



AUSTRALIA PACIFIC LNG PTY LTD
MEELEEBEE 2
WELL COMPLETION REPORT
ATP 606P - QUEENSLAND

Originator:

Rosemary Mayers, Engineering Assistant

Reviewed

Australia Pacific LNG Pty Ltd

ABN 68 001 646 331

Level 3, 135 Coronation Drive

MILTON QLD 4064

Reviewed:

Simon Parmiter, Operations Geologist

Reviewed

Approved:

Andrew Mayers, Chief Petroleum Engineer

Approved

October, 2010

WELL SUMMARY CARD

| General Data | |
|--------------------------------------|------------------------|
| Well Name | MEELEEBEE 2 |
| Well Type | Appraisal Corehole |
| Field | Meeleebree |
| Petroleum License | ATP 606P |
| Location | |
| GDA94 Latitude | 26° 12' 02.5870695" S |
| GDA94 Longitude | 149° 23' 03.4586512" E |
| GDA Zone 56 Easting | 723 998.403 |
| GDA Zone 56 Northing | 7 100 152.149 |
| Seismic Line | Proposed pathfinder |
| Station | n/a |
| Elevation | |
| Ground Level (mAMSL) | 287.88 |
| Rotary Table (mAMSL) | 292.23 |
| Drilling Rig(s) | |
| Drilling Rig 1 | Ensign Rig 48 |
| Date Spudded | 9/02/09 |
| Date TD Reached | 15/02/09 |
| Date Rig Release | 21/02/09 |
| Total Depth | |
| Driller: | 384.7 mGL |
| Logger: | 384.3 mGL |
| Well Status on Final Rig Release Day | |
| Drilled and Suspended | |

| Hole | | Surface | Intermediate | Corehole |
|----------------------------|--|-----------------------------------|----------------------------|-------------------------------------|
| Size | | 12-1/4" | 8-3/4" | 6-1/4" |
| Depth from Rotary Table | | 77 mGL | 384.7 mGL | 384.7 mGL |
| Drilling Fluid (mud) | | Water | Water/Gel mud | Water/KCL/ Pac mud |
| Drill Bits No/Type | | 12.25" Geodiamond AR435 PDC | 8.75" Smth SD 67782 PDC | 6.25" Reed Hycalog XCB613 PDC |

| Casing | | Surface | Intermediate | |
|---------------------|--|----------------------|---------------|---------------------------|
| Size - Grade | | 9-5/8" K55 36 ppf | 7" N80 23 ppf | hole widened to 8-1/2" |
| Shoe Depth (mRT) | | 75 | 372.52 | n/a |

| Cement | Volume - Type - Displacement - Returns |
|--------------|--|
| Surface | 26 bbl of 15.6 ppg Class A cement displaced with 19.5 bbl water. 17 bbl cement returns. |
| Intermediate | 17 bbl of 15.6 ppg Class A cement with 75 lbs CaCl2 and 1 gal NF-6 additives, displaced with 12 bbl water. 6 bbl cement returns. |

| Mud System Chemicals | | | | |
|----------------------|--------|--|------------|----|
| AMC Pac-R | 100 kg | | PHPA | kg |
| Ausgel | kg | | Xantemp SD | kg |
| Ausplug | kg | | KCL | kg |
| Kwikseal M | kg | | SAPP | kg |

DRILLING AND COMPLETION SUMMARY

The MEELEEBEE 2 Appraisal Corehole was drilled in the ATP 606P permit to test the extent, permeability and gas content of the coal seams in the Meeleebree Field. The Meeleebree Field is located approximately 40 km north of Wallumbilla in southeast Queensland. For location details, a map is included on page 4 and a well location survey is included in Appendix 2.

It was anticipated that the wellbore would intersect 3 coal measures within the Walloon Subgroup with the potential to produce coal seam gas - the Upper Juandah, Lower Juandah and Taroom Coal Measures. The total net coal is estimated at 23 metres.

The MEELEEBEE 2 Appraisal Corehole was drilled and suspended as programmed. For drilling details refer to Appendix 1 - Daily Drilling Reports. The well was continuously cored from 77.0 to 384.7 mGL. For detailed core data refer to Appendix 4. Drill stem tests were conducted during the coring operation. Results are included in Appendix 3. Wireline logs are included in Appendix 5.

GEOLOGICAL SAMPLES

| Wireline Logs | Date | Log Type | Interval | Contractor |
|---------------|----------|----------------------------|------------------|-------------|
| Logging Run 1 | 15/02/09 | Array Induction Comp Sonic | 2.0 - 383.8 mRT | Weatherford |
| Logging Run 2 | 16/02/09 | Compact Micro-Imager | 79.8 - 381.7 mRT | Weatherford |
| | | | | |

| Full Hole Coring | Date | Interval (mGL) | Size | Cut (m) | Recovered (m) |
|------------------|----------|-------------------|--------|---------|---------------|
| | 11/02/09 | 77.0 - 126.0 mRT | 6-1/4" | | 49.0 |
| | 13/02/09 | 126.0 - 168.3 mRT | 6-1/4" | | 42.3 |
| | 15/02/09 | 168.3 - 384.7 mRT | 6-1/4" | | 216.4 |
| | | | | | |

| Sidewall Coring | Date | Interval | Size | Cut (m) | Recovered (m) |
|-----------------|------|----------|------|---------|---------------|
| None | | | | | |
| | | | | | |

| Mudlogging | Date | Interval | Rate of Progress | Gas Levels |
|------------|------|----------|------------------|------------|
| None | | | | |
| | | | | |

| Cutting Samples | Date | Interval | Lithology |
|-----------------|------|----------|-----------|
| None | | | |
| | | | |

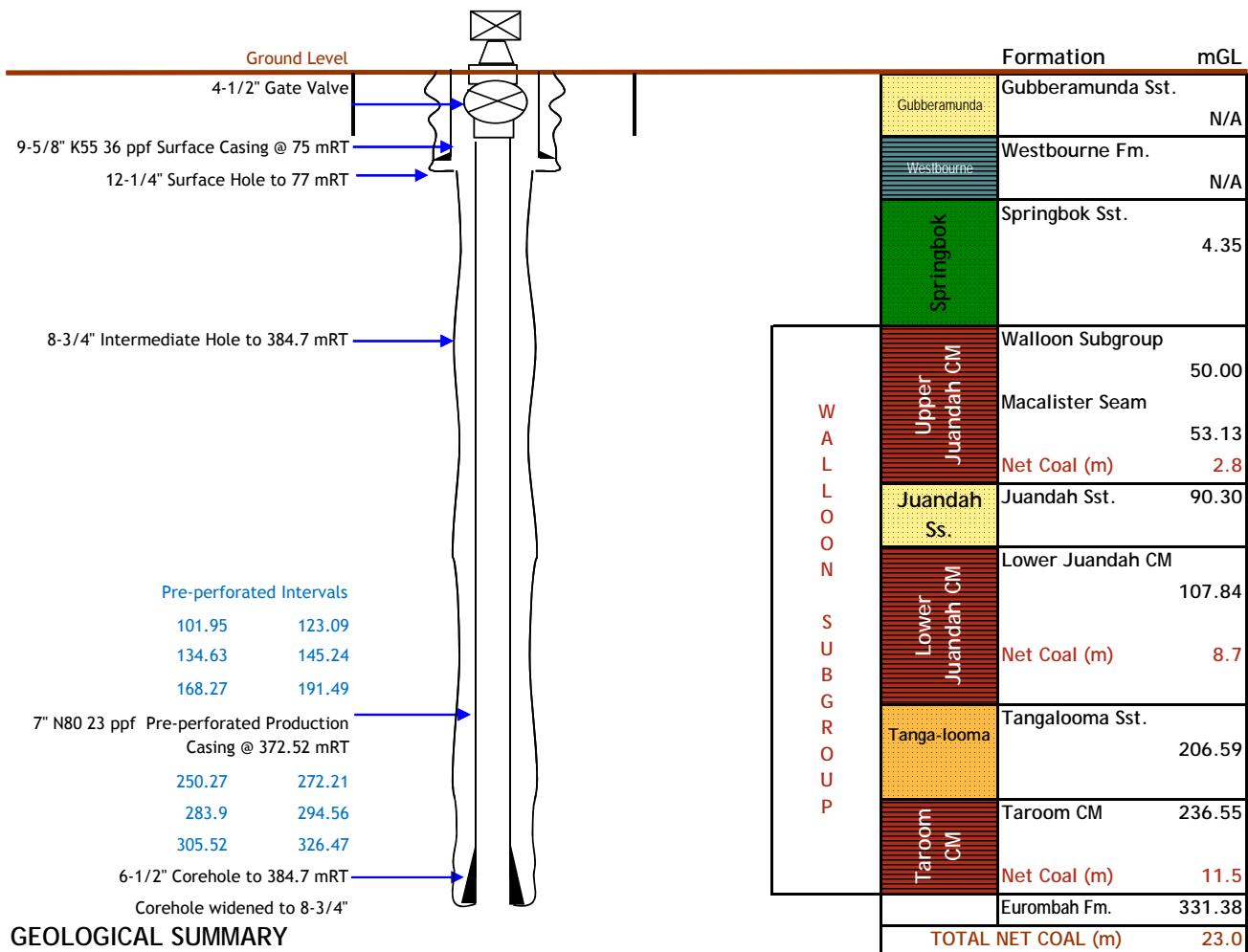
WELL TESTS

| Drill Stem Testing | | | | | Pressures (psig) | | | | |
|--------------------|-----------------|----------------|---------------|----------------|------------------|-----------------|------------|---------------|--|
| Date | Interval (mGL) | Formation (CM) | Gas Flow Rate | Fluid Recovery | Initial Flow | Initial Shut In | Final Flow | Final Shut In | |
| 12/02/09 | 106.81 - 126.31 | U. Juandah | nil | 32 m Fm fluid | 123.74 | 136.65 | 136.12 | 136.74 | |
| 13/02/09 | 132.02 - 138.35 | L. Juandah | nil | 58 m Fm water | 152.96 | 161.27 | 160.73 | 161.53 | |
| 20/02/09 | 241.5 - 262.82 | Taroom | nil | 88 m Fm water | 232.97 | 300.32 | 294.17 | 301.27 | |

SURVEYS

| Well Location Survey | | | | | |
|----------------------|-----------------------|------------------------|--------------|-------------|---------------|
| Date | Latitude | Longitude | Ground Level | Easting | Northing |
| 17/06/09 | 26° 12' 02.5870695" S | 149° 23' 03.4586512" E | 287.88 | 723 998.403 | 7 100 152.149 |

| Deviation Survey | | | | | |
|------------------|--|--|--|--|--|
| None | | | | | |

Hole and Casing SchematicStratigraphic Column**GEOLOGICAL SUMMARY**

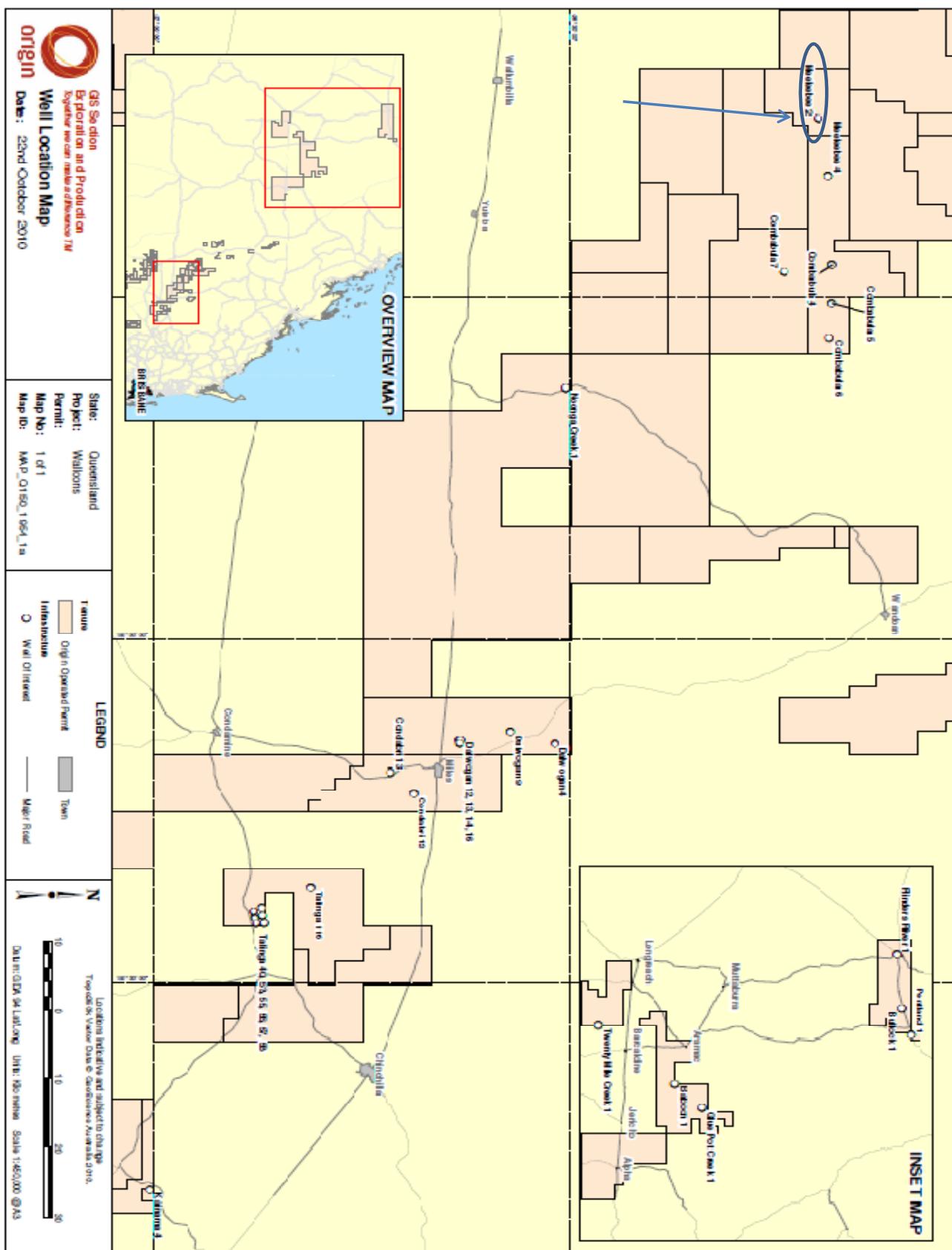
The Meeleebree Field is within ATP 606P which is located approximately 40 km north of Wallumbilla in southeast Queensland. The Meeleebree CSG wells target the methane-rich coal measures of the Middle Jurassic Walloon Subgroup.

Jurassic and Cretaceous sediments accumulated in the Surat and adjacent Clarence-Moreton, Eromanga, Nambour and Mulgildie Basins. These interconnected basins formed as intracratonic sags and constitute part of the Great Artesian Basin system. Subsidence was relatively continuous and widespread and the basins generally retain relatively simple geological structures with shallow dips and little evidence of lateral compression. The Surat Basin covers an area of approximately 270,000 km² in southern Queensland and northern New South Wales. The Walloon Subgroup is over 500 m thick in the central and eastern parts of the basin and contains numerous coal seams and has been extensively explored for opencut coal resources. The Surat Basin also contains widespread, quartzose sandstones that have been the target of numerous water bores.

The Walloon Subgroup is subdivided into the Juandah Coal Measures, Tangalooma Sandstone and Taroom Coal Measures (Jones and Patrick, 1981). The siliciclastic sediments comprise very fine to medium grained volcanolithic sandstones, siltstones and claystones. The mudrocks are tuffaceous and commonly form numerous partings within coaly intervals. The coals are low rank (0.4 to 0.5 Vro), generally dull and high in ash (~20%) forming thin plies that are interbedded with claystones and siltstones to form thick coal packages. Individual coal seams (plies) cannot be traced for more than a few kilometres, but coaly packages can be traced basinwide. The unit accumulated in alluvial plain depositional environments that hosted areally restricted peat mires and lakes in a region affected by airfall tephras.

Walloon coals were derived from Middle Jurassic peat mire floras and as a result differ markedly from Permian Bowen Basin coals. Walloon coals are typically dull, high in ash and form thin plies interbedded with claystone and siltstone beds to form thick coaly packages. Petrographically the coals are vitrinite-rich, with abundant liptinite and rare inertinite. Petrographic analyses of typical Walloon coals show 75-85% vitrinite, 15-20% liptinite and less than 5% inertinite. The liptinite comprises predominantly suberinite and resinite derived from the pine-dominated flora. Liptinites are believed to produce large amounts of methane at low maturity. Despite the high vitrinite content the coals contain few thick bright bands and are predominantly dull and hard.

LOCATION MAP



REFERENCES

- Jones, G.D. and Patrick, R.B., 1981, Stratigraphy and Coal Exploration Geology of the Northeast Surat Basin. Journal of the Coal Geology Group, Geological Society of Australia, 1(4), p. 153-163.

Marks, T.

ATP 606P MEELEEBEE 2 COREHOLE DRILLING PROGRAMME, unpublished report prepared for Origin Energy CSG Limited.

APPENDIX 1 - DAILY DRILLING REPORTS

**Meeleebee 2**

| | | | | | |
|--------------------------|------------------|----------------------------------|-----------------------------|--------------------------|--------------------------------------|
| Date: | 03 Feb 2009 | Well Site Representative: | Eric Gardiner / Paul Seamer | Rig Manager: | Steve Hakkes |
| Report Number: | 1 | Night Representative: | John Webber | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | |

Well Details

| | | | | | |
|--------------------|---------------|-----------------------------|------------|----------------------|---------------------------------|
| Country: | Australia | Current Hole Size: | Casing OD: | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 0.00m | Casing MD: | Orig. & Supp. AFE: \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 0.00m | Casing TVD: | AFE Number: 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 0.0m | TOL MD: | Daily Cost: \$ 146,598 |
| RT - GL: | 4.35m | Days From Spud: | 0.00 | Liner MD: | Cum. Cost: \$ 146,598 |
| Datum: | GDA 94 | Days On Well: | 1.00 | Liner TVD: | Last LTI Date: 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | | FIT/LOT: | / Days Since LTI: 38 |

| | |
|----------------------------|---|
| Current Ops @ 0600: | Wait on Daylight |
| Planned Operations: | Continue with Maintenance change lines for Core recover winch, repair leaking spool valve on mast and on hydraulic pump unit, PLC tech expected on site to go through issues. Prepare mast for road traffic to weight it for permit with mast on. Expected to move thursday & Friday. |

Summary of Period 0000 to 2400 Hrs

| |
|--|
| Replace crown Sheaves, Find fault with Mud saver on top drive repair broken cables, Rig out mud tanks wash down mast. Prepare for rig move |
|--|

Operations For Period 0000 Hrs to 2400 Hrs on 03 Feb 2009

| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description |
|------|-----|-----|------|------|-------|-------|--|
| PS | P | RD | 0000 | 1800 | 18.00 | 0.0m | Rig released from Noonga Creek 1 at 00:00 hrs 3 February. Clean mast, change out crown sheaves, rig out mud tank and mud pumps, clean down all rig loads of hydraulic oil from reported hydraulic seal leak. Find and repair fault for mud saver on top drive. |
| PS | P | WOD | 1800 | 2400 | 6.00 | 0.0m | Wait on Daylight |

Operations For Period 0000 Hrs to 0600 Hrs on 04 Feb 2009

| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description |
|------|-----|-----|------|------|------|-------|----------------------|
| PS | P | WOD | 0000 | 0600 | 6.00 | 0.0m | Wait on daylight |

General Comments

00:00 TO 24:00 Hrs ON 03 Feb 2009

| Comments | Rig Requirements | Lessons Learnt |
|---|------------------|-----------------|
| Ensign Dkt # 28970 Rig and camp rate for 1-2-09 to 2-2-09 operating hrs 24, Rig repair 24hr Camp hrs 48. Ensign Dkt # 28971 Communication package for 1-2-09 and the 2-2-09 2days. | | |
| Weather AM | | <u>Comments</u> |
| Weather PM | | <u>Comments</u> |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|-------------------------------------|
| Pre-tour Meeting (3) | 03 Feb 2009 | 0 Days | Clean rig and change crown sheaves. |
| Pre-tour Meeting (1) | 03 Feb 2009 | 0 Days | Discuss todays operations |



| Personnel Summary | | |
|--|--------------|--------|
| Company | | Pax On |
| Weatherford | In Camp | 0 |
| Origin Energy | In Camp | 2 |
| Ensign International Energy Services | In Camp | 16 |
| Ensign International Energy Services | Offsite | 0 |
| DST Australia | In Camp | 0 |
| Oil Industry Catering & Services (OIC) | In Camp | 3 |
| Halliburton | In Camp | 0 |
| | Total on Rig | 21 |

Bulk Stocks

| Name | Unit | In Hand | In | Used | Adjust | Balance |
|-------------------|----------|---------|----|------|--------|---------|
| Camp Fuel | ltr | 2200 | 0 | 232 | 0 | 1,968.0 |
| Cement Uncut | sx | 84 | 0 | 0 | 0 | 84.0 |
| Diesel | litres | 3500 | 0 | 785 | 0 | 2,715.0 |
| Shaker Screen 110 | 100 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 175 | 170 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 180 | 200 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 210 | 325 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Water - Drilling | bbl | 3000 | 0 | 0 | 0 | 3,000.0 |
| Water - Potable | m3 | 20 | 0 | 0 | 0 | 20.0 |

**Meeleebee 2**

| | | | | | |
|--------------------------|------------------|----------------------------------|--------------------|--------------------------|--------------------------------------|
| Date: | 04 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | Steve Hakkes |
| Report Number: | 2 | Night Representative: | John Webber | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | |

Well Details

| | | | | | |
|---------------------|--|----------------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | Casing OD: | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 0.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 0.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 0.0m | Daily Cost: | \$ 24,800 |
| RT - GL: | 4.35m | Days From Spud: | 0.00 | Cum. Cost: | \$ 171,398 |
| Datum: | GDA 94 | Days On Well: | 2.00 | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | FIT/LOT: / | Days Since LTI: | 39 |
| Current Ops @ 0600: | Wait on daylight. | | | | |
| Planned Operations: | Wait on daylight - continue with general PM's and prepare rig for load out and move. Wait on daylight. | | | | |

Summary of Period 0000 to 2400 Hrs

Wait on daylight - continue with general PM's and prepare rig for load out and move. Wait on daylight.

Operations For Period 0000 Hrs to 2400 Hrs on 04 Feb 2009

| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description |
|------|---------|-----|------|------|------|-------|---|
| PS | P | WOD | 0000 | 0600 | 6.00 | 0.0m | Wait on daylight |
| PS | TP (WO) | RM | 0600 | 1200 | 6.00 | 0.0m | Wait on trucks for rig move: Hold pretour meeting - replace main seal and tail shaft on right angle drive, repair oil leak on mud pump #1 inspection plate, general cleaning and servicing of rig and drilling equipment. |
| PS | TP (WO) | RM | 1200 | 1800 | 6.00 | 0.0m | Hold pretour meeting - load core pipe onto new trailers, remove choke manifold and service same, replace bearing on glycol pump. |
| PS | TP (WO) | RM | 1800 | 2400 | 6.00 | 0.0m | Wait on daylight - both crews working dayshift. Note: ETA rig move trucks on location @ midday Thursday. |

Operations For Period 0000 Hrs to 0600 Hrs on 05 Feb 2009

| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description |
|------|---------|----|------|------|------|-------|---|
| PS | TP (WO) | RM | 0000 | 0600 | 6.00 | 0.0m | Wait on daylight. Hold pretour meeting with both crews. |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|---------------------------|
| Pre-tour Meeting (1) | 04 Feb 2009 | 0 Days | Discuss todays operations |
| Pre-tour Meeting (1) | 04 Feb 2009 | 0 Days | Discuss todays operations |

Personnel Summary

| Company | | | | Pax On |
|--|--|--|--------------|--------|
| Weatherford | | | In Camp | 0 |
| Origin Energy | | | In Camp | 2 |
| Ensign International Energy Services | | | In Camp | 16 |
| DST Australia | | | In Camp | 0 |
| Oil Industry Catering & Services (OIC) | | | In Camp | 3 |
| Halliburton | | | In Camp | 0 |
| | | | Total on Rig | 21 |

**Meeleebee 2**

| | | | | | |
|--------------------------|------------------|----------------------------------|--------------------|--------------------------|--------------------------------------|
| Date: | 05 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | |
| Report Number: | 3 | Night Representative: | John Webber | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | |

Well Details

| | | | | | |
|-------------|---------------|----------------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | Casing OD: | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 0.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 0.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 0.0m | Daily Cost: | \$ 37,940 |
| RT - GL: | 4.35m | Days From Spud: | 0.00 | Cum. Cost: | \$ 209,338 |
| Datum: | GDA 94 | Days On Well: | 3.00 | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | FIT/LOT: / | Days Since LTI: | 40 |

| | |
|---------------------|---|
| Current Ops @ 0600: | Wait on daylight. |
| Planned Operations: | Wait on daylight. Prepare for rig move, with trucks expected on location @ midday. Move rig and camp from Noonga #1 to Meeleebee #2. Note: camp to be positioned @ Muggleton #3 site. |

Summary of Period 0000 to 2400 Hrs

| |
|--|
| Wait on daylight. Load out trucks as arrive and rig move to Meeleebee #2 location. Rig was 60% rigged down and moved @ 18:00hrs. Wait on daylight. |
|--|

Operations For Period 0000 Hrs to 2400 Hrs on 05 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|---------|-----|------|------|------|-------|--|
| PS | TP (WO) | RM | 0000 | 0600 | 6.00 | 0.0m | Wait on daylight. Hold pretour meeting with both crews. |
| PS | TP (WO) | RM | 0600 | 0900 | 3.00 | 0.0m | Rig down hand rails and lower doghouse. Prepare loads for rig move. |
| PS | P | RM | 0900 | 1100 | 2.00 | 0.0m | Trucks on location @ 09:00hrs - load out poorboy degasser, mud chemicals, sub bin skid. Load out booster dolly to Rig #50. |
| PS | P | RM | 1100 | 1200 | 1.00 | 0.0m | Crane on location @ 11:00hrs - load out Geo shack, 2 x sea containers and shakers off mud tanks. |
| PS | P | RM | 1200 | 1800 | 6.00 | 0.0m | Load out doghouse, generator shack, and remove carrier from sub base. Load out drawworks skid, mud pump #2, remove BOP's from cellar with crane, and load trailers with assorted drilling equipment. Note: 11 trailers loaded out , with no trailers left on location. |
| PS | P | WOD | 1800 | 2400 | 6.00 | 0.0m | Wait on daylight. |

Operations For Period 0000 Hrs to 0600 Hrs on 06 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|----|-----|------|------|------|-------|--|
| PS | P | WOD | 0000 | 0600 | 6.00 | 0.0m | Wait no daylight. Hold pretour safety meeting. |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|---------------------------|
| Permit To Work (2) | 05 Feb 2009 | 0 Days | All completed PTW |
| Pre-tour Meeting (1) | 05 Feb 2009 | 0 Days | Discuss todays operations |

Personnel Summary

| Company | In Camp | Pax On |
|--|---------|--------|
| Weatherford | In Camp | 0 |
| Origin Energy | In Camp | 2 |
| Ensign International Energy Services | In Camp | 16 |
| DST Australia | In Camp | 0 |
| Oil Industry Catering & Services (OIC) | In Camp | 3 |
| Halliburton | In Camp | 0 |
| Total on Rig | | 21 |



| Pumps | | | | | | | | | | | | |
|------------------------|------------|---------------|-------------|------------|-----|--------------|----------------|--------------|-------------------|-----|--------------|---------------|
| Pump Data - Last 24Hrs | | | | | | | Slow Pump Data | | | | | |
| No. | Type | Liner (in) | MW (ppg) | Eff (%) | SPM | SPP (psi) | Flow (gpm) | Depth (m) | Ck. Line (psi) | SPM | SPP (psi) | Flow (gpm) |
| 1 | TSM 750 | 6.0 | | 99 | | | | | 1. 2. | | | |
| 2 | Emsco F500 | 5.5 | | 99 | | | | | 1. 2. | | | |

| Bulk Stocks | | | | | | | |
|-------------------|--|----------|---------|----|------|--------|---------|
| Name | | Unit | In Hand | In | Used | Adjust | Balance |
| Camp Fuel | | ltr | 0 | 0 | 160 | 0 | 1,288.0 |
| Cement Uncut | | sx | 84 | 0 | 0 | 0 | 84.0 |
| Diesel | | litres | 0 | 0 | 20 | 0 | 1,695.0 |
| Shaker Screen 110 | | 100 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 175 | | 170 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 180 | | 200 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 210 | | 325 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Water - Drilling | | bbl | 3000 | 0 | 0 | 0 | 3,000.0 |
| Water - Potable | | m3 | 20 | 0 | 0 | 0 | 20.0 |

**Meeleebee 2**

| | | | | | |
|--------------------------|------------------|----------------------------------|--------------------|--------------------------|--------------------------------------|
| Date: | 06 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | Don Poole |
| Report Number: | 4 | Night Representative: | John Webber | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | |

Well Details

| | | | | | |
|-------------|---------------|----------------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | Casing OD: | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 0.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 0.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 0.0m | Daily Cost: | \$ 61,940 |
| RT - GL: | 4.35m | Days From Spud: | 0.00 | Cum. Cost: | \$ 271,278 |
| Datum: | GDA 94 | Days On Well: | 4.00 | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | FIT/LOT: / | Days Since LTI: | 41 |

| | |
|---------------------|--|
| Current Ops @ 0600: | Wait on daylight. |
| Planned Operations: | Wait on daylight. Continue to load out rig from location and move, rig up on Meeleebee #2. Wait on daylight. Note: camp to be moved 7am Saturday. |

Summary of Period 0000 to 2400 Hrs

| |
|--|
| Wait on daylight. Hold WSM. Continue to load out rig. Dept Transport weigh rig, then remove mast from carrier and load both onto floats. Wait on daylight. |
|--|

Operations For Period 0000 Hrs to 2400 Hrs on 06 Feb 2009

| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description |
|------|-----|-----|------|------|------|-------|--|
| PS | P | WOD | 0000 | 0600 | 6.00 | 0.0m | Wait no daylight. Hold pretour safety meeting. |
| PS | P | SM | 0600 | 0630 | 0.50 | 0.0m | Hold Pretour meeting and weekly safety meeting woth both crews. |
| PS | P | RM | 0630 | 1200 | 5.50 | 0.0m | Continue to load out rig. Crane arrived on location @ 08:30hrs and Dept Transport scalers @ 09:00hrs. Moved sub base, mud tanks with assorted drilling equipment off location. |
| PS | P | RM | 1200 | 1400 | 2.00 | 0.0m | Strip mast down for transport. |
| PS | P | RM | 1400 | 1600 | 2.00 | 0.0m | Wait on crane to lift mast off carrier. |
| PS | P | RM | 1600 | 1830 | 2.50 | 0.0m | Remove mast and load onto float. Load carrier onto float. |
| PS | P | WOD | 1830 | 2400 | 5.50 | 0.0m | Wait on daylight. |

Operations For Period 0000 Hrs to 0600 Hrs on 07 Feb 2009

| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description |
|------|-----|-----|------|------|------|-------|---|
| PS | P | WOD | 0000 | 0600 | 6.00 | 0.0m | Wait no daylight. Hold pretour meeting. |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|---------------------------|
| Permit To Work (2) | 05 Feb 2009 | 1 Day | All completed PTW |
| Pre-tour Meeting (1) | 05 Feb 2009 | 1 Day | Discuss todays operations |

Personnel Summary

| Company | | | | Pax On |
|--|--|--------------|---------|--------|
| Weatherford | | | In Camp | 0 |
| Origin Energy | | | In Camp | 2 |
| Ensign International Energy Services | | | In Camp | 16 |
| DST Australia | | | In Camp | 0 |
| Oil Industry Catering & Services (OIC) | | | In Camp | 3 |
| Halliburton | | | In Camp | 0 |
| | | Total on Rig | | 21 |

**Meeleebee 2**

| | | | | | |
|--------------------------|------------------|----------------------------------|--------------------|--------------------------|--------------------------------------|
| Date: | 07 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | Don Poole |
| Report Number: | 5 | Night Representative: | John Webber | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | |

Well Details

| | | | | | |
|-------------|---------------|----------------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | Casing OD: | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 0.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 0.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 0.0m | Daily Cost: | \$ 37,940 |
| RT - GL: | 4.35m | Days From Spud: | 0.00 | Cum. Cost: | \$ 309,218 |
| Datum: | GDA 94 | Days On Well: | 5.00 | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | FIT/LOT: / | Days Since LTI: | 42 |

| | |
|---------------------|--|
| Current Ops @ 0600: | WOD. |
| Planned Operations: | WOD. Load out mast, carrier and wellsite shacks to Meeleebee #2. Rig down camp and move to Muggleton #3 location. Rig up camp. WOD |

Summary of Period 0000 to 2400 Hrs

| |
|--|
| WOD. Load out mast, carrier and wellsite shacks to Meeleebee #2. Rig down camp and move to Muggleton #3 location. Rig up camp. WOD |
|--|

Operations For Period 0000 Hrs to 2400 Hrs on 07 Feb 2009

| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description |
|------|-----|-----|------|------|------|-------|--|
| PS | P | WOD | 0000 | 0600 | 6.00 | 0.0m | Wait no daylight. Hold pretour meeting. |
| PS | P | SM | 0600 | 0630 | 0.50 | 0.0m | Hold PJSM with truck drivers. |
| PS | P | RM | 0630 | 0900 | 2.50 | 0.0m | Continue to load out trucks with drilling equipment to Meeleebee #2. Move carrier, mast and wellsite shacks. |
| PS | P | RM | 0900 | 1200 | 3.00 | 0.0m | Rig down camp. |
| PS | P | RM | 1200 | 1830 | 6.50 | 0.0m | Move camp to Muggleton #3 location. Install mast to carrier, redress mast, spot rig loads and wellsite shacks on Meeleebee #2. |
| PS | P | WOD | 1830 | 2400 | 5.50 | 0.0m | Wait on daylight. |

Operations For Period 0000 Hrs to 0600 Hrs on 08 Feb 2009

| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description |
|------|-----|-----|------|------|------|-------|----------------------|
| PS | P | WOD | 0000 | 0600 | 6.00 | 0.0m | WOD. |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|---------------------------|
| Permit To Work (2) | 05 Feb 2009 | 2 Days | All completed PTW |
| Pre-tour Meeting (1) | 05 Feb 2009 | 2 Days | Discuss todays operations |

Personnel Summary

| Company | | In Camp | Pax On |
|--------------------------------------|--|--------------|--------|
| Origin Energy | | In Camp | 2 |
| Ensign International Energy Services | | In Camp | 14 |
| | | Total on Rig | 16 |

Bulk Stocks

| Name | Unit | In Hand | In | Used | Adjust | Balance |
|-------------------|----------|---------|----|------|--------|---------|
| Camp Fuel | ltr | 1288 | 0 | 0 | 0 | 1,288.0 |
| Cement Uncut | sx | 84 | 0 | 0 | 0 | 84.0 |
| Diesel | litres | 1695 | 0 | 0 | 0 | 1,695.0 |
| Shaker Screen 110 | 100 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 175 | 170 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 180 | 200 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 210 | 325 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Water - Drilling | bbl | 3000 | 0 | 0 | 0 | 3,000.0 |
| Water - Potable | m3 | 20 | 0 | 0 | 0 | 20.0 |

**Meeleebee 2**

| | | | | | |
|--------------------------|------------------|----------------------------------|--------------------|--------------------------|--------------------------------------|
| Date: | 08 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | Don Poole |
| Report Number: | 6 | Night Representative: | John Webber | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | |

Well Details

| | | | | | |
|-------------|---------------|----------------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | Casing OD: | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 0.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 0.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 0.0m | Daily Cost: | \$ 36,914 |
| RT - GL: | 4.35m | Days From Spud: | 0.00 | Cum. Cost: | \$ 346,132 |
| Datum: | GDA 94 | Days On Well: | 6.00 | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | FIT/LOT: / | Days Since LTI: | 43 |

| | |
|---------------------|---|
| Current Ops @ 0600: | WOD. |
| Planned Operations: | WOD. Continue to rig up carrier, mud pumps, electrical and hydraulic hoses. Conduct mast inspection and raise mast. Rig up mud tanks. |

Summary of Period 0000 to 2400 Hrs

| |
|---|
| WOD. Continue to rig up carrier, mud pumps, electrical and hydraulic hoses. Conduct mast inspection and raise mast. Rig up mud tanks. |
|---|

Operations For Period 0000 Hrs to 2400 Hrs on 08 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|----|-----|------|------|------|-------|--|
| PS | P | WOD | 0000 | 0600 | 6.00 | 0.0m | WOD. |
| PS | P | RU | 0600 | 1200 | 6.00 | 0.0m | Continue to rig up carrier, mud pumps, electrical cables and shock hoses. Pin carrier, raise doghouse and hook up hydraulic lines. |
| PS | P | RU | 1200 | 1600 | 4.00 | 0.0m | Rig up Pason service lines and hydraulic hoses. Conduct mast inspection and hold PJSM before raising mast. |
| PS | P | RU | 1600 | 2000 | 4.00 | 0.0m | Raise mast. Continue rigging up mud tanks. |
| PS | P | RU | 2000 | 2400 | 4.00 | 0.0m | Continue rigging up mud tanks and mud pumps. |

Operations For Period 0000 Hrs to 0600 Hrs on 09 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|----|-----|------|------|------|-------|---|
| PS | P | RU | 0000 | 0500 | 5.00 | 0.0m | Continue to rig up. Function test remote Swaco choke, install flare lines and choke manifold. |
| PS | P | RMT | 0500 | 0600 | 1.00 | 0.0m | Slip and cut 15.3m of drill line. |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|---------------------------|
| Permit To Work (2) | 05 Feb 2009 | 3 Days | All completed PTW |
| Pre-tour Meeting (1) | 05 Feb 2009 | 3 Days | Discuss todays operations |

Personnel Summary

| Company | In Camp | Pax On |
|--------------------------------------|--------------|--------|
| Origin Energy | In Camp | 2 |
| Ensign International Energy Services | In Camp | 14 |
| | Total on Rig | 16 |

Bulk Stocks

| Name | Unit | In Hand | In | Used | Adjust | Balance |
|-------------------|----------|---------|----|------|--------|---------|
| Camp Fuel | ltr | 1288 | 0 | 0 | 0 | 1,288.0 |
| Cement Uncut | sx | 84 | 0 | 0 | 0 | 84.0 |
| Diesel | litres | 1695 | 0 | 0 | 0 | 1,695.0 |
| Shaker Screen 110 | 100 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 175 | 170 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 180 | 200 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 210 | 325 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Water - Drilling | bbl | 3000 | 0 | 0 | 0 | 3,000.0 |
| Water - Potable | m3 | 20 | 0 | 0 | 0 | 20.0 |

**Meeleebie 2**

| | | | | | |
|-------------------|------------------|---------------------------|--------------------|-------------------|--------------------------------------|
| Date: | 09 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | Don Poole |
| Report Number: | 7 | Night Representative: | Stu Vickers | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | | Geologist: |

Well Details

| | | | | | |
|-------------|---------------|----------------------|----------|-------------|---------------------------------|
| Country: | Australia | Current Hole Size: | 12.250in | Casing OD: | Original AFE: \$ 1,204,386 |
| Field: | | Measured Depth: | 77.00m | Casing MD: | Orig. & Supp. AFE: \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 77.00m | Casing TVD: | AFE Number: 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 0.0m | TOL MD: | Daily Cost: \$ 38,165 |
| RT - GL: | 4.35m | Days From Spud: | 0.31 | Liner MD: | Cum. Cost: \$ 384,297 |
| Datum: | GDA 94 | Days On Well: | 7.00 | Liner TVD: | Last LTI Date: 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | | FIT/LOT: | / Days Since LTI: 44 |

Current Ops @ 0600: Slip and cut drill line.

