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REPORT FOR
BUREAU OF MINERAL RESOURCES,
GEOLOGY AND GEOPHYSICS

Bulk Mineralogy, Clay Mineralogy,
and Total Organic Carbon of
Cores from BMR Library

BUREAU OF MINERAL RESOURCES
CORE AND CUTTINGS
LABORATORY

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All

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ONSHORE

OPEN FILE

15 June 1982



PR 82/39

Report for
BUREAU OF MINERAL RESOURCES,
GEOLOGY AND GEOPHYSICS

Bulk Mineralogy
Clay Mineralogy
Total Organic Carbon

of

Cores from BMR Library

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15 June 1982

KEY TO BULK MINERALOGY TABLES

XX = abundant > 80 chart units
X = minor > 30 and < 80 chart units
tr = trace < 30 chart units
+ = present, amount undetermined

AM = Amorphous Material
Anh = Anhydrite
Cc = Calcite
Chl = Chlorite
Cln = Clinoptilolite
Crs = Cristobalite
Dlm = Dolomite
Fld = Feldspar
Fpt = Fluorapatite
Gps = Gypsum
Grt = Graphite
Hlt = Halite
Ill = Illite
Kln = Kaolinite
Mgn = Magnesite
Prt = Pyrite
Q = Quartz
Sdt = Siderite
Smc = Smectite
Spl = Sepiolite
WM = White Mica

KEY TO CLAY MINERALOGY TABLES

Minerals

Sm = Smectite
T = Talc
An = Anhydrite
Mu = Muscovite
Ma = Magnesite
F = Feldspar
I = Illite
Ch = Chlorite
K = Kaolinite
C = Calcite
D = Dolomite
Q = Quartz
M/L = Mixed Layer Clays

Intensity

XX = Major Constituent
X = Minor Constituent
tr = Trace Constituent

NT

BULK MINERALOGY: GEORGINA BASIN

Drill Site: Bauhinia 4

Depths (m)	Minerals					
	Dlm	Fld	Ill	Prt	Q	Smc
6.5	XX	X	tr		XX	
11.6	tr	tr	tr	X	XX	
13.7	tr	X	tr		XX	tr
14.0	XX	tr	tr		XX	
19.25	tr	X		tr	XX	
21.70	DID NOT X-RAY					
22				tr	XX	
30.32	XX	tr	tr		XX	

CLAY MINERALOGY: GEORGINA BASIN

Drill Site: Bauhina

Depths	Minerals						
	I	Ch	K	C	D	Q	M/L
6.5	XX	tr					
11.6	XX						
13.7	XX						
14.0	XX						
19.25	X	X				X	
21.70	Insufficient sample						
22 *							
30.32	XX	tr			tr		

* Sample will be run.

GEORGINA BASIN

Drill Site: Bauhinia 4

Depths (m)	% IC	% TC	% OC
6.5	31.54	31.81	0.03
11.6	0.60	6.02	0.65
13.7	4.20	6.41	0.27
14.0	73.10	71.62	- 0.18
19.25	0.69	2.10	0.17
21.70*			
22	0.66	4.71	0.49
30.32	24.72	26.08	0.16

* Sample to be run.

IC = inorganic carbon (as calcium carbonate)

TC = total carbon (as calcium carbonate)

OC = organic carbon (as carbon)

BULK MINERALOGY: GEORGINA BASIN

Drill Site: Brunette Downs 1

Depths (ft)	Minerals				
	Chl	Fld	Ill	Prt	Q
1550-1559	tr	tr	X	tr	XX
1755	tr	tr	X		XX
1759	tr	tr	X		XX
1851	tr	tr	X		XX

CLAY MINERALOGY: GEORGINA BASIN

Drill Site: Brunette Downs

Depths	Minerals						
	I	Ch	K	C	D	Q	M/L
1550-59	XX		X				X
1755	XX		X?				X
1759	XX		X				X
1851	XX		X				X

MIXED LAYER CLAY MINERALOGY

Sample	Mixed Layer Type	% Expandable	Ordering
<u>Brunete Downs</u>			
1550-59	I/S	< 20	
1755	I/S	< 20	
1759	I/S	< 20	
1851	I/S	< 20	

