



**WATER-BASED MUD REPORT No. 11**

|                    |                   |                  |                          |
|--------------------|-------------------|------------------|--------------------------|
| <b>Date</b>        | <b>29/09/2005</b> | <b>Depth/TVD</b> | <b>2377 m / 2377 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    |
| Nozzles           | 14 /5x13 / 1/32" | 20in @16m (16TVD)      | 488.3                 | Pump Size            | 6 X 8.5in         |
| Drill Pipe Size   | Length           | Intermediate           | Active Pits           | Pump Cap             | 3.027 gal/stk     |
| 4.5 in            | 2168 m           | 9.625in @545m (545TVD) | 379.7                 | Pump stk/min         | 88@97%            |
| Drill Pipe Size   | Length           | Intermediate           | Total Circulating Vol | Flow Rate            |                   |
| 4.5 in            | 38 m             | in @m (TVD)            | 868                   | 521 gal/min          |                   |
| Drill Collar Size | Length           | Production or Liner    | In Storage            | Bottoms Up           | 30.9 min 5311 stk |
| 6.25 in           | 172 m            |                        | 88                    | Total Circ Time      | 70 min 12035 stk  |
|                   |                  |                        |                       | Circulating Pressure | 1800 psi          |

| MUD PROPERTIES   |           |           |           |
|------------------|-----------|-----------|-----------|
| Sample From      |           | Pit@24:00 | Pit@14:00 |
| Flow Line Temp   | °C        | 58        | 54        |
| Depth/TVD        | m         | 2377/2377 | 2285/2285 |
| Mud Weight       | sp.gr.    | 1.13@40°C | 1.13@40°C |
| Funnel Viscosity | s/qt      | 66        | 62        |
| Rheology Temp    | °C        | 48        | 48        |
| R600/R300        |           | 88/61     | 67/45     |
| R200/R100        |           | 49/33     | 36/23     |
| R6/R3            |           | 7/4       | 5/3       |
| PV               | cP        | 27        | 22        |
| YP               | lb/100ft² | 34        | 23        |
| 10s/10m/30m Gel  | lb/100ft² | 6/10/11   | 6/9/11    |
| API Fluid Loss   | cc/30 min | 5.0       | 5.3       |
| HTHP FL Temp     | cc/30 min |           |           |
| Cake API/HTHP    | 1/32"     | 1/        | 1/        |
| Solids           | %Vol      | 8         | 8         |
| Oil/Water        | %Vol      | /92       | /92       |
| Sand             | %Vol      | 0.6       | 0.5       |
| MBT              | lb/bbl    | 10        | 10        |
| pH               |           | 9.5       | 9.5       |
| Alkal Mud (Pm)   |           | 0.6       | 0.5       |
| Pf/Mf            |           | 0.2/1.1   | 0.2/0.8   |
| Chlorides        | mg/l      | 26000     | 24000     |
| Hardness Ca      | mg/l      | 100       | 100       |
| KCl              | %         | 4.3       | 4.2       |
| PHPA             | ppb.      | 1.0       | 0.9       |
| Sulphite         | mg/l      | 80        | 100       |

| PRODUCTS USED LAST 24 HRS |          |     |
|---------------------------|----------|-----|
| Products                  | Size     | Amt |
| CAUSTIC SODA (DRY)        | 25 KG DM | 5   |
| SODIUM BICARBONATE        | 25 KG BG | 1   |
| M-I BAR                   | 25 KG BG | 176 |
| POTASSIUM CHLORIDE        | 25 KG BG | 43  |
| GLUTE 25                  | 25 LT CN | 1   |
| Polyplus Powder           | 25 KG BG | 4   |
| DUOTEC                    | 25 KG BG | 3   |
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| SOLIDS EQUIP | Size        | Hr |
|--------------|-------------|----|
| DFE Shaker 1 | 140/140/110 | 18 |
| DFE Shaker 2 | 175/175/175 | 18 |
| D-Sander     |             | 0  |
| D-Silter     |             | 14 |
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| MUD PROPERTY SPECIFICATIONS |            |  |
|-----------------------------|------------|--|
| Weight                      | 1.08 -1.13 |  |
| Viscosity                   | 35 - 50    |  |
| Filtrate                    | 5.0 - 7.0  |  |

**REMARKS AND TREATMENT**

Increase mud density to 1.13 sg. Change shaker screens. Add caustic to assist alkalinity maker for possible CO2 from Waarre - see 14:00 hr mud check for base-line alkalinity.

**REMARKS**

Wiper trip to shoe. Drill ahead. Non-stressed caving returns from trip.

| 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              |
| Drilling           | 14          | Water Added         | KCl                        | kp/ka (lb*s^n/100ft²)     |
| Tripping           | 10          | Mud Received        | Low Gravity                | Bit Loss (psi / %)        |
| Non-Productive Tim |             | Dumped              | Bentonite                  | Bit HHP (hhp / HSI)       |
|                    |             | Shakers             | Drill Solids               | Bit Jet Vel (m/s)         |
|                    |             | Formation           | Weight Material            | Ann. Vel DP (m/min)       |
|                    |             | Desilter            | Chemical Conc              | Ann. Vel DC (m/min)       |
|                    |             | Desander            | Inert/React                | Crit Vel DP (m/min)       |
|                    |             |                     | Average SG                 | Crit Vel DC (m/min)       |
|                    |             |                     | Carb/BiCarb (m mole/L)     | ECD @ 2377 (sp.gr.)       |

| M-I ENGR / PHONE | RIG PHONE   | WAREHOUSE PHONE | DAILY COST   | CUMULATIVE COST |
|------------------|-------------|-----------------|--------------|-----------------|
| Mike McKay       | 02-82118553 |                 | A\$ 3,811.58 | A\$ 64,009.65   |

