<u>P.asperopolus</u>	Early Eocene	0	<u>P.asperopolus</u> , <u>M.tenuis</u>
Core 2	1954.94	Good	High	Coal	<u>P.asperopolus</u>	Early Eocene	0	<u>B.trigonalis</u> , <u>M.tenuis</u> , <u>Q.psilatispora</u>
Core 2	1959.9	Low	Low	Sh.	<u>P.asperopolus</u>	Early Eocene	2	<u>P.pachypolus</u>
SWC 7	1972.5	Barren	-	Sltst.carb.	-	-	-	
SWC 5	2002.0	Good	High	Mdst.	<u>P.asperopolus</u>	Early Eocene	0	<u>M.tenuis</u> , <u>S.rotundus</u> , abundant <u>P.pachypolus</u>
SWC 4	2008.0	Very Low	Low	Ss.carb	<u>P.asperopolus</u>	Early Eocene	2	<u>P.pachypolus</u>

SUMMARY OF PALYNOLOGICAL ANALYSIS, BREAM-5, GIPPSLAND BASIN.
INTERPRETATIVE DATA

SAMPLE	DEPTH (M)	YIELD	DIVERSITY SPORE POLLEN	LITHOLOGY	ZONE	AGE	CONFIDENCE RATING	COMMENTS
SWC 3	2017.4	Good	Moderate	Sltst.carb.	<u>P.asperopolus</u>	Early Eocene	0	<u>P.asperopolus</u> , abundant
SWC 2	2029.0	Very Low	Low	Sltst.carb.	<u>P.asperopolus</u>	Early Eocene	1	Frequent <u>P.pachypolus</u> , <u>M.tenuis</u>
SWC 1	2042.4	Very Low	Low	Sltst.	Indeterminate	-	-	
Cts.	2065	Low	Low	sh.	Upper <u>M.diversus</u>	Early Eocene	3	<u>M.diversus</u> , <u>P.pachypolus</u>
SWC174	2077.0	Barren	-	Ss.carb	-	-	-	
Cts.	2095- 100	Good	High	Coal	<u>M.diversus</u>	Early Eocene	3	<u>T.multistrixis</u> , <u>M.textus</u> , frequ- ent <u>M.diversus</u> , <u>I.notabilis</u>
SWC171	2114.0	Low	Low	Sltst.	<u>T.longus</u>	Late Cretaceous	1	<u>T.waiparensis</u>
SWC170	2119.0	Low	Low	Sltst.	<u>T.longus</u>	Late Cretaceous	2	<u>T.sectilis</u>
Cts.	2120- 25	Moderate	High	Sh.	Middle <u>M.diversus</u>	Early Eocene	3	<u>M.diversus</u> , <u>P.leightonii</u> , <u>S.marlinensis</u>
SWC169	2127.5	Low	Low	Sltst.	<u>T.longus</u>	Late Cretaceous	2	<u>T.lilliei</u> , <u>T.sectilis</u> , frequent <u>N.endurus</u>
Cts.	2145-50	Fair	High	Coal	Lower <u>M.diversus</u>	Early Eocene	3	<u>T.textus</u> , <u>M.diversus</u> , <u>B.elegansiformis</u>
SWC167	2157.5	Very Low	Low	Ss.carb.	<u>T.longus</u>	Late Cretaceous	1	<u>T.waiparensis</u>

SUMMARY OF PALYNOLOGICAL ANALYSIS, BREAM-5, GIPPSLAND BASIN.

INTERPRETATIVE DATA

SAMPLE	DEPTH (M)	YIELD	DIVERSITY SPORE POLLEN	LITHOLOGY	ZONE	AGE	CONFIDENCE RATING	COMMENTS
Cts.	2170- 75	Fair	High	Sh.	Lower <u>M.diversus</u>	Early Eocene	2	<u>M.diversus</u> , <u>I.anguloclavatus</u> , <u>Apectodinium hyperacantha</u> .
SWC164	2209.0	Barren	-	Ss.	-	-	-	
SWC 163	2219.4	Barren	-	Ss.	-	-	-	
Cts.	2225- 30	Very Low	Low	Sh.	<u>L.balmei</u>	Paleocene	3	<u>L.balmei</u> , <u>H.harrisii</u>
Cts.	2280- -85	Fair	Moderate	Coal	Upper <u>L.balmei</u>	Paleocene	3	<u>L.balmei</u> , <u>T.textus</u> , <u>T.multistrixis</u> and <u>A.obscurus</u> (common).
Cts.	2310- 15	High	Moderate	Sh.	Lower <u>L.balmei</u>	Paleocene	3	<u>L.balmei</u> , <u>G.rudata</u> , <u>T.verrucosus</u>
SWC158	2317.0	Fair	Low	Sh.	<u>T.lilliei</u>	Late Cretaceous	2	<u>T.lilliei</u> , <u>T.sectilis</u>
SWC156	2369.0	Barren	-	Ss.	-	-	-	
SWC154	2416.5	Barren	-	Ss.	-	-	-	
SWC110	2472.0	High	High	Ss.carb	Lower <u>L.balmei</u>	Paleocene	2	Frequent <u>L.balmei</u> and <u>A.obscurus</u> , <u>Glaphryocysta</u> <u>retiintextum</u> common.
SWC108	2504.0	Fair	Moderate	Sltst.carb	Lower <u>L.balmei</u>	Paleocene	1	<u>A.obscurus</u> and <u>L.balmei</u> (frequent,) <u>T.verrucosus</u>

SUMMARY OF PALYNOLOGICAL ANALYSIS, BREAM-5, GIPPSLAND BASIN.
INTERPRETATIVE DATA

SAMPLE	DEPTH (M)	YIELD	DIVERSITY SPORE POLLEN	LITHOLOGY	ZONE	AGE	CONFIDENCE RATING	COMMENTS
SWC107	2530.0	Good	Moderate	Sh.	<u>L.balmei</u>	Paleocene	1	<u>A.obscurus</u> abundant, <u>L. balmei</u> frequent
SWC106	2551.0	Low	Moderate	Sltst.	<u>L.balmei</u>	Paleocene	-	<u>L.balmei</u> frequent, <u>S. regium</u>
SWC105	2566.0	Very Low	Low	Ss.carb.	Indeterminate	-	-	<u>L.balmei</u>
Core 3	2568.0	Barren	-	Sh.	-	-	-	
SWC104	2588.0	Good	High	Sh.	Lower <u>L.balmei</u>	Paleocene	1	<u>A.obscurus</u> frequent, <u>R.mallatus</u> , <u>Deflandrea speciosus</u> .
SWC103	2624.0	Fair	Moderate	Sh.	Lower <u>L.balmei</u>	Paleocene	2	
SWC101	2673.0	Fair	Low	Sltst.	Lower <u>L.balmei</u>	Paleocene	2	<u>H.harrisii</u> , <u>T.verrucosus</u>
SWC100	2687.0	Fair	Moderate	Sltst.	Lower <u>L.balmei</u>	Paleocene	1	<u>I.antipodus</u> , <u>L.balmei</u> , <u>A.obscurus</u>
SWC150	2694.9	Barren	-	Ss.	-	-	-	
SWC 99	2698.0	High	Moderate	Ss/sh.carb	Lower <u>L.balmei</u>	Paleocene	2	<u>L.balmei</u> , <u>T.verrucosus</u>
SWC 98	2727.5	Very Low	Low	Ss.carb.	Indeterminate	-	-	
SWC 97	2730.5	Barren	-	Ss.carb.	-	-	-	
SWC 96	2740.4	Fair	High	Ss.carb.	<u>T.longus</u>	Paleocene	1	<u>T.lilliei</u> , <u>T.waiparensis</u> , <u>G.wahooensis</u>
SWC 146	2776.6	Very Low	Low	Sh.	<u>T.longus</u>	Late Cretaceous	2	<u>T.sectilis</u>

SUMMARY OF PALYNOLOGICAL ANALYSIS, BREAM-5, GIPPSLAND BASIN.
INTERPRETATIVE DATA

SAMPLE	DEPTH (M)	YIELD	DIVERSITY SPORE POLLEN	LITHOLOGY	ZONE	AGE	CONFIDENCE RATING	COMMENTS
SWC 92	2848.0	Very Low	Moderate	Sltst.	<u>T.longus</u>	Late Cretaceous	1	<u>G.rudata</u> frequent, <u>P.otwayensis</u> , <u>T.waiparensis</u>
SWC142	3013.9	Very Low	Low	Sltst.	<u>T.longus</u>	Late Cretaceous	1	<u>P.reticuloconcavus</u> , <u>P.palisadus</u>
SWC141	3027.8	Very Low	Low	Sltst.carb.	Indeterminate	-	-	
SWC 78	3065.5	Fair	Moderate	Sltst.carb.	<u>T.longus</u>	Late Cretaceous	1	<u>T.verrucosus</u> , <u>T.waiparensis</u>
SWC 68	3194.0	Very Low	Low	Cly.	<u>T.longus</u>	Late Cretaceous	2	<u>P.palisadus</u> , <u>T.sectilis</u> , <u>T.lilliei</u> .
SWC137	3196.0	Very Low	Low	Sltst.carb.	Indeterminate	-	-	
SWC 63	3225.0	Very Low	Low	Ss.	Indeterminate	-	-	Caved <u>L.balmei</u> assemblage
SWC 56	3284.0	Very Low	Moderate	Sltst.coaly	<u>T. longus</u>	Late Cretaceous	0	<u>T.verrucosus</u> , <u>T.longus</u> <u>P.palisadus</u> .
SWC 54	3305.0	Very Low	Moderate	Sltst.coaly	<u>T.longus</u>	Late Cretaceous	1	<u>T.verrucosus</u> , <u>T.waiparensis</u> , <u>P.wahooensis</u> .
SWC 52	3320.0	Very Low	Moderate	Coal	<u>T.lilliei</u>	Late Cretaceous	2	<u>T.lilliei</u> , common <u>Nothofagidites</u> spp., <u>T.sectilis</u> T.A.I.=2.3

PALYNOLOGY DATA SHEET

BASIN: GIPPSLAND

ELEVATION: KB: +21m GL: -58m

WELL NAME: BREAM-5

TOTAL DEPTH: 3325m

AGE	PALYNOLOGICAL ZONES	HIGHEST DATA					LOWEST DATA					
		Preferred Depth	Rtg	Alternate Depth	Rtg	Two Way Time	Preferred Depth	Rtg	Alternate Depth	Rtg	Two Way Time	
NEOGENE	<i>T. pleistocenicus</i>											
	<i>M. lipsis</i>											
	<i>C. bifurcatus</i>											
	<i>T. bellus</i>											
PALEOGENE	<i>P. tuberculatus</i>	1840.0	0				1860.0	1				
	Upper <i>N. asperus</i>	1865.0	2				1869.0	2				
	Mid <i>N. asperus</i>	1873.0	2				1905.0	2	1881.0	0		
	Lower <i>N. asperus</i>	1909.0	1				1935.0	2	1927.0	1		
	<i>P. asperopolus</i>	1948.5	2	1954.5	0		2029.0	1				
	Upper <i>M. diversus</i>	2065	3				2065	3				
	Mid <i>M. diversus</i>	2120	3				2125	3				
	Lower <i>M. diversus</i>	2145	3				2170	3				
	Upper <i>L. balmei</i>	2225	3	2280	3		2280	3				
	Lower <i>L. balmei</i>	2310	3	2472.0	2		2698.0	2	2687.0	1		
	LATE CRETACEOUS	<i>T. longus</i>	2740.4	1				3305.0	1			
		<i>T. lilliae</i>	3320.0	2				3320.2				
<i>N. senectus</i>												
U. <i>T. pachyexinus</i>												
L. <i>T. pachyexinus</i>												
<i>C. triplex</i>												
EARLY CRET.	<i>A. distocarinatus</i>											
	<i>C. paradoxus</i>											
	<i>C. striatus</i>											
	<i>F. asymmetricus</i>											
	<i>F. wonthaggiensis</i>											
PRE-CRETACEOUS												

COMMENTS:

- CONFIDENCE RATING:
- 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 an entry is given a 3 or 4 confidence rating, an alternative depth with a better confidence rating should be entered, if possible. If a sample cannot be assigned to one particular zone, then no entry should be made, unless a range of zones is given where the highest possible limit will appear in one zone and the lowest possible limit in another.

DATA RECORDED BY: M.K. Macphail.

DATE: 18 November, 1982.

DATA REVISED BY:

DATE:

BASIC DATA

Table - 2 : Palynological Data

Range Chart - Dinoflagellates.

Range Chart - Spore Pollen.

TABLE 2
SUMMARY OF PALYNOLOGICAL ANALYSIS, BREAM-5, GIPPSLAND BASIN
BASIC DATA

SWC 34	1840.0	Low	Low	Mdst.calc.
SWC 30	1860.0	Very Low	Low	Mdst.calc.
SWC 29	1865.0	Good	Moderate	Sltst.glau.
SWC 28	1869.0	Good	High	Sltst.glau.
SWC 27	1873.0	Fair	Low	Sltst.glau.
SWC 26	1877.0	Very Low	Moderate	Sltst.glau.
SWC 25	1881.0	Good	Moderate	Sltst.glau.
SWC 24	1885.0	Good	Moderate	Sh.glau.
SWC 23	1889.0	Very Low	Low	Ss.glau.
SWC 22	1893.0	Very Low	Low	Ss.glau.
SWC 21	1897.0	Fair	Low	Ss.glau.
SWC 20	1900.9	Low	Moderate	Ss.glau.
SWC 19	1905.0	Fair	High	Ss.glau.
SWC 18	1909.0	Fair	High	Ss.glau.
SWC 17	1912.9	Very Low	Low	Ss.glau.
SWC 15	1921.0	Low	Moderate	Ss.glau.
SWC 14	1923.0	Low	Moderate	Ss.glau.
SWC 13	1925.0	Fair	Moderate	Ss.glau.
SWC 12	1927.0	Very Low	Low	Ss.
SWC 11	1928.0	Fair	Moderate	Ss.glau.
SWC 9	1935.0	Very Low	Low	Ss.
SWC 8	1937.0	Barren	-	Ss.
Core	1948.5	Fair	Moderate	Sh.
Core	1950.7	Fair	Moderate	Coal
Core	1954.5	Fair	High	Sh.
Core 2	1954.94	Good	High	Coal
Core 2	1959.9	Low	Low	Sh.
SWC 7	1972.5	Barren	-	Sltst.carb.

TABLE 2
SUMMARY OF PALYNOLOGICAL ANALYSIS, BREEM-5, GIPPSLAND BASIN
BASIC DATA

SWC 5	2002.0	Good	High	Mdst.
SWC 4	2008.0	Very Low	Low	Ss.carb.
SWC 3	2017.4	Good	Moderate	Slt.st.carb.
SWC 2	2029.0	Very Low	Low	Sltst.carb.
SWC 1	2042.4	Very Low	Low	Sltst.
Cts.	2065	Low	Low	sh.
SWC174	2077.0	Barren	-	Ss.carb.
Cts.	2095- 100	Good	High	Coal
SWC171	2114.0	Low	Low	Sltst.
SWC170	2119.0	Low	Low	Sltst.
Cts.	2120-25	Moderate	High	Sh.
SWC169	2127.5	Low	Low	Sltst.
Cts.	2145-50	Fair	High	Coal
SWC167	2157.5	Very Low	Low	Ss.carb.
SWC164	2209.0	Barren	-	Ss.
SWC 163	2219.4 -30	Barren	-	Ss.
Cts.	2280- -85	Fair	Moderate	Coal
Cts.	2310- 15	High	Moderate	Sh.
SWC158	2317.0	Fair	Low	Sh.
SWC156	2369.0	Barren	-	Ss.
SWC154	2416.5	Barren	-	Ss.
SWC110	2472.0	High	High	Ss.carb.
SWC108	2504.0	Fair	Moderate	Sltst.carb.

TABLE 2
SUMMARY OF PALYNOLOGICAL ANALYSIS, BREAM-5, GIPPSLAND BASIN
BASIC DATA

SWC107	2530.0	Good	Moderate	Sh.
SWC106	2551.0	Low	Moderate	Sltst.
SWC105	2566.0	Very Low	Low	Ss.carb.
Core 3	2568.0	Barren	-	Sh.
SWC104	2588.0	Good	High	Sh.
SWC103	2624.0	Fair	Moderate	Sh.
SWC101	2673.0	Fair	Low	Sltst.
SWC100	2687.0	Fair	Moderate	Sltst.
SWC150	2694.9	Barren	-	Ss.
SWC 99	2698.0	High	Moderate	Ss/sh.carb.
SWC 98	2727.5	Very Low	Low	Ss.carb.
SWC 97	2730.5	Barren	-	Ss.carb.
SWC 96	2740.4	Fair	High	Ss.carb.
SWC 146	2776.6	Very Low	Low	Sh.
SWC 92	2848.0	Very Low	Moderate	Sltst.
SWC142	3013.9	Very Low	Low	Sltst.
SWC141	3027.8	Very Low	Low	Sltst.carb.
SWC 78	3065.5	Fair	Moderate	Sltst.carb.
SWC 68	3194.0	Very Low	Low	Cly
SWC137	3196.0	Very Low	Low	Sltst.carb.
SWC 63	3225.0	Very Low	Low	Ss.
SWC 56	3284.0	Very Low	Moderate	Sltst.coaly
SWC 54	3305.0	Very Low	Moderate	Sltst.coaly
SWC 52	3320.0	Very Low	Moderate	Coal

SPORE-POLLEN

Well Name BREAM-5

Basin GIPPSLAND

Sheet No. 1 of 8

SAMPLE TYPE *	DEPTHS																
	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
<i>A. qualumis</i>																	
<i>A. acutillus</i>																	
<i>A. luteoides</i>																	
<i>A. oculus</i>																	
<i>A. sectus</i>																	
<i>A. triplaxis</i>																	
<i>A. obscurus</i>																	
<i>B. disconformis</i>																	
<i>B. arcuatus</i>																	
<i>B. elongatus</i>																	
<i>B. mutabilis</i>																	
<i>B. otwayensis</i>																	
<i>B. elegansiformis</i>																	
<i>B. trigonalis</i>																	
<i>B. verrucosus</i>																	
<i>B. bombaxoides</i>																	
<i>B. emaciatus</i>																	
<i>C. bullatus</i>																	
<i>C. heskermensis</i>																	
<i>C. horrendus</i>																	
<i>C. meleosus</i>																	
<i>C. apiculatus</i>																	
<i>C. leptos</i>																	
<i>C. striatus</i>																	
<i>C. vanraadshoovenii</i>																	
<i>C. orthoteichus/major</i>																	
<i>C. annulatus</i>																	
<i>C. gigantis</i>																	
<i>C. splendens</i>																	
<i>D. australiensis</i>																	
<i>D. granulatus</i>																	
<i>D. tuberculatus</i>																	
<i>D. delicatus</i>																	
<i>D. semilunatus</i>																	
<i>E. notensis</i>																	
<i>E. crassiexinus</i>																	
<i>F. balteus</i>																	
<i>F. crater</i>																	
<i>F. lucunosus</i>																	
<i>F. palaequetrus</i>																	
<i>G. edwardsii</i>																	
<i>G. rudata</i>																	
<i>G. divaricatus</i>																	
<i>G. gestus</i>																	
<i>G. catathus</i>																	
<i>G. cranwellae</i>																	
<i>G. wahooensis</i>																	
<i>G. bassensis</i>																	
<i>G. nebulosus</i>																	
<i>H. harrisii</i>																	
<i>H. astrus</i>																	
<i>H. elliotii</i>																	
<i>I. anguloclavatus</i>																	
<i>I. antipodus</i>																	
<i>I. notabilis</i>																	
<i>I. gremius</i>																	
<i>I. irregularis</i>																	
<i>J. peiratus</i>																	
<i>K. waterbolkii</i>																	
<i>L. amplus</i>																	
<i>L. crassus</i>																	
<i>L. ohaiensis</i>																	
<i>L. bainii</i>																	
<i>L. lanceolatus</i>																	
<i>L. balmeri</i>																	
<i>L. florinii</i>																	
<i>M. diversus</i>																	
<i>M. duratus</i>																	
<i>M. grandis</i>																	
<i>M. perimagnus</i>																	

*C=core; S=sidewall core; T= cuttings.

R = contamination or reworked



= rare



= frequent



= common



= abundant to dominant

SAMPLE TYPE *		S	S	T	T	T	T	S	S	S	S	S	S	S	S	S	S	S	S	S	S
DEPTHS																					
	PALYNOMORPHS																				
M. subtilis																					
M. ornamentalis																				R	R
M. hypolaenoides																					
M. homeopunctatus																					
M. parvus/mesonesus																					
M. tenuis																					
M. verrucosus																					
M. australis																					
N. asperus																					
N. asperoides																					
N. brachyspinulosus																					
N. deminutus																					
N. emarcidus/heterus																					
N. endureus	X																				
N. falcatus																					
N. flemingii																					
N. goniatus																					
N. senectus																					
N. vansteenisii																					
O. sentosa																					
P. ochesis																					
P. catastus																					
P. demarcatus																					
P. magnus																					
P. polyoratus																					
P. vesicus																					
P. densus																					
P. velosus																					
P. morgani/jubatus																					
P. mawsonii	X																				
P. reticulosaccatus																					
P. verrucosus																					
P. crescentis																					
P. esobalteus																					
P. langstonii																					
P. reticulatus																					
P. simplex																					
P. varus																					
P. adenanthoides (Prot.)																					
P. alveolatus																					
P. amolosexinus																					
P. angulatus																					
P. annularis																					
P. asperopolus																					
P. biornatus																					
P. clarus																					
P. cleinei																					
P. confragosus																					
P. crassus																					
P. delicatus																					
P. formosus																					
P. grandis	X	X																			
P. grevillaensis																					
P. incurvatus																					
P. intricatus																					
P. kopiensis																					
P. lapis																					
P. latrobensis																					
P. leightonii																					
P. obesolabrus																					
P. obscurus																					
P. ornatus																					
P. otwayensis																					
P. pachypolus																					
P. palisadus																					
P. parvus																					
P. plammelus																					
P. prodigus																					
P. pseudomoides																					
P. recavus																					

SAMPLE TYPE *	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
	2698.0	2727.5	2740.4	2776.6	2848.0	3013.9	3065.6	3194.0	3196.0	3225.0	3284.0	3305.0	3320.0						
DEPTHS																			
PALYNOFORMS																			
A. qualumis																			
A. acutullus																			
A. luteoides																			
A. oculatus																			
A. sectus																			
A. triplaxis																			
A. obscurus	/																		
B. disconformis																			
B. arcuatus																			
B. elongatus																			
B. mutabilis									/										
B. otwayensis																			
B. elegansiformis																			
B. trigonalis																			
B. verrucosus																			
B. bombaxoides																			
B. c. maciatus																			
C. bullatus																			
C. heskermensis	//					/	/	/											
C. horrendus	//		/			/	/	/											
C. meleosus																			
C. apiculatus																			
C. leptos																			
C. striatus																			
C. vanraadshoovenii																			
C. orthoteichus/major																			
C. arinulatus																			
C. gigantis																			
C. splendens				/															
D. australiensis				/									/						
D. granulatus								/											
D. tuberculatus									/										
D. delicatus																			
D. semilunatus																			
E. notensis																			
E. crassixinus																			
F. balteus																			
F. crater																			
F. lucunosus																			
F. palaequetrus																			
G. edwardsii	/		/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
G. rudata	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
G. divaricatus	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
G. gestus																			
G. catathus																			
G. cranwellae																			
G. wahooensis			/																
G. bassensis																			
G. nebulosus																			
H. harrisii			/										R						
H. astrus																			
H. elliotii	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
I. anguloclavatus																			
I. antipodus																			
I. notabilis																			
I. gremius																			
I. irregularis																			
J. peiratus																			
K. waterbolkii																			
L. amplus			X	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
L. crassus																			
L. ohioensis			/		/														
L. bainii																			
L. lanceolatus																			
L. balmei	/				/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
L. florinii										X									
M. diversus																			
M. duratus																			
M. grandis																			
M. perimagnus																			

*C=core; S= sidewall core; T= cuttings.

SAMPLE TYPE *	S	S	S	S	S	S	S	S	S	S	S	S	S	S						
DEPTH	2698.0	2727.5	2740.4	2776.6	2848.0	3013.9	3065.6	3194.0	3196.0	3225.0	3284.0	3305.0	3320.0							
PALYNOMORPHS																				
<i>P. rectomarginis</i>	•••••																			
<i>P. reflexus</i>	•••••																			
<i>P. reticulatus</i>	•••••																			
<i>P. reticuloconcavus</i>	•••••																			
<i>P. reticulosabratus</i>	•••••					/														
<i>P. rugulatus</i>	•••••																			
<i>P. scitus</i>	•••••																			
<i>P. stipplatus</i>	•••••																			
<i>P. tenuixinus</i>	•••••																			
<i>P. truncatus</i>	•••••																			
<i>P. tuberculatus</i>	•••••																			
<i>P. tuberculiformis</i>	•••••																			
<i>P. tuberculotumulatus</i>	•••••																			
<i>P. xestiformis</i> (Prot.)	•••••																			
<i>Q. brossus</i>																				
<i>R. boxatus</i>																				
<i>R. stellatus</i>																				
<i>R. mallatus</i>																				
<i>R. trophus</i>																				
<i>S. cainozoicus</i>																				
<i>S. rotundus</i>																				
<i>S. digitatoides</i>																				
<i>S. marlinensis</i>																				
<i>S. rarus</i>																				
<i>S. meridianus</i>																				
<i>S. prominatus</i>																				
<i>S. uvatus</i>																				
<i>S. punctatus</i>																				
<i>S. regium</i>	✗																			
<i>T. multistrixus</i> (CP4)																				
<i>T. textus</i>																				
<i>T. verrucosus</i>	/						/		/		/									
<i>T. securus</i>																				
<i>T. confessus</i> (C3)	/	/	/				/	/	/	/	/	/								
<i>T. gillii</i>	/		/	/	/		/	/	/	/	/	/	/							
<i>T. incisus</i>																				
<i>T. longus</i>											/									
<i>T. phillipsii</i>																				
<i>T. renmarkensis</i>																				
<i>T. sabulosus</i>																				
<i>T. simatus</i>																				
<i>T. thomasii</i>																				
<i>T. waiparaensis</i>			/	/		/	/				/	/								
<i>T. adelaidensis</i> (CP3)			/	/		/	/				/	/								
<i>T. angurium</i>																				
<i>T. delicatus</i>																				
<i>T. geranioides</i>																				
<i>T. leuros</i>																				
<i>T. lilliei</i>			/	/		/	/				/	/	/	/						
<i>T. marginatus</i>			/	/		/	/				/	/	/	/						
<i>T. moultonii</i>																				
<i>T. paenestriatus</i>																				
<i>T. retequetrus</i>																				
<i>T. scabratus</i>																				
<i>T. sphaerica</i>																				
<i>T. magnificus</i> (P3)																				
<i>T. spinosus</i>																				
<i>T. ambiguus</i>																				
<i>T. chnosus</i>																				
<i>T. helosus</i>																				
<i>T. scabratus</i>																				
<i>T. sectilis</i>	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
<i>V. attinatus</i>																				
<i>V. cristatus</i>																				
<i>V. kopukuensis</i>																				

*C=core; S=sidewall core; T=cuttings.

DINOFLAGELLATES

Well Name BREAM-5

Basin

GIPPSLAND

Sheet No 1 of 1

SAMPLE TYPE *	DEPTHS																										
	1840.0 S	1860.0 S	1865.0 S	1869.0 S	1873.0 S	1877.0 S	1881.0 S	1885.0 S	1889.0 S	1893.0 S	1897.0 S	1900.9 S	1905.0 S	1909.0 S	1912.9 S	1921.0 S	1923.0 S	1925.0 S	1927.0 S	1931.0 S	1935.0 S	2120-25 T	2170-75 T	2472.0 S	2588.0 S	2727.5 S	
PALYNOMORPHS																											
Unidentified species	X	X																					X				X
Corr. incompositum																											
Spin. ramosus				X	X																						
Opercul.centrocarpum																											
Schemat.speciosus																											
Apect. hypercantha																											
Defl. phosphoritica																											
Vozz. extensa																											
Impag.dispertitum																											
Tectatodinium marlum																											
Histroch.rigaude																											
Archilleod.biformoides																											
Defl.heterophylcta																											
Areosph.diktyoplokus																											
Cassiculo.imperfecta																											
Senon.morayensis																											
Defl.flounderensis																											
Phthano.delicatum																											
Defl.obliques																											
Trichod.hirsutum																											
Glaphyro.retiintextum																											
Svalb.australina																											
Defl.speciosus																											
Apect.homomorpha																											

* C=core: S=sidewall core: T=cutting

PE902634

This is an enclosure indicator page.
The enclosure PE902634 is enclosed within the
container PE902630 at this location in this
document.

The enclosure PE902634 has the following characteristics:

ITEM_BARCODE = PE902634
CONTAINER_BARCODE = PE902630
NAME = Palynological Analysis
BASIN = GIPPSLAND
PERMIT =
TYPE = WELL
SUBTYPE = DIAGRAM
DESCRIPTION = Palynological Analysis (from WCR) for
Bream-5
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 25/01/1985
W_NO = W781
WELL_NAME = Bream-5
CONTRACTOR = ESSO
CLIENT_OP_CO = ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

APPENDIX
3

APPENDIX 3

QUANTITATIVE LOG ANALYSIS

BREAM #5

QUANTITATIVE LOG ANALYSIS

The Bream #5 wireline log data has been analysed to provide effective porosity, clay volume, water saturation, S_{xo} , and hydrocarbon volume data for the interval 1900m - 3300m. Drilling history, mud log data, and wireline formation test data have indicated hydrocarbon accumulations at the top of Latrobe (1933m - 1952m) and intra-Latrobe below 2477m.

Porosities and water saturations were calculated by an iterative technique which converged on a calculated grain density window of 2.65 - 2.67 gm/cc by appropriately incrementing V_{cl} . The initial V_{cl} was derived from the GR log, and porosities by crossplotting neutron and density logs and then correcting for clay and hydrocarbon effects. Saturations were computed from the Indonesian Shaly sand relationship. Below 3000m the density log tended to read too low as a result of bad hole conditions. For this interval, sonic porosities were calculated and normalised to density/neutron porosities in non-washed-out hole sections. The minimum of the neutron/density porosity and the normalised sonic porosity was then taken as being the best estimate of porosity below 3000m.

Logs Used

LLD, LLS, MSFL, GR, RHOB, CNL, SONIC, Caliper.
The LLD, LLS, MSFL and CNL logs were all corrected for borehole and environmental effects. An RT "log" was then derived by correcting the LLD for invasion effects.

Analysis Parameters

Apparent shale density and neutron porosity values were derived from density neutron cross plots (Figures #1 & #2) and m values were derived by plotting log RT versus log Porosity (Pickett plot - Figures #3 & #4).

	1930-1980m	1980-2400m	2400-2650m	2650m-T.D.
a	0.65	-	1.00	1.000
m	2.15	-	2.00	2.014
N	2.00	-	2.00	2.000
Gamma Ray Minimum	20.00	20.00	20.00	20.000
Gamma Ray Maximum	150.00	150.00	145.00	145.000
Apparent Shale Density	2.53	2.60	2.62	2.620
Apparent Shale Neutron Porosity	0.32	0.31	0.31	0.310
Apparent Shale Resistivity	10.00	10.00	10.00	10.000
Formation Water Salinity	28000.00	28000.00	28000.00	28000.000

Saturations were not calculated for the interval 1980-2400m on the basis that no hydrocarbons were present in the interval.

Discussion and Results

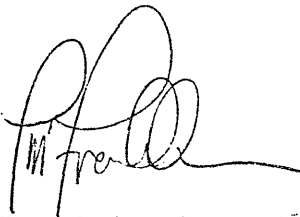
Calculated results are presented in the form of a clay, porosity and hydrocarbon fraction of total volume versus depth plot and in the form of a depth, V_{cl} , S_w , S_{xo} , porosity and hydrocarbon volume listing at 0.25m increments.

Coals and coal rich shale sequences were set to a bulk density value of 1 gm/cc. In these zones V_{cl} output was set to 0 and porosity to 0.

In the top of Latrobe hydrocarbon accumulation, RFT sampling has proved low gas at 1937m KB, high oil at 1940m KB and low proved oil at 1951.5 m KB. The log analysis calculates minor hydrocarbons in the top of the next sand below low proved oil, however it is believed that this is due to the failure of the LLD to give correct values in the 0-1.5 ohm.m range in this environment (c.f. Bream #4A where the LLD read 1.5 ohm.m in good porosity water sands where the ILD was reading in the order of 1 ohm.m). The sands below 1965m are believed to be water wet.

Resistivities and hence hydrocarbon saturations are lower in the top of Latrobe gas zone than might be expected. However the formation here is rather shaly - as evidenced by the lack of significant crossover of the density neutron logs. This shaly character will significantly increase irreducible water saturation over that of the cleaner, underlying oil sand.

Intra-Latrobe hydrocarbons are first encountered in the two small gas sands at 2477m and 2488m. These are underlain by an oil bearing sand with an oil water contact at 2498m. Minor hydrocarbons, presumably residual are calculated in sands below this to 2550m. The sand from 2556m to 2563m is gas bearing. Below this the sands again contain residual hydrocarbons as far as a gas bearing sand occurring between 2659m and 2666m. Minor hydrocarbon saturations occur in the sands below this, with oil recovered from a sand at 2692.5m. Good hydrocarbon saturations can be derived for sands occurring in the interval 2810m to 2980m, and gas has been recovered on test from a number of these. Below 3000m calculated porosities are of dubious validity owing to poor hole conditions adversely affecting the density log. However sand porosities appear to be in the 5-10% range. Log analysis does indicate hydrocarbon saturations; however at these low porosities, significant errors are inherent in the saturation relationship, a factor further complicated in this case by the lack of accuracy in calculated porosities. Irrespective of hydrocarbon presence, the interval below 3000m must be considered non net on the basis of lack of porosity.



T.M. FRANKHAM
December 1982

NET TO GROSS SUMMARY

Interval mKB	Assuming 10% Net/gross cut off		Assuming 15% Net/gross cut off	
	Net to gross	Average Porosity of net interval	Net to gross	Average porosity of net interval
1933-1939	84%	16%	52%	18%
1939-1952	72%	18%	59%	20%
2470-2570	29%	14%	13%	17%
2650-2800	29%	13%	5%	18%
2800-3000	12%	13%	2.5%	16%
	Average Sw of net interval	Average Hydrocarbon volume of net interval	Average Sw of net interval	Average Hydrocarbon volume of net interval
1933-1939	60%	6.9%	54%	8.6%
1939-1952	45%	10.5%	37%	12.2%

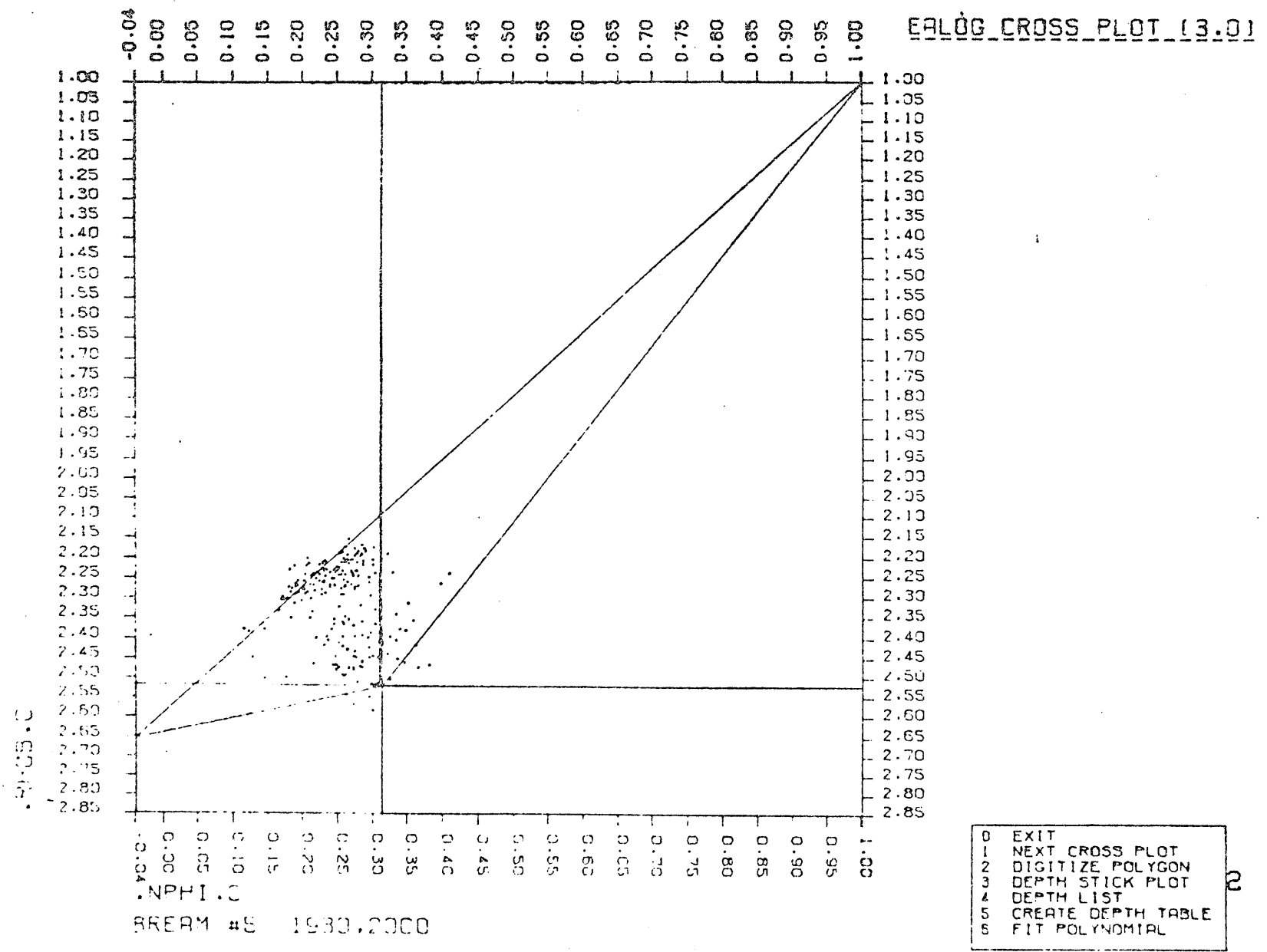


FIGURE 1.

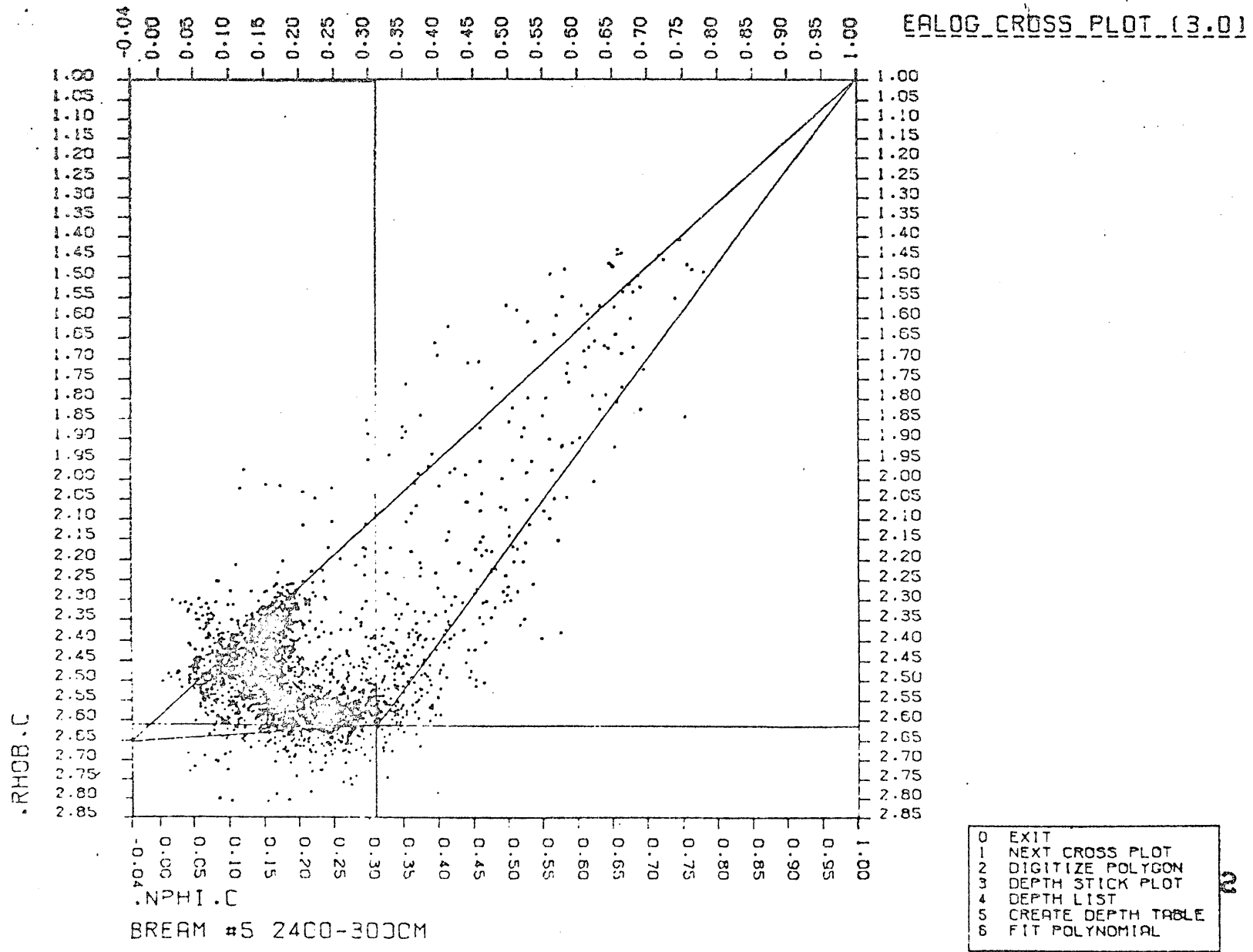
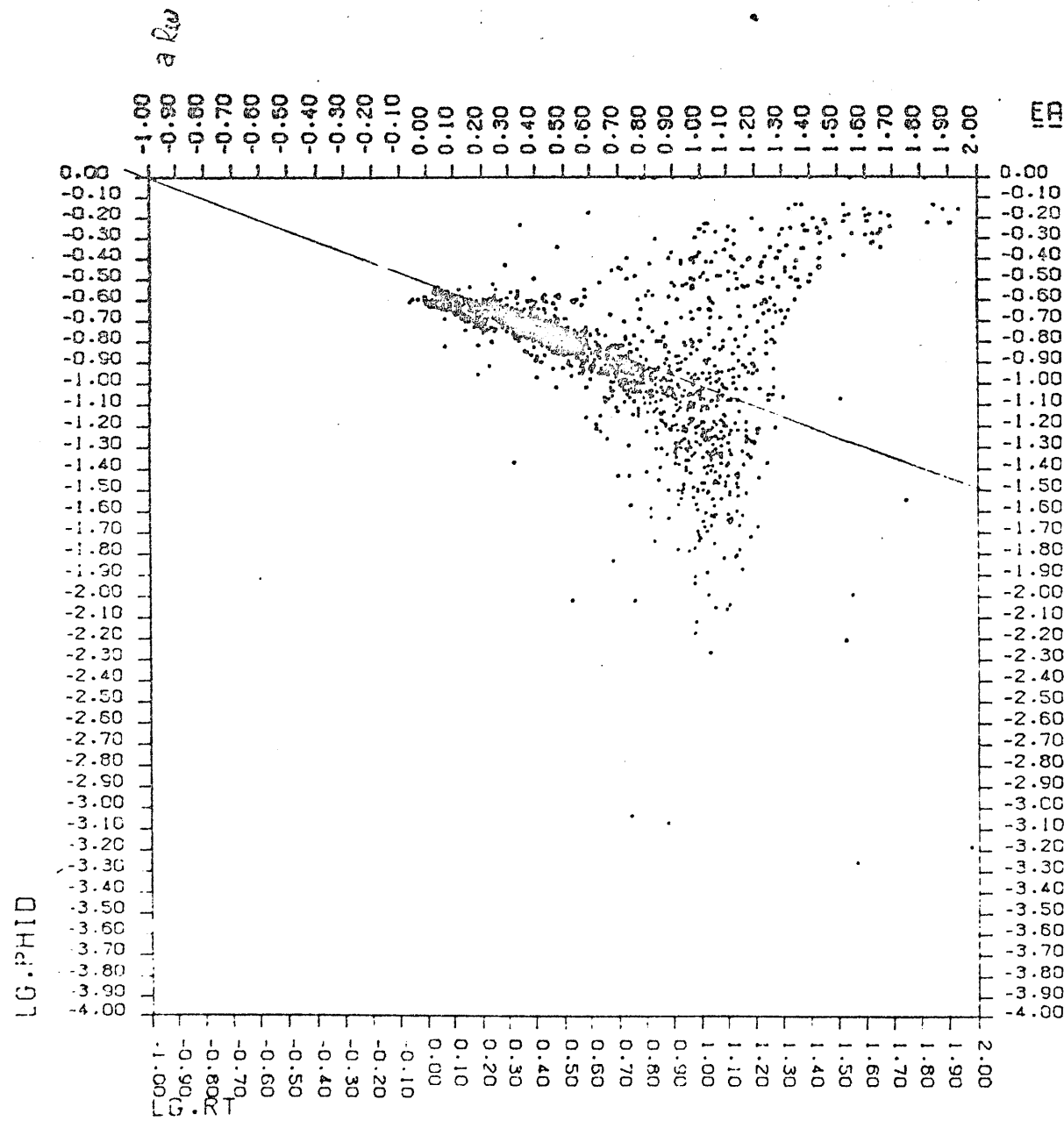


FIGURE 2.



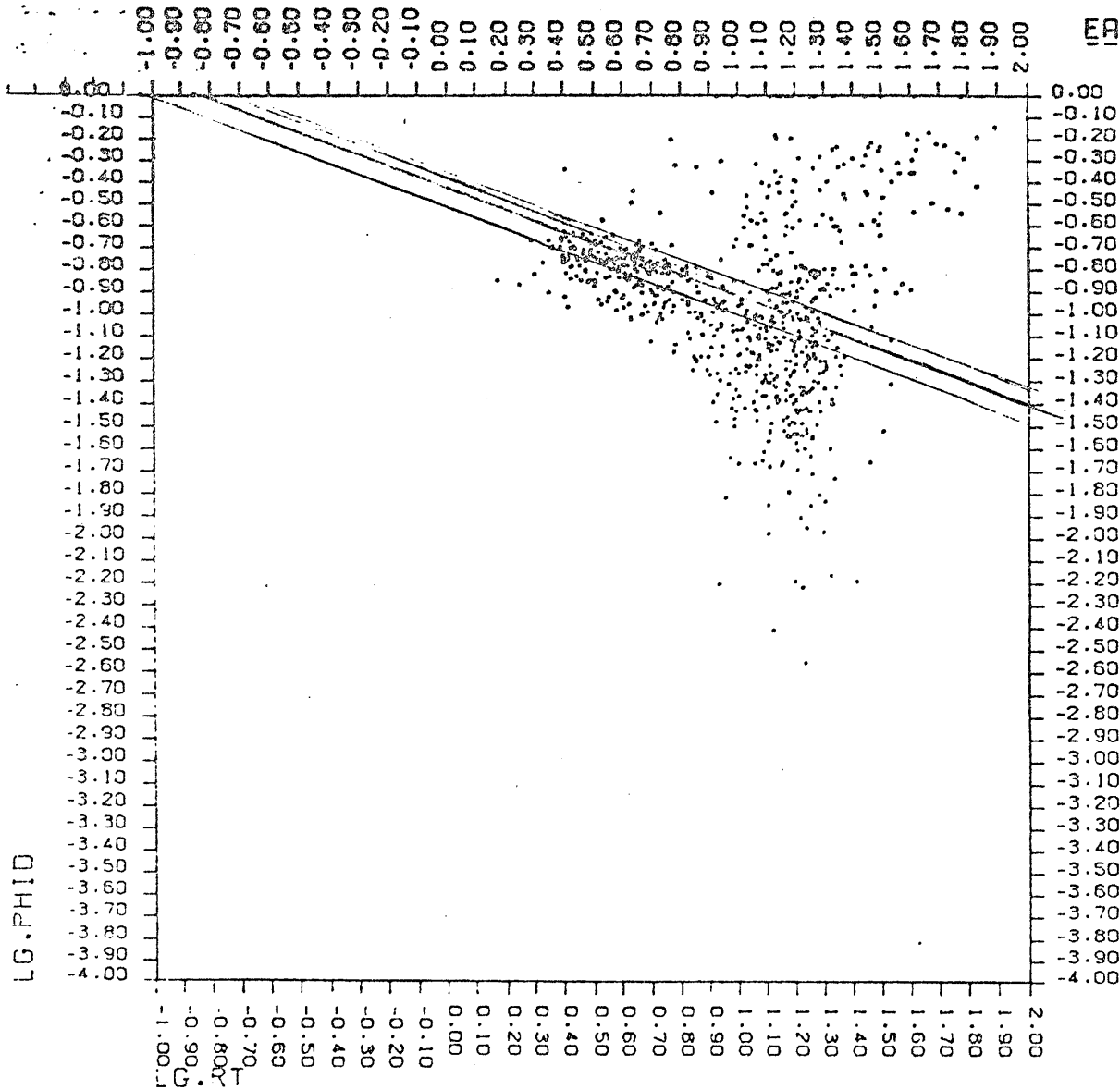
BREAM #5 2100.2470M

ERLOG CROSS PLOT (3.0)

assuming $R_w = .1$
 $\log a R_w = .1$
 $a = 1$
 $m = 2$

- | | |
|---|--------------------|
| 0 | EXIT |
| 1 | NEXT CROSS PLOT |
| 2 | DIGITIZE POLYGON |
| 3 | DEPTH STICK PLOT |
| 4 | DEPTH LIST |
| 5 | CREATE DEPTH TABLE |
| 6 | FIT POLYNOMIAL |

FIGURE 3.



EALOG CROSS PLOT (3.0)

assuming
 $R_w = 0.10$
 $\phi = 1$
 $h_{em} - m = 2.014$

BREAM #5 2470.2650

- | | |
|---|--------------------|
| 0 | EXIT |
| 1 | NEXT CROSS PLOT |
| 2 | DIGITIZE POLYGON |
| 3 | DEPTH STICK PLOT |
| 4 | DEPTH LIST |
| 5 | CREATE DEPTH TABLE |
| 6 | FIT POLYNOMIAL |

FIGURE 4.

1	DEPTH	VCL	BREA 1 #5 SX0	SW	PHI	HC.VOL
1900.000	.000	1.000	*****	*****	*****	
1900.250	.000	1.000	*****	*****	*****	
1900.500	.000	1.000	*****	*****	*****	
1900.750	.000	1.000	*****	*****	*****	
1901.000	.000	1.000	*****	*****	*****	
1901.250	.000	1.000	*****	*****	*****	
1901.500	.000	1.000	*****	*****	*****	
1901.750	.000	1.000	*****	*****	*****	
1902.000	.000	1.000	*****	*****	*****	
1902.250	.000	1.000	*****	*****	*****	
1902.500	.000	1.000	*****	*****	*****	
1902.750	.000	1.000	*****	*****	*****	
1903.000	.000	1.000	*****	*****	*****	
1903.250	.000	1.000	*****	*****	*****	
1903.500	.000	1.000	*****	*****	*****	
1903.750	.000	1.000	*****	*****	*****	
1904.000	.000	1.000	*****	*****	*****	
1904.250	.000	1.000	*****	*****	*****	
1904.500	.000	1.000	*****	*****	*****	
1904.750	.000	1.000	*****	*****	*****	
1905.000	.000	1.000	*****	*****	*****	
1905.250	.000	1.000	*****	*****	*****	
1905.500	.000	1.000	*****	*****	*****	
1905.750	.000	1.000	*****	*****	*****	
1906.000	.000	1.000	*****	*****	*****	
1906.250	.000	1.000	*****	*****	*****	
1906.500	.000	1.000	*****	*****	*****	
1906.750	.000	1.000	*****	*****	*****	
1907.000	.000	1.000	*****	*****	*****	
1907.250	.000	1.000	*****	*****	*****	
1907.500	.000	1.000	*****	*****	*****	
1907.750	.000	1.000	*****	*****	*****	
1908.000	.000	1.000	*****	*****	*****	
1908.250	.000	1.000	*****	*****	*****	
1908.500	.000	1.000	*****	*****	*****	
1908.750	.000	1.000	*****	*****	*****	
1909.000	.000	1.000	*****	*****	*****	
1909.250	.000	1.000	*****	*****	*****	
1909.500	.000	1.000	*****	*****	*****	
1909.750	.000	1.000	*****	*****	*****	
1910.000	.000	1.000	*****	*****	*****	
1910.250	.000	1.000	*****	*****	*****	
1910.500	.000	1.000	*****	*****	*****	
1910.750	.000	1.000	*****	*****	*****	
1911.000	.000	1.000	*****	*****	*****	
1911.250	.000	1.000	*****	*****	*****	
1911.500	.000	1.000	*****	*****	*****	
1911.750	.000	1.000	*****	*****	*****	
1912.000	.000	1.000	*****	*****	*****	
1912.250	.000	1.000	*****	*****	*****	
1912.500	.000	1.000	*****	*****	*****	
1912.750	.000	1.000	*****	*****	*****	
1913.000	.000	1.000	*****	*****	*****	
1913.250	.000	1.000	*****	*****	*****	
1913.500	.000	1.000	*****	*****	*****	
1913.750	.000	1.000	*****	*****	*****	

1	DEPTH	VCL	BREA 1 #5 SX0	SW	PHI	HC.VOL
1914.000	.000	1.000	*****	*****	*****	
1914.250	.000	1.000	*****	*****	*****	
1914.500	.000	1.000	*****	*****	*****	

1914.750	.000	1.000	*****	**	*****	*****
1915.000	.000	1.000	*****	**	*****	*****
1915.250	.000	1.000	*****	**	*****	*****
1915.500	.000	1.000	*****	**	*****	*****
1915.750	.000	1.000	*****	**	*****	*****
1916.000	.000	1.000	*****	**	*****	*****
1916.250	.000	1.000	*****	**	*****	*****
1916.500	.000	1.000	*****	**	*****	*****
1916.750	.000	1.000	*****	**	*****	*****
1917.000	.000	1.000	*****	**	*****	*****
1917.250	.000	1.000	*****	**	*****	*****
1917.500	.000	1.000	*****	**	*****	*****
1917.750	.000	1.000	*****	**	*****	*****
1918.000	.000	1.000	*****	**	*****	*****
1918.250	.000	1.000	*****	**	*****	*****
1918.500	.000	1.000	*****	**	*****	*****
1918.750	.000	1.000	*****	**	*****	*****
1919.000	.000	1.000	*****	**	*****	*****
1919.250	.000	1.000	*****	**	*****	*****
1919.500	.000	1.000	*****	**	*****	*****
1919.750	.000	1.000	*****	**	*****	*****
1920.000	.000	1.000	*****	**	*****	*****
1920.250	.000	1.000	*****	**	*****	*****
1920.500	.000	1.000	*****	**	*****	*****
1920.750	.000	1.000	*****	**	*****	*****
1921.000	.000	1.000	*****	**	*****	*****
1921.250	.000	1.000	*****	**	*****	*****
1921.500	.000	1.000	*****	**	*****	*****
1921.750	.000	1.000	*****	**	*****	*****
1922.000	.000	1.000	*****	**	*****	*****
1922.250	.000	1.000	*****	**	*****	*****
1922.500	.000	1.000	*****	**	*****	*****
1922.750	.000	1.000	*****	**	*****	*****
1923.000	.000	1.000	*****	**	*****	*****
1923.250	.000	1.000	*****	**	*****	*****
1923.500	.000	1.000	*****	**	*****	*****
1923.750	.000	1.000	*****	**	*****	*****
1924.000	.000	1.000	*****	**	*****	*****
1924.250	.000	1.000	*****	**	*****	*****
1924.500	.000	1.000	*****	**	*****	*****
1924.750	.000	1.000	*****	**	*****	*****
1925.000	.000	1.000	*****	**	*****	*****
1925.250	.000	1.000	*****	**	*****	*****
1925.500	.000	1.000	*****	**	*****	*****
1925.750	.000	1.000	*****	**	*****	*****
1926.000	.000	1.000	*****	**	*****	*****
1926.250	.000	1.000	*****	**	*****	*****
1926.500	.000	1.000	*****	**	*****	*****
1926.750	.000	1.000	*****	**	*****	*****
1927.000	.000	1.000	*****	**	*****	*****
1927.250	.000	1.000	*****	**	*****	*****
1927.500	.000	1.000	*****	**	*****	*****
1927.750	.000	1.000	*****	**	*****	*****

DEPTH	VCL	BREAM #5 SXD	SW	PHI	HC.VOL
1928.000	.000	1.000	*****	*****	*****
1928.250	.000	1.000	*****	*****	*****
1928.500	.000	1.000	*****	*****	*****
1928.750	.000	1.000	*****	*****	*****
1929.000	.000	1.000	*****	*****	*****
1929.250	.000	1.000	*****	*****	*****
1929.500	.000	1.000	*****	*****	*****
1929.750	.000	1.000	*****	*****	*****
1930.000	.648	1.000	1.000	.104	.000

1930.250	.672	1.000	1.000	.089	.000
1930.500	.710	1.000	1.000	.047	.000
1930.750	.978	1.000	1.000	.022	.000
1931.000	.966	1.000	1.000	.034	.000
1931.250	.957	1.000	1.000	.043	.000
1931.500	.970	1.000	1.000	.030	.000
1931.750	.972	1.000	1.000	.022	.000
1932.000	.762	1.000	1.000	.046	.000
1932.250	.540	1.000	1.000	.089	.000
1932.500	.455	1.000	1.000	.086	.000
1932.750	.376	1.000	1.000	.073	.000
1933.000	.271	1.000	1.000	.079	.000
1933.250	.163	1.000	1.000	.110	.000
1933.500	.011	1.000	.731	.160	.043
1933.750	.000	1.000	.740	.162	.042
1934.000	.087	1.000	.724	.158	.044
1934.250	.178	1.000	.598	.177	.071
1934.500	.116	.430	.479	.193	.101
1934.750	.090	.837	.426	.200	.114
1935.000	.124	.629	.331	.203	.125
1935.250	.200	.853	.328	.217	.146
1935.500	.255	.929	.345	.215	.141
1935.750	.373	1.000	.478	.156	.082
1936.000	.409	1.000	.646	.117	.042
1936.250	.407	.919	.694	.124	.038
1936.500	.455	.875	.728	.128	.035
1936.750	.434	.890	.704	.143	.042
1937.000	.435	.616	.641	.159	.057
1937.250	.434	.705	.572	.179	.077
1937.500	.400	.779	.578	.178	.075
1937.750	.455	.856	.662	.141	.048
1938.000	.524	.941	.747	.106	.027
1938.250	.573	1.000	.848	.074	.011
1938.500	.641	1.000	.929	.048	.003
1938.750	.692	.835	.801	.074	.015
1939.000	.599	.801	.706	.127	.037
1939.250	.531	.917	.751	.139	.035
1939.500	.570	.993	.752	.117	.029
1939.750	.337	1.000	.549	.155	.070
1940.000	.000	.979	.382	.205	.127
1940.250	.069	1.000	.262	.213	.157
1940.500	.115	.984	.216	.210	.165
1940.750	.215	.757	.190	.197	.160
1941.000	.187	.769	.183	.197	.161
1941.250	.115	.822	.178	.210	.173
1941.500	.215	.793	.165	.207	.173
1941.750	.302	.776	.155	.201	.169

1	DEPTH	VCL	BREA: 45 SXO	SW	PHI	HC.VOL
1942.000	.293	.700	.170	.208	.173	
1942.250	.410	.699	.226	.208	.161	
1942.500	.449	.789	.236	.207	.148	
1942.750	.445	.802	.333	.196	.131	
1943.000	.455	.727	.330	.199	.134	
1943.250	.265	.901	.359	.210	.135	
1943.500	.269	.802	.435	.182	.103	
1943.750	.272	.892	.416	.187	.109	
1944.000	.168	.856	.477	.188	.098	
1944.250	.088	.834	.542	.185	.085	
1944.500	.188	.785	.544	.180	.082	
1944.750	.168	.891	.505	.204	.101	
1945.000	.268	.889	.538	.191	.088	
1945.250	.308	.699	.522	.188	.090	
1945.500	.308	.835	.474	.196	.103	

1945.750	.408	.853	.440	.204	.114
1946.000	.568	.845	.439	.198	.111
1946.250	.568	.852	.459	.201	.109
1946.500	.383	.914	.515	.193	.093
1946.750	.608	1.000	.689	.118	.037
1947.000	.452	1.000	.994	.048	.000
1947.250	.955	1.000	1.000	.045	.000
1947.500	.903	1.000	1.000	.037	.000
1947.750	.955	1.000	1.000	.045	.000
1948.000	.724	1.000	.973	.064	.002
1948.250	.926	1.000	.936	.074	.005
1948.500	.920	1.000	.889	.080	.009
1948.750	.638	1.000	.955	.062	.000
1949.000	.953	1.000	1.000	.037	.000
1949.250	.946	1.000	1.000	.054	.000
1949.500	.875	.853	.722	.125	.035
1949.750	.696	.557	.496	.197	.100
1950.000	.710	.843	.542	.182	.083
1950.250	.739	.957	.728	.114	.031
1950.500	.921	.772	.772	.079	.018
1950.750	.929	.655	.680	.071	.023
1951.000	.924	.667	.669	.071	.024
1951.250	.912	.650	.660	.088	.030
1951.500	.668	.672	.672	.137	.045
1951.750	.564	.710	.613	.155	.060
1952.000	.000	1.000	1.000	.000	.000
1952.250	.000	1.000	1.000	.000	.000
1952.500	.000	1.000	1.000	.000	.000
1952.750	.000	1.000	1.000	.000	.000
1953.000	.000	1.000	1.000	.000	.000
1953.250	.657	1.000	1.000	.001	.000
1953.500	.000	1.000	1.000	.000	.000
1953.750	.000	1.000	1.000	.000	.000
1954.000	.000	1.000	1.000	.000	.000
1954.250	.000	1.000	1.000	.000	.000
1954.500	.000	1.000	1.000	.000	.000
1954.750	.000	1.000	1.000	.000	.000
1955.000	.000	1.000	1.000	.000	.000
1955.250	.000	1.000	1.000	.000	.000
1955.500	.000	1.000	1.000	.000	.000
1955.750	.000	1.000	1.000	.000	.000

DEPTH	VCL	BREAK #5 SX0	SW	PHI	HC.VOL
1956.000	.000	1.000	1.000	.000	.000
1956.250	.000	1.000	1.000	.000	.000
1956.500	.000	1.000	1.000	.000	.000
1956.750	.000	1.000	1.000	.000	.000
1957.000	.000	1.000	1.000	.000	.000
1957.250	.923	.605	.507	.077	.038
1957.500	.661	.782	.588	.077	.032
1957.750	.962	.843	.755	.038	.009
1958.000	.977	.950	.796	.023	.005
1958.250	.976	.451	.777	.024	.005
1958.500	.984	1.000	.808	.016	.003
1958.750	.945	.991	.822	.012	.002
1959.000	.973	.877	.750	.027	.007
1959.250	.957	.810	.691	.043	.013
1959.500	.484	.753	.643	.056	.020
1959.750	.933	.653	.608	.067	.026
1960.000	.930	.638	.588	.070	.029
1960.250	.000	1.000	1.000	.000	.000
1960.500	.000	1.000	1.000	.000	.000
1960.750	.000	1.000	1.000	.000	.000
1961.000	.000	1.000	1.000	.000	.000

