

APPENDIX II: LOG INTERPRETATION

Log Interpretation was performed by Santos using data acquired by Schlumberger.

EAST MEREENIE 37

PRELIMINARY LOG ANALYSIS

1. SUMMARY

East Mereenie 37 was a development well drilled to intersect the P3-230/250 Unit within the oil window. The well was drilled through the Pacoota at a deviation of 32° decreasing to 27° at total depth. Secondary oil targets included the Pacoota P3-190, P3-120/130 while the Pacoota P1 and Lower Stairway constituted secondary gas targets.

Gas pay interpreted in the Upper Stairway/Middle Stairway Sandstone is excluded from net pay on the basis of drilling results - no significant mudlog show and no gas flow while drilling with air. The lower Stairway Sandstone is tight and no pay is interpreted.

Gas pay within the Pacoota P1 section is interpreted in the P1-80, P1-110, P1-200, P1-280, P1-310 and P1-350 sandstones. A flow test at 1379m after penetrating the P1-280 unit realised a flow rate of 3.1 MMCFD. The overlying sandstones produced continuous flaring while drilling, with a significant increase on penetrating the P1-280. As the P1-280 has a low porosity (< 5%) the porosity cut off for net pay determination has been reduced to 4% for the Pacoota P1. In the log analysis summary table pay is tabulated using both 4% and 5% porosity cut offs for the Pacoota P1. Total gas pay for the Pacoota P1 is 9.76m (Ave. Ø 5.3%, Ave. Sw 31.1%).

Minor scattered pay (0.6m) in the P2 is interpreted as possible gas pay.

The Pacoota P3-10 unit contains 4.88m of gas pay based on gas effect on the neutron density cross plot and field GOC at -649m SS (1478 mMD). Oil pay is interpreted in the P3-90, P3-120/130, P3-150, P3-190 and P3-230/250 units (19.62m).

No pay is interpreted in the P4 unit.

2. LOG ANALYSIS SUMMARY

TABLE 1

INTERVAL (m)	GROSS SAND	NET PAY (m)	AVE VSH (%)	AVE Ø (%)	AVE SW (%)	NET PAY INTERVALS/ REMARKS
Upper Stairway 989.8-994.7	4.12	-	5.2	8.3	46.3	Excluded
Lower Stairway 1146.2-1149.5	1.37	-	22.9	6.8	50.1	Excluded. Logs indicate fractures
Pacoota P1-80 1302.1-1305.6	2.74	2.74	8.0	5.8	39.7	Gas (4% Ø cut off)
	1.68	1.68	7.5	6.5	40.0	Gas (5% Ø cut off)
Pacoota P1-110 1307.4-1307.6	0.31	0.31	8.0	4.1	22.9	Gas (4% Ø cut off)
Pacoota P1-200 1338.2-1340.2	2.44	2.44	3.9	5.1	22.5	Gas (4% Ø cut off)
	1.38	1.38	3.0	5.6	19.0	Gas (6% Ø cut off)
Pacoota P1-280 1368.1-1370.1	1.22	1.22	4.7	4.4	20.2	Gas (4% Ø cut off)
Pacoota P1-310 1379.2-1380.3	1.37	1.37	3.5	5.1	28.0	Gas (4% Ø cut off)
	0.76	0.76	2.3	5.5	25.8	Gas (5% Ø cut off)
Pacoota P1-350 1389.1-1389.9	1.68	1.68	8.0	5.8	37.3	Gas (4% Ø cut off)
	0.91	0.91	6.5	6.9	34.1	Gas (5% Ø cut off)
TOTAL (Pacoota P1)		9.76		5.3	31.1	Gas (4% Ø cut off)
Pacoota P2 1425.2-1462.3	0.61	-	10.8	5.1	45.0	Excluded (possible gas pay)
Pacoota P3-10 1463-1472.3	4.88	4.88	13.3	5.7	29.5	Gas
Pacoota P3-90 1491.4-1491.7	0.46	0.46	19.2	6.5	58.4	Oil
Pacoota P3-120/130 1498.7-1512.7	7.72	7.72	9.5	7.0	34.1	Oil
Pacoota P3-150 1516.8-1524.6	4.12	4.12	12.7	7.2	42.2	Oil
Pacoota P3-190 1530.4-1535.1	4.88	4.88	12.1	8.3	37.6	Oil
Pacoota P3-230/250 1544.9-1548.9	2.44	2.44	12.1	7.9	51.8	Oil
TOTAL (Pacoota P3 Oil)		19.62		7.5	39.3	Oil Pay

3. GENERAL DATA

(a) Introduction

One suite of logs was run at 1280m comprising the FMS-GPIT. A second suite of logs was run at TD as detailed.

(b) Logs Run

TABLE 2

SUITE/RUN	MNEMONICS	INTERVAL	REMARKS
1/1	FMS4- GR GPIT	1232- 882 1222- 30 1232- 691	BHT 45°C, 4.5 Hrs after circ. stopped
2/1	DLL- MSFL GR CAL SP LDL- CNL NGS	1595- 691 1589- 930 1575- 691 1563- 691 1563- 691 1583- 930 1583- 930 1573- 930	BHT 57°C, 9 Hrs after circ. stopped Hi res. Logs 1583-1270m (LDL-CNL)
2/2	FMS4-GPIT GR	1588-1200	BHT 61°C, 17 hrs after circ. stopped

(c) Core Data

No full hole or sidewall cores were cut.

(d) Drill Stem Test

TABLE 3

DST	INTERVAL	FORMATION	RESULTS
1	1379-691m	Pacoota P1-80, P1-200, P1-280	Q = 3.12 MMCFD

4. HOLE CONDITIONS

(a) Drilling Overview

After setting 10 3/4" casing at 691m, 9 7/8" hole was drilled with air to 1245m and the FMS log run. After unloading the hole of brine, 9 7/8" hole was drilled to 1267m. Drilling 8 1/2" hole with air continued to 1379m where an open hole flow test was conducted. Drilling with air continued to 1455m at which point the well was killed and drilling resumed with mud in the hole to a total depth of 1600m. East Mereenie 37 is a deviated well with angles of 26° at top of the Stairway and 33° at top of Pacoota decreasing to 27° at total depth.

(b) Hole Conditions

Hole conditions over the Pacoota Sandstone are good with ingauge hole throughout. Moderate washouts and hole rugosity are prevalent in the Stairway Sandstone and Horn Valley siltstone. Porosity measurements and MSFL readings are unreliable over the more severe washouts.

(c) Bore Hole Fluids

Mud Type: NaCl Polymer
MW: 9.0 ppg
Rm: 0.172 @ 20°C
Rmf: 0.140 @ 24°C
Rmc: 0.195 @ 20°C

(d) Temperature

TABLE 4

BHT (°F)	DEPTH	TOOL	HRS SINCE CIRC. STOPPED
47°C	1215m	FMS-4	4.75
57°C	1560m	Combo	9.0
61°C	1585m	FMS-4	17.0

5. ENVIRONMENTAL CORRECTIONS

Standard environmental corrections were applied to all logging measurements using Mincom's Geolog deterministic programme. Additionally, the neutron and density logs were corrected for hydrocarbon effect using the methodology as described by Poupon and Gaymard (Log Analyst Vol. 9, No. 5, 1968).

6. INTERPRETATION PROCEDURES

The interpretation was made using gas corrected density to derive total porosity while the Archie equation was used to calculate water saturation. Due to similar resistivity response in adjacent shales and high salinity formation water clay conductivity effects are negligible negating the need to use a shaly sand saturation equation.

Based on preliminary work by R. Penney (internal Memorandum), cut offs used are 5% for porosity and 30% for Vsh. A 4% porosity cut off is applied in the Pacoota P1 unit based on significant gas contribution from the P1-280 which has failed to meet the 5% cut off previously applied. These cut offs will need refining once all the core data and log data for the Mereenie field are assimilated.

A full listing of parameters is detailed in Table 6.

All log analysis, net pay thicknesses are based on measured depth logs.

7. INTERPRETATION PARAMETERS

Mereenie field formation salinities were used for this interpretation as detailed below:

TABLE 5

PARAMETERS	STAIRWAY	PACOOTA P1 & P2	PACOOTA P3 & P4
Rw @ 75°F	.054	.054	.085
a	1	1	1
m	2	2	2
n	2	2	2
Vshale	Neutron-Density	Neutron-Density	Neutron-Density
Porosity	Density-Gas Corrected	Density-Gas Corrected	Density-Gas Corrected
Saturation	Archie	Archie	Archie
<u>Cut-offs</u>			
Vsh	< 30%	< 30%	< 30%
Porosity	≥ 5%	≥ 4%	≥ 5%
Saturation	< 60%	< 60%	< 60%

8. DISCUSSION

Stairway Sandstone

A 4m basal sandstone in the Upper Stairway with porosity (8.3%) and an average water saturation of 46.3% is excluded from pay as no flow was recorded while drilling. The lower Stairway which contains 1.4m (1302.1-1305.6m) of possible gas pay is excluded due to the absence of gas while drilling. Severe hole breakout is indicated on the MSFL and nuclear logs over this sand.

Pacoota P1

Net gas pay is interpreted in the Pacoota P1-80, P1-110, P1-200, P1-280, P1-310 and P1-350. Based on flows while drilling substantial productivity is from the P1-280 sandstone which recorded 3.1 MMCFD when flow tested in conjunction with the overlying section. Although this sandstone is some 4m thick only 1.22m exceeds the 4% porosity cutoff. Further work is required to determine the relationship between porosity and permeability for this section.

Total gas pay for the Pacoota P1 is 9.76m.

Pacoota P2

Scattered log pay in the P2 is excluded on the basis of insufficient thickness.

Pacoota P3

A total of 4.88m of gas pay (P3-10) and 19.62m of oil pay are interpreted in the P3 unit. Gas effect on the neutron density cross plot confirms gas in the P3-10 unit (see Enclosure 1). Average porosity and water saturation for the P3 oil zone is 7.5% and 39.3% respectively.

Pacoota P4

The Pacoota P4 contains approximately 6m of net sand exceeding the 5% porosity cutoff and lying above the field OWC at -734.6 mSS (1575m MDKB). However, high water saturations and absence of mudlog shows preclude interpreting any pay.

