

Record 1985/9

BMR STRATIGRAPHIC DRILLING IN THE AMADEUS BASIN,
NORTHERN TERRITORY, 1983

by

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CONTENTS

	PAGE
SUMMARY	1
INTRODUCTION	1
DETAILS OF HOLES DRILLED	2
DESCRIPTION OF HOLES	3
BMR HENBURY #4	3
BMR HENBURY #5	3
BMR HENBURY #6	4
BMR RODINGA #6	5
BIBLIOGRAPHY	6
LITHOLOGIC LOG OF BMR HENBURY #4	
LITHOLOGIC LOG OF BMR HENBURY #5	
LITHOLOGIC LOG OF BMR HENBURY #6	
LITHOLOGIC LOG OF BMR RODINGA #6	
FIGURES	
Figure 1 - Generalized Stratigraphic TABLE - Amadeus Basin	
Figure 2 - Legend for lithologic logs	

SUMMARY

Four shallow, continuously cored stratigraphic holes were drilled by the Bureau of Mineral Resources in the Amadeus Basin in late 1983 to investigate the Early Ordovician Horn Valley Siltstone (three holes) and the Cambrian Tempe Formation (one hole).

All three holes drilled in the Horn Valley Siltstone (BMR Henbury #5 and #6, BMR Rodinga #6) spudded in the overlying Stariway Sandstone and reached total depth in the underlying Pacoota Sandstone. A complete sequence of Horn Valley Siltstone was penetrated in BMR Henbury #4 and BMR Rodinga #6 but the BMR Henbury #6 sequence was reduced by faulting at the Horn Valley Siltstone/Pacoota Sandstone contact.

The hole in the Tempe Formation (Henbury #5) spudded in the Illara Sandstone before passing into the Tempe Formation at 45m. It was still in the Tempe Formation at the total depth of 248m.

INTRODUCTION

The Amadeus Basin is a large (about 155 00 sq. km.) intra-cratonic basin which has had a complex geological history from the Late Proterozoic to Carboniferous (Wells et al. 1970). The B.M.R. commenced a multidisciplinary research program in the Basin in 1983, with the Cambro-Ordovician interval being the focus of attention. As part of this study, four shallow stratigraphic holes were drilled in late 1983, and preliminary results from the drilling are presented in this record.

The stratigraphic sequence in the Cambro-Ordovician part of the Amadeus Basin is described in Wells et al., 1970; it is shown in summary in figure 1.

Figure 1
GENERALIZED STRATIGRAPHIC TABLE
AMADEUS BASIN

ORDOVICIAN	UPPER	LARAPINTA	UPPER ORDOVICIAN ? Ss unit		
			CARMICHAEL Ss. , Sltst.		
			STOKES Sltst., Sh., Ls.		
	MIDDLE		STAIRWAY Ss. , Sltst.		
CAMBRIAN	LOWER	PERTAORRTA	HORN VALLEY Sltst., Sh., Dol.		
			PACOOTA Ss., Sltst.		
	UPPER		GOYDER Ss. Dol., Sh.		
	MIDDLE		PETERMANN Ss.	SHANNON Ls.	
			DECEPTION Sltst.		HUGH RIVER Sltst.
			ILLARA Ss.		
			TEMPE Sh., Ls Sltst.	GILES CREEK Dol.	
			LOWER	CHANDLER Salt, Sh., Ls.	TODD RIVER Dol
	ARUMBERA Ss Sltst Cgl				

The drilling programme was designed to improve our understanding of two units, the Horn Valley Siltstone and the Tempe Formation. The former is known to be the major hydrocarbon source rock in the Amadeus Basin (Gorter, 1984) while the latter is considered to also have some source rock potential. Both units form very poor outcrop and are deeply weathered, hence drilling is an essential adjunct to any study of their sedimentology, source rock potential or palaeontology.

DETAILS OF HOLES DRILLED

All holes were named after the 1:250 000 Sheet areas they occur on, thus BMR Henbury #4 was the fourth hole drilled by BMR on the Henbury 1: 250 000 Sheet.

The holes were continuously cored to total depth, once thin surficial sediments had been penetrated and cased. Drilling was done using a BMR Mayhew 1000 rig operated by two crews under the overall charge of T. Cherry (driller) and equipped with a wire-line core barrel providing HQ size core. The crews worked a five-day week and two eight-hour shifts each day. Recovery was generally very good, averaging well over 95%. The core obtained is housed in the BMR Core and Cuttings Laboratory, Fyshwick, A.C.T.

All core was described in the field by D. Morris, and the accompanying logs to this record were drawn up from these descriptions. The core will be fully photographed at BMR and then logged in detail before any destructive analysis such as geochemistry or palaeontology is done. At least a quarter of all core will be permanently kept in the Core and Cuttings Laboratory.

5

DESCRIPTION OF HOLES

BMR HENBURY #4

Location - On the Henbury 1:250 000 sheet about 12 km north-west of Wallara Ranch, at the side of a property track about 0.5 km north of the King's Canyon Road. $24^{\circ}33' 33''\text{S } 132^{\circ}14' 38''\text{E}$.

Objective - To provide a continuous core through the Horn Valley Siltstone below the weathering zone.

Results - The hole spudded in the Stairway Sandstone on the 26th. September and passed into the Horn Valley Siltstone at a depth of 57.8 metres. Few problems were experienced in the Stairway Sandstone except for some core loss, with 80% recovery between 49 and 50 metres, while cement was used at 43.2 metres because of water loss. The top 2-3 metres of the Horn Valley Siltstone appeared weathered but became fresh in appearance below about 61 metres.

Core recovery was excellent throughout the Horn Valley Siltstone except in the interval 89.00 to 92.00 metres where it was down to 75%. The contact with the Pacoota Sandstone was at 103.83 metres and the hole was terminated at 113.00 metres on the 5th October.

BMR HENBURY #5

Location - BMR Henbury #5 is located about 5 km west of Petermann Bore, and about 1 km north of Petermann Creek, at $24^{\circ}24' 26''\text{S } 132^{\circ}15' 22''\text{E}$. The site is on the southern flank of the Petermann Creek Anticline.

Objective - The objective of the hole was to core the Tempe Formation, to examine the relationships between the Tempe Formation and the underlying Proterozoic units, and to examine rocks possibly equivalent to the Chandler Limestone within the lower Tempe Formation.

Results - The hole spudded in the Illara Sandstone, overlying the Tempe Formation, on the 10th. October, passed into the Tempe Formation at 45.0 metres and terminated at 258.0 metres still in the Tempe Formation, and possibly some 75 metres above the base of the Formation. The hole therefore failed to examine both the nature of the contact with the underlying units and also the nature of the possible Chandler Limestone correlatives. There were three reasons for this, firstly the hole was spudded about 25 metres higher in the Illara Sandstone than expected, secondly, the dips within the hole were greater than expected, about 40' to 45' instead of about 30', resulting in a greater thickness having to be drilled, and thirdly the planned total depth of 300 metres was not attained because of circulation problems below 226 metres which led to the eventual abandonment of the hole at 258 metres on the 2nd. November.