1961.250	.000	1.000	1.000	.000	.000
1961.500	.000	1.000	1.000	.000	.000
1961.750	.891	.493	.477	.109	.057
1962.000	.591	.589	.589	.131	.054
1962.250	.425	.724	.698	.151	.045
1962.500	.463	.916	.748	.126	.032
1962.750	.552	.660	.639	.096	.034
1963.000	.000	1.000	1.000	.000	.000
1963.250	.000	1.000	1.000	.000	.000
1963.500	.000	1.000	1.000	.000	.000
1963.750	.000	1.000	1.000	.000	.000
1964.000	.000	1.000	1.000	.000	.000
1964.250	.000	1.000	1.000	.000	.000
1964.500	.000	1.000	1.000	.000	.000
1964.750	.000	1.000	1.000	.000	.000
1965.000	.000	1.000	1.000	.000	.000
1965.250	.000	1.000	1.000	.000	.000
1965.500	.000	1.000	1.000	.000	.000
1965.750	.000	1.000	1.000	.000	.000
1966.000	.124	1.000	.930	.232	.016
1966.250	.140	1.000	.760	.240	.057
1966.500	.172	1.000	.450	.233	.028
1966.750	.134	.843	.883	.245	.029
1967.000	.077	1.000	.750	.272	.068
1967.250	.102	.940	.738	.281	.074
1967.500	.153	1.000	.723	.265	.073
1967.750	.181	.994	.893	.241	.026
1968.000	.110	1.000	.897	.248	.026
1968.250	.049	1.000	.926	.262	.019
1968.500	.023	1.000	.907	.268	.025
1968.750	.023	1.000	.918	.260	.021
1969.000	.015	1.000	.979	.240	.005
1969.250	.000	1.000	.982	.231	.004
1969.500	.014	1.000	.982	.232	.004
1969.750	.005	1.000	.949	.248	.013

DEPTH	VCL	BREA-1 #5 SX0	SW	PHI	HC.VOL
1970.000	.046	1.000	.917	.262	.022
1970.250	.032	1.000	.745	.267	.068
1970.500	.000	1.000	.926	.258	.019
1970.750	.000	1.000	.921	.251	.020
1971.000	.000	1.000	.696	.261	.079
1971.250	.050	1.000	.721	.248	.069
1971.500	.010	1.000	.931	.237	.016
1971.750	.016	1.000	.954	.232	.011
1972.000	.237	1.000	.834	.174	.029
1972.250	.408	.800	.896	.126	.013
1972.500	.560	.870	.585	.114	.047
1972.750	.657	.553	.553	.105	.047
1973.000	.954	.509	.408	.096	.057
1973.250	.693	.450	.459	.097	.053
1973.500	.429	.612	.612	.120	.047
1973.750	.202	.351	.831	.169	.029
1974.000	.100	1.000	.825	.211	.037
1974.250	.073	1.000	.833	.220	.037
1974.500	.053	.995	.916	.241	.020
1974.750	.045	1.000	.723	.261	.072
1975.000	.053	1.000	.900	.248	.025
1975.250	.059	1.000	.758	.240	.058
1975.500	.035	1.000	.960	.236	.009
1975.750	.035	1.000	.992	.231	.002
1976.000	.075	1.000	1.000	.219	.000
1976.250	.013	1.000	1.000	.209	.000
1976.500	.018	1.000	1.000	.212	.000

1976.750	.060	1.000	1.000	.227	.000
1977.000	.000	1.000	.980	.244	.005
1977.250	.000	1.000	.960	.264	.011
1977.500	.027	1.000	.966	.264	.009
1977.750	.021	1.000	.952	.262	.012
1978.000	.014	1.000	1.000	.248	.000
1978.250	.034	1.000	1.000	.228	.000
1978.500	.038	1.000	.932	.246	.004
1978.750	.054	1.000	.950	.246	.012
1979.000	.048	.930	.980	.246	.005
1979.250	.000	1.000	1.000	.000	.000
1979.500	.000	1.000	1.000	.000	.000
1979.750	.000	1.000	1.000	.000	.000
1980.000	.000	1.000	1.000	.000	.000
1980.250	.000	1.000	1.000	.000	.000
1980.500	.000	1.000	1.000	.000	.000
1980.750	.000	1.000	1.000	.000	.000
1981.000	.000	1.000	1.000	.000	.000
1981.250	.539	1.000	1.000	.092	.000
1981.500	.539	1.000	1.000	.139	.000
1981.750	.122	1.000	1.000	.218	.000
1982.000	.113	1.000	1.000	.262	.000
1982.250	.126	1.000	1.000	.283	.000
1982.500	.174	1.000	1.000	.250	.000
1982.750	.335	1.000	1.000	.175	.000
1983.000	.613	1.000	1.000	.083	.000
1983.250	.559	1.000	1.000	.089	.000
1983.500	.588	1.000	1.000	.083	.000
1983.750	.000	1.000	1.000	.000	.000

1	DEPTH	VCL	BREAK #5 SKD	SW	PHI	HC VOL
1984.000	.060	1.000	1.000	.000	.000	
1984.250	.060	1.000	1.000	.000	.000	
1984.500	.000	1.000	1.000	.000	.000	
1984.750	.000	1.000	1.000	.000	.000	
1985.000	.000	1.000	1.000	.000	.000	
1985.250	.343	1.000	1.000	.242	.000	
1985.500	.107	1.000	1.000	.278	.000	
1985.750	.075	1.000	1.000	.275	.000	
1986.000	.042	1.000	1.000	.262	.000	
1986.250	.041	1.000	1.000	.258	.000	
1986.500	.062	1.000	1.000	.258	.000	
1986.750	.130	1.000	1.000	.233	.000	
1987.000	.236	1.000	1.000	.212	.000	
1987.250	.449	1.000	1.000	.180	.000	
1987.500	.655	1.000	1.000	.129	.000	
1987.750	.631	1.000	1.000	.121	.000	
1988.000	.000	1.000	1.000	.000	.000	
1988.250	.000	1.000	1.000	.000	.000	
1988.500	.000	1.000	1.000	.000	.000	
1988.750	.000	1.000	1.000	.000	.000	
1989.000	.000	1.000	1.000	.000	.000	
1989.250	.000	1.000	1.000	.000	.000	
1989.500	.000	1.000	1.000	.000	.000	
1989.750	.000	1.000	1.000	.000	.000	
1990.000	.000	1.000	1.000	.000	.000	
1990.250	.000	1.000	1.000	.000	.000	
1990.500	.000	1.000	1.000	.000	.000	
1990.750	.000	1.000	1.000	.000	.000	
1991.000	.000	1.000	1.000	.000	.000	
1991.250	.608	1.000	1.000	.116	.000	
1991.500	.356	1.000	1.000	.191	.000	
1991.750	.152	1.000	1.000	.251	.000	
1992.000	.063	1.000	1.000	.271	.000	

1992.50	.162	1.000	1.000	.262	.000
1992.75	.213	1.000	1.000	.260	.000
1993.00	.076	1.000	1.000	.280	.000
1993.25	.036	1.000	1.000	.290	.000
1993.50	.038	1.000	1.000	.200	.000
1993.75	.086	1.000	1.000	.281	.000
1994.00	.191	1.000	1.000	.245	.000
1994.25	.206	1.000	1.000	.230	.000
1994.50	.096	1.000	1.000	.255	.000
1994.75	.097	1.000	1.000	.283	.000
1995.00	.228	1.000	1.000	.276	.000
1995.25	.190	1.000	1.000	.268	.000
1995.50	.087	1.000	1.000	.273	.000
1995.75	.048	1.000	1.000	.282	.000
1996.00	.090	1.000	1.000	.290	.000
1996.25	.131	1.000	1.000	.290	.000
1996.50	.041	1.000	1.000	.294	.000
1996.75	.024	1.000	1.000	.286	.000
1997.00	.056	1.000	1.000	.265	.000
1997.25	.096	1.000	1.000	.245	.000
1997.50	.080	1.000	1.000	.246	.000
1997.75	.069	1.000	1.000	.251	.000
1997.50	.156	1.000	1.000	.241	.000

DEPTH	VCL	BREAM #5 SXD	SW	PHI	HC VOL
1998.00	.194	1.000	1.000	.246	.000
1998.25	.124	1.000	1.000	.266	.000
1998.50	.064	1.000	1.000	.277	.000
1998.75	.107	1.000	1.000	.267	.000
1999.00	.149	1.000	1.000	.259	.000
1999.25	.114	1.000	1.000	.279	.000
1999.50	.080	1.000	1.000	.294	.000
1999.75	.108	1.000	1.000	.285	.000
2000.00	.161	1.000	1.000	.253	.000
2000.25	.102	1.000	1.000	.211	.000
2000.50	.177	1.000	1.000	.249	.000
2000.75	.479	1.000	1.000	.239	.000
2001.00	.750	1.000	1.000	.010	.000
2001.25	.750	1.000	1.000	.010	.000
2001.50	.750	1.000	1.000	.010	.000
2001.75	.676	1.000	1.000	.100	.000
2002.00	.702	1.000	1.000	.142	.000
2002.25	.750	1.000	1.000	.010	.000
2002.50	.750	1.000	1.000	.010	.000
2002.75	.750	1.000	1.000	.010	.000
2003.00	.568	1.000	1.000	.158	.000
2003.25	.473	1.000	1.000	.187	.000
2003.50	.000	1.000	1.000	.000	.000
2003.75	.000	1.000	1.000	.000	.000
2004.00	.000	1.000	1.000	.000	.000
2004.25	.000	1.000	1.000	.000	.000
2004.50	.000	1.000	1.000	.000	.000
2004.75	.000	1.000	1.000	.000	.000
2005.00	.000	1.000	1.000	.000	.000
2005.25	.000	1.000	1.000	.000	.000
2005.50	.000	1.000	1.000	.000	.000
2005.75	.000	1.000	1.000	.000	.000
2006.00	.000	1.000	1.000	.000	.000
2006.25	.000	1.000	1.000	.000	.000
2006.50	.000	1.000	1.000	.000	.000
2006.75	.000	1.000	1.000	.000	.000
2007.00	.000	1.000	1.000	.000	.000
2007.25	.000	1.000	1.000	.000	.000
2007.50	.000	1.000	1.000	.000	.000

20007	.750	.465	1.000	1.000	.165	.000
20008	.630	.450	1.000	1.000	.168	.000
20008	.250	.505	1.000	1.000	.154	.000
20008	.530	.461	1.000	1.000	.163	.000
20008	.750	.532	1.000	1.000	.148	.000
20009	.630	.612	1.000	1.000	.138	.000
20009	.250	.532	1.000	1.000	.162	.000
20009	.500	.440	1.000	1.000	.185	.000
20009	.750	.434	1.000	1.000	.198	.000
20010	.000	.411	1.000	1.000	.203	.000
20010	.250	.350	1.000	1.000	.213	.000
20010	.500	.248	1.000	1.000	.240	.000
20010	.750	.236	1.000	1.000	.255	.000
20011	.600	.269	1.000	1.000	.248	.000
20011	.250	.202	1.000	1.000	.251	.000
20011	.500	.173	1.000	1.000	.253	.000
20011	.750	.202	1.000	1.000	.237	.000

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DEPTH	VCL	BREAK #5 SXU	SW	PHI	HC.VOL	
20012	.000	.236	1.000	1.000	.220	.000
20012	.250	.384	1.000	1.000	.180	.000
20012	.500	.622	1.000	1.000	.112	.000
20012	.750	.750	1.000	1.000	.010	.000
20013	.000	.786	1.000	1.000	.058	.000
20013	.250	.389	1.000	1.000	.094	.000
20013	.500	.052	1.000	1.000	.163	.000
20013	.750	.001	1.000	1.000	.216	.000
20014	.000	.057	1.000	1.000	.235	.000
20014	.250	.058	1.000	1.000	.239	.000
20014	.500	.052	1.000	1.000	.236	.000
20014	.750	.061	1.000	1.000	.229	.000
20015	.000	.040	1.000	1.000	.228	.000
20015	.250	.039	1.000	1.000	.243	.000
20015	.500	.051	1.000	1.000	.262	.000
20015	.750	.063	1.000	1.000	.261	.000
20016	.000	.120	1.000	1.000	.240	.000
20016	.250	.185	1.000	1.000	.212	.000
20016	.500	.191	1.000	1.000	.217	.000
20016	.750	.301	1.000	1.000	.223	.000
20017	.000	.517	1.000	1.000	.193	.000
20017	.250	.566	1.000	1.000	.155	.000
20017	.500	.596	1.000	1.000	.116	.000
20017	.750	.501	1.000	1.000	.097	.000
20018	.000	.355	1.000	1.000	.105	.000
20018	.250	.324	1.000	1.000	.121	.000
20018	.500	.445	1.000	1.000	.129	.000
20018	.750	.489	1.000	1.000	.128	.000
20019	.000	.480	1.000	1.000	.131	.000
20019	.250	.423	1.000	1.000	.146	.000
20019	.500	.329	1.000	1.000	.178	.000
20019	.750	.182	1.000	1.000	.240	.000
20020	.000	.150	1.000	1.000	.267	.000
20020	.250	.216	1.000	1.000	.251	.000
20020	.500	.248	1.000	1.000	.243	.000
20020	.750	.216	1.000	1.000	.253	.000
20021	.000	.125	1.000	1.000	.267	.000
20021	.250	.065	1.000	1.000	.269	.000
20021	.500	.076	1.000	1.000	.269	.000
20021	.750	.079	1.000	1.000	.271	.000
20022	.000	.050	1.000	1.000	.274	.000
20022	.250	.038	1.000	1.000	.278	.000
20022	.500	.035	1.000	1.000	.282	.000
20022	.750	.089	1.000	1.000	.286	.000
20023	.000	.074	1.000	1.000	.285	.000

20020	.061	1.000	1.000	.283	.000
20020	.100	1.000	1.000	.281	.000
20020	.105	1.000	1.000	.284	.000
20020	.099	1.000	1.000	.272	.000
20020	.061	1.000	1.000	.266	.000
20020	.067	1.000	1.000	.257	.000
20020	.116	1.000	1.000	.249	.000
20020	.149	1.000	1.000	.255	.000
20020	.154	1.000	1.000	.271	.000
20020	.125	1.000	1.000	.270	.000
20020	.085	1.000	1.000	.278	.000

DEPTH	VCL	BREAN #5 SXO	SW	PHI	HC.VOL
20026	.036	1.000	1.000	.289	.000
20026	.055	1.000	1.000	.276	.000
20026	.131	1.000	1.000	.261	.000
20026	.225	1.000	1.000	.267	.000
20026	.392	1.000	1.000	.265	.000
20027	.750	1.000	1.000	.010	.000
20027	.750	1.000	1.000	.010	.000
20027	.750	1.000	1.000	.010	.000
20027	.667	1.000	1.000	.156	.000
20028	.750	1.000	1.000	.217	.000
20028	.750	1.000	1.000	.010	.000
20028	.750	1.000	1.000	.010	.000
20029	.750	1.000	1.000	.010	.000
20029	.750	1.000	1.000	.010	.000
20029	.750	1.000	1.000	.010	.000
20030	.000	1.000	1.000	.000	.000
20030	.000	1.000	1.000	.000	.000
20030	.000	1.000	1.000	.000	.000
20030	.000	1.000	1.000	.000	.000
20031	.000	1.000	1.000	.000	.000
20031	.000	1.000	1.000	.000	.000
20031	.645	1.000	1.000	.104	.000
20031	.560	1.000	1.000	.099	.000
20032	.658	1.000	1.000	.089	.000
20032	.750	1.000	1.000	.010	.000
20032	.750	1.000	1.000	.010	.000
20032	.750	1.000	1.000	.010	.000
20033	.000	1.000	1.000	.000	.000
20033	.000	1.000	1.000	.000	.000
20033	.000	1.000	1.000	.000	.000
20033	.000	1.000	1.000	.000	.000
20034	.000	1.000	1.000	.000	.000
20034	.000	1.000	1.000	.000	.000
20034	.000	1.000	1.000	.000	.000
20034	.000	1.000	1.000	.000	.000
20035	.000	1.000	1.000	.000	.000
20035	.000	1.000	1.000	.000	.000
20035	.000	1.000	1.000	.000	.000
20036	.000	1.000	1.000	.000	.000
20036	.000	1.000	1.000	.000	.000
20036	.000	1.000	1.000	.000	.000
20037	.000	1.000	1.000	.000	.000
20037	.000	1.000	1.000	.000	.000
20037	.000	1.000	1.000	.000	.000
20038	.000	1.000	1.000	.000	.000
20038	.000	1.000	1.000	.000	.000
20038	.000	1.000	1.000	.000	.000

DEPTH	VCL	BREAM #5 SXO	SW	PHI	HC.VOL
2038.750	.000	1.000	1.000	.000	.000
2039.000	.000	1.000	1.000	.000	.000
2039.250	.000	1.000	1.000	.000	.000
2039.500	.000	1.000	1.000	.000	.000
2039.750	.000	1.000	1.000	.000	.000
1					
2040.000	.000	1.000	1.000	.000	.000
2040.250	.000	1.000	1.000	.000	.000
2040.500	.000	1.000	1.000	.000	.000
2040.750	.000	1.000	1.000	.000	.000
2041.000	.000	1.000	1.000	.000	.000
2041.250	.000	1.000	1.000	.000	.000
2041.500	.000	1.000	1.000	.000	.000
2041.750	.000	1.000	1.000	.000	.000
2042.000	.000	1.000	1.000	.000	.000
2042.250	.000	1.000	1.000	.000	.000
2042.500	.000	1.000	1.000	.000	.000
2042.750	.000	1.000	1.000	.000	.000
2043.000	.000	1.000	1.000	.000	.000
2043.250	.000	1.000	1.000	.000	.000
2043.500	.000	1.000	1.000	.000	.000
2043.750	.000	1.000	1.000	.000	.000
2044.000	.000	1.000	1.000	.000	.000
2044.250	.000	1.000	1.000	.000	.000
2044.500	.000	1.000	1.000	.000	.000
2044.750	.000	1.000	1.000	.000	.000
2045.000	.000	1.000	1.000	.000	.000
2045.250	.000	1.000	1.000	.000	.000
2045.500	.000	1.000	1.000	.000	.000
2045.750	.000	1.000	1.000	.000	.000
2046.000	.000	1.000	1.000	.000	.000
2046.250	.000	1.000	1.000	.000	.000
2046.500	.000	1.000	1.000	.000	.000
2046.750	.000	1.000	1.000	.000	.000
2047.000	.000	1.000	1.000	.000	.000
2047.250	.000	1.000	1.000	.000	.000
2047.500	.000	1.000	1.000	.000	.000
2047.750	.000	1.000	1.000	.000	.000
2048.000	.000	1.000	1.000	.000	.000
2048.250	.000	1.000	1.000	.000	.000
2048.500	.000	1.000	1.000	.000	.000
2048.750	.000	1.000	1.000	.000	.000
2049.000	.000	1.000	1.000	.000	.000
2049.250	.122	1.000	1.000	.278	.000
2049.500	.172	1.000	1.000	.273	.000
2049.750	.146	1.000	1.000	.264	.000
2050.000	.109	1.000	1.000	.258	.000
2050.250	.134	1.000	1.000	.266	.000
2050.500	.197	1.000	1.000	.263	.000
2050.750	.173	1.000	1.000	.262	.000
2051.000	.153	1.000	1.000	.265	.000
2051.250	.157	1.000	1.000	.267	.000
2051.500	.146	1.000	1.000	.266	.000
2051.750	.131	1.000	1.000	.281	.000
2052.000	.102	1.000	1.000	.280	.000
2052.250	.039	1.000	1.000	.277	.000
2052.500	.055	1.000	1.000	.273	.000
2052.750	.103	1.000	1.000	.271	.000
2053.000	.154	1.000	1.000	.261	.000
2053.250	.132	1.000	1.000	.260	.000
2053.500	.109	1.000	1.000	.267	.000
2053.750	.066	1.000	1.000	.269	.000
1					
		BREAM #5			

DEPTH	VCL	SX0	SW	PHI	HC.VOL
2054.000	.010	1.000	1.000	.267	.000
2054.250	.004	1.000	1.000	.268	.000
2054.500	.000	1.000	1.000	.268	.000
2054.750	.009	1.000	1.000	.271	.000
2055.000	.076	1.000	1.000	.255	.000
2055.250	.112	1.000	1.000	.239	.000
2055.500	.218	1.000	1.000	.211	.000
2055.750	.243	1.000	1.000	.211	.000
2056.000	.139	1.000	1.000	.257	.000
2056.250	.186	1.000	1.000	.270	.000
2056.500	.182	1.000	1.000	.252	.000
2056.750	.208	1.000	1.000	.227	.000
2057.000	.449	1.000	1.000	.165	.000
2057.250	.633	1.000	1.000	.061	.000
2057.500	.570	1.000	1.000	.000	.000
2057.750	.548	1.000	1.000	.000	.000
2058.000	.185	1.000	1.000	.017	.000
2058.250	.063	1.000	1.000	.026	.000
2058.500	.041	1.000	1.000	.015	.000
2058.750	.146	1.000	1.000	.000	.000
2059.000	.126	1.000	1.000	.000	.000
2059.250	.044	1.000	1.000	.013	.000
2059.500	.000	1.000	1.000	.000	.000
2059.750	.000	1.000	1.000	.000	.000
2060.000	.000	1.000	1.000	.000	.000
2060.250	.000	1.000	1.000	.000	.000
2060.500	.000	1.000	1.000	.000	.000
2060.750	.000	1.000	1.000	.000	.000
2061.000	.000	1.000	1.000	.000	.000
2061.250	.000	1.000	1.000	.000	.000
2061.500	.000	1.000	1.000	.000	.000
2061.750	.000	1.000	1.000	.000	.000
2062.000	.000	1.000	1.000	.000	.000
2062.250	.000	1.000	1.000	.000	.000
2062.500	.000	1.000	1.000	.000	.000
2062.750	.000	1.000	1.000	.000	.000
2063.000	.000	1.000	1.000	.000	.000
2063.250	.000	1.000	1.000	.000	.000
2063.500	.000	1.000	1.000	.000	.000
2063.750	.000	1.000	1.000	.000	.000
2064.000	.000	1.000	1.000	.000	.000
2064.250	.000	1.000	1.000	.000	.000
2064.500	.000	1.000	1.000	.000	.000
2064.750	.000	1.000	1.000	.000	.000
2065.000	.000	1.000	1.000	.000	.000
2065.250	.000	1.000	1.000	.000	.000
2065.500	.000	1.000	1.000	.000	.000
2065.750	.000	1.000	1.000	.000	.000
2066.000	.000	1.000	1.000	.000	.000
2066.250	.000	1.000	1.000	.000	.000
2066.500	.000	1.000	1.000	.000	.000
2066.750	.000	1.000	1.000	.000	.000
2067.000	.000	1.000	1.000	.000	.000
2067.250	.000	1.000	1.000	.000	.000
2067.500	.000	1.000	1.000	.000	.000
2067.750	.000	1.000	1.000	.000	.000
1		BREAM #5			
DEPTH	VCL	SX0	SW	PHI	HC.VOL
2068.000	.000	1.000	1.000	.000	.000
2068.250	.000	1.000	1.000	.000	.000
2068.500	.000	1.000	1.000	.000	.000
2068.750	.000	1.000	1.000	.000	.000

2069.000	.000	1.000	1.000	.000	.000
2069.250	.000	1.000	1.000	.000	.000
2069.500	.000	1.000	1.000	.000	.000
2069.750	.000	1.000	1.000	.000	.000
2070.000	.000	1.000	1.000	.000	.000
2070.250	.000	1.000	1.000	.000	.000
2070.500	.000	1.000	1.000	.000	.000
2070.750	.000	1.000	1.000	.000	.000
2071.000	.000	1.000	1.000	.000	.000
2071.250	.000	1.000	1.000	.000	.000
2071.500	.000	1.000	1.000	.000	.000
2071.750	.000	1.000	1.000	.000	.000
2072.000	.000	1.000	1.000	.000	.000
2072.250	.000	1.000	1.000	.000	.000
2072.500	.000	1.000	1.000	.000	.000
2072.750	.000	1.000	1.000	.000	.000
2073.000	.000	1.000	1.000	.000	.000
2073.250	.000	1.000	1.000	.000	.000
2073.500	.000	1.000	1.000	.000	.000
2073.750	.000	1.000	1.000	.000	.000
2074.000	.000	1.000	1.000	.000	.000
2074.250	.000	1.000	1.000	.000	.000
2074.500	.000	1.000	1.000	.000	.000
2074.750	.000	1.000	1.000	.000	.000
2075.000	.000	1.000	1.000	.000	.000
2075.250	.630	1.000	1.000	.078	.000
2075.500	.750	1.000	1.000	.058	.000
2075.750	.750	1.000	1.000	.010	.000
2076.000	.750	1.000	1.000	.010	.000
2076.250	.750	1.000	1.000	.010	.000
2076.500	.750	1.000	1.000	.010	.000
2076.750	.720	1.000	1.000	.058	.000
2077.000	.645	1.000	1.000	.081	.000
2077.250	.610	1.000	1.000	.111	.000
2077.500	.530	1.000	1.000	.142	.000
2077.750	.465	1.000	1.000	.161	.000
2078.000	.379	1.000	1.000	.158	.000
2078.250	.385	1.000	1.000	.149	.000
2078.500	.321	1.000	1.000	.169	.000
2078.750	.288	1.000	1.000	.207	.000
2079.000	.305	1.000	1.000	.226	.000
2079.250	.263	1.000	1.000	.216	.000
2079.500	.258	1.000	1.000	.203	.000
2079.750	.256	1.000	1.000	.205	.000
2080.000	.236	1.000	1.000	.191	.000
2080.250	.276	1.000	1.000	.163	.000
2080.500	.309	1.000	1.000	.162	.000
2080.750	.318	1.000	1.000	.189	.000
2081.000	.299	1.000	1.000	.215	.000
2081.250	.238	1.000	1.000	.229	.000
2081.500	.149	1.000	1.000	.237	.000
2081.750	.091	1.000	1.000	.234	.000

DEPTH	VCL	BREAK #5 SX0	SW	PHI	HC VOL
2082.000	.060	1.000	1.000	.232	.000
2082.250	.046	1.000	1.000	.236	.000
2082.500	.032	1.000	1.000	.243	.000
2082.750	.035	1.000	1.000	.248	.000
2083.000	.044	1.000	1.000	.250	.000
2083.250	.050	1.000	1.000	.254	.000
2083.500	.090	1.000	1.000	.253	.000
2083.750	.114	1.000	1.000	.248	.000
2084.000	.129	1.000	1.000	.241	.000
2084.250	.138	1.000	1.000	.230	.000

2084.500	.104	1.000	1.000	.217	.000
2084.750	.057	1.000	1.000	.218	.000
2085.000	.058	1.000	1.000	.223	.000
2085.250	.133	1.000	1.000	.213	.000
2085.500	.196	1.000	1.000	.206	.000
2085.750	.176	1.000	1.000	.213	.000
2086.000	.085	1.000	1.000	.220	.000
2086.250	.046	1.000	1.000	.228	.000
2086.500	.049	1.000	1.000	.234	.000
2086.750	.084	1.000	1.000	.241	.000
2087.000	.115	1.000	1.000	.247	.000
2087.250	.100	1.000	1.000	.245	.000
2087.500	.145	1.000	1.000	.238	.000
2087.750	.142	1.000	1.000	.246	.000
2088.000	.093	1.000	1.000	.252	.000
2088.250	.072	1.000	1.000	.246	.000
2088.500	.096	1.000	1.000	.227	.000
2088.750	.322	1.000	1.000	.157	.000
2089.000	.665	1.000	1.000	.084	.000
2089.250	.753	1.000	1.000	.010	.000
2089.500	.750	1.000	1.000	.010	.000
2089.750	.750	1.000	1.000	.010	.000
2090.000	.705	1.000	1.000	.079	.000
2090.250	.505	1.000	1.000	.125	.000
2090.500	.390	1.000	1.000	.160	.000
2090.750	.303	1.000	1.000	.184	.000
2091.000	.201	1.000	1.000	.217	.000
2091.250	.147	1.000	1.000	.238	.000
2091.500	.113	1.000	1.000	.243	.000
2091.750	.059	1.000	1.000	.249	.000
2092.000	.000	1.000	1.000	.249	.000
2092.250	.023	1.000	1.000	.251	.000
2092.500	.064	1.000	1.000	.250	.000
2092.750	.118	1.000	1.000	.246	.000
2093.000	.133	1.000	1.000	.238	.000
2093.250	.036	1.000	1.000	.239	.000
2093.500	.002	1.000	1.000	.246	.000
2093.750	.014	1.000	1.000	.250	.000
2094.000	.007	1.000	1.000	.242	.000
2094.250	.000	1.000	1.000	.000	.000
2094.500	.000	1.000	1.000	.000	.000
2094.750	.000	1.000	1.000	.000	.000
2095.000	.000	1.000	1.000	.000	.000
2095.250	.000	1.000	1.000	.000	.000
2095.500	.000	1.000	1.000	.000	.000
2095.750	.000	1.000	1.000	.000	.000

DEPTH	VCL	BREATH #5 SX0	SW	PHI	HC.VOL
2096.000	.000	1.000	1.000	.000	.000
2096.250	.000	1.000	1.000	.000	.000
2096.500	.000	1.000	1.000	.000	.000
2096.750	.000	1.000	1.000	.000	.000
2097.000	.000	1.000	1.000	.000	.000
2097.250	.000	1.000	1.000	.000	.000
2097.500	.000	1.000	1.000	.000	.000
2097.750	.000	1.000	1.000	.000	.000
2098.000	.000	1.000	1.000	.000	.000
2098.250	.000	1.000	1.000	.000	.000
2098.500	.000	1.000	1.000	.000	.000
2098.750	.000	1.000	1.000	.000	.000
2099.000	.000	1.000	1.000	.000	.000
2099.250	.000	1.000	1.000	.000	.000
2099.500	.000	1.000	1.000	.000	.000
2099.750	.000	1.000	1.000	.000	.000

2115.500	.036	1.000	1.000	.269	.000
2115.750	.105	1.000	1.000	.250	.000
2115.900	.129	1.000	1.000	.244	.000
2115.950	.093	1.000	1.000	.247	.000
2115.975	.065	1.000	1.000	.251	.000
2116.000	.028	1.000	1.000	.251	.000
2116.025	.132	1.000	1.000	.255	.000
2116.050	.121	1.000	1.000	.261	.000
2116.075	.099	1.000	1.000	.264	.000
2116.100	.153	1.000	1.000	.249	.000
2116.125	.299	1.000	1.000	.185	.000
2116.150	.525	1.000	1.000	.098	.000
2116.175	.750	1.000	1.000	.010	.000
2116.200	.750	1.000	1.000	.010	.000
2116.225	.750	1.000	1.000	.010	.000
2116.250	.750	1.000	1.000	.010	.000
2116.275	.750	1.000	1.000	.010	.000
2116.300	.750	1.000	1.000	.010	.000
2116.325	.000	1.000	1.000	.000	.000
2116.350	.000	1.000	1.000	.000	.000
2116.375	.000	1.000	1.000	.000	.000
2116.400	.000	1.000	1.000	.000	.000
2116.425	.000	1.000	1.000	.000	.000
2116.450	.000	1.000	1.000	.000	.000
2116.475	.000	1.000	1.000	.000	.000
2116.500	.000	1.000	1.000	.000	.000
2116.525	.000	1.000	1.000	.000	.000
2116.550	.000	1.000	1.000	.000	.000
2116.575	.000	1.000	1.000	.000	.000
2116.600	.000	1.000	1.000	.000	.000
2116.625	.000	1.000	1.000	.000	.000
2116.650	.000	1.000	1.000	.000	.000
2116.675	.000	1.000	1.000	.000	.000
2116.700	.000	1.000	1.000	.000	.000
2116.725	.000	1.000	1.000	.000	.000
2116.750	.000	1.000	1.000	.000	.000

1

DEPTH	VCL	BRFA-1 #5 SXU	SW	PHI	HC VOL
2124.000	.000	1.000	1.000	.000	.000
2124.250	.000	1.000	1.000	.000	.000
2124.500	.000	1.000	1.000	.000	.000
2124.750	.000	1.000	1.000	.000	.000
2125.000	.000	1.000	1.000	.000	.000
2125.250	.000	1.000	1.000	.000	.000
2125.500	.000	1.000	1.000	.000	.000
2125.750	.000	1.000	1.000	.000	.000
2126.000	.000	1.000	1.000	.000	.000
2126.250	.000	1.000	1.000	.000	.000
2126.500	.000	1.000	1.000	.000	.000
2126.750	.000	1.000	1.000	.000	.000
2127.000	.000	1.000	1.000	.000	.000
2127.250	.000	1.000	1.000	.000	.000
2127.500	.000	1.000	1.000	.000	.000
2127.750	.000	1.000	1.000	.000	.000
2128.000	.000	1.000	1.000	.000	.000
2128.250	.750	1.000	1.000	.010	.000
2128.500	.736	1.000	1.000	.061	.000
2128.750	.686	1.000	1.000	.067	.000
2129.000	.578	1.000	1.000	.082	.000
2129.250	.454	1.000	1.000	.106	.000
2129.500	.421	1.000	1.000	.129	.000
2129.750	.425	1.000	1.000	.134	.000
2130.000	.337	1.000	1.000	.141	.000
2130.250	.276	1.000	1.000	.158	.000
2130.500	.305	1.000	1.000	.156	.000
2130.750	.315	1.000	1.000	.158	.000

21331.0000	.307	1.000	1.000	.162	.000
21331.2500	.304	1.000	1.000	.155	.000
21331.5000	.279	1.000	1.000	.167	.000
21331.7500	.289	1.000	1.000	.180	.000
21332.0000	.257	1.000	1.000	.172	.000
21332.2500	.259	1.000	1.000	.163	.000
21332.5000	.226	1.000	1.000	.176	.000
21332.7500	.167	1.000	1.000	.197	.000
21333.0000	.167	1.000	1.000	.206	.000
21333.2500	.240	1.000	1.000	.202	.000
21333.5000	.266	1.000	1.000	.204	.000
21333.7500	.299	1.000	1.000	.195	.000
2134.0000	.308	1.000	1.000	.171	.000
2134.2500	.234	1.000	1.000	.180	.000
2134.5000	.126	1.000	1.000	.219	.000
2134.7500	.122	1.000	1.000	.232	.000
2135.0000	.134	1.000	1.000	.224	.000
2135.2500	.107	1.000	1.000	.226	.000
2135.5000	.131	1.000	1.000	.228	.000
2135.7500	.176	1.000	1.000	.220	.000
2136.0000	.193	1.000	1.000	.217	.000
2136.2500	.185	1.000	1.000	.224	.000
2136.5000	.111	1.000	1.000	.243	.000
2136.7500	.649	1.000	1.000	.260	.000
2137.0000	.048	1.000	1.000	.264	.000
2137.2500	.063	1.000	1.000	.252	.000
2137.5000	.204	1.000	1.000	.200	.000
2137.7500	.000	1.000	1.000	.000	.000

DEPTH	VCL	BREA SX0	SW	PHI	HC.VOL
2138.0000	.000	1.000	1.000	.000	.000
2138.2500	.000	1.000	1.000	.000	.000
2138.5000	.000	1.000	1.000	.000	.000
2138.7500	.000	1.000	1.000	.000	.000
2139.0000	.000	1.000	1.000	.000	.000
2139.2500	.558	1.000	1.000	.075	.000
2139.5000	.459	1.000	1.000	.111	.000
2139.7500	.308	1.000	1.000	.163	.000
2140.0000	.172	1.000	1.000	.200	.000
2140.2500	.148	1.000	1.000	.207	.000
2140.5000	.197	1.000	1.000	.201	.000
2140.7500	.207	1.000	1.000	.193	.000
2141.0000	.221	1.000	1.000	.184	.000
2141.2500	.375	1.000	1.000	.159	.000
2141.5000	.555	1.000	1.000	.121	.000
2141.7500	.530	1.000	1.000	.103	.000
2142.0000	.481	1.000	1.000	.091	.000
2142.2500	.507	1.000	1.000	.075	.000
2142.5000	.523	1.000	1.000	.075	.000
2142.7500	.500	1.000	1.000	.089	.000
2143.0000	.532	1.000	1.000	.084	.000
2143.2500	.617	1.000	1.000	.071	.000
2143.5000	.730	1.000	1.000	.070	.000
2143.7500	.750	1.000	1.000	.010	.000
2144.0000	.750	1.000	1.000	.071	.000
2144.2500	.730	1.000	1.000	.066	.000
2144.5000	.647	1.000	1.000	.092	.000
2144.7500	.514	1.000	1.000	.126	.000
2145.0000	.000	1.000	1.000	.000	.000
2145.2500	.000	1.000	1.000	.000	.000
2145.5000	.000	1.000	1.000	.000	.000
2145.7500	.000	1.000	1.000	.000	.000
2146.0000	.000	1.000	1.000	.000	.000
2146.2500	.000	1.000	1.000	.000	.000

146.500	.000	1.000	1.000	.000	.000
146.750	.000	1.000	1.000	.000	.000
147.000	.000	1.000	1.000	.000	.000
147.250	.000	1.000	1.000	.000	.000
147.500	.000	1.000	1.000	.000	.000
147.750	.000	1.000	1.000	.000	.000
148.000	.000	1.000	1.000	.000	.000
148.250	.000	1.000	1.000	.000	.000
148.500	.000	1.000	1.000	.000	.000
148.750	.000	1.000	1.000	.000	.000
149.000	.000	1.000	1.000	.000	.000
149.250	.000	1.000	1.000	.000	.000
149.500	.000	1.000	1.000	.000	.000
149.750	.000	1.000	1.000	.000	.000
150.000	.000	1.000	1.000	.000	.000
150.250	.000	1.000	1.000	.000	.000
150.500	.000	1.000	1.000	.000	.000
150.750	.000	1.000	1.000	.000	.000
151.000	.000	1.000	1.000	.000	.000
151.250	.000	1.000	1.000	.000	.000
151.500	.000	1.000	1.000	.000	.000
151.750	.000	1.000	1.000	.000	.000

DEPTH	VCL	BREAM #5 SX0	SW	PHI	HC VOL
152.000	.000	1.000	1.000	.000	.000
152.250	.000	1.000	1.000	.000	.000
152.500	.000	1.000	1.000	.000	.000
152.750	.000	1.000	1.000	.000	.000
153.000	.000	1.000	1.000	.000	.000
153.250	.000	1.000	1.000	.000	.000
153.500	.000	1.000	1.000	.000	.000
153.750	.000	1.000	1.000	.000	.000
154.000	.000	1.000	1.000	.000	.000
154.250	.000	1.000	1.000	.000	.000
154.500	.000	1.000	1.000	.000	.000
154.750	.000	1.000	1.000	.000	.000
155.000	.000	1.000	1.000	.000	.000
155.250	.000	1.000	1.000	.000	.000
155.500	.000	1.000	1.000	.000	.000
155.750	.000	1.000	1.000	.000	.000
156.000	.000	1.000	1.000	.000	.000
156.250	.000	1.000	1.000	.000	.000
156.500	.000	1.000	1.000	.000	.000
156.750	.000	1.000	1.000	.000	.000
157.000	.750	1.000	1.000	.010	.000
157.250	.750	1.000	1.000	.010	.000
157.500	.688	1.000	1.000	.093	.000
158.000	.432	1.000	1.000	.188	.000
158.250	.183	1.000	1.000	.247	.000
158.500	.064	1.000	1.000	.254	.000
158.750	.072	1.000	1.000	.249	.000
159.000	.043	1.000	1.000	.254	.000
159.250	.014	1.000	1.000	.255	.000
159.500	.070	1.000	1.000	.228	.000
159.750	.139	1.000	1.000	.193	.000
160.000	.134	1.000	1.000	.196	.000
160.250	.069	1.000	1.000	.232	.000
160.500	.040	1.000	1.000	.250	.000
160.750	.085	1.000	1.000	.247	.000
161.000	.115	1.000	1.000	.242	.000
161.250	.059	1.000	1.000	.241	.000
161.500	.034	1.000	1.000	.236	.000
161.750	.032	1.000	1.000	.237	.000

2162.000	.021	1.000	1.000	.237	.000
2162.250	.033	1.000	1.000	.227	.000
2162.500	.067	1.000	1.000	.226	.000
2162.750	.091	1.000	1.000	.229	.000
2163.000	.082	1.000	1.000	.224	.000
2163.250	.035	1.000	1.000	.230	.000
2163.500	.030	1.000	1.000	.248	.000
2163.750	.074	1.000	1.000	.259	.000
2164.000	.090	1.000	1.000	.258	.000
2164.250	.067	1.000	1.000	.257	.000
2164.500	.056	1.000	1.000	.263	.000
2164.750	.047	1.000	1.000	.269	.000
2165.000	.063	1.000	1.000	.265	.000
2165.250	.078	1.000	1.000	.264	.000
2165.500	.096	1.000	1.000	.258	.000
2165.750	.079	1.000	1.000	.254	.000

DEPTH	VCL	BREAM #5 SX0	SW	PHI	HC.VOL
2166.000	.059	1.000	1.000	.256	.000
2166.250	.061	1.000	1.000	.255	.000
2166.500	.079	1.000	1.000	.244	.000
2166.750	.183	1.000	1.000	.208	.000
2167.000	.393	1.000	1.000	.140	.000
2167.250	.511	1.000	1.000	.095	.000
2167.500	.458	1.000	1.000	.108	.000
2167.750	.273	1.000	1.000	.156	.000
2168.000	.169	1.000	1.000	.189	.000
2168.250	.099	1.000	1.000	.227	.000
2168.500	.060	1.000	1.000	.255	.000
2168.750	.027	1.000	1.000	.260	.000
2169.000	.074	1.000	1.000	.239	.000
2169.250	.239	1.000	1.000	.166	.000
2169.500	.546	1.000	1.000	.066	.000
2169.750	.720	1.000	1.000	.024	.000
2170.000	.700	1.000	1.000	.037	.000
2170.250	.660	1.000	1.000	.065	.000
2170.500	.519	1.000	1.000	.100	.000
2170.750	.479	1.000	1.000	.083	.000
2171.000	.578	1.000	1.000	.047	.000
2171.250	.664	1.000	1.000	.034	.000
2171.500	.678	1.000	1.000	.029	.000
2171.750	.676	1.000	1.000	.023	.000
2172.000	.692	1.000	1.000	.020	.000
2172.250	.710	1.000	1.000	.022	.000
2172.500	.700	1.000	1.000	.025	.000
2172.750	.735	1.000	1.000	.021	.000
2173.000	.655	1.000	1.000	.057	.000
2173.250	.490	1.000	1.000	.124	.000
2173.500	.545	1.000	1.000	.140	.000
2173.750	.625	1.000	1.000	.137	.000
2174.000	.745	1.000	1.000	.122	.000
2174.250	.750	1.000	1.000	.010	.000
2174.500	.692	1.000	1.000	.096	.000
2174.750	.433	1.000	1.000	.165	.000
2175.000	.203	1.000	1.000	.242	.000
2175.250	.122	1.000	1.000	.251	.000
2175.500	.110	1.000	1.000	.235	.000
2175.750	.127	1.000	1.000	.224	.000
2176.000	.144	1.000	1.000	.210	.000
2176.250	.104	1.000	1.000	.197	.000
2176.500	.106	1.000	1.000	.203	.000
2176.750	.134	1.000	1.000	.217	.000
2177.000	.110	1.000	1.000	.223	.000
2177.250	.079	1.000	1.000	.225	.000

2177.500	.088	1.000	1.000	.234	.000
2177.750	.107	1.000	1.000	.238	.000
2178.000	.078	1.000	1.000	.245	.000
2178.250	.057	1.000	1.000	.262	.000
2178.500	.091	1.000	1.000	.268	.000
2178.750	.091	1.000	1.000	.263	.000
2179.000	.100	1.000	1.000	.253	.000
2179.250	.144	1.000	1.000	.236	.000
2179.500	.087	1.000	1.000	.239	.000
2179.750	.087	1.000	1.000	.259	.000

1 BREAM #5
DEPTH VCL SXO SW PHI HC_VOL

2180.000	.112	1.000	1.000	.259	.000
2180.250	.058	1.000	1.000	.253	.000
2180.500	.020	1.000	1.000	.255	.000
2180.750	.050	1.000	1.000	.250	.000
2181.000	.054	1.000	1.000	.262	.000
2181.250	.089	1.000	1.000	.262	.000
2181.500	.085	1.000	1.000	.260	.000
2181.750	.131	1.000	1.000	.246	.000
2182.000	.236	1.000	1.000	.236	.000
2182.250	.230	1.000	1.000	.261	.000
2182.500	.190	1.000	1.000	.276	.000
2182.750	.156	1.000	1.000	.282	.000
2183.000	.118	1.000	1.000	.292	.000
2183.250	.086	1.000	1.000	.292	.000
2183.500	.059	1.000	1.000	.290	.000
2183.750	.048	1.000	1.000	.286	.000
2184.000	.034	1.000	1.000	.281	.000
2184.250	.001	1.000	1.000	.281	.000
2184.500	.002	1.000	1.000	.278	.000
2184.750	.033	1.000	1.000	.275	.000
2185.000	.053	1.000	1.000	.275	.000
2185.250	.102	1.000	1.000	.273	.000
2185.500	.087	1.000	1.000	.267	.000
2185.750	.017	1.000	1.000	.259	.000
2186.000	.050	1.000	1.000	.235	.000
2186.250	.230	1.000	1.000	.143	.000
2186.500	.696	1.000	1.000	.017	.000
2186.750	.750	1.000	1.000	.010	.000
2187.000	.750	1.000	1.000	.010	.000
2187.250	.750	1.000	1.000	.010	.000
2187.500	.750	1.000	1.000	.010	.000
2187.750	.750	1.000	1.000	.010	.000
2188.000	.750	1.000	1.000	.010	.000
2188.250	.750	1.000	1.000	.010	.000
2188.500	.750	1.000	1.000	.010	.000
2188.750	.750	1.000	1.000	.010	.000
2189.000	.750	1.000	1.000	.010	.000
2189.250	.750	1.000	1.000	.010	.000
2189.500	.750	1.000	1.000	.010	.000
2189.750	.750	1.000	1.000	.010	.000
2190.000	.750	1.000	1.000	.010	.000
2190.250	.750	1.000	1.000	.010	.000
2190.500	.750	1.000	1.000	.010	.000
2190.750	.750	1.000	1.000	.010	.000
2191.000	.750	1.000	1.000	.010	.000
2191.250	.750	1.000	1.000	.010	.000
2191.500	.750	1.000	1.000	.010	.000
2191.750	.750	1.000	1.000	.010	.000
2192.000	.750	1.000	1.000	.010	.000
2192.250	.750	1.000	1.000	.010	.000
2192.500	.750	1.000	1.000	.010	.000
2192.750	.750	1.000	1.000	.010	.000

2193.000	.750	1.000	1.000	.010	.000
2193.250	.750	1.000	1.000	.010	.000
2193.500	.740	1.000	1.000	.020	.000
2193.750	.655	1.000	1.000	.026	.000

1	DEPTH	VCL	BREAM #5 SX0	SW	PHI	HC.VOL
2194.000	.629	1.000	1.000	.030	.000	
2194.250	.515	1.000	1.000	.039	.000	
2194.500	.545	1.000	1.000	.052	.000	
2194.750	.447	1.000	1.000	.077	.000	
2195.000	.541	1.000	1.000	.101	.000	
2195.250	.523	1.000	1.000	.102	.000	
2195.500	.497	1.000	1.000	.102	.000	
2195.750	.344	1.000	1.000	.127	.000	
2196.000	.346	1.000	1.000	.154	.000	
2196.250	.211	1.000	1.000	.163	.000	
2196.500	.232	1.000	1.000	.164	.000	
2196.750	.251	1.000	1.000	.151	.000	
2197.000	.266	1.000	1.000	.150	.000	
2197.250	.253	1.000	1.000	.170	.000	
2197.500	.230	1.000	1.000	.170	.000	
2197.750	.201	1.000	1.000	.171	.000	
2198.000	.182	1.000	1.000	.188	.000	
2198.250	.159	1.000	1.000	.201	.000	
2198.500	.050	1.000	1.000	.224	.000	
2198.750	.082	1.000	1.000	.224	.000	
2199.000	.207	1.000	1.000	.181	.000	
2199.250	.203	1.000	1.000	.160	.000	
2199.500	.130	1.000	1.000	.184	.000	
2199.750	.102	1.000	1.000	.207	.000	
2200.000	.087	1.000	1.000	.218	.000	
2200.250	.050	1.000	1.000	.218	.000	
2200.500	.118	1.000	1.000	.209	.000	
2200.750	.140	1.000	1.000	.203	.000	
2201.000	.137	1.000	1.000	.192	.000	
2201.250	.134	1.000	1.000	.181	.000	
2201.500	.127	1.000	1.000	.191	.000	
2201.750	.131	1.000	1.000	.197	.000	
2202.000	.123	1.000	1.000	.201	.000	
2202.250	.053	1.000	1.000	.207	.000	
2202.500	.061	1.000	1.000	.204	.000	
2202.750	.077	1.000	1.000	.191	.000	
2203.000	.093	1.000	1.000	.186	.000	
2203.250	.118	1.000	1.000	.192	.000	
2203.500	.127	1.000	1.000	.201	.000	
2203.750	.126	1.000	1.000	.200	.000	
2204.000	.128	1.000	1.000	.189	.000	
2204.250	.129	1.000	1.000	.181	.000	
2204.500	.111	1.000	1.000	.182	.000	
2204.750	.126	1.000	1.000	.181	.000	
2205.000	.145	1.000	1.000	.178	.000	
2205.250	.112	1.000	1.000	.185	.000	
2205.500	.094	1.000	1.000	.197	.000	
2205.750	.137	1.000	1.000	.194	.000	
2206.000	.199	1.000	1.000	.176	.000	
2206.250	.210	1.000	1.000	.176	.000	
2206.500	.157	1.000	1.000	.204	.000	
2206.750	.102	1.000	1.000	.230	.000	
2207.000	.104	1.000	1.000	.237	.000	
2207.250	.074	1.000	1.000	.244	.000	
2207.500	.035	1.000	1.000	.251	.000	
2207.750	.040	1.000	1.000	.252	.000	

1	DEPTH	VCL	BREAM #5 SX0	SW	PHI	HC.VOL
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2208.000	.051	1.000	1.000	.245	.000
2208.250	.116	1.000	1.000	.204	.000
2208.500	.310	1.000	1.000	.133	.000
2208.750	.467	1.000	1.000	.109	.000
2209.000	.515	1.000	1.000	.186	.000
2209.250	.257	1.000	1.000	.248	.000
2209.500	.397	1.000	1.000	.249	.000
2209.750	.243	1.000	1.000	.248	.000
2210.000	.089	1.000	1.000	.249	.000
2210.250	.079	1.000	1.000	.243	.000
2210.500	.172	1.000	1.000	.223	.000
2210.750	.135	1.000	1.000	.213	.000
2211.000	.145	1.000	1.000	.217	.000
2211.250	.168	1.000	1.000	.214	.000
2211.500	.168	1.000	1.000	.211	.000
2211.750	.147	1.000	1.000	.217	.000
2212.000	.174	1.000	1.000	.227	.000
2212.250	.103	1.000	1.000	.236	.000
2212.500	.150	1.000	1.000	.249	.000
2212.750	.151	1.000	1.000	.255	.000
2213.000	.044	1.000	1.000	.257	.000
2213.250	.047	1.000	1.000	.264	.000
2213.500	.058	1.000	1.000	.256	.000
2213.750	.057	1.000	1.000	.250	.000
2214.000	.072	1.000	1.000	.232	.000
2214.250	.113	1.000	1.000	.210	.000
2214.500	.152	1.000	1.000	.204	.000
2214.750	.137	1.000	1.000	.216	.000
2215.000	.133	1.000	1.000	.221	.000
2215.250	.177	1.000	1.000	.212	.000
2215.500	.146	1.000	1.000	.219	.000
2215.750	.145	1.000	1.000	.232	.000
2216.000	.154	1.000	1.000	.232	.000
2216.250	.137	1.000	1.000	.229	.000
2216.500	.146	1.000	1.000	.218	.000
2216.750	.105	1.000	1.000	.212	.000
2217.000	.073	1.000	1.000	.216	.000
2217.250	.096	1.000	1.000	.218	.000
2217.500	.108	1.000	1.000	.220	.000
2217.750	.085	1.000	1.000	.230	.000
2218.000	.065	1.000	1.000	.238	.000
2218.250	.065	1.000	1.000	.237	.000
2218.500	.081	1.000	1.000	.235	.000
2218.750	.160	1.000	1.000	.236	.000
2219.000	.358	1.000	1.000	.191	.000
2219.250	.521	1.000	1.000	.113	.000
2219.500	.000	1.000	1.000	.000	.000
2219.750	.000	1.000	1.000	.000	.000
2220.000	.000	1.000	1.000	.000	.000
2220.250	.000	1.000	1.000	.000	.000
2220.500	.000	1.000	1.000	.000	.000
2220.750	.000	1.000	1.000	.000	.000
2221.000	.000	1.000	1.000	.000	.000
2221.250	.000	1.000	1.000	.000	.000
2221.500	.000	1.000	1.000	.000	.000
2221.750	.000	1.000	1.000	.000	.000
1					
DEPTH	VCL	BREATH #5 SXU	SW	PHI	HC VOL
2222.000	.000	1.000	1.000	.000	.000
2222.250	.000	1.000	1.000	.000	.000
2222.500	.000	1.000	1.000	.000	.000
2222.750	.000	1.000	1.000	.000	.000
2223.000	.000	1.000	1.000	.000	.000

2263.750	.134	1.000	1.000	.167	.000
2263.500	.101	1.000	1.000	.232	.000
2263.250	.124	1.000	1.000	.232	.000
2263.000	.147	1.000	1.000	.232	.000
2262.750	.143	1.000	1.000	.336	.000
2262.500	.124	1.000	1.000	.341	.000
2262.250	.124	1.000	1.000	.341	.000
2262.000	.144	1.000	1.000	.341	.000
2261.750	.140	1.000	1.000	.341	.000
2261.500	.169	1.000	1.000	.341	.000
2261.250	.159	1.000	1.000	.341	.000
2261.000	.159	1.000	1.000	.341	.000
2260.750	.135	1.000	1.000	.341	.000
2260.500	.178	1.000	1.000	.341	.000
2260.250	.161	1.000	1.000	.341	.000
2260.000	.143	1.000	1.000	.341	.000
2259.750	.162	1.000	1.000	.341	.000
2259.500	.143	1.000	1.000	.341	.000
2259.250	.162	1.000	1.000	.341	.000
2259.000	.143	1.000	1.000	.341	.000
2258.750	.137	1.000	1.000	.341	.000
2258.500	.104	1.000	1.000	.341	.000
2258.250	.110	1.000	1.000	.341	.000
2258.000	.110	1.000	1.000	.341	.000
2257.750	.109	1.000	1.000	.341	.000
2257.500	.114	1.000	1.000	.341	.000
2257.250	.109	1.000	1.000	.341	.000
2257.000	.076	1.000	1.000	.341	.000
2256.750	.105	1.000	1.000	.341	.000
2256.500	.146	1.000	1.000	.341	.000
2256.250	.077	1.000	1.000	.341	.000
2256.000	.034	1.000	1.000	.341	.000
2255.750	.089	1.000	1.000	.341	.000
2255.500	.120	1.000	1.000	.341	.000
2255.250	.141	1.000	1.000	.341	.000
2255.000	.144	1.000	1.000	.341	.000
2254.750	.132	1.000	1.000	.341	.000
2254.500	.176	1.000	1.000	.341	.000
2254.250	.131	1.000	1.000	.341	.000
2254.000	.131	1.000	1.000	.341	.000

DEPTH	VCL	GRAIN #5 SZN	SW	PHI	HC VOL
2264.000	.171	1.000	1.000	.151	.000
2264.250	.211	1.000	1.000	.153	.000
2264.500	.224	1.000	1.000	.137	.000
2264.750	.406	1.000	1.000	.106	.000
2265.000	.000	1.000	1.000	.000	.000
2265.250	.000	1.000	1.000	.000	.000
2265.500	.000	1.000	1.000	.000	.000
2265.750	.000	1.000	1.000	.000	.000
2266.000	.000	1.000	1.000	.000	.000
2266.250	.000	1.000	1.000	.000	.000
2266.500	.000	1.000	1.000	.000	.000
2266.750	.000	1.000	1.000	.000	.000
2267.000	.000	1.000	1.000	.000	.000
2267.250	.649	1.000	1.000	.000	.000
2267.500	.648	1.000	1.000	.015	.000
2267.750	.647	1.000	1.000	.023	.000
2268.000	.617	1.000	1.000	.036	.000
2268.250	.555	1.000	1.000	.040	.000
2268.500	.555	1.000	1.000	.038	.000
2268.750	.586	1.000	1.000	.038	.000
2269.000	.624	1.000	1.000	.034	.000
2269.250	.667	1.000	1.000	.032	.000
2269.500	.687	1.000	1.000	.033	.000

269.750	1.000	1.000	.040	.000
270.000	1.000	1.000	.067	.000
270.250	1.000	1.000	.097	.000
270.500	1.000	1.000	.104	.000
270.750	1.000	1.000	.104	.000
271.000	1.000	1.000	.106	.000
271.250	1.000	1.000	.095	.000
271.500	1.000	1.000	.082	.000
271.750	1.000	1.000	.087	.000
272.000	1.000	1.000	.103	.000
272.250	1.000	1.000	.113	.000
272.500	1.000	1.000	.119	.000
272.750	1.000	1.000	.126	.000
273.000	1.000	1.000	.127	.000
273.250	1.000	1.000	.130	.000
273.500	1.000	1.000	.149	.000
273.750	1.000	1.000	.155	.000
274.000	1.000	1.000	.159	.000
274.250	1.000	1.000	.000	.000
274.500	1.000	1.000	.000	.000
274.750	1.000	1.000	.000	.000
275.000	1.000	1.000	.000	.000
275.250	1.000	1.000	.000	.000
275.500	1.000	1.000	.000	.000
275.750	1.000	1.000	.000	.000
276.000	1.000	1.000	.000	.000
276.250	1.000	1.000	.000	.000
276.500	1.000	1.000	.000	.000
276.750	1.000	1.000	.000	.000
277.000	1.000	1.000	.000	.000
277.250	1.000	1.000	.000	.000
277.500	1.000	1.000	.000	.000
277.750	1.000	1.000	.000	.000
278.000	1.000	1.000	.000	.000
278.250	1.000	1.000	.000	.000
278.500	1.000	1.000	.000	.000
278.750	1.000	1.000	.000	.000
279.000	1.000	1.000	.000	.000
279.250	1.000	1.000	.000	.000
279.500	1.000	1.000	.000	.000
279.750	1.000	1.000	.000	.000
280.000	1.000	1.000	.000	.000
280.250	1.000	1.000	.000	.000
280.500	1.000	1.000	.000	.000
280.750	1.000	1.000	.000	.000
281.000	1.000	1.000	.000	.000
281.250	1.000	1.000	.000	.000
281.500	1.000	1.000	.000	.000
281.750	1.000	1.000	.000	.000
282.000	1.000	1.000	.000	.000
282.250	1.000	1.000	.000	.000
282.500	1.000	1.000	.000	.000
282.750	1.000	1.000	.000	.000
283.000	1.000	1.000	.000	.000
283.250	1.000	1.000	.000	.000
283.500	1.000	1.000	.000	.000
283.750	1.000	1.000	.000	.000
284.000	1.000	1.000	.000	.000
284.250	1.000	1.000	.000	.000
284.500	1.000	1.000	.000	.000
284.750	1.000	1.000	.000	.000
285.000	1.000	1.000	.000	.000

DEPTH	VCL	BREATH #5 SX0	SW	PHI	HC.VOL
278.000	.663	1.000	1.000	.094	.000
278.250	.435	1.000	1.000	.123	.000
278.500	.342	1.000	1.000	.137	.000
278.750	.328	1.000	1.000	.141	.000
279.000	.373	1.000	1.000	.127	.000
279.250	.452	1.000	1.000	.100	.000
279.500	.455	1.000	1.000	.085	.000
279.750	.435	1.000	1.000	.070	.000
280.000	.535	1.000	1.000	.056	.000
280.250	.585	1.000	1.000	.064	.000
280.500	.000	1.000	1.000	.000	.000
280.750	.000	1.000	1.000	.000	.000
281.000	.000	1.000	1.000	.000	.000
281.250	.000	1.000	1.000	.000	.000
281.500	.000	1.000	1.000	.000	.000
281.750	.000	1.000	1.000	.000	.000
282.000	.000	1.000	1.000	.000	.000
282.250	.000	1.000	1.000	.000	.000
282.500	.000	1.000	1.000	.000	.000
282.750	.000	1.000	1.000	.000	.000
283.000	.000	1.000	1.000	.000	.000
283.250	.000	1.000	1.000	.000	.000
283.500	.000	1.000	1.000	.000	.000
283.750	.000	1.000	1.000	.000	.000
284.000	.000	1.000	1.000	.000	.000
284.250	.000	1.000	1.000	.000	.000
284.500	.000	1.000	1.000	.000	.000
284.750	.000	1.000	1.000	.000	.000
285.000	.000	1.000	1.000	.000	.000

DEPTH	VCL	BREA #5 SX0	SW	PHI	HC.VOL
2300	375	1.000	1.000	.091	.000
2301	377	1.000	1.000	.100	.000
2302	378	1.000	1.000	.098	.000
2303	379	1.000	1.000	.101	.000
2304	380	1.000	1.000	.102	.000
2305	381	1.000	1.000	.085	.000
2306	382	1.000	1.000	.085	.000
2307	383	1.000	1.000	.107	.000
2308	384	1.000	1.000	.141	.000
2309	385	1.000	1.000	.163	.000
2310	386	1.000	1.000	.146	.000
2311	387	1.000	1.000	.111	.000
2312	388	1.000	1.000	.109	.000
2313	389	1.000	1.000	.119	.000
2314	390	1.000	1.000	.123	.000
2315	391	1.000	1.000	.118	.000
2316	392	1.000	1.000	.118	.000
2317	393	1.000	1.000	.099	.000
2318	394	1.000	1.000	.074	.000
2319	395	1.000	1.000	.086	.000
2320	396	1.000	1.000	.121	.000
2321	397	1.000	1.000		
2322	398	1.000	1.000		
2323	399	1.000	1.000		
2324	400	1.000	1.000		
2325	401	1.000	1.000		
2326	402	1.000	1.000		
2327	403	1.000	1.000		
2328	404	1.000	1.000		
2329	405	1.000	1.000		
2330	406	1.000	1.000		
2331	407	1.000	1.000		
2332	408	1.000	1.000		
2333	409	1.000	1.000		
2334	410	1.000	1.000		
2335	411	1.000	1.000		
2336	412	1.000	1.000		
2337	413	1.000	1.000		
2338	414	1.000	1.000		
2339	415	1.000	1.000		
2340	416	1.000	1.000		
2341	417	1.000	1.000		
2342	418	1.000	1.000		
2343	419	1.000	1.000		
2344	420	1.000	1.000		
2345	421	1.000	1.000		
2346	422	1.000	1.000		
2347	423	1.000	1.000		
2348	424	1.000	1.000		
2349	425	1.000	1.000		
2350	426	1.000	1.000		
2351	427	1.000	1.000		
2352	428	1.000	1.000		
2353	429	1.000	1.000		
2354	430	1.000	1.000		
2355	431	1.000	1.000		
2356	432	1.000	1.000		
2357	433	1.000	1.000		
2358	434	1.000	1.000		
2359	435	1.000	1.000		
2360	436	1.000	1.000		
2361	437	1.000	1.000		
2362	438	1.000	1.000		
2363	439	1.000	1.000		
2364	440	1.000	1.000		
2365	441	1.000	1.000		
2366	442	1.000	1.000		
2367	443	1.000	1.000		
2368	444	1.000	1.000		
2369	445	1.000	1.000		
2370	446	1.000	1.000		
2371	447	1.000	1.000		
2372	448	1.000	1.000		
2373	449	1.000	1.000		
2374	450	1.000	1.000		
2375	451	1.000	1.000		
2376	452	1.000	1.000		
2377	453	1.000	1.000		
2378	454	1.000	1.000		
2379	455	1.000	1.000		
2380	456	1.000	1.000		
2381	457	1.000	1.000		
2382	458	1.000	1.000		
2383	459	1.000	1.000		
2384	460	1.000	1.000		
2385	461	1.000	1.000		
2386	462	1.000	1.000		
2387	463	1.000	1.000		
2388	464	1.000	1.000		
2389	465	1.000	1.000		
2390	466	1.000	1.000		
2391	467	1.000	1.000		
2392	468	1.000	1.000		
2393	469	1.000	1.000		
2394	470	1.000	1.000		
2395	471	1.000	1.000		
2396	472	1.000	1.000		
2397	473	1.000	1.000		
2398	474	1.000	1.000		
2399	475	1.000	1.000		
2400	476	1.000	1.000		