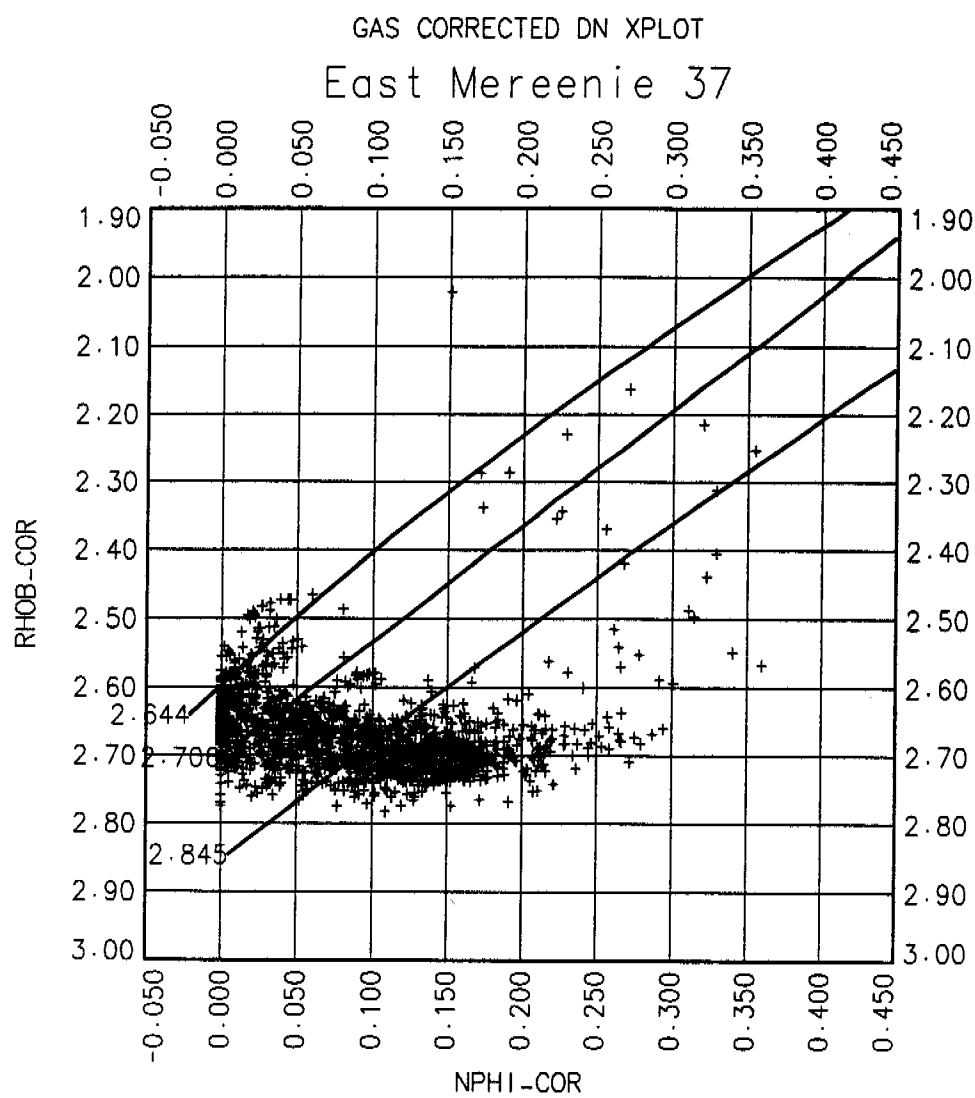
This interpretation is preliminary using standard Mereenie parameters except for Vshale and porosity cutoffs. Quantification of cementation exponent m, permeability/porosity relationships and Vshale cutoffs combined with capillary pressure studies will be examined as part of a Petrophysical Mereenie field study.

