

**WATER-BASED MUD REPORT No. 7**

<b>Date</b>	<b>25/09/2005</b>	<b>Depth/TVD</b>	<b>1327 m / 1327 m</b>
<b>Spud Date</b>	<b>19/09/2005</b>	<b>Mud Type</b>	<b>KCl/PHPA/Polymer</b>
<b>Water Depth</b>		<b>Activity</b>	<b>Drill 8-1/2" hole.</b>

**Operator :** Origin Energy  
**Report For :** Seton Porter / Bryan Webb  
**Well Name :** Childer's Cove-1  
**Contractor :** Century Drilling Ltd.  
**Report For :** Ben Hale

**Field/Area :** PEP 154  
**Description :** Vertical Exploration  
**Location :** Onshore Otway Basin  
**M-I Well No. :**

DRILLING ASSEMBLY		CASING	MUD VOLUME (bbl)	CIRCULATION DATA		
Bit Size	8.5 in HC 605s	Surface	Hole	Pump Make	National 8P-80	National 8P-80
Nozzles	14 / 5x13 / 1/32"	20in @16m (16TVD)	268.8	Pump Size	6 X 8.5in	6 X 8.5in
Drill Pipe Size	Length 4.5 in 1118 m	Intermediate 9.625in @545m (545TVD)	Active Pits 358.2	Pump Cap	3.027 gal/stk	3.027 gal/stk
Drill Pipe Size	Length 4.5 in 38 m	Intermediate in @m (TVD)	Total Circulating Vol 627	Pump stk/min	105@97%	103@97%
Drill Collar Size	Length 6.25 in 172 m	Production or Liner	In Storage 90	Flow Rate	630 gal/min	
				Bottoms Up	14.1 min	2938 stk
				Total Circ Time	41.8 min	8694 stk
				Circulating Pressure	1112 psi	

MUD PROPERTIES			
Sample From	Pit@24:00	Pit@10:30	
Flow Line Temp	°C	46	39
Depth/TVD	m	1327/1327	1032/1032
Mud Weight	sp.gr.	1.07@35°C	1.06@35°C
Funnel Viscosity	s/qt	52	58
Rheology Temp	°C	35	35
R600/R300		58/43	54/38
R200/R100		34/27	27/19
R6/R3		8/5	7/5
PV	cP	15	16
YP	lb/100ft²	28	22
10s/10m/30m Gel	lb/100ft²	6/8/9	7/10/12
API Fluid Loss	cc/30 min	5.8	6.5
HTHP FL Temp	cc/30 min		
Cake API/HTHP	1/32"	1/	1/
Solids	%Vol	7	6
Oil/Water	%Vol	/93	/94
Sand	%Vol	0.5	1.0
MBT	lb/bbl	4	3.75
pH		8.7	9.0
Alkal Mud (Pm)		0.3	0.3
Pf/Mf		0.1/0.45	0.1/0.6
Chlorides	mg/l	21000	22000
Hardness Ca	mg/l	180	100
KCl	%	4	4
PHPA	ppb.	1.0	1.1
Sulphite	mg/l	0	0

PRODUCTS USED LAST 24 HRS		
Products	Size	Amt
SODIUM BICARBONATE	25 KG BG	2
POTASSIUM CHLORIDE	25 KG BG	155
GLUTE 25	25 LT CN	2
Polyplus Powder	25 KG BG	3
DUOTEC	25 KG BG	10
POLYPAC UL	25 KG BG	24

SOLIDS EQUIP	Size	Hr
DFE Shaker 1	110/110/110	24
DFE Shaker 2	110/110/110	24
D-Sander		0
D-Filter		18

**REMARKS AND TREATMENT**  
Sub-surface seepage losses continue through Dilwyn fnt (775 - 1191 m.).  
Build new volume. Increase carrying capacity. Change out shaker screens to 110-mesh. Decrease sand content. Dump sandtraps. Run desilter.

**REMARKS**  
Drill ahead. Surveys = 0 deg.

TIME DISTR	Last 24 Hrs	MUD VOL ACCTG (bbl)	SOLIDS ANALYSIS (%/lb/bbl)	MUD RHEOLOGY & HYDRAULICS	
Rig Up/Service		Oil Added	NaCl	np/na Values	0.432/0.481
Drilling	24	Water Added	KCl	kp/ka (lb*s^n/100ft²)	3.107/2.435
Tripping		Mud Received	Low Gravity	Bit Loss (psi / %)	512 / 46
Non-Productive Tim		Dumped	Bentonite	Bit HHP (hhp / HSI)	188 / 3.3
		Shakers	Drill Solids	Bit Jet Vel (m/s)	77
		Formation	Weight Material	Ann. Vel DP (m/min)	90.51
		Desilter	Chemical Conc	Ann. Vel DC (m/min)	141.81
		Desander	Inert/React	Crit Vel DP (m/min)	122
			Average SG	Crit Vel DC (m/min)	146
			Carb/BiCarb (m mole/L)	ECD @ 1327 (sp.gr.)	1.16

<b>M-I ENGR / PHONE</b>	<b>RIG PHONE</b>	<b>WAREHOUSE PHONE</b>	<b>DAILY COST</b>	<b>CUMULATIVE COST</b>
Mike McKay	02-82118553		A\$ 9,328.95	A\$ 30,500.77