23316.250	.000	1.000	1.000	.000	.000
23316.500	.000	1.000	1.000	.000	.000
23316.750	.715	1.000	1.000	.048	.000
23317.000	.568	1.000	1.000	.085	.000
23317.250	.444	1.000	1.000	.118	.000
23317.500	.364	1.000	1.000	.147	.000
23317.750	.333	1.000	1.000	.158	.000
23318.000	.280	1.000	1.000	.162	.000
23318.250	.192	1.000	1.000	.176	.000
23318.500	.163	1.000	1.000	.185	.000
23318.750	.166	1.000	1.000	.181	.000
23319.000	.133	1.000	1.000	.186	.000
23319.250	.113	1.000	1.000	.193	.000
23319.500	.122	1.000	1.000	.203	.000
23319.750	.098	1.000	1.000	.225	.000

DEPTH	VCL	FRESH #5 SX0	SW	PHI	HC.VOL
23320.000	.086	1.000	1.000	.239	.000
23320.250	.093	1.000	1.000	.237	.000
23320.500	.130	1.000	1.000	.197	.000
23320.750	.242	1.000	1.000	.143	.000
23321.000	.244	1.000	1.000	.154	.000
23321.250	.202	1.000	1.000	.173	.000
23321.500	.180	1.000	1.000	.173	.000
23321.750	.149	1.000	1.000	.186	.000
23322.000	.125	1.000	1.000	.199	.000
23322.250	.139	1.000	1.000	.180	.000
23322.500	.164	1.000	1.000	.162	.000
23322.750	.159	1.000	1.000	.167	.000
23323.000	.132	1.000	1.000	.176	.000
23323.250	.133	1.000	1.000	.171	.000
23323.500	.156	1.000	1.000	.173	.000
23323.750	.170	1.000	1.000	.173	.000
23324.000	.172	1.000	1.000	.164	.000
23324.250	.175	1.000	1.000	.164	.000
23324.500	.134	1.000	1.000	.180	.000
23324.750	.103	1.000	1.000	.194	.000
23325.000	.107	1.000	1.000	.197	.000
23325.250	.067	1.000	1.000	.202	.000
23325.500	.040	1.000	1.000	.204	.000
23325.750	.058	1.000	1.000	.202	.000
23326.000	.059	1.000	1.000	.212	.000
23326.250	.032	1.000	1.000	.216	.000
23326.500	.032	1.000	1.000	.211	.000
23326.750	.025	1.000	1.000	.218	.000
23327.000	.000	1.000	1.000	.000	.000
23327.250	.000	1.000	1.000	.000	.000
23327.500	.000	1.000	1.000	.000	.000
23327.750	.000	1.000	1.000	.000	.000
23328.000	.000	1.000	1.000	.000	.000
23328.250	.000	1.000	1.000	.000	.000
23328.500	.000	1.000	1.000	.000	.000
23328.750	.000	1.000	1.000	.000	.000
23329.000	.000	1.000	1.000	.000	.000
23329.250	.000	1.000	1.000	.010	.000
23329.500	.750	1.000	1.000	.010	.000
23329.750	.750	1.000	1.000	.010	.000
23330.000	.731	1.000	1.000	.012	.000
23330.250	.622	1.000	1.000	.022	.000
23330.500	.631	1.000	1.000	.030	.000
23330.750	.535	1.000	1.000	.030	.000
23331.000	.533	1.000	1.000	.041	.000
23331.250	.495	1.000	1.000	.056	.000
23331.500	.466	1.000	1.000	.072	.000

23331.750	.402	1.000	1.000	.095	.000
23332.000	.378	1.000	1.000	.105	.000
23332.250	.418	1.000	1.000	.101	.000
23332.500	.438	1.000	1.000	.097	.000
23332.750	.465	1.000	1.000	.076	.000
23333.000	.419	1.000	1.000	.081	.000
23333.250	.356	1.000	1.000	.106	.000
23333.500	.323	1.000	1.000	.127	.000
23333.750	.256	1.000	1.000	.154	.000

DEPTH	VCL	BREATH #5 SX)	SW	PHI	HC.VOL
23334.000	.185	1.000	1.000	.169	.000
23334.250	.177	1.000	1.000	.156	.000
23334.500	.268	1.000	1.000	.136	.000
23334.750	.548	1.000	1.000	.118	.000
23335.000	.000	1.000	1.000	.000	.000
23335.250	.000	1.000	1.000	.000	.000
23335.500	.000	1.000	1.000	.000	.000
23335.750	.000	1.000	1.000	.000	.000
23336.000	.000	1.000	1.000	.000	.000
23336.250	.000	1.000	1.000	.000	.000
23336.500	.000	1.000	1.000	.000	.000
23336.750	.000	1.000	1.000	.000	.000
23337.000	.000	1.000	1.000	.000	.000
23337.250	.000	1.000	1.000	.000	.000
23337.500	.000	1.000	1.000	.000	.000
23337.750	.000	1.000	1.000	.000	.000
23338.000	.000	1.000	1.000	.000	.000
23338.250	.510	1.000	1.000	.063	.000
23338.500	.610	1.000	1.000	.054	.000
23338.750	.550	1.000	1.000	.054	.000
23339.000	.445	1.000	1.000	.061	.000
23339.250	.383	1.000	1.000	.075	.000
23339.500	.309	1.000	1.000	.096	.000
23339.750	.183	1.000	1.000	.141	.000
23340.000	.119	1.000	1.000	.160	.000
23340.250	.376	1.000	1.000	.083	.000
23340.500	.710	1.000	1.000	.004	.000
23340.750	.740	1.000	1.000	.004	.000
23341.000	.655	1.000	1.000	.030	.000
23341.250	.630	1.000	1.000	.045	.000
23341.500	.573	1.000	1.000	.063	.000
23341.750	.479	1.000	1.000	.089	.000
23342.000	.407	1.000	1.000	.109	.000
23342.250	.378	1.000	1.000	.112	.000
23342.500	.410	1.000	1.000	.105	.000
23342.750	.441	1.000	1.000	.104	.000
23343.000	.379	1.000	1.000	.113	.000
23343.250	.378	1.000	1.000	.109	.000
23343.500	.454	1.000	1.000	.098	.000
23343.750	.468	1.000	1.000	.098	.000
23344.000	.442	1.000	1.000	.099	.000
23344.250	.416	1.000	1.000	.100	.000
23344.500	.408	1.000	1.000	.096	.000
23344.750	.499	1.000	1.000	.074	.000
23345.000	.498	1.000	1.000	.082	.000
23345.250	.284	1.000	1.000	.149	.000
23345.500	.140	1.000	1.000	.199	.000
23345.750	.117	1.000	1.000	.223	.000
23346.000	.095	1.000	1.000	.238	.000
23346.250	.063	1.000	1.000	.232	.000
23346.500	.044	1.000	1.000	.223	.000
23346.750	.067	1.000	1.000	.229	.000
23347.000	.076	1.000	1.000	.224	.000

2347.250	.079	1.000	1.000	.207	.000
2347.500	.070	1.000	1.000	.197	.000
2347.750	.138	1.000	1.000	.177	.000

1	DEPTH	VCL	BREAM #5 SX0	SW	PHI	HC.VOL
2348.000	.271	1.000	1.000	.156	.000	
2348.250	.288	1.000	1.000	.151	.000	
2348.500	.271	1.000	1.000	.142	.000	
2348.750	.287	1.000	1.000	.129	.000	
2349.000	.247	1.000	1.000	.125	.000	
2349.250	.169	1.000	1.000	.144	.000	
2349.500	.143	1.000	1.000	.184	.000	
2349.750	.118	1.000	1.000	.208	.000	
2350.000	.133	1.000	1.000	.197	.000	
2350.250	.168	1.000	1.000	.099	.000	
2350.500	.160	1.000	1.000	.007	.000	
2350.750	.138	1.000	1.000	.000	.000	
2351.000	.153	1.000	1.000	.000	.000	
2351.250	.176	1.000	1.000	.000	.000	
2351.500	.134	1.000	1.000	.000	.000	
2351.750	.139	1.000	1.000	.000	.000	
2352.000	.147	1.000	1.000	.000	.000	
2352.250	.085	1.000	1.000	.000	.000	
2352.500	.000	1.000	1.000	.000	.000	
2352.750	.000	1.000	1.000	.000	.000	
2353.000	.000	1.000	1.000	.000	.000	
2353.250	.048	1.000	1.000	.060	.000	
2353.500	.132	1.000	1.000	.000	.000	
2353.750	.111	1.000	1.000	.000	.000	
2354.000	.058	1.000	1.000	.000	.000	
2354.250	.000	1.000	1.000	.000	.000	
2354.500	.000	1.000	1.000	.000	.000	
2354.750	.000	1.000	1.000	.000	.000	
2355.000	.050	1.000	1.000	.214	.000	
2355.250	.151	1.000	1.000	.188	.000	
2355.500	.174	1.000	1.000	.120	.000	
2355.750	.213	1.000	1.000	.010	.000	
2356.000	.170	1.000	1.000	.000	.000	
2356.250	.142	1.000	1.000	.000	.000	
2356.500	.130	1.000	1.000	.000	.000	
2356.750	.102	1.000	1.000	.000	.000	
2357.000	.045	1.000	1.000	.015	.000	
2357.250	.000	1.000	1.000	.015	.000	
2357.500	.000	1.000	1.000	.015	.000	
2357.750	.016	1.000	1.000	.192	.000	
2358.000	.084	1.000	1.000	.193	.000	
2358.250	.123	1.000	1.000	.177	.000	
2358.500	.063	1.000	1.000	.178	.000	
2358.750	.000	1.000	1.000	.178	.000	
2359.000	.000	1.000	1.000	.178	.000	
2359.250	.000	1.000	1.000	.178	.000	
2359.500	.025	1.000	1.000	.154	.000	
2359.750	.042	1.000	1.000	.142	.000	
2360.000	.024	1.000	1.000	.142	.000	
2360.250	.011	1.000	1.000	.148	.000	
2360.500	.037	1.000	1.000	.144	.000	
2360.750	.059	1.000	1.000	.139	.000	
2361.000	.054	1.000	1.000	.144	.000	
2361.250	.060	1.000	1.000	.151	.000	
2361.500	.057	1.000	1.000	.153	.000	
2361.750	.044	1.000	1.000	.140	.000	

1	DEPTH	VCL	BREAM #5 SX0	SW	PHI	HC.VOL
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377.500	.440	1.000	1.000	.072	.000
377.750	.455	1.000	1.000	.077	.000
378.000	.334	1.000	1.000	.113	.000
378.250	.207	1.000	1.000	.142	.000
378.500	.186	1.000	1.000	.147	.000
378.750	.270	1.000	1.000	.136	.000
379.000	.306	1.000	1.000	.129	.000
379.250	.291	1.000	1.000	.162	.000
379.500	.149	1.000	1.000	.197	.000
379.750	.150	1.000	1.000	.196	.000
380.000	.138	1.000	1.000	.181	.000
380.250	.110	1.000	1.000	.183	.000
380.500	.117	1.000	1.000	.183	.000
380.750	.123	1.000	1.000	.183	.000
381.000	.194	1.000	1.000	.181	.000
381.250	.097	1.000	1.000	.168	.000
381.500	.116	1.000	1.000	.156	.000
381.750	.136	1.000	1.000	.145	.000
382.000	.130	1.000	1.000	.156	.000
382.250	.110	1.000	1.000	.188	.000
382.500	.102	1.000	1.000	.203	.000
382.750	.101	1.000	1.000	.203	.000
383.000	.122	1.000	1.000	.189	.000
383.250	.171	1.000	1.000	.155	.000
383.500	.233	1.000	1.000	.117	.000
383.750	.259	1.000	1.000	.111	.000
384.000	.284	1.000	1.000	.119	.000
384.250	.308	1.000	1.000	.112	.000
384.500	.247	1.000	1.000	.119	.000
384.750	.251	1.000	1.000	.134	.000
385.000	.222	1.000	1.000	.146	.000
385.250	.165	1.000	1.000	.171	.000
385.500	.104	1.000	1.000	.201	.000
385.750	.075	1.000	1.000	.203	.000
386.000	.042	1.000	1.000	.192	.000
386.250	.102	1.000	1.000	.165	.000
386.500	.000	1.000	1.000	.000	.000
386.750	.000	1.000	1.000	.000	.000
387.000	.000	1.000	1.000	.000	.000
387.250	.000	1.000	1.000	.000	.000
387.500	.000	1.000	1.000	.000	.000
387.750	.000	1.000	1.000	.000	.000
388.000	.000	1.000	1.000	.000	.000
388.250	.000	1.000	1.000	.000	.000
388.500	.000	1.000	1.000	.000	.000
388.750	.000	1.000	1.000	.000	.000
389.000	.000	1.000	1.000	.000	.000
389.250	.000	1.000	1.000	.000	.000
389.500	.000	1.000	1.000	.000	.000
389.750	.000	1.000	1.000	.000	.000

DEPTH	VCL	BREATH #5 SXO	SW	PHI	HC VOL
390.000	.000	1.000	1.000	.000	.000
390.250	.000	1.000	1.000	.000	.000
390.500	.000	1.000	1.000	.000	.000
390.750	.000	1.000	1.000	.000	.000
391.000	.000	1.000	1.000	.000	.000
391.250	.000	1.000	1.000	.000	.000
391.500	.000	1.000	1.000	.000	.000
391.750	.000	1.000	1.000	.000	.000
392.000	.000	1.000	1.000	.000	.000
392.250	.715	1.000	1.000	.002	.000
392.500	.655	1.000	1.000	.017	.000
392.750	.660	1.000	1.000	.006	.000

3393.000	.720	1.000	1.000	.000	.000
3393.250	.685	1.000	1.000	.000	.000
3393.500	.615	1.000	1.000	.032	.000
3393.750	.635	1.000	1.000	.040	.000
3394.000	.650	1.000	1.000	.058	.000
3394.250	.680	1.000	1.000	.096	.000
3394.500	.627	1.000	1.000	.115	.000
3394.750	.424	1.000	1.000	.144	.000
3395.000	.188	1.000	1.000	.189	.000
3395.250	.064	1.000	1.000	.206	.000
3395.500	.125	1.000	1.000	.185	.000
3395.750	.151	1.000	1.000	.171	.000
3396.000	.111	1.000	1.000	.172	.000
3396.250	.063	1.000	1.000	.189	.000
3396.500	.014	1.000	1.000	.210	.000
3396.750	.019	1.000	1.000	.214	.000
3397.000	.027	1.000	1.000	.216	.000
3397.250	.025	1.000	1.000	.219	.000
3397.500	.007	1.000	1.000	.227	.000
3397.750	.013	1.000	1.000	.221	.000
3398.000	.000	1.000	1.000	.221	.000
3398.250	.000	1.000	1.000	.221	.000
3398.500	.000	1.000	1.000	.221	.000
3398.750	.015	1.000	1.000	.219	.000
3399.000	.051	1.000	1.000	.207	.000
3399.250	.054	1.000	1.000	.207	.000
3399.500	.020	1.000	1.000	.204	.000
3399.750	.118	1.000	1.000	.195	.000
400.000	.130	1.000	1.000	.187	.000
400.250	.028	1.000	1.000	.194	.000
400.500	.065	.957	.957	.213	.009
400.750	.027	.990	.990	.216	.002
401.000	.043	1.000	1.000	.207	.000
401.250	.067	.991	.991	.210	.002
401.500	.051	.979	.979	.220	.005
401.750	.047	.987	.987	.226	.003
402.000	.015	.977	.977	.234	.005
402.250	.005	1.000	1.000	.234	.000
402.500	.093	1.000	1.000	.197	.000
402.750	.360	1.000	1.000	.100	.000
403.000	.660	1.000	1.000	.001	.000
403.250	.750	1.000	1.000	.001	.000
403.500	.705	1.000	1.000	.001	.000
403.750	.580	1.000	1.000	.001	.000

DEPTH	VCL	BREAK #5 SX0	SW	PHI	HC.VOL
2404.000	.974	.980	.980	.026	.001
2404.250	.303	.792	.792	.112	.023
2404.500	.353	.815	.818	.098	.018
2404.750	.969	.913	.913	.031	.003
2405.000	.972	.892	.892	.028	.003
2405.250	.974	.937	.937	.026	.002
2405.500	.981	.979	.979	.019	.000
2405.750	.975	.870	.870	.025	.003
2406.000	.439	.705	.705	.099	.029
2406.250	.308	.821	.821	.143	.026
2406.500	.095	.881	.881	.182	.022
2406.750	.035	.880	.880	.180	.022
2407.000	.122	.804	.804	.149	.029
2407.250	.147	.821	.821	.148	.027
2407.500	.077	.852	.852	.180	.026
2407.750	.036	.910	.910	.191	.017
2408.000	.085	.999	.999	.163	.000
2408.250	.169	1.000	1.000	.123	.000

2408.500	.138	1.000	1.000	.121	.000
2408.750	.190	.990	.990	.144	.002
2409.000	.280	1.000	1.000	.108	.000
2409.250	.336	1.000	1.000	.081	.000
2409.500	.258	1.000	1.000	.116	.000
2409.750	.208	1.000	1.000	.135	.000
2410.000	.167	1.000	1.000	.135	.000
2410.250	.188	1.000	1.000	.146	.000
2410.500	.174	.948	.948	.165	.009
2410.750	.180	.949	.949	.171	.009
2411.000	.160	.981	.981	.179	.003
2411.250	.092	1.000	1.000	.171	.000
2411.500	.097	1.000	1.000	.131	.000
2411.750	.114	1.000	1.000	.112	.000
2412.000	.153	.984	.984	.128	.002
2412.250	.143	.998	.998	.146	.000
2412.500	.195	1.000	1.000	.162	.000
2412.750	.118	.897	.897	.195	.020
2413.000	.050	.877	.877	.218	.027
2413.250	.050	.922	.922	.223	.017
2413.500	.101	1.000	1.000	.203	.000
2413.750	.132	1.000	1.000	.189	.000
2414.000	.000	1.000	1.000	.000	.000
2414.250	.000	1.000	1.000	.000	.000
2414.500	.000	1.000	1.000	.000	.000
2414.750	.000	1.000	1.000	.000	.000
2415.000	.000	1.000	1.000	.000	.000
2415.250	.000	1.000	1.000	.000	.000
2415.500	.000	1.000	1.000	.000	.000
2415.750	.000	1.000	1.000	.000	.000
2416.000	.000	1.000	1.000	.000	.000
2416.250	1.000	1.000	1.000	.000	.000
2416.500	.750	1.000	1.000	.000	.000
2416.750	.750	1.000	1.000	.000	.000
2417.000	.660	1.000	1.000	.000	.000
2417.250	.505	1.000	1.000	.000	.000
2417.500	.412	1.000	1.000	.000	.000
2417.750	.319	.806	.806	.099	.019

DEPTH	VCL	BREATH #5 SXD	SW	PHI	HC.VOL
2418.000	.160	.786	.786	.151	.032
2418.250	.000	.839	.839	.199	.032
2418.500	.000	.902	.902	.215	.021
2418.750	.000	.902	.902	.215	.021
2419.000	.000	.899	.899	.207	.021
2419.250	.000	.904	.904	.203	.019
2419.500	.020	.905	.905	.201	.019
2419.750	.052	.951	.951	.184	.009
2420.000	.055	.968	.968	.179	.006
2420.250	.052	.972	.972	.185	.005
2420.500	.075	.979	.979	.185	.004
2420.750	.046	.922	.922	.192	.015
2421.000	.000	.906	.906	.203	.019
2421.250	.024	.899	.899	.205	.021
2421.500	.129	.922	.922	.179	.014
2421.750	.121	.933	.933	.172	.012
2422.000	.099	.949	.949	.173	.009
2422.250	.111	.949	.949	.162	.008
2422.500	.125	.967	.967	.154	.005
2422.750	.149	.980	.980	.147	.003
2423.000	.149	.993	.993	.148	.001
2423.250	.141	.947	.947	.151	.008
2423.500	.176	.991	.991	.129	.001
2423.750	.200	1.000	1.000	.108	.000

2424.000	.153	.895	.895	.135	.014
2424.250	.095	.890	.880	.186	.022
2424.500	.138	.952	.952	.193	.009
2424.750	.109	1.000	1.000	.176	.000
2425.000	.083	1.000	1.000	.167	.000
2425.250	.056	1.000	1.000	.172	.000
2425.500	.035	.973	.973	.185	.005
2425.750	.009	.946	.946	.197	.011
2426.000	.000	.991	.991	.198	.002
2426.250	.030	1.000	1.000	.194	.000
2426.500	.062	1.000	1.000	.184	.000
2426.750	.034	1.000	1.000	.180	.000
2427.000	.049	1.000	1.000	.169	.000
2427.250	.080	1.000	1.000	.154	.000
2427.500	.149	.969	.969	.135	.004
2427.750	.217	.999	.999	.115	.000
2428.000	.219	1.000	1.000	.118	.000
2428.250	.153	.964	.964	.158	.002
2428.500	.123	.923	.923	.182	.014
2428.750	.121	.926	.926	.179	.013
2429.000	.065	.934	.934	.184	.012
2429.250	.047	.995	.995	.188	.001
2429.500	.000	1.000	1.000	.000	.000
2429.750	.000	1.000	1.000	.000	.000
2430.000	.000	1.000	1.000	.000	.000
2430.250	.000	1.000	1.000	.000	.000
2430.500	.000	1.000	1.000	.000	.000
2430.750	.000	1.000	1.000	.000	.000
2431.000	.000	1.000	1.000	.000	.000
2431.250	.000	1.000	1.000	.000	.000
2431.500	.000	1.000	1.000	.000	.000
2431.750	.000	1.000	1.000	.000	.000

DEPTH	VCL	BREAK #5 SX7	SW	PHI	HC VOL
2432.000	.000	1.000	1.000	.000	.000
2432.250	.000	1.000	1.000	.000	.000
2432.500	.000	1.000	1.000	.000	.000
2432.750	.000	1.000	1.000	.000	.000
2433.000	.000	1.000	1.000	.000	.000
2433.250	.000	1.000	1.000	.000	.000
2433.500	.000	1.000	1.000	.000	.000
2433.750	.000	1.000	1.000	.000	.000
2434.000	.000	1.000	1.000	.000	.000
2434.250	.000	1.000	1.000	.000	.000
2434.500	.000	1.000	1.000	.000	.000
2434.750	.000	1.000	1.000	.000	.000
2435.000	.000	1.000	1.000	.000	.000
2435.250	.427	.912	.912	.058	.005
2435.500	.435	1.000	1.000	.001	.000
2435.750	.430	1.000	1.000	.001	.000
2436.000	.494	1.000	1.000	.001	.000
2436.250	.452	1.000	1.000	.001	.000
2436.500	.458	1.000	1.000	.001	.000
2436.750	.407	1.000	1.000	.055	.000
2437.000	.245	.938	.938	.087	.005
2437.250	.284	.862	.862	.096	.013
2437.500	.329	.852	.852	.089	.013
2437.750	.293	.810	.810	.106	.020
2438.000	.226	.814	.814	.125	.023
2438.250	.189	.839	.839	.130	.015
2438.500	.195	.879	.879	.124	.015
2438.750	.278	.445	.945	.101	.006
2439.000	.237	.996	.996	.096	.000
2439.250	.300	.990	.990	.095	.001

2439.500	.393	1.000	1.000	.069	.000
2439.750	.456	1.000	1.000	.053	.000
2440.000	.456	1.000	1.000	.063	.000
2440.250	.403	1.000	1.000	.078	.000
2440.500	.347	1.000	1.000	.105	.000
2440.750	.265	.999	.999	.140	.000
2441.000	.187	.955	.953	.158	.008
2441.250	.158	.908	.908	.171	.016
2441.500	.204	.901	.901	.159	.015
2441.750	.249	.955	.955	.136	.006
2442.000	.219	.922	.922	.168	.013
2442.250	.153	.975	.975	.215	.005
2442.500	.096	1.000	1.000	.234	.000
2442.750	.127	.991	.991	.209	.002
2443.000	.227	1.000	1.000	.171	.000
2443.250	.189	.938	.938	.171	.011
2443.500	.133	.954	.954	.160	.007
2443.750	.243	.990	.990	.112	.001
2444.000	.425	1.000	1.000	.001	.000
2444.250	.455	1.000	1.000	.001	.000
2444.500	.390	1.000	1.000	.001	.000
2444.750	.251	1.000	1.000	.087	.000
2445.000	.316	.884	.884	.096	.011
2445.250	.951	.805	.805	.049	.010
2445.500	.953	.733	.733	.047	.012
2445.750	.951	.670	.670	.049	.016

DEPTH	VCL	BREAK MS SX0	SW	PHI	HC.VOL
2446.000	.691	.411	.411	-.109	.064
2446.250	.930	.535	.535	.070	.033
2446.500	.969	.767	.767	.031	.007
2446.750	.750	1.000	1.000	.001	.000
2447.000	.745	1.000	1.000	.001	.000
2447.250	.750	1.000	1.000	.001	.000
2447.500	.750	1.000	1.000	.001	.000
2447.750	.740	1.000	1.000	.001	.000
2448.000	.987	1.000	1.000	.013	.000
2448.250	.977	1.000	1.000	.023	.000
2448.500	.962	.925	.925	.038	.003
2448.750	.966	.878	.878	.034	.004
2449.000	.750	1.000	1.000	.001	.000
2449.250	.750	1.000	1.000	.001	.000
2449.500	.750	1.000	1.000	.001	.000
2449.750	.750	1.000	1.000	.001	.000
2450.000	.750	1.000	1.000	.001	.000
2450.250	.750	1.000	1.000	.001	.000
2450.500	.750	1.000	1.000	.001	.000
2450.750	.750	1.000	1.000	.001	.000
2451.000	.750	1.000	1.000	.001	.000
2451.250	.750	1.000	1.000	.001	.000
2451.500	.700	1.000	1.000	.001	.000
2451.750	.660	1.000	1.000	.001	.000
2452.000	.645	1.000	1.000	.001	.000
2452.250	.615	1.000	1.000	.001	.000
2452.500	.554	1.000	1.000	.001	.000
2452.750	.520	1.000	1.000	.001	.000
2453.000	.520	1.000	1.000	.001	.000
2453.250	.576	1.000	1.000	.001	.000
2453.500	.609	1.000	1.000	.001	.000
2453.750	.562	1.000	1.000	.001	.000
2454.000	.546	1.000	1.000	.001	.000
2454.250	.521	1.000	1.000	.001	.000
2454.500	.443	1.000	1.000	.001	.000
2454.750	.374	1.000	1.000	.001	.000

2455.000	.309	.954	.954	.098	.005
2455.250	.124	.913	.913	.154	.013
2455.500	.112	.967	.967	.191	.006
2455.750	.108	1.000	1.000	.197	.000
2456.000	.135	1.000	1.000	.196	.000
2456.250	.139	1.000	1.000	.197	.000
2456.500	.492	1.000	.879	.105	.013
2456.750	.974	.823	.823	.026	.005
2457.000	.750	1.000	1.000	.001	.000
2457.250	.750	1.000	1.000	.001	.000
2457.500	.750	1.000	1.000	.001	.000
2457.750	.986	.864	.864	.014	.002
2458.000	.685	1.000	1.000	.001	.000
2458.250	.614	1.000	1.000	.001	.000
2458.500	.735	1.000	1.000	.001	.000
2458.750	.750	1.000	1.000	.001	.000
2459.000	.750	1.000	1.000	.001	.000
2459.250	.511	1.000	1.000	.001	.000
2459.500	.570	1.000	1.000	.001	.000
2459.750	.585	1.000	1.000	.001	.000

DEPTH	VCL	AREA: #5 SX0	SW	PHI	HC.VOL
2460.000	.560	1.000	1.000	.001	.000
2460.250	.540	1.000	1.000	.001	.000
2460.500	.530	1.000	1.000	.001	.000
2460.750	.513	1.000	1.000	.001	.000
2461.000	.538	1.000	1.000	.001	.000
2461.250	.610	1.000	1.000	.001	.000
2461.500	.655	1.000	1.000	.001	.000
2461.750	.630	1.000	1.000	.001	.000
2462.000	.600	1.000	1.000	.001	.000
2462.250	.595	1.000	1.000	.001	.000
2462.500	.502	.395	.395	.163	.098
2462.750	.410	1.000	1.000	.001	.000
2463.000	.495	1.000	1.000	.001	.000
2463.250	.520	1.000	1.000	.001	.000
2463.500	.510	1.000	1.000	.001	.000
2463.750	.970	.955	.955	.030	.001
2464.000	.266	.724	.724	.132	.036
2464.250	.214	.713	.713	.153	.044
2464.500	.173	.734	.734	.171	.046
2464.750	.059	.732	.782	.205	.045
2465.000	.000	.843	.843	.213	.033
2465.250	.072	.902	.902	.186	.018
2465.500	.240	.935	.935	.136	.009
2465.750	.264	.896	.896	.111	.012
2466.000	.292	.838	.838	.106	.017
2466.250	.315	.901	.901	.097	.010
2466.500	.395	1.000	1.000	.075	.000
2466.750	.392	1.000	1.000	.067	.000
2467.000	.339	1.000	1.000	.077	.000
2467.250	.314	1.000	1.000	.083	.000
2467.500	.324	.975	.975	.082	.002
2467.750	.306	.933	.933	.087	.006
2468.000	.281	.879	.879	.109	.013
2468.250	.271	.804	.804	.126	.025
2468.500	.341	.750	.750	.113	.028
2468.750	.405	.606	.606	.101	.040
2469.000	.000	1.000	1.000	.000	.000
2469.250	.000	1.000	1.000	.000	.000
2469.500	.000	1.000	1.000	.000	.000
2469.750	.000	1.000	1.000	.000	.000
2470.000	.000	1.000	1.000	.000	.000
2470.250	.000	1.000	1.000	.000	.000

2470.500	.000	1.000	1.000	.000	.000
2470.750	.000	1.000	1.000	.000	.000
2471.000	.000	1.000	1.000	.000	.000
2471.250	.000	1.000	1.000	.000	.000
2471.500	.000	1.000	1.000	.000	.000
2471.750	.000	1.000	1.000	.000	.000
2472.000	.000	1.000	1.000	.000	.000
2472.250	.000	1.000	1.000	.000	.000
2472.500	.000	1.000	1.000	.000	.000
2472.750	.000	1.000	1.000	.000	.000
2473.000	.000	1.000	1.000	.000	.000
2473.250	.000	1.000	1.000	.000	.000
2473.500	.000	1.000	1.000	.000	.000
2473.750	.000	1.000	1.000	.000	.000

1	DEPTH	VCL	BREAM #5 SKO	SW	PHI	HC.VOL
2474.000	.000	1.000	1.000	.000	.000	
2474.250	.000	1.000	1.000	.000	.000	
2474.500	.000	1.000	1.000	.000	.000	
2474.750	.000	1.000	1.000	.000	.000	
2475.000	.000	1.000	1.000	.000	.000	
2475.250	.000	1.000	1.000	.000	.000	
2475.500	.000	1.000	1.000	.000	.000	
2475.750	.000	1.000	1.000	.000	.000	
2476.000	.000	1.000	1.000	.000	.000	
2476.250	.497	.421	.397	.125	.076	
2476.500	.580	.272	.272	.137	.100	
2476.750	.704	.266	.266	.127	.093	
2477.000	.516	.324	.324	.135	.091	
2477.250	.285	.397	.397	.153	.092	
2477.500	.327	.510	.510	.114	.056	
2477.750	.553	.674	.674	.050	.016	
2478.000	.988	.775	.775	.012	.003	
2478.250	.725	1.000	1.000	.001	.000	
2478.500	.750	1.000	1.000	.001	.000	
2478.750	.750	1.000	1.000	.001	.000	
2479.000	.710	1.000	1.000	.001	.000	
2479.250	.750	1.000	1.000	.001	.000	
2479.500	.000	1.000	1.000	.000	.000	
2479.750	.000	1.000	1.000	.000	.000	
2480.000	.000	1.000	1.000	.000	.000	
2480.250	.000	1.000	1.000	.000	.000	
2480.500	.000	1.000	1.000	.000	.000	
2480.750	.000	1.000	1.000	.000	.000	
2481.000	.000	1.000	1.000	.000	.000	
2481.250	.000	1.000	1.000	.000	.000	
2481.500	.000	1.000	1.000	.000	.000	
2481.750	.000	1.000	1.000	.000	.000	
2482.000	.000	1.000	1.000	.000	.000	
2482.250	.000	1.000	1.000	.000	.000	
2482.500	.000	1.000	1.000	.000	.000	
2482.750	.000	1.000	1.000	.000	.000	
2483.000	.000	1.000	1.000	.000	.000	
2483.250	.000	1.000	1.000	.000	.000	
2483.500	.000	1.000	1.000	.000	.000	
2483.750	.000	1.000	1.000	.000	.000	
2484.000	.000	1.000	1.000	.000	.000	
2484.250	.979	.724	.724	.021	.006	
2484.500	.680	1.000	1.000	.001	.000	
2484.750	.645	1.000	1.000	.001	.000	
2485.000	.680	1.000	1.000	.001	.000	
2485.250	.675	1.000	1.000	.001	.000	
2485.500	.660	1.000	1.000	.001	.000	
2485.750	.675	1.000	1.000	.001	.000	

DEPTH	VCL	BREAH SXO	SW	PHI	HC.VOL
24866.000	.695	1.000	1.000	.001	.000
24866.500	.750	1.000	1.000	.001	.000
24866.500	.969	.519	.519	.031	.015
24866.750	.980	.585	.585	.020	.008
24867.000	.964	.585	.586	.036	.015
24867.250	.372	.442	.442	.120	.067
24867.500	.231	.631	.430	.142	.081
24867.750	.190	.630	.443	.136	.076
24888.000	.186	.543	.441	.133	.074
24888.500	.149	.639	.430	.137	.078
24888.500	.202	.545	.465	.122	.065
24888.750	.000	1.000	1.000	.000	.000
24889.000	.000	1.000	1.000	.000	.000
24889.500	.000	1.000	1.000	.000	.000
24889.500	.000	1.000	1.000	.000	.000
24889.500	.000	1.000	1.000	.000	.000
24889.500	.000	1.000	1.000	.000	.000
24889.500	.675	1.000	1.000	.001	.000
24890.000	.574	1.000	1.000	.001	.000
24890.000	.534	1.000	1.000	.001	.000
24891.000	.464	.906	.906	.050	.005
24891.000	.456	.839	.839	.057	.009
24891.000	.435	.790	.790	.067	.014
24891.000	.409	.751	.751	.076	.019
24890.000	.393	.696	.696	.082	.025
24890.000	.389	.648	.648	.087	.031
24890.000	.340	.640	.640	.089	.032
24890.000	.344	.649	.649	.090	.032
24890.000	.337	.695	.695	.081	.025
24890.000	.333	.728	.728	.073	.020
24890.000	.339	.645	.645	.091	.032
24890.000	.316	.575	.575	.104	.044
24890.000	.373	.527	.527	.119	.056
24890.000	.331	.517	.517	.119	.057
24894.000	.316	.529	.528	.098	.040
24894.000	.303	.617	.580	.094	.039
24895.000	.384	.510	.591	.114	.057
24895.000	.137	.503	.459	.139	.089
24895.000	.145	.514	.361	.141	.090
24895.000	.133	.527	.472	.129	.068
24896.000	.217	.665	.442	.113	.063
24896.000	.206	.700	.474	.109	.057
24896.000	.282	.726	.494	.114	.058
24896.000	.276	.781	.501	.112	.056
24897.000	.227	.593	.593	.114	.046
24897.000	.249	.607	.565	.129	.056
24897.000	.230	.628	.628	.137	.051
24897.000	.186	.676	.676	.143	.046
24898.000	.125	.709	.709	.156	.045
24898.000	.000	.737	.737	.183	.048
24898.000	.000	.744	.743	.192	.049
24898.000	.046	.784	.784	.183	.040
24899.000	.051	.812	.812	.177	.033
24899.000	.044	.850	.850	.178	.027
24899.000	.071	.903	.903	.191	.018
24899.000	.098	.906	.837	.198	.032
2500.000	.000	1.000	1.000	.000	.000
2500.000	.000	1.000	1.000	.000	.000
2500.000	.000	1.000	1.000	.000	.000
2500.000	.000	1.000	1.000	.000	.000
2501.000	.000	1.000	1.000	.000	.000
2501.000	.000	1.000	1.000	.000	.000

DEPTH	VCL	BREAM #5 SXD	SW	PHI	HC.VOL
2501.500	.000	1.000	1.000	.000	.000
2501.750	.000	1.000	1.000	.000	.000
1					
2502.000	.000	1.000	1.000	.000	.000
2502.250	.000	1.000	1.000	.000	.000
2502.500	.000	1.000	1.000	.000	.000
2502.750	.000	1.000	1.000	.000	.000
2503.000	.000	1.000	1.000	.000	.000
2503.250	.000	1.000	1.000	.000	.000
2503.500	.000	1.000	1.000	.000	.000
2503.750	.000	1.000	1.000	.000	.000
2504.000	.000	1.000	1.000	.000	.000
2504.250	.000	1.000	1.000	.001	.000
2504.500	.000	1.000	1.000	.001	.000
2504.750	.000	1.000	1.000	.001	.000
2505.000	.000	1.000	1.000	.001	.000
2505.250	.306	.825	.823	.099	.018
2505.500	.086	.827	.827	.166	.029
2505.750	.044	.817	.817	.178	.033
2506.000	.114	.848	.848	.151	.023
2506.250	.131	.831	.881	.144	.017
2506.500	.044	.834	.834	.171	.028
2506.750	.000	.755	.755	.191	.047
2507.000	.000	.752	.752	.187	.046
2507.250	.000	.780	.780	.171	.038
2507.500	.000	.792	.792	.162	.034
2507.750	.000	.812	.812	.156	.029
2508.000	.000	.800	.800	.160	.032
2508.250	.000	.806	.806	.164	.032
2508.500	.000	.825	.825	.158	.028
2508.750	.000	.801	.801	.137	.027
2509.000	.000	1.000	1.000	.000	.000
2509.250	.000	1.000	1.000	.000	.000
2509.500	.000	1.000	1.000	.000	.000
2509.750	.000	1.000	1.000	.000	.000
2510.000	.000	1.000	1.000	.000	.000
2510.250	.000	1.000	1.000	.000	.000
2510.500	.000	1.000	1.000	.000	.000
2510.750	.000	1.000	1.000	.000	.000
2511.000	.000	1.000	1.000	.000	.000
2511.250	.947	.500	.500	.053	.026
2511.500	.506	.512	.512	.076	.037
2511.750	.419	.570	.570	.073	.031
2512.000	.288	.556	.556	.092	.041
2512.250	.137	.444	.444	.142	.079
2512.500	.197	.430	.430	.166	.094
2512.750	.184	.439	.439	.178	.091
2513.000	.000	.574	.574	.205	.087
2513.250	.000	.674	.674	.201	.066
2513.500	.020	.745	.717	.188	.053
2513.750	.099	.670	.670	.179	.059
2514.000	.039	.656	.656	.165	.057
2514.250	.068	.743	.743	.154	.040
2514.500	.090	.825	.794	.152	.031
2514.750	.051	.764	.764	.160	.038
2515.000	.103	.739	.711	.148	.043
2515.250	.311	.678	.678	.113	.036
2515.500	.435	.716	.716	.098	.028
2515.750	.330	.829	.829	.105	.018
1					
DEPTH	VCL	BREAM #5 SXD	SW	PHI	HC.VOL
2516.000	.285	.918	.918	.106	.009

1	1.997	1.803	1.803	1.131	1.026
2	1.133	1.733	1.733	1.158	1.042
3	1.073	1.693	1.693	1.172	1.053
4	1.145	1.725	1.725	1.153	1.042
5	1.177	1.737	1.737	1.133	1.036
6	1.117	1.751	1.751	1.133	1.032
7	1.117	1.808	1.808	1.127	1.024
8	1.117	1.858	1.858	1.119	1.017
9	1.117	1.878	1.878	1.117	1.028
10	1.117	1.814	1.814	1.137	1.026
11	1.152	1.729	1.729	1.177	1.048
12	1.104	1.710	1.710	1.215	1.062
13	1.104	1.649	1.649	1.216	1.089
14	1.000	1.000	1.000	1.000	1.000
15	1.000	1.000	1.000	1.000	1.000
16	1.000	1.000	1.000	1.000	1.000
17	1.000	1.000	1.000	1.000	1.000
18	1.000	1.000	1.000	1.000	1.000
19	1.000	1.000	1.000	1.000	1.000
20	1.000	1.000	1.000	1.000	1.000
21	1.000	1.000	1.000	1.000	1.000
22	1.000	1.000	1.000	1.000	1.000
23	1.000	1.000	1.000	1.000	1.000
24	1.000	1.000	1.000	1.000	1.000
25	1.000	1.000	1.000	1.000	1.000
26	1.000	1.000	1.000	1.000	1.000
27	1.000	1.000	1.000	1.000	1.000
28	1.000	1.000	1.000	1.000	1.000
29	1.000	1.000	1.000	1.000	1.000
30	1.000	1.000	1.000	1.000	1.000
31	1.000	1.000	1.000	1.000	1.000
32	1.000	1.000	1.000	1.000	1.000
33	1.000	1.000	1.000	1.000	1.000
34	1.000	1.000	1.000	1.000	1.000
35	1.000	1.000	1.000	1.000	1.000
36	1.000	1.000	1.000	1.000	1.000
37	1.000	1.000	1.000	1.000	1.000
38	1.000	1.000	1.000	1.000	1.000
39	1.000	1.000	1.000	1.000	1.000
40	1.000	1.000	1.000	1.000	1.000
41	1.000	1.000	1.000	1.000	1.000
42	1.000	1.000	1.000	1.000	1.000
43	1.000	1.000	1.000	1.000	1.000
44	1.000	1.000	1.000	1.000	1.000
45	1.000	1.000	1.000	1.000	1.000
46	1.000	1.000	1.000	1.000	1.000
47	1.000	1.000	1.000	1.000	1.000
48	1.000	1.000	1.000	1.000	1.000
49	1.000	1.000	1.000	1.000	1.000
50	1.000	1.000	1.000	1.000	1.000
51	1.000	1.000	1.000	1.000	1.000
52	1.000	1.000	1.000	1.000	1.000
53	1.000	1.000	1.000	1.000	1.000
54	1.000	1.000	1.000	1.000	1.000
55	1.000	1.000	1.000	1.000	1.000
56	1.000	1.000	1.000	1.000	1.000
57	1.000	1.000	1.000	1.000	1.000
58	1.000	1.000	1.000	1.000	1.000
59	1.000	1.000	1.000	1.000	1.000
60	1.000	1.000	1.000	1.000	1.000
61	1.000	1.000	1.000	1.000	1.000
62	1.000	1.000	1.000	1.000	1.000
63	1.000	1.000	1.000	1.000	1.000
64	1.000	1.000	1.000	1.000	1.000
65	1.000	1.000	1.000	1.000	1.000
66	1.000	1.000	1.000	1.000	1.000
67	1.000	1.000	1.000	1.000	1.000
68	1.000	1.000	1.000	1.000	1.000
69	1.000	1.000	1.000	1.000	1.000
70	1.000	1.000	1.000	1.000	1.000
71	1.000	1.000	1.000	1.000	1.000
72	1.000	1.000	1.000	1.000	1.000
73	1.000	1.000	1.000	1.000	1.000
74	1.000	1.000	1.000	1.000	1.000
75	1.000	1.000	1.000	1.000	1.000
76	1.000	1.000	1.000	1.000	1.000
77	1.000	1.000	1.000	1.000	1.000
78	1.000	1.000	1.000	1.000	1.000
79	1.000	1.000	1.000	1.000	1.000
80	1.000	1.000	1.000	1.000	1.000
81	1.000	1.000	1.000	1.000	1.000
82	1.000	1.000	1.000	1.000	1.000
83	1.000	1.000	1.000	1.000	1.000
84	1.000	1.000	1.000	1.000	1.000
85	1.000	1.000	1.000	1.000	1.000
86	1.000	1.000	1.000	1.000	1.000
87	1.000	1.000	1.000	1.000	1.000
88	1.000	1.000	1.000	1.000	1.000
89	1.000	1.000	1.000	1.000	1.000
90	1.000	1.000	1.000	1.000	1.000
91	1.000	1.000	1.000	1.000	1.000
92	1.000	1.000	1.000	1.000	1.000
93	1.000	1.000	1.000	1.000	1.000
94	1.000	1.000	1.000	1.000	1.000
95	1.000	1.000	1.000	1.000	1.000
96	1.000	1.000	1.000	1.000	1.000
97	1.000	1.000	1.000	1.000	1.000
98	1.000	1.000	1.000	1.000	1.000
99	1.000	1.000	1.000	1.000	1.000
100	1.000	1.000	1.000	1.000	1.000

DEPTH	VCL	BREAK #5 SXO	SW	PHI	HC.VOL
230.000	.968	.774	.774	.032	.007
230.250	.976	.775	.775	.022	.005
230.500	.000	1.000	1.000	.001	.000
230.750	.042	.595	.595	.037	.015
231.000	.000	1.000	1.000	.001	.000
231.250	.000	1.000	1.000	.001	.000
231.500	.000	1.000	1.000	.001	.000
231.750	.000	1.000	1.000	.001	.000

2						
3	1.750	.000	1.000	1.000	.001	.000
4	.000	.000	1.000	1.000	.001	.000
5	.000	.000	.608	.608	.025	.010
6	.000	.000	.632	.632	.017	.006
7	.000	1.000	1.000	1.000	.001	.000
8	.000	1.000	1.000	1.000	.001	.000
9	.000	1.000	1.000	1.000	.001	.000
10	.000	.987	.590	.590	.013	.005
11	.000	.982	.572	.572	.018	.008
12	.000	1.000	1.000	1.000	.001	.000
13	.000	1.000	1.000	1.000	.001	.000
14	.000	.401	.727	.727	.066	.018
15	.000	.385	.758	.758	.071	.017
16	.000	.379	.855	.855	.067	.008
17	.000	.263	.854	.854	.093	.012
18	.000	.272	.854	.854	.091	.013
19	.000	.285	.824	.824	.088	.015
20	.000	.200	.789	.789	.100	.021
21	.000	.203	.882	.882	.099	.012
22	.000	.288	.938	.938	.074	.005
23	.000	.360	1.000	1.000	.050	.000
24	.000	.341	1.000	1.000	.059	.000
25	.000	.284	1.000	1.000	.091	.000
26	.000	.273	1.000	1.000	.102	.000
27	.000	.209	.998	.998	.119	.000
28	.000	.075	.884	.884	.156	.018
29	.000	.045	.890	.890	.161	.018
30	.000	.090	.902	.902	.146	.014
31	.000	.097	.902	.902	.135	.013
32	.000	.131	.936	.936	.119	.008
33	.000	1.000	1.000	1.000	.000	.000
34	.000	1.000	1.000	1.000	.000	.000
35	.000	1.000	1.000	1.000	.000	.000
36	.000	1.000	1.000	1.000	.000	.000
37	.000	1.000	1.000	1.000	.000	.000
38	.000	1.000	1.000	1.000	.000	.000
39	.000	1.000	1.000	1.000	.000	.000
40	.000	1.000	1.000	1.000	.000	.000
41	.000	1.000	1.000	1.000	.000	.000
42	.000	1.000	1.000	1.000	.000	.000
43	.000	1.000	1.000	1.000	.000	.000
44	.000	1.000	1.000	1.000	.000	.000
45	.000	1.000	1.000	1.000	.000	.000
46	.000	1.000	1.000	1.000	.000	.000
47	.000	1.000	1.000	1.000	.000	.000
48	.000	1.000	1.000	1.000	.000	.000
49	.000	1.000	1.000	1.000	.000	.000
50	.000	1.000	1.000	1.000	.000	.000
51	.000	1.000	1.000	1.000	.000	.000
52	.000	1.000	1.000	1.000	.000	.000
53	.000	1.000	1.000	1.000	.000	.000
54	.000	1.000	1.000	1.000	.000	.000
55	.000	1.000	1.000	1.000	.000	.000
56	.000	1.000	1.000	1.000	.000	.000
57	.000	1.000	1.000	1.000	.000	.000
58	.000	1.000	1.000	1.000	.000	.000
59	.000	1.000	1.000	1.000	.000	.000
60	.000	1.000	1.000	1.000	.000	.000
61	.000	1.000	1.000	1.000	.000	.000
62	.000	1.000	1.000	1.000	.000	.000
63	.000	1.000	1.000	1.000	.000	.000
64	.000	1.000	1.000	1.000	.000	.000
65	.000	1.000	1.000	1.000	.000	.000
66	.000	1.000	1.000	1.000	.000	.000
67	.000	1.000	1.000	1.000	.000	.000
68	.000	1.000	1.000	1.000	.000	.000
69	.000	1.000	1.000	1.000	.000	.000
70	.000	1.000	1.000	1.000	.000	.000
71	.000	1.000	1.000	1.000	.000	.000
72	.000	1.000	1.000	1.000	.000	.000
73	.000	1.000	1.000	1.000	.000	.000
74	.000	1.000	1.000	1.000	.000	.000
75	.000	1.000	1.000	1.000	.000	.000
76	.000	1.000	1.000	1.000	.000	.000
77	.000	1.000	1.000	1.000	.000	.000
78	.000	1.000	1.000	1.000	.000	.000
79	.000	1.000	1.000	1.000	.000	.000
80	.000	1.000	1.000	1.000	.000	.000
81	.000	1.000	1.000	1.000	.000	.000
82	.000	1.000	1.000	1.000	.000	.000
83	.000	1.000	1.000	1.000	.000	.000
84	.000	1.000	1.000	1.000	.000	.000
85	.000	1.000	1.000	1.000	.000	.000
86	.000	1.000	1.000	1.000	.000	.000
87	.000	1.000	1.000	1.000	.000	.000
88	.000	1.000	1.000	1.000	.000	.000
89	.000	1.000	1.000	1.000	.000	.000
90	.000	1.000	1.000	1.000	.000	.000
91	.000	1.000	1.000	1.000	.000	.000
92	.000	1.000	1.000	1.000	.000	.000
93	.000	1.000	1.000	1.000	.000	.000
94	.000	1.000	1.000	1.000	.000	.000
95	.000	1.000	1.000	1.000	.000	.000
96	.000	1.000	1.000	1.000	.000	.000
97	.000	1.000	1.000	1.000	.000	.000
98	.000	1.000	1.000	1.000	.000	.000
99	.000	1.000	1.000	1.000	.000	.000
100	.000	1.000	1.000	1.000	.000	.000

DEPTH	VCL	BREAK #5 SXD	SW	PHI	HC.VOL
44.000	.000	1.000	1.000	.000	.000
44.250	.000	1.000	1.000	.000	.000
44.500	.000	1.000	1.000	.000	.000
44.750	.000	1.000	1.000	.000	.000
45.000	.000	1.000	1.000	.000	.000
45.250	.000	1.000	1.000	.000	.000
45.500	.000	1.000	1.000	.000	.000
45.750	.000	1.000	1.000	.000	.000
46.000	.000	1.000	1.000	.000	.000
46.250	.000	1.000	1.000	.000	.000
46.500	.000	1.000	1.000	.000	.000
46.750	.000	1.000	1.000	.000	.000
47.000	.000	1.000	1.000	.000	.000

2547.250	.000	1.000	1.000	.000	.000
2547.500	.000	1.000	1.000	.000	.000
2547.750	.000	1.000	1.000	.000	.000
2548.000	.000	1.000	1.000	.000	.000
2548.250	.000	1.000	1.000	.000	.000
2548.500	.000	1.000	1.000	.000	.000
2548.750	.000	1.000	1.000	.000	.000
2549.000	.000	1.000	1.000	.000	.000
2549.250	.000	1.000	1.000	.001	.000
2549.500	.000	1.000	1.000	.001	.000
2549.750	.000	1.000	1.000	.001	.000
2550.000	.000	1.000	1.000	.001	.000
2550.250	.000	1.000	1.000	.001	.000
2550.500	.000	1.000	1.000	.001	.000
2550.750	.000	1.000	1.000	.001	.000
2551.000	.989	.848	.848	.011	.002
2551.250	.000	1.000	1.000	.001	.000
2551.500	.000	1.000	1.000	.001	.000
2551.750	.000	1.000	1.000	.001	.000
2552.000	.000	1.000	1.000	.001	.000
2552.250	.000	1.000	1.000	.001	.000
2552.500	.000	1.000	1.000	.001	.000
2552.750	.000	1.000	1.000	.001	.000
2553.000	.000	1.000	1.000	.001	.000
2553.250	.000	1.000	1.000	.001	.000
2553.500	.000	1.000	1.000	.001	.000
2553.750	.000	1.000	1.000	.001	.000
2554.000	.000	1.000	1.000	.000	.000
2554.250	.000	1.000	1.000	.000	.000
2554.500	.862	.172	.172	.000	.000
2554.750	.000	1.000	1.000	.000	.000
2555.000	.000	.666	.666	.000	.000
2555.250	.000	1.000	1.000	.001	.000
2555.500	.000	.463	.463	.065	.035
2555.750	.000	1.000	1.000	.001	.000
2556.000	.000	1.000	1.000	.001	.000
2556.250	.000	1.000	1.000	.001	.000
2556.500	.341	.640	.571	.083	.036
2556.750	.290	.700	.506	.101	.050
2557.000	.250	.707	.457	.115	.062
2557.250	.252	.602	.432	.112	.064
2557.500	.175	.745	.368	.111	.070
2557.750	.172	.561	.351	.115	.075

DEPTH	VCL	BREAK #5 SX0	SW	PHI	HC.VOL
2558.000	.144	.541	.338	.132	.088
2558.250	.139	.640	.420	.109	.063
2558.500	.069	1.000	.512	.103	.050
2558.750	.091	.830	.488	.121	.062
2559.000	.094	.950	.590	.106	.044
2559.250	.260	1.000	.808	.060	.012
2559.500	.321	.919	.718	.057	.016
2559.750	.325	.854	.706	.059	.017
2560.000	.260	.880	.730	.063	.017
2560.250	.244	.746	.786	.076	.016
2560.500	.271	.828	.823	.071	.013
2560.750	.317	1.000	1.000	.037	.000
2561.000	.323	1.000	1.000	.033	.000
2561.250	.286	.934	.934	.057	.004
2561.500	.263	1.000	.833	.067	.011
2561.750	.215	.828	.652	.093	.032
2562.000	.174	.517	.421	.133	.077
2562.250	.141	.543	.465	.126	.068
2562.500	.263	1.000	.953	.048	.002

2562.750	.000	1.000	1.000	.001	.000
2563.000	.000	1.000	1.000	.001	.000
2563.250	.000	1.000	1.000	.001	.000
2563.500	.000	1.000	1.000	.001	.000
2563.750	.000	1.000	1.000	.001	.000
2564.000	.000	1.000	1.000	.001	.000
2564.250	.000	1.000	1.000	.001	.000
2564.500	.000	1.000	1.000	.001	.000
2564.750	.000	1.000	1.000	.001	.000
2565.000	.000	1.000	1.000	.001	.000
2565.250	.000	1.000	1.000	.001	.000
2565.500	.000	1.520	1.520	.042	.020
2565.750	.000	1.000	1.000	.001	.000
2566.000	.000	1.000	1.000	.001	.000
2566.250	.000	1.000	1.000	.001	.000
2566.500	.000	1.000	1.000	.001	.000
2566.750	.000	1.000	1.000	.001	.000
2567.000	.000	1.000	1.000	.001	.000
2567.250	.000	.913	.913	.020	.002
2567.500	.000	1.000	1.000	.001	.000
2567.750	.254	.772	.772	.111	.025
2568.000	.118	.665	.665	.166	.056
2568.250	.000	.633	.633	.197	.072
2568.500	.078	.703	.703	.162	.048
2568.750	.208	.799	.799	.122	.025
2569.000	.227	.844	.844	.115	.018
2569.250	.255	.866	.866	.110	.014
2569.500	.262	.903	.903	.104	.010
2569.750	.280	1.000	1.000	.090	.000
2570.000	.279	.953	.953	.097	.005
2570.250	.203	.837	.837	.136	.022
2570.500	.115	.812	.812	.168	.032
2570.750	.056	.849	.849	.180	.027
2571.000	.000	1.000	1.000	.000	.000
2571.250	.000	1.000	1.000	.000	.000
2571.500	.000	1.000	1.000	.000	.000
2571.750	.000	1.000	1.000	.000	.000

DEPTH	VCL	BREATH #5 SXO	SW	PHI	HC.VOL
2572.000	.000	1.000	1.000	.000	.000
2572.250	.000	1.000	1.000	.000	.000
2572.500	.000	1.000	1.000	.000	.000
2572.750	.000	1.000	1.000	.000	.000
2573.000	.000	1.000	1.000	.000	.000
2573.250	.000	1.000	1.000	.000	.000
2573.500	.000	1.000	1.000	.000	.000
2573.750	.000	1.000	1.000	.000	.000
2574.000	.000	1.000	1.000	.000	.000
2574.250	.000	1.000	1.000	.000	.000
2574.500	.000	1.000	1.000	.000	.000
2574.750	.000	1.000	1.000	.000	.000
2575.000	.000	1.000	1.000	.000	.000
2575.250	.000	1.000	1.000	.000	.000
2575.500	.000	1.000	1.000	.000	.000
2575.750	.000	1.000	1.000	.000	.000
2576.000	.000	1.000	1.000	.000	.000
2576.250	.000	1.000	1.000	.000	.000
2576.500	.000	1.000	1.000	.000	.000
2576.750	.000	1.000	1.000	.000	.000
2577.000	.000	1.000	1.000	.000	.000
2577.250	.000	1.000	1.000	.000	.000
2577.500	.000	1.000	1.000	.000	.000
2577.750	.000	1.000	1.000	.000	.000
2578.000	.000	1.000	1.000	.000	.000

2578.250	.000	1.000	1.000	.000	.000
2578.500	.000	1.000	1.000	.000	.000
2578.750	.000	1.000	1.000	.000	.000
2579.000	.000	1.000	1.000	.000	.000
2579.250	.000	1.000	1.000	.000	.000
2579.500	.000	1.000	1.000	.000	.000
2579.750	.000	1.000	1.000	.000	.000
2580.000	.000	1.000	1.000	.000	.000
2580.250	.278	.600	.600	.043	.017
2580.500	.733	.290	.290	.159	.113
2580.750	.000	1.000	1.000	.001	.000
2581.000	.000	1.000	1.000	.001	.000
2581.250	.000	1.000	1.000	.001	.000
2581.500	.000	1.000	1.000	.001	.000
2581.750	.000	.619	.619	.028	.011
2582.000	.030	.556	.556	.048	.021
2582.250	.000	1.000	1.000	.001	.000
2582.500	.252	.675	.675	.090	.029
2582.750	.241	.704	.704	.086	.025
2583.000	.241	.694	.694	.092	.028
2583.250	.164	.692	.692	.110	.034
2583.500	.079	.678	.678	.133	.043
2583.750	.008	.697	.697	.160	.048
2584.000	.021	.693	.693	.169	.052
2584.250	.054	.675	.675	.169	.055
2584.500	.047	.699	.699	.172	.052
2584.750	.039	.807	.807	.170	.033
2585.000	.000	.843	.848	.177	.027
2585.250	.000	.861	.861	.181	.025
2585.500	.032	.871	.871	.171	.022
2585.750	.052	.820	.820	.159	.029

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DEPTH	VCL	BREAM SxH	SW	PHI	HC.VOL
2586.000	.000	1.000	1.000	.000	.000
2586.250	.000	1.000	1.000	.000	.000
2586.500	.000	1.000	1.000	.000	.000
2586.750	.000	1.000	1.000	.000	.000
2587.000	.000	1.000	1.000	.000	.000
2587.250	.000	1.000	1.000	.000	.000
2587.500	.000	1.000	1.000	.000	.000
2588.000	.988	.799	.799	.012	.002
2588.250	.000	1.000	1.000	.001	.000
2588.500	.000	1.000	1.000	.001	.000
2588.750	.000	1.000	1.000	.001	.000
2589.000	.911	.681	.681	.089	.029
2589.250	.723	.815	.815	.109	.020
2589.500	.270	.858	.888	.164	.018
2589.750	.000	.823	.819	.200	.036
2590.000	.000	.772	.765	.212	.050
2590.250	.000	.770	.753	.219	.054
2590.500	.000	.805	.805	.220	.043
2590.750	.000	.857	.740	.212	.055
2591.000	.008	.753	.753	.207	.051
2591.250	.000	.701	.701	.215	.064
2591.500	.000	.764	.764	.224	.053
2591.750	.000	.802	.802	.223	.044
2592.000	.077	.852	.852	.202	.030
2592.250	.091	.881	.881	.200	.024
2592.500	.056	.922	.838	.217	.035
2592.750	.075	1.000	.835	.194	.032
2593.000	.127	.880	.880	.172	.021
2593.250	.151	.871	.871	.176	.023
2593.500	.178	.990	.907	.177	.017

DEPTH	VCL	BREAM SXO #5	SW	PHI	HC.VOL
6000	.330	.954	.954	.098	.004
6000	.172	.824	.824	.144	.025
6000	.084	.665	.805	.173	.034
6000	.020	.788	.788	.189	.040
6001	.042	.621	.821	.175	.031
6001	.142	.887	.887	.140	.016
6001	.164	.860	.860	.134	.019
6001	.119	.779	.779	.151	.033
6002	.071	.756	.760	.166	.040
6002	.048	.756	.756	.175	.043
6002	.121	.741	.741	.163	.042
6002	.127	.757	.757	.156	.038
6003	.090	.796	.796	.167	.034
6003	.112	.819	.819	.172	.031
6003	.120	.830	.830	.169	.029
6003	.071	.785	.785	.176	.038
6004	.013	.720	.720	.187	.052
6004	.064	.766	.766	.168	.039
6004	.157	.865	.865	.144	.017
6004	.332	.970	.970	.125	.004
6005	1.000	1.000	1.000	.103	.000
6005	.310	1.000	1.000	.112	.000
6005	.326	1.000	1.000	.124	.000
6005	.311	1.000	1.000	.124	.000
6005	.227	1.000	1.000	.143	.000
6006	.170	1.000	1.000	.158	.000
6006	.191	1.000	1.000	.149	.000
6006	.219	1.000	1.000	.130	.000
6006	.254	1.000	1.000	.104	.000
6007	.214	1.000	1.000	.113	.000
6007	.175	1.000	1.000	.136	.000
6007	.112	.995	.995	.161	.001
6007	.113	.929	.929	.175	.012
6008	.133	.961	.961	.170	.007
6008	.172	1.000	1.000	.150	.000
6008	.161	1.000	1.000	.143	.000
6008	.176	1.000	1.000	.141	.000
6009	.170	.997	.997	.140	.000

2609.250	.153	1.000	1.000	.137	.000
2609.500	.146	1.000	1.000	.140	.000
2609.750	.123	.969	.969	.154	.005
2610.000	.122	.950	.956	.157	.007
2610.250	.152	1.000	1.000	.133	.000
2610.500	.260	1.000	1.000	.111	.000
2610.750	.632	.965	.965	.065	.002
2611.000	.000	1.000	1.000	.001	.000
2611.250	.000	1.000	1.000	.001	.000
2611.500	.000	1.000	1.000	.001	.000
2611.750	.964	.959	.959	.036	.001
2612.000	.278	.854	.854	.122	.018
2612.250	.972	1.000	1.000	.028	.000
2612.500	.208	.857	.857	.133	.019
2612.750	.098	.733	.733	.173	.046
2613.000	.045	.750	.760	.180	.043
2613.250	.071	.804	.804	.169	.033
2613.500	.094	.836	.836	.161	.026
2613.750	.204	.897	.897	.128	.013

1	DEPTH	VCL	BREA #5 SXD	SW	PHI	HC.VOL
2614.000	.297	1.000	1.000	.094	.000	
2614.250	.324	1.000	1.000	.088	.000	
2614.500	.274	.986	.986	.113	.002	
2614.750	.189	.907	.907	.145	.014	
2615.000	.107	.846	.846	.170	.026	
2615.250	.033	.814	.814	.193	.036	
2615.500	.011	.837	.837	.201	.033	
2615.750	.096	.915	.915	.182	.016	
2616.000	.000	1.000	1.000	.001	.000	
2616.250	.000	1.000	1.000	.001	.000	
2616.500	.000	1.000	1.000	.001	.000	
2616.750	.955	1.000	1.000	.045	.000	
2617.000	.961	1.000	1.000	.039	.000	
2617.250	.990	1.000	1.000	.010	.000	
2617.500	.000	1.000	1.000	.001	.000	
2617.750	.286	.602	.602	.072	.029	
2618.000	.603	.592	.592	.072	.029	
2618.250	.060	1.000	1.000	.001	.000	
2618.500	.969	.965	.965	.031	.001	
2618.750	.140	.785	.785	.154	.033	
2619.000	.102	.839	.839	.183	.029	
2619.250	.119	.863	.863	.175	.024	
2619.500	.185	.901	.901	.152	.015	
2619.750	.160	.906	.906	.166	.016	
2620.000	.078	.887	.887	.186	.021	
2620.250	.046	.897	.897	.180	.019	
2620.500	.021	.846	.846	.186	.029	
2620.750	.060	.860	.860	.197	.028	
2621.000	.060	.940	.940	.196	.012	
2621.250	.000	1.000	1.000	.000	.000	
2621.500	.000	1.000	1.000	.000	.000	
2621.750	.000	1.000	1.000	.000	.000	
2622.000	.000	1.000	1.000	.000	.000	
2622.250	.000	1.000	1.000	.000	.000	
2622.500	.000	1.000	1.000	.000	.000	
2622.750	.000	1.000	1.000	.000	.000	
2623.000	.000	1.000	1.000	.000	.000	
2623.250	.000	1.000	1.000	.001	.000	
2623.500	.000	1.000	1.000	.001	.000	
2623.750	.000	1.000	1.000	.001	.000	
2624.000	.000	1.000	1.000	.001	.000	
2624.250	.000	1.000	1.000	.001	.000	
2624.500	.000	1.000	1.000	.001	.000	

