

DRILLING FLUID SUMMARY

**FOR : ESSENTIAL PETROLEUM
RESOURCES LTD**

WELL : KILLARNEY EPRL # 1

OTWAY BASIN

VICTORIA

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Date : June 2004

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Operator : Essential Petroleum Resources Ltd
Well : Killarney EPRL # 1
Rig : Hunt Energy # 2
Spud : 9th June 2004



1. SUMMARY OF OPERATIONS

Killarney EPRL # 1 was spudded in at 12:30 hours on the 9th June 2004 utilising Hunt Energy # 2 and reached a total depth of 1640 m on the 17th June 2004.

Make up water had the following properties :

| | | |
|-----------|---|-----------|
| pH | : | 8.5 |
| Pf / Mf | : | Tr / 0.35 |
| Chlorides | : | 300 mg/l |
| Hardness | : | Tr |

| | | |
|------------------|---|-----------------------|
| HOLE SIZE | : | 12¼" |
| MUD TYPE | : | Gel Spud Mud |
| INTERVAL | : | 0 - 258 m |
| CASING | : | 9-5/8" @ 256 m |

All tanks were filled with water. The Pill tank and trough were isolated and lined up to drill cement from the conductor shoe. Into the suction tank, 180 bbls of 25 ppb Gel-Caustic Spud mud was mixed and allowed to yield. S55 mesh shaker screens were fitted to the single shaker.

The well was spudded and drilling continued (slowly initially) with the thick gel spud mud. Once the 8" collar was below the conductor barrel, the entire mud system was used by gradually blending the spud mud into the remainder of the water filled tanks. This diluted and thinned the mud back, (viscosity of 36 sec/qt and yield point of 8 lb/100ft²) but as drilling continued, native clays started bringing the viscosity back up.

Water was added continuously to maintain volume and control the viscosity and mud weight. From 220 m (top of the Gellibrand marl formation) SAPP was added to the system to aid clay dispersion and prevent mud rings from occurring.

By the time the section TD of 258 m was reached, the mud weight had reached 9.3 ppg and the yield point was 11 lb/100ft².

The hole was circulated clean and the pipe pulled out to run casing.

9-5/8" surface casing was then run in the hole. The casing was circulated to bottom and the hole was circulated clean. The casing was then cemented, with good returns to surface.

HOLE SIZE : 8½" Production hole

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MUD TYPE : 4% KCl PHPA Polymer
INTERVAL : 258m - 1640 m (TD)

While nipping up BOP's the tanks were dumped, cleaned and refilled with water. The pill tank and trough were isolated for drilling cement. The coarsest shaker screens (S55) used on surface hole were left on the shaker.

Into the remaining tanks 450 bbls of KCL-PHPA fluid was prepared with

- 4% KCL,
- 0.15 ppb PHPA,
- 0.5 ppb Pac-R and
- 0.1 ppb Xanvis.

The system was then continually circulated via the hopper and gun line to shear up the fluid as much as possible before use. This low concentration of polymers was intentionally mixed to prevent major mud loss over the single shaker due to unsheared polymer blinding.

An 8½" bit and BHA was run into the hole and tagged cement at 236 m. The cement was drilled with water via the trough and pill tank and while drilling on the shoe the hole was displaced to the stored KCL-PHPA fluid.

After the F.I.T. was performed, drilling resumed, with a circulation rate of 448 gpm. Further Polymer additions were made, both from premix addition and direct to the system to build up the PHPA concentration and other fluid properties. Once the system was within spec's (i.e. Yield Point > 10 lb/100ft² and Fluid Loss < 8 cc's) and the new polymers sheared, the shaker screens were upgraded to 110 – 84 – 54 mesh which was the finest combination that could be run at this pump rate.

Drilling continued with fluid properties and volume controlled with premix additions. A combination of AMC Pac-R and AMC Pac-L was used to lower the fluid loss and Xan-Bore was required to build the yield point, especially in the earlier stages of the hole. The sand trap was dumped of solids when required, and the Desilter run. Mud loss to various sand formations occurred, but were self-healing.

Drilling continued to 1321 m where the hole was circulated clean and the pipe slugged (with KCL) the pipe was pulled out for a new bit. Minor tight hole patches were noted on the trip out.

A new Bit was run into the hole and washed / reamed through tight hole from 1074 m – 1321 m and drilling resumed.

With fewer losses downhole reducing the need for new volume, the mud weight began rising quite rapidly and at 9.5 ppg a sequence of dumping settling tanks and diluting with new premix was done to maintain the mud weight at no more than 9.5 ppg. Recycled solids free sump water, now rich in KCL and free PHPA was used for premix volume.

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Rising hardness after the bit change and from the sump water required treatment with Soda Ash.

Drilling continued to a total depth of 1640 m where the hole was circulated clean. The pipe was slugged (Barytes) and a 20 stand wiper trip pulled finding tight hole from 1280 m which required circulation and pumping out. The wiper trip was continued back to the last bit trip depth to find good hole and then running back to bottom tagging fill at 1612 m and washed to bottom at 1640 m. The hole was then circulated clean, the pipe slugged and pulled out of the hole with no further tight hole reported.

Logging tools were made up and run into the hole successfully to bottom and the full logging program completed without hole problems.

Open ended drill-pipe was then run in to bottom and the hole circulated clean. Cement plugs were then set as per the P & A program.

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2. OBSERVATIONS, RECOMMENDATIONS AND WELL ANALYSIS

Killarney EPRL # 1 was drilled to a total depth of 1640 m for a mud cost of \$18,998.40 or \$11.58 per metre. The well was drilled problem free from a mud viewpoint and hole conditions were good throughout.

Chemical mixing into the pill tank (which doubled as a Premix tank) was poor mainly due to lack of agitation

The rigs solids control equipment worked well. The linear motion shaker worked well as expected, but there being only the one shaker can cause problems, especially with high pump outputs. More pleasing was the performance of the desander and desilter. Both units worked well and put out underflows indicating that the equipment was working fairly optimally. However as both units are run from the one pump there is not enough throughput to run both units at the same time.

12¼" Surface Hole

This section of hole was drilled for a mud cost of \$1084.70, slightly higher than expected. Extra gel was mixed at the start to fill the larger suction tank (180 Bbls) as the spud mud couldn't be mixed into the smaller intermediate tank. SAPP was used to great effect once the problematic Gellibrand Marl formation was intersected and successfully removed the threat of Mud Rings and pack-offs.

8½" Production Hole

This section of hole was drilled for a mud cost of \$17,913.70 or \$12.96 per metre. The main thing to note in this section is the high circulation rate used in conjunction with the PDC bit. The high flow rate prevented finer shaker screens being fitted and toward the lower section of the hole, frequent dumping and dilution was required. However some savings were made by recycling the sump water and re-using the KCL and free PHPA it contained.

The calliper shows washed out areas throughout most of the sandy formations due probably to the high circulation rate. However gauge hole was preserved through the zones of interest presenting good packer seat locations had they been required.

Overall, a change to the mud program is not required, simply because the system worked well and achieved its aims of helping drill the hole quickly, efficiently and without undue amounts of hole problems.

3. INTERVAL COSTS

| Product | Interval : | 12-1/4" Surface Hole | | | 8-1/2" Intermediate Hole | | | Total Well Consumption | | | |
|----------------------|------------|----------------------|-----------|------|--------------------------|------------|-------|------------------------|------------|-------------|--------|
| | | 0 - 258 m | | | 258 m - 1640 m | | | 0 - 1640 m (TD) | | | |
| | | Cost | Unit Size | Used | Cost | %Cost | Used | Cost | %Cost | Used | Cost |
| AMC Biocide G | \$ 210.00 | 25 lt | | | 1 | \$210.00 | 1.2% | 1 | \$210.00 | 1.1% | |
| AMC Pac L | \$ 148.20 | 25 kg | | | 13 | \$1,926.60 | 10.8% | 13 | \$1,926.60 | 10.1% | |
| AMC Pac R | \$ 148.20 | 25 kg | | | 31 | \$4,594.20 | 25.6% | 31 | \$4,594.20 | 24.2% | |
| Aus-Gel 25kg (Aust) | \$ 11.10 | 25 kg | | 84 | \$932.40 | 86.0% | | 84 | \$932.40 | 4.9% | |
| Baryte | \$ 6.30 | 25 kg | | | | | 1.1% | 30 | \$189.00 | 1.0% | |
| Caustic Soda | \$ 37.30 | 25 kg | | 1 | \$37.30 | 3.4% | | 1 | \$37.30 | 0.2% | |
| PHPA | \$ 105.70 | 25 kg | | | 23 | \$2,431.10 | 13.6% | 23 | \$2,431.10 | 12.8% | |
| Potassium Chloride (| \$ 13.80 | 25 kg | | | 409 | \$5,644.20 | 31.5% | 409 | \$5,644.20 | 29.7% | |
| SAPP | \$ 57.50 | 25 kg | | 2 | \$115.00 | 10.6% | | 2 | \$115.00 | 0.6% | |
| Soda Ash | \$ 19.50 | 25 kg | | | 10 | \$195.00 | 1.1% | 10 | \$195.00 | 1.0% | |
| Sodium Sulphite | \$ 32.50 | 25 kg | | | 20 | \$650.00 | 3.6% | 20 | \$650.00 | 3.4% | |
| Xan-Bore | \$ 345.60 | 25 kg | | 6 | \$2,073.60 | 11.6% | | 6 | \$2,073.60 | 10.9% | |
| Totals : | | | | | \$1,084.70 | 100.0% | | \$17,913.70 | 100.0% | \$18,998.40 | 100.0% |
| Cost per Metre : | | | | | \$4.20 | | | \$12.96 | | \$11.58 | |