Planned Operations: Continue to rig up and function test all drilling equipment. Conduct hazard hunt and hold pre-spud meeting with crew. RIH with 12 1/4" bit and drill ahead to 70m. POOH prior to running casing.

Summary of Period 0000 to 2400 Hrs

Continue to rig up and function test all drilling equipment. Conduct hazard hunt and hold pre-spud meeting with crew. Repair wash pipe. RIH with 12 1/4" bit and drill ahead to 77m. Take deviation survey. POOH to 30m.



Operations For Period 0000 Hrs to 2400 Hrs on 09 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|---------|------|------|------|------|-------|---|
| PS | P | RU | 0000 | 0500 | 5.00 | 0.0m | Continue to rig up. Function test remote Swaco choke, install flare lines and choke manifold. |
| PS | P | RMT | 0500 | 0600 | 1.00 | 0.0m | Slip and cut 15.3m of drill line. |
| PS | P | RU | 0600 | 0900 | 3.00 | 0.0m | Function test pipe arm, IR, and TDS. |
| PS | P | SM | 0900 | 1000 | 1.00 | 0.0m | Conduct hazard hunt and hold pre-spud meeting. |
| PS | P | RU | 1000 | 1030 | 0.50 | 0.0m | Make up x/over to saver sub. |
| PS | TP (RE) | RR | 1030 | 1400 | 3.50 | 0.0m | Replace o-rings in hydraulic valve bodies on. |
| PS | P | HBHA | 1400 | 1500 | 1.00 | 0.0m | Make up 12 1/4" bit, bit sub to DC. Install ported float and Totco ring. |
| PS | P | RU | 1500 | 1530 | 0.50 | 0.0m | Function test both mud pumps and cellar pump. |
| PS | P | RU | 1530 | 1630 | 1.00 | 0.0m | Repair leaking wash pipe and adjust drawworks brakes. |
| SH | P | D | 1630 | 1830 | 2.00 | 30.0m | RIH and tag @ 11m. Drill ahead with 12 1/4" hole from 11m to 30m. |
| SH | TP (RE) | RR | 1830 | 1930 | 1.00 | 30.0m | Due to leaking wash pipe - POOH with 2 x DC's and repair washpipe. RIH to 30m. |
| SH | P | D | 1930 | 2230 | 3.00 | 77.0m | Continue to drill ahead from 30m to 77m with 5k WOB, 4K On btm TQ, 200psi SPP. |
| SH | P | CIR | 2230 | 2300 | 0.50 | 77.0m | Pump 15bbl's Hi-Vis sweep and circulate hole clean @ max rate. |
| SH | P | S | 2300 | 2330 | 0.50 | 77.0m | Drop Totco survey barrel @ 76m. |
| SH | P | TO | 2330 | 2400 | 0.50 | 77.0m | POOH from 76m to 30m. |

Operations For Period 0000 Hrs to 0600 Hrs on 10 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|----|-----|------|------|------|-------|---|
| SH | P | TO | 0000 | 0100 | 1.00 | 77.0m | Lay out DC's, break off bit and retrieve survey barrel - 1/4° deviation. Clean and clear rig floor. |
| SC | P | SM | 0100 | 0130 | 0.50 | 77.0m | Hold PJSM - review JSA running casing. |
| SC | P | RC | 0130 | 0330 | 2.00 | 77.0m | Pick up first joint and install float shoe. Check float - all good. Run 9 5/8" K-55BTC 36LB/FT casing to 75.0m (float shoe, 6 x full joints, 1 x stop ring, 3 centralizers run). Space out with top of casing collar 0.55m below ground level. |
| SC | P | CIR | 0330 | 0500 | 1.50 | 77.0m | Circulate hole clean @ 75.0m while rig up surface lines from cement unit to rig floor. Hold PJSM - pressure testing and cement job. |
| SC | P | RUC | 0500 | 0530 | 0.50 | 77.0m | Install cement head. Check hammer unions for any 1502/602 mismatch - all good. Pressure test surface lines to 2000psi/5mins - good test. |
| SC | P | CMC | 0530 | 0600 | 0.50 | 77.0m | (IN PROGRESS) Break circulation. Mix and pump 26bbl's 15.6ppg slurry. Drop top plug and displace cement with 19.5bbl's water. Initially bump plug with 200psi and slowly increase to 1500psi and hold for 10mins - good test. Bleed back 0.5bbl and check float holding - all good. |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|---------------------------|
| Permit To Work (2) | 05 Feb 2009 | 4 Days | All completed PTW |
| Pre-tour Meeting (1) | 05 Feb 2009 | 4 Days | Discuss todays operations |

Personnel Summary

| Company | | Pax On |
|--------------------------------------|--------------|--------|
| Origin Energy | In Camp | 2 |
| Ensign International Energy Services | In Camp | 14 |
| | Total on Rig | 16 |

Bulk Stocks

| Name | Unit | In Hand | In | Used | Adjust | Balance |
|-------------------|----------|---------|----|------|--------|---------|
| Camp Fuel | ltr | 1288 | 0 | 0 | 0 | 1,288.0 |
| Cement Uncut | sx | 84 | 0 | 0 | 0 | 84.0 |
| Diesel | litres | 1695 | 0 | 0 | 0 | 1,695.0 |
| Shaker Screen 110 | 100 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 175 | 170 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 180 | 200 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 210 | 325 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Water - Drilling | bbl | 3000 | 0 | 0 | 0 | 3,000.0 |
| Water - Potable | m3 | 20 | 0 | 0 | 0 | 20.0 |



| Meeleebee 2 | | | | | |
|-------------------|------------------|---------------------------|--------------------|-------------------|--------------------------------------|
| Date: | 10 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | Don Poole |
| Report Number: | 8 | Night Representative: | Stu Vickers | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | |

Well Details

| | | | | | | | |
|-------------|---------------|----------------------|---------|-------------|---------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | 8.750in | Casing OD: | 9.625in | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 77.00m | Casing MD: | 75.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 77.00m | Casing TVD: | 75.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 0.0m | TOL MD: | | Daily Cost: | \$ 65,665 |
| RT - GL: | 4.35m | Days From Spud: | 1.31 | Liner MD: | | Cum. Cost: | \$ 449,962 |
| Datum: | GDA 94 | Days On Well: | 8.00 | Liner TVD: | | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | - | FIT/LOT: | / | Days Since LTI: | 45 |

| | |
|---------------------|--|
| Current Ops @ 0600: | Continue laying out DC's. |
| Planned Operations: | Continue to POOH to surface. Rig up, and run 9 5/8" casing to 75m. Rig up surface lines, install cement head and pressure test same. Conduct cement job as per program. WOC. Lay out landing joint and nipple up BOP's. Pressure test BOPE as per program. |

Summary of Period 0000 to 2400 Hrs

| |
|--|
| Continue to POOH to surface. Rig up, and run 9 5/8" casing to 75m. Rig up surface lines, install cement head and pressure test same. Conduct cement job as per program. WOC. Lay out landing joint and nipple up BOP's. Pressure test BOPE as per program. |
|--|

Operations For Period 0000 Hrs to 2400 Hrs on 10 Feb 2009

| Phse | Clz | Op | From | To | Hrs | Depth | Activity Description |
|------|-----|-----|------|------|------|-------|---|
| SH | P | TO | 0000 | 0100 | 1.00 | 77.0m | Lay out DC's, break off bit and retrieve survey barrel - 1/4° deviation. Clean and clear rig floor. |
| SC | P | SM | 0100 | 0130 | 0.50 | 77.0m | Hold PJSM - review JSA running casing. |
| SC | P | RC | 0130 | 0330 | 2.00 | 77.0m | Pick up first joint and install float shoe. Check float - all good. Run 9 5/8" K-55BTC 36LB/FT casing to 75.0m (float shoe, 6 x full joints, 1 x stop ring, 3 centralizers run). Space out with top of casing collar 0.55m below ground level. |
| SC | P | CIR | 0330 | 0500 | 1.50 | 77.0m | Circulate hole clean @ 75.0m while rig up surface lines from cement unit to rig floor. Hold PJSM - pressure testing and cement job. |
| SC | P | RUC | 0500 | 0530 | 0.50 | 77.0m | Install cement head. Check hammer unions for any 1502/602 mismatch - all good. Pressure test surface lines to 2000psi/5mins - good test. |
| SC | P | CMC | 0530 | 0630 | 1.00 | 77.0m | Break circulation. Mix and pump 26bbl's 15.6ppg slurry. Drop top plug and displace cement with 19.5bbl's water. Initially bump plug with 200psi and slowly increase to 1500psi and hold for 10mins - good test. Bleed back 0.5bbl and check float holding - all good. |
| SC | P | WOC | 0630 | 1030 | 4.00 | 77.0m | WOC - prepare braden head, tools for BOP nipple up, and pressure test pump. Install flowline @ shakers |
| PH | P | BOP | 1030 | 1700 | 6.50 | 77.0m | Lay down 9 5/8" landing joint. Nipple up BOPE, choke and kill lines. |
| PH | P | BOP | 1700 | 2400 | 7.00 | 77.0m | Performed pressure test on surface equipment. Made up 9-5/8" cup tester tool & set in 9-5/8" casing. Pressure tested manifold, kelly cock, kill line valves to 250 psi & 1500 psi for 5 minutes each. Pressure tested pipe rams & HCR valve to 250 psi & 1500 psi for 10 minutes each. Pressure tested annular preventer to 250 psi & 1000 psi for 5 minutes each. Removed cup tester & pressure tested blind rams against casing to 250 psi & 1500 psi for 10 minutes. |

Operations For Period 0000 Hrs to 0600 Hrs on 11 Feb 2009

| Phse | Clz | Op | From | To | Hrs | Depth | Activity Description |
|------|---------|------|------|------|------|-------|--|
| PH | P | SM | 0000 | 0030 | 0.50 | 77.0m | Held safety & procedure meeting with on coming crew. |
| PH | P | BOP | 0030 | 0100 | 0.50 | 77.0m | Continued to pressure test surface equipment. Pressure tested Inside BOP to 250 psi & 1500 psi for 5 minutes each. |
| PH | P | HBHA | 0100 | 0200 | 1.00 | 77.0m | Rigged up wire line for core retrieval. |
| PH | P | TI | 0200 | 0330 | 1.50 | 77.0m | Made up 8-3/4" PDC bit & ran in hole on 6-1/2" drill collars. Tagged cement top at 72 m. Held BOP drill, well secured in 40 seconds. |
| PH | P | DFS | 0330 | 0500 | 1.50 | 77.0m | Drilled out cement, float shoe @ 75m, and cement in rathole down to 77.0 m. |
| PH | TP (RE) | RR | 0500 | 0600 | 1.00 | 77.0m | Pull back into shoe and repair damaged hydraulic hose on pipe arm cylinder. |



General Comments

00:00 TO 24:00 Hrs ON 10 Feb 2009

| Comments | Rig Requirements | Lessons Learnt |
|---|------------------|----------------|
| Halliburton - 9 5/8" cement job \$ 13,044.34. | | |
| Weather AM | <u>Comments</u> | |
| Weather PM | <u>Comments</u> | |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|--|
| JSA (2) | 10 Feb 2009 | 0 Days | pinch & crush points, high pressure lines. |
| Pre-tour Meeting (3) | 10 Feb 2009 | 0 Days | trip out of hole, run casing, cement casing. |

Bit Data

| Bit # 1 | Wear | I | O1 | D | L | B | G | O2 | R |
|----------------------------|----------------|---|----|----------------|---|------|---------------------------------|----|--|
| Size: 311.2 mm (12.250 in) | IADC #: M433 | | | Nozzles | | | Drilled over last 24 hrs | | Calculated over Bit Run |
| Mfr: GEODIAMOND | WOB (Avg): klb | | | No. | | Size | Progress: m | | Cum. Progress: 0.0m |
| Type: PDC | RPM (Avg): | | | | | | On Bottom Hrs: NaN | | Cum. On Btm Hrs: 0.00 |
| Serial No.: 1604079 | F. Rate: gpm | | | | | | IADC Drill Hrs: NaN | | Cum. IADC Drill Hrs: 0.00 |
| Bit Model: AR435 | SPP: psi | | | | | | Total Revs: OB-ROP (Avg): | | Cum. Total Revs: 0 Cum. OB-ROP (Avg): 0.00m/hr |
| Depth In: 0.0m | TFA: 0 | | | | | | | | |
| Depth Out: | | | | | | | | | |

BHA Data

| BHA # 1 | | | | |
|----------------------|------------------------|--------------------|-----------------------|--|
| Weight (Wet): | Length: 76.82m | Torque (Max): | DC (1) Ann. Velocity: | |
| Wt. Below Jar (Wet): | String Wt.: 29.2klb | Torque (Off Btm.): | DC (2) Ann. Velocity: | |
| | Pick-Up Wt.: 29.2klb | Torque (On Btm.): | HWDP Ann. Velocity: | |
| | Slack-Off Wt.: 29.2klb | Jar Hours: | DP Ann. Velocity: | |

BHA Run Description: 12-1/4" PDC Bit, bit sub, 8 x 6-1/2" DC's, 1 x X/0

| Equipment | Length (m) | OD (in) | ID (in) | Serial # | Hours | Comment |
|---------------|------------|---------|---------|----------|-------|---------|
| Bit | x 0.40 | 12.250 | | | | |
| Bit Sub | x 0.93 | | | | | |
| 6.5in DC | 1x 9.42 | 6.500 | | | | |
| 6.5in DC | 1x 9.38 | 6.500 | | | | |
| 6.5in DC | 1x 9.42 | 6.500 | | | | |
| 6.5in DC | 1x 9.48 | 6.500 | | | | |
| 6.5in DC | 1x 9.59 | 6.500 | | | | |
| 6.5in DC | 1x 9.39 | 6.500 | | | | |
| 6.5in DC | 1x 9.39 | 6.500 | | | | |
| Total Length: | 76.82m | | | | | |

Personnel Summary

| Company | | Pax On |
|--------------------------------------|--------------|--------|
| Origin Energy | In Camp | 2 |
| Ensign International Energy Services | In Camp | 14 |
| | Total on Rig | 16 |



| Meeleebee 2 | | | | | | | | | | | | | | |
|--|--|---------------------------|--------------------|-------------------|--------------------------------------|--------------------|---|--|--|--|--|--|--|--|
| Date: | 11 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | Don Poole | | | | | | | | | |
| Report Number: | 9 | Night Representative: | Stu Vickers | Drilling Company: | Ensign International Energy Services | | | | | | | | | |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | | | | | | | | | | |
| Well Details | | | | | | | | | | | | | | |
| Country: | Australia | Current Hole Size: | 6.250in | Casing OD: | 9.625in | Original AFE: | \$ 1,204,386 | | | | | | | |
| Field: | | Measured Depth: | 126.00m | Casing MD: | 75.00m | Orig. & Supp. AFE: | \$ 1,204,386 | | | | | | | |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 126.00m | Casing TVD: | 75.00m | AFE Number: | 6060026 | | | | | | | |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 49.0m | TOL MD: | | Daily Cost: | \$ 66,240 | | | | | | | |
| RT - GL: | 4.35m | Days From Spud: | 2.31 | Liner MD: | | Cum. Cost: | \$ 516,202 | | | | | | | |
| Datum: | GDA 94 | Days On Well: | 9.00 | Liner TVD: | | Last LTI Date: | 27 Dec 2008 | | | | | | | |
| Planned TD: | 424.40m | Last BOP Date: | 10 Feb 2009 | FIT/LOT: | 20.00ppg / | Days Since LTI: | 46 | | | | | | | |
| Current Ops @ 0600: | Continue to RIH with DST #1 toolstring. | | | | | | | | | | | | | |
| Planned Operations: | RIH with DST #1 toolstring and conduct DST as per program. POOH. RIH with coring assembly, cut and retrieve core as per Geologist. | | | | | | | | | | | | | |
| Summary of Period 0000 to 2400 Hrs | | | | | | | | | | | | | | |
| Pulled out of hole, Ran in hole with coring assembly,cut core from 77 m down to 83 m, conducted FIT, cored from 83 m down to 126 m, pulled out of hole for DST #1. | | | | | | | | | | | | | | |
| Operations For Period 0000 Hrs to 2400 Hrs on 11 Feb 2009 | | | | | | | | | | | | | | |
| Phse | Clz | Op | From | To | Hrs | Depth | Activity Description | | | | | | | |
| PH | P | SM | 0000 | 0030 | 0.50 | 77.0m | Held safety & procedure meeting with on coming crew. | | | | | | | |
| PH | P | BOP | 0030 | 0100 | 0.50 | 77.0m | Continued to pressure test surface equipment. Pressure tested Inside BOP to 250 psi & 1500 psi for 5 minutes each. | | | | | | | |
| PH | P | HBHA | 0100 | 0200 | 1.00 | 77.0m | Rigged up wire line for core retrieval. | | | | | | | |
| PH | P | TI | 0200 | 0330 | 1.50 | 77.0m | Made up 8-3/4" PDC bit & ran in hole on 6-1/2" drill collars. Tagged cement top at 72 m. Held BOP drill, well secured in 40 seconds. | | | | | | | |
| PH | P | DFS | 0330 | 0500 | 1.50 | 77.0m | Drilled out cement, float shoe @ 75m, and cement in rathole down to 77.0 m. | | | | | | | |
| PH | TP (RE) | RR | 0500 | 0600 | 1.00 | 77.0m | Pull back into shoe and repair damaged hydraulic hose on pipe arm cyclinder. | | | | | | | |
| PH | P | TO | 0600 | 0730 | 1.50 | 77.0m | Pulled out of hole with drill collars & PDC bit - correct hole fill taken. | | | | | | | |
| PH | P | TI | 0730 | 0900 | 1.50 | 77.0m | Make up coring assembly and RIH to 70m. | | | | | | | |
| PH | P | SM | 0900 | 0930 | 0.50 | 77.0m | Function test and perform dummy run with wireline unit - all good. Hold PJSM - coring operations. | | | | | | | |
| PH | P | COR | 0930 | 1030 | 1.00 | 83.0m | Cut and retrieve first core from 77.0m to 83.0m with 210gpm, 60rpm and 2k on btm TQ. | | | | | | | |
| PH | P | LOT | 1030 | 1100 | 0.50 | 83.0m | Circulate hole clean @ max rate. Conduct FIT with 150psi, 8.6ppg MW @ 83.0m for MAMW of 20.0ppg. | | | | | | | |
| PH | P | COR | 1100 | 1500 | 4.00 | 95.0m | Continued to cut core samples from 83m down to 85m. | | | | | | | |
| PH | TP (RE) | RR | 1500 | 1730 | 2.50 | 95.0m | Changed out wash pipe. | | | | | | | |
| PH | P | COR | 1730 | 2300 | 5.50 | 126.0m | Continued to cut core samples from 95m down to 126m. | | | | | | | |
| PH | P | CIR | 2300 | 2330 | 0.50 | 126.0m | Circulated hole clean. | | | | | | | |
| EP | P | DST | 2330 | 2400 | 0.50 | 126.0m | Pulled out of hole with coring assembly from 126m. | | | | | | | |
| Operations For Period 0000 Hrs to 0600 Hrs on 12 Feb 2009 | | | | | | | | | | | | | | |
| Phse | Clz | Op | From | To | Hrs | Depth | Activity Description | | | | | | | |
| EP | P | DST | 0000 | 0100 | 1.00 | 126.0m | Continued to pull out of hole with coring assembly. | | | | | | | |
| EP | P | DST | 0100 | 0330 | 2.50 | 126.0m | Prepare DST tools and 4 3/4" DC's, install flare igniter and clear tubular racks. | | | | | | | |
| EP | P | DST | 0330 | 0400 | 0.50 | 126.0m | Hold PJSM and review JSA - picking up DST tools. | | | | | | | |
| EP | P | DST | 0400 | 0600 | 2.00 | 126.0m | (IN PROGRESS) Make up DST toolstring and RIH, filling pipe with 50m water cushion to 120m. RIH with work single and tag btm @ 126m - lay out work single. | | | | | | | |



| HSE Summary | | | | | | | | | | | |
|--|--|--------------|--------------------|-----------------------|----------|--------------------------|----------|----------------------|-------------------------|--|--|
| Event (# Of) | | Date of last | Days Since | Short Description | | | | | | | |
| JSA (4) | | 11 Feb 2009 | 0 Days | JSA's covered | | | | | | | |
| Permit To Work (1) | | 11 Feb 2009 | 0 Days | Daily PTW | | | | | | | |
| Pre-tour Meeting (1) | | 11 Feb 2009 | 0 Days | Midnight Pretour | | | | | | | |
| Pre-tour Meeting (1) | | 11 Feb 2009 | 0 Days | Midday Pretour | | | | | | | |
| Bit Data | | | | | | | | | | | |
| Bit # 2 | | | | Wear | I 0 | O1 0 | D | L | B X | | |
| Size: | 222.3 mm (8.750 in) | IADC #: | klb | Nozzles | | Drilled over last 24 hrs | | | Calculated over Bit Run | | |
| Mfr: | SECURITY DBS | WOB (Avg): | | No. | Size | Progress: | m | Cum. Progress: | 0.0m | | |
| Type: | PDC | RPM (Avg): | | 3 | 14/32nd" | On Bottom Hrs: | Nan | Cum. On Btm Hrs: | 0.00 | | |
| Serial No.: | 5971401 | F. Rate: | | | | IADC Drill Hrs: | Nan | Cum. IADC Drill Hrs: | 0.00 | | |
| Bit Model: | FM2665 | SPP: | gpm | | | Total Revs: | | Cum. Total Revs: | 0 | | |
| Depth In: | 72.0m | TFA: | psi | | | OB-ROP (Avg): | | Cum. OB-ROP (Avg): | 0.00m/hr | | |
| Depth Out: | 77.0m | | 0.451 | | | | | | | | |
| Bit Data | | | | | | | | | | | |
| Bit # 3 | | | | | | | | | | | |
| Size: | 158.8 mm (6.250 in) | IADC #: | Core Bit | Nozzles | | Drilled over last 24 hrs | | | Calculated over Bit Run | | |
| Mfr: | Reed Hyatalog | WOB (Avg): | 2.5klb | No. | Size | Progress: | 49.00m | Cum. Progress: | 49.0m | | |
| Type: | PDC | RPM (Avg): | 60 | 6 | 14/32nd" | On Bottom Hrs: | 7.00 | Cum. On Btm Hrs: | 7.00 | | |
| Serial No.: | 026 | F. Rate: | 210gpm | | | IADC Drill Hrs: | Nan | Cum. IADC Drill Hrs: | 0.00 | | |
| Bit Model: | XCB613 | SPP: | 150psi | | | Total Revs: | | Cum. Total Revs: | 0 | | |
| Depth In: | 77.0m | TFA: | 0.902 | | | OB-ROP (Avg): | 7.00m/hr | Cum. OB-ROP (Avg): | 7.00m/hr | | |
| BHA Data | | | | | | | | | | | |
| BHA # 3 | | | | | | | | | | | |
| Weight (Wet): | Length: String Wt.: Pick-Up Wt.: Slack-Off Wt.: | 6.65m | Torque (Max): | DC (1) Ann. Velocity: | | | 0mpm | | | | |
| Wt. Below Jar (Wet): | | | Torque (Off Btm.): | DC (2) Ann. Velocity: | | | 0mpm | | | | |
| | | | Torque (On Btm.): | HWDP Ann. Velocity: | | | 0mpm | | | | |
| | | | Jar Hours: | DP Ann. Velocity: | | | 0mpm | | | | |
| Equipment | | Length (m) | OD (in) | ID (in) | Serial # | Hours | Comment | | | | |
| Core Bit | | x 0.22 | 6.250 | 026 | | | | | | | |
| Saver sub | | x 0.32 | | | | | | | | | |
| Core Head | | x 0.71 | | | | | | | | | |
| Core Barrel | | x 2.33 | | | | | | | | | |
| Top Assembly | | x 0.41 | | | | | | | | | |
| Core Head | | x 0.29 | | | | | | | | | |
| Core Barrel | | x 2.33 | | | | | | | | | |
| Top Assembly | | x 0.04 | | | | | | | | | |
| Total Length: | | 6.65m | | | | | | | | | |
| Personnel Summary | | | | | | | | | | | |
| Company | | | | | | | Pax On | | | | |
| Origin Energy | | | | | | In Camp | 6 | | | | |
| Ensign International Energy Services | | | | | | In Camp | 19 | | | | |
| DST Australia | | | | | | In Camp | 2 | | | | |
| Oil Industry Catering & Services (OIC) | | | | | | In Camp | 3 | | | | |
| | | | | | | Total on Rig | 30 | | | | |

**Meeleebee 2**

| | | | | | |
|--------------------------|------------------|----------------------------------|--------------------|--------------------------|--------------------------------------|
| Date: | 12 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | Don Poole |
| Report Number: | 10 | Night Representative: | Stu Vickers | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | Alex Nevcoski |

Well Details

| | | | | | | | |
|-------------|---------------|----------------------|-------------|-------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | 8.500in | Casing OD: | 9.625in | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 138.00m | Casing MD: | 75.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 138.00m | Casing TVD: | 75.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 12.0m | TOL MD: | | Daily Cost: | \$ 67,240 |
| RT - GL: | 4.35m | Days From Spud: | 3.31 | Liner MD: | | Cum. Cost: | \$ 583,442 |
| Datum: | GDA 94 | Days On Well: | 10.00 | Liner TVD: | | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | 10 Feb 2009 | FIT/LOT: | 20.00ppg / | Days Since LTI: | 47 |

Current Ops @ 0600: Continue to core ahead @ 168m

Planned Operations: Continue to cut and retrieve cores as per Geologist. POOH. Make up DST toolstring #2. RIH and conduct DST #2. POOH. RIH with coring assembly.

Summary of Period 0000 to 2400 Hrs

Completed pulling out of hole with coring assembly, run in hole with DST #1. Conduct DST #1. POOH with DST toolstring. Make up coring assembly and RIH. Continue to cut and retrieve cores as per Geologist.

Operations For Period 0000 Hrs to 2400 Hrs on 12 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|----|-----|------|------|------|--------|--|
| EP | P | DST | 0000 | 0100 | 1.00 | 126.0m | Continued to pull out of hole with coring assembly. |
| EP | P | DST | 0100 | 0330 | 2.50 | 126.0m | Prepare DST tools and 4 3/4" DC's, install flare igniter and clear tubular racks. |
| EP | P | DST | 0330 | 0400 | 0.50 | 126.0m | Hold PJSM and review JSA - picking up DST tools. |
| EP | P | DST | 0400 | 0900 | 5.00 | 126.0m | Make up DST toolstring and RIH, filling pipe with 50m water cushion to 120m. RIH with work single and tag btm @ 126m - lay out work single. |
| EP | P | DST | 0900 | 0930 | 0.50 | 126.0m | Install surface lines and manifold on rig floor. Flush water thru to flare pit and pressure test surface lines to 1500psi/5mins - good test. Make up flowhead and RIH to btm. Weights: Up 26k and Down 26k. |
| EP | P | DST | 0930 | 1030 | 1.00 | 126.0m | Sit 10k down and open tool for initial flow period of 5 mins @ 09:40hrs. No flow at all for 4mins with blow hose placed at very top of bucket. Small weak flow of bubbles from hose during last minute. Shut tool for 30min initial build up period @ 09:45hrs. Open tool for main flow period @ 10:15hrs. Immediate strong flow from blow hose when placed at very btm of bucket for 3mins. Flow starting to slow down consistently for next 7 mins, resulting in medium flow of small bubbles with hose placed at very top of bucket. Shut tool for main build up period of 5hrs @ 10:25hrs. |
| EP | P | DST | 1030 | 1530 | 5.00 | 126.0m | Monitor well during main build up period. |
| EP | P | DST | 1530 | 1630 | 1.00 | 126.0m | DST #1 completed, unseat packers, well static, dropped bar & circulated 1 x hole volume, flow check - small flow noted. Continued to circulate 1 x hole volume, flow check - well static. Break out & layed out DST head. |
| EP | P | DST | 1630 | 2030 | 4.00 | 126.0m | Pulled out of hole with DST tools, break out & layed out DST tools. |
| EP | P | DST | 2030 | 2200 | 1.50 | 126.0m | Made up core barrel & ran in hole 105m. Wash from 105m to 126m. Circulate hole clean prior to coring. |
| PH | P | COR | 2200 | 2400 | 2.00 | 138.0m | Seat inner core barrel and core ahead from 126m to 138m. |

Operations For Period 0000 Hrs to 0600 Hrs on 13 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|----|-----|------|------|------|--------|--|
| PH | P | COR | 0000 | 0600 | 6.00 | 168.3m | (IN PROGRESS) Continue to core ahead with 6 1/4" hole from 138m to 168.3m. |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|--|
| JSA (5) | 12 Feb 2009 | 0 Days | JSA's covered |
| Near Miss (1) | 12 Feb 2009 | 0 Days | Core barrel overshot unlatched from c/barrel |
| Permit To Work (1) | 12 Feb 2009 | 0 Days | Daily PTW |
| Pre-tour Meeting (1) | 12 Feb 2009 | 0 Days | Midnight Pretour |
| Pre-tour Meeting (1) | 12 Feb 2009 | 0 Days | Midday Pretour |



| WBM Data | | | | | | | | | |
|-------------------------|----------------------|----------------|--------------|------------------------|-------------------|-------------|-----------------------|--|-----------|
| Daily Chemical Costs: 0 | | | | | Cost To Date: 552 | | | | Engineer: |
| Mud Type: | water based with pol | Flowline Temp: | Cl: | Low Gravity Solids: % | | Gels 10s | lb/100ft ² | | |
| Sample From: | shakers | Nitrates: | Hardness/Ca: | High Gravity Solids: % | | Gels 10m | lb/100ft ² | | |
| Time: | 24:00 | Sulphites: | MBT/CEC: | Corr Solids: % | | Fann 003 | | | |
| Weight: | 8.60ppg | Loss (API): | Pm: | H ₂ O: | | Fann 006 | | | |
| ECD TD: | | Cake (API): | Pf: | Oil: | | Fann 100 | | | |
| ECD Shoe: | | PV: | Mf: | Sand: % | | Fann 200 | | | |
| Funnel Visc: | | YP: | pH: | Barite: | | Fann 300 | | | |
| KCl: | 0% | | | | | Fann 600 | | | |
| | | | | | | Lower Range | | | |

Bit Data

Bit # 3

| Size: | 158.8 mm (6.250 in) | IADC #: | Core Bit | Nozzles | | Drilled over last 24 hrs | | Calculated over Bit Run | |
|-------------|---------------------|------------|----------|----------|------|--------------------------|----------|-------------------------|----------|
| | | | | No. | Size | Progress: | 12.00m | Cum. Progress: | 61.0m |
| Mfr: | Reed Hycalog | WOB (Avg): | 5.0klb | 6 | | On Bottom Hrs: | 2.00 | Cum. On Btm Hrs: | 9.00 |
| Type: | PDC | RPM (Avg): | 60 | 14/32nd" | | IADC Drill Hrs: | 2.00 | Cum. IADC Drill Hrs: | 2.00 |
| Serial No.: | 026 | F. Rate: | 220gpm | | | Total Revs: | | Cum. Total Revs: | 0 |
| Bit Model: | XCB613 | SPP: | 150psi | | | OB-ROP (Avg): | 6.00m/hr | Cum. OB-ROP (Avg): | 6.78m/hr |
| Depth In: | 77.0m | TFA: | 0.902 | | | | | | |
| Depth Out: | | | | | | | | | |

BHA Data

BHA # 3

| | | | | | |
|----------------------|----------------|-------|--------------------|-----------------------|------|
| Weight (Wet): | Length: | 6.65m | Torque (Max): | DC (1) Ann. Velocity: | 0mpm |
| Wt. Below Jar (Wet): | String Wt.: | | Torque (Off Btm.): | DC (2) Ann. Velocity: | 0mpm |
| | Pick-Up Wt.: | | Torque (On Btm.): | HWDP Ann. Velocity: | 0mpm |
| | Slack-Off Wt.: | | Jar Hours: | DP Ann. Velocity: | 0mpm |

| Equipment | Length (m) | OD (in) | ID (in) | Serial # | Hours | Comment |
|---------------|------------|---------|---------|----------|-------|---------|
| Core Bit | x 0.22 | 6.250 | | 026 | | |
| Saver sub | x 0.32 | | | | | |
| Core Head | x 0.71 | | | | | |
| Core Barrel | x 2.33 | | | | | |
| Top Assembly | x 0.41 | | | | | |
| Core Head | x 0.29 | | | | | |
| Core Barrel | x 2.33 | | | | | |
| Top Assembly | x 0.04 | | | | | |
| Total Length: | 6.65m | | | | | |

Personnel Summary

| Company | | Pax On |
|--|--------------|--------|
| Origin Energy | In Camp | 6 |
| Ensign International Energy Services | In Camp | 19 |
| DST Australia | In Camp | 2 |
| Oil Industry Catering & Services (OIC) | In Camp | 3 |
| | Total on Rig | 30 |

Pumps

| Pump Data - Last 24Hrs | | | | | | | Slow Pump Data | | | | | |
|------------------------|------------|---------------|-------------|------------|--------------|--------------|----------------|--------------|-------------------|--------------|--------------|---------------|
| No. | Type | Liner (in) | MW (ppg) | Eff (%) | SPM (psi) | SPP (psi) | Flow (gpm) | Depth (m) | Ck. Line (psi) | SPM (psi) | SPP (psi) | Flow (gpm) |
| 1 | TSM 750 | 6.0 | | 99 | 80 | 150 | 280 | | | 1. | | |
| 2 | Emsco F500 | 5.5 | | 99 | | | | | | 2. | | |
| | | | | | | | | | | 1. | | |
| | | | | | | | | | | 2. | | |

**Meeleebee 2**

| | | | | | |
|--------------------------|-----------------|----------------------------------|-------------------|--------------------------|--------------------------------------|
| Date: | 13 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | Don Poole |
| Report Number: | 11 | Night Representative: | Stu Vickers | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12' 2.63 " | Longitude (East): | 149 ° 14' 29.92 " | Geologist: | Alex Nevcoski |

Well Details

| | | | | | | | |
|-------------|---------------|----------------------|-------------|-------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | 8.500in | Casing OD: | 9.625in | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 168.30m | Casing MD: | 75.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 168.30m | Casing TVD: | 75.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 30.3m | TOL MD: | | Daily Cost: | \$ 75,440 |
| RT - GL: | 4.35m | Days From Spud: | 4.31 | Liner MD: | | Cum. Cost: | \$ 658,882 |
| Datum: | GDA 94 | Days On Well: | 11.00 | Liner TVD: | | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | 10 Feb 2009 | FIT/LOT: | 20.00ppg / | Days Since LTI: | 48 |

Current Ops @ 0600: Circulate hole clean prior to continue coring @ 168m.

Planned Operations: RIH and continue to cut and retrieve cores as per Geologist.

Summary of Period 0000 to 2400 Hrs

Continue to cut and retrieve cores from 138m to 168m. Conduct wiper trip to 110m. RIH. Circulate hole clean. POOH. Make up DST toolstring #2 and RIH. Conduct DST #2. POOH. Unset packers, circulated gas & fresh water out of hole, pulled out of hole with DST #2.