2624.750	.000	1.000	1.000	.001	.000
2625.000	.000	1.000	1.000	.001	.000
2625.250	.000	1.000	1.000	.001	.000
2625.500	.000	1.000	1.000	.001	.000
2625.750	.305	1.000	1.000	.088	.000
2626.000	.059	.884	.884	.161	.019
2626.250	.000	.855	.855	.181	.026
2626.500	.000	.872	.872	.170	.022
2626.750	.000	.837	.837	.164	.027
2627.000	.053	.878	.878	.153	.019
2627.250	.069	.941	.941	.149	.009
2627.500	.245	1.000	1.000	.107	.000
2627.750	.000	.861	.861	.034	.005

1 DEPTH VCL BREAM #5 SW PHI HC.VOL
SX0

2628.000	.000	1.000	1.000	.001	.000
2628.250	.000	1.000	1.000	.001	.000
2628.500	.000	1.000	1.000	.001	.000
2628.750	.000	1.000	1.000	.001	.000
2629.000	.000	1.000	1.000	.000	.000
2629.250	.000	1.000	1.000	.000	.000
2629.500	.000	1.000	1.000	.000	.000
2629.750	.000	1.000	1.000	.000	.000
2630.000	.000	1.000	1.000	.000	.000
2630.250	.000	1.000	1.000	.000	.000
2630.500	.000	1.000	1.000	.000	.000
2630.750	.000	1.000	1.000	.000	.000
2631.000	.000	1.000	1.000	.000	.000
2631.250	.000	1.000	1.000	.000	.000
2631.500	.000	1.000	1.000	.000	.000
2631.750	.000	1.000	1.000	.000	.000
2632.000	.000	1.000	1.000	.000	.000
2632.250	.000	1.000	1.000	.000	.000
2632.500	.000	1.000	1.000	.000	.000
2632.750	.000	1.000	1.000	.000	.000
2633.000	.000	1.000	1.000	.000	.000
2633.250	.000	1.000	1.000	.000	.000
2633.500	.000	1.000	1.000	.000	.000
2633.750	.000	1.000	1.000	.000	.000
2634.000	.000	1.000	1.000	.000	.000
2634.250	.000	1.000	1.000	.000	.000
2634.500	.000	1.000	1.000	.000	.000
2634.750	.000	1.000	1.000	.000	.000
2635.000	.000	1.000	1.000	.000	.000
2635.250	.000	1.000	1.000	.000	.000
2635.500	.000	1.000	1.000	.000	.000
2635.750	.000	1.000	1.000	.000	.000
2636.000	.000	1.000	1.000	.000	.000
2636.250	.000	1.000	1.000	.000	.000
2636.500	.000	1.000	1.000	.000	.000
2636.750	.000	1.000	1.000	.000	.000
2637.000	.000	1.000	1.000	.000	.000
2637.250	.000	1.000	1.000	.000	.000
2637.500	.000	1.000	1.000	.000	.000
2637.750	.000	1.000	1.000	.000	.000
2638.000	.000	1.000	1.000	.000	.000
2638.250	.000	1.000	1.000	.000	.000
2638.500	.000	1.000	1.000	.000	.000
2638.750	.000	1.000	1.000	.000	.000
2639.000	.000	1.000	1.000	.000	.000
2639.250	.000	1.000	1.000	.000	.000
2639.500	.000	1.000	1.000	.000	.000
2639.750	.000	1.000	1.000	.000	.000
2640.000	.000	1.000	1.000	.000	.000

2637.000	.837	.253	.253	.163	.122
2637.250	.835	.241	.241	.165	.125
2637.500	.859	.268	.268	.141	.103
2637.750	.932	.396	.396	.068	.041
2638.000	.000	1.000	1.000	.001	.000
2638.250	.983	.745	.745	.017	.004
2638.500	.982	.847	.847	.018	.003
2638.750	.000	1.000	1.000	.001	.000
2639.000	.000	1.000	1.000	.001	.000
2639.250	.000	1.000	1.000	.001	.000
2639.500	.000	1.000	1.000	.001	.000
2639.750	.000	1.000	1.000	.001	.000
2640.000	.000	1.000	1.000	.001	.000

1	DEPTH	VCL	BREAM #5 SXO	SW	PHI	HC.VOL
2655.750	.000	1.000	1.000	.000	.000	
2656.000	.000	1.000	1.000	.000	.000	
2656.250	.000	1.000	1.000	.000	.000	
2656.500	.000	1.000	1.000	.000	.000	
2656.750	.000	1.000	1.000	.000	.000	
2657.000	.000	1.000	1.000	.000	.000	
2657.250	.000	1.000	1.000	.001	.000	
2657.500	.000	1.000	1.000	.001	.000	
2657.750	.000	.578	.578	.047	.020	
2658.000	.000	1.000	1.000	.001	.000	
2658.250	.000	1.000	1.000	.001	.000	
2658.500	.000	1.000	1.000	.001	.000	
2658.750	.000	1.000	1.000	.001	.000	
2659.000	.249	.557	.557	.110	.049	
2659.250	.183	.584	.489	.128	.065	
2659.500	.248	.530	.521	.099	.047	
2659.750	.288	.503	.503	.095	.047	
2660.000	.247	.475	.475	.105	.055	
2660.250	.205	.529	.450	.108	.059	
2660.500	.152	.525	.394	.122	.074	
2660.750	.140	.537	.361	.126	.082	
2661.000	.183	.513	.333	.127	.085	
2661.250	.153	.498	.285	.151	.108	
2661.500	.147	.449	.267	.164	.120	
2661.750	.091	.432	.256	.168	.125	
2662.000	.068	.483	.272	.162	.118	
2662.250	.112	.537	.317	.146	.100	
2662.500	.172	.541	.387	.127	.078	
2662.750	.234	.456	.419	.117	.068	
2663.000	.236	.432	.432	.126	.072	
2663.250	.205	.466	.466	.128	.068	
2663.500	.189	.656	.572	.104	.044	
2663.750	.000	1.000	1.000	.001	.000	
2664.000	.000	1.000	1.000	.001	.000	
2664.250	.271	.511	.511	.111	.054	
2664.500	.180	.384	.384	.162	.100	
2664.750	.127	.318	.314	.186	.127	
2665.000	.091	.423	.276	.190	.137	
2665.250	.160	.402	.320	.177	.120	
2665.500	.183	.482	.482	.185	.096	
2665.750	.177	.645	.645	.193	.068	
2666.000	.000	1.000	1.000	.000	.000	
2666.250	.000	1.000	1.000	.000	.000	
2666.500	.000	1.000	1.000	.000	.000	
2666.750	.000	1.000	1.000	.000	.000	
2667.000	.000	1.000	1.000	.000	.000	
2667.250	.000	1.000	1.000	.001	.000	
2667.500	.000	1.000	1.000	.001	.000	
2667.750	.000	1.000	1.000	.001	.000	
2668.000	.000	1.000	1.000	.001	.000	
2668.250	.000	1.000	1.000	.001	.000	
2668.500	.000	1.000	1.000	.001	.000	
2668.750	.000	1.000	1.000	.001	.000	
2669.000	.000	1.000	1.000	.001	.000	
2669.250	.000	1.000	1.000	.001	.000	
2669.500	.947	.749	.749	.053	.013	
2669.750	.234	.582	.582	.151	.063	
1	DEPTH	VCL	BREAM #5 SXO	SW	PHI	HC.VOL
2670.000	.230	.585	.585	.156	.065	
2670.250	.260	.569	.569	.158	.068	

2670.500	.241	.561	.561	.162	.071
2670.750	.242	.659	.659	.137	.047
2671.000	.242	.753	.753	.114	.028
2671.250	.247	.668	.668	.132	.044
2671.500	.237	.626	.626	.144	.054
2671.750	.213	.661	.661	.137	.047
2672.000	.197	.666	.666	.138	.046
2672.250	.213	.663	.663	.137	.046
2672.500	.220	.658	.658	.138	.047
2672.750	.213	.640	.640	.143	.052
2673.000	.213	.683	.683	.132	.042
2673.250	.224	.808	.808	.107	.021
2673.500	.000	1.000	1.000	.001	.000
2673.750	.000	1.000	1.000	.001	.000
2674.000	.263	.670	.670	.130	.043
2674.250	.257	.593	.593	.151	.061
2674.500	.246	.593	.593	.152	.062
2674.750	.237	.596	.596	.148	.060
2675.000	.000	.598	.598	.151	.060
2675.250	.220	.623	.623	.080	.030
2675.500	.000	1.000	1.000	.001	.000
2675.750	.314	.344	.344	.186	.122
2676.000	.234	.584	.584	.066	.027
2676.250	.000	1.000	1.000	.001	.000
2676.500	.000	1.000	1.000	.001	.000
2676.750	.259	.583	.583	.141	.059
2677.000	.216	.618	.618	.157	.060
2677.250	.173	.656	.656	.161	.055
2677.500	.173	.659	.659	.167	.055
2677.750	.189	.679	.679	.172	.055
2678.000	.161	.728	.728	.168	.046
2678.250	.148	.748	.748	.161	.040
2678.500	.200	.715	.715	.153	.044
2678.750	.946	.868	.868	.054	.007
2679.000	.977	.951	.951	.023	.001
2679.250	.942	.620	.620	.058	.022
2679.500	.798	.327	.327	.202	.136
2679.750	.000	1.000	1.000	.001	.000
2680.000	.000	1.000	1.000	.001	.000
2680.250	.000	1.000	1.000	.001	.000
2680.500	.972	.746	.746	.028	.007
2680.750	.286	.695	.695	.104	.032
2681.000	.000	1.000	1.000	.001	.000
2681.250	.060	1.000	1.000	.001	.000
2681.500	.000	1.000	1.000	.001	.000
2681.750	.260	.619	.619	.127	.048
2682.000	.000	1.000	1.000	.000	.000
2682.250	.000	1.000	1.000	.000	.000
2682.500	.000	1.000	1.000	.000	.000
2682.750	.000	1.000	1.000	.000	.000
2683.000	.000	1.000	1.000	.000	.000
2683.250	.335	.659	.659	.090	.031
2683.500	.000	1.000	1.000	.001	.000
2683.750	.000	1.000	1.000	.001	.000

DEPTH	VCL	DREAM #5 SX0	SW	PHI	HC.VOL
2684.000	.000	1.000	1.000	.001	.000
2684.250	.000	1.000	1.000	.001	.000
2684.500	.000	1.000	1.000	.001	.000
2684.750	.000	1.000	1.000	.001	.000
2685.000	.937	.510	.510	.063	.031
2685.250	.342	.497	.497	.133	.067
2685.500	.217	.606	.606	.146	.057
2685.750	.181	.625	.625	.148	.056

2686.000	.961	.833	.833	.039	.006
2686.250	.000	1.000	1.000	.001	.000
2686.500	.000	1.000	1.000	.001	.000
2686.750	.000	1.000	1.000	.001	.000
2687.000	.000	1.000	1.000	.001	.000
2687.250	.000	1.000	1.000	.001	.000
2687.500	.000	1.000	1.000	.000	.000
2687.750	.000	1.000	1.000	.000	.000
2688.000	.000	1.000	1.000	.000	.000
2688.250	.000	1.000	1.000	.000	.000
2688.500	.000	1.000	1.000	.000	.000
2688.750	.000	1.000	1.000	.000	.000
2689.000	.000	1.000	1.000	.000	.000
2689.250	.136	.566	.566	.064	.028
2689.500	.000	1.000	1.000	.001	.000
2689.750	.000	1.000	1.000	.001	.000
2690.000	.976	.714	.714	.024	.007
2690.250	.985	.860	.880	.015	.002
2690.500	.657	.824	.824	.033	.006
2690.750	.748	.686	.686	.045	.014
2691.000	.520	.525	.525	.097	.046
2691.250	.242	.530	.530	.134	.063
2691.500	.094	.657	.657	.148	.051
2691.750	.118	.830	.830	.141	.024
2692.000	.127	.804	.804	.137	.027
2692.250	.055	.610	.610	.145	.056
2692.500	.000	.593	.593	.146	.060
2692.750	.000	.631	.649	.135	.047
2693.000	.015	.796	.796	.123	.025
2693.250	.055	.802	.802	.122	.024
2693.500	.034	.827	.827	.119	.021
2693.750	.105	.852	.852	.114	.017
2694.000	.087	.795	.795	.124	.025
2694.250	.092	.803	.803	.117	.023
2694.500	.083	.902	.902	.098	.010
2694.750	.113	1.000	1.000	.077	.000
2695.000	.066	.975	.975	.087	.002
2695.250	.000	1.000	.797	.103	.021
2695.500	.000	1.000	.808	.104	.020
2695.750	.000	1.000	.841	.102	.016
2696.000	.000	1.000	.995	.089	.000
2696.250	.000	1.000	1.000	.077	.000
2696.500	.000	1.000	1.000	.082	.000
2696.750	.000	1.000	.943	.088	.005
2697.000	.000	1.000	.924	.088	.007
2697.250	.000	1.000	.937	.088	.006
2697.500	.000	1.000	1.000	.085	.000
2697.750	.000	1.000	1.000	.079	.000

DEPTH	VCL	BREAM #5 SXO	SW	PHI	HC.VOL
2698.000	.000	1.000	1.000	.068	.000
2698.250	.000	1.000	1.000	.076	.000
2698.500	.000	.935	.935	.091	.006
2698.750	.000	.943	.943	.097	.006
2699.000	.000	1.000	1.000	.089	.000
2699.250	.000	1.000	1.000	.085	.000
2699.500	.000	.990	.990	.093	.001
2699.750	.000	.921	.921	.098	.008
2700.000	.000	.887	.887	.101	.011
2700.250	.000	.840	.840	.106	.017
2700.500	.000	.832	.832	.106	.018
2700.750	.000	.777	.777	.111	.025
2701.000	.000	.670	.670	.128	.042
2701.250	.019	.607	.607	.148	.058

2701.500	.079	.595	.595	.158	.064
2701.750	.071	.603	.603	.162	.064
2701.900	.000	1.000	1.000	.000	.000
2702.050	.000	1.000	1.000	.000	.000
2702.200	.000	1.000	1.000	.000	.000
2702.350	.000	1.000	1.000	.000	.000
2702.500	.000	1.000	1.000	.000	.000
2702.650	.000	1.000	1.000	.000	.000
2702.800	.000	1.000	1.000	.000	.000
2702.950	.000	1.000	1.000	.000	.000
2703.100	.000	1.000	1.000	.000	.000
2703.250	.000	1.000	1.000	.000	.000
2703.400	.000	1.000	1.000	.000	.000
2703.550	.000	1.000	1.000	.000	.000
2703.700	.000	1.000	1.000	.000	.000
2703.850	.000	1.000	1.000	.000	.000
2704.000	.000	1.000	1.000	.000	.000
2704.150	.000	1.000	1.000	.000	.000
2704.300	.000	1.000	1.000	.000	.000
2704.450	.000	1.000	1.000	.000	.000
2704.600	.000	1.000	1.000	.000	.000
2704.750	.000	1.000	1.000	.000	.000
2704.900	.000	1.000	1.000	.000	.000
2705.050	.117	.991	.991	.061	.001
2705.200	.154	1.000	1.000	.067	.000
2705.350	.114	.915	.915	.099	.008
2705.500	.101	.798	.798	.132	.027
2705.650	.050	.742	.742	.141	.029
2705.800	.021	.833	.833	.139	.023
2705.950	.000	.910	.910	.129	.012
2706.100	.000	1.000	1.000	.110	.000
2706.250	.000	.963	.963	.112	.004
2706.400	.025	.830	.830	.125	.021
2706.550	.000	1.000	1.000	.001	.000
2706.700	.000	1.000	1.000	.001	.000
2706.850	.000	1.000	1.000	.001	.000
2707.000	.977	1.000	1.000	.023	.000
2707.150	.000	1.000	1.000	.001	.000
2707.300	.946	.845	.795	.044	.009
2707.450	.679	.854	.567	.098	.043
2707.600	.300	.637	.623	.126	.048
2707.750	.254	.648	.696	.123	.037
2707.900	.325	.817	.817	.115	.021
2708.050	.287	.853	.853	.124	.018
2708.200	.151	.886	.850	.141	.017
2708.350	.000	1.000	1.000	.000	.000
2708.500	.000	1.000	1.000	.000	.000
2708.650	.000	1.000	1.000	.000	.000
2708.800	.000	1.000	1.000	.000	.000
2708.950	.000	1.000	1.000	.000	.000
2709.100	.000	1.000	1.000	.000	.000
2709.250	.000	1.000	1.000	.000	.000
2709.400	.000	1.000	1.000	.000	.000
2709.550	.000	1.000	1.000	.000	.000
2709.700	.000	1.000	1.000	.000	.000
2709.850	.000	1.000	1.000	.000	.000
2710.000	.000	1.000	1.000	.000	.000

BREAK #5
SX0

DEPTH	VCL	SW	PHI	HC.VOL
2712.000	.000	1.000	.000	.000
2712.150	.000	1.000	.000	.000
2712.300	.000	1.000	.000	.000
2712.450	.000	1.000	.000	.000
2712.600	.000	1.000	.000	.000
2712.750	.000	1.000	.000	.000
2712.900	.000	1.000	.000	.000
2713.050	.000	1.000	.000	.000
2713.200	.000	1.000	.000	.000
2713.350	.000	1.000	.000	.000
2713.500	.000	1.000	.000	.000
2713.650	.000	1.000	.000	.000
2713.800	.000	1.000	.000	.000
2713.950	.000	1.000	.000	.000
2714.100	.000	1.000	.000	.000
2714.250	.000	1.000	.000	.000
2714.400	.000	1.000	.000	.000
2714.550	.000	1.000	.000	.000
2714.700	.000	1.000	.000	.000
2714.850	.000	1.000	.000	.000
2715.000	.000	1.000	.000	.000
2715.150	.105	.749	.118	.030
2715.300	.062	.763	.129	.030
2715.450	.000	.783	.136	.030
2715.600	.015	.788	.132	.028
2715.750	.071	.792	.124	.026
2715.900	.067	.823	.121	.021
2716.050	.071	.778	.119	.026

2717.000	.101	.727	.727	.123	.034
2717.500	.074	.715	.715	.130	.037
2717.500	.100	.795	.795	.119	.024
2717.750	.246	.967	.967	.078	.003
2718.000	.000	1.000	1.000	.001	.000
2718.000	.000	1.000	1.000	.001	.000
2718.000	.000	1.000	1.000	.001	.000
2718.500	.985	.691	.691	.035	.011
2719.000	.520	.836	.836	.060	.019
2719.000	.437	1.000	.913	.641	.004
2719.000	.000	1.000	1.000	.001	.000
2719.000	.000	1.000	1.000	.001	.000
2720.000	.000	1.000	1.000	.001	.000
2720.000	.000	1.000	1.000	.001	.000
2720.000	.000	1.000	1.000	.001	.000
2720.000	.000	1.000	1.000	.001	.000
2720.000	.977	1.000	1.000	.001	.000
2721.000	.647	.775	.773	.023	.005
2721.000	.647	.775	.776	.035	.008
2721.000	.338	.847	.847	.051	.008
2721.000	.253	.925	.923	.067	.005
2721.000	.259	.965	.963	.085	.003
2722.000	.151	1.000	1.000	.100	.000
2722.000	.136	1.000	1.000	.102	.000
2722.000	.142	1.000	1.000	.093	.000
2722.000	.136	1.000	1.000	.087	.000
2723.000	.153	1.000	1.000	.086	.000
2723.000	.105	1.000	1.000	.092	.000
2723.000	.135	1.000	1.000	.081	.000
2724.000	.000	1.000	1.000	.001	.000
2724.000	.000	1.000	1.000	.001	.000
2724.000	.000	1.000	1.000	.001	.000
2724.000	.000	1.000	1.000	.001	.000
2725.000	.252	1.000	1.000	.001	.000
2725.000	.217	.957	.957	.082	.004
2725.000	.219	.944	.944	.093	.005
2725.000	.244	.995	.993	.088	.001
2725.000	.244	1.000	1.000	.082	.000

DEPTH	VCL	BREAM #5 SXO	SW	PHI	HC.VOL
2726.000	.233	.924	.924	.089	.007
2726.000	.202	.891	.891	.091	.010
2726.000	.246	.832	.832	.084	.014
2726.000	.392	.663	.663	.084	.028
2727.000	.466	.542	.542	.092	.042
2727.000	.453	.606	.606	.073	.029
2727.000	.000	1.000	1.000	.001	.000
2727.000	.000	1.000	1.000	.001	.000
2728.000	.287	.643	.643	.079	.028
2728.000	.074	.675	.675	.106	.035
2728.000	.059	.744	.744	.110	.028
2728.000	.040	.819	.819	.110	.020
2729.000	.022	.893	.893	.102	.011
2729.000	.044	.999	.999	.083	.000
2729.000	.041	.896	.896	.087	.009
2729.000	.000	.695	.695	.116	.035
2730.000	.000	.611	.611	.135	.053
2730.000	.000	.576	.576	.147	.063
2730.000	.085	.798	.530	.137	.064
2730.000	.134	1.000	.544	.128	.058
2731.000	.060	.902	.520	.145	.070
2731.000	.000	.873	.479	.166	.087
2731.000	.000	.953	.427	.184	.105
2731.000	.000	.700	.488	.161	.083
2732.000	.144	.842	.545	.127	.058
2732.000	.179	.945	.556	.123	.055

27332	.000	1.000	1.000	.001	.000
27332	.000	1.000	1.000	.001	.000
27333	.944	1.632	1.632	.053	.019
27333	.000	1.000	1.000	.001	.000
27333	.000	1.000	1.000	.001	.000
27333	.000	1.000	1.000	.001	.000
27333	.988	1.854	1.854	.015	.002
27334	.000	1.000	1.000	.001	.000
27334	.000	1.000	1.000	.001	.000
27334	.253	1.333	1.333	.142	.094
27334	.000	1.000	1.000	.001	.000
27334	.000	1.000	1.000	.001	.000
27334	.000	1.000	1.000	.001	.000
27335	.000	1.000	1.000	.001	.000
27335	.600	1.506	1.506	.043	.000
27335	.987	1.788	1.788	.013	.021
27335	.223	1.520	1.520	.109	.004
27336	.084	1.580	1.580	.125	.052
27336	.126	1.580	1.580	.126	.053
27336	.157	1.649	1.649	.112	.039
27337	.143	1.749	1.749	.101	.025
27337	.200	1.902	1.902	.081	.008
27337	.000	1.000	1.000	.001	.000
27337	.000	1.000	1.000	.001	.000
27338	.000	1.000	1.000	.001	.000
27338	.000	1.000	1.000	.001	.000
27338	.000	1.000	1.000	.001	.000
27338	.000	1.000	1.000	.001	.000
27339	.405	1.630	1.630	.082	.030
27339	.248	1.790	1.790	.081	.018
27339	.000	1.000	1.000	.001	.000
27339	.000	1.000	1.000	.001	.000

DEPTH	VCL	BREAM #5 SXD	SW	PHI	HC.VOL
2740.000	.000	1.559	1.559	.054	.024
2740.000	.000	1.000	1.000	.001	.000
2740.000	.000	1.000	1.000	.001	.000
2740.000	.000	1.000	1.000	.001	.000
2741.000	.000	1.000	1.000	.001	.000
2741.000	.452	1.540	1.540	.048	.022
2741.000	.467	1.494	1.494	.111	.056
2741.000	.241	1.557	1.557	.118	.052
2742.000	.256	1.612	1.612	.109	.042
2742.000	.257	1.582	1.582	.106	.044
2742.000	.359	1.664	1.664	.080	.027
2742.000	.000	1.000	1.000	.001	.000
2743.000	.365	1.417	1.417	.100	.058
2743.000	.777	1.210	1.210	.100	.079
2743.000	.000	1.000	1.000	.001	.000
2743.000	.000	1.000	1.000	.001	.000
2744.000	.000	1.000	1.000	.001	.000
2744.000	.000	1.000	1.000	.001	.000
2744.000	.163	1.632	1.632	.107	.039
2744.000	.148	1.806	1.806	.107	.033
2745.000	.000	1.000	1.000	.000	.000
2745.000	.000	1.000	1.000	.000	.000
2745.000	.000	1.000	1.000	.000	.000
2745.000	.000	1.000	1.000	.000	.000
2746.000	.000	1.000	1.000	.000	.000
2746.000	.000	1.000	1.000	.000	.000
2746.000	.000	1.000	1.000	.000	.000
2746.000	.000	1.000	1.000	.001	.000
2747.000	.000	1.000	1.000	.001	.000
2747.000	.696	1.311	1.311	.149	.103
2747.000	.000	1.000	1.000	.001	.000
2747.000	.000	1.000	1.000	.001	.000

2748.000	.000	1.000	1.000	.001	.000
2748.250	.000	1.000	1.000	.001	.000
2748.500	.000	1.000	1.000	.001	.000
2748.750	.000	1.000	1.000	.001	.000
2749.000	.000	1.000	1.000	.001	.000
2749.250	.000	1.000	1.000	.001	.000
2749.500	.000	1.000	1.000	.001	.000
2749.750	.191	.624	.624	.090	.034
2750.000	.134	.580	.580	.104	.044
2750.250	.125	.612	.612	.106	.041
2750.500	.197	.784	.632	.084	.031
2750.750	.000	1.000	1.000	.001	.000
2751.000	.000	1.000	1.000	.000	.000
2751.250	.000	1.000	1.000	.000	.000
2751.500	.000	1.000	1.000	.000	.000
2751.750	.645	.245	.245	.000	.000
2752.000	.000	.701	.701	.000	.000
2752.250	.000	1.000	1.000	.000	.000
2752.500	.000	1.000	1.000	.000	.000
2752.750	.000	1.000	1.000	.000	.000
2753.000	.000	1.000	1.000	.000	.000
2753.250	.000	1.000	1.000	.001	.000
2753.500	.000	1.000	1.000	.001	.000
2753.750	.000	1.000	1.000	.001	.000

1	DEPTH	VCL	BREAK #5 SX0	SW	PHI	HC VOL
2754.000	.070	.393	.393	.097	.059	
2754.250	.000	1.000	1.000	.001	.000	
2754.500	.000	1.000	1.000	.001	.000	
2754.750	.000	.559	.559	.035	.015	
2755.000	.000	1.000	1.000	.001	.000	
2755.250	.000	1.000	1.000	.001	.000	
2755.500	.000	.518	.371	.078	.049	
2755.750	.615	.270	.270	.172	.125	
2756.000	.000	1.000	1.000	.001	.000	
2756.250	.208	.548	.548	.117	.053	
2756.500	.188	.555	.542	.116	.053	
2756.750	.000	1.000	1.000	.001	.000	
2757.000	.000	1.000	1.000	.001	.000	
2757.250	.000	1.000	1.000	.001	.000	
2757.500	.190	.659	.453	.106	.058	
2757.750	.210	.560	.434	.110	.062	
2758.000	.000	1.000	1.000	.001	.000	
2758.250	.196	.582	.582	.093	.039	
2758.500	.201	.520	.520	.106	.051	
2758.750	.202	.485	.477	.113	.059	
2759.000	.204	.471	.471	.110	.058	
2759.250	.179	.523	.514	.099	.048	
2759.500	.185	.509	.475	.105	.055	
2759.750	.226	.474	.474	.108	.057	
2760.000	.000	1.000	1.000	.001	.000	
2760.250	.939	.446	.446	.061	.034	
2760.500	.417	.515	.312	.127	.087	
2760.750	.297	.632	.354	.124	.080	
2761.000	.239	.439	.417	.121	.070	
2761.250	.273	.431	.431	.120	.068	
2761.500	.255	.444	.444	.113	.063	
2761.750	.220	.476	.476	.107	.056	
2762.000	.220	.502	.502	.101	.050	
2762.250	.269	.519	.457	.095	.046	
2762.500	.277	.508	.457	.096	.052	
2762.750	.309	.459	.459	.102	.055	
2763.000	.000	1.000	1.000	.000	.000	
2763.250	.000	1.000	1.000	.000	.000	

763.500	.000	1.000	1.000	.000	.000
763.750	.000	1.000	1.000	.000	.000
764.000	.000	1.000	1.000	.000	.000
764.250	.000	1.000	1.000	.001	.000
764.500	.000	1.000	1.000	.001	.000
764.750	.000	1.000	1.000	.001	.000
765.000	.000	1.000	1.000	.001	.000
765.250	.000	1.000	1.000	.001	.000
765.500	.000	1.000	1.000	.001	.000
765.750	.000	1.000	1.000	.001	.000
766.000	.000	1.000	1.000	.001	.000
766.250	.000	1.000	1.000	.001	.000
766.500	.000	1.000	1.000	.001	.000
766.750	.000	1.000	1.000	.001	.000
767.000	.000	1.000	1.000	.001	.000
767.250	.000	1.000	1.000	.001	.000
767.500	.000	1.000	1.000	.001	.000

DEPTH	VCL	BREAM #5 SXN	SW	PHI	HC.VOL
768.000	.000	1.000	1.000	.001	.000
768.250	.323	.575	.576	.088	.037
768.500	.257	.538	.538	.108	.050
768.750	.282	.644	.644	.100	.035
769.000	.494	.880	.880	.054	.007
769.250	.000	1.000	1.000	.001	.000
769.500	.000	1.000	1.000	.001	.000
769.750	.000	1.000	1.000	.001	.000
770.000	.000	1.000	1.000	.000	.000
770.250	.000	1.000	1.000	.000	.000
770.500	.000	1.000	1.000	.000	.000
770.750	.000	1.000	1.000	.000	.000
771.000	.000	1.000	1.000	.000	.000
771.250	.000	1.000	1.000	.000	.000
771.500	.000	1.000	1.000	.000	.000
771.750	.000	1.000	1.000	.000	.000
772.000	.000	1.000	1.000	.000	.000
772.250	.348	.583	.583	.087	.036
772.500	.253	.586	.586	.101	.042
772.750	.000	1.000	1.000	.001	.000
773.000	.000	1.000	1.000	.001	.000
773.250	.000	1.000	1.000	.001	.000
773.500	.000	1.000	1.000	.001	.000
773.750	.000	1.000	1.000	.001	.000
774.000	.552	.300	.300	.000	.000
774.250	.000	1.000	1.000	.000	.000
774.500	.000	1.000	1.000	.000	.000
774.750	.000	1.000	1.000	.000	.000
775.000	.000	1.000	1.000	.000	.000
775.250	.673	.288	.288	.000	.000
775.500	.740	.250	.250	.000	.000
775.750	1.000	.773	.773	.000	.000
776.000	.254	.504	.504	.000	.000
776.250	.037	.544	.544	.142	.065
776.500	.000	.610	.610	.144	.056
776.750	.066	.690	.690	.123	.038
777.000	.134	.750	.750	.106	.026
777.250	.355	.772	.772	.071	.016
777.500	.000	1.000	1.000	.000	.000
777.750	1.000	.763	.752	.000	.000
778.000	1.000	.360	.304	.000	.000
778.250	.000	1.000	1.000	.000	.000
778.500	.000	1.000	1.000	.000	.000
778.750	.000	1.000	1.000	.000	.000

2779.000	.000	1.000	1.000	.000	.000
2779.250	.000	1.000	1.000	.000	.000
2779.500	.000	1.000	1.000	.000	.000
2779.750	.000	1.000	1.000	.000	.000
2780.000	.837	.214	.214	.000	.000
2780.250	.000	1.000	1.000	.000	.000
2780.500	.000	1.000	1.000	.000	.000
2780.750	.000	1.000	1.000	.000	.000
2781.000	.000	1.000	1.000	.000	.000
2781.250	.000	1.000	1.000	.000	.000
2781.500	.000	1.000	1.000	.000	.000
2781.750	.000	1.000	1.000	.000	.000

DEPTH	VCL	PREPH #5 Sx0	Sw	PHI	HC VOL
2782.000	.000	1.000	1.000	.000	.000
2782.250	.000	1.000	1.000	.000	.000
2782.500	.000	1.000	1.000	.000	.000
2782.750	.000	1.000	1.000	.000	.000
2783.000	.000	1.000	1.000	.000	.000
2783.250	.000	1.000	1.000	.000	.000
2783.500	.000	1.000	1.000	.000	.000
2783.750	.000	1.000	1.000	.000	.000
2784.000	.000	1.000	1.000	.000	.000
2784.250	.000	1.000	1.000	.000	.000
2784.500	.000	1.000	1.000	.000	.000
2784.750	.000	1.000	1.000	.000	.000
2785.000	.000	1.000	1.000	.000	.000
2785.250	.969	.794	.579	.031	.013
2785.500	.000	1.000	1.000	.001	.000
2785.750	.895	.427	.352	.105	.068
2786.000	.879	.319	.319	.121	.082
2786.250	.952	.977	.540	.048	.022
2786.500	.963	1.000	.824	.037	.014
2786.750	.986	1.000	.799	.014	.003
2787.000	.000	1.000	1.000	.001	.000
2787.250	.971	1.000	.665	.029	.010
2787.500	.973	.707	.627	.027	.010
2787.750	.974	.920	.629	.026	.010
2788.000	.979	.847	.745	.021	.005
2788.250	.000	1.000	1.000	.001	.000
2788.500	.000	1.000	1.000	.001	.000
2788.750	.000	1.000	1.000	.001	.000
2789.000	.000	1.000	1.000	.001	.000
2789.250	.000	1.000	1.000	.001	.000
2789.500	.000	1.000	1.000	.001	.000
2789.750	.000	1.000	1.000	.001	.000
2790.000	.000	1.000	1.000	.001	.000
2790.250	.000	1.000	1.000	.001	.000
2790.500	.000	.538	.538	.056	.026
2790.750	.000	.634	.684	.027	.008
2791.000	.000	1.000	1.000	.001	.000
2791.250	.000	1.000	1.000	.001	.000
2791.500	.000	1.000	1.000	.001	.000
2791.750	.000	1.000	1.000	.001	.000
2792.000	.989	.887	.887	.011	.001
2792.250	.140	.723	.723	.111	.031
2792.500	.089	.802	.802	.111	.022
2792.750	.078	.823	.823	.110	.020
2793.000	.064	.842	.842	.116	.018
2793.250	.033	.838	.838	.119	.019
2793.500	.071	.865	.865	.102	.014
2793.750	.135	.912	.912	.081	.007
2794.000	.138	.890	.890	.083	.009
2794.250	.083	.814	.814	.101	.019

2794.500	.074	.638	.838	.100	.016
2794.750	.152	.968	.968	.077	.002
2795.000	.228	1.000	1.000	.057	.000
2795.250	.256	1.000	1.000	.055	.000
2795.500	.262	1.000	1.000	.051	.000
2795.750	.277	1.000	1.000	.050	.000

1	DEPTH	VCL	BREAM #5 SX0	SW	PHI	HC VOL
2796.000	.000	1.000	1.000	.001	.000	
2796.250	.000	.526	.526	.067	.032	
2796.500	.000	1.000	1.000	.001	.000	
2796.750	.000	1.000	1.000	.001	.000	
2797.000	.000	1.000	1.000	.001	.000	
2797.250	.000	1.000	1.000	.001	.000	
2797.500	.000	1.000	1.000	.001	.000	
2797.750	.000	.449	.449	.074	.041	
2798.000	.000	1.000	1.000	.001	.000	
2798.250	.000	1.000	1.000	.001	.000	
2798.500	.000	1.000	1.000	.001	.000	
2798.750	.000	1.000	1.000	.001	.000	
2799.000	.000	1.000	1.000	.001	.000	
2799.250	.000	1.000	1.000	.001	.000	
2799.500	.000	1.000	1.000	.001	.000	
2799.750	.000	1.000	1.000	.001	.000	
2800.000	.000	1.000	1.000	.001	.000	
2800.250	.000	1.000	1.000	.001	.000	
2800.500	.000	1.000	1.000	.001	.000	
2800.750	.547	.540	.540	.031	.014	
2801.000	.000	1.000	1.000	.001	.000	
2801.250	.000	.786	.634	.023	.009	
2801.500	.000	1.000	1.000	.001	.000	
2801.750	.000	1.000	1.000	.001	.000	
2802.000	.000	1.000	1.000	.001	.000	
2802.250	.951	.521	.521	.049	.023	
2802.500	.000	1.000	1.000	.001	.000	
2802.750	.000	1.000	1.000	.001	.000	
2803.000	.000	1.000	1.000	.001	.000	
2803.250	.000	1.000	1.000	.001	.000	
2803.500	.000	1.000	1.000	.001	.000	
2803.750	.000	1.000	1.000	.001	.000	
2804.000	.000	1.000	1.000	.001	.000	
2804.250	.000	1.000	1.000	.001	.000	
2804.500	.974	.942	.591	.026	.011	
2804.750	.000	1.000	1.000	.001	.000	
2805.000	.000	1.000	1.000	.001	.000	
2805.250	.000	.648	.648	.015	.005	
2805.500	.000	1.000	1.000	.001	.000	
2805.750	.000	1.000	1.000	.001	.000	
2806.000	.000	1.000	1.000	.001	.000	
2806.250	.000	1.000	1.000	.001	.000	
2806.500	.426	.475	.475	.084	.044	
2806.750	.255	.777	.568	.089	.038	
2807.000	.270	1.000	.673	.074	.024	
2807.250	.378	.883	.883	.048	.006	
2807.500	.601	.971	.957	.016	.001	
2807.750	.986	.910	.679	.014	.004	
2808.000	.000	1.000	1.000	.001	.000	
2808.250	.637	.254	.254	.139	.104	
2808.500	.621	.310	.239	.163	.124	
2808.750	.000	1.000	1.000	.001	.000	
2809.000	.000	1.000	1.000	.000	.000	
2809.250	.000	1.000	1.000	.000	.000	
2809.500	.000	1.000	1.000	.000	.000	
2809.750	.000	1.000	1.000	.000	.000	

1	DEPTH	VCL	BREAM #5 SX0	SW	PHI	HC.VOL
	2810.000	.000	1.000	1.000	.000	.000
	2810.250	.000	1.000	1.000	.000	.000
	2810.500	.000	1.000	1.000	.000	.000
	2810.750	.000	1.000	1.000	.000	.000
	2811.000	.000	1.000	1.000	.000	.000
	2811.250	.000	1.000	1.000	.001	.000
	2811.500	.000	1.000	1.000	.001	.000
	2811.750	.000	1.000	1.000	.001	.000
	2812.000	.000	1.000	1.000	.001	.000
	2812.250	.000	1.000	1.000	.001	.000
	2812.500	.000	1.000	1.000	.001	.000
	2812.750	.000	1.000	1.000	.001	.000
	2813.000	.000	1.000	1.000	.001	.000
	2813.250	.000	1.000	1.000	.001	.000
	2813.500	.194	.601	.667	.085	.028
	2813.750	.152	.613	.405	.117	.070
	2814.000	.117	.583	.327	.123	.083
	2814.250	.070	.511	.258	.137	.102
	2814.500	.059	.449	.206	.146	.116
	2814.750	.032	.415	.160	.153	.128
	2815.000	.014	.360	.134	.161	.139
	2815.250	.041	.361	.135	.159	.138
	2815.500	.049	.406	.146	.158	.135
	2815.750	.059	.504	.162	.151	.127
	2816.000	.060	.439	.188	.151	.123
	2816.250	.070	.514	.209	.145	.115
	2816.500	.069	.532	.210	.147	.116
	2816.750	.090	.498	.196	.154	.124
	2817.000	.074	.460	.172	.164	.135
	2817.250	.040	.455	.153	.171	.144
	2817.500	.066	.414	.155	.160	.135
	2817.750	.074	.460	.181	.154	.126
	2818.000	.101	.488	.203	.152	.121
	2818.250	.089	.516	.227	.147	.113
	2818.500	.085	.553	.252	.134	.100
	2818.750	.140	.605	.276	.114	.082
	2819.000	.154	.637	.311	.097	.067
	2819.250	.139	.668	.403	.079	.047
	2819.500	.145	.912	.434	.072	.041
	2819.750	.151	.827	.430	.071	.040
	2820.000	.108	.829	.412	.079	.046
	2820.250	.107	.830	.405	.083	.050
	2820.500	.112	.945	.471	.070	.037
	2820.750	.000	1.000	1.000	.001	.000
	2821.000	.105	1.000	.507	.065	.032
	2821.250	.073	.848	.393	.089	.054
	2821.500	.075	.686	.359	.096	.062
	2821.750	.020	.730	.386	.108	.066
	2822.000	.028	.867	.464	.095	.051
	2822.250	.047	.876	.518	.084	.040
	2822.500	.105	.726	.463	.090	.048
	2822.750	.115	.632	.421	.102	.059
	2823.000	.152	.517	.353	.125	.081
	2823.250	.125	.527	.355	.132	.085
	2823.500	.129	.525	.370	.126	.079
	2823.750	.374	.542	.374	.102	.064

1	DEPTH	VCL	BREAM #5 SX0	SW	PHI	HC.VOL
	2824.000	.000	1.000	1.000	.001	.000
	2824.250	.000	1.000	1.000	.001	.000
	2824.500	.000	1.000	1.000	.001	.000

DEPTH	VCL	HREAM SX0	SW	PHI	HC VOL
2824.750	.000	1.000	1.000	.001	.000
2825.000	.000	1.000	1.000	.001	.000
2825.250	.000	1.000	1.000	.001	.000
2825.500	.974	1.000	1.515	.026	.010
2825.750	.000	1.000	1.000	.001	.000
2826.000	.000	1.000	1.000	.001	.000
2826.250	.000	1.000	1.000	.001	.000
2826.500	.276	1.500	1.426	.059	.034
2826.750	.000	1.000	1.000	.001	.000
2827.000	.000	1.000	1.000	.001	.000
2827.250	.000	1.000	1.000	.001	.000
2827.500	.000	1.000	1.000	.001	.000
2827.750	.000	1.000	1.000	.001	.000
2828.000	.000	1.000	1.000	.001	.000
2828.250	.600	1.000	1.000	.001	.000
2828.500	.251	.500	.547	.105	.048
2828.750	.195	.500	.554	.115	.051
2829.000	.163	.670	.649	.097	.034
2829.250	.138	.600	.609	.081	.024
2829.500	.125	.600	.609	.094	.037
2829.750	.153	.500	.560	.109	.048
2830.000	.164	.600	.565	.104	.045
2830.250	.181	.500	.556	.101	.045
2830.500	.175	.512	.508	.114	.056
2830.750	.191	.500	.513	.107	.052
2831.000	.128	.746	.468	.088	.047
2831.250	.089	.754	.676	.076	.025
2831.500	.124	.712	.678	.071	.023
2831.750	.153	.764	.756	.060	.015
2832.000	.164	.862	.700	.071	.021
2832.250	.089	.734	.619	.083	.031
2832.500	.074	.766	.571	.088	.038
2832.750	.099	.654	.546	.093	.042
2833.000	.074	.600	.498	.108	.054
2833.250	.080	.570	.477	.114	.060
2833.500	.113	.500	.491	.109	.055
2833.750	.138	.500	.480	.112	.058
2834.000	.142	.600	.488	.111	.057
2834.250	.163	.592	.536	.097	.045
2834.500	.126	.600	.568	.093	.040
2834.750	.094	.553	.557	.092	.040
2835.000	.087	.500	.475	.111	.058
2835.250	.084	.551	.484	.116	.060
2835.500	.000	1.000	1.000	.001	.000
2835.750	.000	1.000	1.000	.001	.000
2836.000	.222	.673	.570	.082	.035
2836.250	.222	.596	.596	.082	.033
2836.500	.122	.649	.549	.102	.046
2836.750	.165	.551	.568	.096	.042
2837.000	.119	.765	.628	.081	.030
2837.250	.114	.671	.603	.084	.034
2837.500	.137	.630	.592	.085	.035
2837.750	.159	.627	.596	.084	.034
2838.000	.000	1.000	1.000	.000	.000
2838.250	.000	1.000	1.000	.000	.000
2838.500	.000	1.000	1.000	.000	.000
2838.750	.000	1.000	1.000	.000	.000
2839.000	.000	1.000	1.000	.000	.000
2839.250	.000	1.000	1.000	.000	.000
2839.500	.000	1.000	1.000	.000	.000
2839.750	.000	1.000	1.000	.000	.000
2840.000	.000	1.000	1.000	.000	.000

2840.250	.000	1.000	1.000	.000	.000
2840.500	.000	1.000	1.000	.000	.000
2840.750	.000	1.000	1.000	.000	.000
2841.000	.000	1.000	1.000	.000	.000
2841.250	.000	1.000	1.000	.000	.000
2841.500	.000	1.000	1.000	.000	.000
2841.750	.000	1.000	1.000	.000	.000
2842.000	.000	1.000	1.000	.000	.000
2842.250	.000	1.000	1.000	.000	.000
2842.500	.000	1.000	1.000	.000	.000
2842.750	.000	1.000	1.000	.000	.000
2843.000	.000	1.000	1.000	.000	.000
2843.250	.000	1.000	1.000	.000	.000
2843.500	.000	1.000	1.000	.000	.000
2843.750	.000	1.000	1.000	.000	.000
2844.000	.000	1.000	1.000	.000	.000
2844.250	.000	1.000	1.000	.000	.000
2844.500	.000	1.000	1.000	.000	.000
2844.750	.000	1.000	1.000	.000	.000
2845.000	.000	1.000	1.000	.000	.000
2845.250	.000	1.000	1.000	.000	.000
2845.500	.000	1.000	1.000	.000	.000
2845.750	.000	1.000	1.000	.000	.000
2846.000	.000	1.000	1.000	.000	.000
2846.250	.000	1.000	1.000	.000	.000
2846.500	.000	1.000	1.000	.000	.000
2846.750	.000	1.000	1.000	.000	.000
2847.000	.000	1.000	1.000	.000	.000
2847.250	.000	1.000	1.000	.000	.000
2847.500	.000	1.000	1.000	.000	.000
2847.750	.000	1.000	1.000	.000	.000
2848.000	.000	1.000	1.000	.000	.000
2848.250	.239	.586	.554	.093	.041
2848.500	.192	.668	.561	.098	.043
2848.750	.188	.646	.410	.103	.061
2849.000	.151	.554	.337	.125	.083
2849.250	.140	.511	.303	.133	.093
2849.500	.127	.579	.318	.124	.085
2849.750	.138	.583	.315	.115	.079
2850.000	.143	.686	.359	.104	.067
2850.250	.000	1.000	1.000	.000	.000
2850.500	.000	1.000	1.000	.000	.000
2850.750	.000	1.000	1.000	.000	.000
2851.000	.000	1.000	1.000	.000	.000
2851.250	.000	1.000	1.000	.000	.000
2851.500	.000	1.000	1.000	.000	.000
2851.750	.000	1.000	1.000	.000	.000

DEPTH	VCL	BREAM #5 SXO	SW	PHI	HC.VOL
2852.000	.000	1.000	1.000	.000	.000
2852.250	.963	.482	.449	.037	.020
2852.500	.000	1.000	1.000	.001	.000
2852.750	.000	1.000	1.000	.001	.000
2853.000	.000	1.000	1.000	.001	.000
2853.250	.000	1.000	1.000	.001	.000
2853.500	.000	1.000	1.000	.001	.000
2853.750	.000	1.000	1.000	.001	.000
2854.000	.000	1.000	1.000	.001	.000
2854.250	.000	1.000	1.000	.001	.000
2854.500	.949	.439	.439	.051	.028
2854.750	.989	1.000	.642	.011	.004
2855.000	.000	1.000	1.000	.000	.000
2855.250	.000	1.000	1.000	.000	.000
2855.500	.000	1.000	1.000	.000	.000

2871.250	.000	.643	.643	.012	.004
2871.500	.000	1.000	1.000	.001	.000
2871.750	.461	.451	.451	.096	.053
2872.000	.579	.520	.501	.077	.039
2872.250	.485	1.000	.666	.046	.015
2872.500	.000	1.000	1.000	.001	.000
2872.750	.227	1.000	.621	.070	.026
2873.000	.142	.716	.519	.096	.046
2873.250	.170	.531	.581	.095	.040
2873.500	.164	.577	.577	.094	.040
2873.750	.170	.604	.604	.087	.034
2874.000	.139	.580	.580	.093	.039
2874.250	.125	.584	.584	.094	.039
2874.500	.115	.617	.617	.088	.034
2874.750	.116	.621	.621	.086	.033
2875.000	.101	.616	.616	.088	.034
2875.250	.052	.638	.638	.039	.032
2875.500	.090	.760	.760	.068	.016
2875.750	.132	.860	.860	.054	.007
2876.000	.146	.827	.827	.055	.010
2876.250	.140	.824	.824	.056	.010
2876.500	.185	1.000	1.000	.026	.000
2876.750	.000	1.000	1.000	.001	.000
2877.000	.000	1.000	1.000	.001	.000
2877.250	.000	1.000	1.000	.001	.000
2877.500	.000	1.000	1.000	.000	.000
2877.750	.000	1.000	1.000	.000	.000
2878.000	.000	1.000	1.000	.000	.000
2878.250	.000	1.000	1.000	.000	.000
2878.500	.000	1.000	1.000	.000	.000
2878.750	.000	1.000	1.000	.000	.000
2879.000	.000	1.000	1.000	.000	.000
2879.250	.000	1.000	1.000	.000	.000
2879.500	.000	1.000	1.000	.000	.000
2879.750	.000	1.000	1.000	.000	.000

DEPTH	VCL	BREAK #5 SX0	SW	PHI	HC.VOL
2880.000	.000	1.000	1.000	.000	.000
2880.250	.000	1.000	1.000	.001	.000
2880.500	.000	1.000	1.000	.001	.000
2880.750	.000	1.000	1.000	.001	.000
2881.000	.000	1.000	1.000	.001	.000
2881.250	.000	1.000	1.000	.001	.000
2881.500	.000	1.000	1.000	.001	.000
2881.750	.000	1.000	1.000	.001	.000
2882.000	.000	1.000	1.000	.001	.000
2882.250	.000	1.000	1.000	.001	.000
2882.500	.000	1.000	1.000	.001	.000
2882.750	.000	1.000	1.000	.001	.000
2883.000	.000	1.000	1.000	.001	.000
2883.250	.000	1.000	1.000	.001	.000
2883.500	.000	1.000	1.000	.001	.000
2883.750	.000	1.000	1.000	.001	.000
2884.000	.000	1.000	1.000	.001	.000
2884.250	.000	1.000	1.000	.001	.000
2884.500	.000	1.000	1.000	.001	.000
2884.750	.160	1.000	.557	.109	.048
2885.000	.000	1.000	1.000	.001	.000
2885.250	.000	1.000	1.000	.001	.000
2885.500	.154	1.000	.546	.110	.050
2885.750	.167	1.000	.500	.113	.056
2886.000	.000	1.000	1.000	.001	.000
2886.250	.000	1.000	1.000	.001	.000
2886.500	.000	1.000	1.000	.001	.000

2886.750	.000	1.000	1.000	.001	.000
2887.000	.000	1.000	1.000	.001	.000
2887.250	.000	1.000	1.000	.001	.000
2887.500	.647	.586	.586	.039	.016
2887.750	.402	.487	.487	.103	.053
2888.000	.316	.662	.662	.084	.029
2888.250	.206	.708	.698	.078	.023
2888.500	.157	.456	.456	.149	.081
2888.750	.138	.383	.383	.194	.120
2889.000	.235	.399	.357	.185	.119
2889.250	.471	.489	.396	.124	.075
2889.500	.000	1.000	1.000	.000	.000
2889.750	.000	1.000	1.000	.000	.000
2889.00	.057	.212	.212	.000	.000
2889.250	.000	1.000	1.000	.000	.000
2889.500	.273	.392	.291	.000	.000
2889.750	.000	1.000	1.000	.000	.000
2889.000	.000	1.000	1.000	.000	.000
2889.250	.000	1.000	1.000	.001	.000
2889.500	.000	1.000	1.000	.001	.000
2889.750	.000	1.000	1.000	.001	.000
2889.000	.000	1.000	1.000	.001	.000
2889.250	.000	1.000	1.000	.001	.000
2889.500	.000	1.000	1.000	.001	.000
2889.750	.000	1.000	1.000	.001	.000
2889.000	.000	1.000	1.000	.001	.000
2889.250	.000	1.000	1.000	.001	.000
2889.500	.000	1.000	1.000	.001	.000
2889.750	.000	1.000	1.000	.001	.000
2893.000	.969	.589	.589	.031	.013
2893.250	.000	.524	.524	.048	.023

DEPTH	VCL	BREA:1 SXD	SW	PHI	HC.VOL
2894.000	.000	1.000	1.000	.001	.000
2894.250	.988	.765	.765	.012	.003
2894.500	.000	1.000	1.000	.001	.000
2894.750	.000	1.000	1.000	.001	.000
2895.000	.000	.525	.525	.034	.016
2895.250	.000	1.000	1.000	.001	.000
2895.500	.000	1.000	1.000	.001	.000
2895.750	.000	1.000	1.000	.001	.000
2896.000	.000	1.000	1.000	.001	.000
2896.250	.942	.548	.544	.058	.026
2896.500	.000	1.000	1.000	.000	.000
2896.750	.000	1.000	1.000	.000	.000
2897.000	.000	1.000	1.000	.000	.000
2897.250	1.000	.177	.169	.000	.000
2897.500	.000	1.000	1.000	.000	.000
2897.750	.000	1.000	1.000	.000	.000
2898.000	.000	1.000	1.000	.000	.000
2898.250	.000	1.000	1.000	.001	.000
2898.500	.000	1.000	1.000	.001	.000
2898.750	.000	1.000	1.000	.001	.000
2899.000	.000	1.000	1.000	.001	.000
2899.250	.000	1.000	1.000	.001	.000
2899.500	.255	1.000	.647	.078	.028
2899.750	.286	1.000	.690	.070	.022
2900.000	.393	1.000	.817	.047	.009
2900.250	.369	1.000	.753	.064	.016
2900.500	.944	1.000	.615	.056	.022
2900.750	.835	.732	.362	.115	.074
2901.000	.869	.329	.277	.131	.095
2901.250	.000	1.000	1.000	.001	.000
2901.500	.000	1.000	1.000	.001	.000
2901.750	.858	.258	.258	.142	.105
2902.000	.957	.517	.476	.043	.023

2902.250	.000	1.000	1.000	.001	.000
2902.500	.000	1.000	1.000	.001	.000
2902.750	.000	1.000	1.000	.001	.000
2903.000	.000	1.000	1.000	.001	.000
2903.250	.000	1.000	1.000	.001	.000
2903.500	.000	1.000	1.000	.001	.000
2903.750	.978	1.580	1.580	.022	.009
2904.000	.000	1.000	1.000	.001	.000
2904.250	.000	1.000	1.000	.001	.000
2904.500	.000	1.000	1.000	.001	.000
2904.750	.322	1.427	1.427	.070	.040
2905.000	.000	1.000	1.000	.001	.000
2905.250	.000	1.000	1.000	.001	.000
2905.500	.000	1.000	1.000	.001	.000
2905.750	.000	1.000	1.000	.001	.000
2906.000	.000	1.000	1.000	.001	.000
2906.250	.000	1.000	1.000	.001	.000
2906.500	.000	1.000	1.000	.001	.000
2906.750	.193	1.339	1.339	.062	.038
2907.000	.000	1.000	1.000	.001	.000
2907.250	.976	1.661	1.661	.024	.009
2907.500	.000	1.000	1.000	.001	.000
2907.750	.172	1.450	1.450	.053	.029

1	DEPTH	VCL	FREAM #5 SXO	Sw	PHI	HC.VOL
2908.000	.000	1.000	1.000	.000	.000	.000
2908.250	.000	1.000	1.000	.000	.000	.000
2908.500	.000	1.000	1.000	.000	.000	.000
2908.750	.000	1.000	1.000	.000	.000	.000
2909.000	.000	1.000	1.000	.000	.000	.000
2909.250	.000	1.000	1.000	.000	.000	.000
2909.500	.000	1.000	1.000	.000	.000	.000
2909.750	.983	1.672	1.672	.017	.006	.000
2910.000	.000	1.000	1.000	.001	.000	.000
2910.250	.278	1.615	1.615	.024	.009	.000
2910.500	.000	1.000	1.000	.001	.000	.000
2910.750	.000	1.000	1.000	.001	.000	.000
2911.000	.281	1.347	1.347	.159	.103	.000
2911.250	.389	1.313	1.313	.167	.114	.000
2911.500	.956	1.545	1.545	.044	.020	.000
2911.750	.000	1.000	1.767	.013	.003	.000
2912.000	.000	1.000	1.000	.000	.000	.000
2912.250	.000	1.000	1.000	.000	.000	.000
2912.500	.000	1.000	1.000	.000	.000	.000
2912.750	.000	1.000	1.000	.000	.000	.000
2913.000	.535	1.206	1.206	.000	.000	.000
2913.250	.000	1.000	1.000	.000	.000	.000
2913.500	.000	1.000	1.000	.001	.000	.000
2913.750	.000	1.525	1.525	.034	.016	.000
2914.000	.000	1.000	1.000	.001	.000	.000
2914.250	.000	1.000	1.000	.001	.000	.000
2914.500	.000	1.000	1.000	.001	.000	.000
2914.750	.000	1.000	1.000	.001	.000	.000
2915.000	.972	1.776	1.486	.028	.014	.000
2915.250	.975	1.600	1.531	.022	.010	.000
2915.500	.981	1.000	1.570	.019	.008	.000
2915.750	.977	1.776	1.523	.023	.011	.000
2916.000	.000	1.000	1.000	.001	.000	.000
2916.250	.961	1.457	1.457	.039	.021	.000
2916.500	1.000	1.000	1.483	.000	.000	.000
2916.750	1.000	1.000	1.546	.000	.000	.000
2917.000	1.000	1.000	1.553	.000	.000	.000
2917.250	.000	1.000	1.000	.000	.000	.000
2917.500	.000	1.000	1.000	.000	.000	.000

917.750	.773	.158	.158	.000	.000
918.000	.705	.312	.312	.000	.000
918.250	.000	1.000	1.000	.000	.000
918.500	.000	1.000	1.000	.000	.000
918.750	.000	1.000	1.000	.000	.000
919.000	.000	.509	.509	.000	.000
919.250	.000	.539	.539	.000	.000
919.500	.702	.519	.519	.000	.000
919.750	1.000	.434	.434	.000	.000
920.000	.000	1.000	1.000	.000	.000
920.250	1.000	.519	.519	.000	.000
920.500	.000	1.000	1.000	.000	.000
920.750	.000	1.000	1.000	.000	.000
921.000	.000	1.000	1.000	.000	.000
921.250	.000	1.000	1.000	.001	.000
921.500	.000	1.000	1.000	.000	.000
921.750	.000	1.000	1.000	.000	.000

DEPTH	VCL	BREAK #5 SX0	SW	PHI	HC.VOL
922.000	.000	1.000	1.000	.000	.000
922.250	.000	1.000	1.000	.000	.000
922.500	.000	1.000	1.000	.000	.000
922.750	.000	1.000	1.000	.000	.000
923.000	.000	1.000	1.000	.000	.000
923.250	.000	1.000	1.000	.000	.000
923.500	.000	1.000	1.000	.000	.000
923.750	.000	1.000	1.000	.000	.000
924.000	.000	1.000	1.000	.000	.000
924.250	.000	1.000	1.000	.000	.000
924.500	.000	1.000	1.000	.000	.000
924.750	.000	1.000	1.000	.000	.000
925.000	.000	1.000	1.000	.000	.000
925.250	.000	1.000	1.000	.000	.000
925.500	.000	1.000	1.000	.000	.000
925.750	.000	1.000	1.000	.000	.000
926.000	.000	1.000	1.000	.000	.000
926.250	.000	1.000	1.000	.000	.000
926.500	.000	1.000	1.000	.000	.000
926.750	.000	1.000	1.000	.000	.000
927.000	.508	1.000	1.000	.388	.112
927.250	.000	1.000	1.000	.001	.068
927.500	.000	1.000	1.000	.001	.000
927.750	.986	.688	.686	.014	.004
928.000	.000	1.000	1.000	.001	.000
928.250	.000	1.000	1.000	.001	.000
928.500	.983	.710	.611	.017	.007
928.750	.000	1.000	1.000	.001	.000
929.000	.000	1.000	1.000	.001	.000
929.250	.000	1.000	1.000	.001	.000
929.500	.000	1.000	1.000	.000	.000
929.750	.000	1.000	1.000	.000	.000
930.000	.000	1.000	1.000	.000	.000
930.250	.755	.168	.168	.000	.000
930.500	.000	1.000	1.000	.000	.000
930.750	.000	1.000	1.000	.000	.000
931.000	.000	1.000	1.000	.000	.000
931.250	.000	1.000	1.000	.000	.000
931.500	.000	1.000	1.000	.000	.000
931.750	.574	.208	.208	.000	.000
932.000	.000	1.000	1.000	.000	.000
932.250	.000	1.000	1.000	.001	.000
932.500	.000	1.000	1.000	.001	.000

2933.250	.000	1.000	1.000	.001	.000
2933.500	.000	1.000	1.000	.001	.000
2933.750	.249	.557	.510	.081	.040
2934.000	.431	.730	.505	.048	.024
2934.250	.300	.777	.765	.041	.010
2934.500	.176	1.000	.699	.051	.015
2934.750	.163	.832	.588	.062	.026
2935.000	.173	.732	.634	.072	.026
2935.250	.191	.633	.417	.090	.053
2935.500	.180	.578	.372	.098	.062
2935.750	.203	.667	.433	.075	.042

1 DEPTH VCL BREAM #5 SW PHI HC VOL

2936.000	.203	.862	.531	.055	.026
2936.250	.121	.869	.500	.069	.034
2936.500	.149	1.000	.705	.047	.014
2936.750	.241	1.000	1.000	.015	.000
2937.000	.000	1.000	1.000	.001	.000
2937.250	.255	1.000	.955	.027	.001
2937.500	.212	1.000	.800	.040	.008
2937.750	.103	.956	.604	.070	.028
2938.000	.116	.716	.538	.087	.040
2938.250	.202	.791	.670	.079	.026
2938.500	.000	1.000	1.000	.001	.000
2938.750	.000	1.000	1.000	.001	.000
2939.000	.000	1.000	1.000	.000	.000
2939.250	.000	1.000	1.000	.000	.000
2939.500	.000	1.000	1.000	.000	.000
2939.750	.000	1.000	1.000	.000	.000
2940.000	.000	1.000	1.000	.000	.000
2940.250	.000	1.000	1.000	.000	.000
2940.500	.000	1.000	1.000	.000	.000
2940.750	.000	1.000	1.000	.000	.000
2941.000	.000	1.000	1.000	.000	.000
2941.250	.000	1.000	1.000	.000	.000
2941.500	.000	1.000	1.000	.000	.000
2941.750	.000	1.000	1.000	.000	.000
2942.000	.000	1.000	1.000	.000	.000
2942.250	.000	1.000	1.000	.000	.000
2942.500	.000	1.000	1.000	.000	.000
2942.750	.000	1.000	1.000	.000	.000
2943.000	.000	1.000	1.000	.000	.000
2943.250	.000	1.000	1.000	.001	.000
2943.500	.000	1.000	1.000	.001	.000
2943.750	.000	1.000	1.000	.001	.000
2944.000	.000	1.000	1.000	.001	.000
2944.250	.306	.532	.532	.063	.029
2944.500	.170	.610	.610	.076	.030
2944.750	.158	.741	.741	.067	.017
2945.000	.161	.847	.847	.059	.009
2945.250	.169	.834	.834	.062	.010
2945.500	.000	1.000	1.000	.001	.000
2945.750	.000	1.000	1.000	.001	.000
2946.000	.000	1.000	1.000	.001	.000
2946.250	.000	1.000	1.000	.001	.000
2946.500	.000	1.000	1.000	.001	.000
2946.750	.000	1.000	1.000	.001	.000
2947.000	.000	1.000	1.000	.001	.000
2947.250	.000	1.000	1.000	.001	.000
2947.500	.230	.628	.628	.080	.030
2947.750	.184	.562	.531	.117	.055
2948.000	.231	.553	.553	.113	.051
2948.250	.325	.606	.514	.094	.046
2948.500	.000	1.000	1.000	.001	.000