Enclosure 1 Cross Plots

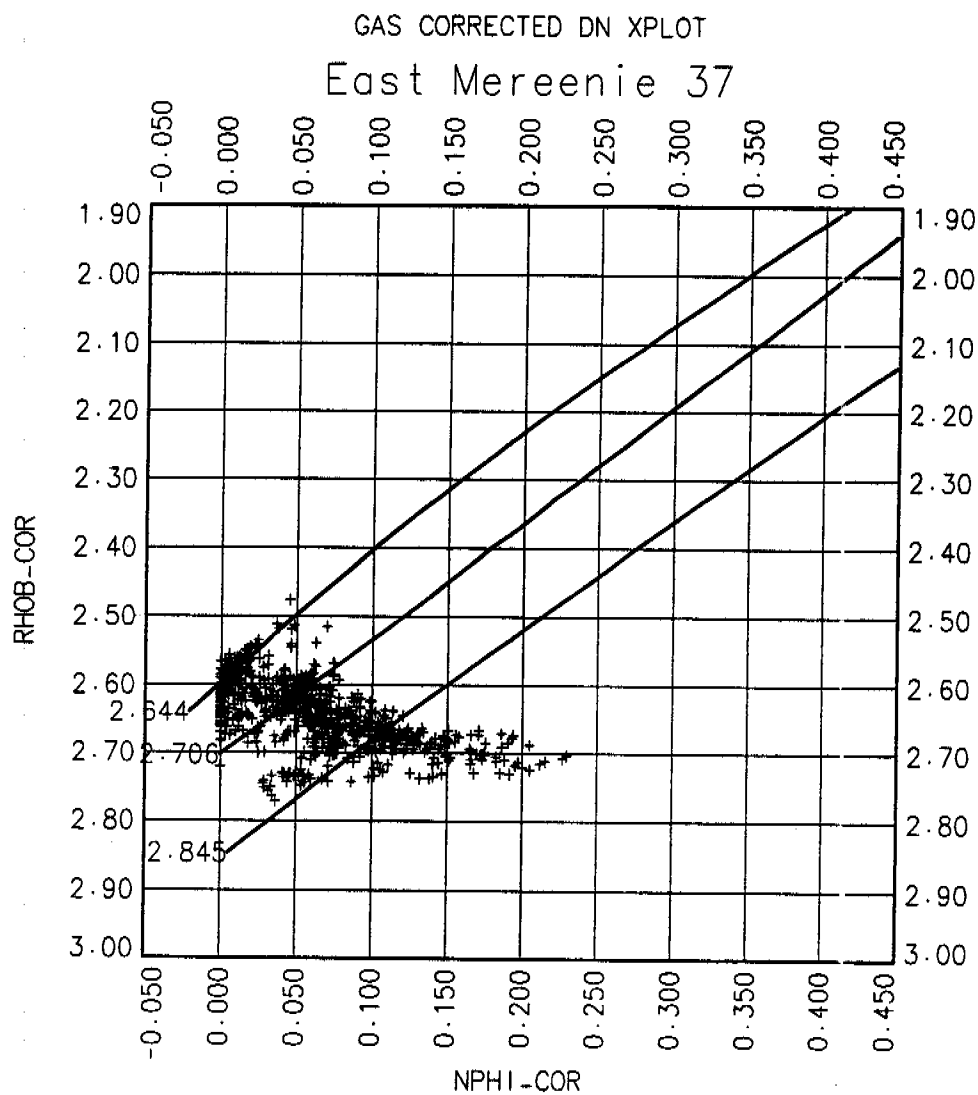
Enclosure 2 Pay Summary

Enclosure 3 Log Interpretation Plot

ENCLOSURE I: CROSS PLOTS

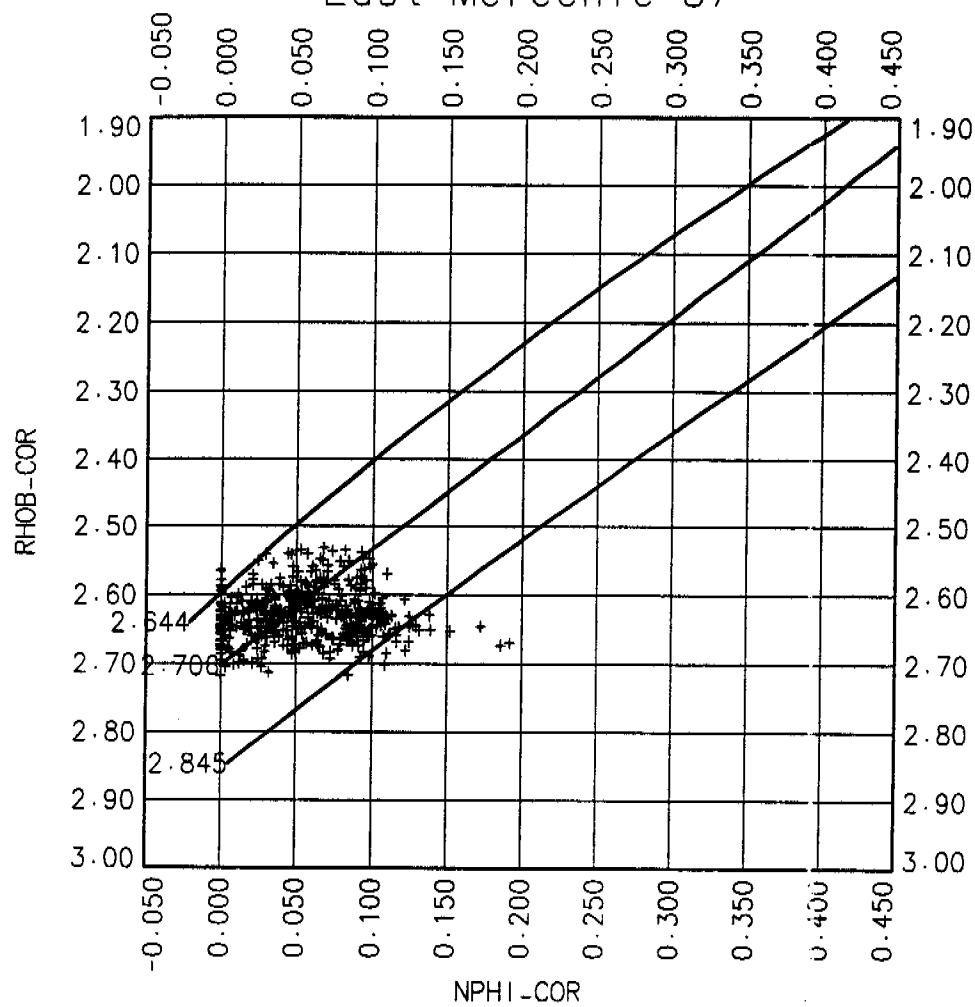


Intervals:
STAIRWAY SANDSTONE

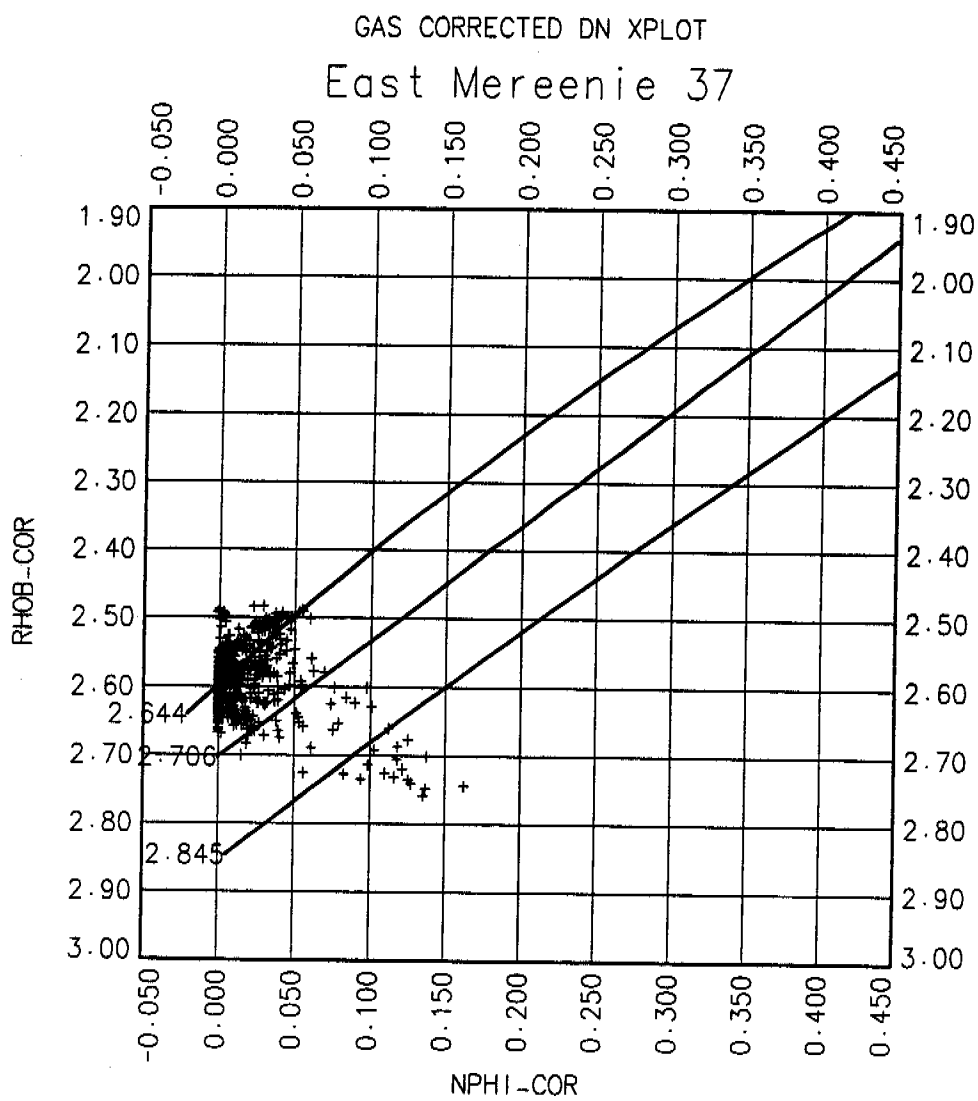


Intervals:
PACOOTTA FORMATION

GAS CORRECTED DN XPLOT
East Mereenie 37

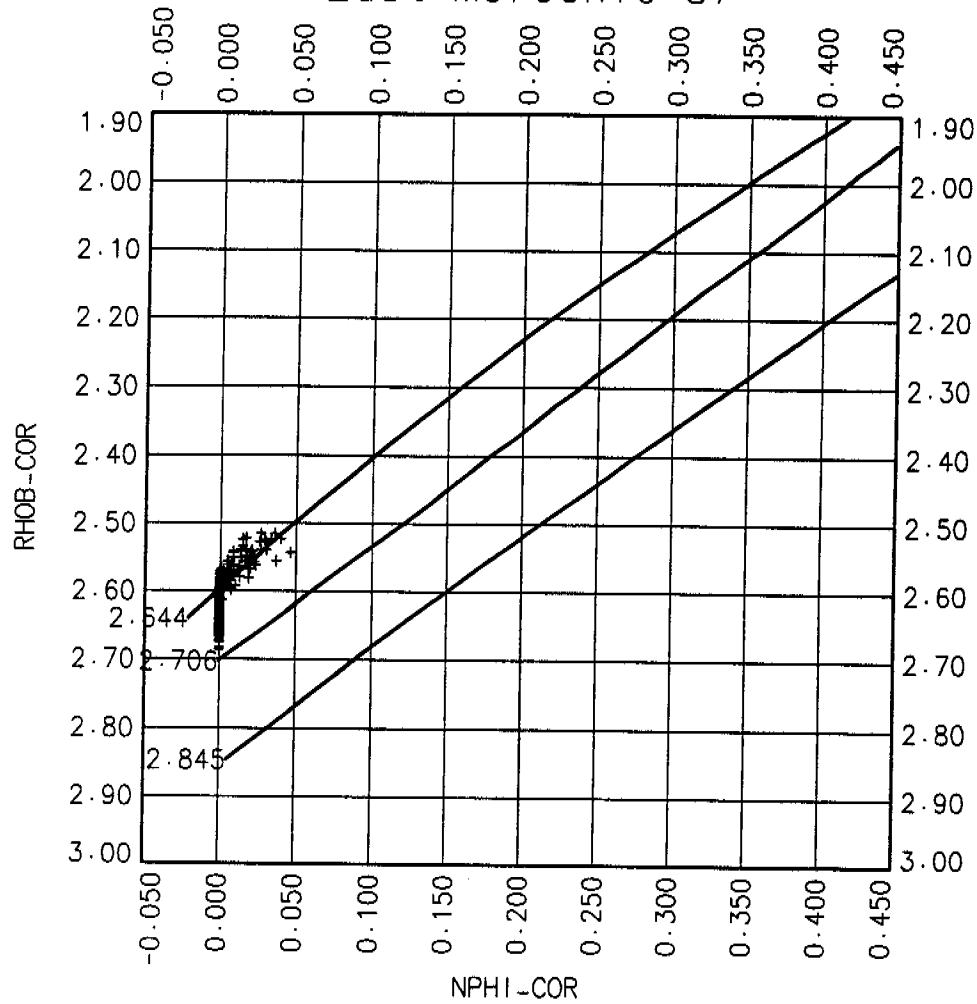


Intervals:
P2



Intervals:
P3

GAS CORRECTED DN XPLOT
East Mereenie 37



Intervals:
P4

ENCLOSURE 2: PAY SUMMARY

ENCLOSURE 2: PAY SUMMARY

- (a) Pacoota P1 - 4% Porosity Cut Off**
- (b) Pacoota P1 - 5% Porosity Cut Off**

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*
*           PAYSUMMARY REPORT
*
*   Project : OPERATIONS
*   User id  : expapp
*   Date    : 17-Aug-95 09:05
*
*****

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1HOLE: EAST_MERENIE_37

Interval name : PACOOTA P1-40
Interval top : 1278.6
Interval bottom : 1295.8

Cutoffs:

PHIE >= 0.04
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.

1HOLE: EAST_MERENIE_37

Page 1

Cutoff Logs

Summation

Averages

DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
-------	------	----	-----	------	-----	-----	------	----	-----

1HOLE: EAST_MERENIE_37

Page 2

Totals for interval : PACOOTA P1-40
Interval top : 1278.6
Interval bottom : 1295.8

Page 3

Summation

Averages

Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
0.000	0.093	0	0	0	0	0	0

1HOLE: EAST_MERENIE_37

Page 4

Interval name : PACOOTA P1-60
Interval top : 1295.8
Interval bottom : 1301.4

Cutoffs:

PHIE >= 0.04
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.

1HOLE: EAST_MERENIE_37

Page 5

Cutoff Logs

Summation

Averages

DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
-------	------	----	-----	------	-----	-----	------	----	-----

1HOLE: EAST_MEREEENIE_37

Page 6

Totals for interval : PACOOTA P1-60
Interval top : 1295.8
Interval bottom : 1301.4

Summation					Averages			
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH	
0.000	0.093	0	0	0	0	0	0	

1HOLE: EAST_MEREEENIE_37

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Interval name : PACOOTA P1-80
Interval top : 1301.4
Interval bottom : 1306.6

Cutoffs:
PHIE >= 0.04
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.

1HOLE: EAST_MEREEENIE_37

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Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1302.106	0.0791	0.4304	0.1794	0.012	0.0052	0.0273	0.0791	0.4304	0.1794
1302.258	0.1053	0.3253	0	0.0281	0.0104	0.0273	0.0922	0.3703	0.0897
1302.410	0.0855	0.4065	0.0238	0.0411	0.0157	0.031	0.0899	0.3818	0.0677
1302.563	0.0534	0.582	0.1103	0.0493	0.0204	0.0478	0.0808	0.4148	0.0784
1302.715	0.0549	0.4988	0.0282	0.0576	0.0246	0.0521	0.0756	0.427	0.0684
1302.868	0.0568	0.431	0	0.0663	0.0283	0.0521	0.0725	0.4276	0.057
1303.020	0.052	0.3942	0.0261	0.0742	0.0315	0.0561	0.0695	0.424	0.0526
1303.172	0.049	0.3237	0.0917	0.0817	0.0339	0.07	0.067	0.4148	0.0574
1303.325	0.0538	0.2529	0.0522	0.0899	0.0359	0.078	0.0655	0.4001	0.0569
1303.477	0.0522	0.2604	0.0515	0.0978	0.038	0.0858	0.0642	0.3887	0.0563
1303.630	0.05	0.2712	0.0665	0.1054	0.0401	0.096	0.0629	0.3802	0.0573
1303.782	0.0497	0.2637	0.0687	0.113	0.0421	0.1065	0.0618	0.3724	0.0582
1303.934	0.0492	0.3292	0.058	0.1205	0.0445	0.1153	0.0608	0.3697	0.0582
1304.087	0.0415	0.5534	0.0832	0.1268	0.048	0.128	0.0594	0.3789	0.06
2.134				0.1268	0.048	0.128	0.0594	0.3789	0.06
1305.458	0.0672	0.409	0.2037	0.1371	0.0522	0.159	0.06	0.3811	0.0696
1305.611	0.0617	0.4499	0.1477	0.1465	0.0565	0.1815	0.0601	0.3855	0.0744
1305.763	0.0492	0.5174	0.1418	0.154	0.0603	0.2031	0.0594	0.392	0.0784
1305.916	0.0403	0.5182	0.1107	0.1601	0.0635	0.22	0.0584	0.3968	0.0802
0.610				0.0333	0.0155	0.092	0.0546	0.4651	0.151

1HOLE: EAST_MEREEENIE_37

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Totals for interval : PACOOTA P1-80
Interval top : 1301.4

Interval bottom : 1306.6

Summation						Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH		PHIE	SW	VSH
2.743	0.097	0.1601	0.0635	0.22		0.0584	0.3968	0.0802

1HOLE: EAST_MERREENIE_37

Page 10

Interval name : PACOOTA P1-110
Interval top : 1306.6
Interval bottom : 1320.8

Cutoffs:
PHIE >= 0.04
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.