Operations For Period 0000 Hrs to 2400 Hrs on 13 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|----|-----|------|------|------|--------|---|
| PH | P | COR | 0000 | 0630 | 6.50 | 168.3m | Continue to core ahead with 6 1/4" hole from 138m to 168.3m. |
| EP | P | DST | 0630 | 0700 | 0.50 | 168.3m | Circualte hole clean @ 168m prior to wiper trip / DST. Note: Interval to be tested 132m to 138m. Coal seams to be tested in Lower Juandah 133.0m to 133.84m and 136.71m to 137.92m. |
| EP | P | DST | 0700 | 0730 | 0.50 | 168.3m | Conduct wiper trip from 168m to 110m - no tight hole recorded. |
| EP | P | DST | 0730 | 0800 | 0.50 | 168.3m | Ciculate hole clean prior to POOH for DST. |
| EP | P | DST | 0800 | 0900 | 1.00 | 168.3m | POOH from 168m to surface. Flow check @ 168m and 75m - static. |
| EP | P | RMT | 0900 | 0930 | 0.50 | 168.3m | Conduct full rig service. |
| EP | P | DST | 0930 | 1400 | 4.50 | 168.3m | Hold PJSM - make up DST toolstring #2 and RIH to 49m. |
| EP | P | DST | 1400 | 1430 | 0.50 | 168.3m | Continue to RIH from 49m to 165m. Make up flow head, install surface lines and manifold. Note: 60m water cushion run. Take string weights - Up 27k Down 27k. |
| EP | P | DST | 1430 | 1530 | 1.00 | 168.3m | Hold PJSM - pressure test surface lines to 1500psi/5mins - good test. Install drop bar. Function test mud pump @ 80spm and flare ignition system - all good. RIH and sit 10k down to open tool @ 15:20 for initial 5min flow period. Immediate strong blow with hose placed at very btm of bucket. Flow remained consistent for full 5min period. Close tool for initial 30min build up period. |
| EP | P | DST | 1530 | 1600 | 0.50 | 168.3m | Open tool for 60min main flow period @ 15:50. Immediate strong blow from hose, but not quite as strong as previous blow. Strength of blow quickly trended down until only medium flow with hose at top of bucket. Close tool in for main build up period @ 15:55. |
| EP | P | DST | 1600 | 2130 | 5.50 | 168.3m | Monitor well for 5hr main build up period until 20:55. |
| EP | P | DST | 2130 | 2230 | 1.00 | 168.3m | Unset packers, checked fluid level in well, closed annular preventer, opened HCR & manifold to de-gasser, dropped bar, circulated gas & cushion water out of well with 2 complete circulations. (Forward circulations) Ensure well was static. |
| EP | P | DST | 2230 | 2400 | 1.50 | 168.3m | Rigged out DST head & manifold. Pulled out of with DST #2 tools. |

Operations For Period 0000 Hrs to 0600 Hrs on 14 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|----|-----|------|------|------|--------|--|
| EP | P | DST | 0000 | 0300 | 3.00 | 168.3m | Continued to pull out of hole with DST #2, layed out DST tools. |
| EP | P | DST | 0300 | 0430 | 1.50 | 168.3m | Prepare to run in hole with coring assembly.Picked up core bit & barrel, ran in hole on 5" core pipe. |
| EP | P | RMT | 0430 | 0500 | 0.50 | 168.3m | Conduct rig service and repair window wipers (unable to see out of dog house windows & perform job safely) |
| EP | P | DST | 0500 | 0600 | 1.00 | 168.3m | Continued to run in hole with coring assembly from 60m to 168m. |

**General Comments**

00:00 TO 24:00 Hrs ON 13 Feb 2009

| Comments | Rig Requirements | Lessons Learnt |
|---|------------------|----------------|
| DST Australia - conduct DST #1 \$ 15,890. | | |
| Weather AM | <u>Comments</u> | |
| Weather PM | <u>Comments</u> | |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|-------------------|
| JSA () | 13 Feb 2009 | 0 Days | JSA's covered |
| Permit To Work () | 13 Feb 2009 | 0 Days | Daily PTW |
| Pre-tour Meeting (1) | 13 Feb 2009 | 0 Days | Midnight Pretour |
| Pre-tour Meeting (1) | 13 Feb 2009 | 0 Days | Midday Pretour |

WBM Data

| Daily Chemical Costs: 0 | | Cost To Date: 552 | | Engineer: | |
|-------------------------|----------------------|-------------------|--------------|------------------------|--------------------------------|
| Mud Type: | water based with pol | Flowline Temp: | Cl: | Low Gravity Solids: % | Gels 10s lb/100ft ² |
| Sample From: | shakers | Nitrates: | Hardness/Ca: | High Gravity Solids: % | Gels 10m lb/100ft ² |
| Time: | 24:00 | Sulphites: | MBT/CEC: | Corr Solids: % | Fann 003 |
| Weight: | 8.60ppg | Loss (API): | Pm: | H ₂ O: | Fann 006 |
| ECD TD: | | Cake (API): | Pf: | Oil: | Fann 100 |
| ECD Shoe: | | PV: | Mf: | Sand: | Fann 200 |
| Funnel Visc: | | YP: | pH: | Barite: | Fann 300 |
| KCl: | 0% | | PHPA Excess: | | Fann 600 |
| | | | | | Lower Range |

Bit Data**Bit # 3**

| Size: | 158.8 mm (6.250 in) | IADC #: | Core Bit | Nozzles | | Drilled over last 24 hrs | | Calculated over Bit Run | |
|-------------|---------------------|------------|----------|---------|-----|--------------------------|-----------------|-------------------------|----------------------|
| | | | | klb | No. | Size | Progress: | 30.30m | Cum. Progress: |
| Type: | PDC | RPM (Avg): | | | 6 | 14/32nd" | On Bottom Hrs: | 10.80 | Cum. On Btm Hrs: |
| Serial No.: | 026 | F. Rate: | | gpm | | | IADC Drill Hrs: | NaN | Cum. IADC Drill Hrs: |
| Bit Model: | XCB613 | SPP: | | | | | Total Revs: | | Cum. Total Revs: |
| Depth In: | 77.0m | TFA: | | psi | | | OB-ROP (Avg): | 2.81m/hr | Cum. OB-ROP (Avg): |
| Depth Out: | | | | 0.902 | | | | | 4.61m/hr |

BHA Data**BHA # 3**

| | | | | | |
|----------------------|----------------|-------|--------------------|-----------------------|------|
| Weight (Wet): | Length: | 6.65m | Torque (Max): | DC (1) Ann. Velocity: | 0mpm |
| Wt. Below Jar (Wet): | String Wt.: | | Torque (Off Btm.): | DC (2) Ann. Velocity: | 0mpm |
| | Pick-Up Wt.: | | Torque (On Btm.): | HWDP Ann. Velocity: | 0mpm |
| | Slack-Off Wt.: | | Jar Hours: | DP Ann. Velocity: | 0mpm |

| Equipment | Length (m) | OD (in) | ID (in) | Serial # | Hours | Comment |
|---------------|------------|---------|---------|----------|-------|---------|
| Core Bit | x 0.22 | 6.250 | | 026 | | |
| Saver sub | x 0.32 | | | | | |
| Core Head | x 0.71 | | | | | |
| Core Barrel | x 2.33 | | | | | |
| Top Assembly | x 0.41 | | | | | |
| Core Head | x 0.29 | | | | | |
| Core Barrel | x 2.33 | | | | | |
| Top Assembly | x 0.04 | | | | | |
| Total Length: | 6.65m | | | | | |



| Personnel Summary | | | | | | | |
|--|--|--|--|--|--|--|------------|
| Company | | | | | | | Pax On |
| Origin Energy | | | | | | | In Camp 5 |
| Ensign International Energy Services | | | | | | | In Camp 19 |
| DST Australia | | | | | | | In Camp 2 |
| Oil Industry Catering & Services (OIC) | | | | | | | In Camp 3 |
| Total on Rig | | | | | | | 29 |

| Pumps | | | | | | | | | | | | |
|------------------------|------------|---------------|-------------|------------|-----|--------------|----------------|--------------|-------------------|-----|--------------|---------------|
| Pump Data - Last 24Hrs | | | | | | | Slow Pump Data | | | | | |
| No. | Type | Liner (in) | MW (ppg) | Eff (%) | SPM | SPP (psi) | Flow (gpm) | Depth (m) | Ck. Line (psi) | SPM | SPP (psi) | Flow (gpm) |
| 1 | TSM 750 | 6.0 | 8.60 | 99 | 80 | 150 | 300 | | 1. 2. | | | |
| 2 | Emsco F500 | 5.5 | | 99 | | | | | 1. 2. | | | |

| Bulk Stocks | | | | | | | |
|-------------------|----------|---------|----|------|--------|---------|--|
| Name | Unit | In Hand | In | Used | Adjust | Balance | |
| Camp Fuel | ltr | 0 | 0 | 300 | 0 | 4,552.0 | |
| Cement Uncut | sx | 84 | 0 | 0 | 0 | 84.0 | |
| Diesel | litres | 0 | 0 | 1044 | 0 | 8,217.0 | |
| Shaker Screen 110 | 100 mesh | 6 | 0 | 0 | 0 | 6.0 | |
| Shaker Screen 175 | 170 mesh | 6 | 0 | 0 | 0 | 6.0 | |
| Shaker Screen 180 | 200 mesh | 6 | 0 | 0 | 0 | 6.0 | |
| Shaker Screen 210 | 325 mesh | 6 | 0 | 0 | 0 | 6.0 | |
| Water - Drilling | bbl | 3000 | 0 | 0 | 0 | 3,000.0 | |
| Water - Potable | m3 | 20 | 0 | 0 | 0 | 20.0 | |

**Meeleebee 2**

| | | | | | |
|--------------------------|------------------|----------------------------------|--------------------|--------------------------|--------------------------------------|
| Date: | 14 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | Don Poole |
| Report Number: | 12 | Night Representative: | Stu Vickers | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | Alex Nevcoski |

Well Details

| | | | | | | | |
|---------------------|---------------|--|-------------|-------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | 8.500in | Casing OD: | 9.625in | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 168.30m | Casing MD: | 75.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 168.30m | Casing TVD: | 75.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 107.0m | TOL MD: | | Daily Cost: | \$ 74,190 |
| RT - GL: | 4.35m | Days From Spud: | 5.31 | Liner MD: | | Cum. Cost: | \$ 733,072 |
| Datum: | GDA 94 | Days On Well: | 12.00 | Liner TVD: | | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | 10 Feb 2009 | FIT/LOT: | 20.00ppg / | Days Since LTI: | 49 |
| Current Ops @ 0600: | | Continue to cut and retrieve cores @ 330m. | | | | | |
| Planned Operations: | | Continue to cut and retrieve core's until DST #3 interval. | | | | | |

Summary of Period 0000 to 2400 Hrs

Completed pulling out of hole with DST #2 & laying out DST tools, ran in hole with coring assembly, cut core samples from 168 m down to 275 m.

Operations For Period 0000 Hrs to 2400 Hrs on 14 Feb 2009

| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description |
|------|-----|-----|------|------|-------|--------|---|
| EP | P | DST | 0000 | 0300 | 3.00 | 168.3m | Continued to pull out of hole with DST #2, layed out DST tools. |
| EP | P | DST | 0300 | 0430 | 1.50 | 168.3m | Prepare to run in hole with coring assembly.Picked up core bit & barrel, ran in hole on 5" core pipe. |
| EP | P | RMT | 0430 | 0500 | 0.50 | 168.3m | Conduct rig service and repair window wipers (unable to see out of dog house windows & perform job safely) |
| EP | P | DST | 0500 | 0600 | 1.00 | 168.3m | Continued to run in hole with coring assembly from 60m to 168m. |
| PH | P | COR | 0600 | 2400 | 18.00 | 275.0m | Circulate hole clean @ 168m. Continue to cut and retrieve cores as per Geologist from 168m down to 275 m. Coring with the following parameters; WOB - 2000 to 3000 lbs, RPM - 81, SPM - 79, Pumping rate - 193 gpm, Pump pressure - 155 psi, Rotary torque - 2000 to 2500 ft/lbs. |

Operations For Period 0000 Hrs to 0600 Hrs on 15 Feb 2009

| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description |
|------|-----|-----|------|------|------|--------|--|
| PH | P | COR | 0000 | 0600 | 6.00 | 372.7m | (IN PROGRESS) Continue to cut and retrieve core samples from 275m to 372.7m. |

General Comments

00:00 TO 24:00 Hrs ON 14 Feb 2009

| Comments | Rig Requirements | Lessons Learnt |
|--|------------------|-----------------|
| DST #2 Invoice #1678 - Amount = \$ 18,300.00 | | |
| Weather AM | | <u>Comments</u> |
| Weather PM | | <u>Comments</u> |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|---|
| Pre-tour Meeting (3) | 14 Feb 2009 | 0 Days | suspended loads, pinch points, wet conditions. |
| Pre-tour Meeting (4) | 14 Feb 2009 | 0 Days | motion,gravity,trips, slips & falls, working with tools at heights. |



WBM Data

| Daily Chemical Costs: 0 | | Cost To Date: 552 | | | Engineer: | |
|-------------------------|----------------------|-------------------|--------------|------------------------|-------------|-----------------------|
| Mud Type: | water based with pol | Flowline Temp: | Cl: | Low Gravity Solids: % | Gels 10s | lb/100ft ² |
| Sample From: | shakers | Nitrates: | Hardness/Ca: | High Gravity Solids: % | Gels 10m | lb/100ft ² |
| Time: | 24:00 | Sulphites: | MBT/CEC: | Corr Solids: % | Fann 003 | |
| Weight: | 8.60ppg | Loss (API): | Pm: | H ₂ O: | Fann 006 | |
| ECD TD: | | Cake (API): | Pf: | Oil: | Fann 100 | |
| ECD Shoe: | | PV: | Mf: | Sand: | Fann 200 | |
| Funnel Visc: | | YP: | pH: | Barite: | Fann 300 | |
| KCl: | 0% | | | | Fann 600 | |
| | | | | | Lower Range | |

Bit Data

Bit # 3

| Size: | 158.8 mm (6.250 in) | IADC #: | Core Bit | Nozzles | | Drilled over last 24 hrs | | Calculated over Bit Run | |
|-------------|---------------------|------------|------------|---------|-------|--------------------------|-----------------|-------------------------|----------------------|
| | | | | klb | No. | Size | Progress: | 107.00m | Cum. Progress: |
| Type: | PDC | RPM (Avg): | RPM (Avg): | | 6 | 14/32nd" | On Bottom Hrs: | 7.60 | Cum. On Btm Hrs: |
| Serial No.: | 026 | F. Rate: | F. Rate: | | gpm | | IADC Drill Hrs: | NaN | Cum. IADC Drill Hrs: |
| Bit Model: | XCB613 | SPP: | SPP: | | psi | | Total Revs: | | Cum. Total Revs: |
| Depth In: | 77.0m | TFA: | TFA: | | 0.902 | | OB-ROP (Avg): | 14.08m/hr | Cum. OB-ROP (Avg): |
| Depth Out: | | | | | | | | | 7.24m/hr |

BHA Data

BHA # 3

| | | | | |
|----------------------|----------------|---------|--------------------|-----------------------|
| Weight (Wet): | Length: | 6.65m | Torque (Max): | DC (1) Ann. Velocity: |
| Wt. Below Jar (Wet): | String Wt.: | | Torque (Off Btm.): | DC (2) Ann. Velocity: |
| | Pick-Up Wt.: | | Torque (On Btm.): | HWDP Ann. Velocity: |
| | Slack-Off Wt.: | | Jar Hours: | DP Ann. Velocity: |
| Equipment | Length (m) | OD (in) | ID (in) | Serial # |
| Core Bit | x 0.22 | 6.250 | | 026 |
| Saver sub | x 0.32 | | | |
| Core Head | x 0.71 | | | |
| Core Barrel | x 2.33 | | | |
| Top Assembly | x 0.41 | | | |
| Core Head | x 0.29 | | | |
| Core Barrel | x 2.33 | | | |
| Top Assembly | x 0.04 | | | |
| Total Length: | 6.65m | | | |

Personnel Summary

| Company | | | | Pax On |
|--|--|--|--------------|--------|
| Origin Energy | | | In Camp | 6 |
| Ensign International Energy Services | | | In Camp | 20 |
| DST Australia | | | In Camp | 2 |
| Oil Industry Catering & Services (OIC) | | | In Camp | 3 |
| | | | Total on Rig | 31 |

Pumps

| Pump Data - Last 24Hrs | | | | | | | Slow Pump Data | | | | | |
|------------------------|------------|---------------|-------------|------------|--------------|--------------|----------------|--------------|-------------------|--------------|--------------|---------------|
| No. | Type | Liner (in) | MW (ppg) | Eff (%) | SPM (psi) | SPP (psi) | Flow (gpm) | Depth (m) | Ck. Line (psi) | SPM (psi) | SPP (psi) | Flow (gpm) |
| 1 | TSM 750 | 6.0 | | 99 | | | | | | 1. | | |
| 2 | Emsco F500 | 5.5 | | 99 | | | | | | 2. | | |
| | | | | | | | | | | 1. | | |
| | | | | | | | | | | 2. | | |

**Meeleebee 2**

| | | | | | |
|--------------------------|------------------|----------------------------------|--------------------|--------------------------|--------------------------------------|
| Date: | 15 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | Don Poole |
| Report Number: | 13 | Night Representative: | Stu Vickers | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | Alex Nevcoski |

Well Details

| | | | | | | | |
|-------------|---------------|----------------------|-------------|-------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | 8.500in | Casing OD: | 9.625in | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 384.70m | Casing MD: | 75.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 384.70m | Casing TVD: | 75.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 109.7m | TOL MD: | | Daily Cost: | \$ 79,640 |
| RT - GL: | 4.35m | Days From Spud: | 6.31 | Liner MD: | | Cum. Cost: | \$ 812,712 |
| Datum: | GDA 94 | Days On Well: | 13.00 | Liner TVD: | | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | 10 Feb 2009 | FIT/LOT: | 20.00ppg / | Days Since LTI: | 50 |

| | |
|---------------------|--|
| Current Ops @ 0600: | Pick up 8 3/4" BHA @ 40m for hole opening run to TD. |
| Planned Operations: | Continue with wireline logging program as per program. Pick up 8 3/4" BHA and open hole from 6 1/4" to 8 3/4" from 77m to TD. Circulate hole clean and POOH. |

Summary of Period 0000 to 2400 Hrs

Continue to cut and retrieve cores as per Geologist to TD. Conduct wiper trip to 160m. RIH and circulate hole clean. POOH for wireline logs. Conduct wireline log's as per program.

Operations For Period 0000 Hrs to 2400 Hrs on 15 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|----|-----|------|------|-------|--------|---|
| PH | P | COR | 0000 | 1130 | 11.50 | 372.7m | Continue to cut and retrieve core samples from 275m to 372.7m. |
| PH | P | SM | 1130 | 1230 | 1.00 | 372.7m | Pump 10bbl's Hi-Vis sweep and circulate hole clean @ 372m while hold WSM with both crews. |
| PH | P | COR | 1230 | 1430 | 2.00 | 384.7m | Continue to core ahead from 372.7m to 384 m. |
| PH | P | CIR | 1430 | 1500 | 0.50 | 384.7m | Pumped & circulated 10 bbls of Hi-Visc sweep to clean hole. |
| PH | P | WT | 1500 | 1630 | 1.50 | 384.7m | Flow checked. Pulled out of hole with core assembly from 384 m to 160 m (wiper trip) |
| PH | P | WT | 1630 | 1800 | 1.50 | 384.7m | Flow checked. Ran in hole from 160 m down to 384 m. (wiper trip) No fill. |
| PH | P | CIR | 1800 | 1830 | 0.50 | 384.7m | Pumped & circulated 10 bbls of Hi-Visc sweep to clean hole. Greased pipe arm, iron rough neck, top drive & wash pipe. |
| PH | P | TO | 1830 | 2130 | 3.00 | 384.7m | Flow checked. Pulled out of hole with core assembly from 384 m to float shoe at 75 m. Flow checked. Completed pulling out of hole. Break out & layed out core barrel & bit. |
| EP | P | SM | 2130 | 2200 | 0.50 | 384.7m | Held safety & procedure meeting. Reviewed wirelining JSA with rig crew & Weatherford personnel. |
| EP | P | LOG | 2200 | 2400 | 2.00 | 384.7m | Moved in & rigged up Weatherford wire line. Ran in hole with GR, Cal-High RES Density & Sonic Resistivity logging tool (Super Combo, Induction). Tagged TD at 384.2 . Logged well as per program. |

Operations For Period 0000 Hrs to 0600 Hrs on 16 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|----|-----|------|------|------|--------|--|
| EP | P | LOG | 0000 | 0500 | 5.00 | 384.7m | Continued to log well as per program (Super Combo, Induction & Sonic logs). Rig down logging equipment. |
| UR | P | TI | 0500 | 0600 | 1.00 | 384.7m | (IN PROGRESS) Picked up & made up BHA as follows; 6-1/2" X 8-3/4" hole opener bit, bit sub c/w solid float, 3 x 6-1/4" drill collars, 1 x 8-3/8" stabilizer, 7 x 6-1/4" drill collars. |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|---------------------------|--------------|------------|---------------------|
| Permit To Work (1) | 15 Feb 2009 | 0 Days | Daily PTW issued |
| Pre-tour Meeting (1) | 15 Feb 2009 | 0 Days | Midnight pretour |
| Pre-tour Meeting (1) | 15 Feb 2009 | 0 Days | Midday pretour |
| Weekly Safety Meeting (1) | 15 Feb 2009 | 0 Days | WSM with both crews |



| WBM Data | | | | | | | | | | | |
|---------------------------|----------------------|----------------|--------------|------------------------|-------------------|-------------|-----------------------|-----------|--|--|--|
| Daily Chemical Costs: 552 | | | | | Cost To Date: 552 | | | Engineer: | | | |
| Mud Type: | water based with pol | Flowline Temp: | Cl: | Low Gravity Solids: % | | Gels 10s | lb/100ft ² | | | | |
| Sample From: | shakers | Nitrates: | Hardness/Ca: | High Gravity Solids: % | | Gels 10m | lb/100ft ² | | | | |
| Time: | 24:00 | Sulphites: | MBT/CEC: | Corr Solids: % | | Fann 003 | | | | | |
| Weight: | 8.60ppg | Loss (API): | Pm: | H ₂ O: | | Fann 006 | | | | | |
| ECD TD: | | Cake (API): | Pf: | Oil: | | Fann 100 | | | | | |
| ECD Shoe: | | PV: | Mf: | Sand: % | | Fann 200 | | | | | |
| Funnel Visc: | | YP: | pH: | Barite: | | Fann 300 | | | | | |
| KCl: | 0% | | | | | Fann 600 | | | | | |
| | | | | | | Lower Range | | | | | |

| Bit Data | | | | | | | | | | | | | | |
|---------------------------|------------|----------|-------------------------|----------|--------------------------|----|-----------------------------|---|-------------------------|---|----|---|--|--|
| Bit # 3 | | | | Wear | I | O1 | D | L | B | G | O2 | R | | |
| Size: 158.8 mm (6.250 in) | IADC #: | Core Bit | Nozzles | | Drilled over last 24 hrs | | | | Calculated over Bit Run | | | | | |
| Mfr: Reed Hycalog | WOB (Avg): | klb | No. | Size | Progress: 109.70m | | Cum. Progress: 308.0m | | | | | | | |
| Type: PDC | RPM (Avg): | | 6 | 14/32nd" | On Bottom Hrs: 5.10 | | Cum. On Btm Hrs: 32.50 | | | | | | | |
| Serial No.: 026 | F. Rate: | gpm | IADC Drill Hrs: NaN | | | | Cum. IADC Drill Hrs: 2.00 | | | | | | | |
| Bit Model: XCB613 | SPP: | psi | Total Revs: 21.51m/hr | | | | Cum. Total Revs: 0 | | | | | | | |
| Depth In: 77.0m | TFA: | 0.902 | OB-ROP (Avg): 21.51m/hr | | | | Cum. OB-ROP (Avg): 9.48m/hr | | | | | | | |
| Depth Out: 384.7m | | | | | | | | | | | | | | |

| BHA Data | | | | | | | | | |
|----------------------|----------------|--------------------|---------|-----------------------|-------|---------|--|--|--|
| BHA # 3 | | | | | | | | | |
| Weight (Wet): | Length: 6.65m | Torque (Max): | | DC (1) Ann. Velocity: | | | | | |
| Wt. Below Jar (Wet): | String Wt.: | Torque (Off Btm.): | | DC (2) Ann. Velocity: | | | | | |
| | Pick-Up Wt.: | Torque (On Btm.): | | HWDP Ann. Velocity: | | | | | |
| | Slack-Off Wt.: | Jar Hours: | | DP Ann. Velocity: | | | | | |
| Equipment | Length (m) | OD (in) | ID (in) | Serial # | Hours | Comment | | | |
| Core Bit | x 0.22 | 6.250 | | 026 | | | | | |
| Saver sub | x 0.32 | | | | | | | | |
| Core Head | x 0.71 | | | | | | | | |
| Core Barrel | x 2.33 | | | | | | | | |
| Top Assembly | x 0.41 | | | | | | | | |
| Core Head | x 0.29 | | | | | | | | |
| Core Barrel | x 2.33 | | | | | | | | |
| Top Assembly | x 0.04 | | | | | | | | |
| Total Length: | 6.65m | | | | | | | | |

| Personnel Summary | | | | | | | | | |
|--|--|--|--|--|--------------|----|--------|--|--|
| Company | | | | | | | Pax On | | |
| Weatherford | | | | | In Camp | 4 | | | |
| Origin Energy | | | | | In Camp | 6 | | | |
| Ensign International Energy Services | | | | | In Camp | 19 | | | |
| Oil Industry Catering & Services (OIC) | | | | | In Camp | 3 | | | |
| | | | | | Total on Rig | 32 | | | |

| Pumps | | | | | | | | | | | | |
|------------------------|------------|------------|----------|---------|-----|-----------|----------------|-----------|----------------|-----|-----------|------------|
| Pump Data - Last 24Hrs | | | | | | | Slow Pump Data | | | | | |
| No. | Type | Liner (in) | MW (ppg) | Eff (%) | SPM | SPP (psi) | Flow (gpm) | Depth (m) | Ck. Line (psi) | SPM | SPP (psi) | Flow (gpm) |
| 1 | TSM 750 | 6.0 | | 99 | | | | | | 1. | | |
| 2 | Emsco F500 | 5.5 | | 99 | | | | | | 2. | | |
| | | | | | | | | | | 1. | | |
| | | | | | | | | | | 2. | | |

**Meeleebee 2**

| | | | | | |
|--------------------------|------------------|----------------------------------|--------------------|--------------------------|--------------------------------------|
| Date: | 16 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | Don Poole |
| Report Number: | 14 | Night Representative: | Stu Vickers | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | Alex Nevcoski |

Well Details

| | | | | | | | |
|-------------|---------------|----------------------|-------------|-------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | 8.750in | Casing OD: | 9.625in | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 384.70m | Casing MD: | 75.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 384.70m | Casing TVD: | 75.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 155.0m | TOL MD: | 384.70m | Daily Cost: | \$ 57,640 |
| RT - GL: | 4.35m | Days From Spud: | 7.31 | Liner MD: | | Cum. Cost: | \$ 870,352 |
| Datum: | GDA 94 | Days On Well: | 14.00 | Liner TVD: | | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | 10 Feb 2009 | FIT/LOT: | 20.00ppg / | Days Since LTI: | 51 |

Current Ops @ 0600: Continued to wait on decision to lay out drill string with damaged pipe arm.

Planned Operations: Continue to wait on decision regarding repair of pipe arm, while circulate @ 230m.

Summary of Period 0000 to 2400 Hrs

Logged well as per program, ran in hole with 6-1/4" X 8-3/4" hole opener, reamed from 75 m down to 230 m. Pipe arm failed. Circulated & reciprocated drill string.

Operations For Period 0000 Hrs to 2400 Hrs on 16 Feb 2009

| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description |
|------|---------|-----|------|------|-------|--------|--|
| EP | P | LOG | 0000 | 0500 | 5.00 | 384.7m | Continued to log well as per program (Super Combo, Induction & Sonic logs). Rig down logging equipment. |
| UR | P | TI | 0500 | 0700 | 2.00 | 384.7m | Picked up & made up BHA as follows; 6-1/2" X 8-3/4" hole opener bit, bit sub c/w solid float, 3 x 6-1/4" drill collars, 1 x 8-3/8" stabilizer, 7 x 6-1/4" drill collars. |
| UR | P | RW | 0700 | 1800 | 11.00 | 384.7m | Open hole with 6 1/4" x 8 3/4" hole opener from 77m to 230m using 380psi SPP, 450gpm, 2-5k WOB, 4-6k On Btm TQ. |
| UR | TP (RE) | RR | 1800 | 2400 | 6.00 | 384.7m | Held safety & procedure meeting, evaluated damage done to pipe arm, removed damaged scoping arm. Circulated & reciprocated drill string while waiting on decision to lay out drill string with damaged pipe arm. Performed regular maintenance & housekeeping. |

Operations For Period 0000 Hrs to 0600 Hrs on 17 Feb 2009

| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description |
|------|---------|----|------|------|------|--------|--|
| UR | TP (RE) | RR | 0000 | 0600 | 6.00 | 384.7m | (IN PROGRESS) Continued to perform regular maintenance & housekeeping while waiting on decision whether to lay out drill string with damaged pipe arm. Continued to circulate & reciprocate drill string. |

General Comments

00:00 TO 24:00 Hrs ON 16 Feb 2009

| Comments | Rig Requirements | Lessons Learnt |
|--|------------------|-----------------|
| Weatherford Service Report - Logging Report # 6179. (no cost service report) DST Australia - service charge \$ 2500.00 Invoice # 1679 | | |
| Weather AM | | Comments |
| Weather PM | | Comments |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|-------------------|
| Permit To Work (2) | 16 Feb 2009 | 0 Days | Daily PTW issued |
| Pre-tour Meeting (1) | 16 Feb 2009 | 0 Days | Midnight pretour |
| Pre-tour Meeting (1) | 16 Feb 2009 | 0 Days | Midday pretour |



WBM Data

| Daily Chemical Costs: 552 | | Cost To Date: 552 | | Engineer: | |
|---------------------------|----------------------|-------------------|--------------|------------------------|--------------------------------|
| Mud Type: | water based with pol | Flowline Temp: | Cl: | Low Gravity Solids: % | Gels 10s lb/100ft ² |
| Sample From: | shakers | Nitrates: | Hardness/Ca: | High Gravity Solids: % | Gels 10m lb/100ft ² |
| Time: | 24:00 | Sulphites: | MBT/CEC: | Corr Solids: % | Fann 003 |
| Weight: | 8.60ppg | Loss (API): | Pm: | H ₂ O: | Fann 006 |
| ECD TD: | | Cake (API): | Pf: | Oil: | Fann 100 |
| ECD Shoe: | | PV: | Mf: | Sand: | Fann 200 |
| Funnel Visc: | | YP: | pH: | Barite: | Fann 300 |
| KCl: | 0% | | PHPA Excess: | | Fann 600 Lower Range |

Bit Data

Bit # 4

| Size: | 222.3 mm (8.750 in) | IADC #: | WOB (Avg): | Nozzles | | Drilled over last 24 hrs | | Calculated over Bit Run | |
|-------------|---------------------|------------|------------|-------------------------|----------|------------------------------|---------------------------|-------------------------|-----------------------|
| | | | | No. | Size | Progress: | 155.00m | Cum. Progress: | 155.0m |
| Type: | PDC | RPM (Avg): | 90 | 8 | 12/32nd" | On Bottom Hrs: | | 7.60 | Cum. On Btm Hrs: 7.60 |
| Serial No.: | 1963358 | F. Rate: | 450gpm | IADC Drill Hrs: | | NaN | Cum. IADC Drill Hrs: 0.00 | | |
| Bit Model: | SD 67782 | SPP: | 380psi | Total Revs: | | Cum. Total Revs: 0 | | | |
| Depth In: | 75.0m | TFA: | 0.884 | OB-ROP (Avg): 20.39m/hr | | Cum. OB-ROP (Avg): 20.39m/hr | | | |
| Depth Out: | | | | | | | | | |

Bit Run Comment Open hole from 75 m down to 384.7 m with 6-1/4" X 8-3/4" hole opener.

BHA Data

BHA # 4

| Weight (Wet): | Length: | 97.58m | Torque (Max): | DC (1) Ann. Velocity: | 0mpm |
|----------------------|----------------|---------|--------------------|-----------------------|-------|
| Wt. Below Jar (Wet): | String Wt.: | | Torque (Off Btm.): | DC (2) Ann. Velocity: | 0mpm |
| | Pick-Up Wt.: | | Torque (On Btm.): | HWDP Ann. Velocity: | 0mpm |
| | Slack-Off Wt.: | | Jar Hours: | DP Ann. Velocity: | 0mpm |
| Equipment | Length (m) | OD (in) | ID (in) | Serial # | Hours |
| Bit | 1x 0.45 | 8.750 | | 65909 | |
| Bit Sub | 1x 0.79 | 6.250 | 2.750 | | |
| Drill Collar | 3x 28.32 | 6.250 | 2.750 | | |
| String Stabiliser | 1x 1.15 | 8.375 | 2.750 | | |
| Drill Collar | 7x 66.06 | 6.250 | 2.750 | | |
| X-Over | 1x 0.81 | 6.250 | 2.250 | | |
| Total Length: | 97.58m | | | | |

Personnel Summary

| Company | | | | Pax On | |
|--|--|--|--------------|--------|--|
| Origin Energy | | | In Camp | 5 | |
| Ensign International Energy Services | | | In Camp | 20 | |
| DST Australia | | | In Camp | 2 | |
| Oil Industry Catering & Services (OIC) | | | In Camp | 3 | |
| | | | Total on Rig | 30 | |

Pumps

| Pump Data - Last 24Hrs | | | | | | | Slow Pump Data | | | | | |
|------------------------|------------|---------------|-------------|------------|-----|-----|----------------|--------------|-------------------|-----|--------------|---------------|
| No. | Type | Liner (in) | MW (ppg) | Eff (%) | SPM | SPP | Flow (gpm) | Depth (m) | Ck. Line (psi) | SPM | SPP (psi) | Flow (gpm) |
| 1 | TSM 750 | 6.0 | | 99 | 120 | 380 | 450 | | | 1. | | |
| 2 | Emsco F500 | 5.5 | | 99 | | | | | | 2. | | |
| | | | | | | | | | | 1. | | |
| | | | | | | | | | | 2. | | |

**Meeleebee 2**

| | | | | | |
|--------------------------|-----------------|----------------------------------|-------------------|--------------------------|--------------------------------------|
| Date: | 17 Feb 2009 | Well Site Representative: | Paul Seamer | Rig Manager: | Don Poole |
| Report Number: | 15 | Night Representative: | Stu Vickers | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12' 2.63 " | Longitude (East): | 149 ° 14' 29.92 " | Geologist: | Alex Nevcoski |

Well Details

| | | | | | | | |
|-------------|---------------|----------------------|-------------|-------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | 8.500in | Casing OD: | 9.625in | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 384.70m | Casing MD: | 75.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 384.70m | Casing TVD: | 75.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 0.0m | TOL MD: | 384.70m | Daily Cost: | \$ 13,940 |
| RT - GL: | 4.35m | Days From Spud: | 8.31 | Liner MD: | | Cum. Cost: | \$ 884,292 |
| Datum: | GDA 94 | Days On Well: | 15.00 | Liner TVD: | | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | 10 Feb 2009 | FIT/LOT: | 20.00ppg / | Days Since LTI: | 52 |

| | |
|---------------------|---|
| Current Ops @ 0600: | Continued to circulate & reciprocate drill string. |
| Planned Operations: | Perform regular maintenance & house keeping. Wait on decision whether to lay out drill string with damaged pipe arm. Remove move pipe arm & cylinder & send to Toowoomba for repair. Continue to circulate & reciprocate drill string. |

Summary of Period 0000 to 2400 Hrs

| |
|--|
| Waited on decision whether to lay down drill string with damaged pipe arm. Performed regular maintenance & house keeping on rig & equipment. Continued to circulate & reciprocate drill string. Removed cylinder & pipe arm & sent to Toowoomba for repair. |
|--|

Operations For Period 0000 Hrs to 2400 Hrs on 17 Feb 2009

| Phase | Clss | Op | From | To | Hrs | Depth | Activity Description |
|-------|---------|----|------|------|-------|--------|--|
| UR | TP (RE) | RR | 0000 | 0800 | 8.00 | 384.7m | Continued to perform regular maintenance & housekeeping while waiting on decision whether to lay out drill string with damaged pipe arm. Continued to circulate & reciprocate drill string. |
| UR | TP (RE) | RR | 0800 | 0830 | 0.50 | 384.7m | Reviewed JSA on the removal of the pipe arm cylinder & pipe arm. Replaced hydraulic hoses. Installed lock-outs & tested same. |
| UR | TP (RE) | RR | 0830 | 2400 | 15.50 | 384.7m | Removed pipe arm & scoping cylinder to be sent to Toowoomba for repair. Continued to circulate & reciprocate drill string. Continued to perform regular maintenance & housekeeping on rig. |

Operations For Period 0000 Hrs to 0600 Hrs on 18 Feb 2009

| Phase | Clss | Op | From | To | Hrs | Depth | Activity Description |
|-------|---------|----|------|------|------|--------|---|
| UR | TP (RE) | RR | 0000 | 0600 | 6.00 | 384.7m | (IN PROGRESS) Continued to wait on repairs to be done on pipe arm & scoping cylinder. Circulated & reciprocated drill string. Continue with regular maintenance & housekeeping. |

| General Comments | | | | | | | |
|--|--|--|--|-------------------------|--|--|-----------------------|
| Comments | | | | Rig Requirements | | | Lessons Learnt |
| Ensign International - coring meterage charge of \$ 54,130.09 - Ivoice # 28977 | | | | | | | |
| Ensign International - rig move charges - 156 hours, repair charges - 4.5 hours. Invoice # 28976 | | | | | | | |
| Weather AM | | | | Comments | | | |
| Weather PM | | | | Comments | | | |



HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|----------------------------|
| JSA (1) | 17 Feb 2009 | 0 Days | Short change - 0800 hours |
| Pre-tour Meeting (1) | 17 Feb 2009 | 0 Days | Midnight pre-tour |
| Pre-tour Meeting (1) | 17 Feb 2009 | 0 Days | Short change - 0800 hours |
| Pre-tour Meeting () | 17 Feb 2009 | 0 Days | Short change - 1600 hours. |