The hole has however provided a good, continuously cored sequence in the upper and middle Tempe formation, of interval which was previously very poorly known.

BMR HENBURY #6

Location - About 200 metres north of the Stuart Highway bridge over Maloney Creek, in the middle of the old, abandoned dirt highway. $24^{\circ}30' 00.5''S$, $133^{\circ}15' 00.5''E$.

Objective - The hole was planned to examine the Horn Valley Siltstone adjacent to the outcrop of the Maloney Creek section of the Horn Valley, thus allowing correlation to be made between the two. Detailed collections from the surface section have been made for conodonts and macrofossils, and unweathered core would allow palynological and source rock information to be correlated with the surface section.

Results - The hole spudded in the Stairway Sandstone on the 4th. November, passed into the Horn Valley Siltstone at 37.6 metres and into the Pacoota Sandstone at 72.3 metres. The hole terminated at 127.0 metres on the 15th November.

Examination of the correlation between the surface and drilled sequences suggest that about 20 metres are missing in the drillhole from the base of the Horn Valley Siltstone, and that the contact between the Horn Valley Siltstone and the Pacoota Sandstone in the hole is faulted. In addition much of the Horn Valley sequence appears to have been affected by weathering.

Few drilling problems were encountered except for core loss in the upper, deeply weathered 20 metres of the Stairway Sandstone.

BMR RODINGA #6

Location - In the James Range about 3 km north-west of the bridge of the standard gauge railway line over the High River, $24^{\circ}22' 46''\text{S}$ $133^{\circ}42' 12''\text{E}$.

Objective - The objective of the hole was to core the Horn Valley Siltstone near the eastern extremity of its outcrop.

The hole was spudded in the Stairway Sandstone on the 19th. November and passed into the Horn Valley Siltstone at 49.8 metres. The Horn Valley Siltstone was fully cored with excellent recovery and the contact with the Pacoota Sandstone was reached at 87.35 metres. The hole was terminated at 95.87 metres on the 2nd December. No drilling problems were experienced.

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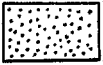
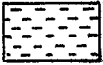
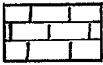
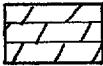
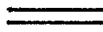
<u>LITHOLOGY</u>		<u>BEDDING STRUCTURES</u>	
	COARSE SANDSTONE		VERY THICK
	SANDSTONE		THICK
	SILTSTONE		MEDIUM
	MUDSTONE		THIN
	SHALE		LAMINATED
	LIMESTONE		TABULAR CROSS-BEDS
	DOLOMITE		TROUGH CROSS-BEDS
	LIMESTONE INTERBEDS		BIOTURBATED
	DOLOMITE INTERBEDS		VERTICAL BURROWS
	SHALE INTERBEDS		BURROWS
	LIMONITIC OOLITE		TRAILS
 <u>FOSSILS</u> (underlined means abundant)			
	BRACHIOPODS		
	TRILOBITES		
	NAUTILIDS		
	GRAPTOLITES		

FIG. 2, LEGEND FOR LITHOLOGIC LOGS

WELL NAME		BMR. HENBURY No. 4		SHEET 1 OF 6					
BASIN AMADEUS		STATE N.T.		LONG. 132° 14' 38" LAT. 24° 33' 33"					
DRILLER T. CHERRY.		GEOLOGIST D. G. MORRIS GR (AMG)							
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
HOPE COMMENCED 26/9/83	5.0		PVC. TO 7m.					0-4m. SANDSTONE SCREE AND RUBBLE.	STAIRWAY SANDSTONE
		1		10°			7.67-9.8m. SANDSTONE MEDIUM TO COARSE GRAINED. COARSENS DOWN. MINOR SILTSTONE INTERBEDS. WEATHERED. LIGHT GREENISH YELLOW MOTTLED GREYISH YELLOW. BIOTURBATED. CLAY FILAMENTS ON TRAILS.		
		2				7.67-9.8m. SANDSTONE MEDIUM TO COARSE GRAINED WITH VERY COARSE GRAINED INTERBEDS. GREYISH GREEN CLAY MATRIX. BIOTURBATED.			
	10.0	3				9.8-11.7m. SANDSTONE MEDIUM TO COARSE GRAINED. POORLY SORTED. YELLOW BROWN MOTTLED DARK RED BROWN TO PURPLE. BIOTURBATED. CLAY IN BURROWS.			
		4		12°		11.7-12.1 MUDSTONE TO FINE SST. PALE RED, DARK RED BROWN TO YELLOW BROWN SLUMPED AND CROSS BEDDED.			
	15	5				12.1-17.8m. AS ABOVE. LIGHT YELLOWISH GREY AND GREYISH GREEN. MINOR INTERBEDS OF MEDIUM GRAINED SANDSTONE.			
20	6			11°			17.8-18.4m. AS ABOVE. BEDDED AND MOTTLED PALE RED, DUSKY RED AND DARK YELLOW BROWN.		
								18.4-20.8m. SANDSTONE. MEDIUM GRAINED WITH COARSE INTERBEDS.	

COMMENTS: CHIP SAMPLES TO 7m.
H.Q. CORE.

WELL NAME BMR HENBURY No 4								SHEET 2 OF 6	
BASIN AMADEUS			STATE N.T.		LONG. 132°14'38" LAT. 24°33'53"				
DRILLER T. CHERRY			GEOLOGIST D.G. MORRIS		GR (AMG)				
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		6					□	20.8-23.98m. SANDSTONE. COARSE TO VERY COARSE GRAINED. CLAY MATRIX. LIGHT GREY MOTTLED YELLOW BROWN. LIMONITIC. SMALL LIGHT YELLOW BROWN CLAY PELLETS. POORLY SORTED.	STAIRWAY SANDSTONE
	25	7		10°			□	23.98-26.26 SANDSTONE. FINE AND SILTY AT TOP GRADING DOWN TO MEDIUM TO COARSE GRAINED POORLY SORTED. PALE YELLOW BROWN DARK BROWN SPOTTED. IN PARTS BIODURBATED	
		8		5°			≡	26.26-27.6 SANDSTONE FINE TO MEDIUM WITH SILT AND CLAY INTERBEDS. LAMINATED	
	30	9					⊕	27.6-31.4 SANDSTONE COARSE TO VERY COARSE GRAINED MINOR MEDIUM INTERBEDS. LIGHT YELLOW BROWN TO LIGHT YELLOW GREY. MINOR DARK YELLOW BROWN MOTTING. VERY POORLY SORTED, IN PARTS BIODURBATED (SKOLITHUS) MASSIVE BEDDED. CLAY MATRIX.	
		10					≡	31.4-34.72 SANDSTONE FINE TO MEDIUM GRAINED MINOR COARSE INTERBEDS. TENDS TO COARSEN UP. LIGHT YELLOW GREY MOTTLED LIGHT YELLOW BROWN.	
	35	11						34.72-40.22 SANDSTONE. COARSE TO VERY COARSE GRAINED POORLY SORTED. LIGHT GREENISH GREY MINOR YELLOW BROWN AND PURPLE MOTTING. LIGHT GREYISH GREEN AND YELLOW BROWN CLAY PARTINGS AND PELLETS. MINOR FRACTURING.	
		12					□		
	40								

COMMENTS:

WELL NAME BMR. HENBURY No. 4

SHEET 3 OF 6

BASIN AMADEUS

STATE N.T.