1HOLE: EAST_MERREENIE_37

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Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1307.440	0.0411	0.2426	0.0958	0.0063	0.0015	0.0146	0.0411	0.2426	0.0958
1307.592	0.0403	0.2144	0.0649	0.0124	0.0028	0.0245	0.0407	0.2286	0.0803
0.305				0.0124	0.0028	0.0245	0.0407	0.2286	0.0803

1HOLE: EAST_MERREENIE_37

Page 12

Totals for interval : PACOOTA P1-110
Interval top : 1306.6
Interval bottom : 1320.8

Summation						Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH		PHIE	SW	VSH
0.305	0.010	0.0124	0.0028	0.0245		0.0407	0.2286	0.0803

1HOLE: EAST_MERREENIE_37

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Interval name : PACOOTA P1-120/180
Interval top : 1320.8
Interval bottom : 1333.5

Cutoffs:
PHIE >= 0.04
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.

1HOLE: EAST_MERREENIE_37

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Cutoff Logs	Summation	Averages
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DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
-------	------	----	-----	------	-----	-----	------	----	-----

1HOLE: EAST_MEREEENIE_37

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Totals for interval : PACOOTA P1-120/180
Interval top : 1320.8
Interval bottom : 1333.5

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
0.000	0.010	0	0	0	0	0	0

1HOLE: EAST_MEREEENIE_37

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Interval name : PACOOTA P1-200
Interval top : 1333.5
Interval bottom : 1344

Cutoffs:
PHIE >= 0.04
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.

1HOLE: EAST_MEREEENIE_37

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Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1338.072	0.0413	0.3258	0.069	0.0063	0.002	0.0105	0.0413	0.3258	0.069
1338.224	0.054	0.1908	0.0498	0.0145	0.0036	0.0181	0.0477	0.2493	0.0594
1338.377	0.0616	0.1616	0.0333	0.0239	0.0051	0.0232	0.0523	0.2149	0.0507
1338.529	0.0595	0.1678	0.0308	0.033	0.0067	0.0279	0.0541	0.2019	0.0457
1338.682	0.0585	0.167	0.0255	0.0419	0.0081	0.0318	0.055	0.1945	0.0417
1338.834	0.058	0.165	0.0206	0.0507	0.0096	0.0349	0.0555	0.1894	0.0382
1338.986	0.0569	0.175	0.0304	0.0594	0.0111	0.0395	0.0557	0.1873	0.0371
1339.139	0.0535	0.1932	0.0405	0.0676	0.0127	0.0457	0.0554	0.188	0.0375
1339.291	0.0514	0.2087	0.0369	0.0754	0.0143	0.0513	0.055	0.1901	0.0374
1339.444	0.0486	0.2222	0.0379	0.0828	0.016	0.0571	0.0543	0.193	0.0375
1339.596	0.0459	0.2412	0.0274	0.0898	0.0177	0.0613	0.0536	0.1968	0.0366
1.676				0.0898	0.0177	0.0613	0.0536	0.1968	0.0366
1339.901	0.0421	0.2721	0.0606	0.0962	0.0194	0.0705	0.0526	0.2018	0.0386
1340.053	0.042	0.2963	0.0753	0.1026	0.0213	0.082	0.0518	0.2077	0.0414
1340.206	0.0424	0.311	0.0614	0.1091	0.0233	0.0913	0.0511	0.2138	0.0428
1340.358	0.0492	0.2713	0.0317	0.1166	0.0253	0.0962	0.051	0.2175	0.0421
1340.510	0.0512	0.2971	0	0.1243	0.0277	0.0962	0.051	0.2225	0.0394
0.762				0.0346	0.01	0.0349	0.0454	0.2893	0.0458

1HOLE: EAST_MEREEENIE_37

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Totals for interval : PACOOTA P1-200

Interval top : 1333.5
Interval bottom : 1344

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
2.438	0.097	0.1243	0.0277	0.0962	0.051	0.2225	0.0394

1HOLE: EAST_MEREENIE_37

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Interval name : PACOOTA P1-210
Interval top : 1344
Interval bottom : 1349.7

Cutoffs:
PHIE >= 0.04
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.

1HOLE: EAST_MEREENIE_37

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Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH

1HOLE: EAST_MEREENIE_37

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Totals for interval : PACOOTA P1-210
Interval top : 1344
Interval bottom : 1349.7

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
0.000	0.097	0	0	0	0	0	0

1HOLE: EAST_MEREENIE_37

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Interval name : PACOOTA P1-240
Interval top : 1349.7
Interval bottom : 1366.1

Cutoffs:
PHIE >= 0.04
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.

1HOLE: EAST_MEREENIE_37

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Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH

1HOLE: EAST_MEREENIE_37

Page 24

Totals for interval : PACOOTA P1-240
Interval top : 1349.7
Interval bottom : 1366.1

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
0.000	0.097	0	0	0	0	0	0

1HOLE: EAST_MERREENIE_37

Page 25

Interval name : PACOOTA P1-280
Interval top : 1366.1
Interval bottom : 1371.3

Cutoffs:
PHIE >= 0.04
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.

1HOLE: EAST_MERREENIE_37

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Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1368.095	0.0412	0.2601	0.072	0.0063	0.0016	0.011	0.0412	0.2601	0.072
0.152				0.0063	0.0016	0.011	0.0412	0.2601	0.072
1369.009	0.048	0.1778	0.0391	0.0136	0.0029	0.0169	0.0446	0.2158	0.0555
1369.162	0.0488	0.1692	0.0053	0.021	0.0042	0.0177	0.046	0.1993	0.0388
1369.314	0.044	0.1823	0.0255	0.0277	0.0054	0.0216	0.0455	0.1952	0.0355
1369.466	0.0434	0.1777	0.0701	0.0343	0.0066	0.0323	0.0451	0.1918	0.0424
1369.619	0.0425	0.1831	0.062	0.0408	0.0078	0.0417	0.0446	0.1904	0.0457
1369.771	0.0415	0.2178	0.0582	0.0471	0.0092	0.0506	0.0442	0.1941	0.0474
0.914				0.0409	0.0075	0.0396	0.0447	0.184	0.0434
1370.076	0.0434	0.2606	0.0437	0.0538	0.0109	0.0573	0.0441	0.2023	0.047
0.152				0.0066	0.0017	0.0067	0.0434	0.2606	0.0437

1HOLE: EAST_MERREENIE_37

Page 27

Totals for interval : PACOOTA P1-280
Interval top : 1366.1
Interval bottom : 1371.3

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
1.219	0.043	0.0538	0.0109	0.0573	0.0441	0.2023	0.047

1HOLE: EAST_MERENIE_37

Page 28

Interval name : PACOOTA P1-310
Interval top : 1371.3
Interval bottom : 1386.8

Cutoffs:

PHIE >= 0.04
SW < 0.6
VSH < 0.3

Depth listing for pay depths.

Summation type is zone.

1HOLE: EAST_MERENIE_37

Page 29

Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1378.610	0.0436	0.3131	0.0294	0.0066	0.0021	0.0045	0.0436	0.3131	0.0294
0.152				0.0066	0.0021	0.0045	0.0436	0.3131	0.0294
1379.068	0.0484	0.2545	0.0194	0.014	0.004	0.0074	0.046	0.2823	0.0244
1379.220	0.0513	0.2488	0.0058	0.0218	0.0059	0.0083	0.0478	0.2703	0.0182
1379.372	0.051	0.2766	0	0.0296	0.0081	0.0083	0.0486	0.2719	0.0136
0.457				0.023	0.006	0.0038	0.0502	0.26	0.0084
1379.830	0.0412	0.3561	0.077	0.0359	0.0103	0.02	0.0471	0.2867	0.0263
1379.982	0.0535	0.2733	0.0411	0.0441	0.0125	0.0263	0.0482	0.2842	0.0288
1380.134	0.059	0.2422	0.0406	0.0531	0.0147	0.0325	0.0497	0.2771	0.0305
1380.287	0.06	0.2519	0.0259	0.0622	0.017	0.0365	0.051	0.2734	0.0299
1380.439	0.0488	0.3343	0.0729	0.0696	0.0195	0.0476	0.0508	0.2799	0.0347
0.762				0.04	0.0114	0.0392	0.0525	0.2858	0.0515

1HOLE: EAST_MERENIE_37

Page 30

Totals for interval : PACOOTA P1-310
Interval top : 1371.3
Interval bottom : 1386.8

		Summation			Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
1.372	0.050	0.0696	0.0195	0.0476	0.0508	0.2799	0.0347

1HOLE: EAST_MERENIE_37

Page 31

Interval name : PACOOTA P1-350
Interval top : 1386.8
Interval bottom : 1391.4

Cutoffs:

PHIE >= 0.04
SW < 0.6

VSH < 0.3

Depth listing for pay depths.

Summation type is zone.