4. MATERIALS RECONCILIATION

Previous Well : Ex Adelaide Stores
Well : Kilarney # 1
Transferred to : Findra # 1

| PRODUCT | UNIT | TOTAL RECEIVED | TOTAL USED | TRANSFER BALANCE |
|--------------------------|--------|----------------|------------|------------------|
| AMC Biocide G | 25 lt | 8 | 1 | 7 |
| AMC Defoamer | 25 lt | 8 | | 8 |
| AMC Pac - Low | 25 kg | 20 | 13 | 7 |
| AMC Pac - Reg | 25 kg | 40 | 31 | 9 |
| Aus-Gel | 25 kg | 126 | 84 | 42 |
| Barytes | 25 kg | 320 | 30 | 290 |
| Calcium Carbonate (ESS) | 25 kg | 40 | | 40 |
| Calcium Chloride (ESS) | 25 kg | 80 | | 80 |
| Caustic Soda | 25 kg | 18 | 1 | 17 |
| Kwikseal Fine | 40 lb | 21 | | 21 |
| Kwikseal Med | 40 lb | 28 | | 28 |
| Lime | 25 kg | 6 | | 6 |
| PHPA | 25 kg | 72 | 23 | 49 |
| Potassium Chloride | 25 kg | | | |
| Potassium Chloride (ESS) | 25 kg | 504 | 409 | 95 |
| Rod-Free | 208 lt | 1 | | 1 |
| Salt (ESS) | 25 kg | 144 | | 144 |
| SAPP | 25 kg | 20 | 2 | 18 |
| Soda Ash | 25 kg | 35 | 10 | 25 |
| Sodium Sulphite | 25 kg | 42 | 20 | 22 |
| Xan-Bore | 25 kg | 10 | 6 | 4 |
| | | | | |

5. FLUID PROPERTIES SUMMARY

| Date | Mud Type | Temp. | Depth | Weight | Vis | PV | YP | Gels | | | Filtrate | | Solids | | | | | pH | Pm | Pf | Mf | Cl- | Ca++ | SO3= | K+ | KCl | PHPA |
|-----------|-------------|-------|-------|--------|-----|----|----|--------|--------|-----|----------|--------|--------|------|------|------|------|------|------|-----|--------|-----|------|--------|--------|------|------|
| | | | | | | | | 10 sec | 10 min | API | Cake | Solids | Water | Sand | MBT | | | | | | | | | | | | |
| 9-Jun-04 | Spud Mud | | 0 | 8.40 | 60 | 12 | 23 | 11 | 23 | | | 0.4 | 99.6 | | 25.0 | 8.8 | 0.1 | 0.05 | 0.90 | | 800 | 80 | | | | | |
| 10-Jun-04 | Spud Mud | | 110 | 8.70 | 36 | 8 | 15 | 8 | 18 | | | 2.5 | 97.5 | TR | 18.0 | 8.8 | | 0.10 | 0.90 | | 800 | 200 | | | | | |
| | | 230 | 9.10 | 38 | 10 | 11 | 28 | | | 5.4 | 94.6 | tr | 22.5 | 8.5 | | 0.05 | 0.70 | | 800 | 220 | | | | | | | |
| | Spud Mud | | 258 | 9.30 | 38 | 10 | 12 | 12 | 28 | | | 6.8 | 93.2 | tr | 20.0 | 8.5 | | 0.05 | 0.60 | | 800 | 220 | | | | | |
| 11-Jun-04 | 4% KCL-PHPA | | 258 | 8.60 | 31 | 5 | 3 | 1 | 2 | | | 0.7 | 99.3 | | | 8.5 | | 0.05 | 0.60 | | 20,000 | 80 | | 21,616 | 4.0 | 0.15 | |
| 12-Jun-04 | 4% KCL-PHPA | | 261 | 8.65 | 29 | 4 | 4 | 1 | 2 | | | 1.0 | 99.0 | | | 8.5 | | 0.05 | 0.60 | | 20,000 | 80 | | 21,616 | 4.0 | 0.20 | |
| 13-Jun-04 | 4% KCL-PHPA | 90 | 440 | 8.90 | 45 | 10 | 13 | 2 | 4 | 8 | 1 | 2.7 | 97.3 | TR | 5.0 | 8.5 | | 0.05 | 0.60 | | 21,000 | 120 | 80 | | 22,156 | 4.1 | 0.60 |
| | 4% KCL-PHPA | 98 | 661 | 9.20 | 39 | 10 | 15 | 2 | 4 | 7 | 1 | 4.9 | 95.1 | tr | 5.0 | 8.5 | | 0.05 | 0.70 | | 21,000 | 120 | 120 | | 21,616 | 4.0 | 0.70 |
| 14-Jun-04 | 4% KCL-PHPA | 108 | 960 | 9.30 | 41 | 14 | 16 | 2 | 5 | 6.2 | 1 | 5.6 | 94.4 | TR | 7.5 | 8.5 | | 0.05 | 0.60 | | 21,000 | 280 | 120 | | 22,156 | 4.1 | 1.00 |
| | 4% KCL-PHPA | 110 | 1098 | 9.20 | 40 | 13 | 16 | 2 | 5 | 6.0 | 1 | 4.9 | 95.1 | TR | 7.5 | 8.5 | | 0.05 | 0.55 | | 21,000 | 280 | 80 | | 21,616 | 4.0 | 1.00 |
| 15-Jun-04 | 4% KCL-PHPA | 112 | 1268 | 9.30 | 43 | 16 | 19 | 3 | 6 | 6.2 | 1 | 5.6 | 94.4 | tr | 10.0 | 8.5 | | 0.05 | 0.55 | | 21,500 | 320 | 120 | | 22,156 | 4.1 | 1.10 |
| | 4% KCL-PHPA | | 1321 | 9.30 | 43 | 15 | 19 | 2 | 6 | 6.2 | 1 | 5.6 | 94.4 | tr | 10.0 | 8.5 | | 0.05 | 0.55 | | 21,000 | 280 | 120 | | 21,616 | 4.0 | 1.10 |
| 16-Jun-04 | 4% KCL-PHPA | 106 | 1370 | 9.30 | 40 | 14 | 16 | 2 | 5 | 6.2 | 1 | 5.7 | 94.3 | 1/4 | 10.0 | 8.5 | | 0.05 | 0.55 | | 19,500 | 340 | 80 | | 21,616 | 4.0 | 1.10 |
| | 4% KCL-PHPA | 110 | 1411 | 9.40 | 40 | 15 | 14 | 2 | 4 | 6.0 | 1 | 6.4 | 93.6 | 1/4 | 10.0 | 8.8 | | 0.05 | 0.55 | | 19,000 | 380 | 120 | | 21,076 | 3.9 | 1.00 |
| 17-Jun-04 | 4% KCL-PHPA | 110 | 1520 | 9.50 | 42 | 16 | 15 | 2 | 4 | 6.0 | 1 | 7.0 | 93.0 | 1/2 | 10.0 | 8.8 | | 0.10 | 0.75 | | 21,500 | 320 | 80 | | 21,616 | 4.0 | 0.95 |
| | 4% KCL-PHPA | | 1640 | 9.40 | 43 | 15 | 16 | 2 | 5 | 6.0 | 1 | 6.3 | 93.7 | 1/4 | 10.0 | 8.5 | | 0.05 | 0.70 | | 22,000 | 360 | 120 | | 22,156 | 4.1 | 0.90 |
| 18-Jun-04 | 4% KCL-PHPA | | 1640 | 9.45 | 43 | 15 | 16 | 2 | 4 | 6.0 | 1 | 6.6 | 93.4 | tr | 10.0 | 8.5 | | 0.05 | 0.75 | | 22,000 | 320 | 80 | | 22,156 | 4.1 | 0.90 |
| 19-Jun-04 | 4% KCL-PHPA | | 1640 | 9.50 | 43 | 15 | 16 | 2 | 4 | 6.0 | 1 | 7.0 | 93.0 | tr | 10.0 | 8.5 | | 0.05 | 0.75 | | 22,000 | 320 | 80 | | 22,156 | 4.1 | 0.90 |