DEPTH	VCL	BREAM #5 SX?	SW	PHI	HC.VOL
948.750	.000	1.000	1.000	.001	.000
949.000	.000	1.000	1.000	.001	.000
949.250	.000	1.000	1.000	.001	.000
949.500	.264	.479	.479	.044	.023
949.750	.000	1.000	1.000	.001	.000
950.000	.000	1.000	1.000	.001	.000
950.250	.947	.463	.463	.053	.028
950.500	.895	.597	.312	.105	.073
950.750	.900	.293	.272	.100	.073
951.000	.475	.447	.447	.025	.014
951.250	.000	1.000	1.000	.001	.000
951.500	.978	.518	.518	.022	.016
951.750	.965	.456	.456	.035	.019
952.000	.970	.497	.492	.030	.015
952.250	.958	1.000	.514	.042	.021
952.500	.000	1.000	1.000	.001	.000
952.750	.000	1.000	1.000	.001	.000
953.000	.000	1.000	1.000	.000	.000
953.250	.000	1.000	1.000	.000	.000
953.500	.000	1.000	1.000	.000	.000
953.750	.000	1.000	1.000	.000	.000
954.000	.000	1.000	1.000	.000	.000
954.250	.000	1.000	1.000	.000	.000
954.500	.000	1.000	1.000	.000	.000
954.750	.000	1.000	1.000	.000	.000
955.000	.000	1.000	1.000	.000	.000
955.250	.000	1.000	1.000	.001	.000
955.500	.000	1.000	1.000	.001	.000
955.750	.000	1.000	1.000	.001	.000
956.000	.000	1.000	1.000	.001	.000
956.250	.000	1.000	1.000	.001	.000
956.500	.627	.319	.319	.132	.090
956.750	.000	1.000	1.000	.001	.000
957.000	.000	1.000	1.000	.001	.000
957.250	.000	1.000	1.000	.001	.000
957.500	.000	1.000	1.000	.001	.000
957.750	.000	1.000	1.000	.001	.000
958.000	.930	.404	.404	.070	.042
958.250	.000	1.000	1.000	.001	.000
958.500	.000	1.000	1.000	.001	.000
958.750	.000	1.000	1.000	.001	.000
959.000	.000	1.000	1.000	.001	.000
959.250	.000	1.000	1.000	.001	.000
959.500	.354	.258	.258	.140	.104
959.750	.000	1.000	1.000	.001	.000
960.000	.000	1.000	1.000	.001	.000
960.250	.000	1.000	1.000	.001	.000
960.500	.611	.650	.650	.017	.006
960.750	.961	.511	.511	.039	.019
961.000	.000	1.000	1.000	.000	.000
961.250	.000	1.000	1.000	.000	.000
961.500	.000	1.000	1.000	.000	.000
961.750	.000	1.000	1.000	.000	.000
962.000	.000	1.000	1.000	.000	.000
962.250	.000	1.000	1.000	.000	.000
962.500	.000	1.000	1.000	.000	.000
962.750	.000	1.000	1.000	.000	.000
963.000	.000	1.000	1.000	.000	.000
963.250	.000	1.000	1.000	.001	.000
963.500	.000	1.000	1.000	.001	.000
963.750	.222	.718	.572	.077	.033

BREAM #5

DEPTH	VCL	SXO	SW	PHI	HC.VOL
2964.000	.173	.562	.562	.091	.040
2964.250	.165	.620	.620	.094	.036
2964.500	.153	.856	.646	.079	.028
2964.750	.096	1.000	.690	.074	.023
2965.000	.096	.964	.647	.069	.024
2965.250	.130	.990	.618	.063	.024
2965.500	.121	.975	.583	.062	.026
2965.750	.075	.924	.532	.071	.033
2966.000	.077	.634	.398	.091	.055
2966.250	.073	.611	.351	.101	.066
2966.500	.052	.620	.350	.105	.068
2966.750	.037	.550	.314	.119	.082
2967.000	.061	.504	.404	.116	.069
2967.250	.082	.607	.520	.090	.043
2967.500	.096	.754	.656	.070	.023
2967.750	.098	.563	.484	.104	.054
2968.000	.125	.590	.481	.105	.054
2968.250	.115	.774	.698	.076	.023
2968.500	.228	.922	.866	.051	.007
2968.750	1.000	1.000	1.000	.001	.000
2969.000	.000	1.000	1.000	.001	.000
2969.250	.000	.569	.569	.018	.008
2969.500	.000	.557	.557	.022	.010
2969.750	.000	1.000	1.000	.001	.000
2970.000	.000	1.000	1.000	.001	.000
2970.250	.661	.253	.253	.144	.108
2970.500	.000	1.000	1.000	.001	.000
2970.750	.000	1.000	1.000	.001	.000
2971.000	.208	.612	.363	.075	.048
2971.250	.000	1.000	1.000	.001	.000
2971.500	.000	1.000	1.000	.001	.000
2971.750	.000	1.000	1.000	.001	.000
2972.000	.000	1.000	1.000	.001	.000
2972.250	.000	1.000	1.000	.001	.000
2972.500	.000	1.000	1.000	.001	.000
2972.750	.000	1.000	1.000	.001	.000
2973.000	.000	1.000	1.000	.001	.000
2973.250	.000	1.000	1.000	.001	.000
2973.500	.000	1.000	1.000	.001	.000
2973.750	.000	1.000	1.000	.001	.000
2974.000	.000	1.000	1.000	.001	.000
2974.250	.179	.573	.565	.085	.037
2974.500	.000	1.000	1.000	.001	.000
2974.750	.000	1.000	1.000	.001	.000
2975.000	.000	1.000	1.000	.001	.000
2975.250	.000	1.000	1.000	.001	.000
2975.500	.146	.477	.477	.109	.057
2975.750	.166	.499	.397	.118	.071
2976.000	.143	.491	.366	.129	.082
2976.250	.128	.430	.295	.144	.101
2976.500	.064	.463	.270	.151	.110
2976.750	.066	.426	.260	.145	.107
2977.000	.037	.434	.286	.134	.096
2977.250	.109	.464	.323	.125	.085
2977.500	.103	.562	.336	.129	.086
2977.750	.086	.496	.322	.139	.094
1		BREAK #5			
DEPTH	VCL	SXO	SW	PHI	HC.VOL
2978.000	.103	.491	.322	.131	.089
2978.250	.094	.619	.409	.104	.061
2978.500	.086	.693	.588	.080	.033
2978.750	.000	1.000	1.000	.001	.000

2979.000	.000	1.000	1.000	.001	.000
2979.250	.000	1.000	1.000	.001	.000
2979.500	.000	1.000	1.000	.001	.000
2979.750	.000	.647	.647	.017	.006
2980.000	.000	1.000	1.000	.001	.000
2980.250	.000	1.000	1.000	.001	.000
2980.500	.000	1.000	1.000	.001	.000
2980.750	.000	1.000	1.000	.001	.000
2981.000	.000	1.000	1.000	.001	.000
2981.250	.000	1.000	1.000	.001	.000
2981.500	.000	1.000	1.000	.001	.000
2981.750	.000	1.000	1.000	.001	.000
2982.000	.000	1.000	1.000	.001	.000
2982.250	.000	1.000	1.000	.001	.000
2982.500	.000	1.000	1.000	.001	.000
2982.750	.000	1.000	1.000	.001	.000
2983.000	.047	.563	.458	.121	.065
2983.250	.080	.588	.588	.107	.044
2983.500	.000	1.000	1.000	.001	.000
2983.750	.000	1.000	1.000	.001	.000
2984.000	.000	1.000	1.000	.001	.000
2984.250	.000	1.000	1.000	.001	.000
2984.500	.301	1.000	1.000	.030	.000
2984.750	.108	.701	.701	.093	.028
2985.000	.035	.562	.562	.120	.053
2985.250	.103	.638	.638	.097	.035
2985.500	.000	1.000	1.000	.001	.000
2985.750	.000	1.000	1.000	.001	.000
2986.000	.000	1.000	1.000	.001	.000
2986.250	.240	.572	.572	.096	.041
2986.500	.129	.581	.581	.112	.047
2986.750	.123	.653	.628	.101	.038
2987.000	.200	.736	.766	.069	.015
2987.250	.258	.885	.885	.053	.006
2987.500	.206	.889	.874	.061	.008
2987.750	.182	.991	.901	.059	.006
2988.000	.225	.895	.895	.063	.007
2988.250	.258	.630	.830	.077	.013
2988.500	.000	1.000	1.000	.001	.000
2988.750	.000	1.000	1.000	.001	.000
2989.000	.000	1.000	1.000	.001	.000
2989.250	.000	1.000	1.000	.001	.000
2989.500	.000	1.000	1.000	.001	.000
2989.750	.000	1.000	1.000	.001	.000
2990.000	.000	1.000	1.000	.001	.000
2990.250	.000	.486	.486	.053	.027
2990.500	.000	1.000	1.000	.001	.000
2990.750	.983	.520	.520	.017	.008
2991.000	.000	1.000	1.000	.001	.000
2991.250	.000	1.000	1.000	.001	.000
2991.500	.600	1.000	1.000	.001	.000

DEPTH	VCL	SW	PHI	HC.VOL
2979.000	.000	1.000	.001	.000
2979.250	.000	1.000	.001	.000
2979.500	.000	1.000	.001	.000
2979.750	.972	.562	.028	.012
2980.000	.000	1.000	.001	.000
2980.250	.000	1.000	.001	.000
2980.500	.000	1.000	.001	.000
2980.750	.119	.600	.100	.040
2981.000	.098	.581	.100	.042
2981.250	.131	.639	.098	.035

1
AREA #5
SX-D

3041.000	.989	.627	.627	.011	.004
3041.250	.000	1.000	1.000	.001	.000
3041.500	.000	1.000	1.000	.001	.000
3041.750	.000	1.000	1.000	.001	.000
3042.000	.000	1.000	1.000	.001	.000
3042.250	.000	1.000	1.000	.001	.000
3042.500	.000	1.422	1.422	.026	.015
3042.750	.000	1.000	1.000	.001	.000
3043.000	.000	1.000	1.000	.001	.000
3043.250	.271	.573	.573	.085	.036
3043.500	.148	.640	.640	.099	.043
3043.750	.095	.616	.616	.100	.038
3044.000	.248	.509	.509	.100	.049
3044.250	.884	.358	.313	.100	.069
3044.500	.000	1.000	1.000	.100	.000
3044.750	.000	1.000	1.000	.100	.000
3045.000	.787	.146	.186	.100	.081
3045.250	.956	.498	.498	.044	.022
3045.500	.579	.537	.537	.065	.030
3045.750	.000	.353	.353	.048	.031
3046.000	.000	.515	.527	.050	.035
3046.250	.000	1.000	.337	.053	.035
3046.500	.000	1.000	.485	.055	.028
3046.750	.169	.648	.735	.061	.016
3047.000	.048	.718	.623	.080	.030
3047.250	.000	.643	.643	.100	.036
3047.500	.000	.667	.667	.100	.033
3047.750	.000	.671	.671	.100	.033

1. DEPTH	VCL	BREAK #5 SXD	SW	PHI	HC VOL
3048.000	.000	1.000	1.000	.001	.000
3048.250	.000	1.000	1.000	.001	.000
3048.500	.000	1.000	1.000	.001	.000
3048.750	.036	.553	.553	.080	.036
3049.000	.000	.593	.593	.092	.037
3049.250	.008	.635	.635	.081	.026
3049.500	.070	.682	.682	.077	.024
3049.750	.000	.596	.596	.086	.035
3050.000	.000	1.000	1.000	.000	.000
3050.250	.000	1.000	1.000	.000	.000
3050.500	.000	1.000	1.000	.000	.000
3050.750	.000	1.000	1.000	.000	.000
3051.000	.000	1.000	1.000	.000	.000
3051.250	.000	1.000	1.000	.000	.000
3051.500	.000	1.000	1.000	.000	.000
3051.750	.000	1.000	1.000	.000	.000
3052.000	.000	1.000	1.000	.000	.000
3052.250	.000	1.000	1.000	.000	.000
3052.500	.000	1.000	1.000	.000	.000
3052.750	.000	1.000	1.000	.000	.000
3053.000	.000	1.000	1.000	.000	.000
3053.250	.000	1.000	1.000	.000	.000
3053.500	.000	1.000	1.000	.000	.000
3053.750	.000	1.000	1.000	.000	.000
3054.000	.000	1.000	1.000	.000	.000
3054.250	.000	1.000	1.000	.000	.000
3054.500	.000	1.000	1.000	.000	.000
3054.750	.000	1.000	1.000	.000	.000
3055.000	.000	1.000	1.000	.000	.000
3055.250	.000	1.000	1.000	.000	.000
3055.500	.000	1.000	1.000	.000	.000
3055.750	.000	1.000	1.000	.000	.000
3056.000	.000	1.000	1.000	.000	.000
3056.250	.000	1.000	1.000	.000	.000

DEPT#	VCL	BREAM #5 SX0	SW	PHI	HC.VOL
3056.500	.000	1.000	1.000	.000	.000
3056.750	.000	1.000	1.000	.000	.000
3057.000	.000	1.000	1.000	.000	.000
3057.250	.000	1.000	1.000	.000	.000
3057.500	.000	1.000	1.000	.000	.000
3057.750	.000	1.000	1.000	.000	.000
3058.000	.000	1.000	1.000	.000	.000
3058.250	.000	1.000	1.000	.000	.000
3058.500	.000	1.000	1.000	.000	.000
3058.750	.000	1.000	1.000	.000	.000
3059.000	.000	1.000	1.000	.000	.000
3059.250	.000	1.000	1.000	.000	.000
3059.500	.000	1.000	1.000	.000	.000
3059.750	.000	1.000	1.000	.000	.000
060.000	.000	1.000	1.000	.000	.000
060.250	.000	1.000	1.000	.001	.000
060.500	.150	.539	.589	.016	.007
060.750	.000	1.000	1.000	.001	.000
061.000	.000	1.000	1.000	.001	.000
061.250	.000	1.000	1.000	.001	.000
061.500	.107	.510	.510	.064	.031
061.750	.000	.514	.514	.095	.046
3062.000	.019	.792	.587	.100	.041
3062.250	.046	.950	.566	.100	.043
3062.500	.000	.787	.536	.085	.038
3062.750	.000	.655	.626	.089	.033
3063.000	.073	.689	.689	.093	.029
3063.250	.047	.700	.675	.100	.032
3063.500	.000	.689	.689	.100	.031
3063.750	.000	.654	.569	.100	.043
3064.000	.000	1.000	1.000	.001	.000
3064.250	.000	1.000	1.000	.001	.000
3064.500	.000	1.000	1.000	.001	.000
3064.750	.000	1.000	1.000	.001	.000
3065.000	.000	1.000	1.000	.001	.000
3065.250	.000	1.000	1.000	.001	.000
3065.500	.000	.544	.544	.012	.005
3065.750	.000	1.000	1.000	.001	.000
3066.000	.000	1.000	1.000	.001	.000
3066.250	.000	.431	.431	.051	.029
3066.500	.000	1.000	1.000	.001	.000
3066.750	.000	.636	.550	.100	.045
3067.000	.000	.635	.574	.100	.043
3067.250	.060	.742	.604	.100	.040
3067.500	.104	.845	.652	.088	.030
3067.750	.028	.623	.623	.099	.037
3068.000	.000	.641	.525	.100	.047
3068.250	.034	.629	.626	.100	.037
3068.500	.105	.729	.631	.091	.034
3068.750	.131	.833	.699	.067	.020
3069.000	.050	.670	.670	.062	.021
3069.250	.032	.693	.567	.068	.029
3069.500	.047	.742	.714	.075	.021
3069.750	.112	.818	.815	.068	.013
3070.000	.051	.734	.734	.086	.023
3070.250	.000	.550	.550	.084	.038
3070.500	.000	.669	.572	.068	.029
3070.750	.037	.722	.722	.068	.019
3071.000	.151	1.000	.919	.048	.004
3071.250	.151	1.000	1.000	.044	.000
3071.500	.119	.400	.890	.058	.006
3071.750	.141	.926	.926	.056	.004

3072.000	.237	1.000	.974	.040	.001
3072.250	.477	1.000	.904	.023	.002
3072.500	.673	1.000	.935	.011	.001
3072.750	.000	1.000	1.000	.001	.000
3073.000	.448	.633	.633	.065	.024
3073.250	.318	.600	.600	.069	.027
3073.500	.349	.908	.665	.062	.021
3073.750	.000	1.000	1.000	.001	.000
3074.000	.000	1.000	1.000	.001	.000
3074.250	.000	1.000	1.000	.001	.000
3074.500	.000	1.000	1.000	.001	.000
3074.750	.198	.767	.767	.052	.012
3075.000	.083	.715	.715	.061	.017
3075.250	.040	.750	.750	.062	.015
3075.500	.010	.728	.728	.066	.018
3075.750	.014	.742	.742	.068	.018

DEPTH	VCL	BREAM SX0	SW	PHI	HC.VOL
3076.000	.056	.847	.847	.069	.011
3076.250	.046	.808	.808	.073	.014
3076.500	.009	.736	.736	.072	.019
3076.750	.000	.746	.746	.068	.017
3077.000	.022	.816	.816	.071	.013
3077.250	.053	.843	.843	.068	.011
3077.500	.047	.790	.790	.072	.015
3077.750	.014	.721	.647	.069	.024
3078.000	.031	.695	.695	.078	.024
3078.250	.120	.717	.717	.075	.021
3078.500	.000	1.000	1.000	.001	.000
3078.750	.000	1.000	1.000	.001	.000
3079.000	.000	1.000	1.000	.001	.000
3079.250	.000	1.000	1.000	.001	.000
3079.500	.126	.637	.637	.048	.017
3079.750	.000	.554	.554	.054	.024
3080.000	.000	.546	.546	.064	.029
3080.250	.000	.574	.574	.066	.028
3080.500	.000	.634	.634	.061	.022
3080.750	.000	.712	.712	.060	.017
3081.000	.019	.724	.724	.067	.018
3081.250	.006	.701	.701	.071	.021
3081.500	.031	.826	.826	.061	.011
3081.750	.000	1.000	1.000	.001	.000
3082.000	.000	1.000	1.000	.001	.000
3082.250	.009	.617	.617	.076	.029
3082.500	.000	.577	.577	.100	.042
3082.750	.000	.661	.661	.100	.034
3083.000	.000	1.000	1.000	.001	.000
3083.250	.000	1.000	1.000	.001	.000
3083.500	.000	1.000	1.000	.001	.000
3083.750	.000	1.000	1.000	.001	.000
3084.000	.000	1.000	1.000	.001	.000
3084.250	.648	.789	.789	.021	.004
3084.500	.466	.640	.640	.042	.015
3084.750	.000	1.000	1.000	.001	.000
3085.000	.000	1.000	1.000	.000	.000
3085.250	.000	1.000	1.000	.000	.000
3085.500	.000	1.000	1.000	.000	.000
3085.750	.000	1.000	1.000	.000	.000
3086.000	.000	1.000	1.000	.000	.000
3086.250	.000	1.000	1.000	.000	.000
3086.500	.000	1.000	1.000	.000	.000
3086.750	.000	1.000	1.000	.000	.000
3087.000	.000	1.000	1.000	.000	.000
3087.250	.666	1.000	.521	.055	.026

087.550	.980	.714	.714	.020	.006
087.750	.986	.778	.778	.014	.003
088.000	.000	1.000	1.000	.001	.000
088.250	.000	1.000	1.000	.001	.000
088.500	.000	1.000	1.000	.001	.000
088.750	.000	1.000	1.000	.001	.000
089.000	.000	1.000	1.000	.001	.000
089.250	.000	1.000	1.000	.001	.000
089.500	.000	1.000	1.000	.001	.000
089.750	.010	.850	.850	.071	.011

DEPTH	VCL	BREAM #S SXJ	SW	PHI	HC.VOL
090.000	.114	.966	.966	.057	.002
090.250	.015	.707	.707	.075	.022
090.500	.000	.820	.820	.069	.026
090.750	.000	.579	.579	.067	.028
091.000	.000	.578	.578	.075	.032
091.250	.000	.645	.645	.068	.034
091.500	.000	.623	.623	.070	.021
091.750	.000	1.000	1.000	.001	.000
092.000	.000	1.000	1.000	.001	.000
092.250	.000	1.000	1.000	.001	.000
092.500	.000	1.000	1.000	.001	.000
092.750	.971	.514	.514	.029	.014
093.000	.000	1.000	1.000	.001	.000
093.250	.000	1.000	1.000	.001	.000
093.500	.000	1.000	1.000	.001	.000
093.750	.000	1.000	1.000	.001	.000
094.000	.929	.486	.486	.061	.032
094.250	.534	.408	.408	.066	.039
094.500	.970	.549	.549	.030	.014
094.750	.000	1.000	1.000	.001	.000
095.000	.000	1.000	1.000	.001	.000
095.250	.000	1.000	1.000	.001	.000
095.500	.000	1.000	1.000	.001	.000
095.750	.000	1.000	1.000	.001	.000
096.000	.000	1.000	1.000	.001	.000
096.250	.000	1.000	1.000	.001	.000
096.500	.450	.586	.586	.070	.029
096.750	.258	.622	.622	.066	.025
097.000	.078	.601	.601	.070	.028
097.250	.079	.524	.532	.082	.038
097.500	.000	1.000	1.000	.001	.000
097.750	.942	.836	.586	.018	.008
098.000	.000	1.000	1.000	.001	.000
098.250	.000	1.000	1.000	.001	.000
098.500	.985	.702	.702	.015	.005
098.750	.950	.539	.539	.050	.023
099.000	.431	.494	.494	.089	.045
099.250	.958	.638	.601	.032	.013
099.500	.981	.622	.622	.019	.007
100.000	.000	1.000	1.000	.001	.000
100.250	.000	1.000	1.000	.001	.000
100.500	.000	1.000	1.000	.001	.000
100.750	.000	1.000	1.000	.001	.000
101.000	.000	1.000	1.000	.001	.000
101.250	.000	1.000	1.000	.001	.000
101.500	.000	1.000	1.000	.001	.000
101.750	.673	.206	.206	.090	.071
102.000	.000	1.000	1.000	.001	.000
102.250	.957	.479	.479	.043	.023
102.500	.949	.480	.480	.051	.027
102.750	.974	.663	.663	.026	.009

3103.000	.000	1.000	1.000	.001	.000
3103.250	.000	1.000	1.000	.001	.000
3103.500	.000	1.000	1.000	.001	.000
3103.750	.038	.383	.383	.082	.050

1	DEPTH	VCL	BREAM #5 SX0	SW	PHI	HC.VOL
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3104.000	.000	.623	.623	.011	.004
3104.250	.000	1.000	1.000	.001	.000
3104.500	.000	1.000	1.000	.001	.000
3104.750	.000	1.000	1.000	.001	.000
3105.000	.000	.427	.427	.052	.030
3105.250	.000	1.000	1.000	.001	.000
3105.500	.000	1.000	1.000	.001	.000
3105.750	.000	.461	.461	.048	.026
3106.000	.000	.459	.327	.072	.048
3106.250	.000	.905	.271	.089	.065
3106.500	.000	1.000	.295	.095	.067
3106.750	.000	.953	.341	.093	.062
3107.000	.000	1.000	.352	.100	.065
3107.250	.000	.834	.390	.100	.061
3107.500	.000	.825	.440	.100	.056
3107.750	.000	.782	.362	.100	.064
3108.000	.000	.603	.235	.087	.067
3108.250	.000	.771	.228	.100	.077
3108.500	.000	1.000	.270	.100	.073
3108.750	.000	1.000	.330	.100	.067
3109.000	.000	1.000	.371	.100	.063
3109.250	.025	1.000	.450	.100	.055
3109.500	.059	1.000	.515	.100	.049
3109.750	.001	1.000	.475	.100	.052
3110.000	.000	1.000	.410	.100	.059
3110.250	.019	1.000	.412	.100	.059
3110.500	.004	1.000	.431	.100	.057
3110.750	.000	1.000	.419	.100	.058
3111.000	.000	1.000	.391	.082	.050
3111.250	.000	1.000	.385	.074	.046
3111.500	.000	1.000	.444	.073	.040
3111.750	.000	1.000	.431	.084	.048
3112.000	.000	1.000	.405	.100	.059
3112.250	.000	1.000	.415	.100	.058
3112.500	.000	1.000	.455	.100	.054
3112.750	.235	1.000	.523	.100	.048
3113.000	.544	1.000	.590	.058	.024
3113.250	.000	1.000	1.000	.001	.000
3113.500	.000	.501	.501	.038	.019
3113.750	.000	.568	.568	.035	.015
3114.000	.000	1.000	1.000	.001	.000
3114.250	.974	.636	.636	.026	.009
3114.500	.000	.389	.383	.064	.040
3114.750	.023	1.000	.417	.066	.038
3115.000	.000	1.000	.364	.049	.031
3115.250	.000	1.000	.298	.033	.023
3115.500	.114	1.000	.448	.032	.018
3115.750	.000	1.000	1.000	.001	.000
3116.000	.069	.396	.396	.039	.023
3116.250	.000	.572	.264	.034	.025
3116.500	.000	.882	.501	.031	.022
3116.750	.119	.411	.378	.036	.022
3117.000	.000	.309	.225	.044	.034
3117.250	.000	.960	.198	.088	.071
3117.500	.135	.962	.315	.100	.069
3117.750	.000	1.000	1.000	.001	.000

1	DEPTH	VCL	BREAM #5 SX0	SW	PHI	HC.VOL
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3118.000	.983	1.580	1.580	.017	.007
3118.250	.000	1.000	1.000	.001	.000
3118.500	.000	1.000	1.000	.001	.000
3118.750	.985	1.575	1.575	.015	.006
3119.000	.000	1.000	1.000	.001	.000
3119.250	.936	1.504	1.504	.063	.032
3119.500	.000	1.000	1.000	.067	.047
3119.750	.000	.957	.957	.075	.054
3120.000	.000	.856	.856	.084	.057
3120.250	.000	.791	.791	.077	.052
3120.500	.000	.846	.846	.070	.047
3120.750	.000	.608	.608	.085	.059
3121.000	.000	.957	.957	.100	.072
3121.250	.138	1.000	1.000	.100	.069
3121.500	.495	1.000	1.000	.100	.066
3121.750	.946	1.975	1.975	.054	.028
3122.000	.000	1.000	1.000	.001	.000
3122.250	.000	1.000	1.000	.001	.000
3122.500	.000	1.000	1.000	.001	.000
3122.750	.000	1.000	1.000	.001	.000
3123.000	.000	1.000	1.000	.001	.000
3123.250	.000	1.000	1.000	.001	.000
3123.500	.000	.319	.319	.074	.051
3123.750	.000	.289	.289	.097	.070
3124.000	.000	.899	.899	.100	.068
3124.250	.000	1.000	1.000	.098	.064
3124.500	.000	1.000	1.000	.097	.060
3124.750	.154	1.000	1.000	.100	.047
3125.000	.000	1.000	1.000	.001	.000
3125.250	.000	1.000	1.000	.001	.000
3125.500	.000	1.000	1.000	.001	.000
3125.750	.000	1.000	1.000	.001	.000
3126.000	.000	1.000	1.000	.001	.000
3126.250	.000	1.000	1.000	.001	.000
3126.500	.000	1.000	1.000	.001	.000
3126.750	.000	1.000	1.000	.001	.000
3127.000	.000	1.000	1.000	.001	.000
3127.250	.076	1.000	1.000	.429	.065
3127.500	.883	1.877	1.877	.318	.073
3127.750	.000	1.000	1.000	.001	.000
3128.000	.000	1.000	1.000	.001	.000
3128.250	.000	1.000	1.000	.001	.000
3128.500	.000	1.000	1.000	.045	.033
3128.750	.000	1.000	1.000	.278	.050
3129.000	.000	1.000	1.000	.282	.055
3129.250	.000	1.000	1.000	.229	.063
3129.500	.000	1.000	1.000	.201	.064
3129.750	.000	1.000	1.000	.239	.053
3130.000	.000	1.000	1.000	.370	.042
3130.250	.000	1.000	1.000	.325	.047
3130.500	.000	.953	.953	.399	.056
3130.750	.000	1.000	1.000	.361	.074
3131.000	.000	1.000	1.000	.298	.100
3131.250	.028	1.000	1.000	.261	.100
3131.500	.000	1.000	1.000	.001	.000
3131.750	.000	1.000	1.000	.001	.000
3132.000	.000	1.000	1.000	.001	.000
3132.250	.000	1.000	1.000	.001	.000
3132.500	.000	1.000	1.000	.001	.000
3132.750	.981	.697	.697	.019	.006
3133.000	.960	.546	.546	.040	.018

DEPTH	VCL	BREAM SXD	SW	PHI	HC.VOL
3132.000	.000	1.000	1.000	.001	.000
3132.250	.000	1.000	1.000	.001	.000
3132.500	.000	1.000	1.000	.001	.000
3132.750	.981	.697	.697	.019	.006
3133.000	.960	.546	.546	.040	.018

3133.250	.136	.400	.408	.100	.059
3133.500	.015	.437	.437	.075	.042
3133.750	.000	.521	.458	.073	.040
3134.000	.000	.508	.432	.071	.040
3134.250	.000	.900	.476	.073	.038
3134.500	.140	.772	.772	.083	.019
3134.750	.322	.678	.800	.056	.011
3135.000	.605	1.000	.712	.038	.011
3135.250	.000	1.000	1.000	.001	.000
3135.500	.000	1.000	1.000	.001	.000
3135.750	.000	1.000	1.000	.001	.000
3136.000	.000	1.000	1.000	.001	.000
3136.250	.000	1.000	1.000	.001	.000
3136.500	.000	1.000	1.000	.001	.000
3136.750	.419	.675	.675	.050	.016
3137.000	.249	.726	.726	.069	.019
3137.250	.141	.808	.808	.080	.015
3137.500	.000	.664	.664	.097	.033
3137.750	.000	.625	.625	.090	.034
3138.000	.000	.615	.544	.077	.035
3138.250	.000	.599	.352	.072	.047
3138.500	.000	.463	.345	.086	.056
3138.750	.000	.632	.396	.086	.052
3139.000	.000	1.000	1.000	.001	.000
3139.250	.000	1.000	1.000	.001	.000
3139.500	.000	1.000	1.000	.001	.000
3139.750	.000	1.000	1.000	.001	.000
3140.000	.000	1.000	1.000	.001	.000
3140.250	.000	1.000	1.000	.001	.000
3140.500	.000	1.000	1.000	.001	.000
3140.750	.000	1.000	1.000	.001	.000
3141.000	.000	1.000	1.000	.001	.000
3141.250	.039	.523	.523	.064	.031
3141.500	.000	.513	.513	.063	.031
3141.750	.000	.634	.414	.055	.032
3142.000	.000	.496	.293	.052	.037
3142.250	.000	.351	.275	.059	.043
3142.500	.000	1.000	.360	.067	.043
3142.750	.113	1.000	.551	.077	.034
3143.000	.000	1.000	1.000	.001	.000
3143.250	.000	1.000	1.000	.001	.000
3143.500	.000	1.000	1.000	.001	.000
3143.750	.000	1.000	1.000	.001	.000
3144.000	.000	1.000	1.000	.001	.000
3144.250	.000	1.000	1.000	.001	.000
3144.500	.000	1.000	1.000	.001	.000
3144.750	.000	1.000	1.000	.001	.000
3145.000	.466	.719	.719	.039	.011
3145.250	.191	.660	.660	.054	.018
3145.500	.000	1.000	1.000	.001	.000
3145.750	.000	1.000	1.000	.001	.000
3146.000	.153	.825	.825	.055	.010
3146.250	.031	.713	.713	.050	.014
3146.500	.000	.549	.549	.040	.018
3146.750	.000	.525	.525	.044	.021
3147.000	.121	.780	.780	.048	.010
3147.250	.101	.696	.836	.047	.008
3147.500	.221	1.000	.739	.048	.013
3147.750	.000	1.000	1.000	.001	.000
3148.000	.000	1.000	1.000	.001	.000
3148.250	.000	1.000	1.000	.001	.000
3148.500	.000	1.000	1.000	.001	.000

DEPTH	VCL	BREAK #5 SKD	SW	PHI	HC.VOL
3146.000	.153	.825	.825	.055	.010
3146.250	.031	.713	.713	.050	.014
3146.500	.000	.549	.549	.040	.018
3146.750	.000	.525	.525	.044	.021
3147.000	.121	.780	.780	.048	.010
3147.250	.101	.696	.836	.047	.008
3147.500	.221	1.000	.739	.048	.013
3147.750	.000	1.000	1.000	.001	.000
3148.000	.000	1.000	1.000	.001	.000
3148.250	.000	1.000	1.000	.001	.000
3148.500	.000	1.000	1.000	.001	.000

148.750	.000	1.000	1.000	.001	.000
149.000	.140	.500	.500	.049	.024
149.250	.000	.455	.455	.056	.031
149.500	.000	1.000	.471	.064	.034
149.750	.038	1.000	.650	.055	.019
150.000	.000	1.000	1.000	.001	.000
150.250	.000	1.000	1.000	.001	.000
150.500	.000	1.000	1.000	.001	.000
150.750	.000	1.000	1.000	.001	.000
151.000	.264	.720	.720	.042	.012
151.250	.124	.586	.586	.057	.024
151.500	.052	.783	.402	.096	.057
151.750	.295	1.000	.324	.100	.068
152.000	.949	.657	.483	.051	.026
152.250	.930	.711	.711	.020	.006
152.500	.976	.710	.710	.024	.007
152.750	.000	1.000	1.000	.001	.000
153.000	.000	1.000	1.000	.001	.000
153.250	.000	1.000	1.000	.001	.000
153.500	.000	1.000	1.000	.001	.000
153.750	.000	1.000	1.000	.001	.000
154.000	.000	1.000	1.000	.001	.000
154.250	.981	.756	.756	.019	.005
154.500	.000	1.000	1.000	.001	.000
154.750	.000	1.000	1.000	.001	.000
155.000	.000	1.000	1.000	.001	.000
155.250	.000	1.000	1.000	.001	.000
155.500	.000	1.000	1.000	.001	.000
155.750	.000	1.000	1.000	.001	.000
156.000	.000	1.000	1.000	.001	.000
156.250	.000	1.000	1.000	.001	.000
156.500	.975	.590	.590	.025	.010
156.750	.000	1.000	1.000	.077	.000
157.000	.000	1.000	1.000	.001	.000
157.250	.988	1.000	.750	.012	.003
157.500	.000	1.000	1.000	.001	.000
157.750	.000	1.000	1.000	.001	.000
158.000	.000	1.000	1.000	.001	.000
158.250	.587	.281	.281	.038	.027
158.500	.981	.641	.641	.019	.007
158.750	.000	.258	.258	.036	.027
159.000	.000	.889	.155	.059	.050
159.250	.000	1.000	.159	.058	.049
159.500	.000	1.000	.227	.041	.031
159.750	.000	1.000			

DEPTH	VCL	BREATH #5 SX0	SW	PHI	HC.VOL
160.000	.000	.733	.317	.037	.025
160.250	.000	.729	.330	.047	.031
160.500	.000	1.000	.347	.063	.041
160.750	.000	1.000	1.000	.001	.000
161.000	.000	1.000	1.000	.001	.000
161.250	.000	1.000	1.000	.001	.000
161.500	.000	1.000	1.000	.001	.000
161.750	.000	1.000	1.000	.001	.000
162.000	.000	1.000	1.000	.001	.000
162.250	.000	1.000	1.000	.001	.000
162.500	.000	1.000	1.000	.001	.000
162.750	.000	1.000	1.000	.001	.000
163.000	.000	1.000	1.000	.001	.000
163.250	.183	1.000	.797	.061	.012
163.500	.144	.693	.693	.062	.019
163.750	.000	1.000	1.000	.001	.000
164.000	.000	1.000	1.000	.001	.000

3164.000	.000	1.000	1.000	.001	.000
3164.250	.000	1.000	1.000	.001	.000
3164.500	.000	1.000	1.000	.001	.000
3164.750	.000	1.000	1.000	.001	.000
3165.000	.000	1.000	1.000	.001	.000
3165.250	.000	1.000	1.000	.001	.000
3165.500	.000	1.000	1.000	.001	.000
3165.750	.000	1.000	1.000	.001	.000
3166.000	.000	1.000	1.000	.001	.000
3166.250	.000	1.000	1.000	.001	.000
3166.500	.000	1.000	1.000	.001	.000
3166.750	.195	1.000	1.000	.001	.000
3167.000	.075	1.000	1.000	.057	.020
3167.250	.102	1.000	1.000	.545	.029
3167.500	.000	1.000	1.000	.663	.018
3167.750	.126	1.000	1.000	.687	.000
3168.000	.019	1.000	1.000	.659	.020
3168.250	.046	1.000	1.000	.646	.029
3168.500	.142	1.000	1.000	.707	.020
3168.750	.000	1.000	1.000	.836	.008
3169.000	.000	1.000	1.000	.001	.000
3169.250	.000	1.000	1.000	.001	.000
3169.500	.150	1.000	1.000	.001	.000
3169.750	.008	1.000	1.000	.848	.008
3170.000	.048	1.000	1.000	.675	.013
3170.250	.155	1.000	1.000	.680	.013
3170.500	.132	1.000	1.000	.811	.009
3170.750	.000	1.000	1.000	.925	.003
3171.000	.000	1.000	1.000	.001	.000
3171.250	.000	1.000	1.000	.001	.000
3171.500	.000	1.000	1.000	.001	.000
3171.750	.249	1.000	1.000	.001	.000
3172.000	.178	1.000	1.000	.631	.013
3172.250	.000	1.000	1.000	.586	.014
3172.500	.000	1.000	1.000	.001	.000
3172.750	.000	1.000	1.000	.001	.000
3173.000	.000	1.000	1.000	.001	.000
3173.250	.000	1.000	1.000	.001	.000
3173.500	.000	1.000	1.000	.001	.000
3173.750	.000	1.000	1.000	.001	.000
3174.000	.000	1.000	1.000	.001	.000
3174.250	.000	1.000	1.000	.001	.000
3174.500	.000	1.000	1.000	.001	.000
3174.750	.000	1.000	1.000	.001	.000
3175.000	.000	1.000	1.000	.001	.000
3175.250	.000	1.000	1.000	.001	.000
3175.500	.000	1.000	1.000	.001	.000
3175.750	.459	1.000	1.000	.790	.007
3176.000	.000	1.000	1.000	.001	.000
3176.250	.000	1.000	1.000	.001	.000
3176.500	.000	1.000	1.000	.001	.000
3176.750	.000	1.000	1.000	.001	.000
3177.000	.000	1.000	1.000	.001	.000
3177.250	.000	1.000	1.000	.001	.000
3177.500	.381	1.000	1.000	.574	.025
3177.750	.140	1.000	1.000	.504	.066
3178.000	.120	1.000	1.000	.573	.058
3178.250	.186	1.000	1.000	.561	.057
3178.500	.152	1.000	1.000	.479	.060
3178.750	.075	1.000	1.000	.500	.061
3179.000	.269	1.000	1.000	.939	.046
3179.250	.000	1.000	1.000	.001	.000
3179.500	.179	1.000	1.000	.797	.012

1 DEPTH VCL BREAM #5 SW PHI HC.VOL

179.750	.000	1.000	.531	.063	.029
180.000	.000	1.000	.572	.072	.031
180.250	.000	1.000	1.000	.001	.000
180.500	.000	1.000	1.000	.001	.000
180.750	.000	1.000	1.000	.001	.000
181.000	.000	1.000	1.000	.001	.000
181.250	.000	1.000	1.000	.001	.000
181.500	.000	1.000	1.000	.001	.000
181.750	.000	1.000	1.000	.001	.000
182.000	.175	1.244	1.244	.038	.029
182.250	.000	1.000	1.000	.053	.060
182.500	.000	1.000	1.000	.001	.000
182.750	.939	.416	.416	.061	.036
183.000	.759	.176	.176	.090	.074
183.250	.848	.257	.257	.082	.061
183.500	.971	.274	.274	.029	.012
183.750	.000	1.000	1.000	.001	.000
184.000	.000	1.000	1.000	.001	.000
184.250	.000	1.000	1.000	.001	.000
184.500	.000	1.000	1.000	.001	.000
184.750	.000	1.000	1.000	.001	.000
185.000	.000	1.000	1.000	.001	.000
185.250	.000	1.000	1.000	.001	.000
185.500	.000	1.000	1.000	.001	.000
185.750	.000	1.000	1.000	.001	.000
186.000	.000	1.000	1.000	.001	.000
186.250	.000	1.000	1.000	.001	.000
186.500	.000	1.000	1.000	.001	.000
186.750	.000	1.000	1.000	.001	.000
187.000	.000	1.000	1.000	.001	.000
187.250	.000	1.000	1.000	.001	.000
187.500	.000	1.000	1.000	.001	.000

DEPTH	VCL	BREA SXN	SW	PHI	HC.VOL
188.000	.000	1.000	1.000	.001	.000
188.250	.000	1.000	1.000	.001	.000
188.500	.000	.588	.588	.088	.036
188.750	.000	.473	.307	.083	.057
189.000	.000	.420	.248	.068	.052
189.250	.000	.814	.283	.063	.045
189.500	.000	1.000	.347	.067	.044
189.750	.000	1.000	.354	.074	.048
190.000	.000	1.000	.398	.087	.053
190.250	.000	.885	.405	.084	.050
190.500	.000	.558	.325	.069	.046
190.750	.000	.645	.276	.058	.042
191.000	.000	1.000	.300	.058	.040
191.250	.000	.933	.360	.064	.041
191.500	.000	1.000	.364	.058	.037
191.750	.000	.794	.363	.055	.035
192.000	.000	.897	.355	.054	.035
192.250	.000	.970	.402	.047	.028
192.500	.000	1.000	.397	.033	.020
192.750	.000	.844	.307	.030	.021
193.000	.000	.826	.262	.044	.032
193.250	.000	.947	.278	.063	.046
193.500	.000	1.000	.378	.063	.039
193.750	.000	1.000	1.000	.001	.000
194.000	.000	1.000	1.000	.001	.000
194.250	.000	.546	.546	.024	.011
194.500	.000	.394	.394	.035	.021
194.750	.000	1.000	1.000	.001	.000
195.000	.000	1.000	1.000	.001	.000

1	10.750	.000	1.000	1.000	.001	.000
1	11.000	.000	1.000	1.000	.088	.067
1	11.250	.000	1.000	1.000	.001	.000
1	11.500	.000	1.000	1.000	.001	.000
1	11.750	.000	1.000	1.000	.001	.000
1	12.000	.907	1.000	1.000	.058	.040
1	12.250	.000	1.000	1.000	.445	.020
1	12.500	.000	1.000	1.000	.001	.000
1	12.750	.000	1.000	1.000	.001	.000
1	13.000	.000	1.000	1.000	.001	.000
1	13.250	.000	1.000	1.000	.001	.000
1	13.500	.000	1.000	1.000	.001	.000
1	13.750	.324	1.000	1.000	.001	.000
1	14.000	.000	1.000	1.000	.198	.040
1	14.250	.000	1.000	1.000	.001	.000
1	14.500	.000	1.000	1.000	.001	.000
1	14.750	.000	1.000	1.000	.001	.000
1	15.000	.000	1.000	1.000	.001	.000
1	15.250	.000	1.000	1.000	.001	.000
1	15.500	.000	1.000	1.000	.001	.000
1	15.750	.000	1.000	1.000	.001	.000
1	16.000	.000	1.000	1.000	.001	.000

BREAK #5
SXD

DEPTH	VCL	SW	PHI	HC VOL
16.000	.000	1.000	.001	.000
16.250	.000	1.418	.045	.026
16.500	.000	1.000	.001	.000
16.750	.000	1.000	.001	.000
17.000	.236	1.000	.024	.000
17.250	.137	1.000	.047	.000
17.500	.116	.916	.072	.006
17.750	.000	.753	.036	.021
18.000	.041	.732	.095	.021
18.250	.244	1.000	.039	.000
18.500	.000	1.000	.001	.000
18.750	.000	1.000	.001	.000
19.000	.141	.209	.077	.061
19.250	.000	1.000	.001	.000
19.500	.000	1.000	.001	.000
19.750	.000	1.000	.001	.000
20.000	.000	1.000	.001	.000
20.250	.000	1.000	.001	.000
20.500	.481	.584	.019	.008
20.750	.000	.303	.039	.027
21.000	.000	.733	.040	.030
21.250	.000	1.000	.043	.032
21.500	.000	.944	.052	.038
21.750	.000	.840	.051	.036
22.000	.000	.635	.041	.024
22.250	.000	1.000	.037	.017
22.500	.000	1.000	.001	.000
22.750	.000	1.000	.637	.015
23.000	.000	1.000	.398	.025
23.250	.976	1.000	.811	.009
23.500	.000	1.000	.001	.000
23.750	.000	1.000	.001	.000
24.000	.000	1.000	.001	.000
24.250	.000	1.000	.001	.000
24.500	.000	1.000	.001	.000
24.750	.000	1.000	.001	.000
25.000	.000	1.000	.001	.000
25.250	.000	1.000	.001	.000
25.500	.000	1.000	.001	.000
25.750	.000	1.000	.001	.000
26.000	.000	1.000	.001	.000

3226.250	.000	1.000	1.000	.001	.000
3226.500	.000	1.000	1.000	.001	.000
3226.750	.000	1.000	1.000	.001	.000
3227.000	.000	1.000	1.000	.001	.000
3227.250	.000	1.000	1.000	.001	.000
3227.500	.000	1.000	1.000	.001	.000
3227.750	.000	1.000	1.000	.001	.000
3228.000	.000	1.000	1.000	.001	.000
3228.250	.000	1.000	1.000	.001	.000
3228.500	.000	1.000	1.000	.001	.000
3228.750	.000	1.000	1.000	.001	.000
3229.000	.000	1.000	1.000	.001	.000
3229.250	.000	1.000	1.000	.001	.000
3229.500	.000	1.000	1.000	.001	.000
3229.750	.000	1.000	1.000	.001	.000

DEPTH	VCL	BREATH #5 SXD	SW	PHI	HC.VOL
3230.000	.000	1.000	1.000	.001	.000
3230.250	.000	.877	.206	.055	.044
3230.500	.000	1.000	.204	.054	.043
3230.750	.000	1.000	.344	.055	.036
3231.000	.000	1.000	1.000	.001	.000
3231.250	.000	1.000	1.000	.001	.000
3231.500	.000	1.000	1.000	.001	.000
3231.750	.000	1.000	1.000	.001	.000
3232.000	.000	1.000	1.000	.001	.000
3232.250	.000	1.000	1.000	.001	.000
3232.500	.000	1.000	1.000	.001	.000
3232.750	.000	1.000	1.000	.001	.000
3233.000	.000	1.000	1.000	.001	.000
3233.250	.000	1.000	1.000	.001	.000
3233.500	.000	1.000	.583	.041	.017
3233.750	.000	1.000	.396	.040	.024
3234.000	.000	1.000	.882	.044	.030
3234.250	.000	1.000	.345	.046	.030
3234.500	.000	1.000	1.000	.001	.000
3234.750	.000	1.000	1.000	.001	.000
3235.000	.000	1.000	1.000	.001	.000
3235.250	.715	.313	.139	.072	.062
3235.500	.000	.690	.137	.073	.063
3235.750	.000	.726	.166	.078	.065
3236.000	.000	1.000	1.000	.074	.000
3236.250	.000	1.000	1.000	.001	.000
3236.500	.000	1.000	1.000	.001	.000
3236.750	.000	.316	.316	.079	.054
3237.000	.000	1.000	1.000	.001	.000
3237.250	.000	1.000	1.000	.001	.000
3237.500	.000	1.000	1.000	.001	.000
3237.750	.000	1.000	1.000	.001	.000
3238.000	.000	1.000	1.000	.001	.000
3238.250	.000	1.000	1.000	.001	.000
3238.500	.000	1.000	1.000	.001	.000
3238.750	.000	1.000	1.000	.001	.000
3239.000	.000	1.000	1.000	.001	.000
3239.250	.882	.453	.382	.057	.035
3239.500	.000	1.000	1.000	.001	.000
3239.750	.700	.448	.154	.077	.065
3240.000	.000	1.000	1.000	.001	.000
3240.250	.000	1.000	1.000	.001	.000
3240.500	.000	1.000	1.000	.001	.000
3240.750	.000	1.000	1.000	.001	.000
3241.000	.000	1.000	1.000	.001	.000
3241.250	.000	1.000	1.000	.001	.000
3241.500	.000	1.000	1.000	.001	.000

41	.750	1.000	1.000	.001	.000
42	.000	1.000	1.000	.001	.000
43	.000	1.000	1.000	.001	.000
44	.000	1.000	1.000	.001	.000
45	.000	1.000	1.000	.001	.000
46	.000	1.000	1.000	.001	.000
47	.000	1.000	1.000	.001	.000
48	.000	1.000	1.000	.001	.000
49	.000	1.000	1.000	.001	.000
50	.000	1.000	1.000	.001	.000
51	.000	1.000	1.000	.001	.000
52	.000	1.000	1.000	.001	.000
53	.000	1.000	1.000	.001	.000
54	.000	1.000	1.000	.001	.000
55	.000	1.000	1.000	.001	.000
56	.000	1.000	1.000	.001	.000
57	.000	1.000	1.000	.001	.000
58	.000	1.000	1.000	.001	.000
59	.000	1.000	1.000	.001	.000
60	.000	1.000	1.000	.001	.000
61	.000	1.000	1.000	.001	.000
62	.000	1.000	1.000	.001	.000
63	.000	1.000	1.000	.001	.000
64	.000	1.000	1.000	.001	.000
65	.000	1.000	1.000	.001	.000
66	.000	1.000	1.000	.001	.000
67	.000	1.000	1.000	.001	.000
68	.000	1.000	1.000	.001	.000
69	.000	1.000	1.000	.001	.000
70	.000	1.000	1.000	.001	.000
71	.000	1.000	1.000	.001	.000
72	.000	1.000	1.000	.001	.000
73	.000	1.000	1.000	.001	.000
74	.000	1.000	1.000	.001	.000
75	.000	1.000	1.000	.001	.000
76	.000	1.000	1.000	.001	.000
77	.000	1.000	1.000	.001	.000
78	.000	1.000	1.000	.001	.000
79	.000	1.000	1.000	.001	.000
80	.000	1.000	1.000	.001	.000
81	.000	1.000	1.000	.001	.000
82	.000	1.000	1.000	.001	.000
83	.000	1.000	1.000	.001	.000
84	.000	1.000	1.000	.001	.000
85	.000	1.000	1.000	.001	.000
86	.000	1.000	1.000	.001	.000
87	.000	1.000	1.000	.001	.000
88	.000	1.000	1.000	.001	.000
89	.000	1.000	1.000	.001	.000
90	.000	1.000	1.000	.001	.000
91	.000	1.000	1.000	.001	.000
92	.000	1.000	1.000	.001	.000
93	.000	1.000	1.000	.001	.000
94	.000	1.000	1.000	.001	.000
95	.000	1.000	1.000	.001	.000
96	.000	1.000	1.000	.001	.000
97	.000	1.000	1.000	.001	.000
98	.000	1.000	1.000	.001	.000
99	.000	1.000	1.000	.001	.000
100	.000	1.000	1.000	.001	.000

DEPTH	VCL	BREAM #5 SXU	SW	PHI	HC.VOL
41	.000	1.000	.354	.100	.065
42	.131	1.000	.665	.076	.026
43	.000	1.000	1.000	.001	.000
44	.000	1.000	1.000	.001	.000
45	.000	1.000	1.000	.001	.000
46	.000	1.000	1.000	.001	.000
47	.046	1.000	.604	.100	.040
48	.239	1.000	.630	.084	.031
49	.000	1.000	1.000	.001	.000
50	.000	1.000	1.000	.001	.000
51	.000	1.000	1.000	.001	.000
52	.000	1.000	1.000	.001	.000
53	.000	1.000	1.000	.001	.000
54	.000	1.000	1.000	.001	.000
55	.000	1.000	1.000	.001	.000
56	.000	1.000	1.000	.001	.000
57	.000	1.000	1.000	.001	.000
58	.000	1.000	1.000	.001	.000
59	.000	1.000	1.000	.001	.000
60	.000	1.000	1.000	.001	.000
61	.643	1.000	.096	.086	.077
62	.098	.210	.210	.061	.048
63	.145	.465	.274	.055	.040
64	.000	.449	.449	.067	.037
65	.000	.566	.566	.067	.029
66	.000	.611	.611	.060	.023
67	.000	.641	.641	.057	.020
68	.000	.730	.730	.056	.015
69	.000	.786	.786	.055	.012
70	.000	.805	.805	.062	.012
71	.000	.844	.844	.063	.010
72	.000	.774	.774	.053	.012
73	.000	.753	.753	.048	.012
74	.000	.910	.910	.054	.005
75	.000	.914	.914	.050	.004
76	.000	.874	.874	.051	.006
77	.000	1.000	1.000	.053	.000
78	.000	1.000	1.000	.001	.000
79	.000	1.000	1.000	.001	.000
80	.000	1.000	1.000	.001	.000
81	.000	1.000	1.000	.001	.000
82	.000	1.000	1.000	.001	.000
83	.000	1.000	1.000	.001	.000
84	.000	1.000	1.000	.001	.000
85	.000	1.000	1.000	.001	.000
86	.000	1.000	1.000	.001	.000
87	.000	1.000	1.000	.001	.000
88	.000	1.000	1.000	.001	.000
89	.000	1.000	1.000	.001	.000
90	.000	1.000	1.000	.001	.000
91	.000	1.000	1.000	.001	.000
92	.000	1.000	1.000	.001	.000
93	.000	1.000	1.000	.001	.000
94	.000	1.000	1.000	.001	.000
95	.000	1.000	1.000	.001	.000
96	.000	1.000	1.000	.001	.000
97	.000	1.000	1.000	.001	.000
98	.000	1.000	1.000	.001	.000
99	.000	1.000	1.000	.001	.000
100	.000	1.000	1.000	.001	.000

DEPTH	VCL	BREAM #5 SX0	SW	PHI	HC.VOL
3257.250	.000	1.000	1.000	.001	.000
3257.500	.000	1.000	1.000	.001	.000
3257.750	.000	1.000	1.000	.001	.000
3258.000	.000	1.000	1.000	.001	.000
3258.250	.000	1.000	1.000	.001	.000
3258.500	.000	1.000	1.000	.001	.000
3258.750	.000	1.000	1.000	.001	.000
3259.000	.000	1.000	1.000	.001	.000
3259.250	.000	1.000	1.000	.001	.000
3259.500	.000	1.000	1.000	.001	.000
3259.750	.000	1.000	1.000	.001	.000
3260.000	.000	1.000	1.000	.001	.000
3260.250	.000	1.000	1.000	.001	.000
3260.500	.779	.301	.172	.044	.036
3260.750	.000	1.000	1.000	.001	.000
3261.000	.000	1.000	1.000	.001	.000
3261.250	.000	.375	.375	.025	.016
3261.500	.000	1.000	1.000	.001	.000
3261.750	.000	1.000	1.000	.001	.000
3262.000	.000	1.000	1.000	.001	.000
3262.250	.000	1.000	1.000	.001	.000
3262.500	.000	1.000	1.000	.001	.000
3262.750	.000	1.000	1.000	.001	.000
3263.000	.000	1.000	1.000	.097	.000
3263.250	.000	1.000	1.000	.001	.000
3263.500	.000	1.000	1.000	.001	.000
3263.750	.000	1.000	1.000	.001	.000
3264.000	.000	1.000	1.000	.001	.000
3264.250	.000	1.000	1.000	.001	.000
3264.500	.000	1.000	1.000	.001	.000
3264.750	.000	1.000	1.000	.001	.000
3265.000	.000	1.000	1.000	.001	.000
3265.250	.000	1.000	1.000	.001	.000
3265.500	.000	1.000	1.000	.001	.000
3265.750	.000	1.000	1.000	.001	.000
3266.000	.000	1.000	1.000	.079	.000
3266.250	.000	1.000	1.000	.063	.000
3266.500	.000	1.000	1.000	.001	.000
3266.750	.000	1.000	1.000	.001	.000
3267.000	.000	1.000	1.000	.001	.000
3267.250	.000	1.000	1.000	.001	.000
3267.500	.000	1.000	1.000	.001	.000
3267.750	.000	1.000	1.000	.001	.000
3268.000	.000	1.000	1.000	.001	.000
3268.250	.000	1.000	1.000	.001	.000
3268.500	.000	1.000	1.000	.001	.000
3268.750	.000	1.000	1.000	.001	.000
3269.000	.000	1.000	1.000	.001	.000
3269.250	.000	1.000	1.000	.001	.000
3269.500	.000	1.000	1.000	.001	.000
3269.750	.000	1.000	1.000	.001	.000
3270.000	.000	1.000	1.000	.001	.000
3270.250	.000	1.000	1.000	.001	.000
3270.500	.000	1.000	1.000	.001	.000
3270.750	.000	1.000	1.000	.001	.000
3271.000	.000	1.000	1.000	.001	.000
3271.250	.580	.480	.480	.038	.020
3271.500	.366	.436	.436	.038	.022
3271.750	.000	.396	.396	.055	.033

1 DEPTH VCL BREAM #5 SW PHI HC.VOL

3287.500	.000	1.000	1.000	.001	.000
3287.750	.745	.160	.160	.078	.066
3288.000	.000	1.000	1.000	.100	.000
3288.250	.000	1.000	1.000	.001	.000
3288.500	.000	1.000	1.000	.001	.000
3288.750	.000	1.000	1.000	.001	.000
3289.000	.000	1.000	1.000	.001	.000
3289.250	.000	1.000	1.000	.001	.000
3289.500	.000	1.000	1.000	.001	.000
3289.750	.000	1.000	1.000	.001	.000
3290.000	.000	1.000	1.000	.001	.000
3290.250	.931	.311	.311	.069	.048
3290.500	.000	.395	.351	.086	.056
3290.750	.000	.750	.368	.100	.063
3291.000	.000	.834	.316	.100	.068
3291.250	.000	.788	.287	.099	.070
3291.500	.277	1.000	.391	.069	.042
3291.750	.000	1.000	1.000	.001	.000
3292.000	.868	.247	.247	.100	.075
3292.250	.834	.102	.102	.100	.090
3292.500	.000	1.000	1.000	.001	.000
3292.750	.000	1.000	1.000	.001	.000
3293.000	.000	1.000	1.000	.001	.000
3293.250	.000	1.000	1.000	.001	.000
3293.500	.000	1.000	1.000	.001	.000
3293.750	.090	1.000	1.000	.001	.000
3294.000	.000	1.000	1.000	.001	.000
3294.250	.000	1.000	1.000	.001	.000
3294.500	.000	1.000	1.000	.001	.000
3294.750	.000	1.000	1.000	.001	.000
3295.000	.000	1.000	1.000	.001	.000
3295.250	.000	.284	.284	.100	.072
3295.500	.000	.323	.215	.091	.071
3295.750	.000	.559	.199	.100	.080
3296.000	.000	1.000	.257	.100	.074
3296.250	.000	.705	.274	.094	.068
3296.500	.000	.545	.189	.082	.066
3296.750	.000	.498	.175	.097	.080
3297.000	.618	.683	.138	.100	.086
3297.250	.000	1.000	1.000	.001	.000
3297.500	.000	1.000	1.000	.001	.000
3297.750	.000	1.000	1.000	.001	.000
3298.000	.000	1.000	1.000	.001	.000
3298.250	.000	1.000	1.000	.001	.000
3298.500	.000	1.000	1.000	.001	.000
3298.750	.000	1.000	1.000	.001	.000
3299.000	.000	1.000	1.000	.001	.000
3299.250	.000	1.000	1.000	.001	.000
3299.500	.000	1.000	1.000	.001	.000
3299.750	.000	.557	.557	.017	.008

DEPTH	VCL	BREAK #5 SX0	SW	PHI	HC.VOL
3300.000	.000	1.000	1.000	.001	.000
3300.250	.000	1.000	*****	*****	*****
3300.500	.000	1.000	*****	*****	*****
3300.750	.000	1.000	*****	*****	*****
3301.000	.000	1.000	*****	*****	*****
3301.250	.000	1.000	*****	*****	*****
3301.500	.000	1.000	*****	*****	*****
3301.750	.000	1.000	*****	*****	*****
3302.000	.000	1.000	*****	*****	*****
3302.250	.000	1.000	*****	*****	*****
3302.500	.000	1.000	*****	*****	*****
3302.750	.000	1.000	*****	*****	*****

3303.000	.000	1.000	*****	*****	*****
3303.250	.000	1.000	*****	*****	*****
3303.500	.000	1.000	*****	*****	*****
3303.750	.000	1.000	*****	*****	*****
3304.000	.000	1.000	*****	*****	*****
3304.250	.000	1.000	*****	*****	*****
3304.500	.000	1.000	*****	*****	*****
3304.750	.000	1.000	*****	*****	*****
3305.000	.000	1.000	*****	*****	*****
3305.250	.000	1.000	*****	*****	*****
3305.500	.000	1.000	*****	*****	*****
3305.750	.000	1.000	*****	*****	*****
3306.000	.000	1.000	*****	*****	*****
3306.250	.000	1.000	*****	*****	*****
3306.500	.000	1.000	*****	*****	*****
3306.750	.000	1.000	*****	*****	*****
3307.000	.000	1.000	*****	*****	*****
3307.250	.000	1.000	*****	*****	*****
3307.500	.000	1.000	*****	*****	*****
3307.750	.000	1.000	*****	*****	*****
3308.000	.000	1.000	*****	*****	*****
3308.250	.000	1.000	*****	*****	*****
3308.500	.000	1.000	*****	*****	*****
3308.750	.000	1.000	*****	*****	*****
3309.000	.000	1.000	*****	*****	*****
3309.250	.000	1.000	*****	*****	*****
3309.500	.000	1.000	*****	*****	*****
3309.750	.000	1.000	*****	*****	*****
3310.000	.000	1.000	*****	*****	*****
3310.250	.000	1.000	*****	*****	*****
3310.500	.000	1.000	*****	*****	*****
3310.750	.000	1.000	*****	*****	*****
3311.000	.000	1.000	*****	*****	*****
3311.250	.000	1.000	*****	*****	*****
3311.500	.000	1.000	*****	*****	*****
3311.750	.000	1.000	*****	*****	*****
3312.000	.000	1.000	*****	*****	*****
3312.250	.000	1.000	*****	*****	*****
3312.500	.000	1.000	*****	*****	*****
3312.750	.000	1.000	*****	*****	*****
3313.000	.000	1.000	*****	*****	*****
3313.250	.000	1.000	*****	*****	*****
3313.500	.000	1.000	*****	*****	*****
3313.750	.000	1.000	*****	*****	*****

DEPTH	VCL	BREA ¹ #5 SXO	SW	PHI	HC.VOL
3314.000	.000	1.000	*****	*****	*****
3314.250	.000	1.000	*****	*****	*****
3314.500	.000	1.000	*****	*****	*****
3314.750	.000	1.000	*****	*****	*****
3315.000	.000	1.000	*****	*****	*****
3315.250	.000	1.000	*****	*****	*****
3315.500	.000	1.000	*****	*****	*****
3315.750	.000	1.000	*****	*****	*****
3316.000	.000	1.000	*****	*****	*****
3316.250	.000	1.000	*****	*****	*****
3316.500	.000	1.000	*****	*****	*****
3316.750	.000	1.000	*****	*****	*****
3317.000	.000	1.000	*****	*****	*****
3317.250	.000	1.000	*****	*****	*****
3317.500	.000	1.000	*****	*****	*****
3317.750	.000	1.000	*****	*****	*****
3318.000	.000	1.000	*****	*****	*****
3318.250	.000	1.000	*****	*****	*****

3334.000	.000	1.000	*****	*****	*****
3334.250	.000	1.000	*****	*****	*****
3334.500	.000	1.000	*****	*****	*****
3334.750	.000	1.000	*****	*****	*****
3335.000	.000	1.000	*****	*****	*****
3335.250	.000	1.000	*****	*****	*****
3335.500	.000	1.000	*****	*****	*****
3335.750	.000	1.000	*****	*****	*****
3336.000	.000	1.000	*****	*****	*****
3336.250	.000	1.000	*****	*****	*****
3336.500	.000	1.000	*****	*****	*****
3336.750	.000	1.000	*****	*****	*****
3337.000	.000	1.000	*****	*****	*****
3337.250	.000	1.000	*****	*****	*****

PE601326

This is an enclosure indicator page.
The enclosure PE601326 is enclosed within the
container PE902630 at this location in this
document.