1HOLE: EAST_MEREENIE_37

Page 32

Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1388.669	0.0486	0.2687	0.0338	0.0074	0.002	0.0051	0.0486	0.2687	0.0338
1388.821	0.0436	0.3192	0.0191	0.0141	0.0041	0.0081	0.0461	0.2926	0.0264
0.305				0.0141	0.0041	0.0081	0.0461	0.2926	0.0264
1389.126	0.0518	0.3213	0.02	0.022	0.0067	0.0111	0.048	0.3029	0.0243
1389.278	0.0663	0.3012	0.0245	0.0321	0.0097	0.0148	0.0526	0.3024	0.0243
1389.431	0.076	0.3211	0.0457	0.0437	0.0134	0.0218	0.0573	0.3073	0.0286
1389.583	0.0784	0.3332	0.0797	0.0556	0.0174	0.034	0.0608	0.3129	0.0371
1389.736	0.0767	0.3483	0.0854	0.0673	0.0215	0.047	0.0631	0.319	0.044
1389.888	0.0662	0.4229	0.1365	0.0774	0.0257	0.0678	0.0635	0.3326	0.0556
0.914				0.0633	0.0216	0.0597	0.0693	0.3415	0.0653
1390.498	0.0467	0.4991	0.092	0.0845	0.0293	0.0818	0.0616	0.3466	0.0596
1390.650	0.0456	0.5144	0.1355	0.0914	0.0329	0.1024	0.06	0.3593	0.0672
1390.802	0.0439	0.5597	0.2067	0.0981	0.0366	0.1339	0.0585	0.373	0.0799
0.457				0.0207	0.0109	0.0662	0.0454	0.5237	0.1448

1HOLE: EAST_MEREENIE_37

Page 33

Totals for interval : PACOOTA P1-350

Interval top : 1386.8

Interval bottom : 1391.4

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
1.676	0.062	0.0981	0.0366	0.1339	0.0585	0.373	0.0799

1HOLE: EAST_MEREENIE_37

Page 34

Totals for hole EAST_MEREENIE_37 :

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
9.754	0.062	0.5184	0.161	0.5794	0.0531	0.3106	0.0594

1

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*****
*
*      PAYSUMMARY REPORT
*
*      *** END OF REPORT ***
*
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*
*   Project : OPERATIONS
*   User id : expapp
*   Date    : 17-Aug-95 09:05
*   Pages   : 34
*
*****
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ENCLOSURE 3: LOG INTERPRETATION PLOT

PACOOTTA P1 - 5% POROSITY CUT OFF

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*****
*
*           PAYSUMMARY REPORT
*
*   Project : OPERATIONS
*   User id  : expapp
*   Date    : 17-Aug-95 09:01
*
*****

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1HOLE: EAST_MEREEENIE_37

Page 1

Interval name : UPPER STAIRWAY SANDSTONE
Interval top : 934.8
Interval bottom : 999

Cutoffs:

PHIE >= 0.05
SW < 0.6
VSH < 0.3

Depth listing for pay depths.

Summation type is zone.

1HOLE: EAST_MEREEENIE_37

Page 2

Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
989.838	0.0772	0.4153	0.0404	0.0118	0.0049	0.0062	0.0772	0.4153	0.0404
989.990	0.0949	0.3859	0.0077	0.0262	0.0105	0.0073	0.0861	0.3991	0.024
990.143	0.1001	0.402	0.0108	0.0415	0.0166	0.009	0.0907	0.4001	0.0196
990.295	0.0996	0.4038	0.0096	0.0567	0.0227	0.0104	0.093	0.4011	0.0171
990.448	0.096	0.4234	0.0187	0.0713	0.0289	0.0133	0.0936	0.4057	0.0174
990.600	0.092	0.4485	0.0209	0.0853	0.0352	0.0165	0.0933	0.4127	0.018
990.752	0.0922	0.4573	0.0061	0.0994	0.0416	0.0174	0.0931	0.419	0.0163
990.905	0.0959	0.465	0.0387	0.114	0.0484	0.0233	0.0935	0.4249	0.0191
991.057	0.1058	0.4342	0.0296	0.1301	0.0554	0.0278	0.0949	0.4261	0.0203
991.210	0.109	0.4281	0.0486	0.1467	0.0625	0.0352	0.0963	0.4263	0.0231
991.362	0.1089	0.41	0.0449	0.1633	0.0693	0.0421	0.0974	0.4247	0.0251
991.514	0.1025	0.4125	0.0196	0.1789	0.0758	0.045	0.0978	0.4236	0.0246
991.667	0.0883	0.4646	0.0752	0.1924	0.082	0.0565	0.0971	0.4265	0.0285
991.819	0.0819	0.4671	0.0911	0.2049	0.0879	0.0704	0.096	0.4289	0.033
991.972	0.0837	0.4472	0.0652	0.2176	0.0936	0.0803	0.0952	0.43	0.0351
992.124	0.0657	0.5613	0.1209	0.2276	0.0992	0.0987	0.0934	0.4358	0.0405
2.438				0.2276	0.0992	0.0987	0.0934	0.4358	0.0405
993.191	0.0579	0.4676	0.0649	0.2365	0.1033	0.1086	0.0913	0.437	0.0419
993.343	0.0592	0.4928	0.0758	0.2455	0.1078	0.1202	0.0895	0.439	0.0438
993.496	0.0598	0.4954	0.079	0.2546	0.1123	0.1322	0.0879	0.441	0.0457
993.648	0.0637	0.4788	0.0638	0.2643	0.1169	0.142	0.0867	0.4424	0.0466
993.800	0.0617	0.5196	0.0747	0.2737	0.1218	0.1533	0.0855	0.4451	0.0479
993.953	0.0664	0.5048	0.0448	0.2838	0.1269	0.1602	0.0847	0.4472	0.0478
994.105	0.0668	0.5767	0.0849	0.294	0.1328	0.1731	0.0839	0.4517	0.0494
994.258	0.075	0.5314	0.0876	0.3054	0.1389	0.1865	0.0835	0.4547	0.051
994.410	0.0824	0.502	0.0662	0.318	0.1452	0.1966	0.0835	0.4565	0.0516
994.562	0.0804	0.5522	0.0632	0.3302	0.1519	0.2062	0.0833	0.4601	0.052

994.715	0.0794	0.54	0.0715	0.3423	0.1585	0.2171	0.0832	0.4629	0.0528	
1.676				0.1147	0.0593	0.1183	0.0684	0.5167	0.0706	

1HOLE: EAST_MEREEENIE_37

Page 3

Totals for interval : UPPER STAIRWAY SANDSTONE
Interval top : 934.8
Interval bottom : 999

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
4.115	0.184	0.3423	0.1585	0.2171	0.0832	0.4629	0.0528

1HOLE: EAST_MEREEENIE_37

Page 4

Interval name : LOWER STAIRWAY SANDSTONE
Interval top : 1115.8
Interval bottom : 1174.3

Cutoffs:
PHIE >= 0.05
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.
1HOLE: EAST_MEREEENIE_37

Page 5

Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1146.200	0.0563	0.5388	0.1438	0.0086	0.0046	0.0219	0.0563	0.5388	0.1438
0.152				0.0086	0.0046	0.0219	0.0563	0.5388	0.1438
1146.962	0.0649	0.4946	0.2433	0.0185	0.0095	0.059	0.0606	0.5151	0.1936
1147.115	0.0617	0.5208	0.2113	0.0279	0.0144	0.0912	0.061	0.517	0.1995
0.305				0.0193	0.0098	0.0693	0.0633	0.5074	0.2273
1147.420	0.0595	0.5728	0.2216	0.0369	0.0196	0.125	0.0606	0.5307	0.205
1147.572	0.0726	0.4832	0.2312	0.048	0.0249	0.1602	0.063	0.5198	0.2103
0.305				0.0201	0.0105	0.069	0.066	0.5236	0.2264
1148.791	0.0962	0.3944	0.2303	0.0627	0.0307	0.1953	0.0685	0.4904	0.2136
1148.944	0.0728	0.4968	0.2703	0.0738	0.0362	0.2365	0.0691	0.4914	0.2217
0.305				0.0258	0.0113	0.0763	0.0845	0.4385	0.2503
1149.401	0.0692	0.5202	0.267	0.0843	0.0417	0.2772	0.0691	0.495	0.2274
1149.553	0.0598	0.557	0.2457	0.0934	0.0468	0.3146	0.0681	0.501	0.2294

0.305	0.0197	0.0106	0.0781	0.0645	0.5372	0.2563
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1HOLE: EAST_MEREENIE_37

Page 6

Totals for interval : LOWER STAIRWAY SANDSTONE
Interval top : 1115.8
Interval bottom : 1174.3

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
1.372	0.047	0.0934	0.0468	0.3146	0.0681	0.501	0.2294

1HOLE: EAST_MEREENIE_37

Page 7

Interval name : PACOOTTA P1-80
Interval top : 1301.4
Interval bottom : 1306.6

Cutoffs:
PHIE >= 0.05
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.

1HOLE: EAST_MEREENIE_37

Page 8

Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1302.106	0.0791	0.4304	0.1794	0.012	0.0052	0.0273	0.0791	0.4304	0.1794
1302.258	0.1053	0.3253	0	0.0281	0.0104	0.0273	0.0922	0.3703	0.0897
1302.410	0.0855	0.4065	0.0238	0.0411	0.0157	0.031	0.0899	0.3818	0.0677
1302.563	0.0534	0.582	0.1103	0.0493	0.0204	0.0478	0.0808	0.4148	0.0784
1302.715	0.0549	0.4988	0.0282	0.0576	0.0246	0.0521	0.0756	0.427	0.0684
1302.868	0.0568	0.431	0	0.0663	0.0283	0.0521	0.0725	0.4276	0.057
1303.020	0.052	0.3942	0.0261	0.0742	0.0315	0.0561	0.0695	0.424	0.0526
1.067				0.0742	0.0315	0.0561	0.0695	0.424	0.0526
1303.325	0.0538	0.2529	0.0522	0.0824	0.0335	0.064	0.0676	0.407	0.0525
1303.477	0.0522	0.2604	0.0515	0.0903	0.0356	0.0719	0.0659	0.3941	0.0524
0.305				0.0161	0.0041	0.0158	0.053	0.2566	0.0518
1305.458	0.0672	0.409	0.2037	0.1006	0.0398	0.1029	0.066	0.3956	0.0675
1305.611	0.0617	0.4499	0.1477	0.11	0.044	0.1254	0.0656	0.4002	0.0748
0.305				0.0197	0.0084	0.0536	0.0645	0.4286	0.1757

1HOLE: EAST_MEREENIE_37

Page 9

Totals for interval : PACOOTTA P1-80
Interval top : 1301.4

Interval bottom : 1306.6

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
1.676	0.066	0.11	0.044	0.1254	0.0656	0.4002	0.0748

1HOLE: EAST_MEREENIE_37

Page 10

Interval name : PACOOTA P1-200
Interval top : 1333.5
Interval bottom : 1344

Cutoffs:

PHIE >= 0.05
SW < 0.6
VSH < 0.3

Depth listing for pay depths.