6. Mud Volume Analysis

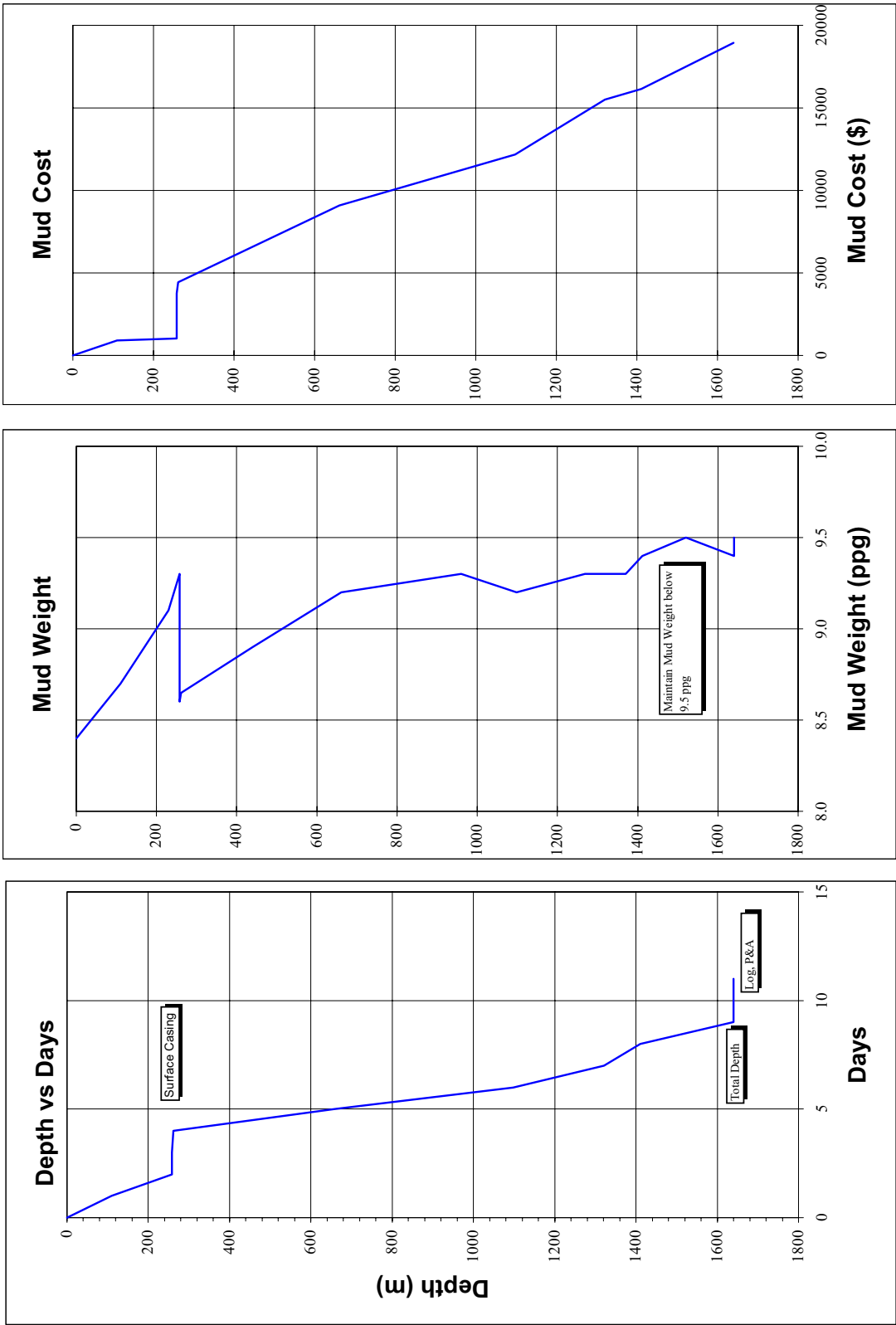
| Date | Hole Size | Interval | | Fluid Built & Received | | | | | | Fluid Disposed | | | | Summary | | | | |
|------------|-----------|----------|--------|------------------------|--------------|-------------|---------------|-------|-------|----------------|-----------|-----------|--------|---------|---------|----------|----------|-------|
| | | From | To | Mud Type | Fresh Premix | Sump Premix | Direct Recirc | Water | Other | De-sander | De-silter | Down-hole | Dumped | Other | Initial | Received | Disposed | Final |
| 9-Jun-04 | 12-1/4" | 0 m | 127 m | Spud Mud | 180 | | | 300 | | 14 | 0 | 0 | | 13 | 0 | 480 | 28 | 452.5 |
| 10-Jun-04 | 12-1/4" | 127 m | 258 m | Spud Mud | | | | 120 | | 22 | 0 | 0 | | 62 | 452.5 | 120 | 84 | 488.2 |
| Sub Total | | | | | 180 | 0 | 0 | 420 | 0 | 37 | 0 | 0 | 0 | | | 600 | 112 | |
| 11-Jun-04 | 8-1/2" | 258 m | 258 m | KCl PHPA | 450 | | | | | 0 | 0 | 0 | | | | 450 | 0 | 450 |
| 12-Jun-04 | 8-1/2" | 258 m | 261 m | KCl PHPA | 45 | | | | | 0 | 0 | -6 | | | 450 | 45 | -6 | 500 |
| 13-Jun-04 | 8-1/2" | 261 m | 661 m | KCl PHPA | 225 | | | | | 0 | 14 | 141 | 55 | 30 | 500 | 225 | 241 | 485 |
| 14-Jun-04 | 8-1/2" | 661 m | 1098 m | KCl PHPA | 225 | | | | | 0 | 34 | 38 | 40 | 10 | 485 | 225 | 123 | 587 |
| 15-Jun-04 | 8-1/2" | 1098 m | 1321 m | KCl PHPA | 225 | | | | | 0 | 15 | 101 | 25 | 10 | 587 | 225 | 152 | 660 |
| 16-Jun-04 | 8-1/2" | 1321 m | 1418 m | KCl PHPA | 45 | | 45 | | | 0 | 9 | 62 | | 15 | 660 | 90 | 86 | 664 |
| 17-Jun-04 | 8-1/2" | 1418 m | 1640 m | KCl PHPA | 45 | | 135 | | | 0 | 51 | 31 | 45 | 10 | 664 | 180 | 137 | 707 |
| 18-Jun-04 | 8-1/2" | 1640 m | 1640 m | KCl PHPA | | | | | | 0 | 6 | 0 | | | 707 | 0 | 6 | 701 |
| Sub Total | | | | | 1260 | 0 | 180 | 0 | 0 | 0 | 130 | 369 | 165 | 75 | | 1440 | 739 | |
| Well Total | | | | | 1440 | 0 | 180 | 420 | 0 | 37 | 130 | 369 | 165 | 75 | | 2040 | 850 | |

| Dilution Factors | | | | |
|-----------------------|-----------------|--------------|-----------------|--|
| | Interval Length | Dilution Vol | Dilution Factor | |
| 12 1/4" Surface Hole | 258 m | 420 bbls | 1.6 bbls/m | |
| 8 1/2" Mudded Up Hole | 1382 m | 990 bbls | 0.7 bbls/m | |

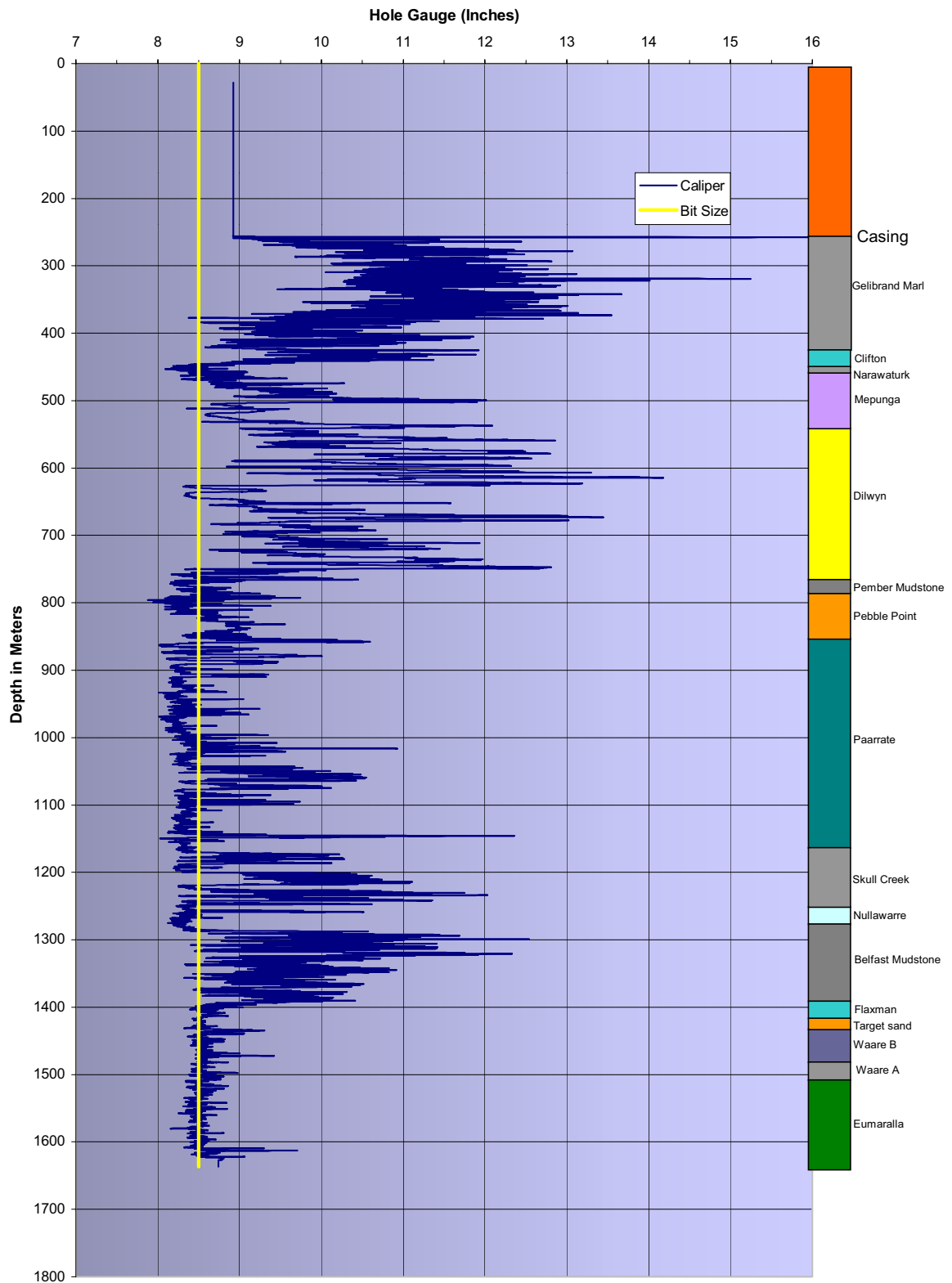


Drilling Fluids

7. Graphs



8. Killarney EPRL # 1 Caliper



9. Daily Drilling Fluid Reports



| | | | |
|-----------------|-----------|---------------|-------------------|
| Report # | 1 | Date : | 9-Jun-2004 |
| Rig No | 2 | Spud : | 9-Jun-2004 |
| Depth | to | 127 | Metres |