WBM Data

| Daily Chemical Costs: 0 | | Cost To Date: 552 | | | Engineer: |
|-------------------------|----------------------|-------------------|--------------|------------------------|--------------------------------|
| Mud Type: | water based with pol | Flowline Temp: | Cl: | Low Gravity Solids: % | Gels 10s lb/100ft ² |
| Sample From: | shakers | Nitrates: | Hardness/Ca: | High Gravity Solids: % | Gels 10m lb/100ft ² |
| Time: | 24:00 | Sulphites: | MBT/CEC: | Corr Solids: % | Fann 003 |
| Weight: | 8.60ppg | Loss (API): | Pm: | H ₂ O: | Fann 006 |
| ECD TD: | | Cake (API): | Pf: | Oil: | Fann 100 |
| ECD Shoe: | | PV: | Mf: | Sand: % | Fann 200 |
| Funnel Visc: | | YP: | pH: | Barite: | Fann 300 |
| KCl: | 0% | | PHPA Excess: | | Fann 600 |
| | | | | | Lower Range |

Bit Data

Bit # 4

| Size: | 222.3 mm (8.750 in) | IADC #: | WOB (Avg): | Nozzles | | Drilled over last 24 hrs | | Calculated over Bit Run | |
|-----------------|---|------------|------------|---------|-----|--------------------------|-----------------|-------------------------|------------------------------|
| | | | | klb | No. | Size | Progress: | 0.00m | Cum. Progress: |
| Type: | PDC | RPM (Avg): | | | 8 | 12/32nd" | On Bottom Hrs: | 0.00 | Cum. On Btm Hrs: 7.60 |
| Serial No.: | 1963358 | F. Rate: | | gpm | | | IADC Drill Hrs: | NaN | Cum. IADC Drill Hrs: 0.00 |
| Bit Model: | SD 67782 | SPP: | | psi | | | Total Revs: | | Cum. Total Revs: 0 |
| Depth In: | 75.0m | TFA: | | 0.884 | | | OB-ROP (Avg): | | Cum. OB-ROP (Avg): 20.39m/hr |
| Depth Out: | | | | | | | | | |
| Bit Run Comment | Open hole from 75 m down to 384.7 m with 6-1/4" X 8-3/4" hole opener. | | | | | | | | |

BHA Data

BHA # 4

| | | | | | |
|----------------------|----------------|--------|--------------------|-----------------------|------|
| Weight (Wet): | Length: | 97.58m | Torque (Max): | DC (1) Ann. Velocity: | 0mpm |
| Wt. Below Jar (Wet): | String Wt.: | | Torque (Off Btm.): | DC (2) Ann. Velocity: | 0mpm |
| | Pick-Up Wt.: | | Torque (On Btm.): | HWDP Ann. Velocity: | 0mpm |
| | Slack-Off Wt.: | | Jar Hours: | DP Ann. Velocity: | 0mpm |

| Equipment | Length (m) | OD (in) | ID (in) | Serial # | Hours | Comment |
|-------------------|------------|---------|---------|----------|-------|---------|
| Bit | 1x 0.45 | 8.750 | | 65909 | | |
| Bit Sub | 1x 0.79 | 6.250 | 2.750 | | | |
| Drill Collar | 3x 28.32 | 6.250 | 2.750 | | | |
| String Stabiliser | 1x 1.15 | 8.375 | 2.750 | | | |
| Drill Collar | 7x 66.06 | 6.250 | 2.750 | | | |
| X-Over | 1x 0.81 | 6.250 | 2.250 | | | |
| Total Length: | 97.58m | | | | | |

Personnel Summary

| Company | | | Pax On |
|--|--------------|---------|--------|
| Origin Energy | | In Camp | 5 |
| Ensign International Energy Services | | In Camp | 19 |
| DST Australia | | In Camp | 2 |
| Oil Industry Catering & Services (OIC) | | In Camp | 3 |
| | Total on Rig | | 29 |



| Pumps | | | | | | | | | | | | |
|------------------------|------------|---------------|-------------|------------|-----|--------------|----------------|--------------|-------------------|-----|--------------|---------------|
| Pump Data - Last 24Hrs | | | | | | | Slow Pump Data | | | | | |
| No. | Type | Liner (in) | MW (ppg) | Eff (%) | SPM | SPP (psi) | Flow (gpm) | Depth (m) | Ck. Line (psi) | SPM | SPP (psi) | Flow (gpm) |
| 1 | TSM 750 | 6.0 | | 99 | | | | | 1. 2. | | | |
| 2 | Emsco F500 | 5.5 | | 99 | | | | | 1. 2. | | | |

| Bulk Stocks | | | | | | | |
|-------------------|----------|---------|----|------|--------|---------|--|
| Name | Unit | In Hand | In | Used | Adjust | Balance | |
| Camp Fuel | ltr | 0 | 0 | 327 | 0 | 3,294.0 | |
| Cement Uncut | sx | 84 | 0 | 0 | 0 | 84.0 | |
| Diesel | litres | 0 | 0 | 787 | 0 | 4,188.0 | |
| Shaker Screen 110 | 100 mesh | 6 | 0 | 0 | 0 | 6.0 | |
| Shaker Screen 175 | 170 mesh | 6 | 0 | 0 | 0 | 6.0 | |
| Shaker Screen 180 | 200 mesh | 6 | 0 | 0 | 0 | 6.0 | |
| Shaker Screen 210 | 325 mesh | 6 | 0 | 0 | 0 | 6.0 | |
| Water - Drilling | bbl | 3000 | 0 | 0 | 0 | 3,000.0 | |
| Water - Potable | m3 | 20 | 0 | 0 | 0 | 20.0 | |

**Meeleebee 2**

| | | | | | |
|--------------------------|------------------|----------------------------------|--------------------|--------------------------|--------------------------------------|
| Date: | 18 Feb 2009 | Well Site Representative: | Eric Gardiner | Rig Manager: | Don Poole |
| Report Number: | 16 | Night Representative: | Stu Vickers | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | |

Well Details

| | | | | | | | |
|-------------|---------------|----------------------|-------------|-------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | 8.500in | Casing OD: | 9.625in | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 384.70m | Casing MD: | 75.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 384.70m | Casing TVD: | 75.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 0.0m | TOL MD: | 384.70m | Daily Cost: | \$ 13,940 |
| RT - GL: | 4.35m | Days From Spud: | 9.31 | Liner MD: | | Cum. Cost: | \$ 898,232 |
| Datum: | GDA 94 | Days On Well: | 16.00 | Liner TVD: | | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | 10 Feb 2009 | FIT/LOT: | 20.00ppg / | Days Since LTI: | 53 |

Current Ops @ 0600: Continue to install pipe arm & scoping cylinder.

Planned Operations:
 Continue to wait on repairs to be done on pipe arm & scoping cylinder.
 Continue to circulate & reciprocate drill string.
 Continue with regular maintenance & housekeeping.

Summary of Period 0000 to 2400 Hrs

Repairs being done on pipe arm, circulate & reciprocate drill string, maintenance & housekeeping,

Operations For Period 0000 Hrs to 2400 Hrs on 18 Feb 2009

| Phase | Clis | Op | From | To | Hrs | Depth | Activity Description |
|-------|---------|----|------|------|-------|--------|---|
| UR | TP (RE) | RR | 0000 | 2400 | 24.00 | 384.7m | Continued to wait on repairs to be done on pipe arm & scoping cylinder. Circulated & reciprocated drill string. Continue with regular maintenance & housekeeping. |

Operations For Period 0000 Hrs to 0600 Hrs on 19 Feb 2009

| Phase | Clis | Op | From | To | Hrs | Depth | Activity Description |
|-------|---------|----|------|------|------|--------|--|
| UR | TP (RE) | RR | 0000 | 0030 | 0.50 | 384.7m | Continued to wait on the arrival of repaired pipe arm & scoping cylinder. |
| UR | TP (RE) | RR | 0030 | 0100 | 0.50 | 384.7m | Continued to circulate & reciprocate drill string Prepare to install repaired pipe arm & scoping cylinder |
| UR | TP (RE) | RR | 0100 | 0600 | 5.00 | 384.7m | Reviewed JSA for installing pipe arm & scoping cylinder with all personnel. (IN PROGRESS) Off loaded pipe arm, remove bottom set of grippers, installed pipe arm, installed bottom set of grippers. Connected hydraulic hoses. Function unit, work on oil leaks, |

General Comments

00:00 TO 24:00 Hrs ON 18 Feb 2009

| Comments | Rig Requirements | Lessons Learnt |
|--|------------------|----------------|
| RTS Dkt # 24235 8-2-09 1 x load off potable water 6hrs RTS Dkt # 24371 14-2-09 1 x load off potable water 6 hrs RTS Dkt # 24248 18-2-09 1 x load off potable water 6 hrs | | |
| Weather AM | <u>Comments</u> | |
| Weather PM | <u>Comments</u> | |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|---------------------------|
| Permit To Work (1) | 18 Feb 2009 | 0 Days | PTW |
| Pre-tour Meeting (1) | 18 Feb 2009 | 0 Days | Discuss todays operations |
| Pre-tour Meeting (1) | 18 Feb 2009 | 0 Days | Midnight pre-tour |



WBM Data

| Daily Chemical Costs: 0 | | Cost To Date: 552 | | | Engineer: |
|-------------------------|----------------------|-------------------|--------------|------------------------|--------------------------------|
| Mud Type: | water based with pol | Flowline Temp: | Cl: | Low Gravity Solids: % | Gels 10s lb/100ft ² |
| Sample From: | shakers | Nitrates: | Hardness/Ca: | High Gravity Solids: % | Gels 10m lb/100ft ² |
| Time: | 24:00 | Sulphites: | MBT/CEC: | Corr Solids: % | Fann 003 |
| Weight: | 8.60ppg | Loss (API): | Pm: | H ₂ O: | Fann 006 |
| ECD TD: | | Cake (API): | Pf: | Oil: | Fann 100 |
| ECD Shoe: | | PV: | Mf: | Sand: | Fann 200 |
| Funnel Visc: | | YP: | pH: | Barite: | Fann 300 |
| KCl: | 0% | | PHPA Excess: | | Fann 600 |
| | | | | | Lower Range |

Bit Data

Bit # 4

| Size: | 222.3 mm (8.750 in) | IADC #: | WOB (Avg): | Nozzles | | Drilled over last 24 hrs | | Calculated over Bit Run | |
|-------------|---------------------|------------|------------|---------|-----|--------------------------|-----------------|-------------------------|----------------------|
| | | | | klb | No. | Size | Progress: | 0.00m | Cum. Progress: |
| Type: | PDC | RPM (Avg): | | | 8 | 12/32nd" | On Bottom Hrs: | 0.00 | Cum. On Btm Hrs: |
| Serial No.: | 1963358 | F. Rate: | | gpm | | | IADC Drill Hrs: | NaN | Cum. IADC Drill Hrs: |
| Bit Model: | SD 67782 | SPP: | | | | | Total Revs: | | Cum. Total Revs: |
| Depth In: | 75.0m | TFA: | | psi | | | OB-ROP (Avg): | | Cum. OB-ROP (Avg): |
| Depth Out: | | | | 0.884 | | | | | 20.39m/hr |

Bit Run Comment Open hole from 75 m down to 384.7 m with 6-1/4" X 8-3/4" hole opener.

BHA Data

BHA # 4

| Weight (Wet): | Length: | 97.58m | Torque (Max): | DC (1) Ann. Velocity: | 0mpm |
|----------------------|----------------|---------|--------------------|-----------------------|-------|
| Wt. Below Jar (Wet): | String Wt.: | | Torque (Off Btm.): | DC (2) Ann. Velocity: | 0mpm |
| | Pick-Up Wt.: | | Torque (On Btm.): | HWDP Ann. Velocity: | 0mpm |
| | Slack-Off Wt.: | | Jar Hours: | DP Ann. Velocity: | 0mpm |
| Equipment | Length (m) | OD (in) | ID (in) | Serial # | Hours |
| Bit | 1x 0.45 | 8.750 | | 65909 | |
| Bit Sub | 1x 0.79 | 6.250 | 2.750 | | |
| Drill Collar | 3x 28.32 | 6.250 | 2.750 | | |
| String Stabiliser | 1x 1.15 | 8.375 | 2.750 | | |
| Drill Collar | 7x 66.06 | 6.250 | 2.750 | | |
| X-Over | 1x 0.81 | 6.250 | 2.250 | | |
| Total Length: | 97.58m | | | | |

Personnel Summary

| Company | | | Pax On |
|--|--------------|---------|--------|
| Origin Energy | | In Camp | 2 |
| Origin Energy | | Offsite | 0 |
| Ensign International Energy Services | | In Camp | 19 |
| Ensign International Energy Services | | Offsite | 0 |
| DST Australia | | Offsite | 0 |
| Oil Industry Catering & Services (OIC) | | In Camp | 3 |
| Oil Industry Catering & Services (OIC) | | Offsite | 0 |
| | Total on Rig | | 24 |



| Pumps | | | | | | | | | | | | |
|------------------------|------------|---------------|-------------|------------|-----|--------------|----------------|--------------|-------------------|-----|--------------|---------------|
| Pump Data - Last 24Hrs | | | | | | | Slow Pump Data | | | | | |
| No. | Type | Liner (in) | MW (ppg) | Eff (%) | SPM | SPP (psi) | Flow (gpm) | Depth (m) | Ck. Line (psi) | SPM | SPP (psi) | Flow (gpm) |
| 1 | TSM 750 | 6.0 | | 99 | | | | | 1. 2. | | | |
| 2 | Emsco F500 | 5.5 | | 99 | | | | | 1. 2. | | | |

| Bulk Stocks | | | | | | | |
|-------------------|----------|---------|----|------|--------|---------|--|
| Name | Unit | In Hand | In | Used | Adjust | Balance | |
| Camp Fuel | ltr | 0 | 0 | 353 | 0 | 2,941.0 | |
| Cement Uncut | sx | 84 | 0 | 0 | 0 | 84.0 | |
| Diesel | litres | 0 | 0 | 1778 | 0 | 2,410.0 | |
| Shaker Screen 110 | 100 mesh | 6 | 0 | 0 | 0 | 6.0 | |
| Shaker Screen 175 | 170 mesh | 6 | 0 | 0 | 0 | 6.0 | |
| Shaker Screen 180 | 200 mesh | 6 | 0 | 0 | 0 | 6.0 | |
| Shaker Screen 210 | 325 mesh | 6 | 0 | 0 | 0 | 6.0 | |
| Water - Drilling | bbl | 3000 | 0 | 0 | 0 | 3,000.0 | |
| Water - Potable | m3 | 20 | 0 | 0 | 0 | 20.0 | |

**Meeleebee 2**

| | | | | | |
|--------------------------|------------------|----------------------------------|--------------------|--------------------------|--------------------------------------|
| Date: | 19 Feb 2009 | Well Site Representative: | Eric Gardiner | Rig Manager: | Don Poole |
| Report Number: | 17 | Night Representative: | Stu Vickers | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | Geologist: | |

Well Details

| | | | | | | | |
|-------------|---------------|----------------------|-------------|-------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | 8.500in | Casing OD: | 9.625in | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 384.70m | Casing MD: | 75.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 384.70m | Casing TVD: | 75.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 154.7m | TOL MD: | 384.70m | Daily Cost: | \$ 28,440 |
| RT - GL: | 4.35m | Days From Spud: | 10.31 | Liner MD: | | Cum. Cost: | \$ 926,672 |
| Datum: | GDA 94 | Days On Well: | 17.00 | Liner TVD: | | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | 10 Feb 2009 | FIT/LOT: | 20.00ppg / | Days Since LTI: | 54 |

Current Ops @ 0600: Lay out BHA

Planned Operations: Wiper trip to shoe, circulate hole clean, POOH to run DST, Make up DST tools RIH, Conduct DST as per Geologys instructions, POOH to run casing.

Summary of Period 0000 to 2400 Hrs

Continued to wait on arrival of pipe arm, JSA meeting, installed pipe arm & connected hydraulic hoses, function tested pipe arm, continued to open hole, pumped sweep, pulled out of hole.

Operations For Period 0000 Hrs to 2400 Hrs on 19 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|---------|-----|------|------|-------|--------|--|
| UR | TP (RE) | RR | 0000 | 0030 | 0.50 | 384.7m | Continued to wait on the arrival of repaired pipe arm & scoping cylinder. Continued to circulate & reciprocate drill string. Prepare to install repaired pipe arm & scoping cylinder |
| UR | TP (RE) | RR | 0030 | 0100 | 0.50 | 384.7m | Reviewed JSA for installing pipe arm & scoping cylinder with all personnel. |
| UR | TP (RE) | RR | 0100 | 1130 | 10.50 | 384.7m | Off loaded pipe arm, remove bottom set of grippers, installed pipe arm, installed bottom set of grippers. Connected hydraulic hoses. Function unit, work on oil leaks, |
| UR | P | UR | 1130 | 2300 | 11.50 | 384.7m | Continue to open hole from 230m to 384.7 m. |
| UR | P | CIR | 2300 | 2330 | 0.50 | 384.7m | Pumped 20 bbl sweep, circulated out of hole. Ensured hole clean. |
| UR | P | WT | 2330 | 2400 | 0.50 | 384.7m | Performed SCR's & flow checked. Pulled out of hole with hole opener bit. (wiper trip) to the shoe at 75 m. |

Operations For Period 0000 Hrs to 0600 Hrs on 20 Feb 2009

| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description |
|-------|---------|-----|------|------|------|--------|--|
| UR | P | WT | 0000 | 0100 | 1.00 | 384.7m | Continued to pull out of hole to shoe at 75 m. (wiper trip) No tight hole encountered. |
| UR | P | WT | 0100 | 0230 | 1.50 | 384.7m | Performed 10 minute flow check - well static. Ran in hole with hole opener bit to bottom at 384.7 m, no fill encountered. |
| UR | P | CIR | 0230 | 0300 | 0.50 | 384.7m | Circulated 1 full circulation to ensure hole clean. Checked mud weight, 8.8 ppg going in hole & 8.8 ppg coming out. |
| UR | P | TO | 0300 | 0330 | 0.50 | 384.7m | Pulled 3 joints of drill pipe, performed a flow check for 10 minute, well static. Continued to pull out of hole with hole opener bit. |
| UR | TP (RE) | TO | 0330 | 0430 | 1.00 | 384.7m | Rig ran out of fuel. |
| UR | P | TO | 0430 | 0600 | 1.50 | 384.7m | (IN PROGRESS) POOH to run DST tools |



General Comments

00:00 TO 24:00 Hrs ON 19 Feb 2009

| Comments | Rig Requirements | Lessons Learnt |
|---|------------------|----------------|
| RTS Dkt # 24125 19-2-09 Load 35jnts 7" casing from MDC 152 and Deliver to Ensign 48 8hrs x 1 single | | |
| Weather AM | <u>Comments</u> | |
| Weather PM | <u>Comments</u> | |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|-----------------------------|
| JSA (1) | 19 Feb 2009 | 0 Days | Reviewed JSA. |
| Permit To Work (1) | 19 Feb 2009 | 0 Days | PTW # 73091 |
| Pre-tour Meeting (1) | 19 Feb 2009 | 0 Days | Discuss today operations |
| Pre-tour Meeting (1) | 19 Feb 2009 | 0 Days | Mid-night pre tour meeting. |

WBM Data

| Daily Chemical Costs: 0 | | | Cost To Date: 552 | | | Engineer: | |
|-------------------------|----------------------|----------------|-------------------|----------------------|---|-------------|-----------------------|
| Mud Type: | water based with pol | Flowline Temp: | Cl: | Low Gravity Solids: | % | Gels 10s | lb/100ft ² |
| Sample From: | shakers | Nitrates: | Hardness/Ca: | High Gravity Solids: | % | Gels 10m | lb/100ft ² |
| Time: | 24:00 | Sulphites: | MBT/CEC: | Corr Solids: | % | Fann 003 | |
| Weight: | 8.60ppg | Loss (API): | Pm: | H.O: | | Fann 006 | |
| ECD TD: | | Cake (API): | Pf: | Oil: | | Fann 100 | |
| ECD Shoe: | | PV: | Mf: | Sand: | % | Fann 200 | |
| Funnel Visc: | | YP: | pH: | Barite: | | Fann 300 | |
| KCl: | 0% | | PHPA Excess: | | | Fann 600 | |
| | | | | | | Lower Range | |

Bit Data

Bit # 4

| Size: | 222.3 mm (8.750 in) | IADC #: | No. | Nozzles | | Drilled over last 24 hrs | | Calculated over Bit Run | |
|-------------|---------------------|------------|-----|----------|------|--------------------------|-----------|-------------------------|-----------|
| | | | | klb | Size | Progress: | 154.70m | Cum. Progress: | 309.7m |
| Type: | PDC | WOB (Avg): | 8 | 12/32nd" | | On Bottom Hrs: | 9.70 | Cum. On Btm Hrs: | 17.30 |
| Serial No.: | 1963358 | RPM (Avg): | | | | IADC Drill Hrs: | NaN | Cum. IADC Drill Hrs: | 0.00 |
| Bit Model: | SD 67782 | F. Rate: | | | | Total Revs: | | Cum. Total Revs: | 0 |
| Depth In: | 75.0m | SPP: | | psi | | OB-ROP (Avg): | 15.95m/hr | Cum. OB-ROP (Avg): | 17.90m/hr |
| Depth Out: | | TFA: | | 0.884 | | | | | |

Bit Run Comment Open hole from 75 m down to 384.7 m with 6-1/4" X 8-3/4" hole opener.

BHA Data

BHA # 4

| | | | | | |
|----------------------|----------------|--------|--------------------|-----------------------|------|
| Weight (Wet): | Length: | 97.58m | Torque (Max): | DC (1) Ann. Velocity: | 0mpm |
| Wt. Below Jar (Wet): | String Wt.: | | Torque (Off Btm.): | DC (2) Ann. Velocity: | 0mpm |
| | Pick-Up Wt.: | | Torque (On Btm.): | HWDP Ann. Velocity: | 0mpm |
| | Slack-Off Wt.: | | Jar Hours: | DP Ann. Velocity: | 0mpm |

| Equipment | Length (m) | OD (in) | ID (in) | Serial # | Hours | Comment |
|-------------------|------------|---------|---------|----------|-------|---------|
| Bit | 1x 0.45 | 8.750 | | 65909 | | |
| Bit Sub | 1x 0.79 | 6.250 | 2.750 | | | |
| Drill Collar | 3x 28.32 | 6.250 | 2.750 | | | |
| String Stabiliser | 1x 1.15 | 8.375 | 2.750 | | | |
| Drill Collar | 7x 66.06 | 6.250 | 2.750 | | | |
| X-Over | 1x 0.81 | 6.250 | 2.250 | | | |
| Total Length: | 97.58m | | | | | |



Personnel Summary

| Company | | | Pax On |
|--|--|--------------|--------|
| Origin Energy | | In Camp | 2 |
| Origin Energy | | Offsite | 0 |
| Ensign International Energy Services | | In Camp | 19 |
| Ensign International Energy Services | | Offsite | 0 |
| DST Australia | | In Camp | 2 |
| Oil Industry Catering & Services (OIC) | | In Camp | 3 |
| Oil Industry Catering & Services (OIC) | | Offsite | 0 |
| | | Total on Rig | 26 |

Pumps

| Pump Data - Last 24Hrs | | | | | | | Slow Pump Data | | | | | |
|------------------------|------------|---------------|-------------|------------|-----|--------------|----------------|--------------|-------------------|-----|--------------|---------------|
| No. | Type | Liner (in) | MW (ppg) | Eff (%) | SPM | SPP (psi) | Flow (gpm) | Depth (m) | Ck. Line (psi) | SPM | SPP (psi) | Flow (gpm) |
| 1 | TSM 750 | 6.0 | | 99 | | | | | 1. 2. | | | |
| 2 | Emsco F500 | 5.5 | | 99 | | | | | 1. 2. | | | |

Bulk Stocks

| Name | Unit | In Hand | In | Used | Adjust | Balance |
|-------------------|----------|---------|----|------|--------|---------|
| Camp Fuel | ltr | 0 | 0 | 300 | 0 | 2,641.0 |
| Cement Uncut | sx | 84 | 0 | 0 | 0 | 84.0 |
| Diesel | litres | 0 | 0 | 1080 | 0 | 1,330.0 |
| Shaker Screen 110 | 100 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 175 | 170 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 180 | 200 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 210 | 325 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Water - Drilling | bbl | 3000 | 0 | 0 | 0 | 3,000.0 |
| Water - Potable | m3 | 20 | 0 | 0 | 0 | 20.0 |



| Meeleebee 2 | | | | | | | | | | | | | | | | | | |
|--|---|---------------------------|--------------------|-------------|-------------------|--------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Date: | 20 Feb 2009 | Well Site Representative: | Eric Gardiner | | Rig Manager: | Don Poole | | | | | | | | | | | | |
| Report Number: | 18 | Night Representative: | Stu Vickers | | Drilling Company: | Ensign International Energy Services | | | | | | | | | | | | |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | | Geologist: | | | | | | | | | | | | | |
| Well Details | | | | | | | | | | | | | | | | | | |
| Country: | Australia | Current Hole Size: | 8.500in | Casing OD: | 9.625in | Original AFE: | \$ 1,204,386 | | | | | | | | | | | |
| Field: | | Measured Depth: | 384.70m | Casing MD: | 75.00m | Orig. & Supp. AFE: | \$ 1,204,386 | | | | | | | | | | | |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 384.70m | Casing TVD: | 75.00m | AFE Number: | 6060026 | | | | | | | | | | | |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 0.0m | TOL MD: | 384.70m | Daily Cost: | \$ 76,700 | | | | | | | | | | | |
| RT - GL: | 4.35m | Days From Spud: | 11.31 | Liner MD: | | Cum. Cost: | \$ 1,003,372 | | | | | | | | | | | |
| Datum: | GDA 94 | Days On Well: | 18.00 | Liner TVD: | | Last LTI Date: | 27 Dec 2008 | | | | | | | | | | | |
| Planned TD: | 424.40m | Last BOP Date: | 10 Feb 2009 | FIT/LOT: | 20.00ppg / | Days Since LTI: | 55 | | | | | | | | | | | |
| Current Ops @ 0600: | Continue to run in hole with 7" casing. | | | | | | | | | | | | | | | | | |
| Planned Operations: | RIH with 7" casing, circulate, cement casing as per program wait 8 hrs for cement to go off, Rig out BOPs and clean mud tanks, Rig release. | | | | | | | | | | | | | | | | | |
| Summary of Period 0000 to 2400 Hrs | | | | | | | | | | | | | | | | | | |
| Pulled out of hole to shoe at 75 m (wiper trip), ran back to bottom, circulated hole clean, pulled out of hole for DST #3, safety meeting, made up DST tools & ran in hole, conduct DST #3, pulled out of hole with DST tools. | | | | | | | | | | | | | | | | | | |
| Operations For Period 0000 Hrs to 2400 Hrs on 20 Feb 2009 | | | | | | | | | | | | | | | | | | |
| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description | | | | | | | | | | | |
| UR | P | WT | 0000 | 0100 | 1.00 | 384.7m | Continued to pull out of hole to shoe at 75 m. (wiper trip) No tight hole encountered. | | | | | | | | | | | |
| UR | P | WT | 0100 | 0230 | 1.50 | 384.7m | Performed 10 minute flow check - well static. | | | | | | | | | | | |
| UR | P | CIR | 0230 | 0300 | 0.50 | 384.7m | Ran in hole with hole opener bit to bottom at 384.7 m, no fill encountered. | | | | | | | | | | | |
| UR | P | TO | 0300 | 0330 | 0.50 | 384.7m | Circulated 1 full circulation to ensure hole clean. | | | | | | | | | | | |
| UR | P | TO | 0330 | 0430 | 1.00 | 384.7m | Checked mud weight, 8.8 ppg going in hole & 8.8 ppg coming out. | | | | | | | | | | | |
| UR | TP (RE) | TO | 0430 | | | | Pulled 3 joints of drill pipe, performed a flow check for 10 minute, well static. | | | | | | | | | | | |
| UR | P | TO | 0430 | 0700 | 2.50 | 384.7m | Continued to pull out of hole with hole opener bit. | | | | | | | | | | | |
| EP | P | DST | 0700 | 0800 | 1.00 | 384.7m | Rig ran out of fuel. | | | | | | | | | | | |
| EP | P | DST | 0800 | 1100 | 3.00 | 384.7m | POOH to run DST tools | | | | | | | | | | | |
| EP | P | DST | 1100 | 1400 | 3.00 | 384.7m | Pre job safety meeting on picking up DST tools and handling equipment | | | | | | | | | | | |
| EP | P | DST | 1100 | 1400 | 3.00 | 384.7m | Make up DST tools and interval | | | | | | | | | | | |
| EP | P | SM | 1400 | 1430 | 0.50 | 384.7m | RIH with DST tools Interval at 242 to 263m | | | | | | | | | | | |
| EP | P | DST | 1430 | 1500 | 0.50 | 384.7m | Pre job safety meeting on rigging up Test head and surface equipment and pressure testing same 300 psi low 1500 psi high | | | | | | | | | | | |
| EP | P | DST | 1500 | 1800 | 3.00 | 384.7m | Make up test head, surface lines and pressure test same ok. | | | | | | | | | | | |
| EP | P | DST | 1800 | 1930 | 1.50 | 384.7m | Inflate packers and set packers | | | | | | | | | | | |
| EP | P | DST | 1930 | 2400 | 4.50 | 384.7m | Pre Flow tool open at 15:08 bubble to surface straight away 15:09 Bubble to btm of bucket. 15:13 shut tool in. | | | | | | | | | | | |
| EP | P | DST | 1930 | 2400 | 4.50 | 384.7m | Main flow tool open at 15:43 bubble to surface straight away 15:44 bubble to btm of Bucket. 15:56 bubble slowed shut in test before fluid to surface. | | | | | | | | | | | |
| EP | P | DST | 1930 | 2400 | 4.50 | 384.7m | Final shut in 2 hrs. | | | | | | | | | | | |
| EP | P | DST | 1930 | 2400 | 4.50 | 384.7m | Release packers, bring test head to floor height drop bar and fill hole until pipe and annulus has equilized [2bbls pumped], circulate 1 full circulation. | | | | | | | | | | | |
| EP | P | DST | 1930 | 2400 | 4.50 | 384.7m | Rig down test head and surface equipment | | | | | | | | | | | |
| EP | P | DST | 1930 | 2400 | 4.50 | 384.7m | POOH and lay out test tools and gauges. | | | | | | | | | | | |
| EP | P | DST | 1930 | 2400 | 4.50 | 384.7m | Down load guages, upload info onto IDS. | | | | | | | | | | | |
| Operations For Period 0000 Hrs to 0600 Hrs on 21 Feb 2009 | | | | | | | | | | | | | | | | | | |
| Phase | Cl | Op | From | To | Hrs | Depth | Activity Description | | | | | | | | | | | |
| EP | P | DST | 0000 | 0130 | 1.50 | 384.7m | Continued to break out & lay out DST tools. | | | | | | | | | | | |
| PC | P | RC | 0130 | 0200 | 0.50 | 384.7m | Prepared to run casing. | | | | | | | | | | | |
| PC | P | RC | 0200 | 0600 | 4.00 | 384.7m | Reviewed JSA for running casing. | | | | | | | | | | | |
| PC | P | RC | 0200 | 0600 | 4.00 | 384.7m | (IN PROGRESS) RIH with 7" casing as per casing program. | | | | | | | | | | | |

**General Comments**

00:00 TO 24:00 Hrs ON 20 Feb 2009

| Comments | Rig Requirements | Lessons Learnt |
|---|---|----------------|
| Ensign International - received 9,075 liters of diesel fuel - Invoice # 28978 DST AUstralia Ticket # 1909 DST #3 AUD25523-38 | | |
| Weather AM | <u>Comments</u> | |
| Weather PM | <u>Comments</u> Heavy rain over night and this morning will impact on planned rig move sunday / Monday | |

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|-----------------------------|
| JSA (1) | 20 Feb 2009 | 0 Days | JSA - running DST tools |
| Permit To Work (1) | 20 Feb 2009 | 0 Days | Permit to work |
| Pre-tour Meeting (1) | 20 Feb 2009 | 0 Days | Mid night pre tour meeting. |
| Pre-tour Meeting (1) | 20 Feb 2009 | 0 Days | Pre-tour - midday |

WBM Data

| Daily Chemical Costs: 0 | | | Cost To Date: 552 | | | Engineer: |
|--------------------------------|----------------|--------------|----------------------|---|-------------|-----------------------|
| Mud Type: water based with pol | Flowline Temp: | Cl: | Low Gravity Solids: | % | Gels 10s | lb/100ft ² |
| Sample From: shakers | Nitrates: | Hardness/Ca: | High Gravity Solids: | % | Gels 10m | lb/100ft ² |
| Time: 24:00 | Sulphites: | MBT/CEC: | Corr Solids: | % | Fann 003 | |
| Weight: 8.60ppg | Loss (API): | Pm: | H:O: | % | Fann 006 | |
| ECD TD: | Cake (API): | Pf: | Oil: | % | Fann 100 | |
| ECD Shoe: | PV: | Mf: | Sand: | % | Fann 200 | |
| Funnel Visc: | YP: | pH: | Barite: | % | Fann 300 | |
| KCl: 0% | | PHPA Excess: | | | Fann 600 | |
| | | | | | Lower Range | |

Bit Data

| Bit # 4 | | Wear | I | O1 | D | L | B | G | O2 | R |
|---------------------------|---|---------|---|--------------------------|-------|----------------------|-------------------------|---|----|---|
| Size: 222.3 mm (8.750 in) | IADC #: | Nozzles | | Drilled over last 24 hrs | | | Calculated over Bit Run | | | |
| Mfr: SMITH | WOB (Avg): | | | Progress: | 0.00m | Cum. Progress: | 309.7m | | | |
| Type: PDC | RPM (Avg): | klb | | On Bottom Hrs: | 0.00 | Cum. On Btm Hrs: | 17.30 | | | |
| Serial No.: 1963358 | F. Rate: | | | IADC Drill Hrs: | NaN | Cum. IADC Drill Hrs: | 0.00 | | | |
| Bit Model: SD 67782 | SPP: | gpm | | Total Revs: | | Cum. Total Revs: | 0 | | | |
| Depth In: 75.0m | TFA: | | | OB-ROP (Avg): | | Cum. OB-ROP (Avg): | 17.90m/hr | | | |
| Depth Out: 384.7m | 0.884 | | | | | | | | | |
| Bit Run Comment | Open hole from 75 m down to 384.7 m with 6-1/4" X 8-3/4" hole opener. | | | | | | | | | |



BHA Data

BHA # 4

| Weight (Wet): | Length: | 97.58m | Torque (Max): | DC (1) Ann. Velocity: | 0ppm | |
|----------------------|----------------|---------|--------------------|-----------------------|-------|---------|
| Wt. Below Jar (Wet): | String Wt.: | | Torque (Off Btm.): | DC (2) Ann. Velocity: | 0ppm | |
| | Pick-Up Wt.: | | Torque (On Btm.): | HWDP Ann. Velocity: | 0ppm | |
| | Slack-Off Wt.: | | Jar Hours: | DP Ann. Velocity: | 0ppm | |
| Equipment | Length (m) | OD (in) | ID (in) | Serial # | Hours | Comment |
| Bit | 1x 0.45 | 8.750 | | 65909 | | |
| Bit Sub | 1x 0.79 | 6.250 | 2.750 | | | |
| Drill Collar | 3x 28.32 | 6.250 | 2.750 | | | |
| String Stabiliser | 1x 1.15 | 8.375 | 2.750 | | | |
| Drill Collar | 7x 66.06 | 6.250 | 2.750 | | | |
| X-Over | 1x 0.81 | 6.250 | 2.250 | | | |
| Total Length: | 97.58m | | | | | |

Personnel Summary

| Company | | | Pax On |
|--|--------------|---------|--------|
| Origin Energy | | In Camp | 2 |
| Origin Energy | | Offsite | 0 |
| Ensign International Energy Services | | In Camp | 19 |
| Ensign International Energy Services | | Offsite | 0 |
| DST Australia | | In Camp | 2 |
| Oil Industry Catering & Services (OIC) | | In Camp | 3 |
| Oil Industry Catering & Services (OIC) | | Offsite | 0 |
| | Total on Rig | | 26 |

Pumps

| Pump Data - Last 24Hrs | | | | | | | Slow Pump Data | | | | | |
|------------------------|------------|---------------|-------------|------------|-----|-----|----------------|--------------|-------------------|----------|--------------|---------------|
| No. | Type | Liner (in) | MW (ppg) | Eff (%) | SPM | SPP | Flow (gpm) | Depth (m) | Ck. Line (psi) | SPM | SPP (psi) | Flow (gpm) |
| 1 | TSM 750 | 6.0 | | 99 | | | | | | 1. 2. | | |
| 2 | Emsco F500 | 5.5 | | 99 | | | | | | 1. 2. | | |