LONG. 132° 14' 38" LAT. 24° 33' 33"

DRILLER

GEOLOGIST D.G. MORRIS GR (AMG)

DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		13		10°			==	40.22-40.7. SANDSTONE FINE TO MEDIUM CLAYEY. VERY LIGHT GREY. POORLY SORTED.	STAIR WAY SANDSTONE
							□	40.7-42.1 SANDSTONE. COARSE GRAINED LIGHT GREYISH GREEN TO LIGHT GREY.	
							==	DUSKY YELLOW CLAY PELLETS AND PARTINGS	
								42.1-43.22 SILTSTONE AND SANDSTONE	
								LIGHT GREY TO LIGHT YELLOW GREY. FOSSILIFEROUS.	
	45	14						43.22-44.7 SANDSTONE. COARSE TO VERY COARSE GRAINED. VERY LIGHT GREY TO YELLOW GREY. WITH DARK BROWN AND PURPLE MOTTLING. WHITE KAOLINITIC CLAY FRAGMENTS AND PELLETS. INCREASE IN FRACTURING TOWARDS BASE. VERY POROUS. LOST CIRCULATION.	
		15					□		
		16						44.7-50.2 SANDSTONE AS ABOVE	
		17						DARK RED BROWN. FRACTURED. STALACTIC AND BOTRIDIAL HAEMATITE.	
	50	18						50.2-57.8 SANDSTONE. MEDIUM TO VERY COARSE GRAINED POORLY SORTED. YELLOW BROWN TO DUSKY YELLOW WITH MODERATE RED MOTTLING. DARK YELLOW BROWN CLAY MATRIX AND PARTINGS. BIOTURBATED. COMMON <u>CRUZIANA</u> .	
		19					□		STAIR WAY SANDSTONE
	55	20							
								57.8m TOP OF HORN VALLEY SILTSTONE	
		21					==	57.8-60.9. SANDSTONE FINE TO MEDIUM GRAINED WITH CLAY INTERBEDS	57.8m
	60							DARK YELLOW BROWN TO YELLOW BROWN. MOTTLED DARK RED BROWN. BEDDING	

COMMENTS:

INTERVAL 49-50 m CORE No. 17. 20cm CORE LOSS.
CEMENT USED AT 43.2m DUE TO WATER LOSS.

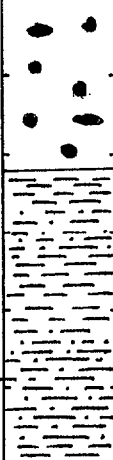
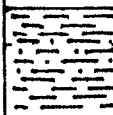
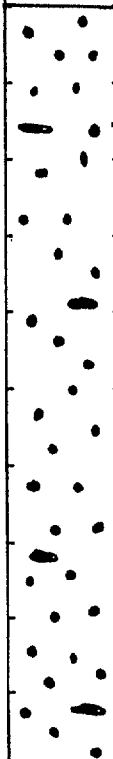
WELL NAME BM.R. HENBURY No 4.								SHEET 4 OF 6	
BASIN AMADEUS			STATE N.T.		LONG. 132°14'38" LAT. 24°37'33"				
DRILLER			GEOLOGIST D.G. MORRIS					GR (AMG)	
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		21						INDISTINCT. COMMON BIOTURBATION.	
		22						60.9-62.45 MUDSTONE AND FINE TO MEDIUM GRAINED SANDSTONE.	
		23		10°				THINLY INTERBEDDED. IN PARTS DOLOMITIC. DARK GREY TO BLACK MUDSTONE, LIGHT GREY SST. INTERBEDS OF SHELL FRAGMENT CALCIRUDITE COMMON.	
	65							IN PARTS VERY FOSSILIFEROUS. FAUNAL ABUNDANCE INCREASES FROM 66.6m.	
		24						66.65 SHELL FRAGMENT CALCIRUDITE	
							≡		
		25						68.5 SHELL FRAGMENT CALCIRUDITE	
	70								
		26							
		27						73-74m. ABUNDANT <u>GRAPTOLITES</u> , TRILOBITES AND BRACHIOPODS.	
								74-75m COMMON TRILOBITES MINOR GRAPTOLITES.	
	75	28		10°					
		29						77.25 SHELL FRAGMENT CALCIRUDITE	
								78.8 SHELL FRAGMENT CALCIRUDITE.	
	80	30							
COMMENTS:									

WELL NAME		B.M.R. HENBURY No. 4		SHEET 5 OF 6					
BASIN AMADEUS		STATE N.T.		LONG. 132°14'38" LAT. 24°33'33"					
DRILLER		GEOLOGIST D. G. MORRIS GR (AMG)							
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		30						80m. SHELL FRAGMENT CALCIRUDITE.	
		31						82.45 - 101.7 MUDSTONE	
	85	32		10°				DARK GREY TO BLACK WITH INTERBEDS AND NODULES OF CALCIRUDITE. TRILOBITES AND BRACHIOPODS COMMON NEAR TOP. MINOR INTERBEDS OF SHELL FRAGMENT CALCIRUDITE.	
		33					≡		
	90	34						90.92 ABUNDANT GRAPTOLITES	
		35					≡	91.64 SHELL FRAGMENT CALCIRUDITE.	
	95	36		10°					
		37							
		38							
	100	39							
COMMENTS: INTERVAL 49-92m CORE No. 34 0.7m CORE LOSS									

15

WELL NAME BMR. HENBURY No. 4							SHEET 6 OF 6		
BASIN AMADEUS			STATE N.T.		LONG. 132° 14' 38" LAT. 24° 33' 33"				
DRILLER		GEOLOGIST D.G. MORRIS			GR (AMG)				
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
HOLE COMPLETED 5/10/1983		40				Y		101.7 - 103.63. SANDY LIMESTONE. GLAUCONITIC. LIGHT GREENISH GREY COMMON CARBONACEOUS MUDSTONE LAMINAE. PYRITE COMMON. BRACHIOPODS COMMON.	HORN VALLEY SILTSTONE
		41				Y		103.63 - 104.17. SANDSTONE COARSE GRAINED, CALLAREOUS, PYRITIC. ABUNDANT SHELL FRAGMENTS AT TOP.	
	105	42							
		43				-	▽	104.17 - 109.68 SANDSTONE MEDIUM TO COARSE GRAINED GREENISH GREY TO DARK GREENISH GREY. VERY STRONGLY BIOTURBATED. <u>SEOLITHUS</u> .	PACOOTA SANDSTONE
		44							
	110						≡	109.68 - 109.82 SANDSTONE, FINE TO MEDIUM GRAINED AND INTERBEDDED MUDSTONE. FOSSILIFEROUS	
		45						109.82 - 110.6 SANDSTONE FINE GRAINED AND SILTSTONE TRILOBITES COMMON.	
								110.6 - 112.77 SANDSTONE AND SILTSTONE THIN BEDDED. FOSSILIFEROUS, GLAUCONITIC AND PHOSPHATIC?	
								112.77 - 113 SANDSTONE, COARSE GRAINED DARK GREY, GLAUCONITIC. PYRITE COMMON.	
		115						T.D. OF HOLE 113m.	
COMMENTS:									