| | | | | |
|------------------|----------------------------------|------------|-------------|----------|
| OPERATOR | Essential Petroleum Resource Ltd | CONTRACTOR | Hunt Energy | |
| REPORT FOR | Vilnis Ozlins | REPORT FOR | Dave Hair | |
| WELL NAME AND No | Kilarney EPRL# 1 | FIELD | LOCATION | STATE |
| | | PEP 152 | Otway Basin | Victoria |

| DRILLING ASSEMBLY | | JET SIZE | | | CASING | | MUD VOLUME (BBL) | | CIRCULATION DATA | | | | | |
|-------------------------|---------|----------|------|------|-----------|----|------------------------|------|------------------|-------------|-------------|-------------|--|--|
| BIT SIZE | TYPE | 16 | 16 | 16 | SURFACE | ft | HOLE | PITS | PUMP SIZE | | CIRCULATION | | | |
| 12.25 | Var-N22 | | | | SET @ | M | 47 | 380 | 5.5 | X | 6 | PRESS (PSI) | | |
| | | | | | | | | | | | | 860 | | |
| DRILL PIPE | TYPE | Length | | | INT. | ft | TOTAL CIRCULATING VOL. | | PUMP MODEL | ASSUMED EFF | BOTTOMS | | | |
| SIZE 4.5 | # | 12 | Mtrs | | SET @ | M | 452 | | Emasco DB550 | 95 | % | UP (min) | | |
| | | | | | | | | | | | | 2 | | |
| DRILL PIPE | TYPE | Length | | | PROD. or | ft | IN STORAGE | | BBL/STK | STK / MIN | TOTAL CIRC. | | | |
| SIZE | HW | | Mtrs | | LNR Set @ | M | 25 | | 0.1404 | | 110 | TIME (min) | | |
| | | | | | | | | | | | | 31 | | |
| DRILL COLLAR SIZE (") | | Length | | | MUD TYPE | | | | BBL/MIN | GAL / MIN | ANN VEL. | DP | | |
| 6.25 | 8.00 | 93 | 22 | Mtrs | Spud Mud | | | | 14.67 | 616 | | 116 | | |
| | | | | | | | | | (ft/min) | DCs | 136 | 175 | | |


| MUD PROPERTIES | | | MUD PROPERTY SPECIFICATIONS | | |
|-------------------------|-------|-------|-----------------------------|---------------------|---------------|
| SAMPLE FROM | Pit | Pit | Mud Weight 8.8 - 9.4 | API Filtrate N/C | HPHT Filtrate |
| TIME SAMPLE TAKEN | 11:00 | 23:00 | Plastic Vis min | Yield Point 12 - 25 | pH 8.0 - 9.5 |
| DEPTH (ft) - (m) Metres | | 110 | KCl | PHPA | Sulphites |

| FLOWLINE TEMPERATURE | ⁰ C ⁰ F | | | | | OBSERVATIONS |
|---|-------------------------------|-------------|--------------|-------------|--------------|---|
| WEIGHT | ppg / SG | 8.40 | 1.008 | 8.70 | 1.044 | Built 180 bbls of 25ppb Gel Caustic Spud mud and allow to Yield. |
| FUNNEL VISCOSITY (sec/qt) API @ | ⁰ C | 60 | | 36 | | Fitted 3 x S55 shaker screens to the single shaker. |
| PLASTIC VISCOSITY cP @ | ⁰ C | 12 | | 8 | | Drilled out cement and new formation with "short system" to maintain the High |
| YIELD POINT (lb/100ft²) | | 23 | | 15 | | Viscosity until the 8" collars were below the conductor shoe. |
| GEL STRENGTHS (lb/100ft²) 10 sec/10 min | | 11 | 23 | 8 | 18 | From 70m began blending the spud mud with stored water in the other tanks. |
| FILTRATE API (cc's/30 min) | | | | | | From 85m circulated "long" using the full tank system and Desanders |
| HPHT FILTRATE (cc's/30 min) @ | ⁰ F | | | | | |
| CAKE THICKNESS API : HPHT (32nd in) | | | | | | Drilled ahead through mud making clays, adding water for new volume and |
| SOLIDS CONTENT (% by Volume) | | 0.4 | | 2.5 | | viscosity control. |
| LIQUID CONTENT (% bv Volume) OIL/WATER | | | 99.6 | | 97.5 | |

| | | | |
|--------------------------------------|-----------|-----------|---|
| SAND CONTENT (% by Vol.) | | TR | <u>OPERATIONS SUMMARY</u> Continue Rig up Spud Well at 12:30hrs Drill cement through conductor shoe with low drilling parameters to 70m Drill ahead to 127m |
| METHYLENE BLUE CAPACITY (ppb equiv.) | 25.0 | 18.0 | |
| pH | 8.8 | 8.8 | |
| ALKALINITY MUD (Pm) | 0 | | |
| ALKALINITY FILTRATE (Pf/ Mf) | 0.05 0.90 | 0.10 0.90 | |
| CHLORIDE (mg/L) | 800 | 800 | |
| TOTAL HARDNESS AS CALCIUM (mg/L) | 80 | 200 | |
| SULPHITE (mg/L) | | | |
| K+ (mg/L) | | | |
| KCl (% by Wt.) | | | |
| PHPA (ppb) | | | |

| Mud Accounting (bbbls) | | | | | | Solids Control Equipment | | | | | | | | |
|---------------------------|-----|----------------|----|--------------------|-----|--------------------------|------|----------------|----------|-----------------|------|-------------------|------|-----|
| FLUID BUILT & RECEIVED | | FLUID DISPOSED | | SUMMARY | | | Type | Hrs | | Cones | Hrs | | Size | Hrs |
| Premix (drill water) | 180 | Desander | 14 | INITIAL VOLUME | 0 | Centrifuge | Nil | | Desander | 2 | 5 | Shaker #1 | 3x55 | 12 |
| Premix (recirc from sump) | | Desilter | | | | Degasser | P-B | | Desilter | 7 | | Shaker #2 | n/a | |
| Drill Water | 300 | Downhole | 0 | + FLUID RECEIVED | 480 | | | | | | | | | |
| Direct Recirc Sump | | Dumped | | -FLUID LOST | 28 | | | | | | | | | |
| Other (eg Diesel) | | Other | 13 | + FLUID IN STORAGE | 25 | | | | | | | | | |
| | | | | | | | | Overflow (ppg) | | Underflow (ppg) | | Output (Gal/Min.) | | |
| TOTAL RECEIVED | 480 | TOTAL LOST | 28 | FINAL VOLUME | 477 | Desander | | | 11.0 | | 2.00 | | | |
| | | | | | | Desilter | | | 0 | | | | | |

| Product | Price | Start | Received | Used | Close | Cost | Solids Analysis | | | Bit Hydraulics & Pressure Data | |
|--------------|-------------|-------|----------|------|-----------------|-----------|------------------|------|-----|--------------------------------|-----|
| Aus-Gel | \$ 10.50 | 126 | | 84 | 42 | \$ 882.00 | | PPB | % | Jet Velocity | 335 |
| Caustic Soda | \$ 37.30 | 18 | | 1 | 17 | \$ 37.30 | High Grav solids | | | Impact force | 930 |
| | | | | | | | Total LGS | 23.1 | 2.5 | HHP | 315 |
| | | | | | | | Bentonite | 18.0 | 2.0 | HSI | 2.7 |
| | | | | | | | Drilled Solids | 5.1 | 0.6 | Bit Press Loss | 877 |
| | | | | | | | Salt | | | CSG Seat Frac Press | |
| | | | | | | | n @ 23:00 Hrs | 0.43 | | Equiv. Mud Wt. | |
| | | | | | | | K @ 23:00 Hrs | 1.57 | | ECD | |
| | | | | | | | | | | Max Pressure @ Shoe : | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | DAILY COST | | | CUMULATIVE COST | |
| | | | | | | | \$919.30 | | | \$919.30 | |
| RMN ENGINEER | Neil Kyberd | | | CITY | Adelaide Office | | TELEPHONE | | | 08 8338 7266 | |