The enclosure PE601326 has the following characteristics:

ITEM_BARCODE = PE601326
CONTAINER_BARCODE = PE902630
NAME = Mud Log
BASIN = GIPPSLAND
PERMIT =
TYPE = WELL
SUBTYPE = MUD_LOG
DESCRIPTION = Mud Log (from WCR) for Bream-5
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 07/09/1982
W_NO = W781
WELL_NAME = Bream-5
CONTRACTOR = ESSO
CLIENT_OP_CO = ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE604465

This is an enclosure indicator page.
The enclosure PE604465 is enclosed within the
container PE902630 at this location in this
document.

The enclosure PE604465 has the following characteristics:

ITEM_BARCODE = PE604465
CONTAINER_BARCODE = PE902630
NAME = Mud Log (sheet 1 of 2) for Bream-5
BASIN = GIPPSLAND
PERMIT = VIC/P1
TYPE = WELL
SUBTYPE = MUD_LOG
DESCRIPTION = Mud Log, part 1 of 2, (enclosure from
WCR) for Bream-5
REMARKS =
DATE_CREATED =
DATE_RECEIVED = 26/08/82
W_NO = W781
WELL_NAME = BREAM-5
CONTRACTOR = ESSO
CLIENT_OP_CO = ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

**APPENDIX
4**

APPENDIX 4

WIRELIN E TEST REPORT

BREAM-5 RFT TESTING REPORT

General

Four suites of RFT's were run in Bream-5 as follows:

- | | |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suite 1 | No RFTs were run. |
| Suite 2
(Runs 1-5) | 1932m - 2023m TVDKB (N-1 section)
12 August, 1982.
28 seats, 18 successful.
4 segregated samples. 1 retained for PVT analysis. |
| Suite 3
(Runs 6-14) | 2116.5m - 2694m TVDKB
21-22 August, 1982.
52 seats, 40 successful.
1 run abandoned prematurely due to poor hole condition.
5 segregated and 2 non-segregated samples. |
| Suite 4
(Runs 15-25) | 2695m - 3010m TVDKB
29 August - September 1982.
77 seats, 41 successful
8 segregated and 3 non-segregated samples. |
| Suite 5
(Runs 26-27) | 3015m - 3200m TVDKB
7 September, 1982.
19 seats, 10 successful.
1 segregated and 2 non-segregated samples. |

Note: Reported pressures were recorded using the Hewlett-Packard gauge.

Interpretation

Figure 1 is a Depth V Pressure plot for the well.
Figure 2 is a Depth V Pressure plot for the N-1 section.
Figure 3 is a Depth V Pressure plot for the section from 2400-2780m TVDKB.
Figure 4 is a Depth V Pressure plot for the section from 2700-3080m TVDKB.
Figure 5 is a Depth V Temperature plot for the well.

In the N-1 section neither a gas-oil contact nor an oil-water contact was encountered in net sand section. The gas-oil contact lies in the non-net section from 1957.75-1939.5m TVDKB. From RFT sampling low proved gas is at 1937m TVDKB and high proved oil is at 1940m TVDKB. The pressure data in Figure 2 suggests a gas-oil contact at 1939m TVDKB which is 2 metres lower than the interpreted GOC in Bream-4A.

An oil-water contact could not be established by logs or sampling because of the poor quality/non-net section from 1946.5m to 1960m TVDKB. Low proved oil was sampled in poor quality rock at 1951.3m and high proved water was indicated at 1961.5m. The pressure data indicates that the hydrocarbon sands above 1944.5m TVDKB and the water sands below 1960m TVDKB are probably not in direct pressure communication. A lower pressure was expected in Bream-5 than in Bream-4A because Bream-5 is closer to the producing fields to the East and was drilled 12 months later. In the hydrocarbon section of Bream-5 the pressures were 7.5 psi lower than in Bream-4A, while in the water sands they were 15.5 psi lower. If this represented a condition of static equilibrium then the pressure data would indicate that an oil column could exist down to 1961.5m TVDKB, possibly explained as a tilting of the oil water contact across the field due to aquifer pressure gradients. However, the most likely explanation is that there has been a difference in the drawdown in the two sections due to production from the other fields, because the upper section is not connected as directly to the basin aquifer system and is lagging in pressure decline. Consequently we recommend that the 13m oil column as seen in Bream-4A be assumed to exist at Bream-5.

Below the N-1 the pressure is tied directly to the N-1 aquifer system down to 2456m TVDKB. Gas was sampled in the thin sand streak at 2477m TVDKB and also at 2488m TVDKB. Oil was sampled at 2495.5m TVDKB confirming the log indications of hydrocarbons in the sand from 2493.5m TVDKB to 2497.5m TVDKB with an oil-water transition zone down to 2500m TVDKB. The pressure at 2488m TVDKB was anomalous in that it lay on an oil gradient with the sand below, even though gas was sampled.

The pressure data is scattered in the sands from 2500m TVDKB down to 2550m TVDKB. No fluid gradient can be clearly established.

Gas was sampled at 2558m TVDKB and 2562m TVDKB indicating a 5.5m gas column from 2557m-2562.5m TVDKB. Below this a water gradient can be established down to 2662m TVDKB.

The small sand section from 2660.5m TVDKB to 2666m TVDKB was shown to contain gas with gas sampled at 2662.5m. The pressure data from 2662m TVDKB to 2710m TVDKB is scattered and no fluid gradient can be established.

Oil was sampled at 2692m TVDKB but because of the low porosity in the sand immediately below this depth it was not possible to obtain pressure measurements to confirm the column extent.

There is a pressure discontinuity of about 80 psi between 2710m TVDKB and 2720m TVDKB with the data around 2700m TVDKB tying back to the gradient in the N-1 aquifer system above. This indicates that the sands below 2720m TVDKB have not drawdown from the original basin gradient and are not in pressure communication with the main aquifer system.

Below 2720m TVDKB the data is somewhat scattered, although it is possible to fit water gradients as shown in Figure 4. Eight gas samples were taken in different sands throughout the section. However the pressure data indicates that the gas columns in each are isolated.

RFT PRETEST PRESSURES - BREAM 5

SERVICE COMPANY: Schlumberger SUITE NO: 2 RUN NO: 1 DATE: 12/8/82 OBSERVERS: L. Finlayson/A. Lindsay

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
1/1	2023.0	2002.0	PT	HP SCH	Y N	A G	3422	9.95	2857.5 2853	8.40 8.38	3418	9.94	Valid
1/2	1999.0	1978.0	PT	HP SCH	Y N	A G	3370	9.92	2823.3 2822	8.40 8.39	3369	9.91	Valid
1/3	1977.0	1956.0	PT	HP SCH	Y N	A G	3325	9.89	2791.3 2790	8.39 8.39	3322	9.88	Valid
1/4	1966.0	1945.0	PT	HP SCH	Y N	A G	3300	9.87	2776.1 2775	8.40 8.39	3298	9.87	Valid
1/5	1949.5	1928.5	PT	HP SCH	Y N	A G	3272	9.87			3275	9.88	Tight, invalid
1/6	1949.0	1928.0	PT	HP SCH	Y N	A G	3272	9.88	2767.1 2762	8.44 8.43	3272	9.88	Valid
1/7	1946.0	1925.0	PT	HP SCH	Y N	A G	3264	9.87	2575.6 2752	8.43 8.41	3262	9.86	Valid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 2RUN NO: 1DATE: 12/8/82OBSERVERS: L. Finlayson/A. Lindsay

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
1/8	1945.0	1924.0	PT	HP SCH	Y N	A G	3265	9.87	2756.5 2752	8.43 8.41	3260	9.86	Valid
1/9	1943.0	1922.0	PT	HP SCH	Y N	A G	3261	9.87	2754.6 2752	8.43 8.42	3258	9.86	Valid
1/10	1940.0	1919.0	PT	HP SCH	Y N	A G	3250	9.85	2752.0 2748	8.44 8.42	3256	9.87	Valid
1/11	1937.0	1916.0	PT	HP SCH	Y N	A G	3247	9.86	2751.9 2749	8.45 8.44	3242	9.85	Valid
1/12	1935.0	1914.0	PT	HP SCH	Y N	A G	3243	9.86	2750.6 2747	8.45 8.44	3238	9.84	Valid
1/13	1933.5	1912.5	PT	HP SCH	Y N	A G	3241	9.86	2750.0 2745	8.46 8.44	3236	9.84	Valid
1/14	1932.0	1911.0	PT	HP SCH	Y N	A G	3238	9.86	2749.7 2745	8.46 8.45	3232	9.84	Valid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 2RUN NO: 2,3,&4DATE: 12/8/82OBSERVERS: L. Finlayson/A. Lindsay

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
2/15	1937.0	1916.0	SPT	HP SCH	Y N	A G	3259	9.90	2751.5 2748	8.45 8.44	3240	9.84	Pretest valid. Took segregated sample
3/16	1940.0	1919.0	SPT	HP SCH	Y N	A G	3268	9.91	2752.3 2752	8.44 8.44	3249	9.85	Pretest valid. Took segregated sample
4/17	1951.5	1930.5	PT	HP SCH	Y N	A G	3289	9.91			3287	9.91	Tight, invalid
4/18	1951.3	1930.3	SPT	HP SCH	Y N	A G	3282	9.89	2766.6 2762	8.43 8.42	3262	9.83	Pretest valid. Took segregated sample
4/19	1962.0	1941.0	PT	HP SCH	Y N	A G	3281	9.84	2770.7 2763	8.40 8.37	3278	9.83	Valid
4/20	1957.1	1936.1	PT	HP SCH	Y N	A G	3267	9.82			3773	9.84	Tight, invalid
4/21	1957.2	1936.2	PT	HP SCH	Y N	A G	3270	9.83			3273	9.84	Tight, invalid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO.: 2RUN NO.: 4, & 5DATE: 12/8/82OBSERVERS: L. Finlayson/A. Lindsay

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
4/22	1954.0	1933.0	PT	HP SCH	Y N	A G	3266	9.83			3266	9.83	Tight, invalid
5/23	1962.0	1941.0	SPT	HP SCH	Y N	A G	3309	9.92			3308	9.92	Tight, invalid
5/24	1961.9	1940.9	SPT	HP SCH	Y N	A G	3304	9.91	2771.9 2767	8.40 8.39	3274	9.82	Pretest valid. Took segregated sample
5/25	1960.5	1939.5	PT	HP SCH	Y N	A G	3274	9.82			3275	9.83	Tight, invalid
5/26	1957.0	1936.0	PT	HP SCH	Y N	A G	3269	9.83			3269	9.83	Tight, seal failed, invalid
5/27	1953.8	1932.8	PT	HP SCH	Y N	A G	3260	9.81			3266	9.83	Tight, invalid
5/28	1959.8	1938.8	PT	HP SCH	Y N	A G	3275	9.83			3275	9.83	Tight, invalid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 3RUN NO: 6DATE: 22/8/82OBSERVERS: A. Lindsay

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
6/29	2694.0	2673.0	PT	HP SCH	Y N	A G	4505	9.84			4505	9.84	Tight, invalid
6/30	2692.0	2671.0	PT	HP SCH	Y N	A G	4499	9.83	3800.7 3762	8.37 8.29	4498	9.83	Valid
6/31	2661.5	2640.5	PT	HP SCH	Y N	A G	4445	9.82	3798.1 3761	8.46 8.38	4446	9.83	Valid
6/32	2665.5	2644.5	PT	HP SCH	Y N	A G	4448	9.82			4445	9.81	No seal
6/33	2665.5	2644.5	PT	HP SCH	Y N	A G	4447	9.81	3797.0 3760	8.45 8.36	4457	9.84	Valid
6/34	2621.5	2600.5	PT	HP SCH	Y N	A G	4375	9.82	3714.6 3683	8.40 8.33	44376	9.82	Valid
6/35	2592.5	2571.5	PT	HP SCH	Y N	A G	4329	9.82	3679.0 3642	8.42 8.33	4333	9.83	Valid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREEM 5SERVICE COMPANY: SchlumbergerSUITE NO.: 3RUN NO.: 6DATE: 22/8/82OBSERVERS: A. Lindsay

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
6/36	2583.0	2562.0	PT	HP SCH	Y N	A G	4316	9.83	3688.2 3658	8.47 8.40	4316	9.83	Valid
6/37	2562.5	2541.5	PT	HP SCH	Y N	A G	4273	9.81	3634.3 3594	8.41 8.32	4280	9.82	Tight, invalid
6/38	2562.0	2541.0	PT	HP SCH	Y N	A G	4282	9.83	3636.7 3593	8.41 8.32	4282	9.83	Valid
6/39	2558.0	2537.0	PT	HP SCH	Y N	A G	4270	9.82	3633.4 3591	8.42 8.37	4273	9.83	Valid
6/40	2526.5	2505.5	PT	HP SCH	Y N	A G	4217	9.82					No seal
6/41	2526.5	2505.5	PT	HP SCH	Y N	A G	4220	9.83	3557.1 3525	8.35 8.28	4221	9.83	Valid
6/42	2507.0	2486.0	PT	HP SCH	Y N	A G	4186	9.82	3538.5 3505	8.37 8.29	4190	9.83	Valid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO.: 3RUN NO.: 6DATE: 22/8/82OBSERVERS: A. Lindsay

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
6/43	2500.0	2479.0	PT	HP SCH	Y N	A G	4177	9.83	3536.8 3505	8.40 8.32	4179	9.83	Valid
6/44	2495.0	2474.0	PT	HP SCH	Y N	A G	4172	9.84	3532.6 3500	8.40 8.32	4172	9.84	Valid
6/45	2488.0	2467.0	PT	HP SCH	Y N	A G	4157	9.83	3522.7 3492	8.40 8.33	4162	9.84	Valid
6/46	2456.0	2435.0	PT	HP SCH	Y N	A G	4107	9.84	3471.1 3429	8.39 8.28	4110	9.84	Valid
6/47	2398.5	2377.5	PT	HP SCH	Y N	A G	4013	9.84	3391.0 3364	8.39 8.32	4019	9.86	Valid
6/48	2292.7	2271.7	PT	HP SCH	Y N	A G	3845	9.87			3849	9.88	Tight, invalid
6/49	2292.6	2271.6	PT	HP SCH	Y N	A G	3242	9.86	3238.2 3206	8.39 8.30	3845	9.87	Valid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 3RUN NO: 6 & 7DATE: 22/8/82OBSERVERS: A. Lindsay

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
6/50	2203.0	2182.0	PT	HP SCH	Y N	A G	3696	9.87	3111.8 3077	8.39 8.30	3700	9.88	Valid
6/51	2116.5	2095.5	PT	HP SCH	Y N	A G	3555	9.88	2988.0 2951	8.39 8.28	3559	9.89	Valid
7/52	2513.0	2492.0	PT	HP SCH	Y N	A G	4205	9.84	3550.0 3526	8.38 8.32	4203	9.84	Valid
7/53	2674.5	2653.5	PT	HP SCH	Y N	A G	4492	9.88			4465	9.82	Tight, invalid
7/54	2672.5	2651.5	PT	HP SCH	Y N	A G	4461	9.82			4455	9.81	Tight, invalid
7/55	2662.0	2641.0	PT	HP SCH	Y N	A G	4440	9.81			4447	9.83	Tight, invalid
7/56	2662.0	2641.0	SPT	HP SCH	Y N	A G	4441	9.82	3799.9 3759	8.47 8.37	4435	9.80	Pretest valid. Took segregated sample

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 3RUN NO: 8,9,10 & 11DATE: 23/8/82OBSERVERS: W. Mudge

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
8/57	2678.0	2657.0	PT	HP SCH	Y N	A G	4481	9.84			4468	9.81	Tight, leaking packer
8/58	2677.0	2656.0	PT	HP SCH	Y N	A G	4465	9.81	3821.5 3796	8.46 8.41	4463	9.81	Valid (fluctuating)
9/59	2680.0	2649.0	PT	HP SCH	Y N	A G	4464	9.83	3810.8 3774	8.46 8.38	4463	9.83	Valid
9/60	2674.5	2653.5	PT	HP SCH	Y N	A G	4471	9.83	3818.1 3786	8.46 8.39	4462	9.81	Valid
9/61	2692.0	2671.0	SPT	HP SCH	Y N	A G	4496	9.82	3803.5 3762	8.37 8.29	4477	9.78	Valid. Took segregated sample
10/62	2670.0	2649.0	SPT	HP SCH	Y N	A G	4459	9.82	3810.4 3775	8.46 8.38	4443	9.79	Valid. Took segregated sample
11/63	2608.0	2587.0	PT	HP SCH	Y N	A G	4348	9.81	3698.5 3664	8.41 8.33	4347	9.80	Valid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 3RUN NO: 11 & 12DATE: 24/8/82OBSERVERS: W. Mudge

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
11/64	2585.0	2564.0	PT	HP SCH	Y N	A G	4308	9.80	3666.5 3632	8.41 8.33	4308	9.80	Valid
11/65	2558.0	2537.0	SPT	HP SCH	Y N	A G	4261	9.80	3633.5 3596	8.42 8.33	4263	9.80	Valid pretest. Took segregated sample
12/66	2538.0	2517.0	PT	HP SCH	Y N	A G	4237	9.90	3580.9 3553	8.37 8.30	4231	9.89	Valid
12/67	2519.0	2498.0	PT	HP SCH	Y N	A G	4200	9.81	3554.6 3521	8.37 8.29	4201	9.81	Valid
12/68	2477.2	2456.2	PT	HP SCH	Y N	A G	4129	9.80			4134	9.82	Tight, invalid
12/69	2477.3	2456.3	PT	HP SCH	Y N	A G	4133	9.81			4134	9.82	Tight, invalid
12/70	2477.0	2456.0	PT	HP SCH	Y N	A G	4132	9.81	3526.9 3495	8.38 8.30	4133	9.82	Valid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 3RUN NO: 12, 13 & 14DATE: 24/8/82OBSERVERS: W. Mudge

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
12/71	2495.5	2474.5	SPT	HP SCH	Y N	A G	4163	9.81	3533.8 3497	8.40 8.31	4162	9.81	Valid pretest. Took segregated sample
13/72	2477.0	2456.0	SPT	HP SCH	Y N	A G	4139	9.83	3528.7 3501	8.45 8.39	4131	9.81	Valid pretest. Took unsegregated sample
13/73	2488.0	2467.0	SPT	HP SCH	Y N	A G	4150	9.81	3524.0 3486	8.40 8.31	4149	9.81	Valid pretest. Took unsegregated sample
14/74	2559.0	2538.0	PT	HP SCH	Y N	A G	4272	9.82	3636.5 3613	8.43 8.37	4257	9.79	Valid
14/75	2561.0	2540.0	PT	HP SCH	Y N	A G	4259	9.78	3638.2 3616	8.43 8.37	4260	9.78	Valid
14/76	2571.0	2550.0	PT	HP SCH	Y N	A G	4279	9.79	3644.6 3606	8.41 8.32	4277	9.79	Valid
14/77	2568.5	2547.5	SPT	HP SCH	Y N	A G	4273	9.79	3642.1 3605	8.41 8.32	4275	9.79	Valid pretest. Took unsegregated sample

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 3 & 4RUN NO: 14 & 15DATE: 24 & 29/8/82OBSERVERS: W. Mudge

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
14/78	2568.2	2547.2	SPT	HP SCH	Y N	A G	4274	9.79	3642.4 3606	8.41 8.33	4272	9.78	Valid pretest. Re- opened same chamber as above
14/79	2568.0	2547.0	SPT	HP SCH	Y N	A G	4276	9.79	3644.0 3605	8.42 8.33	4269	9.78	As above
14/80	2562.0	2541.0	SPT	HP SCH	Y N	A G	4257	9.77	3633.8 3603	8.41 8.34	4259	9.78	Valid pretest. Took unsegregated sample
15/81	2456.0	2435.0	PT	HP SCH	Y N	A G	4019	9.63	3471.8 3452	8.39 8.34	4017	9.62	Valid
15/82	2692.0	2671.0	PT	HP SCH	Y N	A G	4398	9.61	3798.5 3776	8.37 8.32	4396	9.61	Valid
15/83	3015.0	2994.0	PT	HP SCH	Y N	A G	4927	9.61			4922	9.60	No seal invalid
15/84	3015.0	2994.0	PT	HP SCH	Y N	A G	4927	9.61			4933	9.62	Tight, invalid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 4RUN NO: 15DATE: 29/8/82OBSERVERS: W. Mudge/D. Moreton

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
15/85	3010.0	2989.0	PT	HP SCH	Y N	A G	4924	9.62			4915	9.61	Seal failed
15/86	3010.0	2989.0	PT	HP SCH	Y N	A G	4911	9.60			4909	9.59	Seal failed
15/87	3010.5	2989.5	PT	HP SCH	Y N	A G	4916	9.61			4913	9.60	Tight, invalid
15/88	3009.5	2988.5	PT	HP SCH	Y N	A G	4911	9.60			4909	9.60	Tight, invalid
15/89	2994.0	2973.0	PT	HP SCH	Y N	A G	4875	9.58	4359.0 4330	8.62 8.57	4878	9.58	Valid
15/90	2986.5	2965.5	PT	HP SCH	Y N	A G	4871	9.59			4871	9.59	Seal failed
15/91	2987.0	2966.0	PT	HP SCH	Y N	A G	4873	9.60			4869	9.59	Seal failed

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 4RUN NO: 15DATE: 29/8/82OBSERVERS: W. Mudge/D. Moreton

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
15/92	2983.0	2962.0	PT	HP SCH	Y N	A G	4868	9.60			4862	9.59	Seal failed
15/93	2984.0	2963.0	PT	HP SCH	Y N	A G	4863	9.59	4345.4 4309	8.63 8.55	4862	9.58	Valid
15/94	2976.5	2955.5	PT	HP SCH	Y N	A G	4853	9.59	4326.0 4280	8.61 8.52	4850	9.58	Valid
15/95	2966.8	2945.8	PT	HP SCH	Y N	A G	4831	9.58	4326.7 4278	8.64 8.54	4837	9.59	Valid
15/96	2948.0	2927.0	PT	HP SCH	Y N	A G	4797	9.57	4293.2 4261	8.63 8.56	4805	9.59	Valid
15/97	2935.5	2914.5	PT	HP SCH	Y N	A G	4785	9.59	4266.5 4231	8.61 8.54	4786	9.59	Valid
15/98	2889.0	2868.0	PT	HP SCH	Y N	A G	4703	9.58			4718	9.61	Tight, invalid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 4RUN NO: 15DATE: 29/8/82OBSERVERS: W. Mudge/D. Moreton

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
15/99	2888.7	2867.7	PT	HP SCH	Y N	A G	4716	9.60	4170.1 4130	8.55 8.47	4711	9.59	Valid
15/100	2875.0	2854.0	PT	HP SCH	Y N	A G	4691	9.60			4690	9.60	Tight, invalid
15/101	2849.0	2828.0	PT	HP SCH	Y N	A G	4643	9.59	4121.7 4098	8.57 8.52	4640	9.58	Valid
15/102	2838.0	2817.0	PT	HP SCH	Y N	A G	4625	9.59	4110.0 4073	8.58 8.51	4631	9.60	Valid
15/103	2834.0	2813.0	PT	HP SCH	Y N	A G	4626	9.60	4102.5 4068		4626	9.60	Valid
15/104	2830.0	2809.0	PT	HP SCH	Y N	A G	4623	9.61			4627	9.62	Tight, invalid
15/105	2830.5	2809.5	PT	HP SCH	Y N	A G	4624	9.61	4097.1 4060	8.58 8.50	4622	9.61	Valid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 4RUN NO: 15DATE: 29/8/82OBSERVERS: W. Mudge/D. Moreton

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
15/106	2823.5	2802.5	PT	HP SCH	Y N	A G	4609	9.60	4079.8 4048	8.56 8.50	4609	9.60	Valid
15/107	2821.5	2800.5	PT	HP SCH	Y N	A G	4605	9.60	4078.4 4045	8.57 8.50	4605	9.60	Valid
15/108	2817.5	2796.5	PT	HP SCH	Y N	A G	4600	9.60	4079.9 4044	8.58 8.51	4600	9.60	Valid
15/109	2814.5	2793.5	PT	HP SCH	Y N	A G	4601	9.62	4079.0 4044	8.59 8.52	4596	9.61	Valid
15/110	2806.5	2785.5	PT	HP SCH	Y N	A G	4582	9.60			4583	9.61	Seal failed, Invalid
15/111	2806.7	2785.7	PT	HP SCH	Y N	A G	4582	9.60			4585	9.61	Tight, invalid
15/112	2793.0	2772.0	PT	HP SCH	Y N	A G	4560	9.60	4012.7 3981	8.52 8.45	4560	9.60	Valid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 4RUN NO: 15DATE: 29/8/82OBSERVERS: W. Mudge/D. Moreton

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
15/113	2776.5	2755.5	PT	HP SCH	Y N	A G	4529	9.60			4537	9.61	Tight, invalid
15/114	2776.3	2755.3	PT	HP SCH	Y N	A G	4532	9.60	3994.8 3958	8.53 8.45	4535	9.61	Valid
15/115	2767.0	2746.0	PT	HP SCH	Y N	A G	4523	9.62			4521	9.61	No seal, invalid
15/116	2766.7	2745.7	PT	HP SCH	Y N	A G	4522	9.61	3989.6 3952	8.55 8.47	4521	9.61	Valid
15/117	2761.5	2740.5	PT	HP SCH	Y N	A G	4508	9.60			4511	9.61	Tight, invalid
15/118	2762.0	2741.0	PT	HP SCH	Y N	A G	4510	9.61			4511	9.61	Seal failed, invalid
15/119	2759.0	2738.0	PT	HP SCH	Y N	A G	4508	9.61			4509	9.61	Tight, invalid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 4RUN NO: 15 & 16 DATE: 29 & 30/8/82OBSERVERS: W. Mudge/ D. Moreton

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
15/120	2756.0	2735.0	PT	HP SCH	Y N	A G	4501	9.61	3982.8 3953	8.57 8.50	4504	9.61	Valid
15/121	2736.5	2715.5	PT	HP SCH	Y N	A G	4469	9.61			4473	9.62	Poor seal, invalid
15/122	2736.3	2715.3	PT	HP SCH	Y N	A G	4476	9.62	3941.5 3905	8.54 8.46	4473	9.62	Valid
15/123	2728.5	2707.5	PT	HP SCH	Y N	A G	4461	9.62			4461	9.62	Tool failed
16/124	2728.5	2707.5	PT	HP SCH	Y N	A G	4454	9.60			4458	9.61	Tight, invalid
16/125	2722.3	2701.3	PT	HP SCH	Y N	A G	4450	9.62			4446	9.61	Seal failed, invalid
16/126	2722.8	2701.8	PT	HP SCH	Y N	A G	4446	9.61			4450	9.61	Tight, invalid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREEM 5SERVICE COMPANY: Schlumberger.SUITE NO: 4RUN NO: 16DATE: 30/8/82OBSERVERS: W. Mudge/D. Moreton

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
16/127	2716.0	2695.0	PT	HP SCH	Y N	A G	4436	9.61			4435	9.61	Seal failed, invalid
16/128	2715.6	2694.6	PT	HP SCH	Y N	A G	4436	9.61			4440	9.62	Tight, invalid
16/129	2716.5	2695.5	PT	HP SCH	Y N	A G	4437	9.61	3914.7 3881	8.54 8.47	4436	9.61	Valid
16/130	2706.5	2685.5	PT	HP SCH	Y N	A G	4421	9.61	Fluctuating 3790		4420	9.61	Invalid
16/131	2701.5	2680.5	PT	HP SCH	Y N	A G	4410	9.60	3835.6 3802	8.42 8.34	4411	9.60	Valid
16/132	2695.5	2674.5	PT	HP SCH	Y N	A G	4401	9.60	3800.3 3771	8.36 8.29	4400	9.60	Valid
16/133	2980.5	2959.5	PT	HP SCH	Y N	A G	4912	9.69			4868	9.61	Slow leak Invalid.

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 4RUN NO: 16 & 17DATE: 30/8/82OBSERVERS: W. Mudge/D. Moreton

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
16/134	2981.0	2960.0	PT	HP SCH	Y N	A G	4864	9.60					Tight, invalid
16/135	2984.0	2963.0	PT	HP SCH	Y N	A G	4862	9.58			4860	9.58	Slow leak, Invalid
16/136	2984.5	2963.5	SPT	HP SCH	Y N	A G	4862	9.58	Not stabilised 4357		4865	9.59	Pretest invalid, took unsegregated sample
16/137	2968.0	2947.0	SPT	HP SCH	Y N	A G	4832	9.58	4324.6 4274	8.63 8.53	4834	9.58	Pretest invalid, took unsegregated sample
17/138	2948.0	2927.0	PT	HP SCH	Y N	A G	4815	9.61			4812	9.60	Seal failed Invalid
17/139	2947.8	2926.8	SPT	HP SCH	Y N	A G	4807	9.59	4294.4 4258	8.63 8.56	4803	9.58	Pretest valid, took segregated sample
18/140	2830.5	2809.5	SPT	HP SCH	Y N	A G	4620	9.60	Not stabilised 4068		4620	9.60	Pretest invalid, attempt ed unsegregated sample

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5

SERVICE COMPANY: Schlumberger SUITE NO: 4 RUN NO: 18,19, & 20 DATE: 30 & 31/8/82 OBSERVERS: W. Mudge/D. Moreton

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
18/141	2830.7	2809.7	SPT	HP SCH	Y N	A G	4620	9.60			4621	9.60	Pretest invalid, reopened same chamber as above
18/142	2830.6	2809.6	SPT	HP SCH	Y N	A G	4618	9.60			4615	9.60	Pretest invalid, reopened same chamber as above
19/143	2834.0	2813.0	PT	HP SCH	Y N	A G	4635	9.62	Not stabilised 4076		4633	9.62	Pretest tight, Invalid
19/144	2833.0	2812.0	PT	HP SCH	Y N	A G	4638	9.63	4092.6 4059	8.56 8.49	4633	9.62	Valid
19/145	2833.5	2812.5	SPT	HP SCH	Y N	A G	4634	9.62	4095.5 4066	8.57 8.50	4626	9.60	Pretest valid, attempted segregated sample
19/146	2833.5	2812.5	SPT	HP SCH	Y N	A G	4633	9.62	Not stabilised Not stabilised		4629	9.61	Pretest invalid, took segregated sample
20/147	2701.5	2680.5	SPT	HP SCH	Y N	A G	4424	9.63	3816.1 3792	8.37 8.32	4416	9.62	Pretest valid, took segregated sample

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5

SERVICE COMPANY: Schlumberger SUITE NO: 4 RUN NO: 21, 22 & 23 DATE: 31/8 & 1/9/82 OBSERVERS: W. Mudge/D. Moreton

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
21/148	2706.2	2685.2	SPT	HP SCH	Y N	A G	4420	9.61	Not stabilised 3812		4421	9.61	Pretest invalid, too tight to sample
21/149	2706.5	2685.5	SPT	HP SCH	Y N	A G	4420	9.61			4424	9.68	Pretest invalid, too tight to sample
21/150	2706.0	2685.0	SPT	HP SCH	Y N	A G	4422	9.61			4424	9.62	Pretest invalid, too tight to sample
21/151	2706.2	2685.2	SPT	HP SCH	Y N	A G	4423	9.61	3834.1 3809	8.40 8.34	4420	9.61	Pretest valid, took segregated sample
22/152	2716.0	2695.0	PT	HP SCH	Y N	A G	4441	9.62					Tight, invalid
22/153	2715.5	2694.5	SPT	HP SCH	Y N	A G	4441	9.62	3881.6 3859	8.47 8.42	4431	9.60	Pretest valid, took segregated sample
23/154	2756.2	2735.2	SPT	HP SCH	Y N	A G	4534	9.68	Not stabilised 3965		4527	9.66	Pretest invalid, took segregated sample

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 4RUN NO: 24,25, & 26DATE: 1 & 9/7/82OBSERVERS: W. Mudge/D. Moreton

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
24/155	2695.5	2674.5	SPT	HP SCH	Y N	A G	4433	9.67	3805.6 3779	8.37 8.31	4421	9.65	Pretest valid, took segregated sample
25/156	2849.0	2827.0	SPT	HP SCH	Y N	A G	4673	9.65			4672	9.65	Tight, invalid, too tight to sample
25/157	2849.2	2828.2	SPT	HP SCH	Y N	A G	4672	9.64	4133.5 4107	8.60 8.54	4663	9.63	Pretest valid, took segregated sample
26/158	3200.0	3179.0	PT	HP SCH	Y N	A G	5232	9.62			5231	9.62	Tight, invalid.
26/159	3198.0	3177.0	PT	HP SCH	Y N	A G	5221	9.60	4829.7 4799	8.94 8.89	5216	9.59	Valid
26/160	3196.1	3175.1	PT	HP SCH	Y N	A G	5218	9.60	4845.7 4820	8.98 8.93	5212	9.59	Valid
26/161	3196.2	3175.2	PT	HP SCH	Y N	A G	5217	9.60	5069.1 5043	9.39 9.34	5212	9.59	Valid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5

SERVICE COMPANY: Schlumberger SUITE NO: 5 RUN NO: 26 DATE: 7/9/82 OBSERVERS: N. Davidson/B. Crowther

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
26/162	3197.7	3176.7	PT	HP SCH	Y N	A G	5218	9.60			5218	9.60	Tight, invalid
26/163	3198.4	3177.4	SPT	HP SCH	Y N	A G	5216	9.59	4836.5 4809	8.95 8.90	5220	9.60	Pretest valid, took unsegregated sample
26/164	3196.2	3175.2	SPT	HP SCH	Y N	A G	5213	9.59	5064.3 5039	9.38 9.33	5215	9.60	Pretest valid, re-opened same chamber as above
26/165	3080.0	3059.0	PT	HP SCH	Y N	A G	5023	9.59	4492.5 4464	8.64 8.58	5025	9.60	Valid
26/166	3080.5	3059.5	PT	HP SCH	Y N	A G	5030	9.61	4500.0 4468	8.65 8.59	5031	9.61	Valid
26/167	3066.7	3045.7	PT	HP SCH	Y N	A G	Fluctuating		4515.4 4492	8.72 8.68	Fluctuating		Slow leak
26/168	3070.2	3049.2	PT	HP SCH	Y N	A G	5017	9.61			Fluctuating		Seal failed

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5SERVICE COMPANY: SchlumbergerSUITE NO: 5RUN NO: 26 & 27 DATE: 7/9/82OBSERVERS: N. Davidson/B. Crowther

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
26/169	3070.2	3049.2	PT	HP SCH	Y N	A G	Fluctuating				Fluctuating		Tight, invalid
26/170	3080.5	3059.5	SPT	HP SCH	Y N	A G	5034	9.61			Fluctuating		Tight, sample not attempted
26/171	3066.7	3045.7	SPT	HP SCH	Y N	A G	Fluctuating		4516.4 4491	8.72 8.67	Fluctuating		Pretest valid, took unsegregated sample
26/172	3026.2	3005.2	PT	HP SCH	Y N	A G	Fluctuating59				Fluctuating		Tight, invalid
26/173	3016.1	3995.1	PT	HP SCH	Y N	A G	Fluctuating		4414.4 4401	8.61 8.58	Fluctuating		Valid
26/174	3197.7	3176.7	PT	HP SCH	Y N	A G	5219	9.60			5216	9.59	Tight, invalid
27/175	3016.1	2995.1	PT	HP SCH	Y N	A G	4933	9.62					Seal failed, invalid

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT PRETEST PRESSURES - BREAM 5

SERVICE COMPANY: Schlumberger SUITE NO.: 5 RUN NO.: 27 DATE: 8/9/822 OBSERVERS: N. Davidson/B. Crowther

SEAT NO.	DEPTH (m)	DEPTH (SS) (m)	REASON 1 FOR TEST	GAUGE 2	TEMP 3 CORR.	UNITS 4	IHP		FM. PRESS		FHP		TEST RESULT
							psi	ppg	psi	ppg	psi	ppg	
27/176	3016.2	2995.2	SPT	HP SCH	Y N	A G	4931	9.62	4421.2 4398	8.68 8.64	Fluctuating		Pretest valid, took segregated sample

1. Pressure Test = PT
Sample & Pressure = SPT

2. Gauges = SCH = Schlumberger Strain Gauge
= HP = Hewlett Packard

3. Yes = Y
No = N

4. PSIA = A
PSIG = G

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: L. Finlayson DATE: 12/8/82 SUITE NO: 2 RUN NO: 2

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	15	15
DEPTH	1937.0 m	1937.0 m
<u>A. RECORDING TIMES</u>		
Tool Set	0945 hrs	
Pretest Open	0949 hrs	
Time Open	5 min	
Chamber Open	0954 hrs	1034 hrs
Chamber Full	1032 hrs	1056 hrs
Fill Time	37 mins	22 mins
Start Build up	1032 hrs	1056 hrs
Finish Build up	1032 hrs	1056 hrs
Build Up Time		
Seal Chamber	1032 hrs	1056 hrs
Tool Retract	Did not retract probe	1057 hrs
Total Time	47 min	23 min
<u>B. SAMPLE PRESSURES</u>		
	psia	psia
IHP	3259	
ISIP	2751.5	2713.6
Initial Flowing Press.	509	766
Final Flowing Press.	1505	1519
Sampling Press. Range	996	753
FSIP	2713.6	2717.7
FHP	Did not retract probe	3240
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	1966 m	1966 m
Max.Rec. Temp.	77.6 °C	77.8 °C
Time Circ. Stopped	11/8/82 @ 2230 hrs	11/8/82 @ 2230 hrs
Time since Circ.	11.5 hrs	12 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	1000 psig	1000 psig
Amt Gas	50.2 ft ³ / 1422 lit.	27.6 ft ³ / 782 lit.
Amt Condensate	0.10 lit.	0.05 lit.
Amt Water	6.00 lit.	1.25 lit.
Amt Others		
<u>E. SAMPLE PROPERTIES</u>		
<u>Gas Composition</u>		
C1	220488 ppm	118118 ppm
C2	18391 ppm	23679 ppm
C3	6543 ppm	7992 ppm
1C4/nC4	10097 ppm	11786 ppm
C5	3942 ppm	4885 ppm
C6+	3494 ppm	3494 ppm
CO2/H2S	Nil/Nil ppm	Nil/Nil ppm
Condensate Properties	50° API @ 15.5°C	50° API @ 15.6°C
Colour		
Fluorescence	Bright blue white	
GOR (Bbl Cond/MMScf gas)	12.5	11.5
<u>Water Properties</u>		
Resistivity	0.280 ohm m @ 15.5°C	0.275 ohm m @ 15.5°C
NaCl Equivalent	11000 ppm	11000 ppm
Cl-titrated	15000 ppm	15000 ppm
pH/Nitrates	8.5 / 50 ppm	8.5 / 80 ppm
Est. Water Type		
<u>Mud Properties</u>		
Resistivity	0.291 ohm m @ 18.8°C	0.291 ohm m @ 18.8°C
NaCl Equivalent	24000 ppm	24000 ppm
Cl-titrated	18000 ppm	18000 ppm
pH/Nitrates	10.5 / 200 ppm	10.5 / 200 ppm
<u>Calibration</u>		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.5 ppg	9.5 ppg
Calc.Hydrostatic	3139 psi	3139 psi
RFT Chokesize	0.76 mm	0.51 mm
REMARKS:	Chamber sealed, then re- opened, chamber sealed before full.	Chamber sealed before full

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: A. Lindsay DATE: 12/8/82 SUITE NO: 2 RGR

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (3.0 lit.)
SEAT NO.	16	16
DEPTH	1940.0 m	1940.0 m
<u>A. RECORDING TIMES</u>		
Tool Set	1528 hrs	
Pretest Open	1532 hrs	
Time Open	4 min	
Chamber Open	1536 hrs	1548 hrs
Chamber Full	1543 hrs	1551 hrs
Fill Time	7 mins	3 mins
Start Build up	1543 hrs	1551 hrs
Finish Build up	1547 hrs	1554 hrs
Build Up Time	4 mins	3 mins
Seal Chamber	1547 hrs	1554 hrs
Tool Retract	Did not retract probe	1555 hrs
Total Time	19 mins	7 mins
<u>B. SAMPLE PRESSURES</u>		
	psia	psia
IHP	3268	
ISIP	2752.3	2751.6
Initial Flowing Press.	2250	2590
Final Flowing Press.	2220	2582
Sampling Press. Range	30	8
FSIP	2751.6	2751.6
FHP	Did not retract probe	3249
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	1966 m	1966 m
Max.Rec. Temp.	80.1 °C	82.2 °C
Time Circ. Stopped	11/8/82 @ 2230 hrs	11/8/82 @ 2230 hrs
Time since Circ.	17 hrs	17.25 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	1460 psig	
Amt Gas	69.2 ft ³ / 1960 lit.	
Amt Oil	14.00 lit.	
Amt Water		
Amt Others (Mud)	0.50 lit.	
<u>E. SAMPLE PROPERTIES</u>		
<u>Gas Composition</u>		
C1	206707 ppm	
C2	31034 ppm	
C3	13086 ppm	
1C4/nC4	16407 ppm	
C5	4957 ppm	
C6+	3494 ppm	
CO ₂ /H ₂ S	2.0%/20 ppm	
<u>Oil Properties</u>		
	46.2° API @ 15.6°C	
Colour	Brown black	
Fluorescence	Bright white	
GOR / Pour Point	786 / 8.0 °C	
<u>Water Properties</u>		
Resistivity		
NaCl Equivalent		
Cl-titrated	1000 ppm	
pH/Nitrates	8.0 / 100 ppm	
Est. Water Type		
<u>Mud Properties</u>		
Resistivity	0.291 ohm m @ 18.8°C	
NaCl Equivalent	24000 ppm	
Cl-titrated	18000 ppm	
pH/Nitrates	10.5 / 200 ppm	
<u>Calibration</u>		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.5 ppg	
Calc.Hydrostatic	3133 psi	
RFT Chokesize	0.76 mm	

REMARKS:

The second chamber was
preserved for 1
analysis

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: L. Finlayson DATE: 12/8/82 SUITE NO: 2 RUN NO: 4

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	18	18
DEPTH	1951.3 m	1951.3 m
<u>A. RECORDING TIMES</u>		
Tool Set	1855 hrs	
Pretest Open	1900 hrs	
Time Open	5 min	
Chamber Open	1905 hrs	1956 hrs
Chamber Full	1955 hrs	2020 hrs
Fill Time	Not filled	Not filled
Start Build up	1955 hrs	2020 hrs
Finish Build up		
Build Up Time		
Seal Chamber	1955 hrs	2020 hrs
Tool Retract	Did not retract probe	2021 hrs
Total Time	60 min	25 min
<u>B. SAMPLE PRESSURES</u>		
	psia	psia
IHP	3282	
ISIP	2766.6	
Initial Flowing Press.	36	270
Final Flowing Press.	410	388
Sampling Press. Range	374	118
FSIP	Not stabilized	Not stabilized
FHP	Did not retract probe	3262
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	1966 m	1966 m
Max.Rec. Temp.	84.8 °C	84.8 °C
Time Circ. Stopped	11/8/82 @ 2230 hrs	11/8/82 @ 2230 hrs
Time since Circ.	20.25hrs	21.5 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	300 psig	250 psig
Amt Gas	8.2 ft ³ / 232 lit.	4.8 ft ³ / 136 lit.
Amt Oil	2.50 lit.	oil
Amt Water	6.00 lit.	emulsion 2.50 lit.
Amt Others	Emulsion 1.50 lit.	filtrate
<u>E. SAMPLE PROPERTIES</u>		
<u>Gas Composition</u>		
C1	354355 ppm	275610 ppm
C2	68966 ppm	68966 ppm
C3	52347 ppm	40906 ppm
1C4/nC4	16096 ppm	15145 ppm
C5	15913 ppm	13945 ppm
C6+	6989 ppm	6989 ppm
CO2/H2S	2.2%/20 ppm	2.7%/25 ppm
Condensate Properties	36.2°API @ 15.6°C	36.2°API @ 15.6°C
Colour	Dark brown	Dark brown
Fluorescence	Bright blue white	Bright blue white
GOR/Pour Point	522/ 7.0 °C	5.0 °C
<u>Water Properties</u>		
Resistivity		
NaCl Equivalent		
Cl-titrated	15000 ppm	
pH/Nitrates	7.5 / 40 ppm	
Est. Water Type		
<u>Mud Properties</u>		
Resistivity	0.291 ohm m @ 18.8°C	0.291 ohm m @ 18.8°C
NaCl Equivalent	24000 ppm	24000 ppm
Cl-titrated	18000 ppm	18000 ppm
pH/Nitrates	10.5 / 200 ppm	10.5 / 200 ppm
<u>Calibration</u>		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.5 ppg	9.5 ppg
Calc.Hydrostatic	3151 psi	3151 psi
RFT Chokesize	0.76 mm	0.51 mm
REMARKS:	Sealed and reopened chamber after 18 min.	

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: A. Lindsay

DATE: 12-13/8/82 SUITE NO: 2

RUN NO: 5

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	24	24
DEPTH	1961.9 m	1961.9 m
<u>A. RECORDING TIMES</u>		
Tool Set	2346 hrs	
Pretest Open	2346 hrs	
Time Open	5 min	
Chamber Open	2351 hrs	0008 hrs
Chamber Full	0008 hrs	0019 hrs
Fill Time	17 mins	11 mins
Start Build up	0007 hrs	0014 hrs
Finish Build up	0008 hrs	0020 hrs
Build Up Time	1 min	6 min
Seal Chamber	0008 hrs	0020 hrs
Tool Retract	Did not retract probe	0021 hrs
Total Time	22 min	13 min
<u>B. SAMPLE PRESSURES</u>		
	psia	psia
IHP	3304	
ISIP	2771.9	2770
Initial Flowing Press.	1050	1461
Final Flowing Press.	2770	2769
Sampling Press. Range	1720	1308
FSIP	2770	2769.3
FHP	Did not retract probe	3274
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	1966 m	1966 m
Max.Rec. Temp.	84.3 °C	88.3 °C
Time Circ. Stopped	11/8/82 @ 2230 hrs	11/8/82 @ 2230 hrs
Time since Circ.	25 hrs	25.5 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	210 psig	300 psig
Amt Gas	0.7 ft ³ / 20 lit.	0.5 ft ³ / 14 lit..
Amt Oil		
Amt Water/Filtrate	21.50	9.30 lit.
Amt Others		
<u>E. SAMPLE PROPERTIES</u>		
<u>Gas Composition</u>		
C1	409477 ppm	362229 ppm
C2	55173 ppm	24138 ppm
C3	34897 ppm	13904 ppm
1C4/nC4	7572 ppm	2840 ppm
C5	985 ppm	246 ppm
C6+	123 ppm	82 ppm
CO2/H2S	2.0%/Nil ppm	1.8%/22 ppm
<u>Condensate Properties</u>		
Colour		
Fluorescence		
GOR		
<u>Water Properties</u>		
Resistivity	0.260 ohm m @ 19.4°C	0.260 ohm m @ 18.9°C
NaCl Equivalent	27000 ppm	27000 ppm
Cl-titrated		
pH/Nitrates		
Est. Water Type		
<u>Mud Properties</u>		
Resistivity	0.291 ohm m @ 18.8°C	0.291 ohm m @ 18.8°C
NaCl Equivalent	24000 ppm	24000 ppm
Cl-titrated	18000 ppm	18000 ppm
pH/Nitrates	10.5 / 200 ppm	10.5 / 200 ppm
<u>Calibration</u>		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.5 ppg	9.5 ppg
Calc.Hydrostatic	3168 psi	3168 psi
RFT Chokesize	0.76 mm	0.51 mm

REMARKS:

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: A. Lindsay DATE: 22/8/82 SUITE NO: 3 RUN NO: 7

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (3.8 lit.)
SEAT NO.	56	56
DEPTH	2662.0 m	2662.0 m

A. RECORDING TIMES

Tool Set	1946 hrs	
Pretest Open	1946 hrs	
Time Open	2 min	
Chamber Open	1948 hrs	2019 hrs
Chamber Full	2001 hrs	2023 hrs
Fill Time	13 mins	4 mins
Start Build up	2001 hrs	2023 hrs
Finish Build up	2017 hrs	2030 hrs
Build Up Time	16 min	7 min
Seal Chamber	2017 hrs	2030 hrs
Tool Retract	Did not retract probe	2034 hrs
Total Time	31 min	15 min

B. SAMPLE PRESSURES

	psia	psia
IHP	4441	
ISIP	3799.9	Not stabilised 3786
Initial Flowing Press.	650	2547
Final Flowing Press.	3783	3790
Sampling Press. Range	3133	1243
FSIP	Not stabilised 3786	3798.1
FHP	Did not retract probe	Not stabilised 4435
Form.Press.(Horner)		

C. TEMPERATURE

Depth Tool Reached	2680 m	2680 m
Max.Rec. Temp.	123.3 °C	123.3 °C
Time Circ. Stopped	22/8/82 @ 0230 hrs	22/8/82 @ 0230 hrs
Time since Circ.	17.25 hrs	17.25 hrs
Form. Temp.(Horner)		

D. SAMPLE RECOVERY

Surface Pressure	1675 psig	1900 psig
Amt Gas	77 ft ³ / 2180 lit.	20.3 ft ³ / 575 lit.
Amt Condensate	0.30 lit.	0.03 lit.
Amt Water	8.50 lit.	0.40 lit.
Amt Others - Mud	trace	trace

E. SAMPLE PROPERTIES

<u>Gas Composition</u>		
Cl	226935 ppm	235340 ppm
C2	15463 ppm	17553 ppm
C3	6724 ppm	8504 ppm
1C4/nC4	2348 ppm	2972 ppm
C5	637 ppm	978 ppm
C6+	111 ppm	325 ppm
CO2/H2S	5.0%/10 ppm	6.0%/ 2 ppm

Condensate Properties	45.1°API @ 15.6°C	44.1°API @ 15.6°C
Colour	Light brown	Medium brown
Fluorescence	Bright blue white	Bright blue white
GOR (Bbl Cond/MMScf gas)	22.4	10.5

Water Properties		
Resistivity	0.240 ohm m @ 19.0°C	0.240 ohm m @ 23.0°C
NaCl Equivalent	30000 ppm	27000 ppm
Cl-titrated	16500 ppm	15000 ppm
pH/Nitrates	8.0 / 70 ppm	8.0 /trace ppm
Est. Water Type		

Mud Properties		
Resistivity	0.280 ohm m @ 21.0°C	0.280 ohm m @ 21.0°C
NaCl Equivalent	24000 ppm	24000 ppm
Cl-titrated	19500 ppm	19500 ppm
pH/Nitrates	10.5 / 110 ppm	10.5 / 110 ppm

Calibration

Calibration Press.		
Calibration Temp.		
Mud Weight	9.6 ppg	9.6 ppg
Calc.Hydrostatic	4344 psi	4344 psi
RFT Chokesize	0.76 mm	0.51 mm

REMARKS:

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: W. Mudge	DATE: 23/8/82	SUITE NO: 3	RUN NO: 9
	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)	
SEAT NO.	61	61	
DEPTH	2692.0 m	2692.0 m	
<u>A. RECORDING TIMES</u>			
Tool Set	1500 hrs		
Pretest Open	1500 hrs		
Time Open	4 min		
Chamber Open	1504 hrs	1540 hrs	
Chamber Full	1537 hrs	1558 hrs	
Fill Time	33 mins	18 mins	
Start Build up			
Finish Build up			
Build Up Time			
Seal Chamber	1537 hrs	1558 hrs	
Tool Retract	Did not retract probe	1600 hrs	
Total Time	37 min	20 min	
<u>B. SAMPLE PRESSURES</u>			
	psia	psia	
IHP	4496		
ISIP	3803.5	3796.2	
Initial Flowing Press.	76	1135	
Final Flowing Press.	3788	3785	
Sampling Press. Range	3712	2650	
FSIP	3796.2	3791.7	
FHP	Did not retract probe	4477	
Form.Press.(Horner)			
<u>C. TEMPERATURE</u>			
Depth Tool Reached	2692 m	2692 m	
Max.Rec. Temp.	117 °C	117 °C	
Time Circ. Stopped	23/8/82 @ 0845 hrs	23/8/82 @ 0845 hrs	
Time since Circ.	6.5 hrs	7 hrs	
Form. Temp.(Horner)			
<u>D. SAMPLE RECOVERY</u>			
Surface Pressure	1500 psig	1450 psig	
Amt Gas	57.7 ft ³ / 1634 lit.	30.3 ft ³ / 858 lit.	
Amt Oil (Emulsion)	19.00 lit.	5.60 lit.	
Amt Water			
Amt Others			
<u>E. SAMPLE PROPERTIES</u>			
<u>Gas Composition</u>			
C1	798474 ppm	819487 ppm	
C2	54330 ppm	50150 ppm	
C3	27686 ppm	25709 ppm	
1C4/nC4	7430 ppm	6538 ppm	
C5	1933 ppm	1819 ppm	
C6+	464 ppm	371 ppm	
CO2/H2S	8.0%/Nil ppm	7.5%/Nil ppm	
Oil Properties	39.8°API @ 15.6°C	40.0°API @ 15.6°C	
Colour	Light brown	Light brown	
Fluorescence	Milky white	Milky white	
GOR (Scf/bbl) Pour Point	483 / 5.0°C	860 / 5.0°C	
Water Properties			
Resistivity	Water not separated from oil at wellsite		
NaCl Equivalent			
Cl-titrated			
pH/Nitrates			
Est. Water Type			
Mud Properties			
Resistivity	0.280 ohm m @ 21.0°C	0.280 ohm m @ 21.0°C	
NaCl Equivalent	24000 ppm	24000 ppm	
Cl-titrated	19500 ppm	19500 ppm	
pH/Nitrates	10.5 / 110 ppm	10.5 / 110 ppm	
Calibration			
Calibration Press.			
Calibration Temp.			
Mud Weight	9.6 ppg	9.6 ppg	
Calc.Hydrostatic	4393 psi	4393 psi	
RFT Chokesize	0.76 mm	0.76 mm	
REMARKS:			

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: W. Mudge DATE: 23/8/82 SUITE NO: 3 RUN NO: 10

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	62	62
DEPTH	2670.0 m	2670.0 m
<u>A. RECORDING TIMES</u>		
Tool Set	2047 hrs	
Pretest Open	2047 hrs	
Time Open	8 min	
Chamber Open	2055 hrs	2117 hrs
Chamber Full	2102 hrs	2121 hrs
Fill Time	7 min	4 min
Start Build up	2102 hrs	2121 hrs
Finish Build up	2111 hrs	2127 hrs
Build Up Time	9 min	6 min
Seal Chamber	2115 hrs	2127 hrs
Tool Retract	Did not retract probe	2127 hrs
Total Time	28 min	10 min
<u>B. SAMPLE PRESSURES</u>		
	psia	psia
IHP	4459	
ISIP	3810.4	Not stabilised 3800
Initial Flowing Press.	103	151
Final Flowing Press.	3797	3789
Sampling Press. Range	3694	3638
FSIP	Not stabilised 3800	Not stabilised 3795
FHP	Did not retract probe	4443
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	2670 m	2670 m
Max.Rec. Temp.	123 °C	123 °C
Time Circ. Stopped	23/8/82 @ 0845 hrs	23/8/82 @ 0845 hrs
Time since Circ.	12.75 hrs	12.75 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	300 psig	300 psig
Amt Gas	1.6 ft ³ / 45 lit.	0.8 ft ³ / 23 lit.
Amt Oil		
Amt Water/Filtrate	20.50 lit.	8.60 lit.
Amt Others		
<u>E. SAMPLE PROPERTIES</u>		
Gas Composition		
C1	483287 ppm	451768 ppm
C2	27165 ppm	20896 ppm
C3	10877 ppm	6922 ppm
1C4/nC4	2675 ppm	2080 ppm
C5	767 ppm	568 ppm
C6+	340 ppm	371 ppm
CO ₂ /H ₂ S	7.0%/Nil ppm	9.0%/Nil ppm
Condensate Properties		
Colour		
Fluorescence		
GOR		
Water Properties		
Resistivity	0.250 ohm m @ 16.0°C	0.250 ohm m @ 15.0°C
NaCl Equivalent	32000 ppm	32000 ppm
Cl-titrated	20000 ppm	23000 ppm
pH/Nitrates	8.0 / 30 ppm	7.5 / 100 ppm
Est. Water Type		
Mud Properties		
Resistivity	0.280 ohm m @ 21.0°C	0.280 ohm m @ 21.0°C
NaCl Equivalent	24000 ppm	24000 ppm
Cl-titrated	19500 ppm	19500 ppm
pH/Nitrates	10.5 / 110 ppm	10.5 / 110 ppm
Calibration		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.6 ppg	9.6 ppg
Calc.Hydrostatic	4357 psi	4357 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: W. Mudge DATE: 24/8/82 SUITE NO: 3 RUN NO: 11

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	65	65
DEPTH	2558.0 m	2558.0 m
<u>A. RECORDING TIMES</u>		
Tool Set	0118 hrs	
Pretest Open	0118 hrs	
Time Open	6 mins	
Chamber Open	0124 hrs	0134 hrs
Chamber Full	0130 hrs	0137 hrs
Fill Time	6 mins	3 mins
Start Build up	0130 hrs	0137 hrs
Finish Build up	0133 hrs	0140 hrs
Build Up Time	3 mins	3 mins
Seal Chamber	0133 hrs	0140 hrs
Tool Retract	Did not retract probe	0140 hrs
Total Time	15 mins	6 mins
<u>B. SAMPLE PRESSURES</u>		
	psia	psia
IHP	4261	
ISIP	3633.5	3634.6
Initial Flowing Press.	1271	2308
Final Flowing Press.	3634	3634
Sampling Press. Range	2363	1326
FSIP	3634	3634.0
FHP	Did not retract probe	4263
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	2608 m	2608 m
Max.Rec. Temp.	116.0 °C	116.0 °C
Time Circ. Stopped	23/8/82 @ 0845 hrs	23/8/82 @ 0845 hrs
Time since Circ.	17 hrs	17 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	1875 psig	1800 psig
Amt Gas	125.9 ft ³ /3565 lit.	58.4 ft ³ /1654 lit.
Amt Oil		
Amt Water/Filtrate	2.00 lit.	0.19 lit.
Amt Others/Condensate	0.50 lit.	0.17 lit.
<u>E. SAMPLE PROPERTIES</u>		
<u>Gas Composition</u>		
C1	829992 ppm	908789 ppm
C2	37090 ppm	37090 ppm
C3	17303 ppm	15452 ppm
1C4/nC4	4086 ppm	4160 ppm
C5	1358 ppm	1136 ppm
C6+	650 ppm	378 ppm
CO2/H2S	6.0%/4 ppm	7.0%/3 ppm
<u>Oil Properties</u>		
Colour	Yellow brown	Yellow brown
Fluorescence	White	White
GOR (Bbl Cond/MMScf gas)	100	20
<u>Water Properties</u>		
Resistivity	0.380 ohm m @ 16.0°C	0.330 ohm m @ 18.0°C
NaCl Equivalent	21000 ppm	23000 ppm
Cl-titrated	13000 ppm	19000 ppm
pH/Nitrates	7.5 / 80 ppm	8.5 / 30 ppm
Est. Water Type		
<u>Mud Properties</u>		
Resistivity	0.280 ohm m @ 21.0°C	0.280 ohm m @ 21.0°C
NaCl Equivalent	24000 ppm	24000 ppm
Cl-titrated	19500 ppm	19500 ppm
pH/Nitrates	10.5 / 100 ppm	10.5 / 100 ppm
<u>Calibration</u>		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.6 ppg	9.6 ppg
Calc.Hydrostatic	4175 psi	4175 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

RFT SAMPLE

BREAM 5

OBSERVER: W. Mudge

DATE:

SUITE NO: 3

RUN NO: 12

CHAMBER

(10.4 lit.)

CHAMBER 2 (10.4 lit.)

SEAT NO.

71

DEPTH

2495.5 m

A. RECORDING TIMES

Tool Set	
Pretest Open	
Time Open	
Chamber Open	0645 hrs
Chamber Full	0648 hrs
Fill Time	3 min
Start Build up	0648 hrs
Finish Build up	0649 hrs
Build Up Time	1 min
Seal Chamber	0649 hrs
Tool Retract	Did not observe 0652 hrs
Total Time	7 min

B. SAMPLE PRESSURES

IHP		
ISIP		3534
Initial Flowing Press.		475
Final Flowing Press.		2598
Sampling Press. Range		2123
FSIP		3533.7
FHP	Did not observe	4162
Form.Press.(Horner)		

C. TEMPERATURE

Depth Tool Reached		2538 m
Max.Rec. Temp.		115 °C
Time Circ. Stopped	23/8/82	23/8/82 @ 0845 hrs
Time since Circ.		22 hrs
Form. Temp.(Horner)		

D. SAMPLE RECOVERY

Surface Pressure		1000 psig
Amt Gas	27 ft ³	19.3 ft ³ / 546 lit.
Amt Oil and emulsion		t. 7.00 lit.
Amt Water		t. 1.25 lit.
Amt Others		

E. SAMPLE PROPERTIES

<u>Gas Composition</u>		
C1		872018 ppm
C2		85614 ppm
C3		59822 ppm
1C4/nC4		16049 ppm
C5		4263 ppm
C6+		1207 ppm
CO2/H2S	6.5%	7.0%/trace ppm

Oil Properties	37.5°API	35.1°API @ 15.6°C
Colour	Light	Light brown
Fluorescence	Milky	Milky white
GOR (Scf gas/bbl)		438

<u>Water Properties</u>		
Resistivity	0.290 Ωm @ 15.0°C	0.260 ohm m @ 15.0°C
NaCl Equivalent		30000 ppm
Cl-titrated		17000 ppm
pH/Nitrates	8.5	8.5 / 50 ppm
Est. Water Type		

<u>Mud Properties</u>		
Resistivity	0.280 Ωm @ 21.0°C	0.280 ohm m @ 21.0°C
NaCl Equivalent		24000 ppm
Cl-titrated		19500 ppm
pH/Nitrates	10.5	10.5 / 100 ppm

Calibration

Calibration Press.		
Calibration Temp.		
Mud Weight		9.6 ppg
Calc.Hydrostatic.		4073 psi
RFT Chokesize		0.76 mm

REMARKS:

GOR calcul
volume of
emulsion.

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: W. Mudge

DATE: 24/8/82

SUITE NO: 3

RUN NO: 13

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	72	73
DEPTH	2477.0 m	2488.0 m
<u>A. RECORDING TIMES</u>		
Tool Set	1057 hrs	1137 hrs
Pretest Open	1057 hrs	1137 hrs
Time Open	10 min	7 min
Chamber Open	1108 hrs	1145 hrs
Chamber Full	1125 hrs	
Fill Time	17 min	
Start Build up		
Finish Build up		
Build Up Time		
Seal Chamber	1130 hrs	1210 hrs
Tool Retract	1132 hrs	1215 hrs
Total Time	35 min	38 min
<u>B. SAMPLE PRESSURES</u>		
	psia	psia
IHP	4139	4150
ISIP	3528.7	3524.0
Initial Flowing Press.	300	304
Final Flowing Press.	3526	3522
Sampling Press. Range	3226	3218
FSIP	3526.4	3522.6
FHP	4131	4149
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	2488 m	2488 m
Max.Rec. Temp.	114 °C	115 °C
Time Circ. Stopped	23/8/82 @ 0845 hrs	23/8/82 @ 0845 hrs
Time since Circ.	26.75 hrs	27.5 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	1800 psig	1770 psig
Amt Gas	108.6 ft ³ / 3075 lit.	44.6 ft ³ /1263 lit.
Amt Oil		
Amt Water/Filtrate	6.35 lit.	1.75 lit.
Amt Condensate	0.06 lit.	0.02 lit.
<u>E. SAMPLE PROPERTIES</u>		
Gas Composition		
C1	853142 ppm	815247 ppm
C2	46512 ppm	55277 ppm
C3	24047 ppm	36620 ppm
1C4/nC4	7227 ppm	9959 ppm
C5	1874 ppm	2405 ppm
C6+	306 ppm	491 ppm
CO2/H2S	3.0%/Nil ppm	7.0%/Nil ppm
Condensate Properties	46.9°API @ 15.6°C	44.4°API @ 15.6°C
Colour	Light orange brown	Light orange brown
Fluorescence	Blue - white	Blue - white
GOR (Bbl Cond/MMScf gas)	3.5	2.8
Water Properties		
Resistivity	0.270 ohm m @ 18.0°C	0.270 ohm m @ 17.0°C
NaCl Equivalent	27000 ppm	28000 ppm
Cl-titrated	15000 ppm	16000 ppm
pH/Nitrates	8.0 / 60 ppm	8.5 / 60 ppm
Est. Water Type		
Mud Properties		
Resistivity	0.280 ohm m @ 21.0°C	0.028 ohm m @ 21.0°C
NaCl Equivalent	24000 ppm	24000 ppm
Cl-titrated	19500 ppm	19500 ppm
pH/Nitrates	10.5 / 100 ppm	10.5 / 100 ppm
Calibration		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.6 ppg	9.6 ppg
Calc.Hydrostatic	4042 psi	4060 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: W. Mudge DATE: 24/8/82 SUITE NO: 3 RUN NO: 14.