Summation type is zone.

1HOLE: EAST_MEREENIE_37

Page 11

Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1338.224	0.054	0.1908	0.0498	0.0082	0.0016	0.0076	0.054	0.1908	0.0498
1338.377	0.0616	0.1616	0.0333	0.0176	0.0031	0.0127	0.0578	0.1753	0.0415
1338.529	0.0595	0.1678	0.0308	0.0267	0.0046	0.0174	0.0584	0.1727	0.038
1338.682	0.0585	0.167	0.0255	0.0356	0.0061	0.0213	0.0584	0.1713	0.0349
1338.834	0.058	0.165	0.0206	0.0444	0.0076	0.0244	0.0583	0.1701	0.032
1338.986	0.0569	0.175	0.0304	0.0531	0.0091	0.029	0.0581	0.1709	0.0317
1339.139	0.0535	0.1932	0.0405	0.0613	0.0106	0.0352	0.0574	0.1738	0.033
1339.291	0.0514	0.2087	0.0369	0.0691	0.0123	0.0408	0.0567	0.1778	0.0335
1.219				0.0691	0.0123	0.0408	0.0567	0.1778	0.0335
1340.510	0.0512	0.2971	0	0.0769	0.0146	0.0408	0.0561	0.1899	0.0298
0.152				0.0078	0.0023	0	0.0512	0.2971	0

1HOLE: EAST_MEREENIE_37

Page 12

Totals for interval : PACOOTA P1-200
Interval top : 1333.5
Interval bottom : 1344

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
1.372	0.062	0.0769	0.0146	0.0408	0.0561	0.1899	0.0298

1HOLE: EAST_MEREENIE_37

Page 13

Interval name : PACOOTA P1-280
Interval top : 1366.1
Interval bottom : 1371.3

Cutoffs:
 PHIE >= 0.05
 SW < 0.6
 VSH < 0.3

Depth listing for pay depths.
 Summation type is zone.
 1HOLE: EAST_MEREENIE_37

Page 14

Cutoff Logs Summation Averages

DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
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1HOLE: EAST_MEREENIE_37

Page 15

Totals for interval : PACOOTA P1-280
 Interval top : 1366.1
 Interval bottom : 1371.3

Summation Averages

Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
0.000	0.062	0	0	0	0	0	0

1HOLE: EAST_MEREENIE_37

Page 16

Interval name : PACOOTA P1-310
 Interval top : 1371.3
 Interval bottom : 1386.8

Cutoffs:
 PHIE >= 0.05
 SW < 0.6
 VSH < 0.3

Depth listing for pay depths.
 Summation type is zone.
 1HOLE: EAST_MEREENIE_37

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Cutoff Logs Summation Averages

DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1379.220	0.0513	0.2488	0.0058	0.0078	0.0019	0.0009	0.0513	0.2488	0.0058
1379.372	0.051	0.2766	0	0.0156	0.0041	0.0009	0.0512	0.2626	0.0029
0.305				0.0156	0.0041	0.0009	0.0512	0.2626	0.0029
1379.982	0.0535	0.2733	0.0411	0.0237	0.0063	0.0071	0.0519	0.2663	0.0156
1380.134	0.059	0.2422	0.0406	0.0327	0.0085	0.0133	0.0537	0.2597	0.0219
1380.287	0.06	0.2519	0.0259	0.0419	0.0108	0.0173	0.055	0.258	0.0227
0.457				0.0263	0.0067	0.0164	0.0575	0.2552	0.0359

1HOLE: EAST_MEREENIE_37

Page 18

Totals for interval : PACOOTA P1-310

Interval top : 1371.3
Interval bottom : 1386.8

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
0.762	0.031	0.0419	0.0108	0.0173	0.055	0.258	0.0227

1HOLE: EAST_MEREEENIE_37

Page 19

Interval name : PACOOTA P1-350
Interval top : 1386.8
Interval bottom : 1391.4

Cutoffs:
PHIE >= 0.05
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.
1HOLE: EAST_MEREEENIE_37

Page 20

Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1389.126	0.0518	0.3213	0.02	0.0079	0.0025	0.003	0.0518	0.3213	0.02
1389.278	0.0663	0.3012	0.0245	0.018	0.0056	0.0068	0.0591	0.31	0.0222
1389.431	0.076	0.3211	0.0457	0.0296	0.0093	0.0137	0.0647	0.3143	0.0301
1389.583	0.0784	0.3332	0.0797	0.0416	0.0133	0.0259	0.0682	0.3198	0.0425
1389.736	0.0767	0.3483	0.0854	0.0532	0.0174	0.0389	0.0699	0.326	0.051
1389.888	0.0662	0.4229	0.1365	0.0633	0.0216	0.0597	0.0693	0.3415	0.0653
0.914				0.0633	0.0216	0.0597	0.0693	0.3415	0.0653

1HOLE: EAST_MEREEENIE_37

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Totals for interval : PACOOTA P1-350
Interval top : 1386.8
Interval bottom : 1391.4

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
0.914	0.042	0.0633	0.0216	0.0597	0.0693	0.3415	0.0653

1HOLE: EAST_MEREEENIE_37

Page 22

Interval name : P2
Interval top : 1391.4
Interval bottom : 1462.7

Cutoffs:
PHIE >= 0.05
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.
1HOLE: EAST_MEREENIE_37

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Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1425.245	0.0668	0.5543	0.1524	0.0102	0.0056	0.0232	0.0668	0.5543	0.1524
1425.397	0.0713	0.5831	0.2789	0.021	0.012	0.0657	0.069	0.5692	0.2156
0.305				0.021	0.012	0.0657	0.069	0.5692	0.2156
1462.126	0.0522	0.2746	0	0.029	0.0142	0.0657	0.0634	0.4884	0.1438
1462.278	0.0514	0.3068	0	0.0368	0.0166	0.0657	0.0604	0.4498	0.1078
0.305				0.0158	0.0046	0	0.0518	0.2906	0

1HOLE: EAST_MEREENIE_37

Page 24

Totals for interval : P2
Interval top : 1391.4
Interval bottom : 1462.7

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
0.610	0.020	0.0368	0.0166	0.0657	0.0604	0.4498	0.1078

1HOLE: EAST_MEREENIE_37

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Interval name : P3-10
Interval top : 1462.7
Interval bottom : 1483.5

Cutoffs:
PHIE >= 0.05
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.
1HOLE: EAST_MEREENIE_37

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Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1463.040	0.0506	0.5725	0.1312	0.0077	0.0044	0.02	0.0506	0.5725	0.1312
1463.192	0.0597	0.4664	0.0774	0.0168	0.0087	0.0318	0.0551	0.5151	0.1043
1463.345	0.0519	0.5734	0.1429	0.0247	0.0132	0.0536	0.054	0.5337	0.1172
0.457				0.0247	0.0132	0.0536	0.054	0.5337	0.1172
1464.564	0.0515	0.3534	0.166	0.0326	0.016	0.0789	0.0534	0.4903	0.1294

0.152				0.0078	0.0028	0.0253	0.0515	0.3534	0.166
1467.917	0.0586	0.2858	0.1328	0.0415	0.0185	0.0991	0.0544	0.4463	0.1301
1468.069	0.059	0.2904	0.13	0.0505	0.0211	0.1189	0.0552	0.4185	0.1301
1468.222	0.0618	0.2677	0.1239	0.0599	0.0236	0.1378	0.0561	0.3948	0.1292
1468.374	0.0538	0.2746	0.1347	0.0681	0.0259	0.1583	0.0558	0.3803	0.1299
1468.526	0.052	0.2823	0.1217	0.076	0.0281	0.1769	0.0554	0.3701	0.129
0.762				0.0435	0.0122	0.098	0.057	0.2801	0.1286
1468.984	0.0521	0.2898	0.1533	0.0839	0.0304	0.2002	0.0551	0.3625	0.1314
1469.136	0.0585	0.2636	0.133	0.0929	0.0328	0.2205	0.0554	0.353	0.1315
1469.288	0.0615	0.254	0.1092	0.1022	0.0352	0.2372	0.0559	0.3439	0.1297
1469.441	0.0635	0.2488	0.1131	0.1119	0.0376	0.2544	0.0565	0.3357	0.1284
1469.593	0.0622	0.2623	0.1155	0.1214	0.0401	0.272	0.0569	0.33	0.1275
1469.746	0.0642	0.2498	0.0889	0.1312	0.0425	0.2855	0.0574	0.324	0.1249
1469.898	0.0636	0.2407	0.0759	0.1409	0.0448	0.2971	0.0578	0.3183	0.1218
1470.050	0.0632	0.2356	0.1049	0.1505	0.0471	0.3131	0.0581	0.313	0.1208
1470.203	0.0545	0.2629	0.1742	0.1588	0.0493	0.3396	0.0579	0.3103	0.1238
1470.355	0.0509	0.2794	0.1774	0.1666	0.0515	0.3667	0.0575	0.3089	0.1266
1470.508	0.0543	0.2719	0.1366	0.1748	0.0537	0.3875	0.0574	0.3072	0.1271
1470.660	0.0508	0.3096	0.1699	0.1826	0.0561	0.4134	0.0571	0.3073	0.1292
1470.812	0.0596	0.2737	0.1415	0.1917	0.0586	0.435	0.0572	0.3057	0.1297
1470.965	0.0629	0.2662	0.1017	0.2013	0.0611	0.4505	0.0574	0.3038	0.1285
1471.117	0.0675	0.2497	0.0662	0.2116	0.0637	0.4605	0.0578	0.3012	0.1259
1471.270	0.0596	0.2703	0.1274	0.2206	0.0662	0.48	0.0579	0.2999	0.126
1471.422	0.053	0.2873	0.183	0.2287	0.0685	0.5078	0.0577	0.2994	0.1282
1471.574	0.0511	0.2887	0.1904	0.2365	0.0707	0.5369	0.0575	0.2991	0.1305
1471.727	0.0569	0.2565	0.1274	0.2452	0.073	0.5563	0.0575	0.2976	0.1304
1471.879	0.051	0.285	0.1278	0.2529	0.0752	0.5758	0.0572	0.2972	0.1303
1472.032	0.0508	0.2822	0.1386	0.2607	0.0774	0.5969	0.057	0.2968	0.1306
3.200				0.1847	0.0492	0.42	0.0577	0.2666	0.1312
1472.336	0.0506	0.2642	0.1741	0.2684	0.0794	0.6234	0.0568	0.2958	0.132
0.152				0.0077	0.002	0.0265	0.0506	0.2642	0.1741

1473.708 | 0.054 0.2813 0.1745 | 0.2766 0.0817 0.65 | 0.0567 0.2954 0.1333 |
 1HOLE: EAST_MEREENIE_37

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Cutoff Logs

Summation

Averages

DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
0.152				0.0082	0.0023	0.0266	0.054	0.2813	0.1745

1HOLE: EAST_MEREENIE_37

Page 28

Totals for interval : P3-10
 Interval top : 1462.7
 Interval bottom : 1483.5

Summation

Averages

Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
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4.877	0.195	0.2766	0.0817	0.65	0.0567	0.2954	0.1333
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1HOLE: EAST_MEREENIE_37

Page 29

Interval name : P3-90
Interval top : 1490
Interval bottom : 1498.2

Cutoffs:
PHIE >= 0.05
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.