DRILLING FLUID

REPORT

| | | | | |
|----------|-----|--------|-------------|--------|
| Report # | 2 | Date : | 10-Jun-2004 | |
| Rig No | 2 | Spud : | 9-Jun-2004 | |
| Depth | 127 | to | 258 | Metres |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|--|--|--|--|----------------------------------|--|--|--|--|------------|--|--|--|--|-------------|--|--|--|--|----------|--|--|--|--|-------------|--|--|--|--|-------|--|--|--|--|----------|--|--|--|--|
| OPERATOR | | | | | Essential Petroleum Recource Ltd | | | | | CONTRACTOR | | | | | Hunt Energy | | | | | | | | | | | | | | | | | | | | | | | | |
| REPORT FOR | | | | | Vilns Ozlins | | | | | REPORT FOR | | | | | Dave Hair | | | | | | | | | | | | | | | | | | | | | | | | |
| WELL NAME AND No | | | | | Kilarney EPRL# 1 | | | | | FIELD | | | | | PEP 152 | | | | | LOCATION | | | | | Otway Basin | | | | | STATE | | | | | Victoria | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|--|---------|--|----------|--|------|--|--------|--|--------------------|--|------------------|--|------------------------|--|------------------|--|----------------|--|-----------|--|-------------|--|-------------------------|--|------------------------|--|-----|--|-----|--|--|--|-----|--|-----|--|
| DRILLING ASSEMBLY | | | | JET SIZE | | | | CASING | | | | MUD VOLUME (BBL) | | | | CIRCULATION DATA | | | | | | | | | | | | | | | | | | | | | |
| BIT SIZE | | TYPE | | 16 | | 16 | | 16 | | SURFACE SET @ | | ft | | HOLE | | PITS | | PUMP SIZE | | | | | | CIRCULATION PRESS (PSI) | | | | | | | | | | | | | |
| 12.25 | | Var-N22 | | | | | | | | | | M | | 108 | | 380 | | 5.5 X 6 Inches | | | | | | 1000 psi | | | | | | | | | | | | | |
| DRILL PIPE SIZE | | TYPE | | Length | | | | | | INT. SET @ | | ft | | TOTAL CIRCULATING VOL. | | | | PUMP MODEL | | | | ASSUMED EFF | | | | BOTTOMS UP (min) | | | | | | | | | | | |
| 4.5 | | # | | 143 | | Mtrs | | | | M | | | | 488 | | | | Emsco DB550 | | | | 95 % | | | | 6 min | | | | | | | | | | | |
| DRILL PIPE SIZE | | TYPE | | Length | | | | | | PROD. or LNR Set @ | | ft | | IN STORAGE | | | | BBL/STK | | | | STK / MIN | | | | TOTAL CIRC. TIME (min) | | | | | | | | | | | |
| | | HW | | | | Mtrs | | | | M | | | | | | | | 0.1404 | | | | 110 | | | | 33 min | | | | | | | | | | | |
| DRILL COLLAR SIZE (") | | | | Length | | | | | | | | MUD TYPE | | | | BBL/MIN | | | | GAL / MIN | | | | ANN VEL. (ft/min) | | | | DP | | 116 | | | | | | | |
| 6.25 | | | | 8.00 | | | | 93 | | | | 22 | | | | Mtrs | | | | Spud Mud | | | | 14.67 | | | | 616 | | | | | | 136 | | 175 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|----------|--|--|--|--|-----------------------------|--|--|--|--|-------------|--|--|--|--|-----------|--|--|--|--|--------------|--|--|--|--|-----------|--|--|--|--|---------------|--|--|--|--|-----------|--|--|--|--|
| MUD PROPERTIES | | | | | | | | | | MUD PROPERTY SPECIFICATIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE FROM | | | | | Pit | | | | | Pit | | | | | Mud Weight | | | | | 8.8 - 9.4 | | | | | API Filtrate | | | | | N/C | | | | | HPHT Filtrate | | | | | | | | | |
| TIME SAMPLE TAKEN | | | | | 11:00 | | | | | 17:00 | | | | | Plastic Vis | | | | | min | | | | | Yield Point | | | | | 12 - 25 | | | | | pH | | | | | 8.0 - 9.5 | | | | |
| DEPTH (ft) - (m) | | | | | Metres | | | | | 230 | | | | | 258 | | | | | KCl | | | | | PHPA | | | | | Sulphites | | | | | | | | | | | | | | |
| FLOWLINE TEMPERATURE | | | | | ° C | | | | | ° F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEIGHT | | | | | ppg / SG | | | | | 9.10 | | | | | 1.092 | | | | | 9.30 | | | | | 1.116 | | | | | | | | | | | | | | | | | | | |
| FUNNEL VISCOSITY (sec/qt) API @ | | | | | ° C | | | | | 38 | | | | | 38 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PLASTIC VISCOSITY cP @ | | | | | ° C | | | | | 10 | | | | | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YIELD POINT (lb/100ft ²) | | | | | | | | | | 10 | | | | | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GEL STRENGTHS (lb/100ft ²) 10 sec/10 min | | | | | | | | | | 11 | | | | | 28 | | | | | 12 | | | | | 28 | | | | | | | | | | | | | | | | | | | |
| FILTRATE API (cc's/30 min) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HPHT FILTRATE (cc's/30 min) @ | | | | | ° F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAKE THICKNESS API : HPHT (32nd in) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SOLIDS CONTENT (% by Volume) | | | | | | | | | | 5.4 | | | | | 6.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LIQUID CONTENT (% by Volume) OIL/WATER | | | | | | | | | | 94.6 | | | | | 93.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAND CONTENT (% by Vol.) | | | | | | | | | | tr | | | | | tr | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| METHYLENE BLUE CAPACITY (ppb equiv.) | | | | | | | | | | 22.5 | | | | | 20.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH | | | | | | | | | | 8.5 | | | | | 8.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ALKALINITY MUD (Pm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ALKALINITY FILTRATE (Pf / Mf) | | | | | | | | | | 0.05 | | | | | 0.70 | | | | | 0.05 | | | | | 0.60 | | | | | | | | | | | | | | | | | | | |
| CHLORIDE (mg/L) | | | | | | | | | | 800 | | | | | 800 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL HARDNESS AS CALCIUM (mg/L) | | | | | | | | | | 220 | | | | | 220 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SULPHITE (mg/L) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| K+ (mg/L) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| KCl (% by Wt.) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PHPA (ppb) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|---------------------------|--|--|--|--|----------------|--|--|--|--|--------------------------|--|--|--|--|------|--|--|--|--|--------------------|--|--|--|--|-------|--|--|--|--|------------|--|--|--|--|------|--|--|--|--|-----|--|--|--|--|----------|--|--|--|--|---|--|--|--|--|----|--|--|--|--|-----------|--|--|--|--|------|--|--|--|--|----|--|--|--|--|
| Mud Accounting (bbls) | | | | | | | | | | Solids Control Equipment | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FLUID BUILT & RECEIVED | | | | | FLUID DISPOSED | | | | | SUMMARY | | | | | Type | | | | | Hrs | | | | | Cones | | | | | Hrs | | | | | Size | | | | | Hrs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Premix (drill water) | | | | | | | | | | Desander | | | | | 22 | | | | | INITIAL VOLUME | | | | | 452 | | | | | Centrifuge | | | | | Nil | | | | | | | | | | Desander | | | | | 2 | | | | | 13 | | | | | Shaker #1 | | | | | 3x55 | | | | | 13 | | | | |
| Premix (recirc from sump) | | | | | | | | | | Desilter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drill Water | | | | | 120 | | | | | Downhole | | | | | 0 | | | | | + FLUID RECEIVED | | | | | 120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Direct Recirc Sump | | | | | | | | | | Dumped | | | | | | | | | | -FLUID LOST | | | | | 84 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Other (eg Diesel) | | | | | | | | | | Other | | | | | 62 | | | | | + FLUID IN STORAGE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL RECEIVED | | | | | 120 | | | | | TOTAL LOST | | | | | 84 | | | | | FINAL VOLUME | | | | | 488 | | | | | Desander | | | | | | | | | | 9.9 | | | | | 1.20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Desilter | | | | | | | | | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Product | | Price | | Start | | Received | | Used | | Close | | Cost | | Solids Analysis | | | | Bit Hydraulics & Pressure Data | | | | | | | | | | | | | | | |
| SAPP | | \$ 57.50 | | 20 | | | | 2 | | 18 | | \$ 115.00 | | | | | | Jet Velocity | | | | 335 | | | | | | | | | | | |
| | | | | | | | | | | | | | | High Grav solids | | | | Impact force | | | | 994 | | | | | | | | | | | |
| | | | | | | | | | | | | | | Total LGS | | | | 61.7 | | | | 6.8 | | | | HHP | | | | 337 | | | |
| | | | | | | | | | | | | | | Bentonite | | | | 20.0 | | | | 2.2 | | | | HSI | | | | 2.9 | | | |
| | | | | | | | | | | | | | | Drilled Solids | | | | 41.7 | | | | 4.6 | | | | Bit Press Loss | | | | 937 | | | |
| | | | | | | | | | | | | | | Salt | | | | | | | | | | | | CSG Seat Frac Press | | | | | | | |
| | | | | | | | | | | | | | | n @ 17:00 Hrs | | | | 0.54 | | | | | | | | Equiv. Mud Wt. | | | | | | | |
| | | | | | | | | | | | | | | K @ 17:00 Hrs | | | | 0.76 | | | | | | | | ECD | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | Max Pressure @ Shoe : | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Report # | 3 | Date : | 11-Jun-2004 |
| Rig No | 2 | Spud : | 9-Jun-2004 |
| Depth | 258 | to | 258 Metres |

| | | | | |
|------------------|----------------------------------|------------------|-------------------------|-------------------|
| OPERATOR | Essential Petroleum Resource Ltd | CONTRACTOR | Hunt Energy | |
| REPORT FOR | Vilnis Ozlins | REPORT FOR | Dave Hair | |
| WELL NAME AND No | Kilarney EPRL# 1 | FIELD PEP 152 | LOCATION Otway Basin | STATE Victoria |

| DRILLING ASSEMBLY | | JET SIZE | | | CASING | | MUD VOLUME (BBL) | | CIRCULATION DATA | | | | | |
|-------------------------|---------|----------|----------|--|---------|----------------------|------------------|---------------------------|------------------|------------------------|-------------------------|------------------------|-----|--|
| BIT SIZE | TYPE | | | | SURFACE | ft | HOLE | PITS | PUMP SIZE | | CIRCULATION PRESS (PSI) | | | |
| 8.5 | | | | | SET @ | M | 48 | | 5.5 X 6 | Inches | | | psi | |
| DRILL PIPE SIZE 4.5 | TYPE # | Length | 165 Mtrs | | | INT. SET @ | ft M | TOTAL CIRCULATING VOL. 48 | | PUMP MODEL Emsco DB550 | ASSUMED EFF 95 % | BOTTOMS UP (min) | min | |
| DRILL PIPE SIZE | TYPE HW | Length | | | | PROD. or LNR Set @ | ft M | IN STORAGE | | BBL/STK 0.1404 | STK / MIN | TOTAL CIRC. TIME (min) | min | |
| DRILL COLLAR SIZE (") | | Length | | | | MUD TYPE 4% KCL-PHPA | | | BBL/MIN | | GAL / MIN | ANN VEL. DP | | |
| 6.25 | | 93 | Mtrs | | | | | | | | | DCs | | |