Bulk Stocks

| Name | Unit | In Hand | In | Used | Adjust | Balance |
|-------------------|----------|---------|------|------|--------|---------|
| Camp Fuel | ltr | 0 | 4400 | 375 | 0 | 6,666.0 |
| Cement Uncut | sx | 84 | 0 | 0 | 0 | 84.0 |
| Diesel | litres | 0 | 4675 | 1705 | 0 | 4,300.0 |
| Shaker Screen 110 | 100 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 175 | 170 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 180 | 200 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 210 | 325 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Water - Drilling | bbl | 3000 | 0 | 0 | 0 | 3,000.0 |
| Water - Potable | m3 | 20 | 0 | 0 | 0 | 20.0 |



| Meeleebee 2 | | | | | | | | | | | | | | |
|---|--|---------------------------|--------------------|-------------|-------------------|--------------------------------------|---|--|--|--|--|--|--|--|
| Date: | 21 Feb 2009 | Well Site Representative: | Eric Gardiner | | Rig Manager: | Don Poole | | | | | | | | |
| Report Number: | 19 | Night Representative: | Stu Vickers | | Drilling Company: | Ensign International Energy Services | | | | | | | | |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | | Geologist: | | | | | | | | | |
| Well Details | | | | | | | | | | | | | | |
| Country: | Australia | Current Hole Size: | 8.500in | Casing OD: | 9.625in | Original AFE: | \$ 1,204,386 | | | | | | | |
| Field: | | Measured Depth: | 384.70m | Casing MD: | 75.00m | Orig. & Supp. AFE: | \$ 1,204,386 | | | | | | | |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 384.70m | Casing TVD: | 75.00m | AFE Number: | 6060026 | | | | | | | |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 0.0m | TOL MD: | 384.70m | Daily Cost: | \$ 146,540 | | | | | | | |
| RT - GL: | 4.35m | Days From Spud: | 12.31 | Liner MD: | | Cum. Cost: | \$ 1,149,912 | | | | | | | |
| Datum: | GDA 94 | Days On Well: | 19.00 | Liner TVD: | | Last LTI Date: | 27 Dec 2008 | | | | | | | |
| Planned TD: | 424.40m | Last BOP Date: | 10 Feb 2009 | FIT/LOT: | 20.00ppg / | Days Since LTI: | 56 | | | | | | | |
| Current Ops @ 0600: | Rigging out rig & equipment. | | | | | | | | | | | | | |
| Planned Operations: | Continue to rig out rig & equipment, prepare for rig move, move rig & equipment to Muggleton #2. | | | | | | | | | | | | | |
| Summary of Period 0000 to 2400 Hrs | | | | | | | | | | | | | | |
| Continued to lay out DST tools, Ran 7" production casing, cemented production casing, flushed BOP's of cement, waited on cement, cleaned mud tanks, rigged out mud pumps. | | | | | | | | | | | | | | |
| Operations For Period 0000 Hrs to 2400 Hrs on 21 Feb 2009 | | | | | | | | | | | | | | |
| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description | | | | | | | |
| EP | P | DST | 0000 | 0130 | 1.50 | 384.7m | Continued to break out & lay out DST tools. | | | | | | | |
| PC | P | RC | 0130 | 0200 | 0.50 | 384.7m | Prepared to run casing. Reviewed JSA for running casing. | | | | | | | |
| PC | P | RC | 0200 | 0730 | 5.50 | 384.7m | RIH with 7" casing as per casing program. | | | | | | | |
| PC | P | CIR | 0730 | 0830 | 1.00 | 384.7m | Circulate while rigging up halliburton trucks and hold PJSM | | | | | | | |
| PC | P | CMC | 0830 | 1030 | 2.00 | 384.7m | Rig up cement head and surface lines, pump 5bbl water spacer, pressure test to 2500 psi ok, Drop dart plug and displace with 13.5bbls, bump plug with 350psi, Infl ate packer w/1250psi, bleed off, pressure up to 2099psi to open stage tool, pump 5bbls spacer, Mix and pump 17 bbls 15.6 ppg cement slurry, Drop top plug and displace with 11.8bbls of water, Bump top plug with 2005 psi [stage tool shut at 1150psi] hold pressure for 10 min and bleed back 1/4 bbl, 6bbls cement returns. | | | | | | | |
| PC | P | WOC | 1030 | 1600 | 5.50 | 384.7m | Wait on cement Clean mud tanks, flush BOPs, remove flow line | | | | | | | |
| PC | P | BOP | 1600 | 2400 | 8.00 | 384.7m | Slack off and layout landing joint, continue with rigging out bops. Continued to clean mud tanks. Rigged out mud pump kicker lines & suction lines. Rig released to Muggleton 2 at 24:00 | | | | | | | |
| Operations For Period 0000 Hrs to 0600 Hrs on 22 Feb 2009 | | | | | | | | | | | | | | |
| Phse | Cls | Op | From | To | Hrs | Depth | Activity Description | | | | | | | |
| General Comments | | | | | | | | | | | | | | |
| 00:00 TO 24:00 Hrs ON 21 Feb 2009 | | | | | | | | | | | | | | |
| Comments | | | Rig Requirements | | | Lessons Learnt | | | | | | | | |
| Halliburton Dkt # 6447716 production cement job meeleebee #2 AUD 13,452.18 | | | | | | | | | | | | | | |
| Ensign Dkt # 28979 21-02-09 Camp hrs 295.5 Repair hrs 70 Operating hrs 225.5 | | | | | | | | | | | | | | |
| Weather AM | | | <u>Comments</u> | | | | | | | | | | | |
| Weather PM | | | <u>Comments</u> | | | | | | | | | | | |



HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|-----------------------------|
| JSA (1) | 21 Feb 2009 | 0 Days | JSA |
| Permit To Work (1) | 21 Feb 2009 | 0 Days | Permit to work # 73093 |
| Permit To Work (1) | 21 Feb 2009 | 0 Days | Permit to work # 73094 |
| Permit To Work (1) | 21 Feb 2009 | 0 Days | Permit to work # 73095 |
| Pre-tour Meeting (1) | 21 Feb 2009 | 0 Days | Mid night pre tour meeting. |
| Pre-tour Meeting (1) | 21 Feb 2009 | 0 Days | Pre-tour - midday |

WBM Data

| Daily Chemical Costs: 0 | | Cost To Date: 552 | | | Engineer: |
|-------------------------|----------------------|-------------------|--------------|------------------------|-----------------------|
| Mud Type: | water based with pol | Flowline Temp: | Cl: | Low Gravity Solids: % | Gels 10s |
| Sample From: | shakers | Nitrates: | Hardness/Ca: | High Gravity Solids: % | Gels 10m |
| Time: | 24:00 | Sulphites: | MBT/CEC: | Corr Solids: % | lb/100ft ² |
| Weight: | 8.60ppg | Loss (API): | Pm: | H.O: | lb/100ft ² |
| ECD TD: | | Cake (API): | Pf: | Oil: | Fann 003 |
| ECD Shoe: | | PV: | Mf: | Sand: | Fann 006 |
| Funnel Visc: | | YP: | pH: | Barite: | Fann 100 |
| KCl: | 0% | | | | Fann 200 |
| | | | | | Fann 300 |
| | | | | | Fann 600 |
| | | | | | Lower Range |

Personnel Summary

| Company | In Camp | Pax On |
|--|--------------|--------|
| Origin Energy | In Camp | 2 |
| Origin Energy | Offsite | 0 |
| Ensign International Energy Services | In Camp | 19 |
| Ensign International Energy Services | Offsite | 0 |
| DST Australia | In Camp | 2 |
| Oil Industry Catering & Services (OIC) | In Camp | 3 |
| Oil Industry Catering & Services (OIC) | Offsite | 0 |
| Halliburton | In Camp | 3 |
| | Total on Rig | 29 |

Pumps

| Pump Data - Last 24Hrs | | | | | | | Slow Pump Data | | | | | |
|------------------------|------------|---------------|-------------|------------|--------------|--------------|----------------|--------------|-------------------|-----|--------------|---------------|
| No. | Type | Liner (in) | MW (ppg) | Eff (%) | SPM (psi) | SPP (psi) | Flow (gpm) | Depth (m) | Ck. Line (psi) | SPM | SPP (psi) | Flow (gpm) |
| 1 | TSM 750 | 6.0 | | 99 | | | | | 1. | | | |
| 2 | Emsco F500 | 5.5 | | 99 | | | | | 2. | | | |

Bulk Stocks

| Name | Unit | In Hand | In | Used | Adjust | Balance |
|-------------------|----------|---------|----|------|--------|---------|
| Camp Fuel | ltr | 0 | 0 | 428 | 0 | 6,238.0 |
| Cement Uncut | sx | 84 | 0 | 0 | 0 | 84.0 |
| Diesel | litres | 0 | 0 | 1680 | 0 | 2,620.0 |
| Shaker Screen 110 | 100 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 175 | 170 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 180 | 200 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 210 | 325 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Water - Drilling | bbl | 3000 | 0 | 0 | 0 | 3,000.0 |
| Water - Potable | m3 | 20 | 0 | 0 | 0 | 20.0 |

**Meeleebie 2**

| | | | | | |
|--------------------------|------------------|----------------------------------|--------------------|--------------------------|--------------------------------------|
| Date: | 22 Feb 2009 | Well Site Representative: | Eric Gardiner | Rig Manager: | Don Poole |
| Report Number: | 20 | Night Representative: | Stu Vickers | Drilling Company: | Ensign International Energy Services |
| Latitude (South): | 26 ° 12 ' 2.63 " | Longitude (East): | 149 ° 14 ' 29.92 " | | Geologist: |

Well Details

| | | | | | | | |
|-------------|---------------|----------------------|-------------|-------------|------------|--------------------|--------------|
| Country: | Australia | Current Hole Size: | 8.500in | Casing OD: | 9.625in | Original AFE: | \$ 1,204,386 |
| Field: | | Measured Depth: | 384.70m | Casing MD: | 75.00m | Orig. & Supp. AFE: | \$ 1,204,386 |
| Rig: | Ensign Rig 48 | True Vertical Depth: | 384.70m | Casing TVD: | 75.00m | AFE Number: | 6060026 |
| GL - AMSL: | 300.00m | 24 Hr Progress: | 0.0m | TOL MD: | 384.70m | Daily Cost: | \$ 55,000 |
| RT - GL: | 4.35m | Days From Spud: | 12.31 | Liner MD: | | Cum. Cost: | \$ 1,204,912 |
| Datum: | GDA 94 | Days On Well: | 19.00 | Liner TVD: | | Last LTI Date: | 27 Dec 2008 |
| Planned TD: | 424.40m | Last BOP Date: | 10 Feb 2009 | FIT/LOT: | 20.00ppg / | Days Since LTI: | 57 |

Current Ops @ 0600:

Planned Operations: Rig out rig & equipment, move rig & equipment to Muggelton #2

Summary of Period 0000 to 2400 Hrs

Continued to rig out rig & equipment, loaded & moved

HSE Summary

| Event (# Of) | Date of last | Days Since | Short Description |
|----------------------|--------------|------------|------------------------|
| Permit To Work (1) | 22 Feb 2009 | 0 Days | Permit to work # 73096 |
| Pre-tour Meeting (1) | 22 Feb 2009 | 0 Days | Pre-tour at Mid night. |

Personnel Summary

| Company | | | Pax On |
|--|--|--------------|--------|
| Origin Energy | | In Camp | 2 |
| Origin Energy | | Offsite | 0 |
| Ensign International Energy Services | | In Camp | 19 |
| Ensign International Energy Services | | Offsite | 0 |
| DST Australia | | In Camp | 2 |
| Oil Industry Catering & Services (OIC) | | In Camp | 3 |
| Oil Industry Catering & Services (OIC) | | Offsite | 0 |
| Halliburton | | Offsite | 0 |
| | | Total on Rig | 26 |

Bulk Stocks

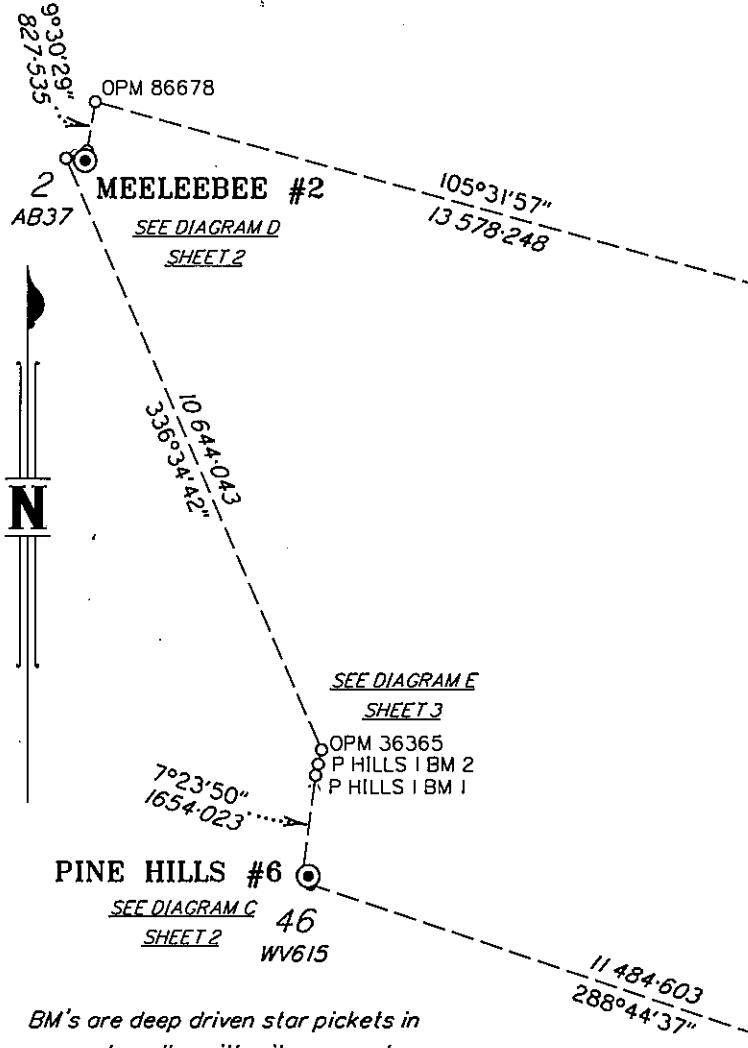
| Name | Unit | In Hand | In | Used | Adjust | Balance |
|-------------------|----------|---------|----|------|--------|---------|
| Camp Fuel | ltr | 6238 | 0 | 0 | 0 | 6,238.0 |
| Cement Uncut | sx | 84 | 0 | 0 | 0 | 84.0 |
| Diesel | litres | 2620 | 0 | 0 | 0 | 2,620.0 |
| Shaker Screen 110 | 100 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 175 | 170 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 180 | 200 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Shaker Screen 210 | 325 mesh | 6 | 0 | 0 | 0 | 6.0 |
| Water - Drilling | bbl | 3000 | 0 | 0 | 0 | 3,000.0 |
| Water - Potable | m3 | 20 | 0 | 0 | 0 | 20.0 |

APPENDIX 2 - WELL LOCATION SURVEY

MGA CO-ORDINATES ZONE 55

MGA CO-ORDINATES ZONE 55 Cont'd

| STATION | EASTING | NORTHING | HEIGHT (AHD) | STATION | EASTING | NORTHING | HEIGHT (AHD) |
|----------------|-------------|---------------|--------------|---------------|-------------|---------------|--------------|
| OPM 29917 | 737 251-880 | 7 097 489-070 | 298-180 | P HILLS 6 BM2 | 727 601-860 | 7 088 361-783 | 391-265 |
| OPM 86678 | 724 169-530 | 7 101 125-130 | 284-970 | PINE HILLS #6 | 727 692-703 | 7 088 330-758 | 388-87 (GL) |
| OPM 36365 | 727 913-110 | 7 090 423-140 | 396-360 | P HILLS 1 BM1 | 727 814-810 | 7 090 002-040 | 398-350 |
| OPM 86711 | 749 642-010 | 7 079 692-530 | 356-400 | P HILLS 1 BM2 | 727 857-960 | 7 090 184-160 | 396-520 |
| REEDY CK 2 BM1 | 748 131-437 | 7 072 009-498 | 359-583 | MLBEE 2 BM1 | 723 682-164 | 7 100 190-164 | 290-213 |
| REEDY CK 2 BM2 | 748 070-654 | 7 072 150-344 | 358-309 | MLBEE 2 BM2 | 724 032-832 | 7 100 308-963 | 287-011 |
| REEDY CREEK #2 | 748 056-447 | 7 072 001-440 | 361-280 (GL) | MEELEEBEE #2 | 723 998-403 | 7 100 152-149 | 287-880 (GL) |
| MUGG 2 BM1 | 738 604-026 | 7 084 503-775 | 353-718 | P HILLS 8 BM1 | 738 134-847 | 7 090 353-664 | 363-032 |
| MUGG 2 BM2 | 738 428-740 | 7 084 293-525 | 356-342 | P HILLS 8 BM2 | 738 014-189 | 7 090 037-616 | 364-942 |
| MUGGLETON #2 | 738 472-618 | 7 084 496-342 | 354-410 (GL) | PINE HILLS #8 | 738 069-635 | 7 090 108-698 | 364-83 (GL) |



BM's are deep driven star pickets in concrete collar with witness post.

Co-ordinates obtained by RTK/GPS.

Distances are 'Grid'.

ORIGIN OF CO-ORDINATES - MGA ZONE 55

| STATION | EASTING | NORTHING | HEIGHT (AHD) |
|----------|-------------|---------------|--------------|
| OPM29918 | 739 687-184 | 7 091 460-971 | 383-031 |

REFERENCE MARKS

| STN | TO | ORIGIN | BEARING | DIST |
|-----|----------------|--------|------------|-------|
| 1 | OIP | AB210 | 13°11'40" | 1.006 |
| 1 | ORT (Not Conn) | AB210 | 355°03'40" | 2.696 |
| 2 | OIP | AB210 | 8°31'40" | 1.006 |
| 2 | OIP (Not Conn) | AB210 | 103°11'40" | 1.006 |
| 2 | ORT (Not Conn) | AB210 | 234°33'40" | 15.47 |

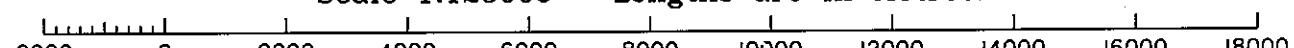
GEOGRAPHICAL CO-ORDINATES GDA ZONE 55

| STATION | LATITUDE | LONGITUDE | CONVERGENCE |
|-----------------|--------------------|--------------------|--------------|
| "REEDY CK" #2 | -26°27'02.5613318" | 149°29'15.8498319" | 1°06'31.228" |
| "MUGGLETON" #2 | -26°20'22.6677365" | 149°23'21.7181887" | 1°03'38.313" |
| "PINE HILLS" #6 | -26°18'24.4609325" | 149°16'50.6975997" | 1°00'40.367" |
| "MEELEEBEE" #2 | -26°12'02.5870695" | 149°14'30.1848347" | 0°59'24.613" |
| "PINE HILLS" #8 | -26°17'20.6328429" | 149°23'03.4586512" | 1°03'23.408" |

PERMANENT MARKS

| PM | ORIGIN | BEARING | DIST | NO | TYPE |
|-------|--------|------------|-------|-------|------|
| 2-OPM | AB210 | 193°11'40" | 1.006 | 36365 | |

Scale 1:125000 - Lengths are in Metres.



I, Andrew John CAMPBELL hereby certify that I have surveyed the location of the petroleum well as shown in this plan, that the plan is accurate, that the said survey was performed in accordance with the Petroleum Act 1923 and the Petroleum Regulations (Land) 1966, and that the said survey was completed on 2-06-09
... *A.J.Campbell* Licensed Surveyor

Date 17-06-09...

LOCALITY

"YULEBA NTH", "WALLUMBILLA NTH" & "WAIKOLA"

Approx.
LAT. S ° ' "
LONG. E ° ' "

FIELD NOTES LODGED
/ /

DRAWN BY

LJM

MERIDIAN:

COMP FILE:
43721-4_(Reedy Ck#2)_AP LNG.dwg

MINING RESOURCES PLAN OF "Reedy Ck #2, Muggleton #2, Pine Hills #6 & #8 & Meeleebie #2"

PARISH BENDEMERE, MUGGLETON & WOODDUCK

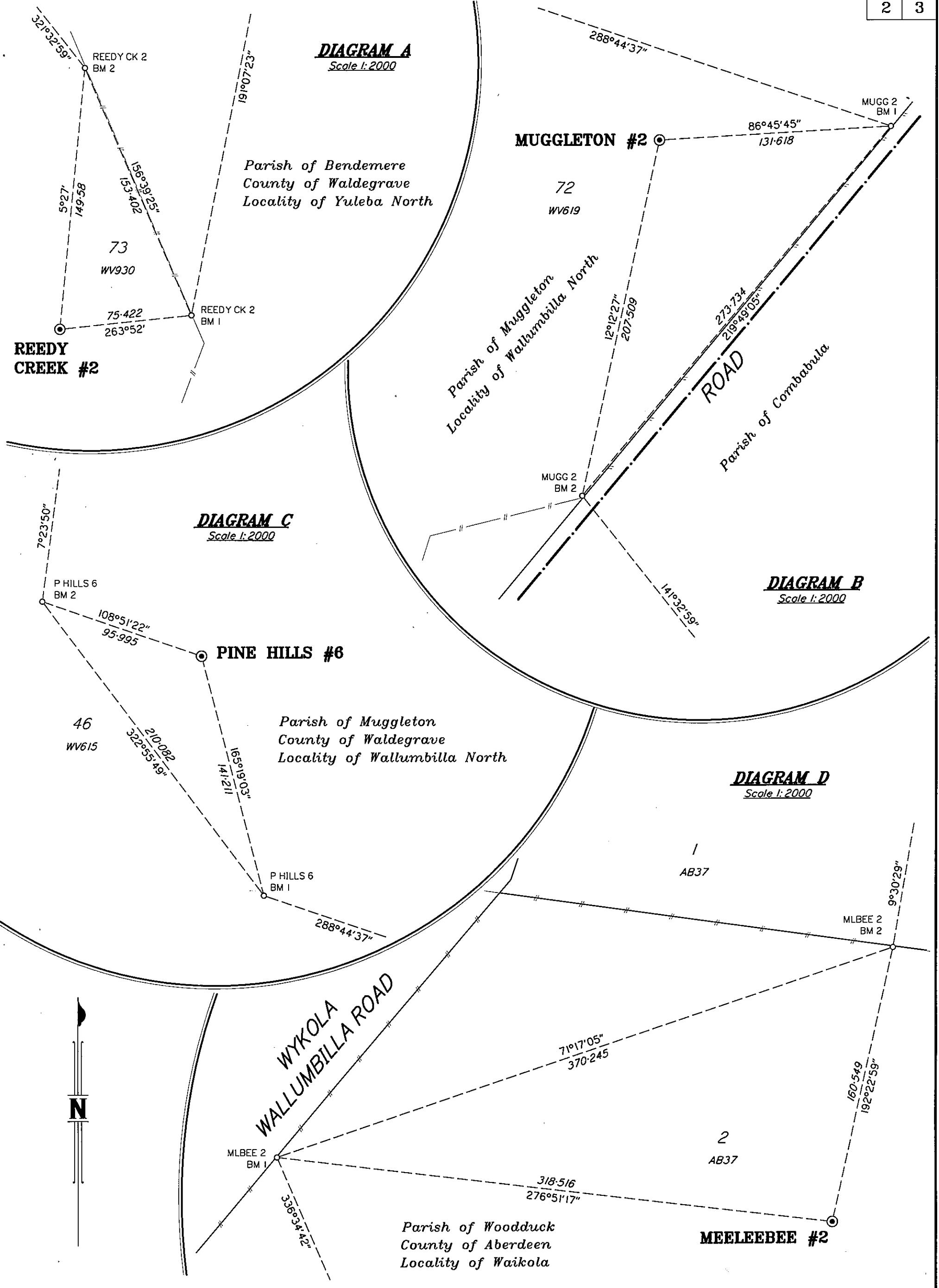
COUNTY Waldegrave & Aberdeen

MINING DISTRICT Brisbane

SCALE
1:125000

MP

CATALOGUED APPROVED REGISTERED
Chief Surveyor



20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

DIAGRAM E
Scale 1:2000Parish of Woodduck
County of Aberdeen10
AB210

PINE HILLS 1 BM 2

ROAD

13°19'46" 187.62
(BM1-BM2)

13°11'40" 579.18

24°46'56"
OSP
OIP's
ORT
OPM
Cen. RFP
1.06N, 0.77E12°59'41" 245.26/
(BM2-OPM36365)3
AB208

ROAD

2 OPM 36365

47
WV615Parish of Muggleton
County of Waldegrave**DIAGRAM F**
Scale 1:200070
WV631

PINE HILLS #8

Parish of Muggleton
County of Waldegrave
Locality of Wallumbilla North

ROAD

46
WV615

7°23'50"

12°33' 57.45

OSP
OIP
ORT
Cen. RFP

APPENDIX 3 - DRILL STEM TEST RESULTS



**ORIGIN ENERGY CSG
MEELEEBEE 2
ATP 606P
DST REPORTS**

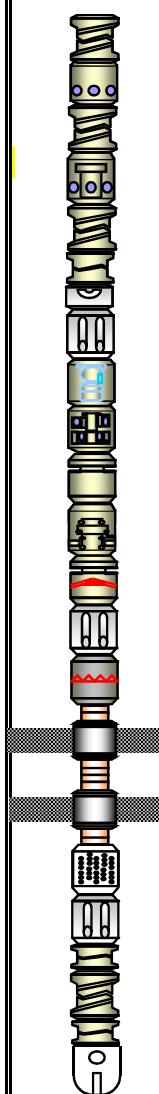


**MEELEEBEE 2
DST 1
REPORT, PLOTS & DATA**



Company: Origin Energy CSG
Well Name: Meeleebee 2
Well Location: ATP606P
State: Qld
Date: 12/02/2009
Test Type: Conventional - Bottom Hole
Formation: Lower Juandah CM
Interval: 106.81 - 126.31m
DST #: 1

Ticket #: 1677
TD: 126.31m
RT Elev: 304.4m
GL Elev: 300m
Testers: R.BABYAK S. BROUILLETTE



| | |
|--------------------------|-----------------|
| Total Tool BHA | 32.84 m |
| Circulating Subs | 0.80 m |
| Drill Collars above Tool | 85.39 m |
| Rig Cross Overs | 0.00 m |
| HW Drill Pipe above Tool | 0.00 m |
| Drill Pipe above Tool | 3.06 m |
| Pup Joints above Tool | 12.11 m |
| Total Assembly: | 134.20 m |

Water Cushion 50 m

| STICK UP: | | -7.89 |
|---------------------|----------|-------------------------|
| Drill Pipe | 3.06 | -7.89 1 drill pipe |
| Pup Joint | 12.11 | -4.83 pup joint |
| Drill Pipe | 0.00 | 7.28 |
| Drill Collars | 66.43 | 7.28 7 drill collars |
| Shutin Tool | 0.40 | 73.71 |
| Sampler | 9.48 | 74.11 1 x Drill Collar |
| Travel Sub | 0.40 | 83.59 |
| Hydraulic Tool | 9.48 | 83.99 1 x Drill Collar |
| Jars | 0.30 | 93.47 |
| EMP Recorder | 0.30 | 93.77 |
| EMP Recorder | WMG 8300 | 0.89 94.07 |
| Shut In Tool | 1.69 | 94.96 |
| Sampler | 1.01 | 96.65 |
| Travel Sub | 0.46 | 97.66 |
| Hydraulic Tool | 1.70 | 98.12 |
| EMP Recorder | WMG 6891 | 0.90 99.82 |
| Jars | 2.05 | 100.72 |
| Safety Joint | 0.63 | 102.77 |
| Packer | 2.14 | 103.40 |
| Packer | 1.27 | 105.54 |
| DEPTH: | | 106.81 |
| Stick Down | 0.87 | 106.81 |
| EMP Recorder | WMG 6723 | 0.92 107.68 |
| Cross Over | 6.08 | 108.60 |
| Drill Collars | 0.30 | 114.68 |
| Cross Over | 9.48 | 114.98 1 x Drill Collar |
| Bull Nose | 0.30 | 124.46 |
| Perforations | 0.00 | 124.76 |
| Bullnose | 1.55 | 124.76 |
| TOTAL DEPTH: | | 126.31 |

Company: Origin Energy CSG
Well Name: Meeleebee 2
Well Location: ATP606P
State: Qld
Date: 12/02/2009
Test Type: Conventional - Bottom Hole
Formation: Lower Juandah CM
Interval: 106.81 - 126.31m
DST #: 1



Ticket #: 1677
TD: 126.31m
RT Elev: 304.4m
GL Elev: 300m
Testers: R.BABYAK S. BROUILLETTE

RECORDER DATA:

| | | | | | |
|-----------------------------|--------|--------|---------|--|--|
| Rec #: | 8300 | 6891 | 6723 | | |
| Range (psi): | 3 | 10 | 5 | | |
| Battery S/N: | N18418 | D18108 | N18354 | | |
| Depth (m): | 94.07 | 99.82 | 107.68 | | |
| | PSIG | PSIG | PSIG | | |
| Initial Hydrostatic: | 69.47 | 154.97 | 143.76 | | |
| Initial Preflow: | | 101.06 | 88.08 | | |
| Final Preflow: | | 135.25 | 122.60 | | |
| Initial Shutin: | 102.27 | 136.65 | 123.43 | | |
| Initial Flow: | | 123.74 | 111.02 | | |
| Final Flow: | | 136.12 | 123.52 | | |
| Final Shutin: | 115.31 | 136.74 | 123.75 | | |
| Final Hydrostatic: | 135.19 | 155.59 | 141.65 | | |
| Max. Temp during Test (°F): | 82.87 | 83.40 | 83.27 | | |
| Inside / Outside: | Fluid | Inside | Outside | | |

TIME DATA:

| | | Time Start | Time End |
|-----------------|----------|------------|----------|
| Preflow: | 5 mins | 9:30 | 9:35 |
| Initial Shutin: | 30 mins | 9:35 | 10:05 |
| Initial Flow: | 7 mins | 10:05 | 10:12 |
| Final Shutin: | 300 mins | 10:12 | 15:12 |

(24 hour time)

| | |
|-------------------|-------|
| Pick Up Tools: | 4:00 |
| RIH Pipe: | 6:00 |
| On Depth: | 10:00 |
| Open Tools: | 9:40 |
| Time Pulled: | 15:22 |
| Drop Bar: | 15:30 |
| POOH Pipe: | 16:30 |
| L/O Tools: | 18:00 |
| Finish L/O Tools: | 20:00 |

TOOL DATA:

| Tool Weight | OD (in) | ID (in) | Length (m) | Cap. (bbls/ft) | Vol. (bbls) |
|-----------------------|------------------|---------|------------|----------------|-------------|
| 8 000 lb | Drill Pipe 1: | 4 | 3.34 | 15.17 | 0.0108 |
| Weight Set on Packers | Drill Pipe 2: | - | - | - | - |
| 15 000 lb | HW Drill Pipe 1: | - | - | 0.00 | - |
| Weight Pulled Free | HW Drill Pipe 2: | - | - | - | - |
| 26 000 lb | Drill Collars 1: | 4.75 | 2.5 | 86.19 | 0.0061 |
| Initial String Weight | Drill Collars 2: | - | - | - | - |
| 26 000 lb | Hole Size: | 6 1/4 | inches | | |

FLUID RECOVERY:

| | | |
|----|------|-----------------|
| 32 | m of | Formation fluid |
| | m of | |
| | m of | |
| | m of | |

MUD DATA:

| | |
|------------|-------------|
| Mud Type: | KCl |
| Weight: | 8.3 ppg |
| Viscosity: | sec |
| W.L. | cc/30min |
| F.C. | /32" |
| Mud Drop: | |
| Flowed: | N/A bbls/hr |

BLOW DESCRIPTION AND REMARKS:

Preflow: Weak to moderate blow after 4min.

Second Flow: Weak to moderate blow on open, started decressing after 2 minutes to weak in 7 minutes.

Surface Choke Size: inch

Sample Chamber Recovery:

Other Samples Taken:

Comments:

GENERAL DATA:

Number of Packers: 2
Packer Size: 5.5

Packer S/N: N/A
Location: Top
Condition OOH: Good

Packer S/N: N/A
Location: Bottom
Condition OOH: Good

Prior operations: Drilling
Wiper Trip Performed: No
Amount of Fill (m): none
Hole Condition: Good

Cushion Amount (m): 50 m
Cushion Type: Water
Reversed Out: Yes
Tool Chased: No

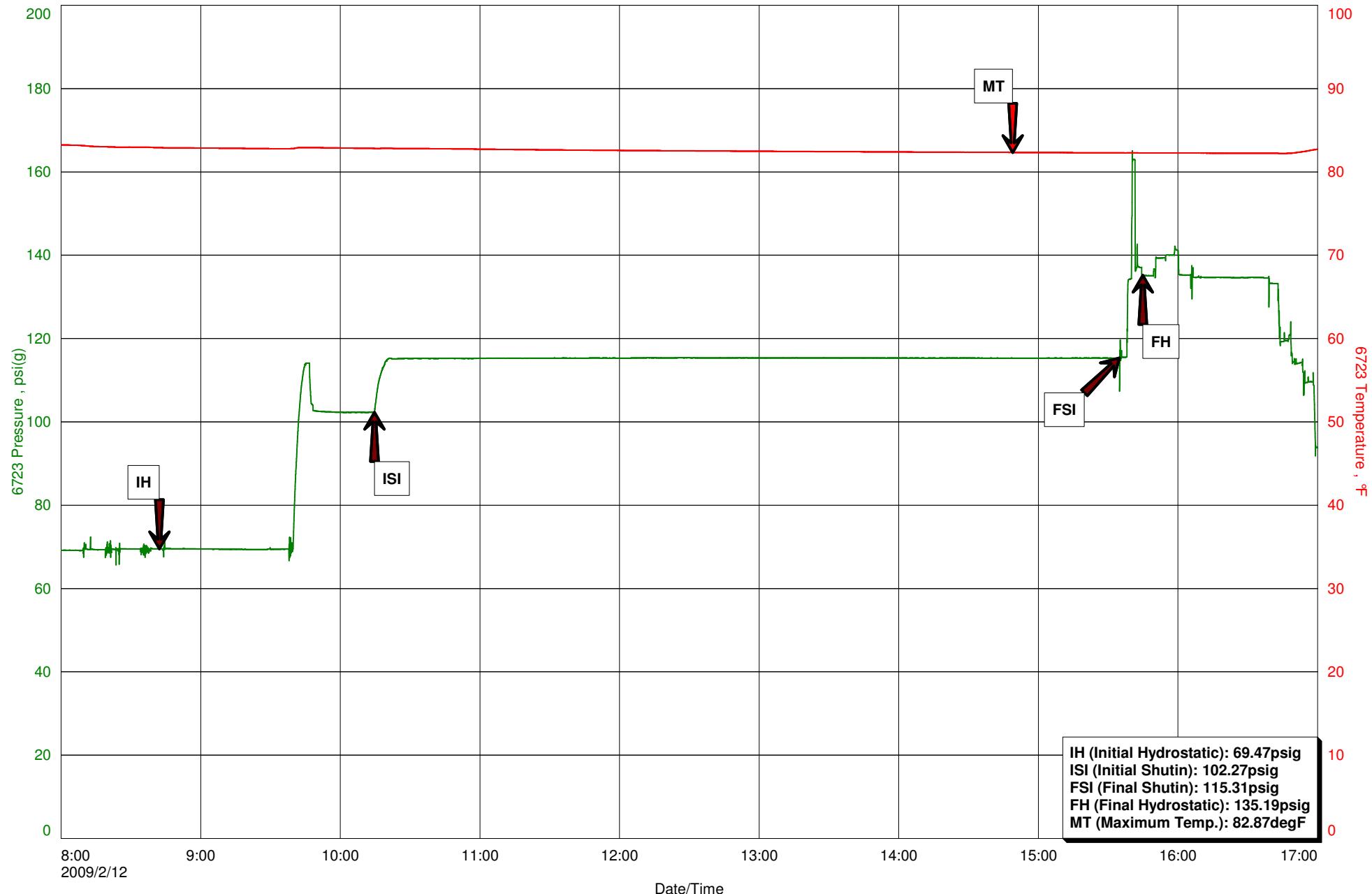
BHT (°F): 83.27
Company Rep: Paul Scamer & Stu Vickers
Contractor: Ensign
Rig Number: 48

GENERAL TEST COMMENTS:

Origin Energy CSG
FLUID EMP REC WMG 8300 DEPTH 94.07m
Start Test Date: 2009/02/12