1HOLE: EAST_MEREENIE_37

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Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1491.386	0.0657	0.5814	0.1447	0.01	0.0058	0.0221	0.0657	0.5814	0.1447
1491.539	0.0673	0.5769	0.1987	0.0203	0.0117	0.0523	0.0665	0.5791	0.1717
1491.691	0.0617	0.5953	0.2321	0.0297	0.0173	0.0877	0.0649	0.5843	0.1919
0.457				0.0297	0.0173	0.0877	0.0649	0.5843	0.1919

1HOLE: EAST_MEREENIE_37

Page 31

Totals for interval : P3-90
Interval top : 1490
Interval bottom : 1498.2

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
0.457	0.012	0.0297	0.0173	0.0877	0.0649	0.5843	0.1919

1HOLE: EAST_MEREENIE_37

Page 32

Interval name : P3-120/130
Interval top : 1498.2
Interval bottom : 1514.5

Cutoffs:
PHIE >= 0.05
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.

1HOLE: EAST_MEREENIE_37

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Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH

1498.702	0.0572	0.5053	0.1418	0.0087	0.0044	0.0216	0.0572	0.5053	0.1418
0.152				0.0087	0.0044	0.0216	0.0572	0.5053	0.1418
1503.731	0.0669	0.5357	0.2782	0.0189	0.0099	0.064	0.062	0.5217	0.21
1503.883	0.0695	0.4998	0.2816	0.0295	0.0152	0.1069	0.0645	0.5138	0.2339
1504.036	0.0787	0.4346	0.2366	0.0415	0.0204	0.143	0.0681	0.4909	0.2345
1504.188	0.096	0.3484	0.1779	0.0561	0.0255	0.1701	0.0737	0.4538	0.2232
1504.340	0.0982	0.3104	0.1783	0.0711	0.0301	0.1973	0.0777	0.4236	0.2157
1504.493	0.0901	0.3097	0.132	0.0848	0.0344	0.2174	0.0795	0.4052	0.2038
1504.645	0.0743	0.3574	0.0826	0.0961	0.0384	0.23	0.0788	0.3996	0.1886
1504.798	0.0567	0.4595	0.1257	0.1048	0.0424	0.2491	0.0764	0.4045	0.1816
1.219				0.0961	0.038	0.2275	0.0788	0.3953	0.1866
1505.560	0.0731	0.2989	0.0304	0.1159	0.0457	0.2538	0.0761	0.3943	0.1665
1505.712	0.0853	0.261	0	0.1289	0.0491	0.2538	0.0769	0.3809	0.1514
1505.864	0.0941	0.2422	0	0.1433	0.0526	0.2538	0.0783	0.367	0.1388
1506.017	0.0935	0.2468	0	0.1575	0.0561	0.2538	0.0795	0.3561	0.1281
1506.169	0.0937	0.2438	0	0.1718	0.0596	0.2538	0.0805	0.3468	0.1189
1506.322	0.0963	0.2394	0	0.1865	0.0631	0.2538	0.0816	0.3383	0.111
1506.474	0.0948	0.245	0	0.2009	0.0666	0.2538	0.0824	0.3316	0.1041
1506.626	0.0988	0.2316	0	0.216	0.0701	0.2538	0.0834	0.3247	0.0979
1506.779	0.0961	0.2383	0	0.2306	0.0736	0.2538	0.0841	0.3192	0.0925
1506.931	0.0893	0.2537	0	0.2442	0.0771	0.2538	0.0843	0.3155	0.0876
1507.084	0.0833	0.2602	0	0.2569	0.0804	0.2538	0.0843	0.3128	0.0833
1507.236	0.071	0.2873	0.0057	0.2677	0.0835	0.2546	0.0837	0.3118	0.0796
1507.388	0.0585	0.3105	0.0761	0.2766	0.0862	0.2662	0.0825	0.3117	0.0794
1.981				0.1719	0.0439	0.0171	0.0868	0.2552	0.0086
1508.150	0.051	0.3447	0.126	0.2844	0.0889	0.2854	0.0811	0.3126	0.0814
1508.303	0.0529	0.3452	0.1165	0.2925	0.0917	0.3032	0.08	0.3135	0.0829
1508.455	0.0552	0.3375	0.0987	0.3009	0.0945	0.3182	0.079	0.3142	0.0835
1508.608	0.0605	0.3135	0.0669	0.3101	0.0974	0.3284	0.0783	0.3142	0.0829
1508.760	0.0621	0.3125	0.0582	0.3196	0.1004	0.3373	0.0777	0.3141	0.082
1508.912	0.0623	0.3147	0.0793	0.3291	0.1034	0.3494	0.0771	0.3141	0.0819
1509.065	0.0611	0.3305	0.0834	0.3384	0.1065	0.3621	0.0766	0.3146	0.0819
1509.217	0.0619	0.3328	0.0769	0.3478	0.1096	0.3738	0.0761	0.3151	0.0818
1509.370	0.0586	0.3594	0.1017	0.3567	0.1128	0.3893	0.0755	0.3162	0.0824
1509.522	0.0597	0.3651	0.1001	0.3658	0.1161	0.4046	0.075	0.3174	0.083
1509.674	0.0623	0.3557	0.079	0.3753	0.1195	0.4166	0.0746	0.3184	0.0828
1509.827	0.0645	0.3685	0.0555	0.3852	0.1231	0.4251	0.0743	0.3197	0.082
1509.979	0.0639	0.3928	0.0753	0.3949	0.1269	0.4365	0.074	0.3215	0.0818
1510.132	0.0565	0.4669	0.1379	0.4035	0.131	0.4575	0.0735	0.3246	0.0834
2.134				0.1269	0.0447	0.1913	0.0595	0.3526	0.0897
1510.589	0.0527	0.5766	0.281	0.4115	0.1356	0.5004	0.073	0.3295	0.0887

1HOLE: EAST_MERREENIE_37

Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1510.741	0.061	0.4767	0.2537	0.4208	0.14	0.539	0.0727	0.3327	0.0931
1510.894	0.0687	0.3888	0.1741	0.4313	0.1441	0.5655	0.0726	0.3341	0.0952

1511.046	0.0678	0.3659	0.1041	0.4416	0.1479	0.5814	0.0724	0.3348	0.0954
1511.198	0.0648	0.35	0.0714	0.4515	0.1513	0.5923	0.0723	0.3352	0.0948
1511.351	0.0584	0.3727	0.0949	0.4604	0.1546	0.6068	0.0719	0.3359	0.0948
1511.503	0.0579	0.3618	0.1155	0.4692	0.1578	0.6244	0.0716	0.3364	0.0953
1511.656	0.0606	0.3551	0.1097	0.4785	0.1611	0.6411	0.0714	0.3367	0.0956
1511.808	0.0635	0.3567	0.0945	0.4881	0.1646	0.6555	0.0712	0.3371	0.0956
1511.960	0.0657	0.3495	0.074	0.4982	0.1681	0.6668	0.0711	0.3374	0.0951
1512.113	0.0637	0.364	0.0929	0.5079	0.1716	0.6809	0.0709	0.3379	0.0951
1512.265	0.0628	0.3661	0.0795	0.5174	0.1751	0.693	0.0707	0.3384	0.0947
1512.418	0.0588	0.3814	0.0939	0.5264	0.1785	0.7074	0.0705	0.3391	0.0947
1512.570	0.0561	0.3923	0.1028	0.5349	0.1819	0.723	0.0702	0.34	0.0949
1512.722	0.0549	0.3952	0.1004	0.5433	0.1852	0.7383	0.0699	0.3408	0.095
2.286				0.1398	0.0542	0.2808	0.0612	0.3878	0.1228

1HOLE: EAST_MEREENIE_37

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Totals for interval : P3-120/130
Interval top : 1498.2
Interval bottom : 1514.5

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
7.772	0.358	0.5433	0.1852	0.7383	0.0699	0.3408	0.095

1HOLE: EAST_MEREENIE_37

Page 36

Interval name : P3-150
Interval top : 1514.5
Interval bottom : 1525.4

Cutoffs:
PHIE >= 0.05
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.