GEORGINA BASIN

Drill Site: Brunette Downs 1

Depths (ft)	% IC	% TC	% OC
1550-1559	0.79	0.98	0.02
1755	0.67	1.56	0.11
1759	0.59	1.68	0.13
1851	0.60	1.78	0.14

IC = inorganic carbon (as calcium carbonate)
TC = total carbon (as calcium carbonate)
OC = organic carbon (as carbon)

BULK MINERALOGY: GEORGINA BASIN

Drill Site: Mulga 1

Depths (ft)	Minerals	
	Dlm	Q
472	XX	tr

CLAY MINERALOGY: GEORGINA BASIN

Drill Site: Mulga #1

Depth	Minerals						
	I	Ch	K	C	D	Q	M/L
472	tr				X		

GEORGINA BASIN

Drill Site: Mulga 1

Depth (ft)	% IC	% TC	% OC
472	83.66	109.04	3.05

IC = inorganic carbon (as calcium carbonate)
TC = total carbon (as calcium carbonate)
OC = organic carbon (as carbon)

BULK MINERALOGY: GEORGINA BASIN

Drill Site: Huckitta 1

Depths (ft)	Minerals					
	Cc	Chl	Dlm	Fld	Ill	Q
202	X	X	X	X	X	XX

CLAY MINERALOGY: GEORGINA BASIN

Drill Site: Huckitta 1

Depth	Minerals						
	I	Ch	K	C	D	Q	M/L
202	XX	X					

GEORGINA BASIN

Drill Site: Huckitta 1

Depth (ft)	% IC	% TC	% OC
202	18.51	19.08	0.07

IC = inorganic carbon (as calcium carbonate)

TC = total carbon (as calcium carbonate)

OC = organic carbon (as carbon)

BULK MINERALOGY:GEORGINA BASIN

Drill Site: Ammaroo 1

Depths (ft)	Minerals						
	Cc	Chl	Dlm	Fld	Ill	Prt	Q
150	XX	tr	X	tr	tr		XX
200	XX		XX				XX
500		tr	XX	X	tr	tr	XX
600		X		tr	X	tr	XX

CLAY MINERALOGY: GEORGINA BASIN

Drill Site: Amaroo 1

Depths	Minerals						
	I	Ch	K	C	D	Q	M/L
150	tr	tr		X		X	
200							
500	X	X			tr		
600	tr	tr					

GEORGINA BASIN

Drill Site: Ammaroo 1

Depths (ft)	% IC	% TC	% OC
150	50.29	62.01	1.41
200	43.07	68.16	3.01
500	23.17	25.05	0.23
600	0.86	1.01	0.02

IC = inorganic carbon (as calcium carbonate)
 TC = total carbon (as calcium carbonate)
 OC = organic carbon (as carbon)

BULK MINERALOGY: PEDIRKA BASIN

Drill Site: McDills-1

Depths (ft)	Minerals									
	AM	Cc	Chl	Dlm	Fld	Ill	Kln	Prt	Q	Smc
1010		tr	tr		tr	tr			XX	tr
1550-1560		tr	tr		tr			tr	XX	tr
2375	+						X		XX	
2379	+		tr			tr	tr	tr	XX	
2382			tr	tr	tr	X	X		XX	
2699					tr	tr	tr	tr	XX	
2969		tr	tr		tr	tr			XX	
2972		tr	tr		tr	tr			XX	
3371			tr	tr	tr	tr	tr		XX	
3654			tr	tr	tr	tr	tr		XX	
5108		X		tr	X		tr		XX	
8317				tr	tr	tr	tr		XX	
9043				XX	tr	tr			XX	
9358		XX		X	tr	tr	tr		XX	
9635		X		X	tr	tr			XX	tr
10,006				X	tr	tr			XX	
10,507'6"		X	tr	X	X	tr		tr	XX	
10,514		X	tr	X	X	tr		tr	XX	

CLAY MINERALOGY: PEDIRKA BASIN

Drill Site: McDills

Depths (ft)	Minerals							
	SM	I	Ch	K	C	D	Q	M/L
1010		X	X	X				XX
1550-1560		tr	X	X				XX
2375		tr		XX			tr	
2379		X		XX			XX	
2382		X	X	XX				
2699		X	X	XX			X	X
2969		XX	XX	X			XX	
2972		XX	XX	X			XX	
3371		XX	X	X			X	
3654		XX	XX	XX			X	
5108		tr	XX	XX			X	
8317		XX		X				
9043		XX		X			X	
9358		XX		X	X		X	
9635		XX		X	X		X	
10,006		XX						
10,507'6"		XX	XX				X	
10,514		XX	XX				X	