	CHAMBER 1 (22.7 lit.)			CHAMBER 2 (10.4 lit.)
SEAT NO.	77	78	79	80
DEPTH	2568.5	2568.2	2568.0	2562.0 m

A. RECORDING TIMES

Tool Set	1607	1623	1725 hrs	1804 hrs
Pretest Open	1607	1624	1725 hrs	1804 hrs
Time Open	3	1	2 min	3 min
Chamber Open	1610	1625	1727 hrs	1807 hrs
Chamber Full				1811 hrs
Fill Time				4 min
Start Build up				
Finish Build up				
Build Up Time				
Seal Chamber	1618	1714	1750 hrs	1811 hrs
Tool Retract	1620	1718	1756 hrs	1812 hrs
Total Time	13	55	31 min	8 min

B. SAMPLE PRESSURES

	psia	psia	psia	psia
IHP	4273	4274	4276	4257
ISIP	3642.1	3642.4	3644.0	3633.8
Initial Flowing Press.	38	52	64	3600
Final Flowing Press.	41	101	183	3606
Sampling Press. Range	3	49	119	6
FSIP		3641.3	3640.2	3634.5
FHP	4275	4272	4269	4259
Form.Press.(Horner)				

C. TEMPERATURE

Depth Tool Reached		2568 m		2562 m
Max.Rec. Temp.		122.0 °C		122.0 °C
Time Circ. Stopped	23/8/82 @ 0845 hrs		23/8/82 @ 0845 hrs	
Time since Circ.		33.25 hrs		33.5 hrs
Form. Temp.(Horner)				

D. SAMPLE RECOVERY

Surface Pressure		5 psig		1800 psig
Amt Gas	0.2 ft ³ /	5.7 lit.	58 ft ³ /	1642 lit.
Amt Oil				
Amt Water/Filtrate		1.40 lit.		0.28 lit.
Amt Condensate				0.10 lit..

E. SAMPLE PROPERTIES

<u>Gas Composition</u>				
C1	714424 ppm		877745 ppm	
C2	41792 ppm		39676 ppm	
C3	27686 ppm		21779 ppm	
1C4/nC4	8322 ppm		7223 ppm	
C5	2501 ppm		2590 ppm	
C6+	835 ppm		987 ppm	
CO2/H2S	3.0%/Nil ppm		5.0%/ 4 ppm	

Oil Properties		43.2° API @ 15.6°C
Colour		Light yellow brown
Fluorescence		Brown to white
GOR (Bbl Cond/MMScf gas)		10.8

Water Properties			
Resistivity	0.260 ohm m @ 20.0°C	0.390 ohm m @ 19.5°C	
NaCl Equivalent	26500 ppm	17500 ppm	
Cl-titrated	17000 ppm	19000 ppm	
pH/Nitrates	10.0 / 80 ppm	8.0 / Nil ppm	
Est. Water Type			

Mud Properties			
Resistivity	0.280 ohm m @ 21.0°C	0.280 ohm m @ 21.0°C	
NaCl Equivalent	24000 ppm	24000 ppm	
Cl-titrated	19000 ppm	19500 ppm	
pH/Nitrates	10.5 / 100 ppm	10.5 / 100 ppm	

Calibration			
Calibration Press.			
Calibration Temp.			
Mud Weight		9.6 ppg	9.6 ppg
Calc.Hydrostatic		4191 psi	4181 psi
RFT Chokesize		0.76 mm	0.76 mm

REMARKS: Took sample from three depths.

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: W. Mudge DATE: 30/8/82 SUITE NO: 4 RUN NO: 16

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	136	137
DEPTH	2984.5 m	2968.0 m
<u>A. RECORDING TIMES</u>		
Tool Set	0925 hrs	1105 hrs
Pretest Open	0925 hrs	1105 hrs
Time Open	5 min	5 min
Chamber Open	0930 hrs	1110 hrs
Chamber Full		
Fill Time		
Start Build up		
Finish Build up		
Build Up Time		
Seal Chamber	1100 hrs	1145 hrs
Tool Retract	1107 hrs	1150 hrs
Total Time	42 min	45 min
<u>B. SAMPLE PRESSURES</u>		
	psia	psia
IHP	4862	4832
ISIP	Not stabilized	4324.6
Initial Flowing Press.	132	52
Final Flowing Press.	97	3999
Sampling Press. Range	35	3947
FSIP	Not stabilized	4325.3
FHP	4865	4834
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	2984 m	2984 m
Max.Rec. Temp.	136.0 °C	136.0 °C
Time Circ. Stopped	29/8/82 @ 0930 hrs	29/8/82 @ 0930 hrs
Time since Circ.	25.5 hrs	27.5 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	5 psig	1750 psig
Amt Gas	0.1 ft ³ / 2.8 lit.	26.2 ft ³ / 742 lit.
Amt Oil		
Amt Water/Filtrate	3.70 lit.	5.5 lit.
Amt Condensate		Trace
<u>E. SAMPLE PROPERTIES</u>		
<u>Gas Composition</u>		
C1		843125 ppm
C2		45308 ppm
C3		16717 ppm
1C4/nC4		4715 ppm
C5		1278 ppm
C6+		289 ppm
CO2/H2S		8.0%/Nil ppm
Condensate Properties	41° API @ 15.6°C	
Colour		Yellow gold
Fluorescence		Blue white
GOR		
<u>Water Properties</u>		
Resistivity	0.280 ohm m @ 18.0°C	0.270 ohm m @ 14.0°C
NaCl Equivalent	27000 ppm	31000 ppm
Cl-titrated	18000 ppm	9000 ppm
pH/Nitrates	7.5 / 18 ppm	7.5 / 9 ppm
Est. Water Type		
<u>Mud Properties</u>		
Resistivity	0.290 ohm m @ 23.0°C	0.280 ohm m @ 23.0°C
NaCl Equivalent	23000 ppm	23000 ppm
Cl-titrated	17000 ppm	17000 ppm
pH/Nitrates	10.3 / 90 ppm	10.3 / 90 ppm
<u>Calibration</u>		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.6 ppg	9.6 ppg
Calc.Hydrostatic	4870 psi	4844 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: W. Mudge DATE: 30/8/82 SUITE NO: 4 RUN NO: 17

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	139	139
DEPTH	2947.8 m	2947.8 m
<u>A. RECORDING TIMES</u>		
Tool Set	1545 hrs	
Pretest Open	1545 hrs	
Time Open	10 min	
Chamber Open	1555 hrs	1625 hrs
Chamber Full	1608 hrs	1630 hrs
Fill Time	13 min	5 min
Start Build up		
Finish Build up		
Build Up Time		
Seal Chamber	1625 hrs	1640 hrs
Tool Retract	Did not retract probe	1645 hrs
Total Time	20 min	20 min
<u>B. SAMPLE PRESSURES</u>		
IHP	psia	psia
ISIP	4807	
Initial Flowing Press.	4294.4	
Final Flowing Press.	852	416
Sampling Press. Range	4174	4230
FSIP	3322	3814
FHP	Not stabilized	4291.8
Form.Press.(Horner)	Did not retract probe	4803
<u>C. TEMPERATURE</u>		
Depth Tool Reached	2848 m	2848 m
Max.Rec. Temp.	133.0 °C	133.0 °C
Time Circ. Stopped	29/8/82 @ 0930 hrs	29/8/82 @ 0930 hrs
Time since Circ.	31 hrs	31.25hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	1750 psig	1950 psig
Amt Gas	86.3 ft ³ / 2444 lit.	59.5 ft ³ / 1685 lit.
Amt Oil		
Amt Water/Filtrate	7.25 lit.	1.00 lit.
Amt Condensate	0.02 lit.	0.025 lit.
<u>E. SAMPLE PROPERTIES</u>		
<u>Gas Composition</u>		
C1	690341 ppm	945561 ppm
C2	38490 ppm	52926 ppm
C3	15645 ppm	21750 ppm
1C4/nC4	5175 ppm	6210 ppm
C5	1660 ppm	1982 ppm
C6+	655 ppm	471 ppm
CO ₂ /H ₂ S	8.0%/Nil ppm	7.0%/Nil ppm
<u>Condensate Properties</u>		
Colour	41° API @ 15.6°C	41° API @ 15.6°C
Fluorescence	Green yellow	Green yellow
GOR (Bbl Cond/MMScf gas)	Blue white	Blue white
	1.5	2.6
<u>Water Properties</u>		
Resistivity	0.290 ohm m @ 16.0°C	0.300 ohm m @ 13.0°C
NaCl Equivalent	27000 ppm	28500 ppm
Cl-titrated	15000 ppm	14500 ppm
pH/Nitrates	7.0 / 20 ppm	7.0 / 20 ppm
Est. Water Type		
<u>Mud Properties</u>		
Resistivity	0.218 ohm m @ 17.7°C	0.218 ohm m @ 17.7°C
NaCl Equivalent	35000 ppm	35000 ppm
Cl-titrated	17000 ppm	17000 ppm
pH/Nitrates	10.3 / 90 ppm	10.3 / 90 ppm
<u>Calibration</u>		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.6 ppg	9.6 ppg
Calc.Hydrostatic	4811 psi	4811 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: W. Mudge DATE: 31/8/82 SUITE NO: 4 RUN NO: 19

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	145	146
DEPTH	2833.5 m	2833.5 m
<u>A. RECORDING TIMES</u>		
Tool Set	1210 hrs	
Pretest Open	1210 hrs	
Time Open	10 min	
Chamber Open	1220 hrs	1510 hrs
Chamber Full		
Fill Time		
Start Build up		
Finish Build up		
Build Up Time		
Seal Chamber	1505 hrs	1555 hrs
Tool Retract	1508 hrs	1558 hrs
Total Time	3 hrs	48 min
<u>B. SAMPLE PRESSURES</u>		
	psia	psia
IHP	4634	4633
ISIP	4095.5	
Initial Flowing Press.	138	179
Final Flowing Press.	1028	1080
Sampling Press. Range	890	901
FSIP		
FHP		4629
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	2833 m	2833 m
Max.Rec. Temp.	122.0 °C	125.0 °C
Time Circ. Stopped	31/8/82 @ 0545 hrs	31/8/82 @ 0545 hrs
Time since Circ.	9.25 hrs	10.25 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	475 psig	650 psig
Amt Gas	12 ft ³ / 340 lit.	16.6 ft ³ / 470 lit.
Amt Oildensate		
Amt Water/Filtrate	12.00 lit.	1.25 lit.
Amt Condensate		trace scum
<u>E. SAMPLE PROPERTIES</u>		
Gas Composition		
C1	945562 ppm	961321 ppm
C2	54531 ppm	51323 ppm
C3	22896 ppm	20606 ppm
1C4/nC4	5520 ppm	4600 ppm
C5	1322 ppm	980 ppm
C6+	290 ppm	145 ppm
CO2/H2S	7.0%/Nil ppm	7.0%/Nil ppm
Condensate Properties		
Colour		
Fluorescence		
GOR		
Water Properties		
Resistivity	0.280 ohm m @ 19.0°C	0.290 ohm m @ 14.0°C
NaCl Equivalent	26000 ppm	29000 ppm
Cl-titrated	15000 ppm	15000 ppm
pH/Nitrates	8.0 / 16 ppm	7.5 / 16 ppm
Est. Water Type		
Mud Properties		
Resistivity	0.290 ohm m @ 23.0°C	0.290 ohm m @ 23.0°C
NaCl Equivalent	23000 ppm	23000 ppm
Cl-titrated	15000 ppm	15000 ppm
pH/Nitrates	10.3 / 90 ppm	10.3 / 90 ppm
Calibration		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.6 ppg	9.6 ppg
Calc.Hydrostatic	4624 psi	4624 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: W. Mudge DATE: 31/8/82 SUITE NO: 4 RUN NO: 20

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	147	147
DEPTH	2701.5 m	2701.5 m
<u>A. RECORDING TIMES</u>		
Tool Set	1945 hrs	
Pretest Open	1945 hrs	
Time Open	5 min	
Chamber Open	1950 hrs	2015 hrs
Chamber Full		2050 hrs
Fill Time		35 min
Start Build up		2050 hrs
Finish Build up		2100 hrs
Build Up Time		10 min
Seal Chamber	2015 hrs	2100 hrs
Tool Retract	Did not retract probe	2103 hrs
Total Time	30 min	48 min
<u>B. SAMPLE PRESSURES</u>		
IHP	4424	
ISIP	3816.1	Did not stabilize
Initial Flowing Press.	661	43
Final Flowing Press.	358	3806
Sampling Press. Range	309	3763
FSIP	Did not stabilize	3811.6
FHP	Did not retract probe	4416
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	2701 m	2701 m
Max.Rec. Temp.	124.0 °C	124.0 °C
Time Circ. Stopped	31/8/82 @ 0545 hrs	31/8/82 @ 0545 hrs
Time since Circ.	14.5 hrs	15.25 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	0 psig	100 psig
Amt Gas		
Amt Oil		
Amt Water/Filtrate	6.50 lit.	9.50 lit.
Amt Others		
<u>E. SAMPLE PROPERTIES</u>		
<u>Gas Composition</u>		
C1		
C2		
C3		
1C4/nC4		
C5		
C6+		
CO2/H2S		
<u>Oil Properties</u>		
Colour		
Fluorescence		
GOR		
<u>Water Properties</u>		
Resistivity	0.270 ohm m @ 19.0°C	0.280 ohm m @ 13.0°C
NaCl Equivalent	26000 ppm	30000 ppm
Cl-titrated	15000 ppm	15000 ppm
pH/Nitrates	10.5 / 22 ppm	9.0 / 20 ppm
Est. Water Type		
<u>Mud Properties</u>		
Resistivity	0.290 ohm m @ 23.0°C	0.290 ohm m @ 23.0°C
NaCl Equivalent	21500 ppm	21500 ppm
Cl-titrated	17000 ppm	17000 ppm
pH/Nitrates	13.3 / 90 ppm	10.3 / 90 ppm
<u>Calibration</u>		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.6 ppg	9.6 ppg
Calc.Hydrostatic	4409 psi	4409 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: W. Mudge DATE: 01/9/82 SUITE NO: 4 RUN NO: 21

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	151	151
DEPTH	2706.2 m	2706.2 m
<u>A. RECORDING TIMES</u>		
Tool Set	0105 hrs	
Pretest Open	0106 hrs	
Time Open	3 min	
Chamber Open	0109 hrs	0140 hrs
Chamber Full	Did not fill	
Fill Time		
Start Build up		
Finish Build up		
Build Up Time		
Seal Chamber	0140 hrs	0235 hrs
Tool Retract	Did not retract probe	0239 hrs
Total Time	35 min	59 min
<u>B. SAMPLE PRESSURES</u>		
IHP	4423	4423
ISIP	3834.1	Not stabilized
Initial Flowing Press.	179	103
Final Flowing Press.	396	267
Sampling Press. Range	217	164
FSIP	Not stabilized	3806.2
FHP	Did not retract probe	4420
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	2706 m	2706 m
Max.Rec. Temp.	125.0 °C	125.0 °C
Time Circ. Stopped	31/8/82 @ 0545 hrs	31/8/82 @ 0545 hrs
Time since Circ.	20 hrs	20 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	Nil psig	Nil psig
Amt Gas		
Amt Oil		
Amt Water/Filtrate	4.50 lit.	6.25 lit.
Amt Others		
<u>E. SAMPLE PROPERTIES</u>		
Gas Composition		
C1		
C2		
C3		
1C4/nC4		
C5		
C6+		
CO2/H2S		
Oil Properties		
Colour		
Fluorescence		
GOR		
Water Properties		
Resistivity	0.310 ohm m @ 15.0°C	0.300 ohm m @ 15.0°C
NaCl Equivalent	25000 ppm	26000 ppm
Cl-titrated	15000 ppm	15000 ppm
pH/Nitrates	10.5 / 20 ppm	10.5 / 10 ppm
Est. Water Type	Filtrate	Filtrate
Mud Properties		
Resistivity	0.290 ohm m @ 23.0°C	0.290 ohm m @ 23.0°C
NaCl Equivalent	23000 ppm	23000 ppm
Cl-titrated	17000 ppm	17000 ppm
pH/Nitrates	10.3 / 90 ppm	10.3 / 90 ppm
Calibration		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.6 ppg	9.6 ppg
Calc.Hydrostatic	4417 psi	4417 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

RFT SAMPLE TEST REPORT -- BREAM 5

OBSERVER: W. Mudge DATE: 01/9/82 SUITE NO: 4 RUN NO: 22

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	153	153
DEPTH	2715.5 m	2715.5 m

A. RECORDING TIMES

Tool Set	0700 hrs	
Pretest Open	0700 hrs	
Time Open	1 min	
Chamber Open	0701 hrs	0740 hrs
Chamber Full		0803 hrs
Fill Time		23 min
Start Build up		0803 hrs
Finish Build up		0810 hrs
Build Up Time		7 min
Seal Chamber	0740 hrs	0810 hrs
Tool Retract	Did not retract probe	0811 hrs
Total Time	40 min	31 min

B. SAMPLE PRESSURES

	psia	psia
IHP	4441	
ISIP	3881.6	Did not stabilize
Initial Flowing Press.	318	420
Final Flowing Press.	845	3878
Sampling Press. Range	527	3458
FSIP	Did not stabilize	3879.2
FHP	Did not retract probe	4431
Form.Press.(Horner)		

C. TEMPERATURE

Depth Tool Reached	2726 m	2726 m
Max.Rec. Temp.	125.0 °C	125.0 °C
Time Circ. Stopped	31/8/82 @ 0545 hrs	31/8/82 @ 0545 hrs
Time since Circ.	26 hrs	26.5 hrs
Form. Temp.(Horner)		

D. SAMPLE RECOVERY

Surface Pressure	0 psig	225 psig
Amt Gas	0.1 ft ³ / 2.8 lit.	0.45 ft ³ /12.7 lit.
Amt Oil		
Amt Water/Filtrate	11.50	8.90 lit.
Amt Others		

E. SAMPLE PROPERTIES

<u>Gas Composition</u>		
C1		44914 ppm
C2		2720 ppm
C3		973 ppm
1C4/nC4		230 ppm
C5		222 ppm
C6+		44 ppm
CO2/H2S		0.5%/ 0 ppm

Oil Properties

Colour
Fluorescence
GOR

Water Properties

Resistivity	0.270 ohm m @ 17.8°C	0.270 ohm m @ 17.8°C
NaCl Equivalent	26000 ppm	26000 ppm
Cl-titrated	15000 ppm	15000 ppm
pH/Nitrates	9.5 / 20 ppm	9.5 / 20 ppm
Est. Water Type		

Mud Properties

Resistivity	0.220 ohm m @ 17.7°C	0.220 ohm m @ 17.7°C
NaCl Equivalent	32000 ppm	32000 ppm
Cl-titrated	17000 ppm	17000 ppm
pH/Nitrates	10.3 / 90 ppm	10.3 / 90 ppm

Calibration

Calibration Press.		
Calibration Temp.		
Mud Weight	9.6 ppg	9.6 ppg
Calc.Hydrostatic	4432 psi	4432 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: W. Mudge DATE: 01/9/82 SUITE NO: 4 RUN NO: 23

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	154	154
DEPTH	2756.2 m	2756.2 m
<u>A. RECORDING TIMES</u>		
Tool Set	2232 hrs	
Pretest Open	2234 hrs	
Time Open	6 min	
Chamber Open	2240 hrs	2329 hrs
Chamber Full		
Fill Time		
Start Build up		
Finish Build up		
Build Up Time		
Seal Chamber	2328 hrs	0014 hrs
Tool Retract	Did not retract probe	0020 hrs
Total Time	56 min	51 min
<u>B. SAMPLE PRESSURES</u>		
IHP	4534	psia
ISIP	Did not stabilize	
Initial Flowing Press.	1155	1272
Final Flowing Press.	839	347
Sampling Press. Range	1173	216
FSIP	Did not stabilize	Did not stabilize
FHP	Did not retract probe	Did not stabilize
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	2775 m	2775 m
Max.Rec. Temp.	119.0 °C	119.0 °C
Time Circ. Stopped	1/9/82 @ 1600 hrs	1/9/82 @ 1600 hrs
Time since Circ.	7.5 hrs	8.5 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	0 psig	175 psig
Amt Gas	0.2 ft ³ 5.7 lit.	1.9 ft ³ 53.8 lit.
Amt Oil		
Amt Water/Filtrate	9.50 lit.	4.25 lit.
Amt Others		
<u>E. SAMPLE PROPERTIES</u>		
<u>Gas Composition</u>		
C1		772209 ppm
C2		60946 ppm
C3		26712 ppm
1C4/nC4		7130 ppm
C5		1876 ppm
C6+		363 ppm
CO2/H2S		0.5%/Nil ppm
<u>Oil Properties</u>		
Colour		
Fluorescence		
GOR		
<u>Water Properties</u>		
Resistivity	0.260 ohm m @ 23.0°C	0.280 ohm m @ 17.0°C
NaCl Equivalent	24000 ppm	27000 ppm
Cl-titrated	16000 ppm	16000 ppm
pH/Nitrates	9.0 / 26 ppm	8.0 / 29 ppm
Est. Water Type		
<u>Mud Properties</u>		
Resistivity	0.218 ohm m @ 17.7°C	0.218 ohm m @ 17.7°C
NaCl Equivalent	34000 ppm	34000 ppm
Cl-titrated	17000 ppm	17000 ppm
pH/Nitrates	10.3 / 110 ppm	10.3 / 110 ppm
<u>Calibration</u>		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.6 ppg	9.6 ppg
Calc.Hydrostatic.	4498 psi	4498 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: W. Mudge DATE: 2/9/82 SUITE NO: 4 RUN NO: 24

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	155	155
DEPTH	2756.2 m	2756.2 m
<u>A. RECORDING TIMES</u>		
Tool Set	0405 hrs	
Pretest Open	0405 hrs	
Time Open	2 min	
Chamber Open	0407 hrs	0450 hrs
Chamber Full		0524 hrs
Fill Time		34 min
Start Build up		0524 hrs
Finish Build up		0531 hrs
Build Up Time		7 min
Seal Chamber	0450 hrs	0531 hrs
Tool Retract	Did not retract probe	0533 hrs
Total Time	45 min	43 min
<u>B. SAMPLE PRESSURES</u>		
	psia	psia
IHP	4433	
ISIP	3805.6	Did not stabilize
Initial Flowing Press.	896	244
Final Flowing Press.	865	1050
Sampling Press. Range	665	806
FSIP	Did not stabilize	Did not stabilize
FHP	Did not retract probe	Did not stabilize
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	2695 m	2695 m
Max.Rec. Temp.	123.0 °C	123.0 °C
Time Circ. Stopped	1/9/82 @ 1600 hrs	1/9/82 @ 1600 hrs
Time since Circ.	12.75 hrs	13.5 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	0 psig	100 psig
Amt Gas	0.075 ft ³ / 2.1 lit.	0.01 ft ³ / 0.3 lit.
Amt Oil		
Amt Water/Filtrate	9.00 lit.	9.00 lit.
Amt Others		
<u>E. SAMPLE PROPERTIES</u>		
Gas Composition		
C1		
C2		
C3		
1C4/nC4		
C5		
C6+		
CO2/H2S		
Oil Properties		
Colour		
Fluorescence		
GOR		
Water Properties		
Resistivity	0.260 ohm m @ 19.0°C	0.280 ohm m @ 13.0°C
NaCl Equivalent	27000 ppm	30000 ppm
Cl-titrated	15000 ppm	15000 ppm
pH/Nitrates	9.5 / 24 ppm	9.0 / 22 ppm
Est. Water Type		
Mud Properties		
Resistivity	0.218 ohm m @ 17.7°C	0.218 ohm m @ 17.7°C
NaCl Equivalent	34000 ppm	34000 ppm
Cl-titrated	17000 ppm	17000 ppm
pH/Nitrates	10.5 / 110 ppm	10.5 / 110 ppm
Calibration		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.6 ppg	9.6 ppg
Calc.Hydrostatic	4498 psi	4498 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: W. Mudge DATE: 2/9/82 SUITE NO: 4 RUN NO: 25

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	157	157
DEPTH	2849.2 m	2849.2 m
<u>A. RECORDING TIMES</u>		
Tool Set	0930 hrs	
Pretest Open	0931 hrs	
Time Open	2 min	
Chamber Open	0933 hrs	1015 hrs
Chamber Full		
Fill Time		
Start Build up		
Finish Build up		
Build Up Time		
Seal Chamber	1015 hrs	1050 hrs
Tool Retract	Did not retract probe	1051 hrs
Total Time	45 min	36 min
<u>B. SAMPLE PRESSURES</u>		
IHP	4672	psia
ISIP	4133.5	Did not stabilize
Initial Flowing Press.	476	1380
Final Flowing Press.	2050	3130
Sampling Press. Range	1574	1942
FSIP	Did not stabilize	Did not stabilize
FHP	Did not retract probe	Did not stabilize
Form.Press.(Horner)		
<u>C. TEMPERATURE</u>		
Depth Tool Reached	2870 m	2870 m
Max.Rec. Temp.	128.0 °C	128.0 °C
Time Circ. Stopped	1/9/82 @ 1600 hrs	1/9/82 @ 1600 hrs
Time since Circ.	18.25 hrs	18.75 hrs
Form. Temp.(Horner)		
<u>D. SAMPLE RECOVERY</u>		
Surface Pressure	800 psig	1575 psig
Amt Gas	28.5 ft ³ / 807 lit.	41.3 ft ³ /1169 lit.
Amt Oil		
Amt Water/Filtrate	9.50 lit.	1.25 lit.
Amt Condensate	0.02 lit.	0.02 lit.
<u>E. SAMPLE PROPERTIES</u>		
<u>Gas Composition</u>		
C1	961321 ppm	945562 ppm
C2	57738 ppm	57738 ppm
C3	22896 ppm	25949 ppm
1C4/nC4	6670 ppm	8970 ppm
C5	1705 ppm	2686 ppm
C6+	363 ppm	725 ppm
CO2/H2S	7.5%/Nil ppm	8.5%/Nil ppm
Oil Properties	48° API @ 15.6°C	41° API @ 15.6°C
Colour		
Fluorescence		
GOR		
<u>Water Properties</u>		
Resistivity	0.260 ohm m @ 19.0°C	0.290 ohm m @ 14.0°C
NaCl Equivalent	26000 ppm	28000 ppm
Cl-titrated	16000 ppm	14500 ppm
pH/Nitrates	7.0 / 16 ppm	7.0 / 46 ppm
Est. Water Type		
<u>Mud Properties</u>		
Resistivity	0.218 ohm m @ 17.7°C	0.218 ohm m @ 17.7°C
NaCl Equivalent	34000 ppm	34000 ppm
Cl-titrated	17000 ppm	17000 ppm
pH/Nitrates	10.5 / 110 ppm	10.5 / 110 ppm
<u>Calibration</u>		
Calibration Press.		
Calibration Temp.		
Mud Weight	9.6 ppg	9.6 ppg
Calc.Hydrostatic	4650 psi	4650 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: N. Davidson DATE: 7/9/82 SUITE NO: 5 RUN NO: 26

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	163 164	171
DEPTH	3198.4 3196.2 m	3066.7 m

A. RECORDING TIMES

Tool Set	1943	2003 hrs	2247 hrs
Pretest Open	1943	2006 hrs	2248 hrs
Time Open	6	7 min	4 min
Chamber Open	1949	2013 hrs	2252 hrs
Chamber Full			
Fill Time			
Start Build up			
Finish Build up			
Build Up Time			
Seal Chamber	1957	2113 hrs	0001 hrs
Tool Retract	1959	2115 hrs	0005 hrs
Total Time	16	12 min	18 min

B. SAMPLE PRESSURES

	psia	psia	psia
IHP	Not stabilized	5213	Fluctuating
ISIP	4836.5	5064.3	4516.4
Initial Flowing Press.	28	34	47
Final Flowing Press.	54	69	121
Sampling Press. Range	26	35	74
FSIP	Not stabilized	Not stabilized	Not stabilized
FHP	Not stabilized	5215	Fluctuating
Form.Press.(Horner)			

C. TEMPERATURE

Depth Tool Reached		3226 m	
Max.Rec. Temp.		131.0 °C	
Time Circ. Stopped	7/9/82 @ 0945 hrs		7/9/82 @ 0945 hrs
Time since Circ.		11.5 hrs	
Form. Temp.(Horner)			

D. SAMPLE RECOVERY

Surface Pressure	0 psig	0 psig
Amt Gas		0.17 ft ³ / 4.8 lit.
Amt Oil		
Amt Water/Filtrate	1.75 lit.	4.75 lit.
Amt Others		

E. SAMPLE PROPERTIES

Gas Composition
 C1
 C2
 C3
 1C4/nC4
 C5
 C6+
 CO2/H2S

Oil Properties

Colour
 Fluorescence
 GOR

Water Properties

Resistivity	0.330 ohm m @ 17.0°C	0.550 ohm m @ 17.0°C
NaCl Equivalent	22500 ppm	13000 ppm
Cl-titrated	11000 ppm	12000 ppm
pH/Nitrates	8.0 /190 ppm	8.2 /180 ppm
Est. Water Type		

Mud Properties

Resistivity	0.256 ohm m @ 17.2°C	0.256 ohm m @ 17.2°C
NaCl Equivalent	30000 ppm	30000 ppm
Cl-titrated	14000 ppm	14000 ppm
pH/Nitrates	10.5 / 200 ppm	10.5 / 200 ppm

Calibration

Calibration Press.		
Calibration Temp.		
Mud Weight	10.5 ppG	10.5 ppG
Calc.Hydrostatic	5709 psi	5474 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

RFT SAMPLE TEST REPORT - BREAM 5

OBSERVER: N. Davidson DATE: 8/9/82 SUITE NO: 5 RUN NO: 27

	CHAMBER 1 (22.7 lit.)	CHAMBER 2 (10.4 lit.)
SEAT NO.	176	176
DEPTH	3016.2 m	3016.2 m

A. RECORDING TIMES

Tool Set	0427 hrs	
Pretest Open	0427 hrs	
Time Open	3 min	
Chamber Open	0430 hrs	0517 hrs
Chamber Full		
Fill Time		
Start Build up		
Finish Build up		
Build Up Time		
Seal Chamber	0516 hrs	0601 hrs
Tool Retract	Did not retract probe	0603 hrs
Total Time	49 min	46 min

B. SAMPLE PRESSURES

IHP	Fluctuating 4931 +/- 3	psia
ISIP	4421.2	Did not stabilize
Initial Flowing Press.	61	140
Final Flowing Press.	145	259
Sampling Press. Range	84	178
FSIP	Did not stabilize	4419.7
FHP	Did not retract probe	Fluctuating 4917 +/- 4
Form.Press.(Horner)		

C. TEMPERATURE

Depth Tool Reached	3325 m	3325 m
Max.Rec. Temp.	133.0 °C	133.0 °C
Time Circ. Stopped	7/9/82 @ 0945 hrs	7/9/82 @ 0945 hrs
Time since Circ.	19.5 hrs	20.25 hrs
Form. Temp.(Horner)		

D. SAMPLE RECOVERY

Surface Pressure	0 psig	0 psig
Amt Gas	0.3 ft ³ / 8.5 lit.	
Amt Oil		
Amt Water/Filtrate	10.00 lit.	6.75 lit.
Amt Others		

E. SAMPLE PROPERTIES

Gas Composition	
C1	47554 ppm
C2	2141 ppm
C3	582 ppm
1C4/nC4	64 ppm
C5	Tr ppm
C6+	
CO2/H2S	1.2%/Nil ppm

Oil Properties

 Colour
 Fluorescence
 GOR

Water Properties

Resistivity	0.310 ohm m @ 20.6°C	0.320 ohm m @ 20.6°C
NaCl Equivalent	21000 ppm	21000 ppm
Cl-titrated	12000 ppm	12000 ppm
pH/Nitrates	8.6 / 150 ppm	8.1 / 90 ppm
Est. Water Type		

Mud Properties

Resistivity	0.256 ohm m @ 17.2°C	0.256 ohm m @ 17.2°C
NaCl Equivalent	30000 ppm	30000 ppm
Cl-titrated	14000 ppm	14000 ppm
pH/Nitrates	10.5 / 200 ppm	10.5 / 200 ppm

Calibration

Calibration Press.		
Calibration Temp.		
Mud Weight	10.5 ppg	10.5 ppg
Calc.Hydrostatic	5384 psi	5384 psi
RFT Chokesize	0.76 mm	0.76 mm

REMARKS:

FIGURE 1

BREAM 5

DEPTH V PRESSURE PLOT

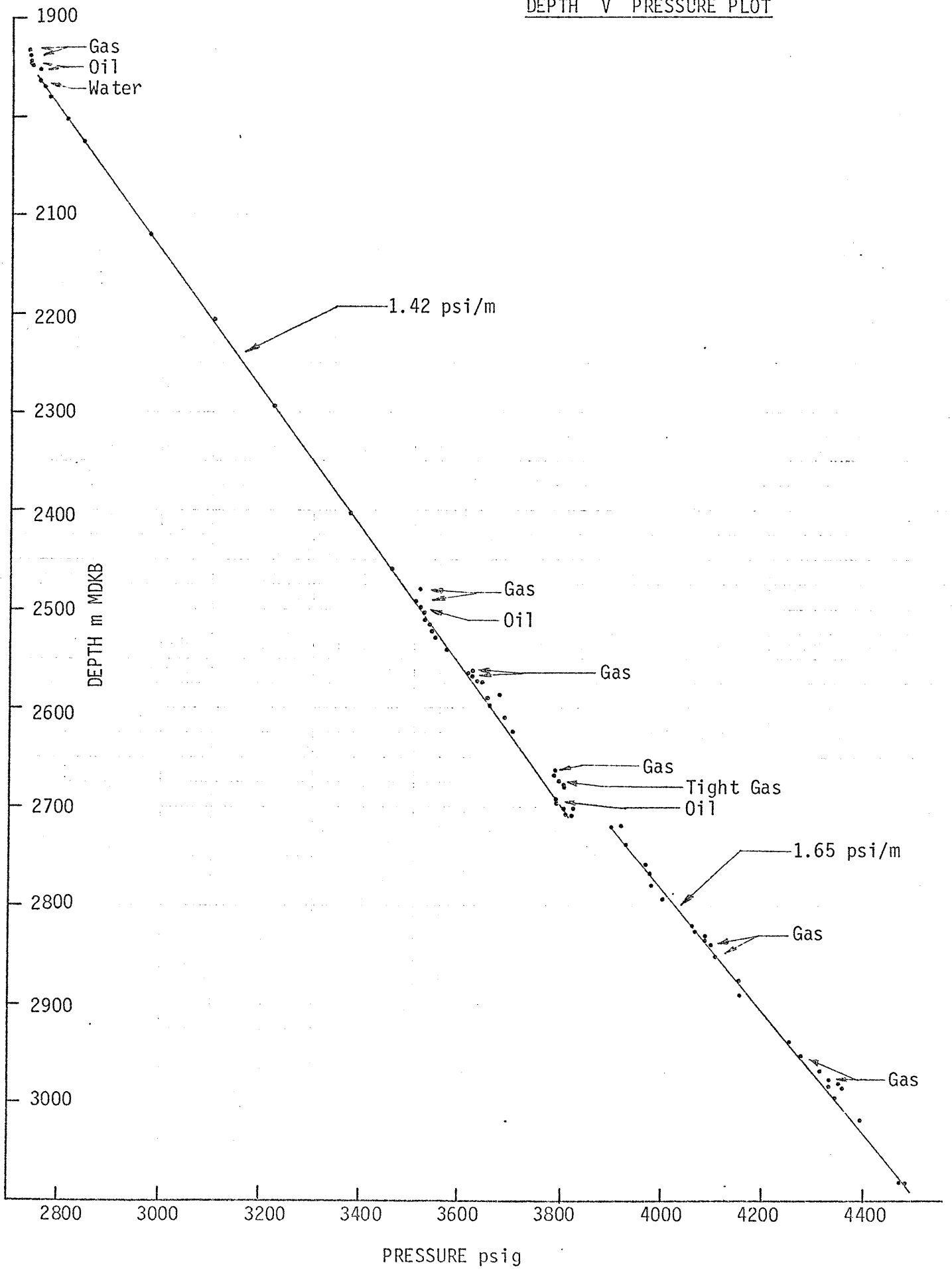


FIGURE 2
BREAM 5
DEPTH V PRESSURE PLOT
N-1 SECTION

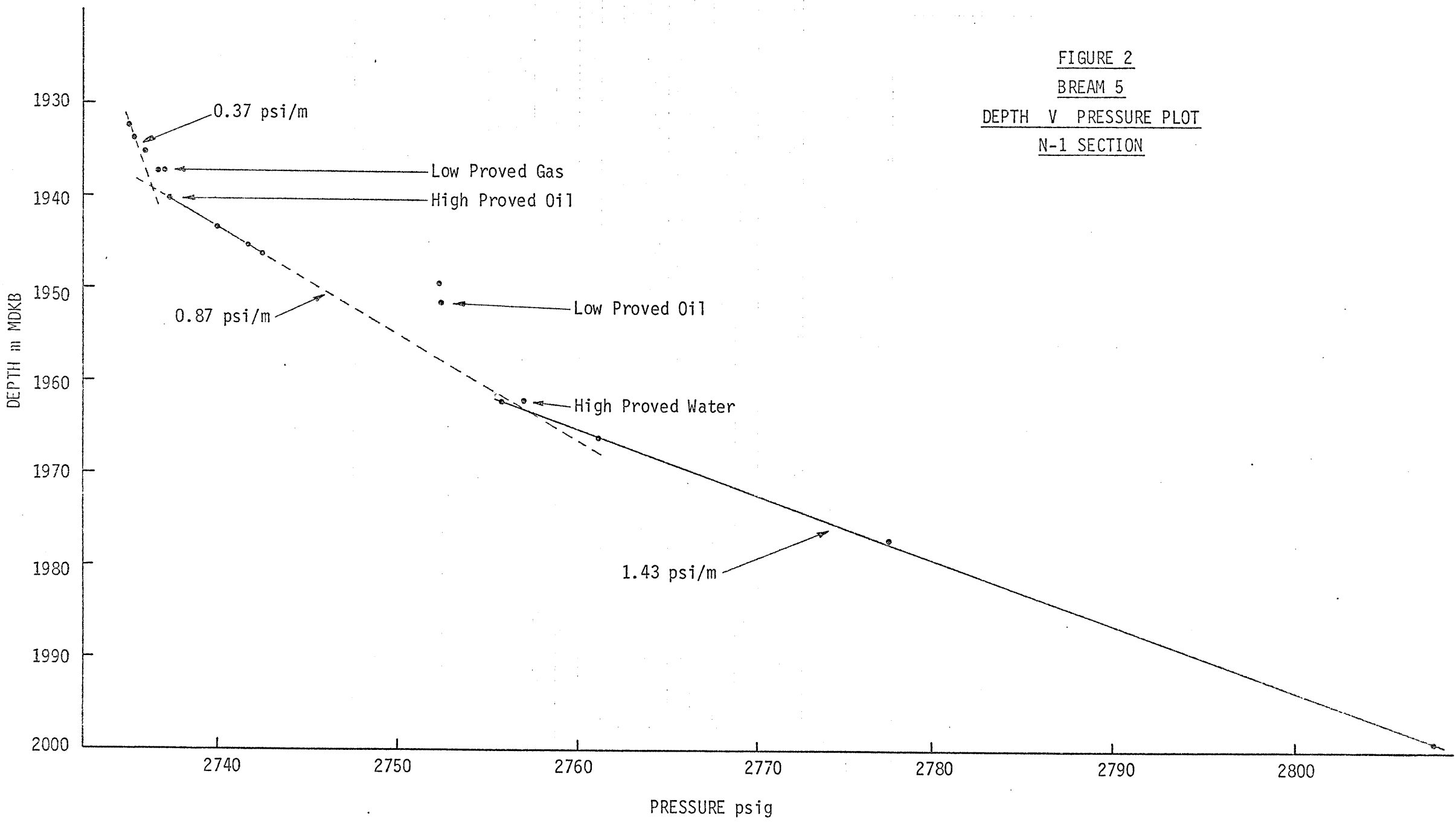


FIGURE 3
BREAM 5
DEPTH V PRESSURE PLOT
2400m-2800m MDKB

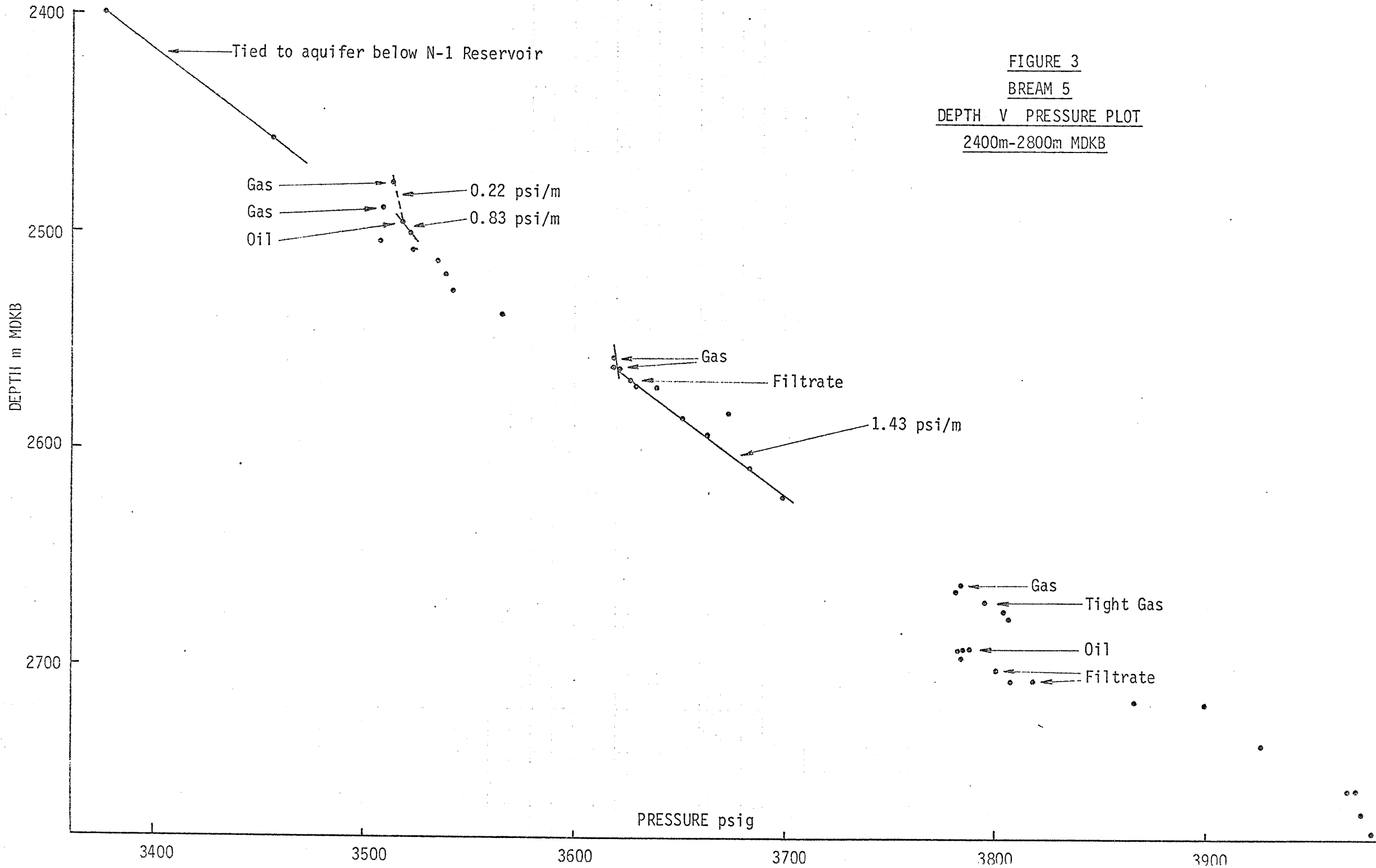


FIGURE 4
BREAM 5
DEPTH V PRESSURE PLOT
2700m-3100m MDKB

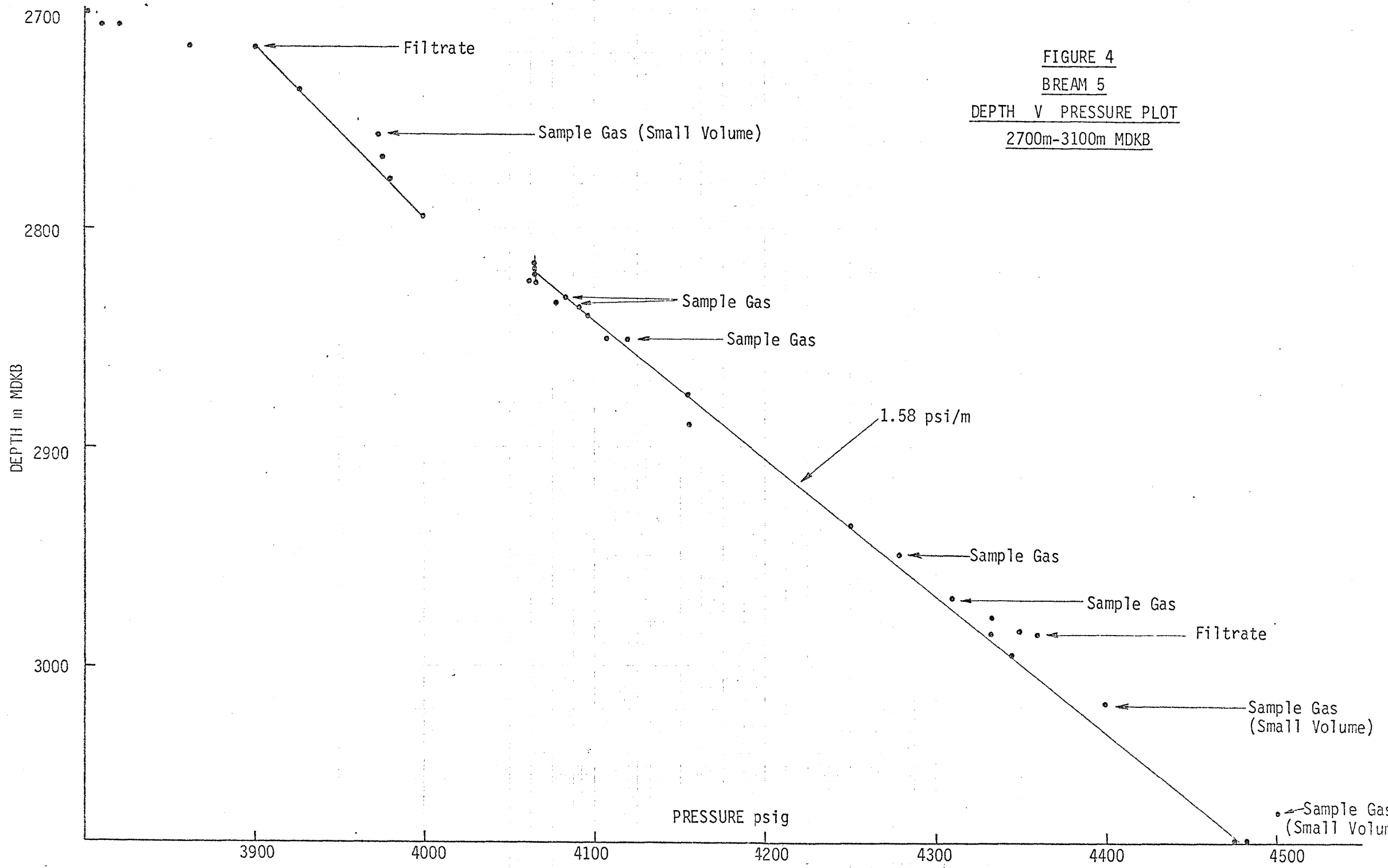
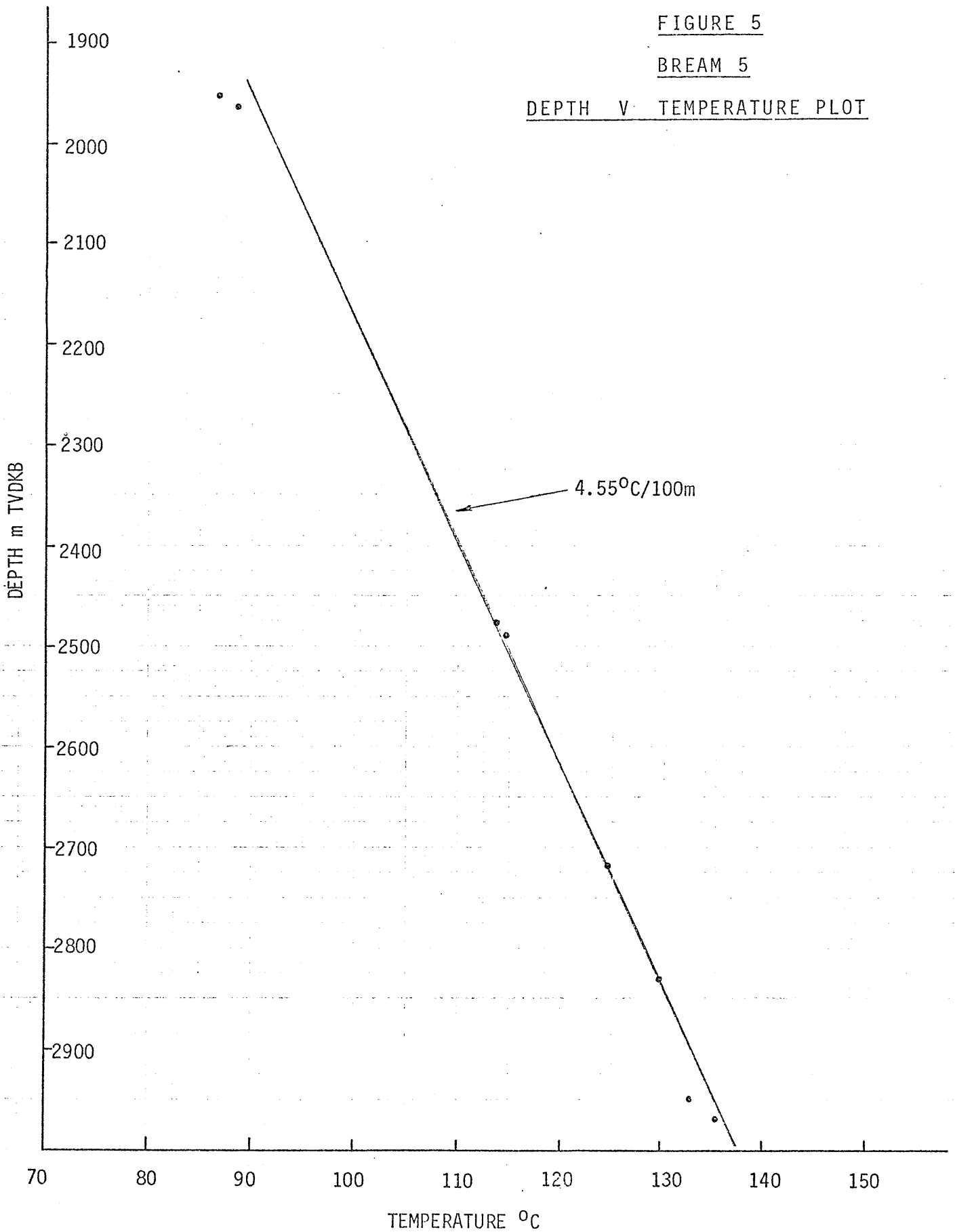


FIGURE 5

BREAM 5

DEPTH V. TEMPERATURE PLOT



NOTE: Wellbore temperature was not completely stabilized after circulating prior to RFT runs. This data represents the last data taken when RFT temperature was closest to reservoir temperature.

**APPENDIX
5**

APPENDIX 5

GEOCHEMICAL REPORT

GEOCHEMICAL REPORT
BREAM-5 WELL, GIPPSLAND BASIN,
VICTORIA

by

J.K. Emmett.

Esso Australia Ltd.,
Geochemical Report.
0457L

May, 1983.

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Appendix.

1. Detailed Vitrinite Reflectance and Exinite Fluorescence Data
by A.C. Cook.

INTRODUCTION

Various geochemical analyses were performed on samples of cuttings, sidewall cores, conventional core and liquid hydrocarbons collected during drilling of Bream-5. Wet canned cuttings composited over 15 metre intervals were collected from 235 metres down to 3322 metres, Total Depth (T.D.). C_{1-4} headspace cuttings gas analyses were performed on alternate 15 metre intervals from 1630 metres down to T.D. Samples were then hand picked for more detailed analyses such as Total Organic Carbon (T.O.C.), Rock Eval Pyrolysis, Kerogen isolation and elemental analysis and C_{15+} Liquid and gas chromatography. Vitrinite Reflectance (\bar{R}_O max) measurements were performed by Professor A.C. Cook of Wollongong.

An oil sample, RFT 3 from 1940 m(KB) was analysed for API gravity and by whole oil gas chromatography.

DISCUSSION OF RESULTS

The detailed headspace C_{1-4} hydrocarbon gas analysis data are listed in Table-1 and for convenience have been plotted in Figure-1. The C_{1-4} gas content varies from low to moderately rich down to about 1950 m(KB) (near the top of the Latrobe Group coarse clastics), below which the values are uniformly quite rich (generally over 10,000 ppm). A good hydrocarbon source potential is therefore indicated for the Latrobe Group sediments. The amount of wet (C_{2+}) gas components is generally low over the whole sequence with a value over 50% wet gas at 1930-1945 m(KB) occurring in the main oil reservoir zone ie. 1937-1950 m(KB).

T.O.C. values for the undifferentiated Latrobe Group (Table 2) are rich (average T.O.C. = 3.44%), confirming a very good hydrocarbon source potential for these sediments. The overlying Lakes Entrance Formation has poor T.O.C. values (average T.O.C. = 0.38%) indicating a correspondingly poor hydrocarbon source potential.

Vitrinite reflectance (\bar{R}_O) data are given in Table and \bar{R}_O max has been plotted against depth in Figure 2. Using the straight line gradient drawn in Figure 2, the top of organic maturity for significant hydrocarbon generation occurs at about 2700 m(KB). Detailed Vitrinite reflectance and exinite fluorescence data are given in Appendix-1 (Report by A.C. Cook).

In Table 4, elemental analyses of selected kerogen samples isolated from sidewall cores are listed. Approximate Hydrogen: Carbon (H/C), Oxygen: Carbon (O/C) and Nitrogen: Carbon (N/C) atomic ratios for these kerogens are given in Table 5. These ratios are approximate as the oxygen % is calculated by difference, and the naturally occurring organic sulphur % (which may be up to a few per cent) was not determined. Figure 3 is a modified Van Krevelen Plot of atomic H/C versus atomic O/C ratio, delineating the basic kerogen types. Comparison of Figure 3 with Figure 4, a similar plot showing the "Principal Products of Kerogen Evolution" indicates that the major kerogen type in the Latrobe Group sediments is woody-herbaceous material. The majority of kerogen samples have atomic H/C ratios high enough to indicate a very good potential for the Latrobe Group sediments to source both oil and gas.

Similarly, Rock Eval pyrolysis data (Table 6 and Figure 5) obtained from sidewall core samples with 0.5% or more T.O.C. also indicates that the Latrobe Group sediments have very good potential to source both oil and gas.

C₁₅₊ liquid chromatography results from selected canned cuttings are listed in Table 7. Total extract values for all samples (from the Latrobe Group) are rich with each extract being composed of 50% or more hydrocarbon material, which again confirms a very good hydrocarbon source potential for these sediments. The corresponding C₁₅₊ saturate fraction chromatograms (figures 6-9) are very similar in appearance but exhibit typical features of dominantly non-marine organic matter becoming more mature with increasing depth. This is indicated mainly by the reduction of the pristane: nC₁₇ ratio with greater depth of burial due to a relative increase in the amount of n-alkanes generated with increased maturation.

Figure 10 is a "whole oil" gas chromatograph of an oil sample (RFT 3 at 1940 m(KB)) obtained from Bream-5. The oil, which has an API gravity of 45.8⁰ at (at 15.6⁰C) is a mature, paraffinic-based crude which is almost identical to that discovered in Bream-4A.

CONCLUSIONS

1. The top of organic maturity for significant hydrocarbon generation in Bream-5 occurs in the Latrobe Group sediments at about 2700 m(KB).
2. The Latrobe Group sediments are rated as having very good potential to source both oil and gas.
3. Oil discovered in Bream-5 is a mature, paraffinic-based crude with a hydrocarbon distribution almost identical to oil encountered in Bream-4A.

C1-C4 HYDROCARBON ANALYSES
REPORT A - HEADSPACE GAS

SIN - GIPPSLAND
LL - BREAM 5

GAS CONCENTRATION (VOLUME GAS PER MILLION VOLUMES CUTTINGS)

GAS COMPOSITION (PERCENT)

SMPLE NO.	DEPTH	GAS CONCENTRATION (VOLUME GAS PER MILLION VOLUMES CUTTINGS)						GAS COMPOSITION (PERCENT)										
		METHANE C1	ETHANE C2	PROPANE C3	IBUTANE IC4	NBUTANE C4	WET C2-C4	TOTAL C1-C4	WET/TOTAL PERCENT	M	E	P	IB	NB	WET E	GAS P	IB	NB
533 Q	1645.00	3592	127	162	70	38	397	3989	9.95	90.	3.	4.	2.	1.	32.	41.	18.	10.
533 S	1675.00	2040	111	166	83	45	405	2445	16.56	83.	5.	7.	3.	2.	27.	41.	20.	11.
533 U	1705.00	4455	139	176	64	38	417	4872	8.56	91.	3.	4.	1.	1.	33.	42.	15.	9.
533 W	1735.00	1403	84	97	60	24	265	1668	15.89	84.	5.	6.	4.	1.	32.	37.	23.	9.
533 Y	1765.00	122	24	24	19	11	78	200	39.00	61.	12.	12.	9.	5.	31.	31.	24.	14.
534 A	1795.00	181	17	35	11	5	68	249	27.31	73.	7.	14.	4.	2.	25.	51.	16.	7.
534 C	1825.00	48	22	36	12	7	77	125	61.60	38.	18.	29.	10.	6.	29.	47.	16.	9.
534 E	1855.00	383	39	53	23	17	132	515	25.63	74.	8.	10.	4.	3.	30.	40.	17.	13.
534 G	1885.00	540	118	216	65	124	523	1063	49.20	51.	11.	20.	6.	12.	23.	41.	12.	24.
534 I	1915.00	3186	533	913	330	613	2389	5575	42.85	57.	10.	16.	6.	11.	22.	38.	14.	26.
534 K	1945.00	241	160	405	149	290	1004	1245	80.64	19.	13.	33.	12.	23.	16.	40.	15.	29.
534 M	1995.00	104031	12190	3894	437	625	17146	12177	14.15	86.	10.	3.	0.	1.	71.	23.	3.	4.
534 O	2025.00	64950	9317	3316	395	492	13520	78470	17.23	83.	12.	4.	1.	1.	69.	25.	3.	4.
534 Q	2055.00	26918	4444	1808	233	503	6788	33706	20.14	80.	13.	5.	1.	1.	65.	27.	3.	4.
534 S	2085.00	48857	4213	1913	265	493	6884	55741	12.35	88.	8.	3.	0.	1.	61.	28.	4.	7.
534 U	2115.00	54741	7413	2470	399	360	10642	65383	16.28	84.	11.	4.	1.	1.	70.	23.	4.	3.
534 W	2145.00	42414	6181	2376	439	402	9398	51812	18.14	82.	12.	5.	1.	1.	66.	25.	5.	4.
534 Y	2175.00	50313	3309	761	102	91	4263	54576	7.81	92.	6.	1.	0.	0.	78.	18.	2.	2.
535 A	2205.00	26631	1642	363	76	53	2134	28765	7.42	93.	6.	1.	0.	0.	77.	17.	4.	2.
535 C	2235.00	9436	966	313	43	30	1352	10788	12.53	87.	9.	3.	0.	0.	71.	23.	3.	2.
535 E	2265.00	5101	389	366	59	60	1374	6475	21.22	79.	14.	6.	1.	1.	65.	27.	4.	4.
535 G	2295.00	40122	4776	1686	235	214	6911	47033	14.69	85.	10.	4.	0.	0.	69.	24.	3.	3.
535 I	2325.00	20338	4937	2585	478	478	8478	28816	29.42	71.	17.	9.	2.	2.	58.	30.	6.	6.
535 K	2355.00	40122	970	604	134	125	1833	5845	31.36	69.	17.	10.	2.	2.	53.	33.	6.	7.
535 M	2385.00	20723	2953	1459	274	249	4935	25658	19.23	81.	12.	6.	1.	1.	60.	30.	7.	5.
535 O	2415.00	7035	1315	759	162	141	2377	9412	25.25	75.	14.	8.	2.	1.	55.	32.	7.	6.
535 Q	2445.00	5075	742	391	76	61	1272	6347	20.04	80.	12.	6.	1.	1.	58.	31.	6.	5.
535 S	2475.00	35314	3305	933	134	113	4485	40299	11.13	89.	8.	2.	0.	0.	74.	21.	3.	3.
535 U	2505.00	57154	3269	1331	166	167	6933	74087	9.36	91.	7.	2.	0.	0.	76.	19.	2.	3.
535 W	2535.00	23252	2972	941	147	149	4269	32471	12.95	87.	9.	3.	0.	0.	71.	22.	3.	4.
535 Y	2565.00	0	0	0	0	0	0	0	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.
536 A	2595.00	35961	2772	772	124	97	3765	39726	9.48	91.	7.	2.	0.	0.	74.	21.	3.	3.
536 C	2625.00	15645	1319	454	65	46	1886	20731	9.10	91.	6.	2.	0.	0.	70.	24.	3.	3.
536 E	2655.00	61714	3953	1144	237	171	5005	65719	7.30	92.	5.	2.	0.	0.	69.	23.	3.	3.
536 G	2685.00	23433	2464	493	141	139	3741	27179	13.76	86.	9.	4.	1.	1.	66.	27.	4.	4.
536 I	2715.00	37075	3112	1064	161	145	4525	41596	10.68	89.	7.	3.	0.	0.	69.	24.	4.	3.
536 K	2745.00	37120	3144	1573	172	235	6225	44951	13.65	86.	9.	4.	0.	0.	67.	27.	3.	4.
536 M	2775.00	13349	1442	797	95	137	2972	21321	13.94	86.	9.	4.	0.	1.	65.	27.	3.	5.
536 O	2805.00	45332	3330	917	98	167	4502	49834	9.03	91.	7.	2.	0.	0.	75.	20.	2.	2.
536 Q	2835.00	8133	317	477	76	106	1472	6656	22.11	73.	12.	7.	1.	2.	56.	32.	5.	7.
536 S	2865.00	11486	1410	337	59	37	2043	13583	13.41	85.	10.	4.	0.	1.	67.	26.	3.	4.
536 U	2895.00	73539	3437	541	104	124	4654	73043	3.96	94.	4.	1.	0.	0.	74.	21.	2.	3.
536 W	2925.00	21651	1361	785	93	156	2824	24655	11.45	80.	8.	3.	0.	1.	66.	25.	3.	6.
536 Y	2955.00	13636	1620	576	74	120	2701	12329	14.74	85.	10.	4.	0.	1.	68.	23.	3.	4.
537 A	2985.00	69436	1397	976	166	227	4944	6952	30.05	70.	16.	10.	2.	2.	53.	33.	6.	6.
537 C	3015.00	41626	3436	686	83	104	3723	44743	8.32	92.	6.	2.	0.	0.	77.	18.	2.	3.
537 E	3045.00	33330	3013	1065	114	157	4294	39842	10.76	89.	8.	3.	0.	0.	70.	23.	3.	4.