Meeleebee 2
Formation: Lower Juandah CM
Job Number: DST 1

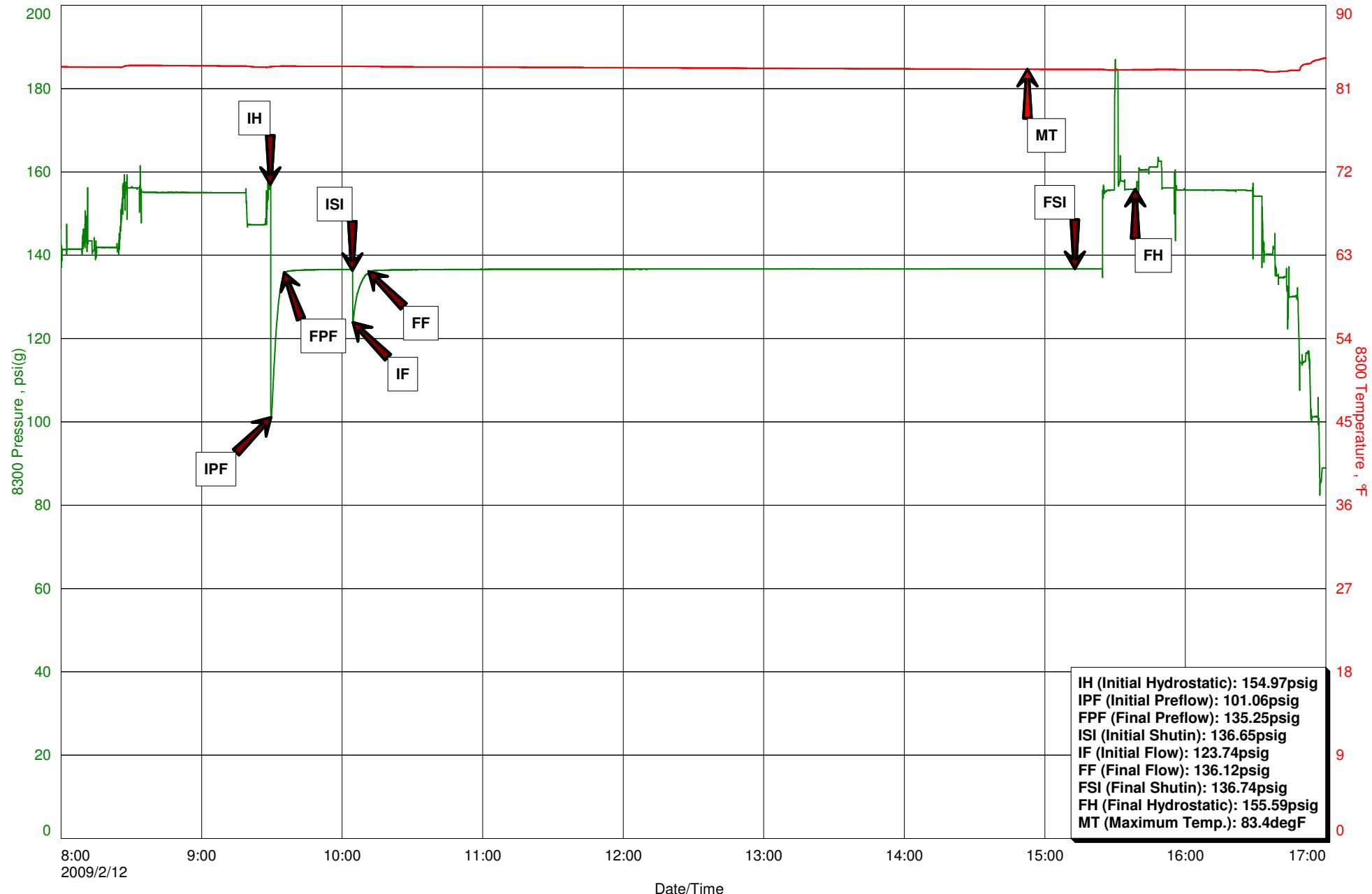
MEELEEBEE 2



Origin Energy CSG
INSIDE EMP REC WMG 6891 DEPTH 99.82m
Start Test Date: 2009/02/12

Meeleebee 2
Formation: Lower Juandah CM
Job Number: DST 1

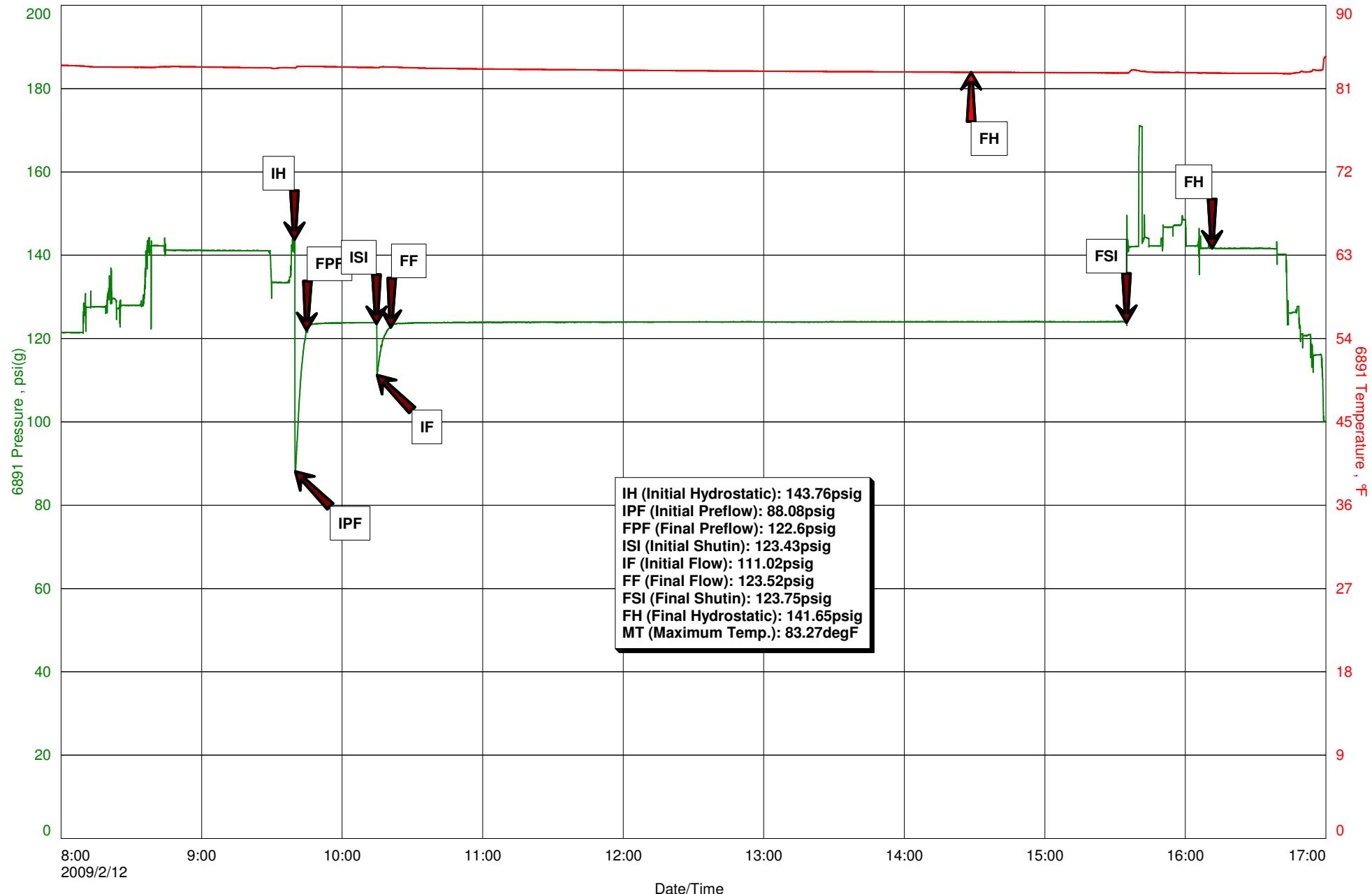
MEELEEBEE 2



Origin Energy CSG
OUTSIDE EMP REC WMG 6273 DEPTH 107.68m
Start Test Date: 2009/02/12

Meeleebee 2
Formation: Lower Juandah CM
Job Number: DST 1

MEELEESEE 2





**MEELEEBEE 2
DST 2
REPORT, PLOTS & DATA**



D.S.T.
AUSTRALIA Pty Ltd

Company: Origin Energy CSG

Well Name: Meeleebee 2

Well Location: ATP606P

State: Qld

Date: 13/02/2009

Test Type: Conventional - Straddle (Blank Off)

Formation: Juandah CM

Interval: 132.02 - 138.35m

DST #: 2

Ticket #: 1678

TD: 168.31m

RT Elev: 304.4m

GL Elev: 300m

Testers: R. Babayak, S.Brouillette



Drill Collars

Pump Out Sub

Drill Collar

Drop Bar Sub

Drill Collar

Cross Over

Drop Bar Catcher

EMP Recorder

Shutin Tool

Sampler

Travel Sub

Hydraulic Tool Jars

EMP Recorder

Safety Joint

Packer

Packer

Stick Down Perforations

EMP Recorder

Blank Sub

Stick Up

Packer

Packer

EMP Recorder

Perforations

Cross Over

Drill Collars

Cross Over

Bull Nose

Total Tool BHA 49.63 m

Circulating Subs 0.80 m

Drill Collars above Tool 66.43 m

Rig Cross Overs 0.00 m

HW Drill Pipe above Tool 0.00 m

Drill Pipe above Tool 48.34 m

Pup Joints above Tool 9.18 m

Total Assembly: 174.38 m

Water Cushion 60m

STICK UP: -6.07

Drill Pipe 0.00 -6.07

Pup Joint 9.18 -6.07 1-4m 1-3m 1-1.5m

Drill Pipe 48.34 3.11 4 x Drill Pipe

Drill Collars 47.45 51.45 5 x Drill Collar

Pump Out Sub 0.40 98.90

Drill Collar 9.49 99.30 1 x Drill Collar

Drop Bar Sub 0.40 108.79

Drill Collar 9.49 109.19 1 x Drill Collar

DST Cross Over 0.30 118.68

Drop Bar Catcher 0.30 118.98

EMP Recorder WMG 6891 0.89 119.28

Shut In Tool 1.69 120.17

Sampler 1.01 121.86

Travel Sub 0.46 122.87

Hydraulic Tool 1.70 123.33

EMP Recorder WMG 8300 0.90 125.03

Jars 2.05 125.93

Safety Joint 0.63 127.98

Packer 2.14 128.61

Packer 1.27 130.75

DEPTH: 132.02

Stick Down 0.87 132.02

Perforations 3.94 132.89 2-5FT 1-3FT

EMP Recorder WMG 6723 0.92 136.83

Cross Over 0.00 137.75

Drill Collars 0.00 137.75

Cross Over 0.00 137.75

Blank Sub 0.30 137.75

Stick Up 0.30 138.05

DEPTH: 138.35

Packer 1.84 138.35

Packer 2.14 140.19

EMP Recorder WMG 8286 0.91 142.33

Perforations 3.94 143.24 2-5 FT 1-3 FT

Cross Over 0.30 147.18

Drill Collars 18.98 147.48 2 x Drill Collar

Cross Over 0.30 166.46

Perforations 0.00 166.76

Bullnose 1.55 166.76

TOTAL DEPTH: 168.31

Company: Origin Energy CSG
Well Name: Meeleebee 2
Well Location: 39857
State: Qld
Date: 13/02/2009
Test Type: Conventional - Straddle (Blank Off)
Formation: Juandah CM
Interval: 132.02 - 138.35m
DST #: 2



Ticket #: 1678
TD: 168.31m
RT Elev: 304.4m
GL Elev: 300m
Testers: R. Babyak, S.Brouillette

RECODER DATA:

| Rec #: | 6891 | 8300 | 6723 | 8286 | |
|------------------------------------|-------------|-------------|-------------|-------------|--|
| Range (psi): | 10k | 3k | 5k | 15k | |
| Battery S/N: | N18418 | D18108 | N18354 | N18356 | |
| Depth (m): | 119.28 | 125.03 | 136.83 | 142.33 | |
| | PSIG | PSIG | PSIG | PSIG | |
| Initial Hydrostatic: | 68.27 | 181.48 | 199.35 | 185.40 | |
| Initial Preflow: | | 105.22 | 125.65 | | |
| Final Preflow: | | 153.07 | 168.39 | | |
| Initial Shutin: | 140.81 | 161.27 | 177.53 | | |
| Initial Flow: | | 152.96 | 169.71 | | |
| Final Flow: | | 160.73 | 176.90 | | |
| Final Shutin: | 150.64 | 161.53 | 177.90 | | |
| Final Hydrostatic: | | 180.14 | 197.94 | 185.55 | |
| Max. Temp during Test (°F): | 84.48 | 84.67 | 84.57 | 84.96 | |
| Inside / Outside: | Fluid | Inside | Outside | Below | |

TIME DATA:

| | | Time Start | Time End | |
|------------------------|-----|------------|----------|-------|
| Preflow: | 5 | mins | 15:14 | 15:19 |
| Initial Shutin: | 30 | mins | 15:19 | 15:50 |
| Initial Flow: | 5 | mins | 15:50 | 15:55 |
| Final Shutin: | 365 | mins | 15:55 | 22:00 |

(24 hour time)

| | |
|-----------------------|-------|
| Pick Up Tools: | 10:00 |
| RIH Pipe: | 12:30 |
| On Depth: | 14:00 |
| Open Tools: | 15:14 |
| Time Pulled: | 22:00 |
| Drop Bar: | 22:05 |
| POOH Pipe: | 23:10 |
| L/O Tools: | 0:45 |
| Finish L/O Tools: | 2:00 |

TOOL DATA:

| | | OD (in) | ID (in) | Length (m) | Cap. (bbls/ft) | Vol. (bbls) |
|------------------------------|-----------|------------------|---------|------------|----------------|-------------|
| Tool Weight | | | | | | |
| Weight Set on Packers | 0 008 lb | Drill Pipe 1: | 4 | 3.34 | 57.52 | 0.0108 |
| | 10 000 lb | Drill Pipe 2: | - | - | - | - |
| Weight Pulled Free | | HW Drill Pipe 1: | - | - | 0.00 | - |
| | 26 000 lb | HW Drill Pipe 2: | - | - | - | - |
| Initial String Weight | | Drill Collars 1: | 4.75 | 2.25 | 67.23 | 0.0049 |
| | 26 000 lb | Drill Collars 2: | - | - | - | - |
| | | Hole Size: | 6 1/4 | inches | | |

FLUID RECOVERY:

58 m of Formation Water

MUD DATA:

| | |
|------------|-------------|
| Mud Type: | KCl |
| Weight: | 8.3 ppg |
| Viscosity: | sec |
| W.L. | cc/30min |
| F.C. | /32" |
| Mud Drop: | |
| Flowed: | N/A bbls/hr |

BLOW DESCRIPTION AND REMARKS:

Preflow: Immediate, medium blow to bottom of buck

Second Flow: Immediate, medium blow to bottom of buck, started decreasing after 2 minutes to weak after 5 minutes.

Surface Choke Size: inch

Sample Chamber Recovery: no

Other Samples Taken: n/a

Comments:

GENERAL DATA:

Number of Packers: 4

Packer Size: 5-1/2" x 30"

Packer S/N: N/A

Location: Top

Condition OOH: Good

Packer S/N: N/A

Location: Top

Condition OOH: Good

Packer S/N: N/A

Location: Bottom

Condition OOH: Good

Packer S/N: N/A

Location: Bottom

Condition OOH: Good

Prior operations: Drilling

Wiper Trip Performed: Yes

Amount of Fill (m): 1 m

Hole Condition: Good

Cushion Amount (m): 60m

Cushion Type: Water

Reversed Out: Yes

Tool Chased: Yes

BHT (°F): 84.57

Company Rep: Paul Scamer & Stu Vickers

Contractor: Ensign

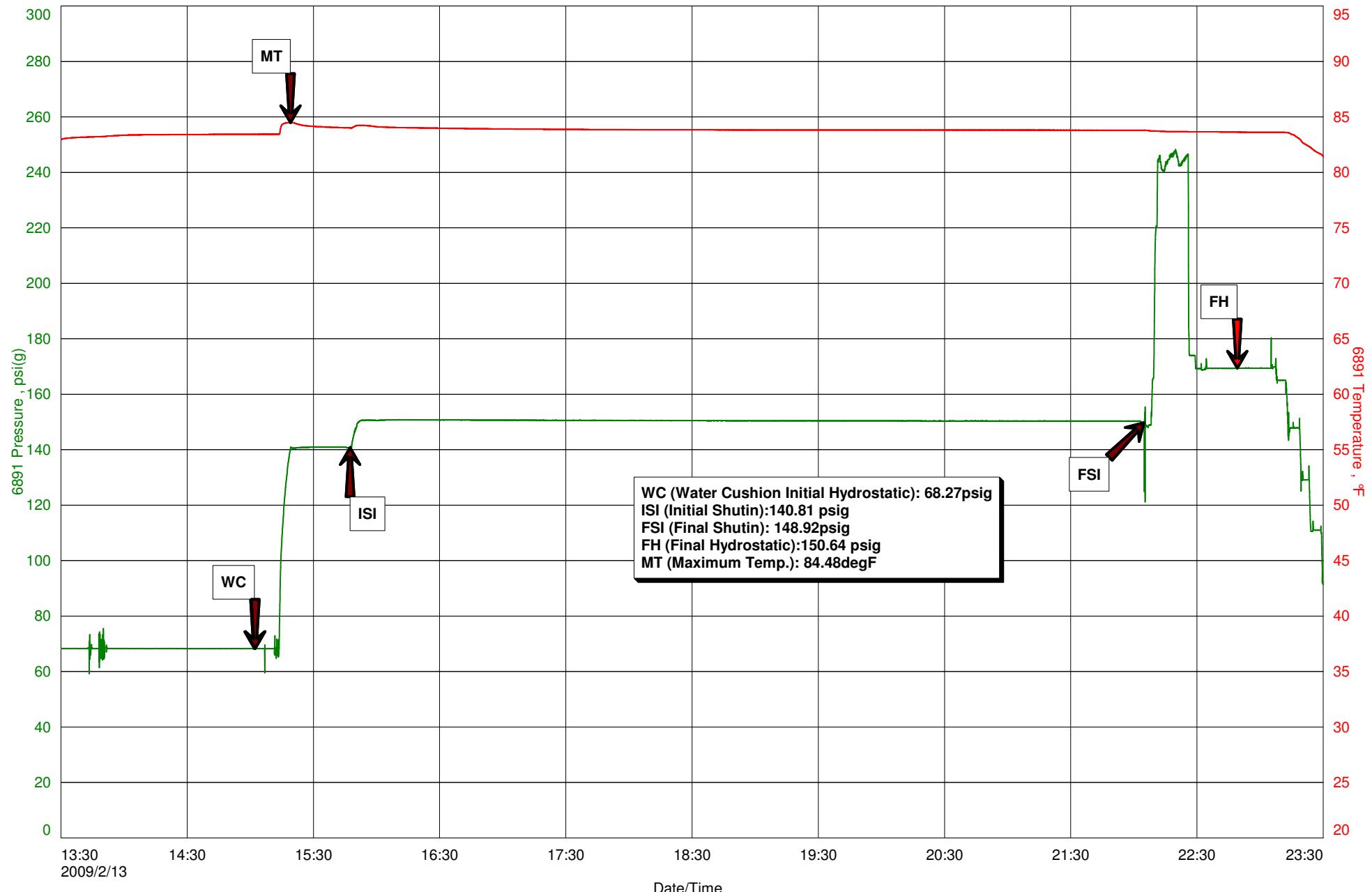
Rig Number: 48

GENERAL TEST COMMENTS:

Origin Energy CSG
FLUID EMP REC WMG 6891 DEPTH 119.28M
Start Test Date: 2009/02/13

MEELEEBEE 2
Formation: Juandah CM
Job Number: DST 2

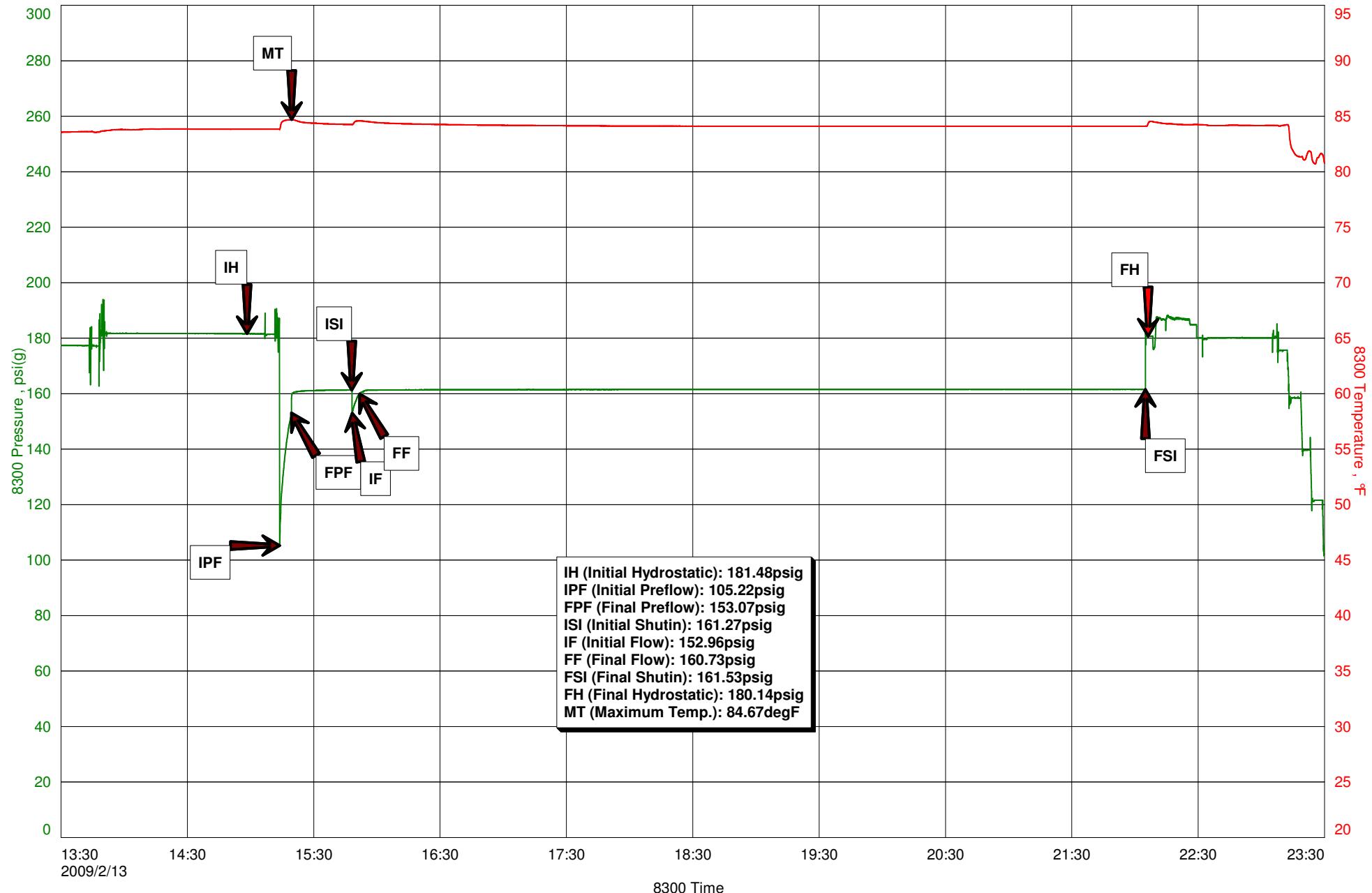
MEELEEBEE 2



Origin Energy CSG
INSIDE EMP REC WMG 8300 DEPTH 125.03M
Start Test Date: 2009/02/13

MEELEEBEE 2
Formation: Juandah CM
Job Number: DST 2

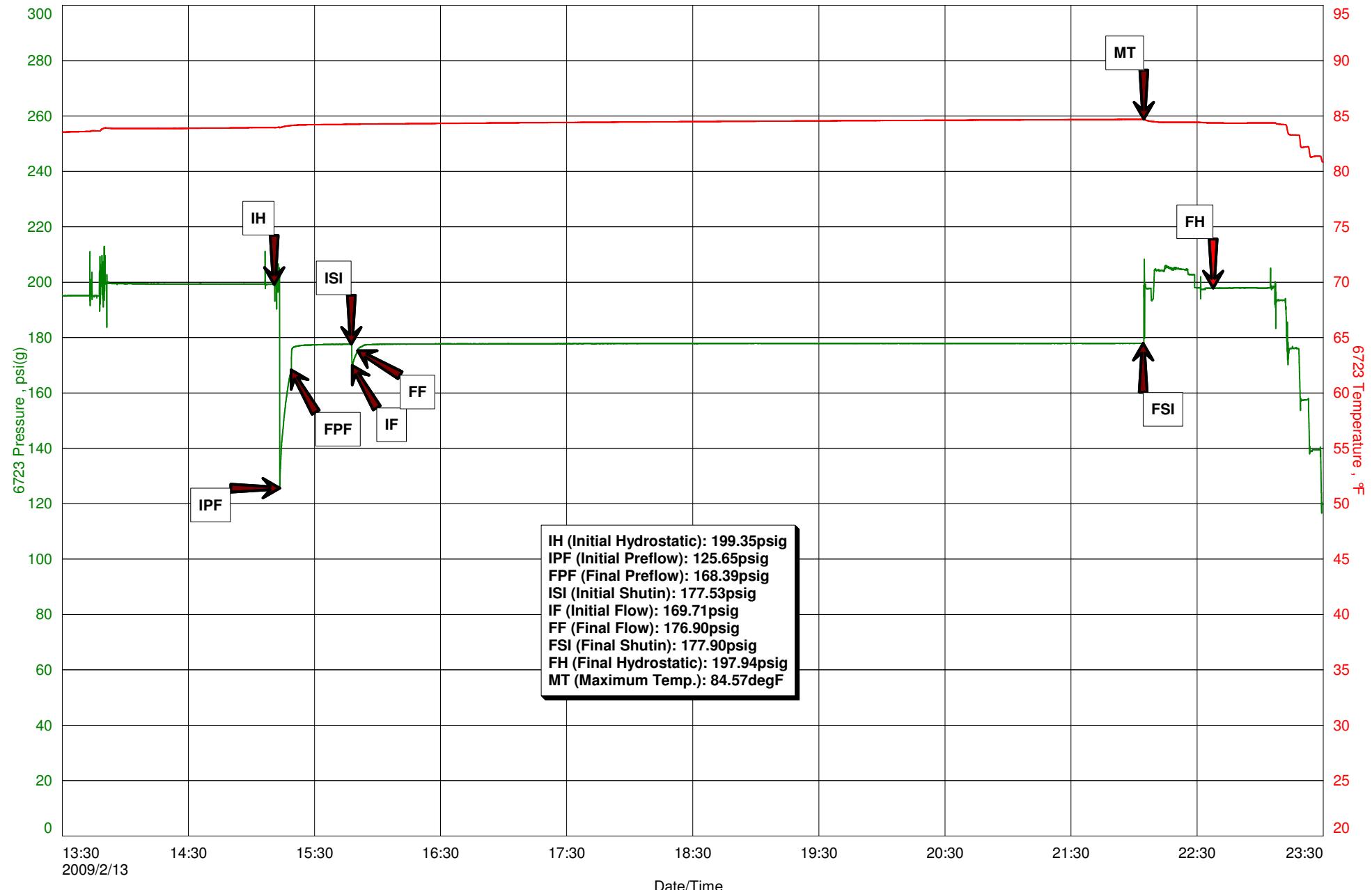
MEELEEBEE 2



Origin Energy CSG
OUTSIDE EMP REC WMG 6723 DEPTH 136.83M
Start Test Date: 2009/02/13

Meeleebee 2
Formation: Juandah CM
Job Number: DST 2

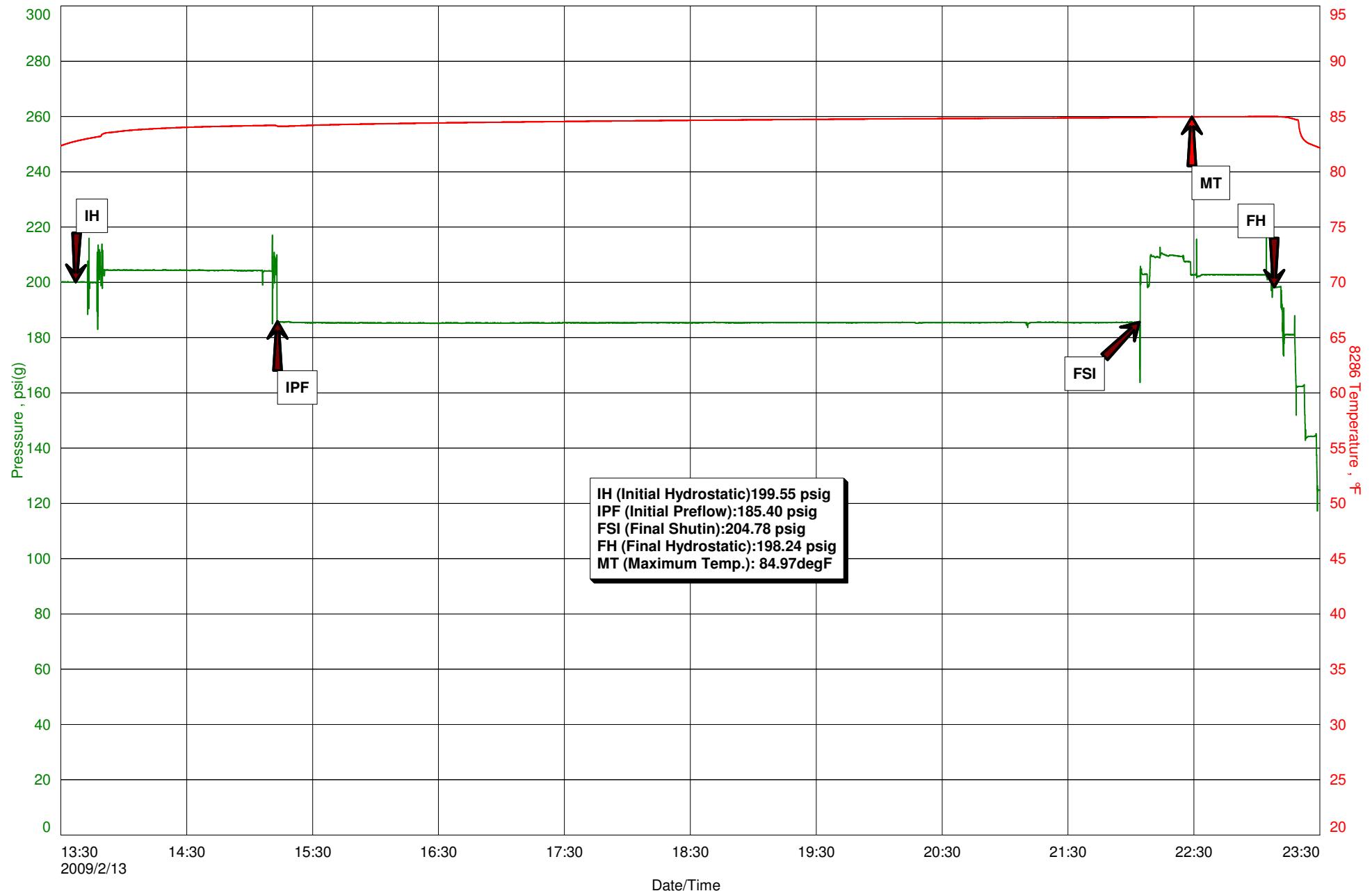
MEELEEBEE 2



Origin Energy CSG
BELOW EMP REC WMG 8286 DEPTH 142.33m
Start Test Date: 2009/02/13

MEELEEBEE 2
Formation: Juandah CM
Job Number: DST 2

MEELEEBEE 2





**MEELEEBEE 2
DST 3
REPORT, PLOTS & DATA**



Company: Origin Energy CSG
Well Name: Meeleebee 2
Well Location: ATP606P
State: QLD
Date: 20/02/2009
Test Type: Inflate - Straddle
Formation: Taroom CM
Interval: 241.50 - 262.82m
DST #: 3

Ticket #: T1909
TD: 424m
RT Elev: 304.35m
GL Elev: 300m
Testers: W. Murphy S. Brouillette



| | | |
|-------------------|-----------------------------------|-----------------|
| Drill Collars | Total Tool BHA | 38.33 m |
| Pump Out Sub | Circulating Subs | 0.80 m |
| Drill Collar | Drill Collars above Tool | 75.86 m |
| | Rig Cross Overs | 0.00 m |
| | HW Drill Pipe above Tool | 0.00 m |
| | Drill Pipe above Tool | 157.34 m |
| | Pup Joints above Tool | 0.00 m |
| | Total Assembly: | 272.33 m |
| | Water Cushion 71m | |
| | STICK UP: | -5.28 |
| Hydraulic Tool | Drill Pipe | 157.34 |
| | Pup Joint | 0.00 |
| | Drill Pipe | 0.00 |
| Travel Sub | Rig Cross Over | 0.00 |
| Jars | Drill Collars | 56.89 |
| EMP Recorder | Pump Out Sub | 0.40 |
| Safety Joint | Drill Collar | 9.49 |
| Inflate Pump | Drop Bar Sub | 0.40 |
| Screen | Drill Collar | 9.48 |
| Stick Down Packer | DST Cross Over | 0.00 |
| EMP Recorder | Drop Bar Catcher | 0.30 |
| Spacing | EMP Recorder #6761 | 0.90 |
| | Hydraulic Tool | 1.63 |
| Drill Collar | Travel Sub | 0.42 |
| Stick Up Packer | Jars | 2.35 |
| Drag Spring | EMP Recorder #6861 | 0.88 |
| | Safety Joint | 0.68 |
| | Inflate Pump | 2.51 |
| | Screen | 1.34 |
| | Packer Serial # 75002 | 1.77 |
| | DEPTH: | 241.50 |
| Drill Collar | Stick Down (including flow ports) | 0.83 |
| | EMP Recorder #8330 | 0.99 |
| | Spacing | 0.00 |
| | Cross Over | 0.00 |
| | HW Drill Pipe | 18.97 |
| | Cross Over | 0.00 |
| | Stick Up | 0.53 |
| | DEPTH: | 262.82 |
| | Packer Serial # 75001 | 1.83 |
| | Drag Spring | 2.40 |
| | Bottom of String | 267.05 |

Company: Origin Energy CSG
Well Name: Meeleebee 2
Well Location: ATP606P
State: QLD
Date: 20/02/2009
Test Type: Inflate - Straddle
Formation: Taroom CM
Interval: 241.50 - 262.82m
DST #: 3



Ticket #: T1909
TD: 424m
RT Elev: 304.35m
GL Elev: 300m
Testers: W. Murphy S. Brouillette

RECORDER DATA:

| | | | | | |
|-----------------------------|--------|--------|---------|--|--|
| Rec #: | 6861 | 6883 | 8330 | | |
| Range (psi): | 15K | 15K | 15K | | |
| Battery S/N: | D18062 | T18164 | D18107 | | |
| Depth (m): | 229.02 | 234.32 | 242.33 | | |
| | PSIG | PSIG | PSIG | | |
| Initial Hydrostatic: | 147.85 | 353.15 | 363.89 | | |
| Initial Preflow: | | 175.46 | 193.93 | | |
| Final Preflow: | | 227.69 | 263.93 | | |
| Initial Shutin: | 206.28 | 300.32 | 311.93 | | |
| Initial Flow: | | 232.97 | 248.44 | | |
| Final Flow: | | 294.17 | 304.58 | | |
| Final Shutin: | 274.20 | 301.27 | 312.44 | | |
| Final Hydrostatic: | 345.80 | 367.18 | 378.48 | | |
| Max. Temp during Test (°F): | 106.63 | 94.91 | 94.47 | | |
| Inside / Outside: | Fluid | Inside | Outside | | |

TIME DATA:

| | | Time Start | Time End |
|-----------------|----------|------------|----------|
| Preflow: | 5 mins | 15:08 | 15:13 |
| Initial Shutin: | 30 mins | 15:13 | 15:43 |
| Initial Flow: | 15 mins | 15:43 | 15:58 |
| Final Shutin: | 162 mins | 15:58 | 18:40 |

(24 hour time)

| | |
|-------------------|-------|
| Pick Up Tools: | 8:00 |
| RIH Pipe: | 11:30 |
| On Depth: | 14:00 |
| Open Tools: | 15:08 |
| Time Pulled: | 18:40 |
| Drop Bar: | 18:53 |
| POOH Pipe: | 19:40 |
| L/O Tools: | 21:00 |
| Finish L/O Tools: | 0:00 |

TOOL DATA:

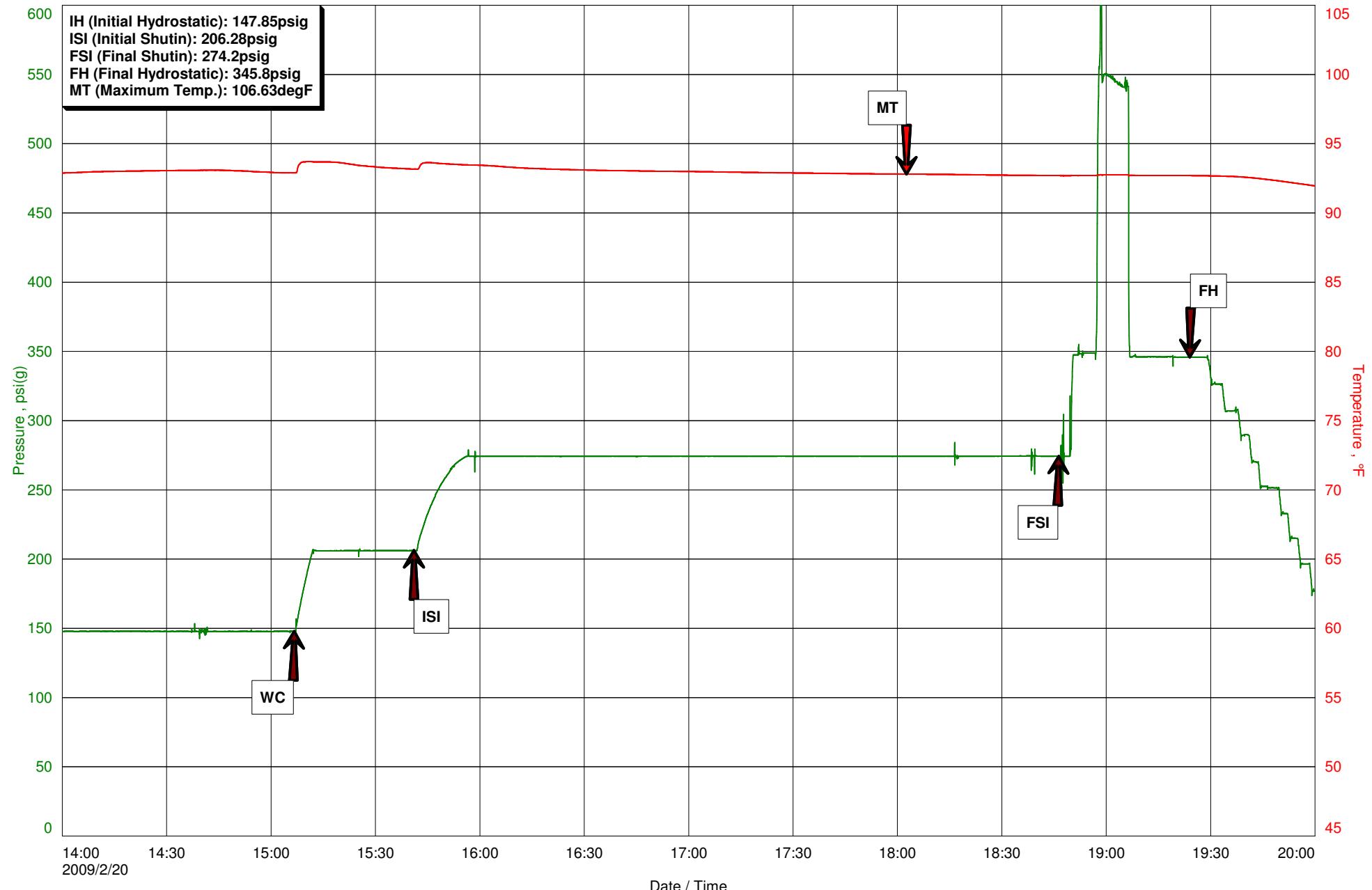
| Tool Weight | OD (in) | ID (in) | Length (m) | Cap. (bbls/ft) | Vol. (bbls) |
|-----------------------|------------------|---------|------------|----------------|-------------|
| 8 000 lb | Drill Pipe 1: | 4 | 3.34 | 157.34 | 0.0108 |
| Weight Set on Packers | Drill Pipe 2: | - | - | - | - |
| 20 000 lb | HW Drill Pipe 1: | - | - | 0.00 | - |
| Weight Pulled Free | HW Drill Pipe 2: | - | - | - | - |
| 10 000 lb | Drill Collars 1: | 4.75 | 2.25 | 76.66 | 0.0049 |
| Initial String Weight | Drill Collars 2: | - | - | - | - |
| 25 000 lb | Hole Size: | 8 1/2 | inches | | |

| | | | | | |
|--|--------------|---------------------|-------|-------------------------|-------------|
| <u>FLUID RECOVERY:</u> | | | | <u>MUD DATA:</u> | |
| 88 | m of | formation water | | Mud Type: | KCl/Polymer |
| | m of | | | Weight: | 9.0 ppg |
| | m of | | | Viscosity: | sec |
| | m of | | | W.L. | cc/30min |
| | | | | F.C. | /32" |
| | | | | Mud Drop: | |
| | | | | Flowed: | N/A bbls/hr |
| <u>BLOW DESCRIPTION AND REMARKS:</u> | | | | | |
| Preflow: 15:08 - Open tool. Moderate bubbles at top of bucket throughout flow. 15:13 - Close tool. | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Second Flow: 15:43 - Open tool. Moderate bubbles at top of bucket. 15:55 - Air blow reducing. 15:58 - Close tool. | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Surface Choke Size: inch | | | | | |
| Sample Chamber Recovery: | | | | | |
| Other Samples Taken: | | | | | |
| Comments: | | | | | |
| | | | | | |
| | | | | | |
| <u>GENERAL DATA:</u> | | | | | |
| Number of Packers: | 2 | Packer S/N: | 75002 | Packer S/N: | 75001 |
| Packer Size: | 7-1/2" x 66" | Location: | Top | Location: | Bottom |
| | | Condition OOH: | Good | Condition OOH: | Good |
| | | | | | |
| | | | | | |
| | | | | | |
| Prior operations: | Drilling | Cushion Amount (m): | 71 | BHT (°F): | 94.47 |
| Wiper Trip Performed: | No | Cushion Type: | Water | Company Rep: | E. Gardner |
| Amount of Fill (m): | N/A | Reversed Out: | Yes | Contractor: | Ensign |
| Hole Condition: | Good | Tool Chased: | No | Rig Number: | 48 |
| <u>GENERAL TEST COMMENTS:</u> | | | | | |

Origin Energy CSG
FLUID EMP REC WMG 6761 DEPTH 229.02m
Start Test Date: 2009/02/20

Meeleebee 2
Formation: TAROOM CM
Job Number: DST 3

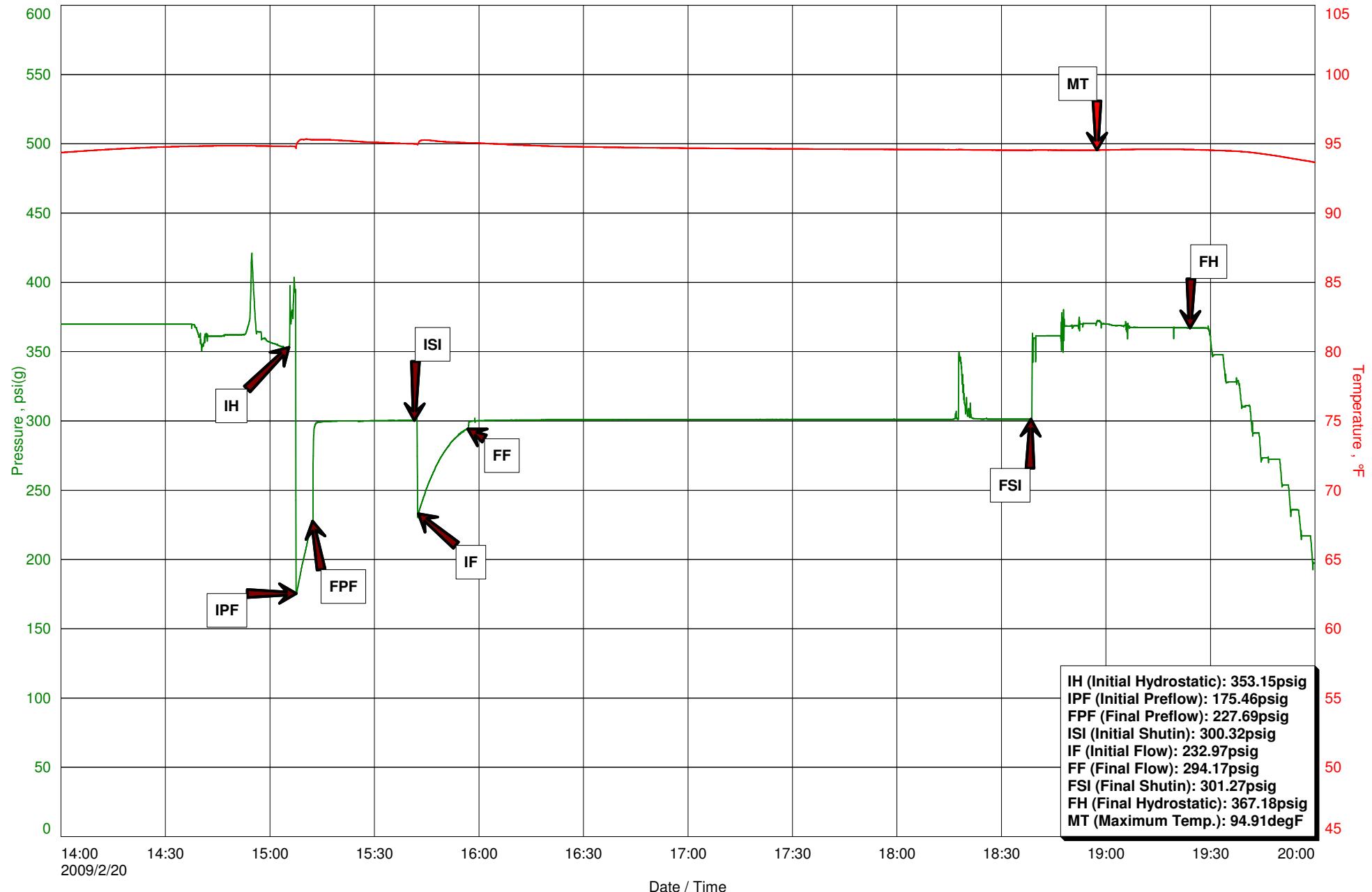
MEELEEBEE 2



Origin Energy CSG
INSIDE EMP REC WMG 6881 DEPTH 234.32m
Start Test Date: 2009/02/20

Meeleebee 2
Formation: TAROOM CM
Job Number: DST 3

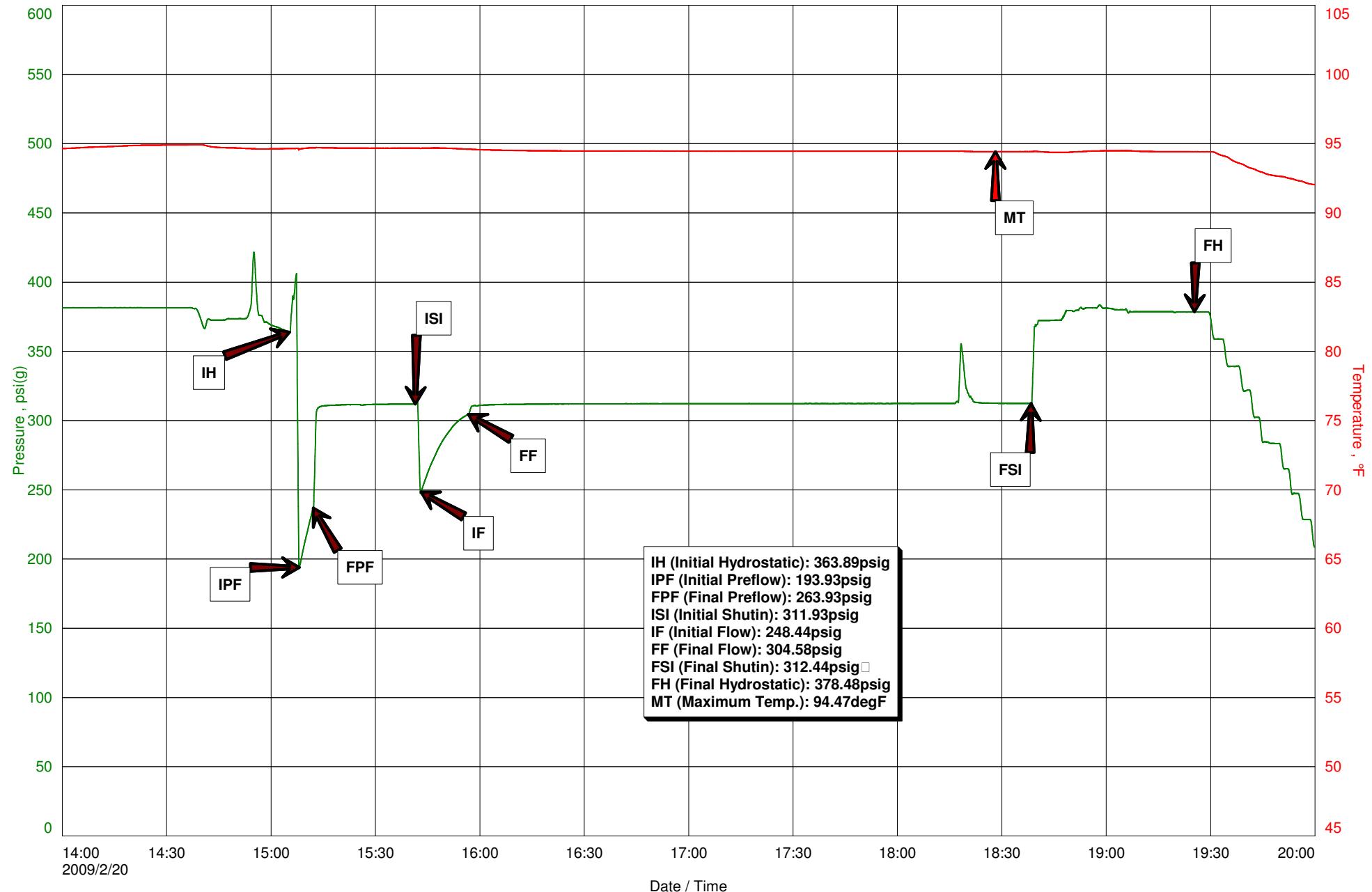
MEELEEBEE 2



Origin Energy CSG
OUTSIDE EMP REC WMG 8330 DEPTH 242.33m
Start Test Date: 2009/02/20

Meeleebee 2
Formation: TAROOM CM
Job Number: DST 3

MEELEESEE 2



APPENDIX 4 - CORE DATA



EARTH DATA

Geological & Earth Science Consultants

Origin Energy

Meeleebee 2

Gas Desorption Analysis
Report

Prepared by
Earth Data Pty Ltd
November 2009

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| Appendix II | Geological Logs, Graphics and Core Photos |
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Meeleebee 2

Gas Desorption Analysis Report

1. Introduction

During February 2009 Earth Data Pty Ltd were engaged by Origin Energy to provide gas desorption analysis services for core samples taken from the Meeleebee 2 corehole. This report provides procedural details and final results of the gas desorption analysis.

2. Desorption Services

Desorbable gas measurements were made on 95cm or 50cm long (approx.) HQ size (61.5mm diameter) wireline retrieved coal core samples taken from selected seams intersected in the hole.

Coal cores were placed in pressure tested gas tight canisters as soon as possible after reaching the surface. Measurements of desorbable gas were made at approximate reservoir temperature on the well site and ultimately at Earth Data's Maitland facility until instructed by Origin to cease canister desorption measurements. In general, desorption measurements continued for between 96 and 99 days. At the end of canister desorption the void space of each canister was measured using a reference cell, coal and non coal portions of each sample were weighed, the core photographed and selected representative sub samples were analysed for residual gas. Core samples were slabbed following residual gas analysis, with one quarter used for analytical purposes and the remainder packaged and returned to Origin.

2.1 Desorbable Gas (Q2)

Measurement of desorbable gas was performed at the well site and at Earth Data's Maitland facility using inverted water filled measuring cylinders¹. Gas was inlet above the inverted cylinder water level and bleed valves on the canisters were closed between successive readings to reduce the possibility of carbon dioxide absorption by the water in the inverted cylinders. Readings were made frequently to minimise pressure build up in canisters between successive readings. All measured desorbable gas was corrected to Standard Temperature and Pressure (STP – 293.15K and 1 Atmosphere) using the method described in

¹ This method is described completely in Australian Standard AS3980-1999 - "Guide to the Determination of Gas Content of Coal - Direct Desorption Method."

Australian Standard AS 3980-1999 with the exception that canister void space temperature was measured and not assumed equal to ambient temperature. The Q2 readings are included in Appendix I.

2.2 Lost Gas (Q1)

Lost gas was calculated using both the modified USBM method² using actual lost gas time, and the Smith and Williams method³.

Time zero was calculated assuming a normal formation pressure gradient and known mud weight and depth to determine the depth at which formation pressure equalled hydrostatic pressure. The time this depth was reached during the trip out was calculated by measuring the rate of wireline retrieval.

The modified USBM calculation of Q1 has been used for the total desorbable gas calculations of all samples.

2.3 Residual Gas (Q3)

Residual gas was measured immediately after removing the coal from the canister. Coal sub samples weighing approximately 200 grams were taken from the desorption samples and pulverised to liberate residual gas.

Corrections were made to the liberated gas volume for ambient air temperature and pressure changes and for void space temperature changes during crushing⁴. Ash and moisture analysis of the coal sample used to measure residual gas was carried out following crushing to allow reporting of the residual gas on a dry ash free basis. Q3 results are tabulated in Appendix I.

2.4 Total Desorbable Gas

The corrected gas volumes for lost, desorbable, and residual gas were equated to their relevant coal masses to produce as received (raw) results in m³/tonne. Ash, moisture and relative density analyses performed on a half core sub sample of the coal portion of each canister sample were used to correct raw lost and desorbable gas content results to a dry ash free (DAF) basis. The DAF lost, desorbable and residual gas contents were summed to give total desorbable gas content for each sample. In cases where more than one desorption sample was taken from a single seam the DAF mass percent of each desorption

² This calculation is described in Smith and Williams' paper - Direct Method of Determining the Methane Content of Coal - A Modification

³ This calculation is described in Smith and Williams' paper - A New Technique for Determining the Methane Content of Coal

⁴ Not covered by the Australian Standard

sample was used to calculate the weighted average dry ash free total desorbable gas content for the seam.

2.5 Gas Composition

No gas composition samples were taken for this well.

3. Results

Gas content results are presented in Table 1.

Lost, desorbable and remaining gas content results are presented in full in Appendix I.

| Sample ID | Seam | Top (mMD) | Base (mMD) | Thickness (m) | Desorption Sample Total Desorbable Gas (m ³ /tonne DAF) | Sorption Time (Days) |
|------------------|------|-----------|------------|---------------|--|----------------------|
| MEL2ED1511 | | 112.700 | 113.310 | 0.610 | 2.61 | 26.83 |
| MEL2ED1358 | | 115.280 | 116.000 | 0.720 | 2.78 | 15.68 |
| MEL2ED1363 | | 116.000 | 116.710 | 0.710 | 3.85 | 15.69 |
| Weighted Average | | 115.280 | 116.710 | 1.430 | 3.26 | |
| MEL2ED1367 | | 132.830 | 133.650 | 0.820 | 3.52 | 12.48 |
| MEL2ED1083 | | 136.550 | 137.060 | 0.510 | 4.32 | 12.49 |
| MEL2ED1374 | | 137.060 | 137.760 | 0.700 | 3.89 | 14.60 |
| Weighted Average | | 136.550 | 137.760 | 1.210 | 4.07 | |
| MEL2ED1589 | | 169.970 | 170.470 | 0.500 | 3.96 | 18.30 |
| MEL2ED1480 | | 172.690 | 173.160 | 0.470 | 3.48 | 20.32 |
| MEL2ED1471 | | 181.710 | 182.380 | 0.670 | 4.67 | 20.28 |
| MEL2ED1519 | | 203.960 | 204.510 | 0.550 | 3.89 | 20.12 |
| MEL2ED1533 | | 247.590 | 248.180 | 0.590 | 4.60 | 36.56 |
| MEL2ED1590 | | 248.950 | 249.480 | 0.530 | 5.06 | 10.66 |
| MEL2ED1361 | | 251.730 | 252.440 | 0.710 | 4.51 | 17.71 |
| MEL2ED1528 | | 254.570 | 255.310 | 0.740 | 4.10 | 26.62 |
| MEL2ED1373 | | 291.920 | 292.730 | 0.810 | 3.50 | 19.50 |
| MEL2ED1351 | | 292.730 | 293.520 | 0.790 | 3.27 | 19.49 |
| Weighted Average | | 291.920 | 293.520 | 1.600 | 3.39 | |
| MEL2ED1401 | | 304.520 | 305.200 | 0.680 | 3.08 | 19.44 |
| MEL2ED1340 | | 320.010 | 320.810 | 0.800 | 4.47 | 23.47 |
| MEL2ED1419 | | 322.170 | 322.780 | 0.610 | 3.26 | 30.21 |

Weighted average thickness may include up to 0.35m of non sampled strata between canister samples

Table 1: Desorption Sample Location and Gas Content

4. References

Australian Standard AS3980-1999 - "Guide to the Determination of Gas Content of Coal - Direct Desorption Method," Standards Australia, 33pp.

Smith, D. M. and Williams, F. L., 1981, "A New Method for Determining the Methane Content of Coal," Proceedings of the 16th Symposium of the Intersociety Energy Conversion Engineering Conference, Atlanta, Georgia, pp. 1267-1272

Smith, D. M. and Williams, F. L., 1981, "Direct Method of Determining the Methane Content of Coal - A Modification," Fuel, Vol. 63, pp. 425-427

Appendix I

Lost and Desorbable Gas Readings and Curves, Residual Gas Tabulations

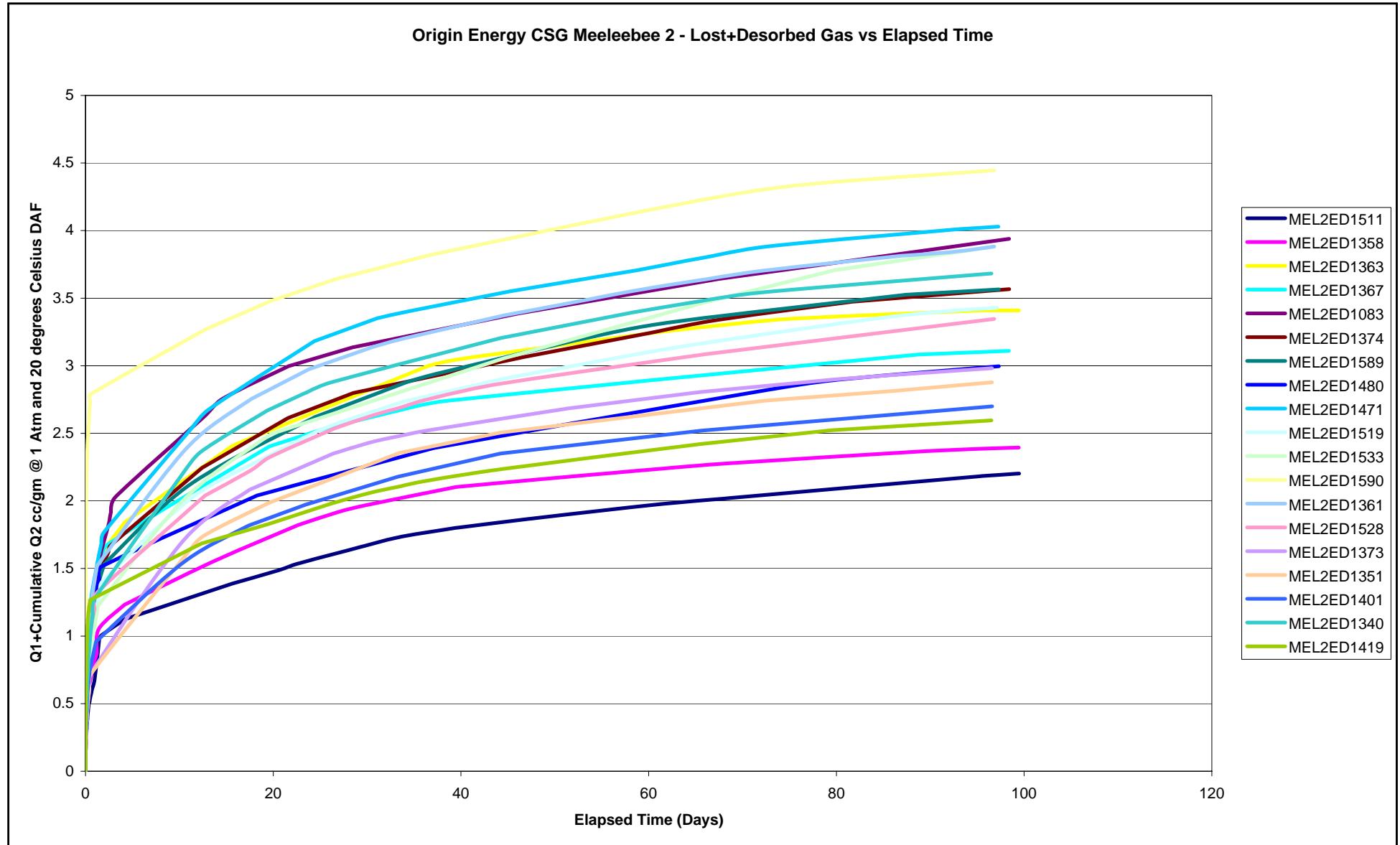
Origin Energy CSG Meeleebee 2 - Gas Desorption Analysis Summary

| Sample ID | Seam/Ply | Can Date | Depth Top (mMD) | Depth Base (mMD) | Thickness (m) | Q1 (m ³ /tonne) Raw | Q1 (m ³ /tonne) daf | Q2 (m ³ /tonne) Raw | Q2 (m ³ /tonne) daf | Q3 (m ³ /tonne) Raw | Q3 (m ³ /tonne) daf | # Total Gas Content (m ³ /tonne) Raw | Total Gas Content (m ³ /tonne) daf | Sorption Time (Days) | Diffusivity (sec ⁻¹) |
|------------|----------|------------|-----------------|------------------|---------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---|---|----------------------|----------------------------------|
| MEL2ED1511 | | 11/02/2009 | 112.700 | 113.310 | 0.610 | 0.09 | 0.12 | 1.60 | 2.08 | 0.31 | 0.41 | 2.01 | 2.61 | 26.83 | 6.08253E-06 |
| MEL2ED1358 | | 11/02/2009 | 115.280 | 116.000 | 0.720 | 0.12 | 0.18 | 1.44 | 2.21 | 0.29 | 0.39 | 1.83 | 2.78 | 15.68 | 1.01110E-05 |
| MEL2ED1363 | | 11/02/2009 | 116.000 | 116.710 | 0.710 | 0.18 | 0.28 | 2.00 | 3.13 | 0.33 | 0.44 | 2.50 | 3.85 | 15.69 | 1.15234E-05 |
| MEL2ED1367 | | 13/02/2009 | 132.830 | 133.650 | 0.820 | 0.19 | 0.35 | 1.52 | 2.76 | 0.26 | 0.41 | 1.95 | 3.52 | 12.48 | 1.49699E-05 |
| MEL2ED1083 | | 13/02/2009 | 136.550 | 137.060 | 0.510 | 0.29 | 0.37 | 2.79 | 3.57 | 0.31 | 0.38 | 3.40 | 4.32 | 12.49 | 1.27118E-05 |
| MEL2ED1374 | | 13/02/2009 | 137.060 | 137.760 | 0.700 | 0.24 | 0.29 | 2.69 | 3.28 | 0.26 | 0.32 | 3.19 | 3.89 | 14.60 | 8.91677E-06 |
| MEL2ED1589 | | 14/02/2009 | 169.970 | 170.470 | 0.500 | 0.29 | 0.34 | 2.80 | 3.23 | 0.34 | 0.39 | 3.43 | 3.96 | 18.30 | 1.77871E-05 |
| MEL2ED1480 | | 14/02/2009 | 172.690 | 173.160 | 0.470 | 0.27 | 0.35 | 2.08 | 2.65 | 0.38 | 0.48 | 2.74 | 3.48 | 20.32 | 2.06575E-05 |
| MEL2ED1471 | | 14/02/2009 | 181.710 | 182.380 | 0.670 | 0.26 | 0.36 | 2.71 | 3.67 | 0.43 | 0.64 | 3.42 | 4.67 | 20.28 | 1.07840E-05 |
| MEL2ED1519 | | 14/02/2009 | 203.960 | 204.510 | 0.550 | 0.18 | 0.26 | 2.18 | 3.17 | 0.33 | 0.46 | 2.70 | 3.89 | 20.12 | 1.15034E-05 |
| MEL2ED1533 | | 14/02/2009 | 247.590 | 248.180 | 0.590 | 0.25 | 0.28 | 3.16 | 3.60 | 0.64 | 0.72 | 4.04 | 4.60 | 36.56 | 6.15002E-06 |
| MEL2ED1590 | | 14/02/2009 | 248.950 | 249.480 | 0.530 | 1.20 | 1.44 | 2.52 | 3.01 | 0.51 | 0.61 | 4.23 | 5.06 | 10.66 | 1.37444E-04 |
| MEL2ED1361 | | 14/02/2009 | 251.730 | 252.440 | 0.710 | 0.28 | 0.36 | 2.73 | 3.52 | 0.43 | 0.63 | 3.46 | 4.51 | 17.71 | 9.76481E-06 |
| MEL2ED1528 | | 14/02/2009 | 254.570 | 255.310 | 0.740 | 0.27 | 0.32 | 2.57 | 3.02 | 0.65 | 0.76 | 3.49 | 4.10 | 26.62 | 9.17254E-06 |
| MEL2ED1373 | | 15/02/2009 | 291.920 | 292.730 | 0.810 | 0.05 | 0.07 | 1.99 | 2.91 | 0.40 | 0.52 | 2.41 | 3.50 | 19.50 | 3.65620E-06 |
| MEL2ED1351 | | 15/02/2009 | 292.730 | 293.520 | 0.790 | 0.06 | 0.08 | 1.92 | 2.79 | 0.33 | 0.40 | 2.28 | 3.27 | 19.49 | 4.39620E-06 |
| MEL2ED1401 | | 15/02/2009 | 304.520 | 305.200 | 0.680 | 0.18 | 0.24 | 1.83 | 2.46 | 0.31 | 0.38 | 2.30 | 3.08 | 19.44 | 8.67411E-06 |
| MEL2ED1340 | | 15/02/2009 | 320.010 | 320.810 | 0.800 | 0.20 | 0.26 | 2.61 | 3.43 | 0.69 | 0.78 | 3.45 | 4.47 | 23.47 | 5.64271E-06 |
| MEL2ED1419 | | 15/02/2009 | 322.170 | 322.780 | 0.610 | 0.35 | 0.45 | 1.66 | 2.14 | 0.54 | 0.67 | 2.53 | 3.26 | 30.21 | 3.59970E-05 |

Raw Total Gas Content is calculated from the daf Total Gas Content using moisture and ash values from both the desorption sample and the sub sample used to measure residual gas.

Origin Energy CSG Meeleebee 2 Residual Gas Calculation

| Sample ID | Sample Mass (g) | Absolute Ambient Air Pressure at Sealing (hPa) | Ambient Air Temperature at Sealing (°C) | Internal Mill Temperature at Sealing (°C) | Milling Duration (seconds) | Measured Gas Volume (cc) | Height of Water in Measuring Cylinder Above Reservoir Level (mm) | Absolute Ambient Air Pressure at Bleeding (hPa) | Ambient Air Temperature at Bleeding (°C) | Internal Mill Temperature at Bleeding (°C) | Head Space Correction (cc) | Raw Residual Gas Volume @ 1 Atm and 20 deg C (cc) | Head Space Corrected Raw Residual Gas Volume @ 1 Atm and 20 deg C (cc) | Percentage of Sample <212 µm | ADB Ash Percentage of <212 µm Fraction | ADB Moisture Percentage of <212 µm Fraction | Raw Residual Gas Content @ 1 Atm and 20 deg C (cc/gm) | Dry Ash Free Residual Gas Content @ 1 Atm and 20 deg C (cc/gm) | Comment |
|------------|-----------------|--|---|---|----------------------------|--------------------------|--|---|--|--|----------------------------|---|--|------------------------------|--|---|---|--|---------|
| MEL2ED1511 | 200 | 1024.6 | 20.7 | 22.5 | 90 | 95 | 262 | 1024.6 | 20.9 | 26.0 | 32.2 | 93.4 | 61.1 | 100.0 | 17.5 | 7.5 | 0.31 | 0.41 | |
| MEL2ED1358 | 200 | 1024.6 | 21.0 | 23.5 | 90 | 100 | 262 | 1024.8 | 20.9 | 29.7 | 40.0 | 98.3 | 58.3 | 100.0 | 18.5 | 6.0 | 0.29 | 0.39 | |
| MEL2ED1363 | 200 | 1024.6 | 20.9 | 27.2 | 90 | 100 | 262 | 1024.6 | 20.9 | 31.0 | 33.0 | 98.3 | 65.3 | 100.0 | 18.2 | 7.5 | 0.33 | 0.44 | |
| MEL2ED1367 | 200 | 1023.1 | 20.6 | 24.2 | 90 | 85 | 264 | 1023.1 | 20.7 | 27.5 | 31.8 | 83.5 | 51.7 | 100.0 | 29.5 | 7.2 | 0.26 | 0.41 | |
| MEL2ED1083 | 200 | 1021.4 | 21.3 | 23.0 | 90 | 100 | 261 | 1021.4 | 21.3 | 27.8 | 36.1 | 97.9 | 61.8 | 100.0 | 12.1 | 5.9 | 0.31 | 0.38 | |
| MEL2ED1374 | 200 | 1021.4 | 21.4 | 26.0 | 90 | 95 | 264 | 1021.4 | 21.4 | 32.1 | 40.0 | 92.9 | 52.9 | 100.0 | 12.3 | 6.2 | 0.26 | 0.32 | |
| MEL2ED1589 | 200 | 1021.0 | 21.8 | 29.3 | 90 | 100 | 260 | 1021.2 | 21.8 | 32.4 | 30.6 | 97.7 | 67.1 | 100.0 | 7.9 | 6.4 | 0.34 | 0.39 | |
| MEL2ED1480 | 200 | 1020.6 | 21.7 | 26.9 | 90 | 110 | 260 | 1021.0 | 21.7 | 30.6 | 32.2 | 107.5 | 75.2 | 100.0 | 13.1 | 8.2 | 0.38 | 0.48 | |
| MEL2ED1471 | 200 | 1021.4 | 21.6 | 31.1 | 90 | 120 | 264 | 1021.8 | 21.4 | 34.3 | 31.0 | 117.4 | 86.4 | 100.0 | 26.8 | 5.9 | 0.43 | 0.64 | |
| MEL2ED1519 | 200 | 1021.6 | 21.7 | 31.8 | 90 | 100 | 265 | 1021.6 | 21.6 | 34.8 | 30.8 | 97.8 | 66.9 | 100.0 | 19.9 | 6.6 | 0.33 | 0.46 | |
| MEL2ED1533 | 200 | 1021.8 | 21.0 | 31.9 | 90 | 160 | 250 | 1022.0 | 21.0 | 34.6 | 28.5 | 157.0 | 128.5 | 100.0 | 6.4 | 4.9 | 0.64 | 0.72 | |
| MEL2ED1590 | 200 | 1022.0 | 20.8 | 32.1 | 90 | 130 | 255 | 1022.2 | 21.2 | 33.9 | 26.3 | 127.5 | 101.1 | 100.0 | 11.4 | 5.3 | 0.51 | 0.61 | |
| MEL2ED1361 | 200 | 1022.3 | 21.3 | 28.5 | 90 | 130 | 255 | 1022.3 | 21.3 | 35.6 | 41.9 | 127.4 | 85.5 | 100.0 | 27.9 | 4.3 | 0.43 | 0.63 | |
| MEL2ED1528 | 200 | 1022.3 | 20.4 | 27.3 | 90 | 180 | 246 | 1022.3 | 21.1 | 36.2 | 46.4 | 176.7 | 130.3 | 100.0 | 9.4 | 5.1 | 0.65 | 0.76 | |
| MEL2ED1373 | 200 | 1023.1 | 20.9 | 23.6 | 90 | 120 | 259 | 1023.1 | 20.9 | 29.2 | 38.2 | 117.8 | 79.7 | 100.0 | 16.9 | 6.3 | 0.40 | 0.52 | |
| MEL2ED1351 | 200 | 1022.7 | 21.1 | 32.9 | 90 | 100 | 262 | 1022.7 | 21.1 | 36.2 | 31.4 | 98.1 | 66.7 | 100.0 | 11.3 | 5.8 | 0.33 | 0.40 | |
| MEL2ED1401 | 200 | 1023.3 | 20.9 | 27.5 | 90 | 100 | 262 | 1023.3 | 21.0 | 32.7 | 37.0 | 98.1 | 61.1 | 100.0 | 14.7 | 5.7 | 0.31 | 0.38 | |
| MEL2ED1340 | 200 | 1023.5 | 20.9 | 32.2 | 90 | 180 | 246 | 1023.5 | 20.9 | 38.7 | 39.1 | 177.0 | 137.9 | 100.0 | 5.5 | 6.2 | 0.69 | 0.78 | |
| MEL2ED1419 | 200 | 1023.3 | 21.0 | 30.9 | 90 | 150 | 253 | 1023.3 | 21.0 | 37.0 | 38.7 | 147.4 | 108.7 | 100.0 | 13.4 | 5.9 | 0.54 | 0.67 | |