MIXED LAYER CLAY MINERALOGY

Site/Depth	Mixed Layer Type	% Expandable	Ordering
<u>McDills</u>			
1010	I-Sm	80	
1550-1560	I-Sm	70	
2699	I-Sm	80	

PEDIRKA BASIN

Drill Site: McDills 1

Depths (ft)	% IC	% TC	% OC
1010	2.62	21.74	2.29
1550-1560	4.25	21.17	2.03
2375	0.30	530.51	63.63
2379	0.58	408.33	48.93
2382	0.69	61.48	7.29
2699	0.10	5.97	0.70
2969	1.58	13.51	1.43
2972	1.49	12.82	1.36
3371	0.50	7.35	0.82
3654	1.00	8.33	0.88
5108	5.90	11.54	0.68
8317	0.69	9.84	1.10
9043	55.15	63.25	0.97
9358	57.62	62.73	0.61
9635	30.47	39.34	1.06
10,006	38.71	47.75	1.08
10,507'6"	20.30	31.68	1.37
10,514	16.24	29.27	1.56

IC = inorganic carbon (as calcium carbonate)
 TC = total carbon (as calcium carbonate)
 OC = organic carbon (as carbon)

BULK MINERALOGY: PEDIRKA BASIN

Drill Site: Hale River 1

Depths (ft)	Minerals								
	AM	Chl	Fld	Ill	Kln	Prt	Q	Smc	WM
2140-2180		tr?	X		tr	tr	XX	tr	tr
3850	+		tr		tr		XX		
4528				tr	XX		XX		

CLAY MINERALOGY: PEDIRKA BASIN

Drill Site: Hale River #1

Depths (ft)	Minerals							
	SM	I	Ch	K	C	D	Q	M/L
2140-2180		tr	X	X				XX
3850	tr	tr		XX			tr	
4528		tr		XX				

MIXED LAYER CLAY MINERALOGY

Site/Depth	Mixed Layer Type	% Expandable	Ordering
<u>Hale River #1</u>			
2140-2180	I-Sm	80	

PEDIRKA BASIN

Drill Site: Hale River 1

Depths (ft)	% IC	% TC	% OC
2140-2180	1.10	13.41	1.48
3850	0.99	270.50	32.34
4528	0.77	8.86	0.97

IC = inorganic carbon (as calcium carbonate)
 TC = total carbon (as calcium carbonate)
 OC = organic carbon (as carbon)

CLAY MINERALOGY: AMADEUS BASIN

Drill Site: Mt. Charlotte 1

Depths (ft)	Minerals								
	An	F	I	Ch	K	C	D	Q	M/L
1364			XX		XX				
2305			X	tr	tr		tr		XX
3500			XX	XX					
4020			XX	XX					
4530			XX	X				X	
5041			XX	tr			X		
5145			XX	X			XX		tr
5420	XX		tr	tr			X		
5428	XX		X	tr			XX	X	
5817			XX	X					
6703	XX								
6749	XX		tr	X				tr	
6755	X		tr	X					XX
6937			X				tr		XX
6941	X						XX	X	

MIXED LAYER CLAY MINERALOGY

Sample	Mixed Layer Type	% Expandable	Ordering
<u>Mt. Charlotte 1</u>			
2305	I-Ch-Sm	25	50/50 Ch-Sm
5145	Ch-Sm		
6755	Ch-Sm		50/50
6937	Ch-Sm		50/50

AMADEUS BASIN

Drill Site: Mt. Charlotte 1

Depths (ft)	% IC	% TC	% OC
1364	1.46	6.29	0.58
2305	50.88	51.40	0.06
3500	3.20	6.19	0.36
4020	1.08	4.02	0.35
4530	6.04	9.22	0.38
5041	60.89	70.39	1.14
5145	75.00	78.35	0.40
5420	15.00	17.69	0.32
5428	44.17	48.17	0.48
5817	16.00	20.78	0.57
6703	0.39	3.18	0.33
6749	3.04	7.18	0.50
6755	5.94	11.96	0.72
6937	68.93	76.54	0.91
6941	81.75	80.94	- 0.10