WELL NAME		HENBURY No. 5		SHEET 1 OF 13					
BASIN AMADEUS		STATE N.T.		LONG. 132° 15' 22" LAT. 24° 24' 26"					
DRILLER T. CHERRY		GEOLOGIST D.G. MORRIS GR (AMG)							
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
HOLE COMMENCED 10/10/1943	5						II	0-1m SOIL AND SCRUB. 1-5.2 SANDSTONE. MEDIUM GRAINED, MICACEOUS. DARK RED BROWN. WEATHERED.	ILLARA SANDSTONE
	10			45			III	5.2-10 SHALE, SILTSTONE AND FINE GRAINED SANDSTONE. DARK RED BROWN. VERY WEATHERED. SANDSTONE FINE TO MEDIUM GRAINED. DARK RED BROWN LAMINATED MODERATE RED.	
	15						II	10.7-15.9 FELSPATHIC SANDSTONE COARSE GRAINED. DARK RED BROWN BEDDED AND MOTTLED MODERATE RED. MINOR SILTY MICACEOUS LAMINATIONS. MATRIX IN PARTS CALCAREOUS.	
	20						I	15.9-22.2 FELSPATHIC SANDSTONE COARSE GRAINED. DARK RED BROWN BEDDED AND MOTTLED MODERATE RED. ABUNDANT VERY DARK RED MINOR PALE OLIVE CLAY PELLETS AND PARTINGS. IN PARTS FRACTURED AND CALCITE VENEDED.	
COMMENTS: CORING COMMENCED AT 4 M.									

WELL NAME		HENBURY No. 5.		SHEET 2 OF 13					
BASIN AMADEUS		STATE N.T.		LONG. 132° 15' 22" LAT. 24° 24' 26"					
DRILLER T. CHERRY		GEOLOGIST D. G. MORRIS GR (AMG)							
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
	25			43			≡	22.2 - 26.0 SHALE AND SILTSTONE. IN PARTS VERY MICACEOUS. LAMINATED AND MOTTLED DARK RED BROWN, DARK YELLOWISH ORANGE, PALE YELLOWISH BROWN.	ILLARA SANDSTONE
							≡	26.0 - 28.59 SANDSTONE. MEDIUM TO COARSE GRAINED. BEDDED AND MOTTLED DARK RED BROWN AND DUSKY RED. CROSS BEDDED.	
	30						≡	28.59 - 30.0 SHALE AND SILTSTONE. MICACEOUS. DARK RED BROWN TO MODERATE YELLOW BROWN	
	35						≡	30.0 - 45.0 FELSPATHIC SANDSTONE. LAMINATED DARK RED BROWN AND MODERATE RED. MEDIUM TO COARSE GRAINED. CROSS BEDDED. MICACEOUS. MINOR CLAY PELLETS AND PARTINGS NEAR BASE.	
	40								
COMMENTS: CORE LOSS 21-22m 30cm RECOVERED FROM 1m. 22-23m 45cm " " 1m.									

WELL NAME		HENBURY No. 5		SHEET 3 OF 13					
BASIN AMADEUS		STATE N.T.		LONG. 132° 15' 22" LAT. 24° 24' 26"					
DRILLER T. CHERRY		GEOLOGIST D. G. MORRISGR (AMG)							
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
	45			39°			≡	45.0 - 50.7 SHALE AND SILTSTONE THIN LAMINATED. MODERATE YELLOW AND WEATHERED AT TOP GRADING DOWN TO DARK RED BROWN WITH DUSKY YELLOW AND GRAYISH OLIVE GREEN LAMINATIONS. MICACEOUS	ILLARA SANDSTONE
	50							50.7 - 50.84 SANDSTONE. MEDIUM GRAINED. SILICIFIED.	TEMPE FORMATION.
	55			40°			≡	50.84 - 74.67 SHALE LAMINATED AND MOTTLED GRAYISH OLIVE GREEN AND DUSKY RED. COMMON THIN LENSOID INTERBEDS OF SILTSTONE.	
	60								

COMMENTS:

WELL NAME HENBURY No. 5.								SHEET 4 OF 13	
BASIN AMADEUS		STATE N.T.		LONG. 132° 15' 22" LAT. 24° 24' 26"					
DRILLER T. CHERRY		GEOLOGIST D.G. MORRIS GR (AMG)							
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
	65			41°					TEMPE FORMATION
	70								
	75								
	80							78.87-79.46 SANDSTONE. MEDIUM TO COARSE GRAINED. PALE RED TO MODERATE RED. CLAY PELLETS COMMON	
COMMENTS:									

WELL NAME HENBURY No. 5								SHEET 5 OF 13	
BASIN AMADEUS			STATE N.T.		LONG. 132° 15' 22" LAT. 24° 24' 26"				
DRILLER T. CHERRY			GEOLOGIST D.G. MORRIS			GR (AMG)			
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		53					≡	79.46-89.1 SHALE SILTSTONE AND FINE GRAINED SANDSTONE. DUSKY RED WITH MINOR GRAYISH OLIVE GREEN MOTTAING AND LAMINATIONS. MICACEOUS. SLUMPING COMMON.	TEMPE FORMATION
		54		39°			∩		
	85								
		55							
		56						89.1-91.66 FELSPATHIC SANDSTONE MEDIUM TO COARSE GRAINED, GRAYISH RED TO DARK REDDISH BROWN. SILTY MICACEOUS PARTINGS. CROSS BEDDED	
	90						II		
		57					II	91.66-93.64 INTERBEDDED SHALE, SILTSTONE AND MEDIUM TO COARSE GRAINED SANDSTONE. COARSENS DOWN. MODERATE RED WITH DARK RED BROWN SHALE. CROSS BEDDED. MICACEOUS.	
		58						93.64-96.19 SHALE, GRAYISH RED TO DUSKY RED WITH MODERATE RED SILTSTONE INTERBEDS AND LENSES. GRAYISH GREEN MOTTAING INCREASES TOWARDS BASE.	
	95			44°			∩		
		59						96.19-100.57 SHALE, SILTSTONE AND FINE GRAINED SANDSTONE LAMINATED DARK RED BROWN, MODERATE RED WITH MINOR GRAYISH GREEN MOTTAING. CROSS BEDDED. SLUMPING COMMON. CLAY PELLET CONGLOMERATE OVER BASAL 10cm	
		60					∩		
	100	61					∩		

COMMENTS:

WELL NAME		HENBURY No.5		SHEET 6 OF 13					
BASIN AMADEUS		STATE N.T.		LONG. 132° 15' 22" LAT. 24° 24' 26"					
DRILLER T. CHERRY		GEOLOGIST D.G. MORRIS		GR (AMG)					
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		61		36°			≡ ≡	100.87-105.53 SHALE, DARK REDDISH BROWN MOTTLED AND LAMINATED GRAYISH GREEN. COMMON THIN MICACEOUS SILTSTONE LENSES AND LAMINAE.	TEMPE FORMATION
		62							
	105								
		63					≡	105.53-109.8 INTERBEDDED SHALE, SILTSTONE AND FINE TO MEDIUM GRAINED SANDSTONE. MEDIUM SANDSTONE HAS CALCAREOUS MATRIX. LAMINATED AND CROSS BEDDED GRAYISH RED, BLACKISH RED AND GRAYISH OLIVE GREEN. MICACEOUS.	
		64							
	110								
		65						109.8-125.46 SHALE AND SILTSTONE, MICACEOUS. DARK REDDISH BROWN. IN PARTS CALCAREOUS. MINOR THIN INTERBEDS OF CALCILUTITE.	
		66					≡		
	115	67							
		68							
		69							
	120	70							
COMMENTS:									

WELL NAME		HENBURY No. 5		SHEET 7 OF 13					
BASIN AMADEUS		STATE N.T.		LONG. 132° 15' 22" LAT. 24° 24' 26"					
DRILLER T. CHERRY		GEOLOGIST D.G. MORRIS		GR (AMG)					
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		70							
		71							
	125	72						125.46 - 130.44. SHALE AND CALCAREOUS SILTSTONE. DARK REDDISH BROWN. COMMON INTERBEDS OF PALE RED MOTTLED DARK RED BROWN CALCARENITE. COMMON VUGS WITH CALCITE.	
		73							
		74							
		75							
	130	76						130.44 - 130.47. SHALE, CALCAREOUS, GRAYISH OLIVE GREEN MOTTLED DARK REDDISH BROWN.	
		77							
		78						130.47 - 148.42 SHALE AND CALCAREOUS SILTSTONE. DARK REDDISH BROWN. COMMON INTERBEDS OF PALE RED MOTTLED DARK RED BROWN CALCARENITE.	
		79							
	135	80							
		81							
		82							
		83							
	140								
COMMENTS:									

23

WELL NAME HENBURY No. 5								SHEET 8 OF 13	
BASIN AMADEUS		STATE N.T.		LONG. 132° 15' 22" LAT. 24° 24' 26"					
DRILLER T. CHERRY			GEOLOGIST D.G. MORRIS GR (AMG)						
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		83							
		84							
	145	85							
		86							
	150	87						148.62 - 150.10. CALCARENITE PALE RED MOTTLED MODERATE RED AND DARK RED BROWN. RECRYSTALLISED.	
								150.1 - 151.25 CALCAREOUS SHALE AND SILTSTONE GRADING DOWN TO CALCINUTITE.	
		88						151.25 - 164.1 CALCAREOUS SHALE AND SILTSTONE, DARK REDDISH BROWN TO VERY DARK RED. COMMON INTERBEDS OF YELLOWISH GREY LIMESTONE. CALCITE VEINING AT TOP. MINOR VUGS WITH CALCITE	
	155	89							
		90						158.6 - 159 AND 159.2 - 159.4 LIMESTONE INTERBEDS.	
	160								
COMMENTS:									

WELL NAME HENBURY No. 5

SHEET 9 OF 13

BASIN AMADEUS

STATE N.T.

LONG. 132° 15' 22" LAT. 24° 24' 26"

DRILLER T. CHERRY.

GEOLOGIST D.G. MORRIS

GR (AMG)

DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		91							
	165	92							
		93							
	170	94		30°			┐	168.1 - 170 INTERBEDDED SHALE AND LIMESTONE. BEDDED DARK RED BROWN, MODERATE RED AND PALE RED. MINOR VUGS WITH CALCITE.	
		95						170 - 175.34 CALCAREOUS SANDSTONE. FINE TO MEDIUM GRAINED POORLY SORTED. MODERATE RED TO GRAYISH RED. INTERBEDS AND THIN LAMINAE OF DARK RED BROWN SILTSTONE.	
	175	96		45°			┐	175.34 - 147.7 DOLOMITIC SANDSTONE. GREENISH GRAY TO DARK GREENISH GRAY. ABUNDANT THIN DARK GREENISH GRAY SHALE LAMINAE AND PARTINGS. TRACE FOSSILS COMMON. IN PARTS GLAUCONITIC RIPPLE CROSS BEDDED.	
		97							
	180								

COMMENTS:

WELL NAME		HENBURY No. 5		SHEET 10 OF 13					
BASIN AMADEUS		STATE N.T.		LONG. 132° 15' 22" LAT. 24° 24' 26"					
DRILLER T. CHERRY		GEOLOGIST D.G. MORRIS		GR (AMG)					
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		97			I				
		98			I				
	185	99			I				
	190	100							
		101		40°					
	195	102							
		103							
	200	104							

187.7 - 212.93 SHALE, SILTSTONE AND MEDIUM GRAINED SANDSTONE. THIN LAMINATED AND RIPPLE BEDDED GREENISH GRAY AND DARK GREENISH GRAY. SANDSTONE HAS DOLOMITIC MATRIX. CLAY PELLET CONGLOMERATE IN COARSE SAND MATRIX OVER BASAL 20cm. IN PARTS GLAUCONITIC.

TEMPE FORMATION

COMMENTS:

WELL NAME		HENBURY No. 5		SHEET 11 OF 13					
BASIN		AMADEUS		STATE N.T					
LONG.		132° 15' 22"		LAT. 24° 24' 26"					
DRILLER		T. CHERRY		GEOLOGIST D.G. MORRIS GR (AMG)					
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		104							
	205			40°					
		106							
	210	107							
		108							
	215			30°				212.93-217.2 SHALE, SILTSTONE AND FINE GRAINED SANDSTONE. INTERBEDDED OLIVE GRAY AND GRAYISH BROWN. MICACEOUS. PYRITE COMMON. FINE RIPPLE LAMINATION COMMON.	
		109							
		110						217.2-217.34. FELSPATHIC SANDSTONE. MEDIUM TO COARSE GRAINED.	
								217.34-225.57 SHALE, SILTSTONE AND FINE GRAINED SANDSTONE. THINLY INTERBEDDED AND LAMINATED GRAYISH BROWN, MODERATE BROWN AND GRAYISH OLIVE. GREEN MICACEOUS	
	220								
COMMENTS:									

WELL NAME

HENBURY No. 5

SHEET 12 OF 13

BASIN AMADEUS

STATE N.T.

LONG. 132° 15' 22" LAT. 24° 24' 26"

DRILLER T. CHERRY.