C1-C4 HYDROCARBON ANALYSES

REPORT A - HEADSPACE GAS

SIN - GIPPSLAND
LL - BREAM 5

GAS CONCENTRATION (VOLUME GAS PER MILLION VOLUMES CUTTINGS)

GAS COMPOSITION (PERCENT)

MPLE NO.	DEPTH	GAS CONCENTRATION (VOLUME GAS PER MILLION VOLUMES CUTTINGS)							GAS COMPOSITION (PERCENT)									
		METHANE C1	ETHANE C2	PROPANE C3	IBUTANE IC4	NBUTANE C4	WET C2-C4	TOTAL C1-C4	WET/TOTAL PERCENT	TOTAL GAS					WET GAS			
									M	E	P	IB	NB	E	P	IB	NB	
537 G	3110.00	39834	3926	1496	252	294	5968	45802	13.03	87.	9.	3.	1.	1.	66.	25.	4.	5.
537 I	3140.00	29000	2044	794	128	150	3116	32116	9.70	90.	6.	2.	0.	0.	66.	25.	4.	5.
537 K	3170.00	18192	1586	583	87	104	2360	20552	11.48	89.	8.	3.	0.	1.	67.	25.	4.	4.
537 M	3200.00	14186	1203	521	69	91	1884	16070	11.72	88.	7.	3.	0.	1.	64.	28.	4.	5.
537 O	3230.00	9770	842	258	43	49	1192	10962	10.87	89.	8.	2.	0.	0.	71.	22.	4.	4.
537 Q	3260.00	15074	1359	478	53	86	1976	17050	11.59	88.	8.	3.	0.	1.	69.	24.	3.	4.
537 S	3290.00	10981	949	364	77	84	1474	12455	11.83	88.	8.	3.	1.	1.	64.	25.	5.	6.
537 U	3320.00	2612	254	98	11	21	384	2996	12.82	87.	8.	3.	0.	1.	66.	26.	3.	5.

Table 2.

TOTAL ORGANIC CARBON REPORT

ASIN - GIPPSLAND
ELL - BREAMS

SAMPLE NO.	DEPTH	AGE	FORMATION	AN	TOC%	AN	TOC%	AN	TOC%	DESCRIPTION
*****	*****	***	*****	*****	*****	*****	*****	*****	*****	*****
72491 V	1125.00	EOCENE-MIOCENE	GIPPSLAND LIMESTONE	1	.62					MED OL GREY MDST, V CALC
===>	DEPTH :	1125.00 TO	1130.00 METRES.	<=== I ===>	AVERAGE TOC :	.62 %	EXCLUDING VALUES GREATER THAN	10.00 %	<===	
72491 U	1350.00	MIOCENE	LAKES ENTRANCE	1	.36					LT. OL GREY MUDST, V CALC
72491 T	1425.00	MIOCENE	LAKES ENTRANCE	1	.37					OLIVE GREY SLTST, V CALC
72491 S	1500.00	MIOCENE	LAKES ENTRANCE	1	.37					OLIVE GREY SLTST, V CALC
72491 R	1575.00	MIOCENE	LAKES ENTRANCE	1	.25					OLIVE GREY SLTST, V CALC
72491 Q	1650.00	MIOCENE	LAKES ENTRANCE	1	.44					OLIVE GREY SLTST, V CALC
72491 P	1725.00	MIOCENE	LAKES ENTRANCE	1	.48					MED OLIVE GRY SILTSTONE
===>	DEPTH :	1150.00 TO	1863.00 METRES.	<=== I ===>	AVERAGE TOC :	.38 %	EXCLUDING VALUES GREATER THAN	10.00 %	<===	
72490 X	1861.00	EOCENE-LATE CRET.	LATROBE GROUP-GURNARD FM.	1	1.13					BRN'DKGRY SLST, MIC, GLAU
72490 O	1921.00	EOCENE-LATE CRET.	LATROBE GROUP-GURNARD FM.	1	.70					OL GRY SLST, ABUND GLAUC
===>	DEPTH :	1863.00 TO	1924.00 METRES.	<=== I ===>	AVERAGE TOC :	.91 %	EXCLUDING VALUES GREATER THAN	10.00 %	<===	
72507 B	1948.87	EOCENE-LATE CRET.	LATROBE GROUP	1	3.61					GY-BLK SLTY-SH, LAMINATE
72507 F	1963.16	EOCENE-LATE CRET.	LATROBE GROUP	1	5.81					DK.GY SHALEY SLST, COALY
72490 G	1972.50	EOCENE-LATE CRET.	LATROBE GROUP	1	5.64					BRN'GRY SLST, CARB SPCKS
72490 C	2017.40	EOCENE-LATE CRET.	LATROBE GROUP	1	2.42					OL GRFY SLTST, CARB LAM
72490 A	2042.40	EOCENE-LATE CRET.	LATROBE GROUP	1	.29					MED DARK GREY SILTSTONE
72506 R	2472.00	EOCENE-LATE CRET.	LATROBE GROUP	1	4.42					DK.GY SLST, SH LAMINAT'N
72506 H	2624.00	EOCENE-LATE CRET.	LATROBE GROUP	1	3.75					DK.GY SH, COALY FLECKS
72506 U	3009.50	EOCENE-LATE CRET.	LATROBE GROUP	1	.75					BRN-GY SLTY-SH, CARBN'OU
72506 V	3062.00	EOCENE-LATE CRET.	LATROBE GROUP	1	1.40					DK.GY SILTSTONE
72506 W	3106.00	EOCENE-LATE CRET.	LATROBE GROUP	1	1.07					OL-GY SLTST, COALY FLECK
72506 X	3261.00	EOCENE-LATE CRET.	LATROBE GROUP	1	4.45					GY-BLK SLTY-SH, COALY
72506 J	3305.00	EOCENE-LATE CRET.	LATROBE GROUP	1	4.57					DK.GY COALY SILTSTONE
72506 A	3320.00	EOCENE-LATE CRET.	LATROBE GROUP	1	6.53					BLACK COALY SLTST.
===>	DEPTH :	1924.00 TO	3320.00 METRES.	<=== I ===>	AVERAGE TOC :	3.44 %	EXCLUDING VALUES GREATER THAN	10.00 %	<===	

 VITRINITE REFLECTANCE REPORT

BASIN - GIPPSLAND
 WELL - BREAM 5

SAMPLE NO.	DEPTH	AGE	FORMATION	AN	MAX. R0	FLUOR. COLOUR	NO. CNTS.	MACERAL TYPE
72507 A	1947.60	EOCENE-LATE CRET.	LATROBE GROUP	5	.41	GRN/YEL-OR	20	E>V>I D.O.M. ABUNDANT
72507 Q	1964.20	EOCENE-LATE CRET.	LATROBE GROUP	5	.54	YEL TO OR	20	V>>E=I
72490 B	2029.00	EOCENE-LATE CRET.	LATROBE GROUP	5	.53	GRN/YEL-OR	20	V=I>E D.O.M. ABUNDANT
72506 B	2472.00	EOCENE-LATE CRET.	LATROBE GROUP	5	.53	YEL TO OR.	20	V>>E>I D.O.M. ABUNDANT
72507 R	2571.93	EOCENE-LATE CRET.	LATROBE GROUP	5	.68	YEL TO OR.	25	V>I>E.
72506 M	2624.00	EOCENE-LATE CRET.	LATROBE GROUP	5	.56	GRN/YEL TO O	22	V>I>E D.O.M. ABUNDANT
72507 S	2712.60	EOCENE-LATE CRET.	LATROBE GROUP	5	.68	YEL TO OR.	20	V>I>E.
72507 T	2781.00	EOCENE-LATE CRET.	LATROBE GROUP	5	.69	YEL-OR/D.OR	20	V=I>E D.O.M. ABUNDANT
72506 V	3062.00	EOCENE-LATE CRET.	LATROBE GROUP	5	.77	GRN/YEL-OR.	5	RARE-SPARSE SPORINITE
72506 A	3320.00	EOCENE-LATE CRET.	LATROBE GROUP	5	.85	OR-DULL OR.	20	V>I>E D.O.M. ABUNDANT

05/05/83

Table 4.

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PAGE

KEROGEN ELEMENTAL ANALYSIS REPORT

BASIN - GIPPSLAND
WELL - BREAM 5

SAMPLE NO.	DEPTH	SAMPLE TYPE	ELEMENTAL % (ASH FREE)					COMMENTS	
			N%	C%	H%	S%	O%		ASH%
72491 W	1948.50	KEROGEN	1.08	83.32	6.19	.00	9.40	28.00	HIGH ASH
72491 X	1954.50	KEROGEN	.87	69.09	5.05	.00	24.99	11.69	HIGH ASH
72491 Y	1959.89	KEROGEN	.92	68.02	4.92	.00	26.14	12.05	HIGH ASH
72490 G	1972.50	KEROGEN	.70	71.02	5.12	.00	23.16	10.31	HIGH ASH
72490 F	1987.00	KEROGEN	.76	74.20	5.52	.00	19.52	10.98	HIGH ASH
72490 D	2003.00	KEROGEN	.76	74.63	5.52	.00	19.10	7.38	
72490 C	2017.40	KEROGEN	.89	80.31	6.03	.00	12.76	11.67	HIGH ASH
72506 C	2027.60	KEROGEN	1.38	81.47	5.23	.00	11.92	3.91	
72490 B	2029.00	KEROGEN	.86	69.47	4.83	.00	24.84	13.17	HIGH ASH
72506 D	2114.00	KEROGEN	1.22	81.15	5.17	.00	12.47	9.20	
72506 E	2317.00	KEROGEN	1.23	86.31	6.32	.00	6.13	12.46	HIGH ASH
72506 B	2472.00	KEROGEN	1.02	75.44	5.62	.00	17.92	11.55	HIGH ASH
72506 K	2504.00	KEROGEN	.95	79.34	5.31	.00	14.40	11.17	HIGH ASH
72506 O	2566.00	KEROGEN	.92	80.57	5.42	.00	13.09	4.57	
72491 Z	2568.00	KEROGEN	.85	79.81	4.92	.00	14.43	2.19	
72506 M	2624.00	KEROGEN	.86	80.19	5.86	.00	13.09	11.71	HIGH ASH
72506 Q	2687.00	KEROGEN	.71	80.29	6.47	.00	12.52	8.98	
72506 F	2740.40	KEROGEN	1.02	83.84	6.00	.00	9.14	3.15	
72506 R	2776.60	KEROGEN	1.40	82.25	6.12	.00	10.23	14.98	HIGH ASH
72506 H	2848.00	KEROGEN	1.40	83.74	5.24	.00	9.62	6.66	
72506 S	3013.90	KEROGEN	1.48	86.39	5.18	.00	6.95	3.75	
72506 P	3065.60	KEROGEN	1.09	84.14	5.33	.00	9.44	4.55	
72506 I	3194.00	KEROGEN	1.39	87.07	5.46	.00	6.07	3.69	
72506 G	3196.00	KEROGEN	1.37	86.77	5.20	.00	6.66	5.92	
72506 T	3284.00	KEROGEN	1.21	84.84	5.93	.00	8.02	5.20	
72506 J	3305.00	KEROGEN	1.24	84.96	5.98	.00	7.82	3.96	
72506 A	3329.00	KEROGEN	1.15	82.75	5.21	.00	4.82	1.51	HIGH ASH

Table 5.

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KEROGEN ELEMENTAL ANALYSIS REPORT

N - GIPPSLAND
- BREATHS

PLE NO.	DEPTH	SAMPLE TYPE	AGE	FORMATION	ATOMIC RATIOS			COMMENTS		
					H/C	O/C	N/C			
91 W	1944.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.89	.08	.01	HIGH ASH
91 X	1956.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.88	.27	.01	HIGH ASH
91 Y	1959.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.87	.29	.01	HIGH ASH
90 B	1972.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.86	.24	.01	HIGH ASH
90 F	1987.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.89	.20	.01	HIGH ASH
90 D	2091.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.89	.19	.01	
90 E	2017.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.90	.12	.01	HIGH ASH
90 G	2027.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.77	.11	.01	
90 S	2024.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.83	.27	.01	HIGH ASH
90 T	2114.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.76	.12	.01	
90 U	2217.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.88	.05	.01	HIGH ASH
90 V	2072.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.89	.18	.01	HIGH ASH
90 W	2002.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.80	.14	.01	HIGH ASH
90 Y	2004.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.81	.12	.01	
91 Z	2001.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.74	.14	.01	
90 A	2000.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.88	.12	.01	HIGH ASH
90 B	2007.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.97	.12	.01	
90 C	2100.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.88	.08	.01	
90 D	2171.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.89	.09	.01	HIGH ASH
90 E	2100.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.75	.04	.01	
90 F	2114.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.72	.06	.01	
90 G	2100.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.70	.06	.01	
90 H	2100.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.75	.05	.01	
90 I	2100.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.72	.06	.01	
90 J	2100.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.84	.07	.01	
90 K	2100.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.84	.07	.01	
90 L	2100.50	KEROGEN	Eocene-Late	CRET.	LATRUBE	GROUP	.89	.08	.01	HIGH ASH

Table 6.

ESSO AUSTRALIA LTD.

ROCK EVAL ANALYSES

IN - GIPPSLAND
L - BREAM 5

REPORT A - SULPHUR & PYROLYZABLE CARBON

PLE NO.	DEPTH	SAMPLE TYPE	AGE	TMAX	S1	S2	S3	PI	S2/S3	PC	COMMENTS
91 V	1125.0	SWC	RECENT-MIOCENE	414.	.35	.84	.72	.29	1.17	.10	
90 X	1881.0	SWC	EUCENE-LATE CRET.	416.	.17	.29	.38	.37	.76	.04	
90 U	1921.0	SWC	EUCENE-LATE CRET.	416.	.11	.12	.22	.48	.55	.02	
07 B	1948.9	CORE	EUCENE-LATE CRET.	422.	.76	4.25	.39	.15	10.90	.42	
07 F	1963.2	CORE	EUCENE-LATE CRET.	419.	1.50	19.04	1.13	.07	16.85	1.70	
90 G	1972.5	SWC	EUCENE-LATE CRET.	420.	2.32	14.97	.94	.13	15.93	1.44	
90 C	2017.4	SWC	EUCENE-LATE CRET.	424.	.65	6.06	.53	.10	11.43	.56	
06 B	2472.0	SWC	EUCENE-LATE CRET.	429.	1.68	9.45	.46	.15	20.54	.92	
06 M	2624.0	SWC	EUCENE-LATE CRET.	435.	1.69	7.42	.35	.19	21.20	.76	
06 U	3009.5	SWC	EUCENE-LATE CRET.	446.	1.89	4.51	.48	.30	9.40	.53	
06 V	3062.0	SWC	EUCENE-LATE CRET.	446.	1.09	1.97	.16	.36	12.31	.25	
06 W	3106.0	SWC	EUCENE-LATE CRET.	443.	.92	1.51	.10	.38	15.10	.20	
06 X	3261.0	SWC	EUCENE-LATE CRET.	450.	3.10	9.90	.22	.24	45.00	1.08	
06 J	3305.0	SWC	EUCENE-LATE CRET.	449.	2.79	8.81	.21	.24	41.95	.96	
06 A	3320.0	SWC	EUCENE-LATE CRET.	448.	4.24	15.37	.28	.22	54.89	1.63	

PRODUCTIVITY INDEX

PC=PYROLYZABLE CARBON

TC=TOTAL CARBON

HI=HYDROGEN INDEX

OI=OXYGEN INDEX

ROCK EVAL ANALYSES

REPORT B - TOTAL CARBON, H/O INDICES

IN - GIPPSLAND
- BREAM 5

WELL NO.	DEPTH	SAMPLE TYPE	FORMATION	TC	HI	OI	HI/OI	COMMENTS
91 V	1125.0	SWC	GIPPSLAND LIMESTONE	.62	135.	116.	1.16	
90 X	1881.0	SWC	LATROBE GROUP-GURNARD FM	1.13	25.	33.	.76	
90 O	1921.0	SWC	LATROBE GROUP-GURNARD FM	.70	17.	31.	.55	
07 B	1948.9	CORE	LATROBE GROUP	3.61	117.	10.	11.70	
07 F	1963.2	CORE	LATROBE GROUP	5.81	327.	19.	17.21	
90 G	1972.5	SWC	LATROBE GROUP	5.64	265.	16.	16.56	
90 C	2017.4	SWC	LATROBE GROUP	2.42	250.	21.	11.90	
06 B	2472.0	SWC	LATROBE GROUP	4.42	213.	10.	21.30	
06 M	2624.0	SWC	LATROBE GROUP	3.75	197.	9.	21.89	
06 U	3009.5	SWC	LATROBE GROUP	.75	601.	64.	9.39	
06 V	3062.0	SWC	LATROBE GROUP	1.40	140.	11.	12.73	
06 W	3106.0	SWC	LATROBE GROUP	1.07	141.	9.	15.67	
06 X	3261.0	SWC	LATROBE GROUP	4.45	222.	4.	55.50	
06 J	3305.0	SWC	LATROBE GROUP	4.57	192.	4.	48.00	
06 A	3320.0	SWC	LATROBE GROUP	6.53	235.	4.	58.75	

T.O.C. = Total organic carbon, wt. %
 S1 = Free hydrocarbons, mg HC/g of rock
 S2 = Residual hydrocarbon potential
 (mg HC/g of rock)
 S3 = CO₂ produced from kerogen pyrolysis
 (mg CO₂/g of rock)
 PCI* = 0.083 (S1 + S2)

Hydrogen
 Index = mg HC/g organic carbon
 Oxygen
 Index = mg CO₂/g organic carbon
 PI = S1/S1+S2
 Tmax = Temperature Index, degrees C.

PRODUCTIVITY INDEX PC=PYROLYZABLE CARBON TC=TOTAL CARBON HI=HYDROGEN INDEX OI=OXYGEN INDEX

C15+ EXTRACT ANALYSES

REPORT A - EXTRACT DATA (PPM)

4 - GIPPSLAND
- BREEM 5

WELL NO.	DEPTH	TYPE	AN	AGE	*--- HYDROCARBONS ---*				*--- NON-HYDROCARBONS ---*			SULPHUR	TOTAL NON/HCS	
					TOTAL EXTRACT	SATS.	AROMS.	TOTAL H/CARBS	ASPH.	ELUTED NSU	NON-ELT NSU			TOTAL NSU
5 T	2915.00	CTS	2	Eocene-Late CRET	1570.	540.	361.	901.	543.	126.	0.	126.	0.	669.
7 B	3035.00	CTS	2	Eocene-Late CRET	2420.	586.	644.	1230.	1031.	160.	0.	160.	0.	1191.
7 J	3155.00	CTS	2	Eocene-Late CRET	1587.	443.	422.	865.	570.	152.	0.	152.	0.	722.
3 T	3305.00	CTS	2	Eocene-Late CRET	1221.	487.	272.	759.	339.	122.	0.	122.	0.	461.

C15+ EXTRACT ANALYSES

REPORT B - EXTRACTS % OF TOTAL

4 - GIPPSLAND
- BREEM 5

WELL NO.	DEPTH	FORMATION	*HYDROCARBONS*		*- NON-HYDROCARBONS -*			* SAT/AR *	* HC/NHC *	* COMMENTS *
			SAT. %	AROM. %	NSU. %	ASPH. %	SULPH. %			
5 T	2915.00	LATRICE GROUP	34.4	23.0	8.0	34.6	.0	1.5	1.3	NON-MARINE
7 B	3035.00	LATRICE GROUP	24.2	26.6	6.6	42.6	.0	.9	1.0	NON-MARINE
7 J	3155.00	LATRICE GROUP	27.9	26.6	9.6	35.9	.0	1.0	1.2	NON-MARINE
3 T	3305.00	LATRICE GROUP	39.9	22.3	10.0	27.8	.0	1.8	1.6	NON-MARINE

PE601327

This is an enclosure indicator page.
The enclosure PE601327 is enclosed within the
container PE902630 at this location in this
document.

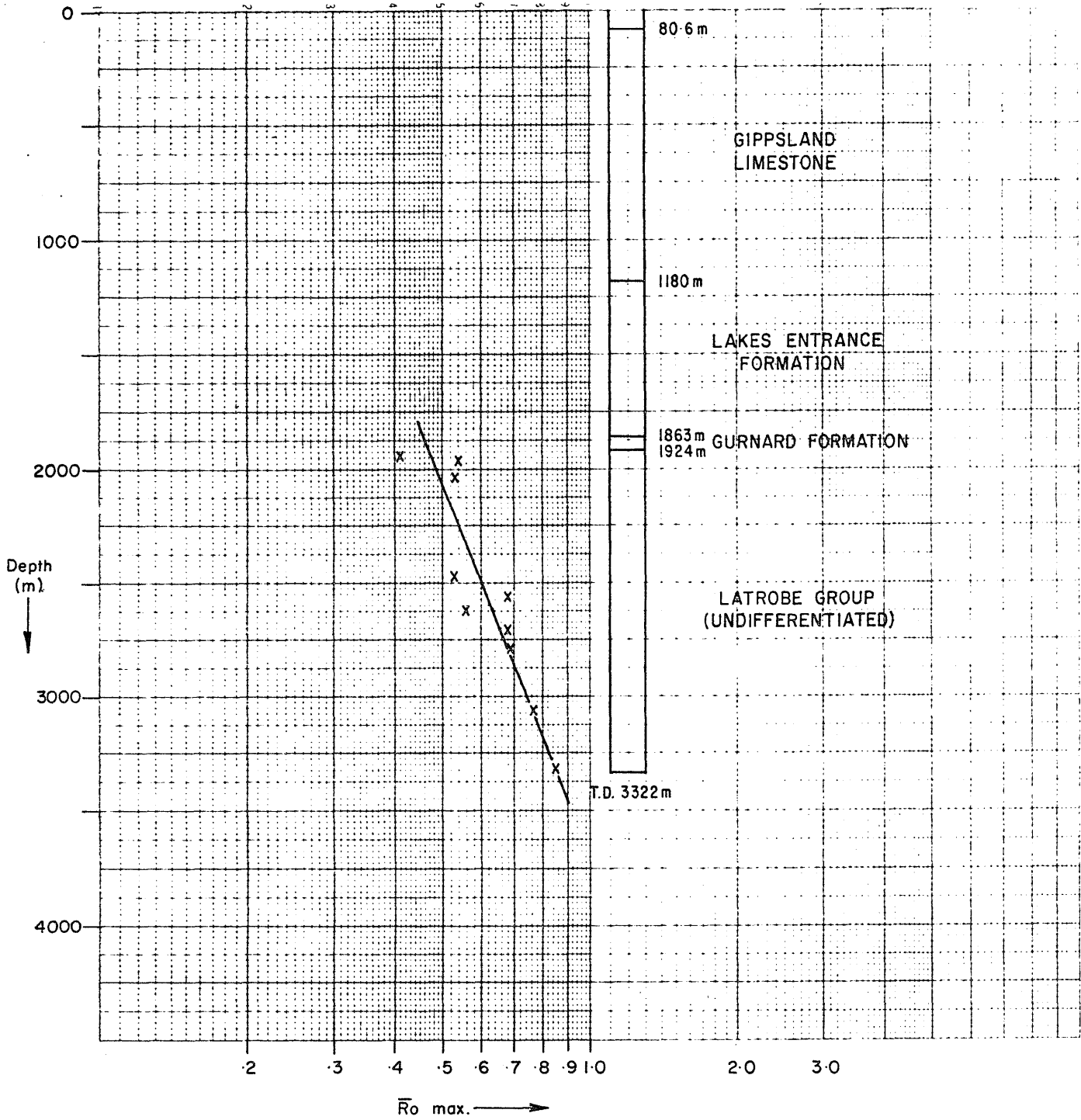
The enclosure PE601327 has the following characteristics:

ITEM_BARCODE = PE601327
CONTAINER_BARCODE = PE902630
NAME = C1-C4 Cuttings Gas Log
BASIN = GIPPSLAND
PERMIT =
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = C1-C4 Cuttings Gas Log (enclosure from
WCR) for Bream-5
REMARKS =
DATE_CREATED =
DATE_RECEIVED =
W_NO = W781
WELL_NAME = Bream-5
CONTRACTOR = ESSO
CLIENT_OP_CO = ESSO

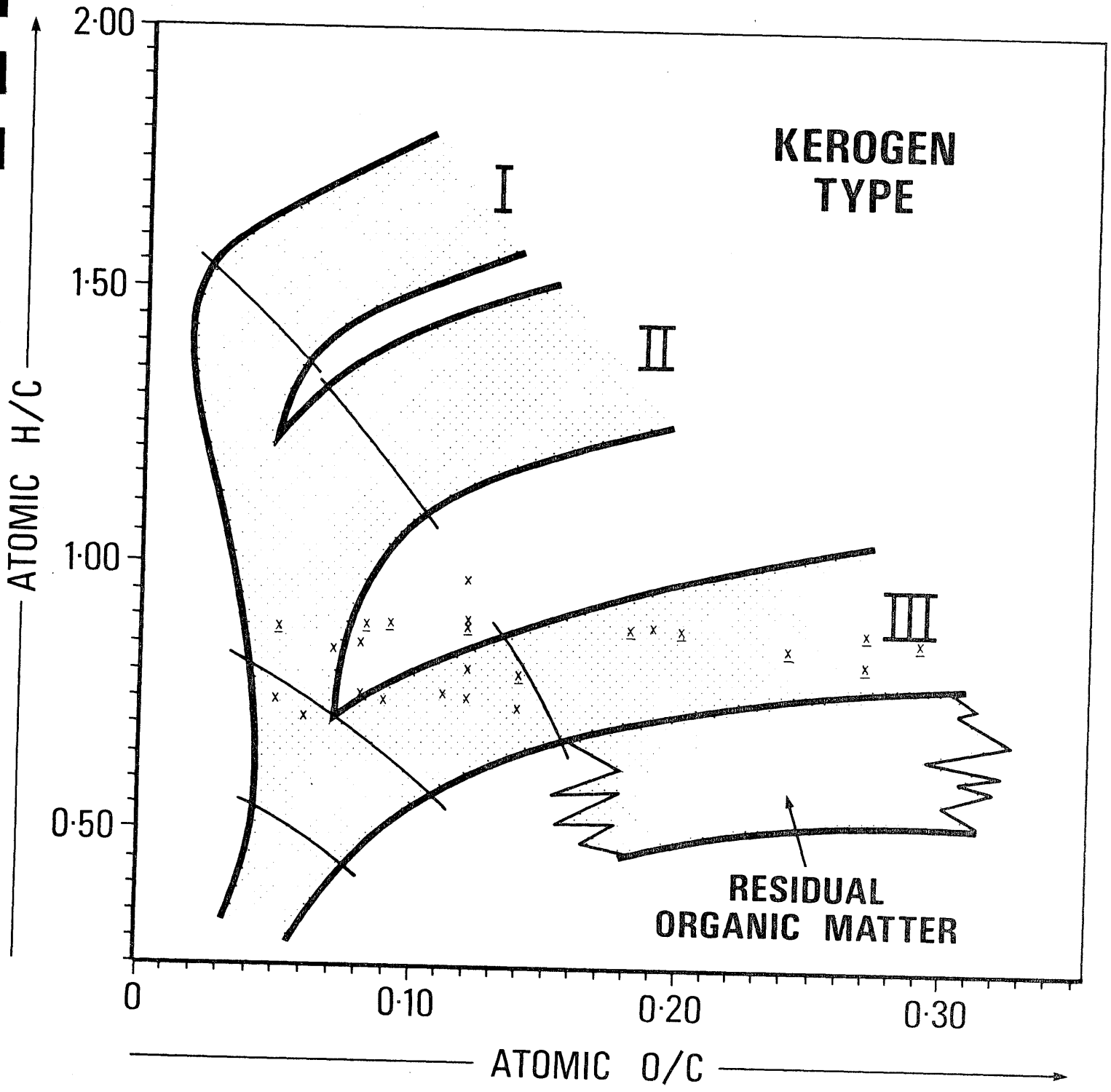
(Inserted by DNRE - Vic Govt Mines Dept)

BREAM - 5

VITRINITE REFLECTANCE vs DEPTH

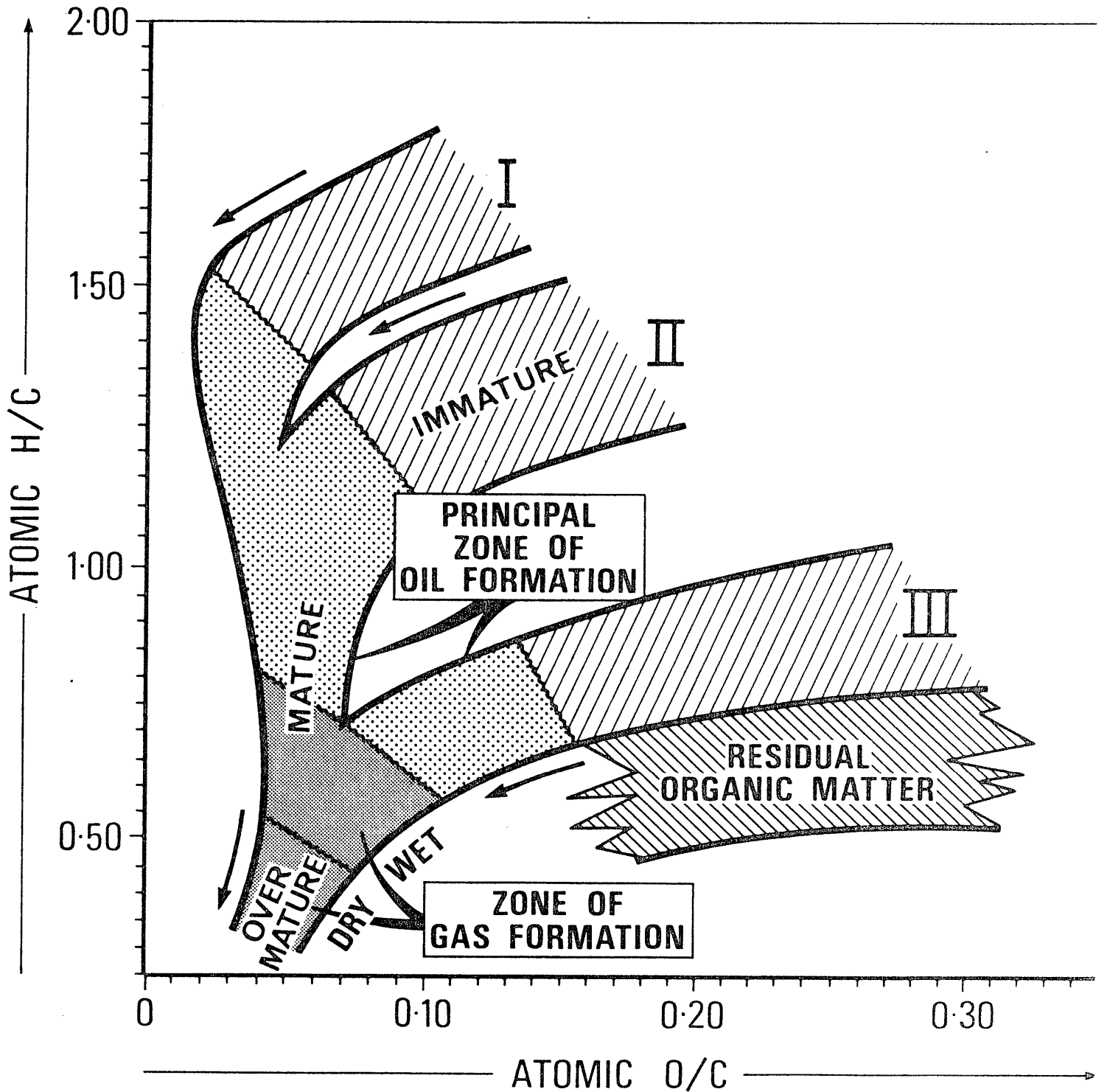


BREAM - 5






x LATROBE GROUP
x̄ (HIGH ASH KEROGEN)

FIGURE 4



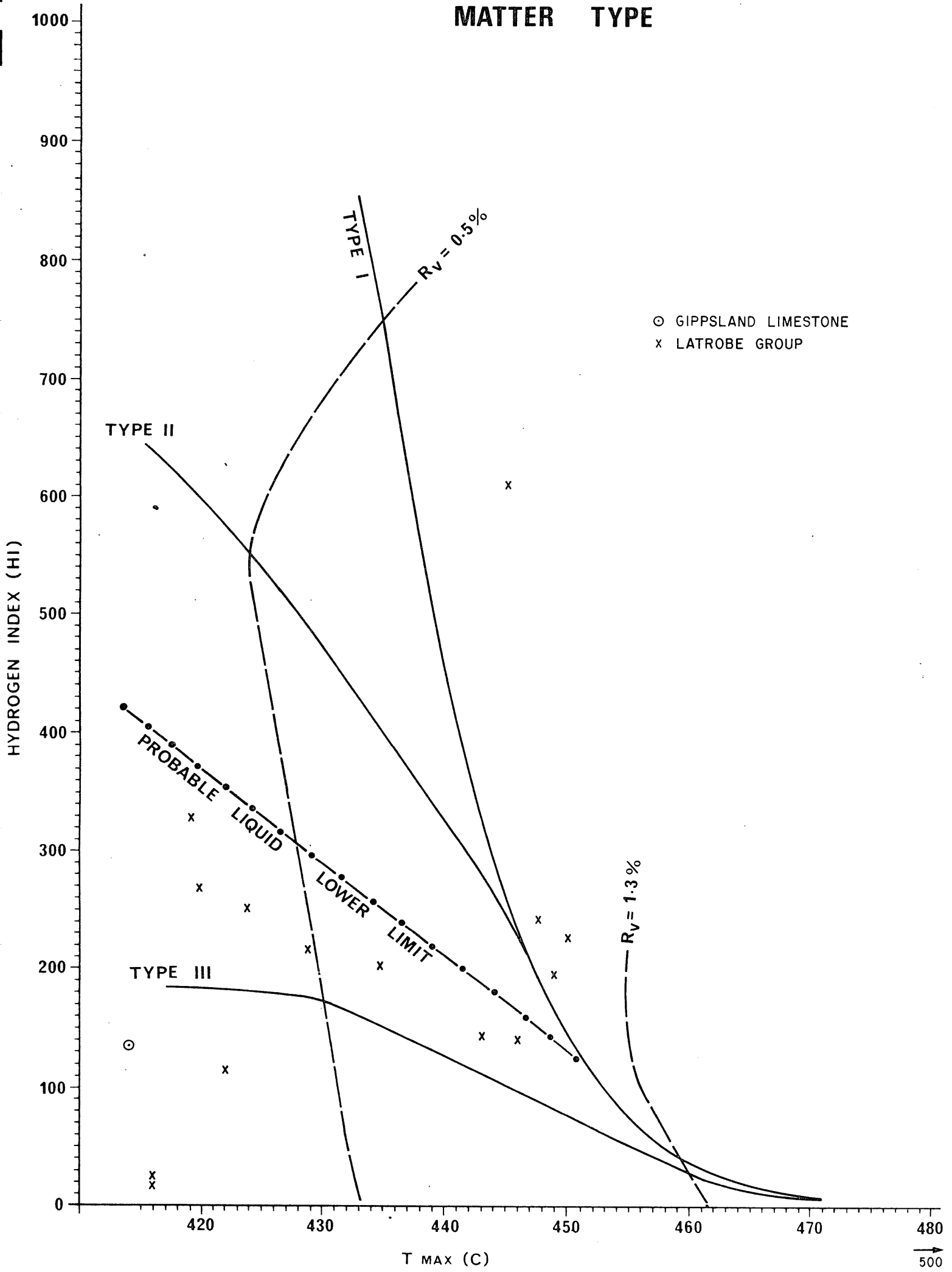
PRINCIPAL PRODUCTS OF KEROGEN EVOLUTION

-  CO₂, H₂O
-  OIL
-  GAS

 RESIDUAL ORGANIC MATTER
(NO POTENTIAL FOR OIL OR GAS)

BREAM - 5

ROCKEVAL MATURATION AND ORGANIC MATTER TYPE



EPR#72536T SATURATE

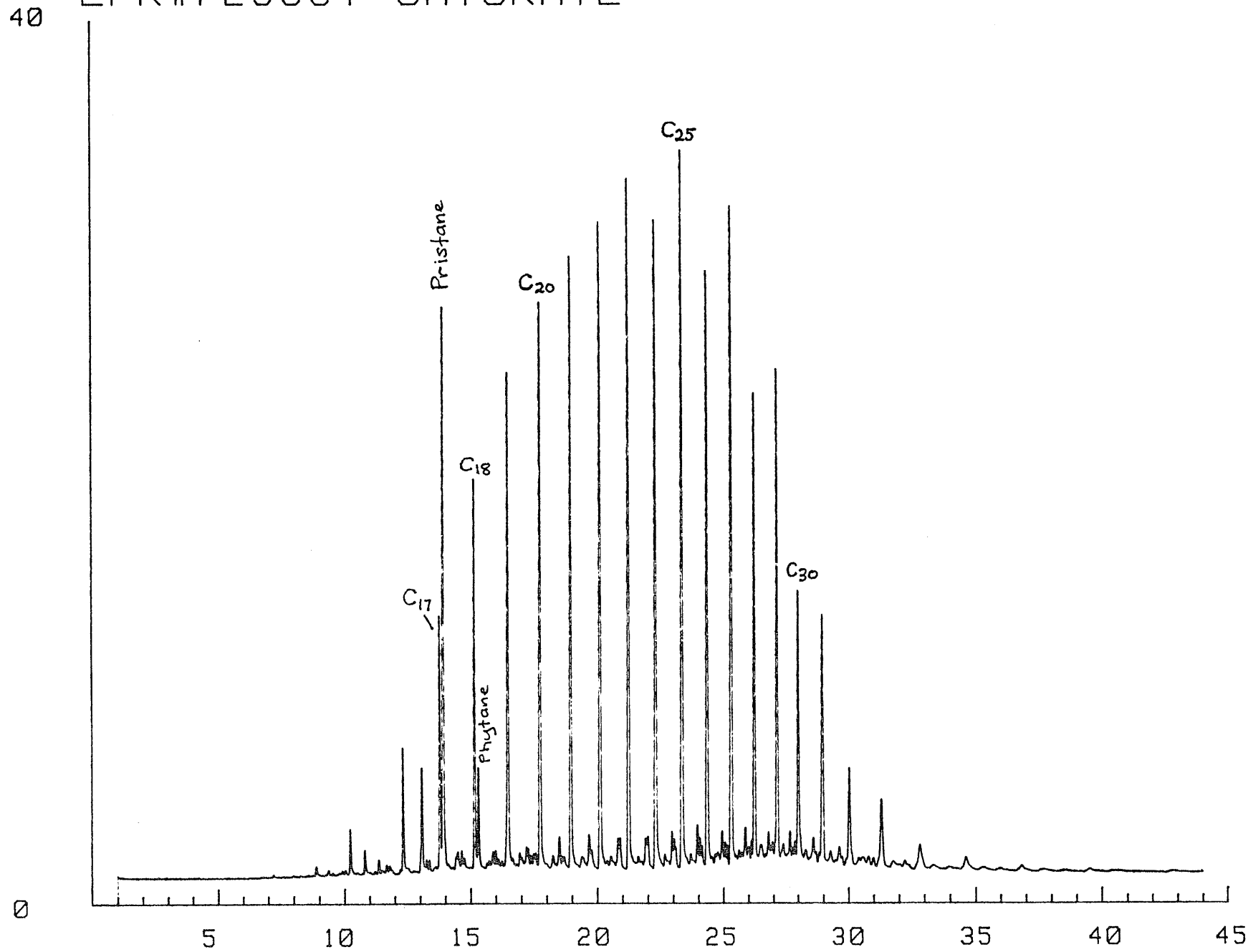


Figure 6 : Bream-5, 2900 - 2915 m(KB), Latrobe Group.

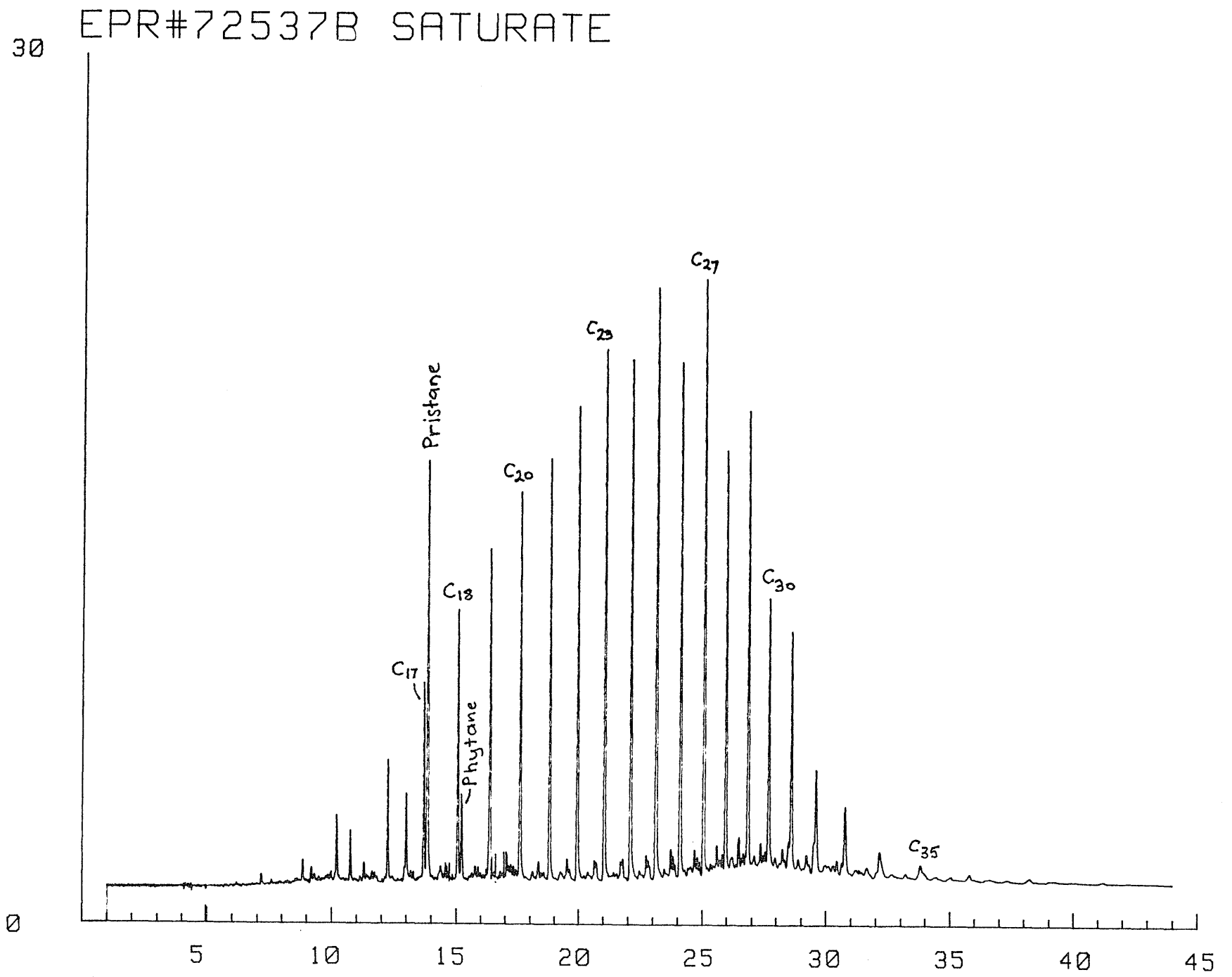


Figure 7: Bream-5, 3020 - 3035 m(KB), Latrobe Group.

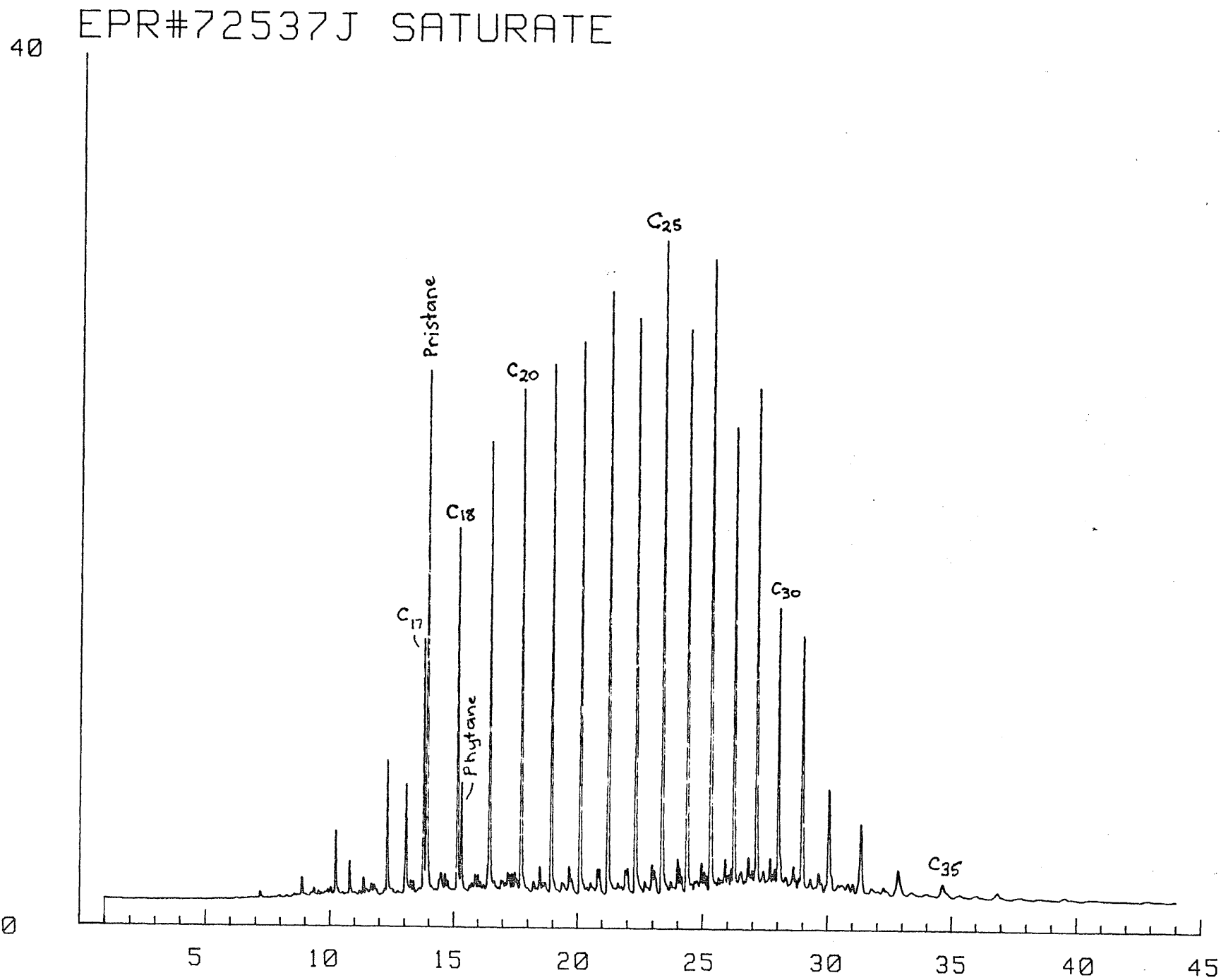


Figure 8: Bream-5, 3140 - 3155 m(KB), Latrobe Group.

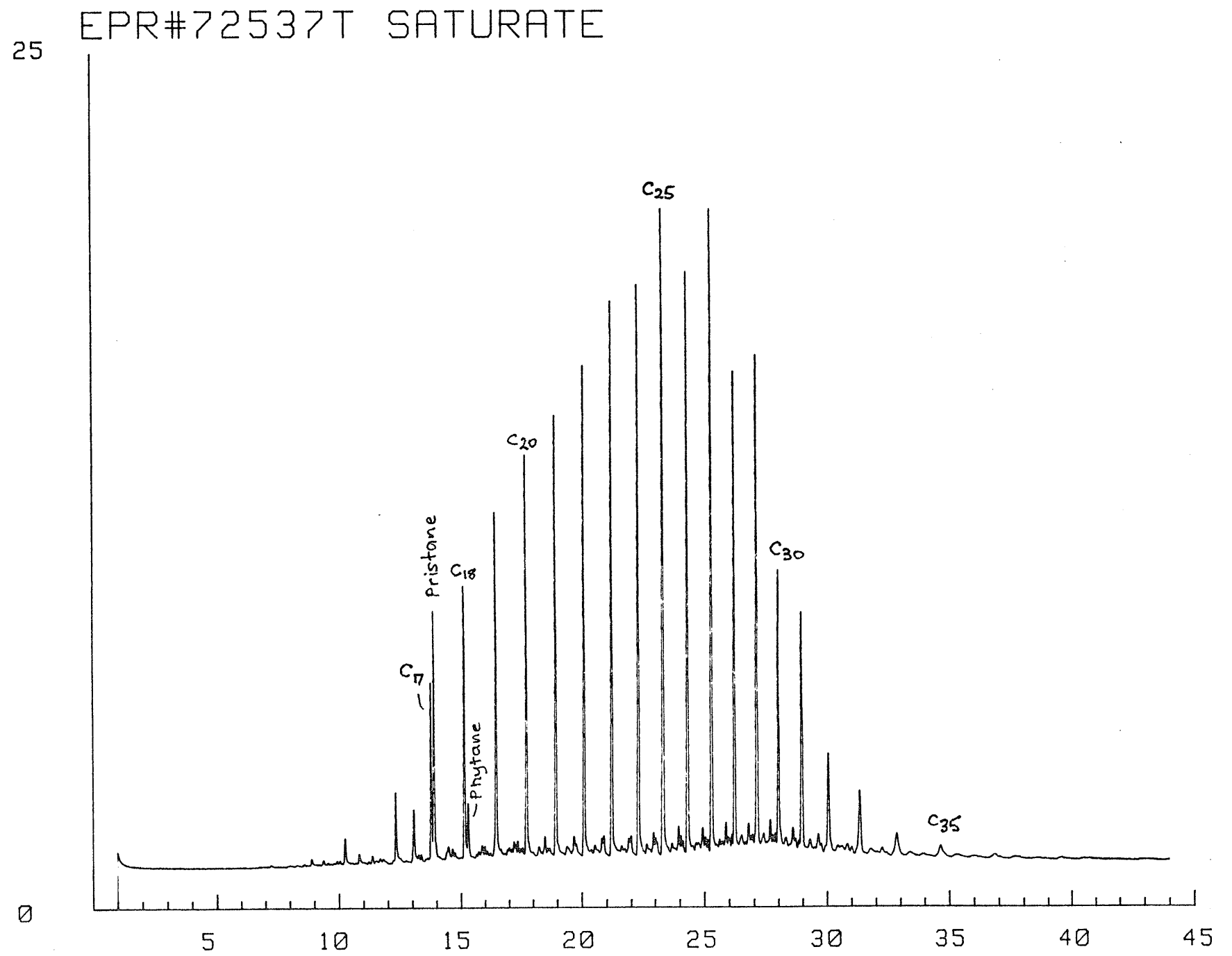


Figure 9: Bream-5, 3290 - 3305 m(KB), Latrobe Group.

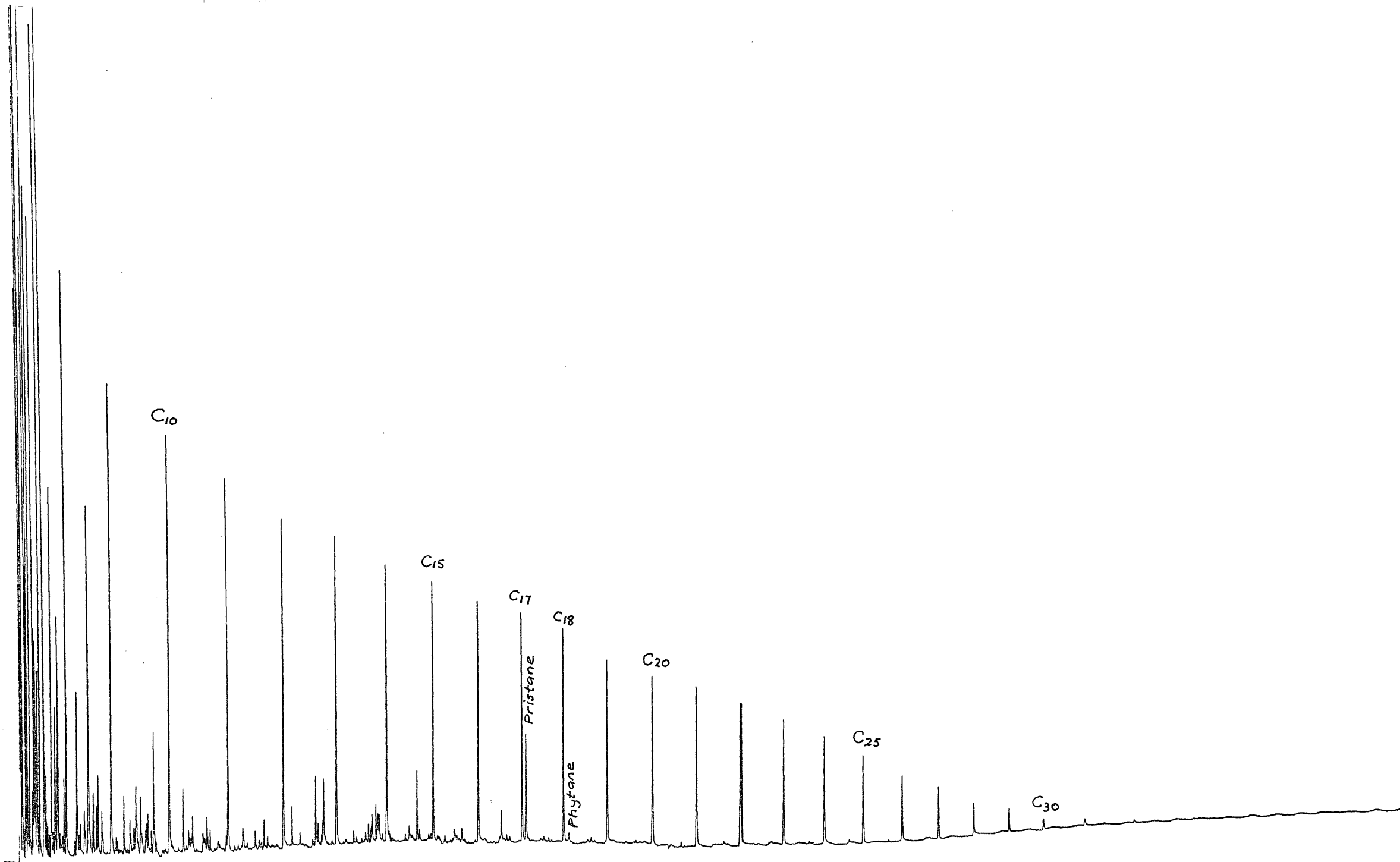


Figure 10. Whole Oil gas chromatogram Bream-5 oil, RFT 3, 1940 m(KB).

APPENDIX-1

Detailed Vitrinite Reflectance and Exinite Fluorescence Data
by A.C. Cook.

BREAM 5

KK No.	Esso No.	Depth m	\bar{R}_V max %	Range R_V max %	N	Exinite fluorescence (Remarks)
LATROBE GROUP						
EOCENE - LATE CRETACEOUS						
* 16358	BS/ 9	1947.6 Core 1	0.41	0.30-0.45	20	Abundant cutinite and sporinite, yellow, sparse greenish yellow to orange. (Claystone, d.o.m. abundant E>V>I. Vitrinite abundant, inertinite sparse. Exinite 15 to 20%. Much of the vitrinite appears to be root material. The clay matrix has weak red-brown fluorescence, and may contain bituminite. Rare pyrite.)
* 16359	BS/10 Core	1964.2	0.54	0.49-0.61	20	Common to abundant resinite, yellow to orange, sparse sporinite yellow to orange, cutinite dull orange. (Coal, vitrinite 90%+, exinite 2-4%, inertinite 2-4%, chiefly fungal sclerotinite, but possibly some inertodetrinite. Micrinite present. Vitrite>clarite>clarodurite. Pyrite absent.)
* 16360	BS/B11 Core	2029.0	0.37-0.64		20	Sparse sporinite, greenish yellow to orange, rare cutinite and resinite, yellow orange. (Siltstone, d.o.m. abundant, V=I>E. Vitrinite and inertinite common, exinite sparse. Phytoclasts small and much of vitrinite is probably reworked to a minor extent.)
* 16950	BS/ 72506-B	2427 ?SWC	0.53	0.45-0.63	20	Sparse cutinite and sporinite, yellow to orange. (Carbonaceous claystone, d.o.m. abundant, V>>E>I. Vitrinite abundant, inertinite rare. Most of the phytoclasts are small. Pyrite common.)
* 16361	BS/B12 Core	2571.93	0.68	0.58-0.81	25	Common sporinite yellow to orange, common resinite, yellow to dull orange, sparse cutinite orange to dull orange. (Coal. Approx. 75% V, 20% I, 2 to 5% E. Layers of vitrite and clarodurite in about equal proportions. The inertinite is dominantly of higher plant origin, and no undoubted fungal sclerotinite was found. Micrinite is present in much of the vitrinite. Most of the vitrinite shows weak dull brown fluorescence. Very weak green oil cut was noted from the vitrinite and weak negative alteration of the fluorescence intensity of the vitrinite occurred on irradiation for about 1 minute.)
* 16951	BS/ 72506-M	2624 ?SWC	0.56	0.37-0.68	22	Sparse cutinite and sporinite, yellow to orange, sparse ?phytoplankton greenish yellow. (Carbonaceous claystone, d.o.m. abundant, V>I>E. Vitrinite abundant, inertinite sparse. Pyrite sparse.)

BREAM 5

KK No.	Esso No.	Depth m	\bar{R}_v max %	Range R_v max %	N	Exinite fluorescence (Remarks)
LATROBE GROUP						
EOCENE - LATE CRETACEOUS						
* 16362	BS/B13 Core	2712.6	0.68	0.59-0.77	20	Common sporinite, yellow to orange, sparse resinite, yellow orange, rare cutinite, yellow to dull brown. (Coal, approx. 75% V, 20% I, 3 to 5% E. Duroclarite > vitrinite. Inertinite is of higher plant origin and includes common fusinized resin bodies.)
* 16363	BS/B14 Core	2781	0.69	0.53-0.81	20	Sparse sporinite orange, cutinite yellow to dull orange. (Siltstone with d.o.m. abundant, V > I > E. Vitrinite abundant, Inertinite abundant. Some phytoclasts are reworked but some of the vitrinite may represent <u>in situ</u> roots. Pyrite sparse.)
* 16952	BS/ 72506-V	3062 ?SWC	0.77 0.52	0.74-0.83 0.46-0.64	5 6	Rare to sparse sporinite and ?phytoplankton, greenish yellow to orange. (Siltstone. Most grains contain no E. Some grains contain sparse to common E and the lower reflectance mode comes from these grains. The remainder of the grains contain no E and give the higher vitrinite reflectance mode. These grains may be heat altered. Some ?bitumen is present. Pyrite sparse.)
* 16953	BS/ 72506-A	3320 ?SWC	0.85	0.78-0.92	20	Rare sporinite orange to dull orange. (Claystone/mudstone, with abundant d.o.m., V > I > E. Vitrinite abundant, occurring chiefly as thick layers of telocollinite. These have a speckled texture due to the presence of small mineral inclusions, but an incipient coke mosaic may be present in some layers. Inertinite sparse. Minor heat alteration would be consistent with the subdued exinite fluorescence, but any effects appear to have been small. Pyrite sparse.)

APPENDIX 6

APPENDIX 6

SYNTHETIC SEISMIC TRACE

SYNTHETIC SEISMIC TRACE

PARAMETERS

Well: Bream-5
TD: 3322mKB
KB: 21m
Water Depth 59.6m

Polarity:
Pulse Type: Zero phase, second derivative, gaussian function
Peak Frequency: 28 hz; 300m - 2100m
25 hz: 2100m - 2300m Note: depths KB
16 hz: 2300m - 2500m
13 hz: 2500m - 3321m

Sample Interval: 2 metres
Check Shot Corrections: Yes

Comments Density log has been kept constant at 2.19
gm/cc from 206 KB to 781mKB.
No editing was performed on either log.

PE601328

This is an enclosure indicator page.
The enclosure PE601328 is enclosed within the
container PE902630 at this location in this
document.

The enclosure PE601328 has the following characteristics:

ITEM_BARCODE = PE601328
CONTAINER_BARCODE = PE902630
NAME = Quantitative Analysis Log
BASIN = GIPPSLAND
PERMIT =
TYPE = WELL
SUBTYPE = WELL_LOG
DESCRIPTION = Quantitative Analysis Log (enclosure
from WCR) for Bream-5
REMARKS =
DATE_CREATED = 31/12/1982
DATE_RECEIVED = 16/09/1983
W_NO = W781
WELL_NAME = Bream-5
CONTRACTOR = ESSO
CLIENT_OP_CO = ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE601329

This is an enclosure indicator page.
The enclosure PE601329 is enclosed within the
container PE902630 at this location in this
document.

The enclosure PE601329 has the following characteristics:

ITEM_BARCODE = PE601329
CONTAINER_BARCODE = PE902630
NAME = Check Shot Survey
BASIN = GIPPSLAND
PERMIT =
TYPE = WELL
SUBTYPE = SYNTH_SEISMOGRAM
DESCRIPTION = Check Shot Survey (enclosure from WCR)
for Bream-5
REMARKS =
DATE_CREATED = 22/04/1983
DATE_RECEIVED = 16/09/1983
W_NO = W781
WELL_NAME = Bream-5
CONTRACTOR = ESSO
CLIENT_OP_CO = ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

ENCLOSURES

PE902631

This is an enclosure indicator page.
The enclosure PE902631 is enclosed within the
container PE902630 at this location in this
document.

The enclosure PE902631 has the following characteristics:

ITEM_BARCODE = PE902631
CONTAINER_BARCODE = PE902630
NAME = Depth Map Top of Latrobe Coarse
Clastics Most Likely Case
BASIN = GIPPSLAND
PERMIT =
TYPE = SEISMIC
SUBTYPE = HRZN_CNTR_MAP
DESCRIPTION = Depth Map Top of Latrobe Coarse
Clastics Most Likely Case (enclosure
from WCR) for Bream-1
REMARKS =
DATE_CREATED = 31/10/1982
DATE_RECEIVED = 16/09/1983
W_NO = W781
WELL_NAME = Bream-5
CONTRACTOR = ESSO
CLIENT_OP_CO = ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE902632

This is an enclosure indicator page.
The enclosure PE902632 is enclosed within the
container PE902630 at this location in this
document.

The enclosure PE902632 has the following characteristics:

ITEM_BARCODE = PE902632
CONTAINER_BARCODE = PE902630
NAME = Structure Map Lower L balmei Seismic
Marker
BASIN = GIPPSLAND
PERMIT =
TYPE = SEISMIC
SUBTYPE = STRUCTURE_MAP
DESCRIPTION = Structure Map Lower L balmei Seismic
Marker (enclosure from WCR) for Bream-5
REMARKS =
DATE_CREATED = 30/11/1982
DATE_RECEIVED = 16/09/1983
W_NO = W781
WELL_NAME = Bream-5
CONTRACTOR = ESSO
CLIENT_OP_CO = ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE902633

This is an enclosure indicator page.
The enclosure PE902633 is enclosed within the
container PE902630 at this location in this
document.

The enclosure PE902633 has the following characteristics:

ITEM_BARCODE = PE902633
CONTAINER_BARCODE = PE902630
NAME = Geological Cross Section
BASIN = GIPPSLAND
PERMIT =
TYPE = WELL
SUBTYPE = CROSS_SECTION
DESCRIPTION = Geological Cross Section (enclosure
from WCR) for Bream-5
REMARKS =
DATE_CREATED = 28/02/1983
DATE_RECEIVED = 16/09/1983
W_NO = W781
WELL_NAME = Bream-5
CONTRACTOR = ESSO
CLIENT_OP_CO = ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE601330

This is an enclosure indicator page.
The enclosure PE601330 is enclosed within the
container PE902630 at this location in this
document.

The enclosure PE601330 has the following characteristics:

ITEM_BARCODE = PE601330
CONTAINER_BARCODE = PE902630
NAME = Well Completion Log
BASIN = GIPPSLAND
PERMIT =
TYPE = WELL
SUBTYPE = COMPLETION_LOG
DESCRIPTION = Well Completion Log (enclosure from
WCR) for Bream-5
REMARKS =
DATE_CREATED = 14/09/1982
DATE_RECEIVED = 16/09/1983
W_NO = W781
WELL_NAME = Bream-5
CONTRACTOR = South Seas Drilling Co
CLIENT_OP_CO = ESSO

(Inserted by DNRE - Vic Govt Mines Dept)