IC = inorganic carbon (as calcium carbonate)
 TC = total carbon (as calcium carbonate)
 OC = organic carbon (as carbon)

BULK MINERALOGY: AMADEUS BASIN

Drill Site: Orange 1

Depths (ft)	Minerals						
	Anh	Chl	Dlm	Fld	Ill	Prt	Q
2848				tr			XX
4042			XX	tr			X
4056		tr	X	X	X		XX
4075*		tr	X	tr	X	tr	X
4075*		tr	X	X	X		XX
5227		tr	XX	tr	tr		XX
5258		tr	tr	X	X		X
7065		tr	X	X	tr	tr	XX
7074	tr		XX	tr			X

*Two samples at same depth

CLAY MINERALOGY: AMADEUS BASIN

Drill Site: Orange 1

Depths (ft)	Minerals							
	F	I	Ch	K	C	D	Q	M/L
2848								
4042								
4056	tr	XX	X					
*4075		XX	X					
5227		XX	X					
5258		XX	X					
7065		XX	X					
7074		X	X			XX		

*4075A & B have identical patterns.

AMADEUS BASIN

Drill Site: Orange 1

Depths (ft)	% IC	% TC	% OC
2848	0.30	3.30	0.36
4042	94.80	99.10	0.52
4056	6.86	7.84	0.12
4075	5.88	7.43	0.19
4075	8.30	10.19	0.23
5227	38.61	40.30	0.20
5258	0.50	2.52	0.24
7065	8.91	11.18	0.27
7074	85.92	93.27	0.88

IC = inorganic carbon (as calcium carbonate)
 TC = total carbon (as calcium carbonate)
 OC = organic carbon (as carbon)

BULK MINERALOGY: AMADEUS BASIN

Drill Site: Palm Valley 1

Depths (ft)	Minerals					
	Chl	Dlm	Fld	Ill	Prt	Q
4266	tr	X		X	tr	XX
4271	tr	X		tr		XX
4612	tr	tr	tr	tr		XX
5589	tr		tr	X		XX
5596	tr	tr	tr	X		XX
5603	tr		tr	tr		XX
5606	tr		tr	tr		XX
5613	tr		tr	tr		XX
5618	tr		tr	X	tr	XX
5621	tr	tr	tr	tr	tr	XX
5629	tr		tr	tr	tr	XX
5636	tr		tr	tr		XX
5729	X		X	tr		XX
5730	X	tr	X	tr		XX
5732	X	tr	tr	tr		XX
5752	X	tr	X	tr		XX
5765	X	tr	X	tr		XX
5771	X		X	tr		XX
5783	tr		tr	tr		XX
6350	tr	tr	X	X		XX
6378	tr	X	tr	tr	tr	XX
6658	tr	tr	X	X		XX

CLAY MINERALOGY: AMADEUS BASIN

Drill Site: Palm Valley 1

Depths (ft)	Minerals							
	F	I	Ch	K	C	D	Q	M/L
4266		XX	X					
4271		XX	X					
4612	tr	XX	XX				X	
5589	tr	XX	X				X	
5596		XX	X				tr	
5603		XX	XX					
5606		XX	XX					
5613		XX	X					
5618		XX	X					
5621	tr	XX	XX				X	
5629		XX	X				X	
5636		XX	XX					
5729		X	XX					
5730	tr	X	XX				tr	
5732	tr	X	XX				tr	
5752	tr	X	XX				tr	
5765		X	XX					
5771	tr	X	XX				tr	
5783		XX	XX					
6350	tr	X	X					
6378	tr	XX	X				X	
6658		XX	X					

AMADEUS BASIN

Drill Site: Palm Valley 1

Depths (ft)	% IC	% TC	% OC
4266	11.07	14.90	0.46
4271	19.33	22.10	0.33
4612	0.59	1.58	0.12
5589	1.39	2.95	0.19
5596	1.57	2.50	0.11
5603	0.58	2.08	0.18
5606	0.69	2.38	0.20
5613	0.75	4.08	0.40
5618	0.79	3.81	0.36
5621	4.95	8.71	0.45
5629	1.28	2.97	0.20
5636	0.29	2.28	0.24
5729	0.39	2.67	0.27
5730	0.68	1.57	0.11
5732	1.96	2.43	0.06
5752	1.20	1.98	0.09
5765	0.98	2.19	0.15
5771	1.08	1.78	0.08
5783	1.00	1.98	0.12
6350	1.36	2.98	0.19
6378	14.71	15.59	0.11
6658	1.08	3.30	0.27