GEOLOGIST D.G. MORRIS GR (AMG)

DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		111						INTERBEDS OF CLAY PELLET CONGLOMERATE IN COARSE SAND MATRIX AT:- 217.46 - 217.53, 217.69 - 217.6, 219.45 - 220, 220.4 - 220.9, 225.17 - 225.24.	TEMPE FORMATION
	225	112					<u>1</u>	225.57 - 226.97 SHALE, SILTSTONE AND FINE GRAINED SANDSTONE, THIN RIPPLE LAMINATED	
		113						226.97 - 248.0 FELSPATHIC SANDSTONE. MEDIUM TO COARSE GRAINED. DARK REDDISH BROWN, COMMON SMALL BLACKISH RED CLAY PELLETS AND PARTINGS. IN GENERAL THICK CROSS BEDDED. SLUMPING COMMON. COMMON OPEN FRACTURES.	
	230	114							
		115							
		116					<u>1</u>		
	235	117							
		118							
		119							
		120							
	240								

COMMENTS:

WATER LOSS 226.97 - 248.0.

WELL NAME

HENBURY No. 5.

SHEET 13 OF 13.

BASIN AMADEUS

STATE N.T.

LONG. 132° 15' 22" LAT. 24° 24' 26"

DRILLER T. CHERRY

GEOLOGIST D.G. MORRIS

GR (AMG)

DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
HOLE COMPLETED 2/11/83		121			1				TEMPE FORMATION
		122			2		┐		
		123			.				
	245	124			3				
		125			.				
		126					=	246 - 249.4. SHALE, SILTSTONE AND FINE GRAINED SANDSTONE. DARK REDDISH BROWN TO BLACKISH RED. GYPSUM ON FRACTURES.	
	250	127			.		┐	249.4 - 254.0 T.D. FELSPATHIC SANDSTONE. MEDIUM GRAINED. MODERATE RED TO DARK REDDISH BROWN. MINOR DARK REDDISH BROWN SHALE LAMINAE AND PELLETS. THICK CROSS BEDDED. OPEN FRACTURES CAUSING WATER LOSS COMMON.	
		128			.				
	255				.				
		129			.				
								T.D. 254.0 m.	
COMMENTS: HOLE TERMINATED AT 254.0m DUE TO SEVERE WATER LOSS.									

WELL NAME HENBURY No. 6								SHEET 1 OF 7	
BASIN AMADEUS			STATE N.T.		LONG. 133° 15' 00" S			LAT. 24° 30' 00" S	
DRILLER T. CHERRY			GEOLOGIST D.G. MORRIS GR (AMG)						
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
					3			0-1m SCREE. SAND AND BOULDERS OF STAIRWAY SANDSTONE	STAIRWAY SANDSTONE.
	5	1						1-19m SANDSTONE, MEDIUM TO COARSE GRAINED. LIGHT YELLOWISH GRAY WITH MINOR DARK YELLOW BROWN LIMONITIC MOTTING. THICK BEDDED BIOTURBATED. GRADATIONAL BASAL CONTACT.	
		2						CORE LOSS PROBABLY DUE TO WASHING OF UNCONSOLIDATED FINE SAND AND WEATHERED CLAY.	
		3							
		4							
		5							
	10	6							
		7							
		8							
		9							
		10							
	15	11							
		12							
		13							
	20	14						19-37m. SANDSTONE, MEDIUM GRAINED. YELLOWISH BROWN WITH DARK YELLOWISH BROWN AND PURPLISH RED MOTTING.	

COMMENTS:

CORE RECOVERY AS FOLLOWS :- 100% UNLESS STATED.

CORE 1 4-5m 90%	CORE 5 9-9m 65%	CORE 9 12-13m 50%
" 2 5-5.8m 40%	" 6 9-10m 50%	CORE 11 14-16.8 90%
" 3 5.8-7m 60%	" 7 10-11m 95%	" 13 16-19 50%
" 4 7-8m 40%	" 8 11-12m 90%	

WELL NAME		HENBURY No. 6		SHEET 2 OF 7					
BASIN		AMADEUS		STATE N.T. LONG. 133°15'00.5" LAT. 24°30'00.5"					
DRILLER		T. CHERRY		GEOLOGIST D.G. MORRIS GR (AMG)					
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		14						BEDDING INDISTINCT DUE TO BIOTURBATION.	STAIRWAY SANDSTONE
		15							
	25	16							
		17		20°			□ ⊕		
	30	18							
		19						37.0-37.6 SILTSTONE AND FINE GRAINED SANDSTONE. MOTTLED GRAYISH ORANGE AND DARK YELLOWISH ORANGE. TRAILS COMMON. GRADES INTO BELOW.	HORN VALLEY SILTSTONE
	35	20					37.6-43.5 MUDSTONE AND SILTSTONE. DARK GRAY TO GRAYISH BLACK CARBONACEOUS. WEATHERED TO GRAYISH ORANGE IN PARTS.		
	40								

COMMENTS: CORE LOSS CORE NO. 16 20% RECOVERY.

WELL NAME		HENBURY No. 6.		SHEET 3 OF 7					
BASIN		AMADEUS		STATE		N.T.		LONG. 133°15'00.5" LAT. 24°30'00.5"	
DRILLER		T. CHERRY		GEOLOGIST		D. G. MORRIS GR (AMG)			
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		21				☉		THIN LAMINATED. <u>GRAPTOLITES</u> COMMON.	HORN VALLEY SILTSTONE.
	45	22		20°		☉		43.5-44.2 MUDSTONE WITH MINOR THIN INTERBEDS OF CALCAREOUS SILTSTONE. BRACHIOPODS COMMON. MINOR TRILOBITES AND GRAPTOLITES	
		23				☉		44.2-46.25 MUDSTONE WITH INTERBEDS AND NODULES OF CALCILUTITE AND COQUINITE. MEDIUM DARK GRAY TO DARK GREY. GRAPTOLITES ABUNDANT AT 45-53. COMMON BRACHIOPODS AND TRILOBITES. PYRITE COMMON.	
	50	24				☉		46.25-51.4 INTERBEDDED MUDSTONE AND LIMESTONE. COQUINITE COMMON. COMMON NODULAR CALCILUTITE. GRAPTOLITES AND TRILOBITES ABUNDANT. CARBONACEOUS AND PYRITIC.	
		25				☉		51.4-53.55 LIMESTONE. COQUINITE WITH MILKITE AND MUDSTONE MATRIX AND LAMINATIONS.	
	55	26				☉		53.55-61.2 MUDSTONE. MEDIUM DARK GRAY TO DARK GRAY. COMMON NODULES OF CARBONATE. COQUINITE INTERBEDS COMMON. TRILOBITES ABUNDANT. MINOR BRACHIOPODS. MINOR PYRITE.	
		27				☉			
	60					☉			
COMMENTS: ☉ = CALCAREOUS NODULES.									

WELL NAME HENBURY No. 6.