1HOLE: EAST_MEREENIE_37

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Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1516.837	0.0537	0.5267	0.1383	0.0082	0.0043	0.0211	0.0537	0.5267	0.1383
1516.990	0.0649	0.49	0.1279	0.0181	0.0092	0.0406	0.0593	0.5066	0.1331
1517.142	0.066	0.513	0.1547	0.0281	0.0143	0.0642	0.0615	0.5089	0.1403
1517.294	0.066	0.5089	0.1568	0.0382	0.0194	0.088	0.0626	0.5089	0.1444
1517.447	0.0619	0.5218	0.1503	0.0476	0.0244	0.1109	0.0625	0.5115	0.1456
1517.599	0.0614	0.4777	0.1265	0.057	0.0288	0.1302	0.0623	0.5059	0.1424
1517.752	0.0606	0.4257	0.1043	0.0662	0.0328	0.1461	0.0621	0.4948	0.137
1517.904	0.0573	0.4264	0.0964	0.0749	0.0365	0.1608	0.0615	0.4868	0.1319
1518.056	0.0519	0.5419	0.1277	0.0828	0.0408	0.1803	0.0604	0.4921	0.1314
1.372				0.0828	0.0408	0.1803	0.0604	0.4921	0.1314
1522.019	0.0579	0.45	0.1572	0.0917	0.0447	0.2042	0.0602	0.488	0.134

1522.171	0.0624	0.4665	0.19	0.1012	0.0492	0.2332	0.0604	0.486	0.1391
1522.324	0.0753	0.4056	0.2176	0.1127	0.0538	0.2663	0.0616	0.4778	0.1456
1522.476	0.0888	0.3611	0.2546	0.1262	0.0587	0.3051	0.0637	0.4653	0.154
1522.628	0.0968	0.3426	0.1873	0.141	0.0638	0.3337	0.0661	0.4524	0.1564
1522.781	0.0948	0.3536	0.0937	0.1554	0.0689	0.348	0.068	0.4432	0.1522
1522.933	0.0897	0.3682	0.0979	0.1691	0.0739	0.3629	0.0693	0.4372	0.1488
1523.086	0.0828	0.3801	0.1454	0.1817	0.0787	0.385	0.0701	0.4332	0.1486
1523.238	0.0831	0.3751	0.1584	0.1944	0.0835	0.4092	0.0709	0.4294	0.1492
1523.390	0.0702	0.4467	0.1298	0.2051	0.0882	0.4289	0.0708	0.4303	0.1481
1523.543	0.0718	0.4268	0.1032	0.216	0.0929	0.4447	0.0709	0.4302	0.1459
1523.695	0.0757	0.4289	0.1271	0.2275	0.0979	0.4641	0.0711	0.4301	0.145
1523.848	0.0861	0.3828	0.1031	0.2407	0.1029	0.4798	0.0718	0.4275	0.1431
1524.000	0.0837	0.3874	0.0686	0.2534	0.1078	0.4902	0.0723	0.4255	0.1399
1524.152	0.0793	0.371	0.0305	0.2655	0.1123	0.4949	0.0726	0.423	0.1353
1524.305	0.0731	0.3867	0.0244	0.2766	0.1166	0.4986	0.0726	0.4215	0.1309
1524.457	0.0674	0.4257	0.053	0.2869	0.121	0.5067	0.0724	0.4217	0.1279
1524.610	0.0674	0.4263	0.0956	0.2972	0.1254	0.5212	0.0722	0.4219	0.1267
2.743				0.2143	0.0846	0.341	0.0781	0.3947	0.1243

1HOLE: EAST_MERREENIE_37

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Totals for interval : P3-150
Interval top : 1514.5
Interval bottom : 1525.4

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
4.115	0.172	0.2972	0.1254	0.5212	0.0722	0.4219	0.1267

1HOLE: EAST_MERREENIE_37

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Interval name : P3-190
Interval top : 1525.4
Interval bottom : 1536

Cutoffs:
PHIE >= 0.05
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.
1HOLE: EAST_MERREENIE_37

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Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1530.401	0.0715	0.4348	0.2431	0.0109	0.0047	0.0371	0.0715	0.4348	0.2431
1530.553	0.078	0.4127	0.1367	0.0228	0.0096	0.0579	0.0747	0.4233	0.1899
1530.706	0.0879	0.3625	0.0918	0.0362	0.0145	0.0719	0.0791	0.4008	0.1572
1530.858	0.0891	0.3603	0.0776	0.0497	0.0194	0.0837	0.0816	0.3897	0.1373
1531.010	0.086	0.3599	0.0614	0.0629	0.0241	0.0931	0.0825	0.3835	0.1221
1531.163	0.0807	0.3666	0.0766	0.0752	0.0286	0.1047	0.0822	0.3807	0.1145
1531.315	0.081	0.3467	0.0708	0.0875	0.0329	0.1155	0.082	0.3759	0.1083
1531.468	0.0809	0.3456	0.1102	0.0998	0.0372	0.1323	0.0819	0.3722	0.1085
1531.620	0.0849	0.3331	0.1075	0.1128	0.0415	0.1487	0.0822	0.3677	0.1084

1531.772	0.086	0.3335	0.0901	0.1259	0.0458	0.1624	0.0826	0.3641	0.1066
1531.925	0.0858	0.3335	0.0735	0.139	0.0502	0.1736	0.0829	0.3612	0.1036
1532.077	0.0825	0.3481	0.0729	0.1515	0.0546	0.1847	0.0829	0.3602	0.101
1532.230	0.0836	0.3493	0.0749	0.1643	0.059	0.1962	0.0829	0.3593	0.099
1532.382	0.0846	0.349	0.0931	0.1772	0.0635	0.2103	0.083	0.3586	0.0986
1532.534	0.0877	0.3459	0.1298	0.1905	0.0681	0.2301	0.0833	0.3577	0.1007
1532.687	0.0881	0.3543	0.1655	0.2039	0.0729	0.2554	0.0836	0.3575	0.1047
1532.839	0.0898	0.3621	0.1714	0.2176	0.0779	0.2815	0.084	0.3578	0.1086
1532.992	0.0898	0.3677	0.1618	0.2313	0.0829	0.3061	0.0843	0.3583	0.1116
1533.144	0.0921	0.3617	0.1263	0.2454	0.088	0.3254	0.0847	0.3585	0.1124
1533.296	0.089	0.3774	0.1265	0.2589	0.0931	0.3447	0.085	0.3595	0.1131
1533.449	0.0866	0.3933	0.1337	0.2721	0.0983	0.365	0.085	0.3612	0.1141
1533.601	0.0892	0.383	0.1384	0.2857	0.1035	0.3861	0.0852	0.3622	0.1152
1533.754	0.0873	0.395	0.1422	0.299	0.1087	0.4078	0.0853	0.3637	0.1163
1533.906	0.0854	0.4065	0.1326	0.312	0.114	0.428	0.0853	0.3654	0.117
1534.058	0.0844	0.4062	0.119	0.3249	0.1193	0.4461	0.0853	0.3671	0.1171
1534.211	0.0865	0.3912	0.1034	0.3381	0.1244	0.4619	0.0853	0.368	0.1166
1534.363	0.0809	0.4084	0.1421	0.3504	0.1294	0.4835	0.0852	0.3694	0.1175
1534.516	0.0769	0.4115	0.1837	0.3621	0.1343	0.5115	0.0849	0.3708	0.1199
1534.668	0.0765	0.42	0.1847	0.3738	0.1392	0.5397	0.0846	0.3723	0.1221
1534.820	0.0784	0.4078	0.1306	0.3857	0.144	0.5596	0.0844	0.3734	0.1224
1534.973	0.0697	0.402	0.0895	0.3963	0.1483	0.5732	0.0839	0.3742	0.1213
1535.125	0.0538	0.4707	0.1214	0.4045	0.1522	0.5917	0.083	0.3761	0.1213
4.877				0.4045	0.1522	0.5917	0.083	0.3761	0.1213

1HOLE: EAST_MEREEENIE_37

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Totals for interval : P3-190
Interval top : 1525.4
Interval bottom : 1536

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
4.877	0.252	0.4045	0.1522	0.5917	0.083	0.3761	0.1213

1HOLE: EAST_MEREEENIE_37

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Interval name : P3-230/250
Interval top : 1536
Interval bottom : 1550.5

Cutoffs:
PHIE >= 0.05
SW < 0.6
VSH < 0.3

Depth listing for pay depths.
Summation type is zone.
1HOLE: EAST_MEREEENIE_37

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Cutoff Logs				Summation			Averages		
DEPTH	PHIE	SW	VSH	PHIE	BVW	VSH	PHIE	SW	VSH
1544.879	0.0503	0.5248	0.1736	0.0077	0.004	0.0265	0.0503	0.5248	0.1736
1545.031	0.0612	0.4331	0.0722	0.017	0.0081	0.0375	0.0558	0.4745	0.1229
1545.184	0.0608	0.5176	0.0707	0.0263	0.0129	0.0482	0.0574	0.4897	0.1055

0.457				0.0263	0.0129	0.0482	0.0574	0.4897	0.1055
1547.165	0.079	0.5463	0.1102	0.0383	0.0194	0.065	0.0628	0.5075	0.1067
1547.317	0.0892	0.4971	0.1119	0.0519	0.0262	0.0821	0.0681	0.5048	0.1077
1547.470	0.0902	0.5196	0.1574	0.0656	0.0333	0.1061	0.0718	0.5079	0.116
1547.622	0.0895	0.5286	0.1912	0.0793	0.0405	0.1352	0.0743	0.5114	0.1268
1547.774	0.09	0.5184	0.1772	0.093	0.0477	0.1622	0.0763	0.5125	0.1331
1547.927	0.0944	0.4907	0.1147	0.1074	0.0547	0.1797	0.0783	0.5095	0.131
1548.079	0.0999	0.4574	0.0057	0.1226	0.0617	0.1806	0.0804	0.5031	0.1185
1548.232	0.0993	0.4696	0	0.1377	0.0688	0.1806	0.0822	0.4994	0.1077
1548.384	0.0847	0.5412	0.1073	0.1506	0.0758	0.1969	0.0824	0.503	0.1077
1548.536	0.0755	0.5801	0.2109	0.1621	0.0824	0.2291	0.0818	0.5084	0.1156
1548.689	0.0715	0.5779	0.204	0.173	0.0887	0.2602	0.0811	0.5128	0.1219
1548.841	0.0667	0.5918	0.122	0.1832	0.0948	0.2787	0.0801	0.5172	0.1219
1548.994	0.0597	0.5315	0.1173	0.1923	0.0996	0.2966	0.0789	0.5179	0.1216
1.981				0.166	0.0867	0.2484	0.0838	0.5223	0.1254

1HOLE: EAST_MEREEENIE_37

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Totals for interval : P3-230/250
Interval top : 1536
Interval bottom : 1550.5

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
2.438	0.093	0.1923	0.0996	0.2966	0.0789	0.5179	0.1216

1HOLE: EAST_MEREEENIE_37

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Totals for hole EAST_MEREEENIE_37 :

Summation					Averages		
Thickness	Hydrocarbon	PHIE	BVW	VSH	PHIE	SW	VSH
35.357	0.093	2.5083	0.9742	3.7263	0.0709	0.3884	0.1054

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*          PAYSUMMARY REPORT
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*      *** END OF REPORT ***
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*      Project : OPERATIONS
*      User id  : expapp
*      Date    : 17-Aug-95 09:01
*      Pages   : 45
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