[illegible]

| | | | | | |
|--|---------------------------------|--|------|-------|---|
| FLOWLINE TEMPERATURE | ⁰ C / ⁰ F | | | | <u>OBSERVATIONS</u> Dumped and cleaned all tanks. Prepared 450bbbls of KCL-PHPA fluid with: 4% KCl, 0.15 ppb PHPA, 0.5ppb PAC-R and 0.1 ppb Xanvis. Circulating all tanks via gun lines and hopper to aid in shearing the new fluid. Once the New fluid has sheared and the shaker can handle the fluid further PHPA and Yield Point building polymers will be added. |
| WEIGHT | ppg / SG | | 8.60 | 1.032 | |
| FUNNEL VISCOSITY (sec/qt) API @ | ⁰ C | | 31 | | |
| PLASTIC VISCOSITY cP @ | ⁰ C | | 5 | | |
| YIELD POINT (lb/100ft ²) | | | 3 | | |
| GEL STRENGTHS (lb/100ft ²) 10 sec/10 min | | | 1 | 2 | |
| FILTRATE API (cc's/30 min) | | | | | |
| HPHT FILTRATE (cc's/30 min) @ | ⁰ F | | | | |
| CAKE THICKNESS API : HPHT (32nd in) | | | | | |
| SOLIDS CONTENT (% by Volume) | | | 1.9 | | |
| LIQUID CONTENT (% bv Volume) OIL/WATER | | | | 98.1 | |

| | | | |
|--------------------------------------|--|-----------|---|
| SAND CONTENT (% by Vol.) | | | <u>OPERATIONS SUMMARY</u> Continued Running 9 5/8" casing Circulate casing. Cement casing with cement returned to surface. Nipple up BOP's |
| METHYLENE BLUE CAPACITY (ppb equiv.) | | | |
| pH | | 8.5 | |
| ALKALINITY MUD (Pm) | | | |
| ALKALINITY FILTRATE (Pf/ Mf) | | 0.05 0.60 | |
| CHLORIDE (mg/L) | | | |
| TOTAL HARDNESS AS CALCIUM (mg/L) | | 80 | |
| SULPHITE (mg/L) | | | |
| K+ (mg/L) | | 21,616 | |
| KCl (% by Wt.) | | 4.0 | |
| PHPA (ppb) | | 0.15 | |

| Mud Accounting (bbls) | | | | | | Solids Control Equipment | | | | | | | |
|---------------------------|-----|----------------|-----|--------------------|-----|--------------------------|-----|----------------|----------|-----------------|--|-------------------|------|
| FLUID BUILT & RECEIVED | | FLUID DISPOSED | | SUMMARY | | Type | Hrs | | Cones | Hrs | | Size | Hrs |
| Premix (drill water) | 450 | Desander | | INITIAL VOLUME | | Centrifuge | Nil | | Desander | 2 | | Shaker #1 | 3x55 |
| Premix (recirc from sump) | | Desilter | | | | Degasser | P-B | | Desilter | 7 | | Shaker #2 | n/a |
| Drill Water | | Downhole | 402 | + FLUID RECEIVED | 450 | | | | | | | | |
| Direct Recirc Sump | | Dumped | | -FLUID LOST | 402 | | | | | | | | |
| Other (eg Diesel) | | Other | | + FLUID IN STORAGE | | | | | | | | | |
| | | | | | | | | Overflow (ppg) | | Underflow (ppg) | | Output (Gal/Min.) | |
| TOTAL RECEIVED | 450 | TOTAL LOST | 402 | FINAL VOLUME | 48 | Desander | | | 0 | | | | |
| | | | | | | Desilter | | | 0 | | | | |

| Product | Price | Start | Received | Used | Close | Cost | Solids Analysis | | | Bit Hydraulics & Pressure Data | |
|--------------------|-------------|-------|----------|-----------------|-------|-------------|------------------|------|-----|--------------------------------|--|
| AMC Pac - Reg | \$ 148.20 | 40 | | 4 | 36 | \$ 592.80 | | PPB | % | Jet Velocity | |
| PHPA | \$ 105.70 | 72 | | 2 | 70 | \$ 211.40 | High Grav solids | | | Impact force | |
| Potassium Chloride | \$ 13.80 | | | 115 | -115 | \$ 1,587.00 | Total LGS | 17.1 | 1.9 | HHP | |
| Xan-Bore | \$ 345.60 | 10 | | 1 | 9 | \$ 345.60 | Bentonite | | | HSI | |
| | | | | | | | Drilled Solids | 17.1 | 1.9 | Bit Press Loss | |
| | | | | | | | Salt | | | CSG Seat Frac Press | |
| | | | | | | | n @ 21:00 Hrs | 0.70 | | Equiv. Mud Wt. | |
| | | | | | | | K @ 21:00 Hrs | 0.10 | | ECD | |
| | | | | | | | | | | Max Pressure @ Shoe : | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | DAILY COST | | | CUMULATIVE COST | |
| | | | | | | | \$2,736.80 | | | \$3,771.10 | |
| RMN ENGINEER | Neil Kyberd | | CITY | Adelaide Office | | TELEPHONE | 08 8338 7266 | | | | |



| | | | |
|----------|-----|--------|-------------|
| Report # | 4 | Date : | 12-Jun-2004 |
| Rig No | 2 | Spud : | 9-Jun-2004 |
| Depth | 258 | to | 261 Metres |

| | | | | |
|------------------|----------------------------------|------------------|-------------------------|-------------------|
| OPERATOR | Essential Petroleum Resource Ltd | CONTRACTOR | Hunt Energy | |
| REPORT FOR | Vilnis Ozlins | REPORT FOR | Dave Hair | |
| WELL NAME AND No | Kilarney EPRL# 1 | FIELD PEP 152 | LOCATION Otway Basin | STATE Victoria |

| DRILLING ASSEMBLY | | | JET SIZE | | | CASING | | MUD VOLUME (BBL) | | CIRCULATION DATA | | | | |
|-------------------------|---------|--------|----------|----|----|----------------------|--------|------------------------|------|------------------|-------------|-------------|-------------|-----|
| BIT SIZE | TYPE | | 12 | 12 | 12 | 9 5/8" SURFACE SET @ | 839 ft | HOLE | PITS | PUMP SIZE | | CIRCULATION | | |
| 8.5 | FS 2565 | | 12 | 12 | | 256 M | | 54 | 402 | 5.5 | X 6 | Inches | PRESS (PSI) | psi |
| DRILL PIPE SIZE | TYPE | Length | | | | INT. SET @ | ft | TOTAL CIRCULATING VOL. | | PUMP MODEL | ASSUMED EFF | BOTTOMS | | |
| 4.5 | # | 168 | Mtrs | | | | M | 500 | | Emasco DB550 | 95 % | UP (min) | | |
| DRILL PIPE SIZE | TYPE | Length | | | | PROD. or LNR Set @ | ft | IN STORAGE | | BBL/STK | STK / MIN | TOTAL CIRC. | | |
| | HW | | Mtrs | | | | M | 44 | | 0.1404 | | TIME (min) | | |
| DRILL COLLAR SIZE (") | | Length | | | | MUD TYPE | | | | BBL/MIN | GAL / MIN | ANN VEL. | DP | |
| 6.25 | | 93 | Mtrs | | | 4% KCL-PHPA | | | | (ft/min) | | | DCs | |

[illegible]

| | | | | | | |
|--|----------------|----------------|--|------|-------|--|
| FLOWLINE TEMPERATURE | ⁰ C | ⁰ F | | | | OBSERVATIONS |
| WEIGHT | ppg / SG | | | 8.65 | 1.038 | Continued mixing stored KCL-PHPA volume with hopper and gun lines. |
| FUNNEL VISCOSITY (sec/qt) API @ | | ⁰ C | | | 29 | |
| PLASTIC VISCOSITY cP @ | | ⁰ C | | | 4 | Drilled out the cement with water via shakers - trough - Pill tank. |
| YIELD POINT (lb/100ft ²) | | | | | 4 | Displaced the hole to KCL - PHPA while drilling through the casing shoe. |
| GEL STRENGTHS (lb/100ft ²) 10 sec/10 min | | | | | 12 | Built 45 bbls new Premix for volume and Yield Point / PHPA building, |
| FILTRATE API (cc's/30 min) | | | | | | to be bled in when circulation resumes. |
| HPHT FILTRATE (cc's/30 min) @ | | ⁰ F | | | | |
| CAKE THICKNESS API : HPHT (32nd in) | | | | | | |
| SOLIDS CONTENT (% by Volume) | | | | | 1.0 | |
| LIQUID CONTENT (% bv Volume) OIL/WATER | | | | | 99.0 | |