IC = inorganic carbon (as calcium carbonate)
 TC = total carbon (as calcium carbonate)
 OC = organic carbon (as carbon)

BULK MINERALOGY: AMADEUS BASIN

Drill Site: Tyler 1

Depths (ft)	Minerals						
	Chl	Dlm	Fld	Ill	Prt	Q	WM
9,139		tr	XX			XX	
11,688	tr	X	tr			XX	tr
11,696	tr	X	tr	X		XX	
11,700		XX	X	tr		XX	
12,570		tr	tr	tr		XX	
12,587	tr		tr	X	tr	XX	

CLAY MINERALOGY: AMADEUS BASIN

Drill Site: Tyler 1

Depths (ft)	Minerals							
	F	I	Ch	K	C	D	Q	M/L
9139	tr	tr			tr		XX	
11,688	tr	XX	X					
11,696	tr	XX	X					
11,700	X	XX	X		X			
12,570	tr	XX	tr				tr	
12,587		XX	tr					

AMADEUS BASIN

Drill Site: Tyler 1

Depths (ft)	% IC	% TC	% OC
9,139	3.60	3.17	- 0.05
11,688	3.60	4.80	0.14
11,696	9.42	11.32	0.23
11,700	36.50	40.40	0.47
12,570	1.47	1.54	0.01
12,587	0.70	5.54	0.58

IC = inorganic carbon (as calcium carbonate)
 TC = total carbon (as calcium carbonate)
 OC = organic carbon (as carbon)

BULK MINERALOGY: AMADEUS BASIN

Drill Site: Ooraminna 1

Depths (ft)	Minerals								
	Anh	Cc	Chl	Dlm	Fld	Ill	Prt	Q	WM
1360				tr	X			XX	tr
2050		tr	tr	tr	tr	tr		XX	
2357			tr	tr	tr	tr		XX	
2700			tr		tr	tr	tr	XX	
2704			tr		tr	tr	tr	XX	
3027			tr		tr	tr		XX	
3029			tr		tr	tr		XX	
3437			tr		tr	tr	tr	XX	
3439			tr		tr	tr	tr	XX	
4166			tr	tr	tr	X		XX	
4168			tr	tr	tr	X		XX	
5546	tr			XX				XX	

CLAY MINERALOGY: AMADEUS BASIN

Drill Site: Ooraminna 1

Depths (ft)	Minerals							
	F	I	Ch	K	C	D	Q	M/L
1360		XX	X				XX	
2050		XX	XX				X	
2357		XX	X				X	
2700		XX	X				X	
2704		XX	X				X	
3027		XX	X				X	
3029		XX	X				X	
3437		XX	X				X	
3439		XX	X				X	
4166		XX	X				tr	
4168		XX	X				tr	
5546						XX	XX	

AMADEUS BASIN

Drill Site: Ooraminna 1

Depths (ft)	% IC	% TC	% OC
1360	4.62	2.43	- 0.26
2050	11.75	13.63	0.23
2357	2.87	4.61	0.21
2700	1.29	11.89	1.27
2704	0.71	11.20	1.26
3027	3.15	5.49	0.28
3029	3.63	5.24	0.19
3437	0.49	3.96	0.42
3439	0.88	4.71	0.46
4166	0.55	2.79	0.27
4168	0.19	2.70	0.30
5546	46.47	54.41	0.95

IC = inorganic carbon (as calcium carbonate)
 TC = total carbon (as calcium carbonate)
 OC = organic carbon (as carbon)

BULK MINERALOGY: AMADEUS BASIN

Drill Site: Alice

Depths (ft)	Minerals								
	Anh	Cc	Chl	Dlm	Fld	Fpt	Ill	Q	WM
520		X	tr	tr	tr		tr	XX	
1760					tr			XX	
2118	XX		tr	XX	tr		tr	XX	
2611				XX				XX	
3125				XX		tr		XX	tr
3412			tr	tr	X		X	XX	
3589			tr	X	X		tr	XX	
3889		XX		XX	tr			X	
4845			tr	XX	tr			XX	tr
4847		XX		X				tr	
5449			tr	X	tr		X	XX	
6062	XX			X				XX	
6096	XX		tr	XX	tr		tr	XX	
6129	XX		tr	XX	tr		tr	XX	
6443	XX		tr	XX				X	tr
7520			tr	XX	tr		tr	XX	