SHEET 4 OF 7

BASIN AMADEUS STATE N.T. LONG. 133° 15' 00.5" LAT. 24° 30' 00.5"

DRILLER T. L. BERRY GEOLOGIST D. G. MORRIS GR (AMG)

DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		28		20°				61.2-63.94 SHELL FRAGMENT CALCARENITE WITH INTERBEDS OF MUDSTONE. DARK GREENISH GRAY.	HORN VALLEY SILTSTONE
	65	29						63.94-72.3 LIMESTONE, IN PARTS SANDY. DUSKY YELLOW GREEN, LIGHT OLIVE GRAY AND PALE OLIVE. GLAUCONITIC. COMMON THIN PALE OLIVE MUDSTONE LAMINAE AND PARTINGS.	
		30						IN PARTS WEATHERED. SEE COMMENTS. DOLOMITIC?	
	70	31							
		32						FAULT?	PACOOTA SANDSTONE
	75	33						72.3-76.06 SILTSTONE, SHALE AND FINE SANDSTONE. MOTTLED DUSKY YELLOW AND LIGHT OLIVE BROWN, MINOR MODERATE RED. (WEATHERED) HEAVILY BIOTURBATED. CARBONATE IN MATRIX.	
		34		22°				76.06-79.1. SANDSTONE. FINE TO MEDIUM GRAINED AT TOP COARSENS DOWN TO COARSE. YELLOWISH GRAY TO DUSKY YELLOW WITH MINOR MODERATE RED MOTTLING. MINOR LIGHT OLIVE GRAY CLAY PARTINGS.	
	80							79.1-88.76 SANDSTONE. COARSE	

COMMENTS: WEATHERING ALTERATION AT THE CONTACT AT 72.3 m COULD INDICATE A FAULTED CONTACT. INSPECTION OF OUTCROPS 500m EAST OF THE DRILL HOLE INDICATE THAT A UNIT OF SIMILAR CHARACTER OUTCROPS AT THE BASE OF THE FORMATION AND IS UNDERLAIN BY A FINE GRAINED SEQUENCE AS DRILLED.

BASIN AMADEUS

STATE N.Y.

LONG. 133° 15' 00.5" LAT. 24° 30' 00.5"

DRILLER T. CHERRY

GEOLOGIST D.G. MORRIS GR (AMG)

DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		35						TO VERY COARSE GRAINED. MOTTLED DUSKY RED AND MODERATE RED. MINOR DARK GREENISH GRAY CLAY PARTINGS. CLAY MATRIX. VERY THICK BEDDED VERY HEAVILY BIOTURBATED. CLAY LINES BURROWS.	PACCOOTA SANDSTONE
	65	36							
		37							
	90	38						68.76 - 69.5 SILTSTONE AND FINE TO MEDIUM GRAINED SANDSTONE. THIN LAMINATED, DUSKY RED MODERATE RED AND DARKY YELLOWISH ORANGE. MINOR BIOTURBATION.	
		39						69.5 - 103.0 SANDSTONE, COARSE TO VERY COARSE GRAINED. PEBBLY FROM 96 - 96.46. MOTTLED DUSKY RED, VERY DARK RED AND MODERATE RED. GENERALLY THICK BEDDED. HEAVILY BIOTURBATED. DUSKY RED AND MINOR GRAYISH GREEN CLAY MATRIX AND SMALL PELLETS.	
	95	40							
		41							
	100								

COMMENTS:

WELL NAME		HENBURY No. 6		SHEET 6 OF 7					
BASIN		AMADIEUS		STATE N.T.					
LONG.		133°15'00"S		LAT. 24°30'00"S					
DRILLER		T. CHERRY		GEOLOGIST D. G. MORRIS GR (AMG)					
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		42							
		43							
	105			15°				103-112.34 SANDSTONE, COARSE TO VERY COARSE GRAINED. MOTTLED PALE RED, DARK RED BROWN. COMMON DUSKY RED, MODERATE REDDISH ORANGE AND MODERATE REDDISH GREEN SILSTONE AND CLAY PARTINGS.	PACCOOTA SANDSTONE.
		44							
		45							
	110								
		46						112.34-114.0. SHALE GRADING DOWN TO MEDIUM GRAINED SANDSTONE. MOTTLED DARK RED BROWN, MODERATE RED AND GRAYISH YELLOW. MICACEOUS.	
		47						114.0-127.0 SILTSTONE AND FINE GRAINED SANDSTONE GRADING DOWN TO VERY COARSE GRAINED SANDSTONE AND GRIT. IN PARTS PEBBLY. WHOLE OCCURS IN A SERIES OF UPWARD FINING CYCLES. SANDSTONE IS MOTTLED MODERATE RED, DARK RED BROWN, LIGHT BROWN AND MODERATE YELLOWISH BROWN. CROSS BEDDED.	
	115								
		48							
		49							
	120								
COMMENTS: CORE LOSS CORE NO. 46 1.6m RECOVERY OUT OF 3.0m.									

WELL NAME HENBURY No. 6.							SHEET 7 OF 7	
BASIN AMADEUS			STATE N.T.		LONG. 133° 15' 00" S LAT. 24° 30' 00" S			
DRILLER T. CHERRY			GEOLOGIST D. G. MORRIS GR (AMG)					
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY
COMPLETED 15/11/83		49			•			T.D. 127m.
		50			•			
	125	51			•			
	130							
COMMENTS:								

36

WELL NAME RODINGA No. 6

SHEET 1 OF 5

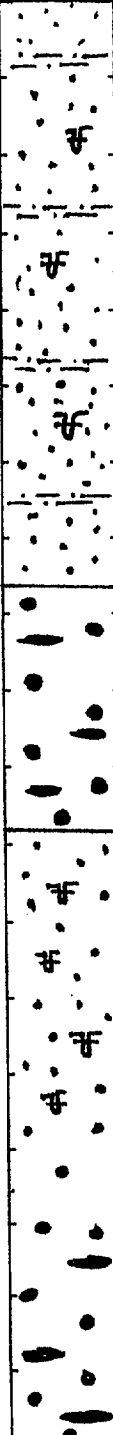
BASIN AMADEUS

STATE N.T.

LONG. 133°42'12" LAT. 24°22'46"

DRILLER T. C HERRY

GEOLOGIST D. G. MORRIS GR (AMG)

DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
HOLE COMMENCED 19/11/63	5	1	PVC					0-1 m. RED SANDY SOIL AND SANDSTONE SCREE. 1-6.64 SANDSTONE FINE TO MEDIUM GRAINED WITH INTERBEDS OF SILTSTONE. VERY HEAVILY BIOTURBATED (SKOLITHUS). MOTTLED DARK YELLOWISH ORANGE, DARK RED BROWN, LIGHT BROWN. MALACODUS.	STAIRWAY SANDSTONE
	10	2						6.64-11.67 SANDSTONE. COARSE TO VERY COARSE GRAINED. MOTTLED DARK RED BROWN, MODERATE RED, YELLOWISH GRAY AND DUSKY YELLOW. CLAY PELLETS AND PARTINGS COMMON. THICK BEDDED.	
	15	3						11.67-16.7 SANDSTONE. MEDIUM GRAINED WITH MUD AND SILT MATHX. MOTTLED GRAYISH RED, MODERATE RED AND PALE RED. VERY HEAVILY BIOTURBATED. GRADES INTO UNIT BELOW.	
	20	4						16.7-20.55 SANDSTONE. COARSE TO VERY COARSE GRAINED. MOTTLED DARK RED BROWN, MODERATE RED, YELLOWISH GRAY AND DUSKY YELLOW. CLAY PELLETS AND PARTINGS COMMON. THICK BEDDED.	
		5							

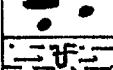
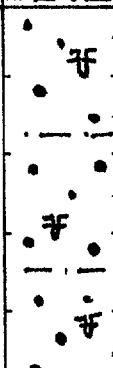
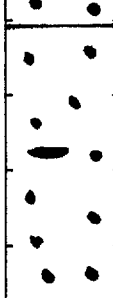
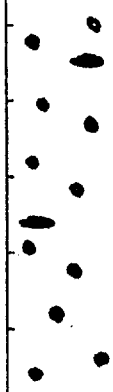
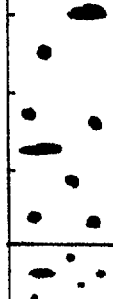
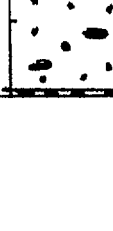
COMMENTS: CORE SIZE HQ.