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|--------------------------------------|--|-----------|--|
| SAND CONTENT (% by Vol.) | | | <u>OPERATIONS SUMMARY</u> Continue Nipple up BOP's and pressure test. RIH and tag cement at 236m. Drill cement and shoe track Displace hole to stored KCL-PHPA fluid. Perform FIT. |
| METHYLENE BLUE CAPACITY (ppb equiv.) | | | |
| pH | | 8.5 | |
| ALKALINITY MUD (Pm) | | | |
| ALKALINITY FILTRATE (Pf/ Mf) | | 0.05 0.60 | |
| CHLORIDE (mg/L) | | 20,000 | |
| TOTAL HARDNESS AS CALCIUM (mg/L) | | 80 | |
| SULPHITE (mg/L) | | | |
| K+ (mg/L) | | 21,616 | |
| KCl (% by Wt.) | | 4.0 | |
| PHPA (ppb) | | 0.2 | |

| Mud Accounting (bbls) | | | | | | Solids Control Equipment | | | | | | | | |
|---------------------------|----|----------------|----|--------------------|-----|--------------------------|------|-----|----------|-------|-----|-----------|------|-----|
| FLUID BUILT & RECEIVED | | FLUID DISPOSED | | SUMMARY | | | Type | Hrs | | Cones | Hrs | | Size | Hrs |
| Premix (drill water) | 45 | Desander | | INITIAL VOLUME | 450 | Centrifuge | Nil | | Desander | 2 | | Shaker #1 | 3x55 | 2 |
| Premix (recirc from sump) | | Desilter | | | | Degasser | P-B | | Desilter | 7 | | Shaker #2 | n/a | |
| Drill Water | | Downhole | -6 | + FLUID RECEIVED | 45 | | | | | | | | | |
| Direct Recirc Sump | | Dumped | | -FLUID LOST | -6 | | | | | | | | | |
| Other (eg Diesel) | | Other | | + FLUID IN STORAGE | 44 | | | | | | | | | |
| TOTAL RECEIVED | 45 | TOTAL LOST | -6 | FINAL VOLUME | 544 | | | | | | | | | |
| | | | | | | Desander | | 0 | | | | | | |
| | | | | | | Desilter | | | 0 | | | | | |

| Product | Price | Start | Received | Used | Close | Cost | Solids Analysis | | | Bit Hydraulics & Pressure Data | |
|--------------------|-------------|-------|----------|------|-----------------|-----------|------------------|------|-----|--------------------------------|--|
| AMC Pac - Reg | \$ 148.20 | 36 | | 2 | 34 | \$ 296.40 | | PPB | % | Jet Velocity | |
| PHPA | \$ 105.70 | 70 | | 2 | 68 | \$ 211.40 | High Grav solids | | | Impact force | |
| Potassium Chloride | \$ 13.80 | 389 | | 12 | 377 | \$ 165.60 | Total LGS | 9.2 | 1.0 | HHP | |
| | | | | | | | Bentonite | | | HSI | |
| | | | | | | | Drilled Solids | 9.2 | 1.0 | Bit Press Loss | |
| | | | | | | | Salt | | | CSG Seat Frac Press | |
| | | | | | | | n @ 24:00 Hrs | 0.58 | | Equiv. Mud Wt. | |
| | | | | | | | K @ 24:00 Hrs | 0.21 | | ECD | |
| | | | | | | | | | | Max Pressure @ Shoe : | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | DAILY COST | | | CUMULATIVE COST | |
| | | | | | | | \$673.40 | | | \$4,444.50 | |
| RMN ENGINEER | Neil Kyberd | | | CITY | Adelaide Office | | TELEPHONE | | | 08 8338 7266 | |



| | | | |
|----------|-----|--------|-------------|
| Report # | 5 | Date : | 13-Jun-2004 |
| Rig No | 2 | Spud : | 9-Jun-2004 |
| Depth | 261 | to | 661 Metres |

is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



| | | | |
|----------|-----|--------|-------------|
| Report # | 6 | Date : | 14-Jun-2004 |
| Rig No | 2 | Spud : | 9-Jun-2004 |
| Depth | 661 | to | 1098 Metres |

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|------------------|----------------------------------|------------|-------------|----------|
| OPERATOR | Essential Petroleum Resource Ltd | CONTRACTOR | Hunt Energy | |
| REPORT FOR | Vilnis Ozlins | REPORT FOR | Noel Mills | |
| WELL NAME AND No | Kilarney EPRL# 1 | FIELD | LOCATION | STATE |
| | | PEP 152 | Otway Basin | Victoria |

| DRILLING ASSEMBLY | | | JET SIZE | | | CASING | | | MUD VOLUME (BBL) | | CIRCULATION DATA | | | | | | |
|-------------------------|---------|--------|----------|----|----|-------------|-----------|-----|------------------|------------------------|------------------|--------------|-------------|------------------------|-------------------------|------|-----|
| BIT SIZE | TYPE | | 12 | 12 | 12 | 9 5/8" | SURFACE | 839 | ft | HOLE | PITS | PUMP SIZE | | | CIRCULATION PRESS (PSI) | | |
| 8.5 | FS 2565 | | 12 | 12 | | | SET @ | 256 | M | 227 | 360 | 5.5 | X | 6 | Inches | 1500 | psi |
| DRILL PIPE SIZE | TYPE | Length | | | | | INT. | | ft | TOTAL CIRCULATING VOL. | | PUMP MODEL | ASSUMED EFF | BOTTOMS UP (min) | | | |
| 4.5 | # | | 871 | | | Mtrs | SET @ | | M | 587 | | Emasco DB550 | 95 | % | 18 min | | |
| DRILL PIPE SIZE | TYPE | Length | | | | | PROD. or | | ft | IN STORAGE | | BBL/STK | STK / MIN | TOTAL CIRC. TIME (min) | | | |
| 4.5 | HW | | 55 | | | Mtrs | LNR Set @ | | M | | | 0.1404 | 80 | 55 min | | | |
| DRILL COLLAR SIZE (") | | Length | | | | MUD TYPE | | | | BBL/MIN | | GAL / MIN | | ANN VEL. | DP | 211 | |
| 6.25 | | | 172 | | | 4% KCL-PHPA | | | | 10.67 | | 448 | | (ft/min) | DCs | 331 | |

| MUD PROPERTIES | | | MUD PROPERTY SPECIFICATIONS | | | | |
|-------------------|--------|-------|-----------------------------|-----------|--------------|----------|---------------|
| SAMPLE FROM | Pit | Pit | Mud Weight | 8.8 - 9.4 | API Filtrate | 6 - 10 | HPHT Filtrate |
| TIME SAMPLE TAKEN | 14:00 | 24:00 | Plastic Vis | min | Yield Point | 12 - 25 | pH |
| DEPTH (ft) - (m) | Metres | | KCl | 4% | PHPA | 1.00 ppb | Sulphites |
| | 960 | 1,098 | | | | | 80 - 120 |

| | | | | | | | | |
|--|----------------|----------------|------|-------|------|-------|--------------|--|
| FLOWLINE TEMPERATURE | ⁰ C | ⁰ F | 108 | | 110 | | OBSERVATIONS | |
| WEIGHT | ppg / SG | | 9.30 | 1.116 | 9.20 | 1.104 | | Maintaining Volume and Properties with premix additions. |
| FUNNEL VISCOSITY (sec/qt) API @ | ⁰ C | | 41 | | 40 | | | Upgraded 1 shaker screen to S84 mesh. |
| PLASTIC VISCOSITY cP @ | ⁰ C | | 14 | | 13 | | | Sodium Sulphite for corrosion control. |
| YIELD POINT (lb/100ft ²) | | | 16 | | 16 | | | Mus losses to sandstone formations, self healing. |
| GEL STRENGTHS (lb/100ft ²) 10 sec/10 min | | | 2.5 | | 2.5 | | | Dumped sand trap on surveys. |
| FILTRATE API (cc's/30 min) | | | 6.2 | | 6.0 | | | |
| HPHT FILTRATE (cc's/30 min) @ | ⁰ F | | | | | | | |
| CAKE THICKNESS API : HPHT (32nd in) | | | 1 | | 1 | | | |
| SOLIDS CONTENT (% by Volume) | | | 5.6 | | 4.9 | | | |
| LIQUID CONTENT (% bv Volume) OIL/WATER | | | | 94.4 | | 95.1 | | |

| | | | |
|--------------------------------------|-------------|-------------|---|
| SAND CONTENT (% by Vol.) | TR | TR | <u>OPERATIONS SUMMARY</u> Drill ahead from 661m to 1098m with surveys Circulated samples as required. |
| METHYLENE BLUE CAPACITY (ppb equiv.) | | | |
| pH | 8.5 | 8.5 | |
| ALKALINITY MUD (Pm) | | | |
| ALKALINITY FILTRATE (Pf/ Mf) | 0.05 : 0.60 | 0.05 : 0.55 | |
| CHLORIDE (mg/L) | 21,000 | 21,000 | |
| TOTAL HARDNESS AS CALCIUM (mg/L) | 280 | 280 | |
| SULPHITE (mg/L) | 120 | 80 | |
| K+ (mg/L) | 22,156 | 21,616 | |
| KCl (% by Wt.) | 4.1 | 4.0 | |
| PHPA (ppb) | 1 | 1 | |

| Mud Accounting (bbls) | | | | | | Solids Control Equipment | | | | | | | | |
|---------------------------|-----|----------------|-----|--------------------|-----|--------------------------|------|-----|----------|-------|------|-----------|----------|-----|
| FLUID BUILT & RECEIVED | | FLUID DISPOSED | | SUMMARY | | | Type | Hrs | | Cones | Hrs | | Size | Hrs |
| Premix (drill water) | 225 | Desander | | INITIAL VOLUME | 485 | Centrifuge | Nil | | Desander | 2 | | Shaker #1 | 84,54,54 | 24 |
| Premix (recirc from sump) | | Desilter | 34 | | | Degasser | P-B | | Desilter | 8 | 24 | Shaker #2 | n/a | |
| Drill Water | | Downhole | 38 | + FLUID RECEIVED | 225 | | | | | | | | | |
| Direct Recirc Sump | | Dumped | 40 | -FLUID LOST | 123 | | | | | | | | | |
| Other (eg Diesel) | | Other | 10 | + FLUID IN STORAGE | | | | | | | | | | |
| TOTAL RECEIVED | 225 | TOTAL LOST | 123 | FINAL VOLUME | 587 | Desander | | | 0 | | 1.00 | | | |
| | | | | | | Desilter | 9.2 | | 11.4 | | | | | |