CLAY MINERALOGY: AMADEUS BASIN

Drill Site: Alice 1

Depths (ft)	Minerals								
	An	F	I	Ch	K	C	D	Q	M/L
520		tr	X	X	X	tr	tr	XX	XX
1760		tr	tr	tr				X	XX
2118			X	X			tr		XX
2611							XX	XX	XX
3125			XX				X	X	
3412			XX	X					
3589		tr	X	X			tr	XX	
3889			X	tr		XX	X		
4845			X	XX			X		
4847			X	X		XX	X		
5449			XX	X					tr
6062	XX							XX	
6096	XX		XX	X					XX
6129	XX		XX	XX				X	tr
6443	X		tr	tr			XX		XX
7520			XX	X					

MIXED LAYER CLAY MINERALOGY

Sample	Mixed Layer Type	% Expandable	Ordering
<u>Alice 1</u>			
520	I-Sm	70	
1760	I-Ch-Sm	25	50/50 Ch-Sm
2118	I-Ch-Sm	20	50/50 Ch-Sm
2611	Ch-Sm		50/50
5449	Ch-Sm		
6096	Ch-Sm		50/50
6129	Ch-Sm		50/50
6443	Ch-Sm		50/50

AMADEUS BASIN

Drill Site: Alice 1

Depths (ft)	% IC	% TC	% OC
520	16.60	21.08	0.54
1760	0.88	0.66	- 0.03
2118	22.38	30.00	0.91
2611	22.30	23.79	0.18
3125	41.08	45.30	0.51
3412	2.45	4.00	0.19
3589	9.43	11.88	0.29
3889	90.69	107.36	2.00
4845	82.38	82.14	0.03
4847	92.28	94.55	0.27
5449	18.63	24.95	0.76
6062	12.10	17.13	0.60
6096	20.80	22.18	0.17
6129	29.44	31.50	0.25
6443	46.08	55.92	1.18
7520	23.66	24.66	0.12

IC = inorganic carbon (as calcium carbonate)
 TC = total carbon (as calcium carbonate)
 OC = organic carbon (as carbon)

BULK MINERALOGY: AMADEUS BASIN

Drill Site: East Mereenie 1

Depths (ft)	Minerals								
	Anh	Cc	Chl	Dlm	Fld	Ill	Prt	Q	Smc
2604			tr	tr	X	tr		XX	
2612			tr	tr		tr	tr	X	tr
2646			tr	tr	X	tr		XX	tr
2660			tr	XX	X	tr		XX	
2687			tr		tr	X	tr	X	
2693			tr	X	tr	tr	tr	XX	
2702			tr	tr	tr	tr		X	
3123			tr	tr	tr	tr		XX	
3139			tr	tr	X	tr		XX	
3153			tr	X	X	tr		XX	
3458		X	tr	tr	tr	tr	tr	XX	
3459		XX	tr	tr	tr	tr	tr	XX	
3461		X	tr	tr	tr	tr	tr	XX	
3464		X	tr	tr	tr	tr	tr	XX	
3465		X	tr	tr	tr	tr	tr	XX	
3467		X	tr	tr	tr	tr	tr	XX	
3817			tr	tr	tr	tr		XX	
3825	X							XX	
3840			tr	tr	X	tr		XX	
3850				tr		tr	tr	XX	
4690					X			XX	

CLAY MINERALOGY: AMADEUS BASIN

Drill Site: East Mereenie 1

Depths (ft)	Minerals							
	F	I	Ch	K	C	D	Q	M/L
2604	XX	XX	X	X			XX	
2612		XX	X					
2646	XX	X	tr				X	
2660		XX	X					
2687		XX	X					
2693		XX	X					
2702		XX	X					
3123		XX	X	X				
3139	tr	XX	XX				X	
3153	tr	X	XX				X	
3458		XX	X				X	
3459		XX	X		XX		X	
3461		XX	X		X		X	
3464		XX	X				X	
3465		XX	X				tr	
3467		XX	X				X	
3817		XX	XX					
3825							XX	
3840		XX	X				tr	
3850		XX	X			X		
4690	X	X	tr				XX	