WELL NAME RODINGA No. 6

SHEET 2 OF 5

BASIN AMADEUS STATE N.T. LONG. 133°42'12" LAT. 24°22'46"

DRILLER T. CHERRY GEOLOGIST D. G. MORRIS GR (AMG)

DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		6		29°				20.55-21.2 SILTSTONE. MOTTLED YELLOWISH GRAY AND DUSKY YELLOW, WITH LIGHT OLIVE GRAY CLAY PARTINGS. COMMON LARGE SUBVERTICAL BURROWS FILLED WITH COARSE SAND.	STAIRWAY SANDSTONE.
	25	7						21.2-26.15 SANDSTONE. MEDIUM TO COARSE GRAINED. MINOR SILT PARTINGS. BURROWS FILLED WITH SILT. HEAVILY BIOTURBATED. THICK BEDDED.	
		8						26.15-38.0. SANDSTONE. MEDIUM TO COARSE GRAINED. IN PARTS THICK CROSS BEDDED. BEDDED AND MOTTLED LIGHT YELLOWISH GRAY, DUSKY YELLOW AND LIGHT BROWN. CLAY PELLETS AND PARTINGS COMMON.	
	30	9							
	35	10							
		11						38.0-39.9. SANDSTONE. MEDIUM GRAINED. YELLOWISH GRAY TO PALE OLIVE. PALE OLIVE TO LIGHT GREY CLAY PELLETS AND PARTINGS.	
	40	12							

COMMENTS:

WELL NAME RODINGA No. 6

SHEET 3 OF 5

BASIN AMADEUS

STATE N.T.

LONG. 133°42'12" LAT. 24°22'46"

DRILLER T. CHERRY

GEOLOGIST D.G. MORRIS, GR (AMG)

DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK
		12		34°				39.9-41.17 CLAYSTONE, SILTSTONE AND FINE SANDSTONE. THIN BEDDED.	STAIRWAY SANDSTONE
		13						41.17-47.47. SANDSTONE. FINE TO MEDIUM GRAINED. BEDDED AND MOTTLED GRAYISH YELLOW, MODERATE YELLOW AND DUSKY YELLOW. MINOR MICACEOUS SILTSTONE INTERBEDS AND PARTINGS. THICK BEDDED.	
	45	14						47.47-49.6 SANDSTONE, FINE TO MEDIUM GRAINED WITH MICACEOUS SILTSTONE AND SHALE INTERBEDS. BEDDING THICKNESS DECREASES TO BASE. BEDDED AND MOTTLED PALE RED, LIGHT RED TO BROWN AND GRAYISH YELLOW.	
	50	15						49.6-51.0. SHALE AND MICACEOUS SILTSTONE. MINOR FINE SANDSTONE MINOR BRACHIOPODS.	
		16		35°		Y		51.0-53.6 MUDSTONE OLIVE GRAY AT TOP GRADING TO DARK GRAY AND OLIVE BLACK. INTERBEDS AND LENSES OF FINE SANDSTONE. MINOR BRACHIOPOD AND TRILOBITE FRAGS.	HORN VALLEY SILTSTONE.
		17		30°		Y		53.6-56.72 INTERBEDDED MUDSTONE CALLINITITE, CALCARENITE AND SHELL FRAGMENT CALC RUDITE. VARIOUS OLIVES, GREENISH GRAY TO BLACK CARBONACEOUS AND PYRITIC.	
	55	18		26°		Y		TRIOBITES, BRACHIOPODS AND GRAPTOLITES COMMON. ABUNDANT GRAPTOLITES AT 57.42 and 58.1.	
	60	19				Y		58.72-63.46 CALCARENITE AND SHELL FRAGMENT CALC RUDITE WITH MUDSTONE MATRIX. GREENISH GRAY AND DARK GREENISH GRAY LAMINATED	

COMMENTS:

WELL NAME		RODINGA No. 6		SHEET 4 OF 5					
BASIN AMADEUS		STATE N.T.		LONG. 133°42'12" LAT. 24°22'46"					
DRILLER T. CHERRY		GEOLOGIST D. G. MORRIS		GR (AMG)					
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UNIT
		19						AND MOTTLED. <u>LIMONITIC OOLITE</u> AT 59.85 AND 60.44. PYRITE COMMON.	HORN VALLEY SILTSTONE.
	65	20		20°				63.86-61.4 MUDSTONE WITH INTERBEDS OF COQUINITE. NODULES OF CALCULUTITE COMMON WITHIN MUDSTONE. NODULES HAVE FORMED ABOUT SHELL FRAGMENTS. NAUTILOID ORTHOCONES COMMON. ABUNDANT TRILOBITES AND BRACHIOPODS. LIMESTONE INTERBEDS INCREASE TO BASE.	
		21							
	70	22							
		23							
	75	24							
		25							
	80								

COMMENTS:

WELL NAME RODINGA No. 6								SHEET 5 OF 5		
BASIN AMADEUS		STATE N.T.		LONG. 133°42'12" LAT. 24°22'46"						
DRILLER T. CHERRY		GEOLOGIST D.G. MORRIS GR (AMG)								
DATE	DEPTH	CORE NO.	CASING	DIP	LITHOL. LOG	FOSSILS	BEDDING	LITHOLOGY	ROCK UN	
		26						81.4-87.36 LIMESTONE. IN PARTS SANDY. GLAUCONITIC. GREENISH GRAY TO DARK GREENISH GRAY. COMMON MUDSTONE INTERBEDS. INTRAFORMATIONAL BRECCIATION COMMON.	HORN VALLEY SILTSTONE.	
	85	27								
		28		25°				~	87.35-89.20 INTERBEDDED MUDSTONE, SILTSTONE AND MEDIUM TO COARSE GRAINED SANDSTONE. LAMINATED AND MOTTLED GREENISH GRAY AND DARK GREENISH GRAY. SLUMPING COMMON AT TOP.	PACOTA SANDSTONE
	90	29						□	89.2-95.87. SANDSTONE. MEDIUM TO COARSE GRAINED. LIGHT GRAY TO YELLOWISH GRAY. THICK BEDDED. VERY HEAVILY BIOTURBATED. PYRITE COMMON.	
		30								
	95	31						95.87 T.D.		
	100									

COMMENTS: T.D. 95.87.