| Product | Price | Start | Received | Used | Close | Cost | Solids Analysis | | | Bit Hydraulics & Pressure Data | |
|--------------------|-------------|-------|----------|------|-----------------|-----------|-------------------|------|-----|--------------------------------|-----|
| AMC Pac - Low | \$ 148.20 | 17 | | 5 | 12 | \$ 741.00 | | PPB | % | Jet Velocity | 260 |
| AMC Pac - Reg | \$ 148.20 | 28 | | 4 | 24 | \$ 592.80 | High Grav solids | | | Impact force | 555 |
| PHPA | \$ 105.70 | 62 | | 6 | 56 | \$ 634.20 | Total LGS | 44.5 | 4.9 | HHP | 146 |
| Potassium Chloride | \$ 13.80 | 317 | | 72 | 245 | \$ 993.60 | Bentonite | | | HSI | 2.6 |
| Sodium Sulphite | \$ 32.50 | 38 | | 4 | 34 | \$ 130.00 | Drilled Solids | 44.5 | 4.9 | Bit Press Loss | 558 |
| | | | | | | | Salt | | | CSG Seat Frac Press | |
| | | | | | | | n @ 24:00 Hrs | 0.53 | | Equiv. Mud Wt. | |
| | | | | | | | K @ 24:00 Hrs | 1.04 | | ECD | |
| | | | | | | | | | | Max Pressure @ Shoe : | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | DAILY COST | | | CUMULATIVE COST | |
| | | | | | | | \$3,091.60 | | | \$12,190.10 | |
| RMN ENGINEER | Neil Kyberd | | | CITY | Adelaide Office | | TELEPHONE | | | 08 8338 7266 | |



| | | | |
|----------|------|--------|-------------|
| Report # | 7 | Date : | 15-Jun-2004 |
| Rig No | 2 | Spud : | 9-Jun-2004 |
| Depth | 1098 | to | 1321 Metres |

is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



| | | | |
|----------|------|--------|-------------|
| Report # | 8 | Date : | 16-Jun-2004 |
| Rig No | 2 | Spud : | 9-Jun-2004 |
| Depth | 1321 | to | 1418 Metres |

| | | | | |
|------------------|----------------------------------|------------|-------------|----------|
| OPERATOR | Essential Petroleum Resource Ltd | CONTRACTOR | Hunt Energy | |
| REPORT FOR | Vilnis Ozlins | REPORT FOR | Noel Mills | |
| WELL NAME AND No | Kilarney EPRL# 1 | FIELD | LOCATION | STATE |
| | | PEP 152 | Otway Basin | Victoria |

| DRILLING ASSEMBLY | | JET SIZE | | | CASING | | MUD VOLUME (BBL) | | CIRCULATION DATA | | | | | |
|-------------------------|--------|----------|-----------|----|----------------------|--------|------------------------|------|------------------|-------------|-------------------------|----------|----------|-----|
| BIT SIZE | TYPE | 13 | 13 | 13 | 9 5/8" SURFACE SET @ | 839 ft | HOLE | PITS | PUMP SIZE | | CIRCULATION PRESS (PSI) | | 1150 psi | |
| 8.5 | CHO4MS | | | | | 256 M | 294 | 370 | 5.5 | X 6 | Inches | | | |
| DRILL PIPE SIZE | TYPE | Length | | | INT. SET @ | ft | TOTAL CIRCULATING VOL. | | PUMP MODEL | ASSUMED EFF | BOTTOMS UP (min) | | 32 min | |
| 4.5 | # | | 1173 Mtrs | | | M | 664 | | Emasco DB550 | 95 % | | | | |
| DRILL PIPE SIZE | TYPE | Length | | | PROD. or LNR Set @ | ft | IN STORAGE | | BBL/STK | STK / MIN | TOTAL CIRC. TIME (min) | | 83 min | |
| 4.5 | HW | | 55 Mtrs | | | M | | | 0.1404 | 60 | | | | |
| DRILL COLLAR SIZE (") | | Length | | | MUD TYPE | | | | | BBL/MIN | GAL / MIN | ANN VEL. | DP | 158 |
| 6.25 | | 191 | Mtrs | | 4% KCL-PHPA | | | | | 8.00 | 336 | (ft/min) | DCs | 248 |

| MUD PROPERTIES | | | MUD PROPERTY SPECIFICATIONS | | |
|-------------------------|-------|-------|-----------------------------|---------------------|--------------------|
| SAMPLE FROM | Pit | Pit | Mud Weight 8.8 - 9.4 | API Filtrate 6 - 10 | HPHT Filtrate |
| TIME SAMPLE TAKEN | 15:00 | 23:15 | Plastic Vis min | Yield Point 12 - 25 | pH 8.0 - 9.5 |
| DEPTH (ft) - (m) Metres | 1.370 | 1.411 | KCl 4% | PHPA 1.00 ppb | Sulphites 80 - 120 |

| FLOWLINE TEMPERATURE | | | | OBSERVATIONS | |
|--|----------|--------|--------|--|--|
| WEIGHT | ppg / SG | 106 | 110 | Lost approx 50 bbls during the trip | |
| FUNNEL VISCOSITY (sec/qt) API @ | °C | 40 | 40 | Maintaining Volume and Properties with premix additions. | |
| PLASTIC VISCOSITY cP @ | °C | 14 | 15 | Sodium Sulphite for corrosion control. | |
| YIELD POINT (lb/100ft ²) | | 16 | 14 | Soda Ash for treating rising hardness. | |
| GEL STRENGTHS (lb/100ft ²) 10 sec/10 min | | 2.5 | 2.4 | Upgraded shaker screens to S110/S84/S54 mesh | |
| FILTRATE API (cc's/30 min) | | 6.2 | 6.0 | | |
| HPHT FILTRATE (cc's/30 min) @ | °F | | | | |
| CAKE THICKNESS API : HPHT (32nd in) | | 1 | 1 | | |
| SOLIDS CONTENT (% by Volume) | | 5.7 | 6.4 | | |
| LIQUID CONTENT (% by Volume) OIL/WATER | | 94.3 | 93.6 | | |
| SAND CONTENT (% by Vol.) | | 0.25 | 0.25 | | |
| METHYLENE BLUE CAPACITY (ppb equiv.) | | | | OPERATIONS SUMMARY | |
| pH | | 8.5 | 8.8 | RIH with new bit and BHA. | |
| ALKALINITY MUD (Pm) | | | | Wash and ream through tight hole from 1074m to 1321m | |
| ALKALINITY FILTRATE (Pf/ Mf) | | 0.05 | 0.55 | Drill ahead , circulating samples as required. | |
| CHLORIDE (mg/L) | | 19,500 | 19,000 | | |
| TOTAL HARDNESS AS CALCIUM (mg/L) | | 340 | 380 | | |
| SULPHITE (mg/L) | | 80 | 120 | | |
| K+ (mg/L) | | 21,616 | 21,076 | | |
| KCl (% by Wt.) | | 4.0 | 3.9 | | |
| PHPA (ppb) | | 1.1 | 1 | | |

| Mud Accounting (bbls) | | | | | | Solids Control Equipment | | | | | | | | |
|---------------------------|----|----------------|----|--------------------|-----|--------------------------|------|-----|----------|-------|------|-----------|-----------|-----|
| FLUID BUILT & RECEIVED | | FLUID DISPOSED | | SUMMARY | | | Type | Hrs | | Cones | Hrs | | Size | Hrs |
| Premix (drill water) | 45 | Desander | | INITIAL VOLUME | 660 | Centrifuge | Nil | | Desander | 2 | | Shaker #1 | 110,84,54 | 16 |
| Premix (recirc from sump) | | Desilter | 9 | | | Degasser | P-B | | Desilter | 8 | 12 | Shaker #2 | n/a | |
| Drill Water | | Downhole | 62 | + FLUID RECEIVED | 90 | | | | | | | | | |
| Direct Recirc Sump | 45 | Dumped | | -FLUID LOST | 86 | | | | | | | | | |
| Other (eg Diesel) | | Other | 15 | + FLUID IN STORAGE | | | | | | | | | | |
| TOTAL RECEIVED | 90 | TOTAL LOST | 86 | FINAL VOLUME | 664 | Desander | | | 0 | | | | | |
| | | | | | | Desilter | 9.3 | | 11.4 | | 0.50 | | | |

| Product | Price | Start | Received | Used | Close | Cost | Solids Analysis | | | Bit Hydraulics & Pressure Data | |
|-----------------|-------------|-------|----------|------|-----------------|-----------|-------------------|------|-----|--------------------------------|-----|
| AMC Pac - Reg | \$ 148.20 | 19 | | 2 | 17 | \$ 296.40 | | PPB | % | Jet Velocity | 277 |
| PHPA | \$ 105.70 | 51 | | 1 | 50 | \$ 105.70 | High Grav solids | | | Impact force | 453 |
| Soda Ash | \$ 19.50 | 35 | | 5 | 30 | \$ 97.50 | Total LGS | 58.5 | 6.4 | HHP | 127 |
| Sodium Sulphite | \$ 32.50 | 30 | | 4 | 26 | \$ 130.00 | Bentonite | | | HSI | 2.2 |
| | | | | | | | Drilled Solids | 58.5 | 6.4 | Bit Press Loss | 647 |
| | | | | | | | Salt | | | CSG Seat Frac Press | |
| | | | | | | | n @ 23:15 Hrs | 0.60 | | Equiv. Mud Wt. | |
| | | | | | | | K @ 23:15 Hrs | 0.68 | | ECD | |
| | | | | | | | | | | Max Pressure @ Shoe : | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | DAILY COST | | | CUMULATIVE COST | |
| | | | | | | | \$629.60 | | | \$16,133.20 | |
| RMN ENGINEER | Neil Kyberd | | | CITY | Adelaide Office | | TELEPHONE | | | 08 8338 7266 | |



| | | | |
|-----------------|-------------|---------------|--------------------|
| Report # | 10 | Date : | 18-Jun-2004 |
| Rig No | 2 | Spud : | 9-Jun-2004 |
| Depth | 1640 | to | 1640 Metres |

is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



| | | | |
|----------|------|--------|-------------|
| Report # | 11 | Date : | 19-Jun-2004 |
| Rig No | 2 | Spud : | 9-Jun-2004 |
| Depth | 1640 | to | 1640 Metres |

is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.