AMADEUS BASIN

Drill Site: East Mereenie 1

Depths (ft)	% IC	% TC	% OC
2604	3.10	3.07	- 0.004
2612	2.97	5.92	0.35
2646	0.90	1.71	0.10
2660	18.73	22.69	0.48
2687	0.79	3.24	0.29
2693	17.10	19.23	0.26
2702	1.20	4.85	0.44
3123	1.09	2.82	0.21
3139	1.75	3.60	0.22
3153	9.20	11.19	0.24
3458	14.36	31.60	2.07
3459	34.50	47.18	1.52
3461	21.68	33.00	1.36
3464	8.71	21.26	1.51
3465	11.60	31.00	2.33
3467	9.90	28.32	2.21
3817	0.70	3.30	0.31
3825	1.19	3.08	0.23
3840	1.29	2.97	0.20
3850	0.99	32.38	3.77
4690	0.60	5.10	0.54

IC = inorganic carbon (as calcium carbonate)
 TC = total carbon (as calcium carbonate)
 OC = organic carbon (as carbon)

BULK MINERALOGY: AMADEUS BASIN

Drill Site: West Waterhouse 1

Depths (ft)	Minerals						
	Cc	Chl	Dlm	Fld	Ill	Prt	Q
5730-5740	tr	tr	X	tr	tr	tr	XX
5760-5770	X	tr	X	tr	tr	tr	XX
5790-5800	X	tr	X	tr	tr	tr	XX
5800-5810	X	tr	X	tr	tr	tr	XX
5810-5820	X	tr	XX	tr	tr	tr	XX
5820-5830	X	tr	XX	tr	tr		XX
5920		X		tr	X		XX
5926			tr	X	tr		XX
5926'5"		tr	tr	tr	tr		XX

CLAY MINERALOGY: AMADEUS BASIN

Drill Site: West Waterhouse 1

Depths (ft)	Minerals							
	F	I	Ch	K	C	D	Q	M/L
5730-5740		XX	X					
5760-5770		XX	X					
5790-5800		XX	X				X	
5800-5810		XX	X					
5810-5820		XX	X					
5820-5830		XX	X		tr	tr		
5920		XX	XX					
5926	X	XX	tr				X	
5926'5"		XX	X					

AMADEUS BASIN

Drill Site: Waterhouse West 1

Depths (ft)	% IC	% TC	% OC
5730-5740	31.14	36.79	0.68
5760-5770	28.23	30.68	0.29
5790-5800	28.15	32.94	0.57
5800-5810	30.29	37.09	0.82
5810-5820	40.91	40.70	- 0.03
5820-5830	49.46	52.62	0.38
5920	1.26	2.31	0.13
5926	1.80	0.40	- 0.17
5926'5"	1.70	5.85	0.50

IC = inorganic carbon (as calcium carbonate)
 TC = total carbon (as calcium carbonate)
 OC = organic carbon (as carbon)

BULK MINERALOGY: AMADEUS BASIN

Drill Site: Highway Anticline 1

Depths (ft)	Minerals					
	Cc	Chl	Dlm	Fld	Ill	Q
691	XX	tr	tr	X	X	XX
1784		tr	XX	tr	tr	XX
2428		X	tr	X	X	XX
2430		tr	tr	tr	tr	XX

CLAY MINERALOGY: AMADEUS BASIN

Drill Site: Highway Anticline 1

Depths (ft)	Minerals							
	F	I	Ch	K	C	D	Q	M/L
691		X	X		tr			XX
1784		X	X			tr		XX
2428		tr	XX					
2430		X	XX					

MIXED LAYER CLAY MINERALOGY

Sample	Mixed Layer Type	% Expandable	Ordering
<u>Highway Anticline 1</u>			
691	I-Sm	100	
1784	Ch-Sm		50/50

AMADEUS BASIN

Drill Site: Highway Anticline 1

Depths (ft)	% IC	% TC	% OC
691	22.35	24.80	0.29
1784	30.30	30.59	0.03
2428	1.58	2.60	0.12
2430	1.78	3.43	0.20

IC = inorganic carbon (as calcium carbonate)
TC = total carbon (as calcium carbonate)
OC = organic carbon (as carbon)