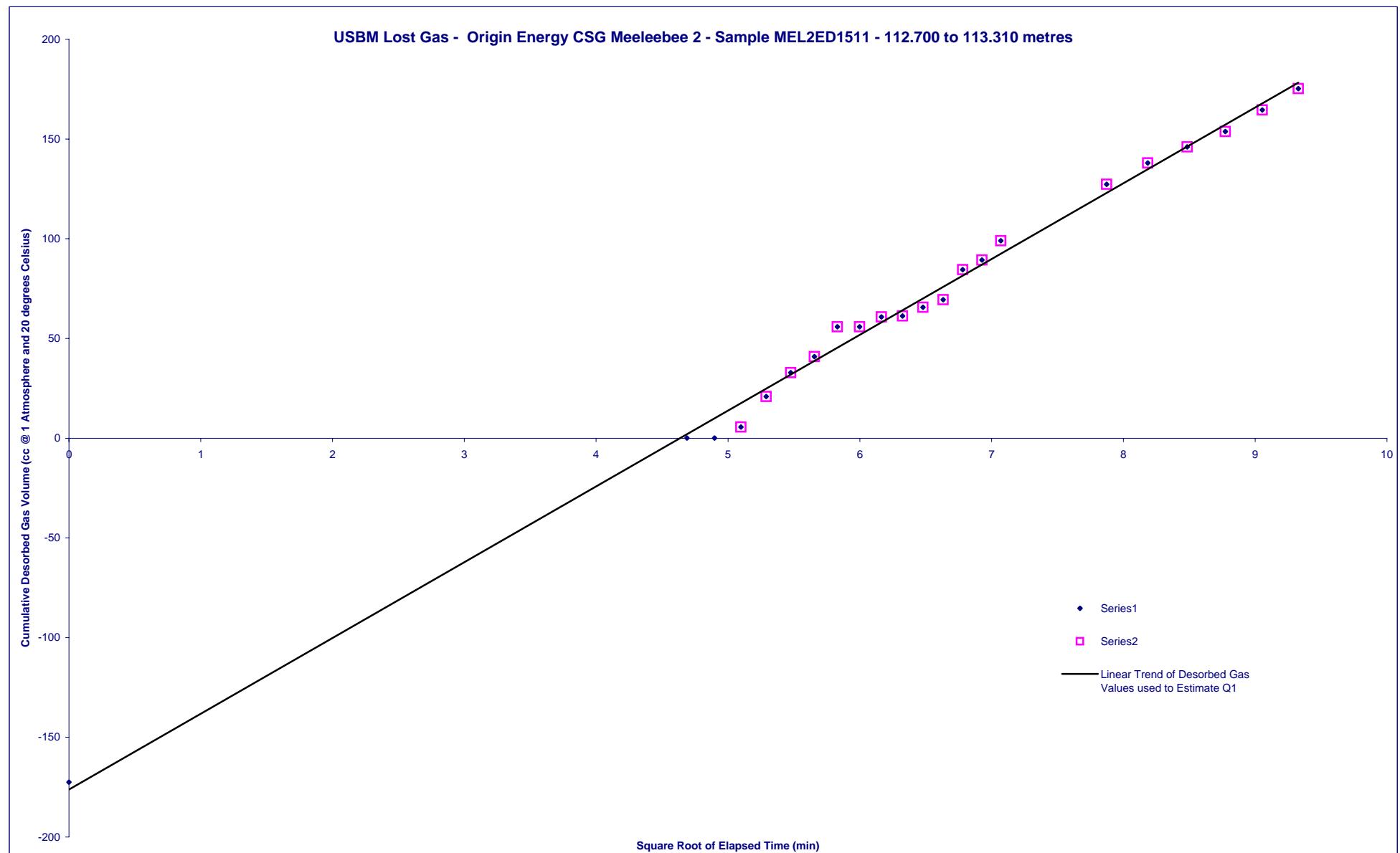


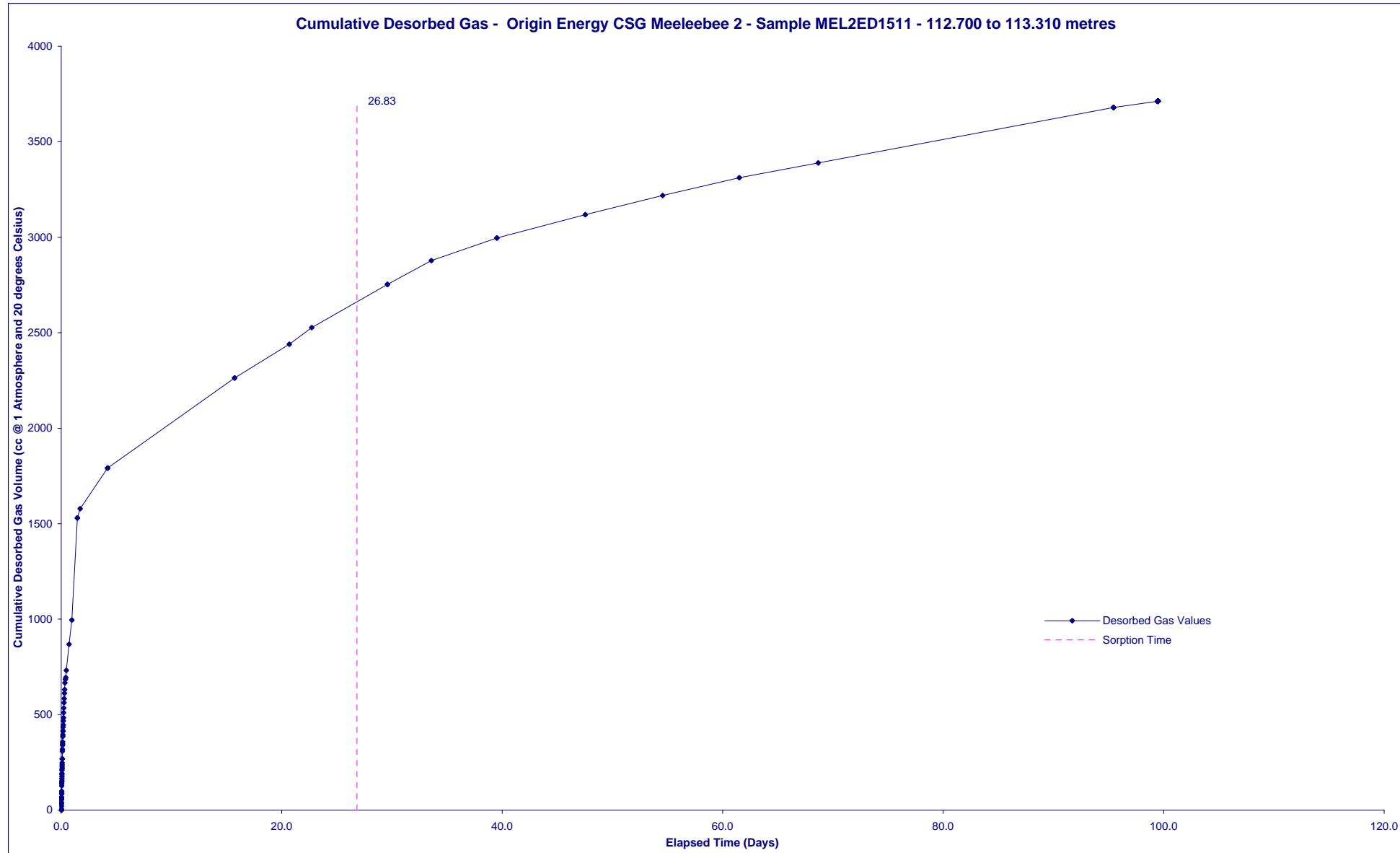
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1511 - 112.700 to 113.310 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | |
|---|---------------------|-------------------|---------------------|---|-------------------------|-------------------------------------|-------------------------|---------------------------|
| Sample ID | MEL2ED1511 | Sample Type | Core | Sample Top (m) | 112.700 | Sample Base (m) | 113.310 | |
| Sample Volume (cc) | 1812 | Mass (g) | 2318 | RD (g/cc) | 1.36 | Moisture (%ad) | 7.3 | |
| Q3 Volume (cc@STP) | 61.15 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 7.5 | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1658 | |
| Date and Time | DD/MM/YY | HH:MM | | Mud Weight (ppg) | 8.3454 | Trip Rate (m/min) | 16.2 | |
| Sample Penetrated | 11/02/2009 | 20:37 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 1.10 | Surface Time Ratio | 0.682 | |
| Sample Off Bottom | 11/02/2009 | 20:51 | | Formation Pressure Gradient (psi/ft) | 0.433 | Lost Time Ratio | 0.022 | |
| Sample at Surface | 11/02/2009 | 20:58 | | Depth HSP=Formation Pressure (m) | 112.56 | USBM Q1 - Surface Time Correction | 1.225 | |
| Sample Sealed | 11/02/2009 | 21:13 | | Formation Temperature (°C) | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | |
| Time Zero | 11/02/2009 | 20:51 | | Standard Temperature (°C) | 20.00 | Comments: | Q1 Points Plotted | |
| Last Entry | 22/05/2009 | 8:03 | | Standard Pressure (hPa) | 1013 | | 20 | |
| | | | | | | | -172 | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | |
| m³ | 0.000 | 0.000 | 0.000 | 0.004 | 0.000 | 0.000 | 0.000 | |
| m³/tonne (raw) | 0.07 | 0.09 | 0.00 | 1.60 | 0.31 | 1.980 | 2.000 | |
| SCF/T (raw) | 2 | 3 | 0 | 51 | 10 | 63.480 | 64.020 | |
| m³/tonne (daf) | 0.10 | 0.12 | 0.00 | 2.08 | 0.41 | 2.59 | 2.61 | |
| SCF/T (daf) | 3 | 4 | 0 | 67 | 13 | 83 | 83 | |
| Percent of daf total | 3.73% | 4.54% | 0.00% | 79.69% | Sorption Time (days) | 26.83 | Diffusivity (sec⁻¹) | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size |
| 11/02/2009 | 21:13:00 | | 26.9 | 22.4 | 979.0 | 100 | 100 | 2 |
| 11/02/2009 | 21:15:00 | | 28.7 | 22.4 | 980.0 | 100 | 170 | 2 |
| 11/02/2009 | 21:17:00 | | 29.5 | 22.4 | 980.0 | 170 | 180 | 2 |
| 11/02/2009 | 21:19:00 | | 30.3 | 22.4 | 980.0 | 180 | 200 | 2 |
| 11/02/2009 | 21:21:00 | | 30.8 | 22.4 | 980.0 | 200 | 215 | 2 |
| 11/02/2009 | 21:23:00 | | 31.8 | 22.4 | 979.2 | 215 | 230 | 2 |
| 11/02/2009 | 21:25:00 | | 31.9 | 22.4 | 979.8 | 230 | 245 | 2 |
| 11/02/2009 | 21:27:00 | | 32.3 | 22.4 | 980.0 | 245 | 245 | 2 |
| 11/02/2009 | 21:29:00 | | 32.3 | 22.4 | 980.0 | 245 | 250 | 2 |
| 11/02/2009 | 21:31:00 | | 32.2 | 22.4 | 980.0 | 250 | 250 | 2 |
| 11/02/2009 | 21:33:00 | | 32.3 | 22.4 | 980.0 | 250 | 255 | 2 |
| 11/02/2009 | 21:35:00 | | 32.3 | 22.4 | 979.4 | 255 | 260 | 2 |
| 11/02/2009 | 21:37:00 | | 32.4 | 22.4 | 980.0 | 260 | 275 | 2 |
| 11/02/2009 | 21:39:00 | | 32.4 | 22.4 | 980.0 | 275 | 280 | 2 |
| 11/02/2009 | 21:41:00 | | 32.4 | 22.4 | 980.0 | 280 | 290 | 2 |
| 11/02/2009 | 21:53:00 | | 32.7 | 21.9 | 980.4 | 290 | 320 | 2 |
| 11/02/2009 | 21:58:00 | | 34.3 | 21.8 | 980.0 | 320 | 340 | 2 |
| 11/02/2009 | 22:03:00 | | 34.7 | 21.7 | 980.2 | 340 | 350 | 2 |
| 11/02/2009 | 22:08:00 | | 35.1 | 21.6 | 980.2 | 350 | 360 | 2 |
| 11/02/2009 | 22:13:00 | | 34.9 | 21.6 | 980.2 | 360 | 370 | 2 |
| 11/02/2009 | 22:18:00 | | 34.7 | 21.6 | 980.2 | 370 | 380 | 2 |
| 11/02/2009 | 22:23:00 | | 34.7 | 21.5 | 980.2 | 380 | 390 | 2 |
| 11/02/2009 | 22:28:00 | | 35.1 | 21.4 | 980.2 | 390 | 400 | 2 |
| 11/02/2009 | 22:33:00 | | 35.8 | 21.3 | 980.2 | 400 | 420 | 2 |
| 11/02/2009 | 22:38:00 | | 36.3 | 21.3 | 980.2 | 420 | 430 | 2 |
| 11/02/2009 | 22:43:00 | | 36.3 | 21.2 | 980.2 | 430 | 440 | 2 |
| 11/02/2009 | 22:48:00 | | 36.1 | 21.2 | 980.2 | 440 | 450 | 2 |
| 11/02/2009 | 22:53:00 | | 35.8 | 21.6 | 980.2 | 450 | 460 | 2 |
| 11/02/2009 | 23:03:00 | | 35.5 | 20.8 | 980.2 | 460 | 480 | 2 |
| 11/02/2009 | 23:12:00 | | 36.8 | 20.7 | 980.2 | 480 | 480 | 2 |
| 11/02/2009 | 23:23:00 | | 35.9 | 20.8 | 980.2 | 480 | 515 | 2 |
| 11/02/2009 | 23:33:00 | | 35.8 | 20.8 | 980.2 | 515 | 525 | 2 |
| Can Void Calculation | | | | | | | | |
| <input type="radio"/> Volumetric | | | | | | | | |
| <input checked="" type="radio"/> He Reference | | | | | | | | |
| Time Zero Calculation | | | | | | | | |
| <input checked="" type="radio"/> Auto | | | | | | | | |
| <input type="radio"/> Manual | | | | | | | | |
| <input type="radio"/> Cut Time | | | | | | | | |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1511 - 112.700 to 113.310 metres

| Date DD/MM/YY | Time HH:MM | Canister | Temperature (°C) | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|----------|------------------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 11/02/2009 | 23:43:00 | | 36.3 | 20.3 | 980.2 | 525 | 550 | 2 | 340 |
| 11/02/2009 | 23:53:00 | | 37.1 | 20.1 | 980.6 | 550 | 560 | 2 | 347 |
| 12/02/2009 | 0:03:00 | | 37.1 | 20.1 | 980.6 | 560 | 570 | 2 | 357 |
| 12/02/2009 | 0:13:00 | | 36.9 | 20.0 | 980.0 | 570 | 600 | 2 | 386 |
| 12/02/2009 | 0:30:00 | | 37.4 | 19.8 | 980.6 | 600 | 610 | 2 | 395 |
| 12/02/2009 | 0:40:00 | | 36.7 | 19.6 | 980.6 | 610 | 625 | 2 | 413 |
| 12/02/2009 | 0:50:00 | | 37.1 | 19.6 | 980.2 | 625 | 630 | 2 | 415 |
| 12/02/2009 | 1:00:00 | | 37.3 | 19.5 | 980.0 | 630 | 650 | 2 | 434 |
| 12/02/2009 | 1:15:00 | | 36.7 | 18.1 | 979.8 | 650 | 660 | 2 | 446 |
| 12/02/2009 | 1:30:00 | | 36.7 | 18.1 | 980.2 | 660 | 680 | 2 | 467 |
| 12/02/2009 | 1:45:00 | | 37.4 | 17.7 | 980.6 | 680 | 700 | 2 | 484 |
| 12/02/2009 | 2:00:00 | | 36.8 | 20.6 | 980.0 | 700 | 725 | 2 | 511 |
| 12/02/2009 | 2:30:00 | | 36.9 | 21.1 | 980.0 | 725 | 750 | 2 | 535 |
| 12/02/2009 | 3:00:00 | | 37.0 | 23.3 | 979.2 | 750 | 780 | 2 | 563 |
| 12/02/2009 | 3:30:00 | | 36.7 | 23.5 | 979.6 | 780 | 800 | 2 | 585 |
| 12/02/2009 | 4:00:00 | | 36.1 | 23.6 | 979.8 | 800 | 825 | 2 | 612 |
| 12/02/2009 | 4:30:00 | | 37.2 | 23.1 | 979.8 | 825 | 850 | 2 | 632 |
| 12/02/2009 | 5:00:00 | | 36.3 | 22.5 | 980.4 | 850 | 880 | 2 | 667 |
| 12/02/2009 | 6:00:00 | | 36.9 | 22.4 | 981.3 | 880 | 900 | 2 | 685 |
| 12/02/2009 | 7:00:00 | | 36.3 | 24.6 | 981.9 | 100 | 150 | 2 | 694 |
| 12/02/2009 | 8:00:00 | | 36.3 | 26.1 | 981.9 | 150 | 190 | 2 | 732 |
| 12/02/2009 | 14:00:00 | | 37.1 | 30.2 | 978.5 | 100 | 260 | 2 | 869 |
| 12/02/2009 | 20:00:00 | | 37.9 | 22.7 | 980.6 | 100 | 240 | 2 | 995 |
| 13/02/2009 | 2:00:00 | | 38.5 | 21.9 | 981.7 | 100 | 200 | 2 | 1083 |
| 13/02/2009 | 8:00:00 | | 35.6 | 21.9 | 981.7 | 200 | 640 | 2 | 1530 |
| 13/02/2009 | 14:00:00 | | 36.3 | 24.3 | 977.7 | 640 | 700 | 2 | 1579 |
| 15/02/2009 | 2:03:00 | | 37.2 | 22.9 | 978.5 | 100 | 210 | 2 | 1649 |
| 15/02/2009 | 14:00:00 | | 35.5 | 31.7 | 978.8 | 100 | 170 | 2 | 1717 |
| 16/02/2009 | 2:00:00 | | 37.4 | 21.9 | 978.8 | 100 | 190 | 2 | 1791 |
| 25/02/2009 | 11:10:00 | | 33.7 | 28.7 | 1025.8 | 200 | 450 | 2 | 2135 |
| 27/02/2009 | 14:05:00 | | 33.2 | 27.2 | 1025.1 | 200 | 340 | 2 | 2263 |
| 04/03/2009 | 13:15:00 | | 34.3 | 28.9 | 1014.3 | 200 | 410 | 2 | 2439 |
| 06/03/2009 | 14:00:00 | | 34.6 | 25.9 | 1020.8 | 200 | 290 | 2 | 2527 |
| 10/03/2009 | 16:43:00 | | 28.8 | 25.4 | 1029.7 | 200 | 280 | 2 | 2647 |
| 13/03/2009 | 11:02:00 | | 34.1 | 25.9 | 1028.0 | 200 | 340 | 2 | 2753 |
| 17/03/2009 | 10:32:00 | | 34.3 | 24.9 | 1029.0 | 200 | 330 | 2 | 2877 |
| 20/03/2009 | 11:59:00 | | 32.7 | 27.6 | 1027.2 | 200 | 250 | 2 | 2926 |
| 23/03/2009 | 9:18:00 | | 32.5 | 22.5 | 1028.2 | 200 | 270 | 2 | 2997 |
| 31/03/2009 | 9:42:00 | | 31.1 | 23.2 | 1020.2 | 200 | 330 | 2 | 3118 |
| 07/04/2009 | 10:16:00 | | 31.1 | 22.1 | 1024.3 | 200 | 300 | 2 | 3219 |
| 14/04/2009 | 9:02:00 | | 31.9 | 23.1 | 1013.5 | 200 | 320 | 2 | 3312 |
| 21/04/2009 | 12:58:00 | | 33.1 | 23.7 | 1019.5 | 200 | 280 | 2 | 3389 |
| 28/04/2009 | 10:50:00 | | 28.9 | 23.4 | 1015.2 | 1000 | 1060 | 2 | 3505 |
| 05/05/2009 | 14:06:00 | | 32.1 | 21.1 | 1029.6 | 200 | 275 | 2 | 3541 |
| 12/05/2009 | 14:32:00 | | 32.1 | 21.1 | 1017.2 | 200 | 280 | 2 | 3597 |
| 18/05/2009 | 7:48:00 | | 31.6 | 15.4 | 1024.1 | 200 | 270 | 2 | 3679 |
| 22/05/2009 | 8:03:00 | | 31.1 | 23.1 | 1020.5 | 200 | 240 | 2 | 3712 |



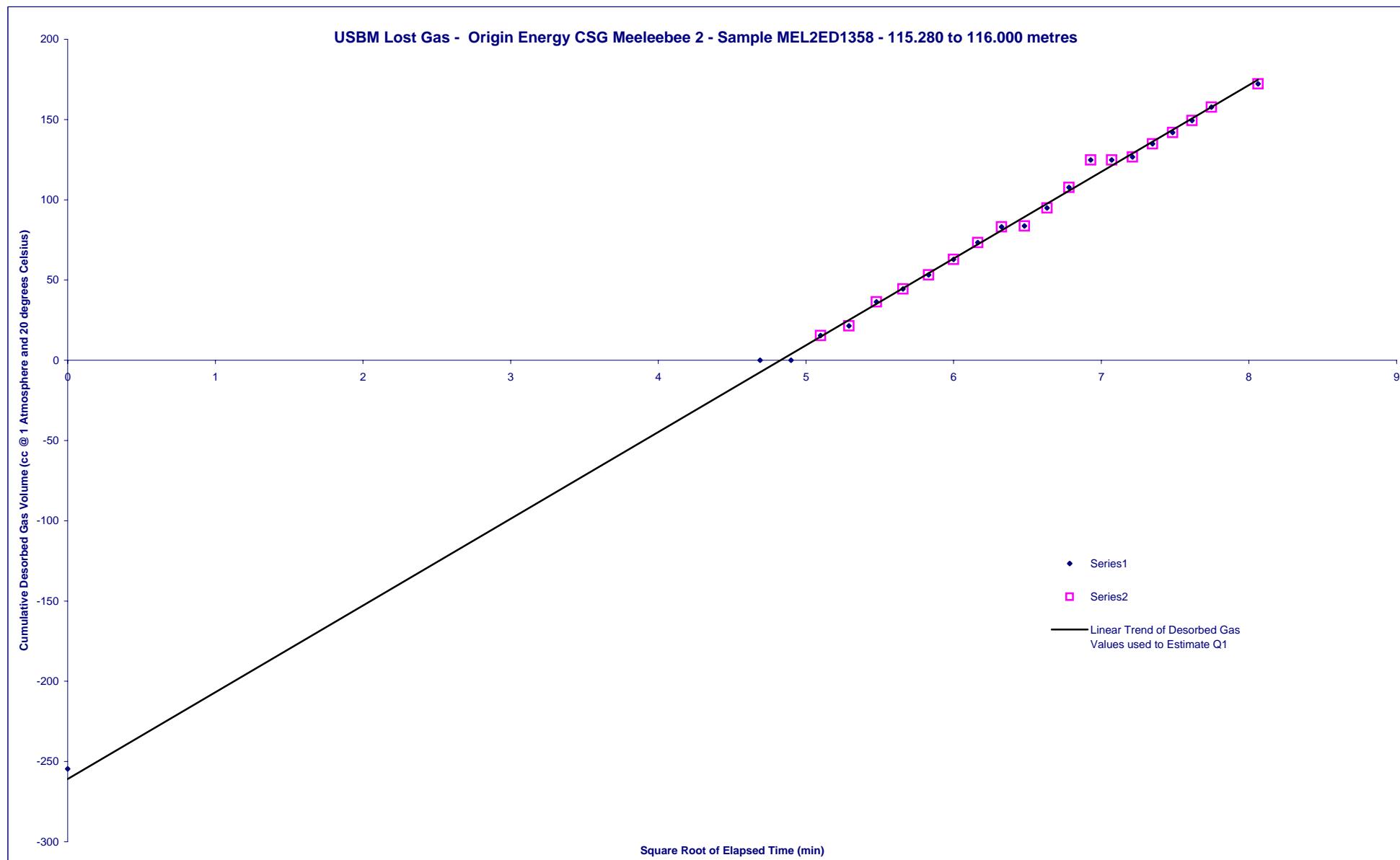


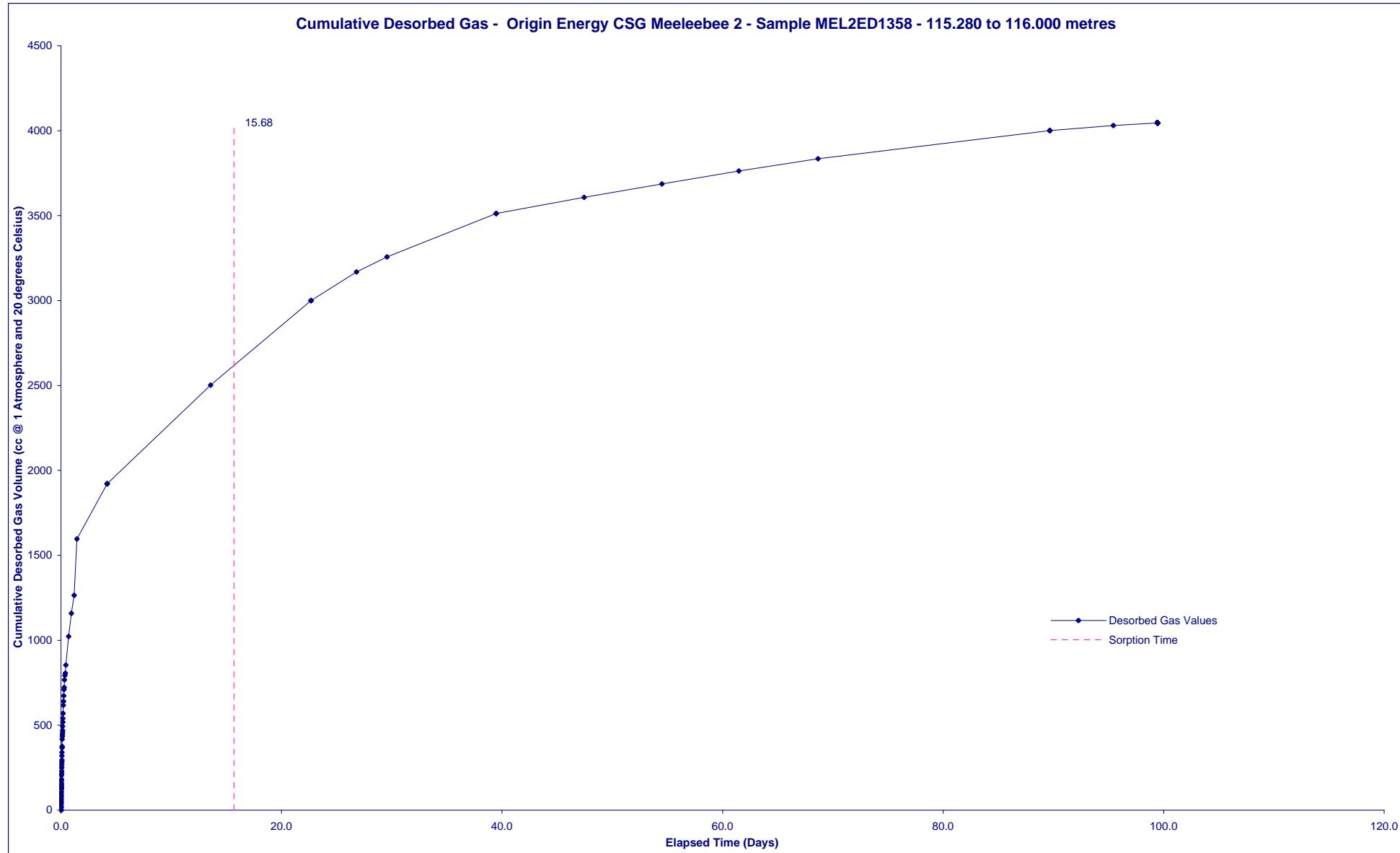
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1358 - 115.280 to 116.000 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | |
|----------------------|---------------------|-------------------|---|-----------------|-------------------------|-------------------------------------|-------------------------|---------------------------|
| Sample ID | MEL2ED1358 | Sample Type | Core | Sample Top (m) | 115.280 | Sample Base (m) | 116.000 | |
| Sample Volume (cc) | 2139 | Mass (g) | 2806 | RD (g/cc) | 1.46 | Moisture (%ad) | 5.9 | |
| Q3 Volume (cc@STP) | 58.34 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 6 | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1452 | |
| Date and Time | DD/MM/YY HH:MM | | Mud Weight (ppg) | 8.3454 | | Trip Rate (m/min) | 23.2 | |
| Sample Penetrated | 11/02/2009 21:14 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 1.13 | | Surface Time Ratio | 0.773 | |
| Sample Off Bottom | 11/02/2009 21:32 | | Formation Pressure Gradient (psi/ft) | 0.433 | | Lost Time Ratio | 0.036 | |
| Sample at Surface | 11/02/2009 21:37 | | Depth HSP=Formation Pressure (m) | 115.14 | | USBM Q1 - Surface Time Correction | 1.27 | |
| Sample Sealed | 11/02/2009 21:54 | | Formation Temperature (°C) | | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | |
| Time Zero | 11/02/2009 21:32 | | Standard Temperature (°C) | 20.00 | Comments: | | 20 | |
| Last Entry | 22/05/2009 8:03 | | Standard Pressure (hPa) | 1013 | | | -255 | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | |
| m³ | 0.000 | 0.000 | 0.000 | 0.004 | 0.000 | 0.000 | 0.000 | |
| m³/tonne (raw) | 0.09 | 0.12 | 0.00 | 1.44 | 0.29 | 1.820 | 1.850 | |
| SCF/T (raw) | 3 | 4 | 0 | 46 | 9 | 58.460 | 59.240 | |
| m³/tonne (daf) | 0.14 | 0.18 | 0.00 | 2.21 | 0.39 | 2.74 | 2.78 | |
| SCF/T (daf) | 4 | 6 | 0 | 71 | 12 | 88 | 89 | |
| Percent of daf total | 5.08% | 6.36% | 0.00% | 79.56% | Sorption Time (days) | 15.68 | Diffusivity (sec⁻¹) | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size |
| 11/02/2009 | 21:54:00 | | 32.3 | 21.9 | 979.8 | 100 | 100 | 2 |
| 11/02/2009 | 21:56:00 | | 33.5 | 21.9 | 980.2 | 100 | 160 | 2 |
| 11/02/2009 | 21:58:00 | | 34.3 | 21.8 | 980.0 | 160 | 180 | 2 |
| 11/02/2009 | 22:00:00 | | 35.1 | 21.7 | 980.0 | 180 | 190 | 2 |
| 11/02/2009 | 22:02:00 | | 36.1 | 21.8 | 980.0 | 190 | 210 | 2 |
| 11/02/2009 | 22:04:00 | | 36.5 | 21.7 | 980.2 | 210 | 220 | 2 |
| 11/02/2009 | 22:06:00 | | 36.7 | 21.7 | 980.2 | 220 | 230 | 2 |
| 11/02/2009 | 22:08:00 | | 36.7 | 21.6 | 980.2 | 230 | 240 | 2 |
| 11/02/2009 | 22:10:00 | | 36.5 | 21.6 | 980.2 | 240 | 250 | 2 |
| 11/02/2009 | 22:12:00 | | 36.5 | 21.6 | 980.2 | 250 | 260 | 2 |
| 11/02/2009 | 22:14:00 | | 36.3 | 21.6 | 980.0 | 260 | 260 | 2 |
| 11/02/2009 | 22:16:00 | | 36.0 | 21.6 | 980.2 | 260 | 270 | 2 |
| 11/02/2009 | 22:18:00 | | 35.3 | 21.6 | 980.2 | 270 | 280 | 2 |
| 11/02/2009 | 22:20:00 | | 31.4 | 21.5 | 980.2 | 280 | 280 | 2 |
| 11/02/2009 | 22:22:00 | | 35.3 | 21.5 | 980.2 | 280 | 290 | 2 |
| 11/02/2009 | 22:24:00 | | 34.9 | 21.4 | 980.2 | 290 | 290 | 2 |
| 11/02/2009 | 22:26:00 | | 35.1 | 21.4 | 979.8 | 290 | 300 | 2 |
| 11/02/2009 | 22:28:00 | | 35.8 | 21.4 | 980.2 | 300 | 310 | 2 |
| 11/02/2009 | 22:30:00 | | 36.3 | 21.4 | 980.2 | 310 | 320 | 2 |
| 11/02/2009 | 22:32:00 | | 36.6 | 21.3 | 980.2 | 320 | 330 | 2 |
| 11/02/2009 | 22:37:00 | | 37.5 | 21.2 | 979.6 | 330 | 350 | 2 |
| 11/02/2009 | 22:42:00 | | 37.6 | 21.2 | 980.2 | 350 | 360 | 2 |
| 11/02/2009 | 22:47:00 | | 37.1 | 21.1 | 980.2 | 360 | 380 | 2 |
| 11/02/2009 | 22:52:00 | | 36.5 | 20.9 | 980.2 | 380 | 390 | 2 |
| 11/02/2009 | 22:57:00 | | 35.7 | 20.6 | 980.2 | 390 | 400 | 2 |
| 11/02/2009 | 23:02:00 | | 35.8 | 20.8 | 980.2 | 400 | 420 | 2 |
| 11/02/2009 | 23:07:00 | | 37.0 | 20.1 | 980.2 | 420 | 430 | 2 |
| 11/02/2009 | 23:12:00 | | 37.8 | 20.1 | 980.2 | 430 | 450 | 2 |
| 11/02/2009 | 23:17:00 | | 37.9 | 20.6 | 980.2 | 450 | 450 | 2 |
| 11/02/2009 | 23:22:00 | | 37.5 | 20.6 | 979.4 | 450 | 465 | 2 |
| 11/02/2009 | 23:27:00 | | 37.3 | 20.0 | 979.4 | 465 | 475 | 2 |
| 11/02/2009 | 23:32:00 | | 36.6 | 20.3 | 980.4 | 475 | 495 | 2 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1358 - 115.280 to 116.000 metres

| Date DD/MM/YY | Time HH:MM | Canister | Temperature (°C) | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|----------|------------------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 11/02/2009 | 23:42:00 | | 37.4 | 20.2 | 980.2 | 495 | 520 | 2 | 340 |
| 11/02/2009 | 23:52:00 | | 37.7 | 20.1 | 980.2 | 520 | 550 | 2 | 368 |
| 12/02/2009 | 0:02:00 | | 37.2 | 20.0 | 980.4 | 550 | 555 | 2 | 375 |
| 12/02/2009 | 0:12:00 | | 37.6 | 19.8 | 980.6 | 555 | 600 | 2 | 418 |
| 12/02/2009 | 0:22:00 | | 38.1 | 19.8 | 980.0 | 600 | 620 | 2 | 434 |
| 12/02/2009 | 0:40:00 | | 37.0 | 19.6 | 980.6 | 620 | 625 | 2 | 445 |
| 12/02/2009 | 0:50:00 | | 37.5 | 19.6 | 980.2 | 625 | 640 | 2 | 457 |
| 12/02/2009 | 1:00:00 | | 38.0 | 19.5 | 980.0 | 640 | 655 | 2 | 469 |
| 12/02/2009 | 1:15:00 | | 36.8 | 18.1 | 979.8 | 655 | 675 | 2 | 494 |
| 12/02/2009 | 1:30:00 | | 37.0 | 18.1 | 980.2 | 675 | 700 | 2 | 518 |
| 12/02/2009 | 1:45:00 | | 37.9 | 17.7 | 980.6 | 700 | 725 | 2 | 540 |
| 12/02/2009 | 2:00:00 | | 36.6 | 20.6 | 980.0 | 725 | 750 | 2 | 569 |
| 12/02/2009 | 2:30:00 | | 36.7 | 21.1 | 980.0 | 750 | 800 | 2 | 618 |
| 12/02/2009 | 3:00:00 | | 36.9 | 23.3 | 979.2 | 800 | 825 | 2 | 640 |
| 12/02/2009 | 3:30:00 | | 36.3 | 23.5 | 979.6 | 825 | 855 | 2 | 673 |
| 12/02/2009 | 4:00:00 | | 35.8 | 23.6 | 979.8 | 855 | 890 | 2 | 710 |
| 12/02/2009 | 4:30:00 | | 37.5 | 23.1 | 979.8 | 890 | 910 | 2 | 722 |
| 12/02/2009 | 5:00:00 | | 36.3 | 22.5 | 980.4 | 910 | 950 | 2 | 767 |
| 12/02/2009 | 6:00:00 | | 37.5 | 22.4 | 981.3 | 950 | 980 | 2 | 793 |
| 12/02/2009 | 7:00:00 | | 35.9 | 24.6 | 981.9 | 100 | 150 | 2 | 807 |
| 12/02/2009 | 8:00:00 | | 35.9 | 26.1 | 981.9 | 150 | 200 | 2 | 854 |
| 12/02/2009 | 14:00:00 | | 35.8 | 30.2 | 978.5 | 100 | 290 | 2 | 1023 |
| 12/02/2009 | 20:00:00 | | 36.5 | 22.7 | 980.6 | 100 | 250 | 2 | 1158 |
| 13/02/2009 | 2:00:00 | | 37.3 | 21.9 | 981.7 | 100 | 220 | 2 | 1265 |
| 13/02/2009 | 8:00:00 | | 35.1 | 21.9 | 981.7 | 220 | 550 | 2 | 1596 |
| 13/02/2009 | 14:00:00 | | 34.0 | 24.3 | 977.7 | 550 | 610 | 2 | 1653 |
| 15/02/2009 | 2:03:00 | | 35.5 | 22.9 | 978.5 | 100 | 220 | 2 | 1738 |
| 15/02/2009 | 14:00:00 | | 34.7 | 31.7 | 978.8 | 100 | 185 | 2 | 1815 |
| 16/02/2009 | 2:00:00 | | 35.7 | 21.9 | 978.8 | 100 | 220 | 2 | 1922 |
| 25/02/2009 | 10:57:00 | | 35.1 | 28.1 | 1026.1 | 200 | 710 | 2 | 2502 |
| 27/02/2009 | 13:57:00 | | 33.7 | 27.2 | 1025.5 | 200 | 400 | 2 | 2683 |
| 04/03/2009 | 13:31:00 | | 33.9 | 29.2 | 1014.3 | 200 | 440 | 2 | 2892 |
| 06/03/2009 | 13:55:00 | | 33.7 | 25.7 | 1021.0 | 200 | 310 | 2 | 3000 |
| 10/03/2009 | 16:41:00 | | 26.8 | 25.4 | 1029.7 | 200 | 330 | 2 | 3169 |
| 13/03/2009 | 11:11:00 | | 33.7 | 27.6 | 1028.2 | 200 | 330 | 2 | 3258 |
| 17/03/2009 | 10:46:00 | | 35.1 | 25.2 | 1023.8 | 200 | 400 | 2 | 3439 |
| 20/03/2009 | 11:40:00 | | 32.4 | 27.2 | 1026.5 | 200 | 220 | 2 | 3465 |
| 23/03/2009 | 8:55:00 | | 31.1 | 21.6 | 1028.0 | 200 | 240 | 2 | 3513 |
| 31/03/2009 | 8:20:00 | | 31.6 | 23.2 | 1020.2 | 200 | 310 | 2 | 3607 |
| 07/04/2009 | 9:46:00 | | 32.1 | 21.7 | 1024.1 | 200 | 280 | 2 | 3686 |
| 14/04/2009 | 8:49:00 | | 30.7 | 23.4 | 1013.3 | 200 | 290 | 2 | 3763 |
| 21/04/2009 | 13:15:00 | | 33.3 | 23.4 | 1019.5 | 200 | 280 | 2 | 3835 |
| 28/04/2009 | 10:45:00 | | 29.0 | 23.4 | 1015.2 | 800 | 840 | 2 | 3914 |
| 05/05/2009 | 13:55:00 | | 31.9 | 21.1 | 1029.3 | 200 | 240 | 2 | 3930 |
| 12/05/2009 | 14:05:00 | | 32.1 | 21.4 | 1017.4 | 200 | 290 | 2 | 4000 |
| 18/05/2009 | 7:52:00 | | 31.3 | 15.5 | 1024.7 | 200 | 220 | 2 | 4031 |
| 22/05/2009 | 8:03:00 | | 31.0 | 23.1 | 1024.5 | 200 | 215 | 2 | 4046 |



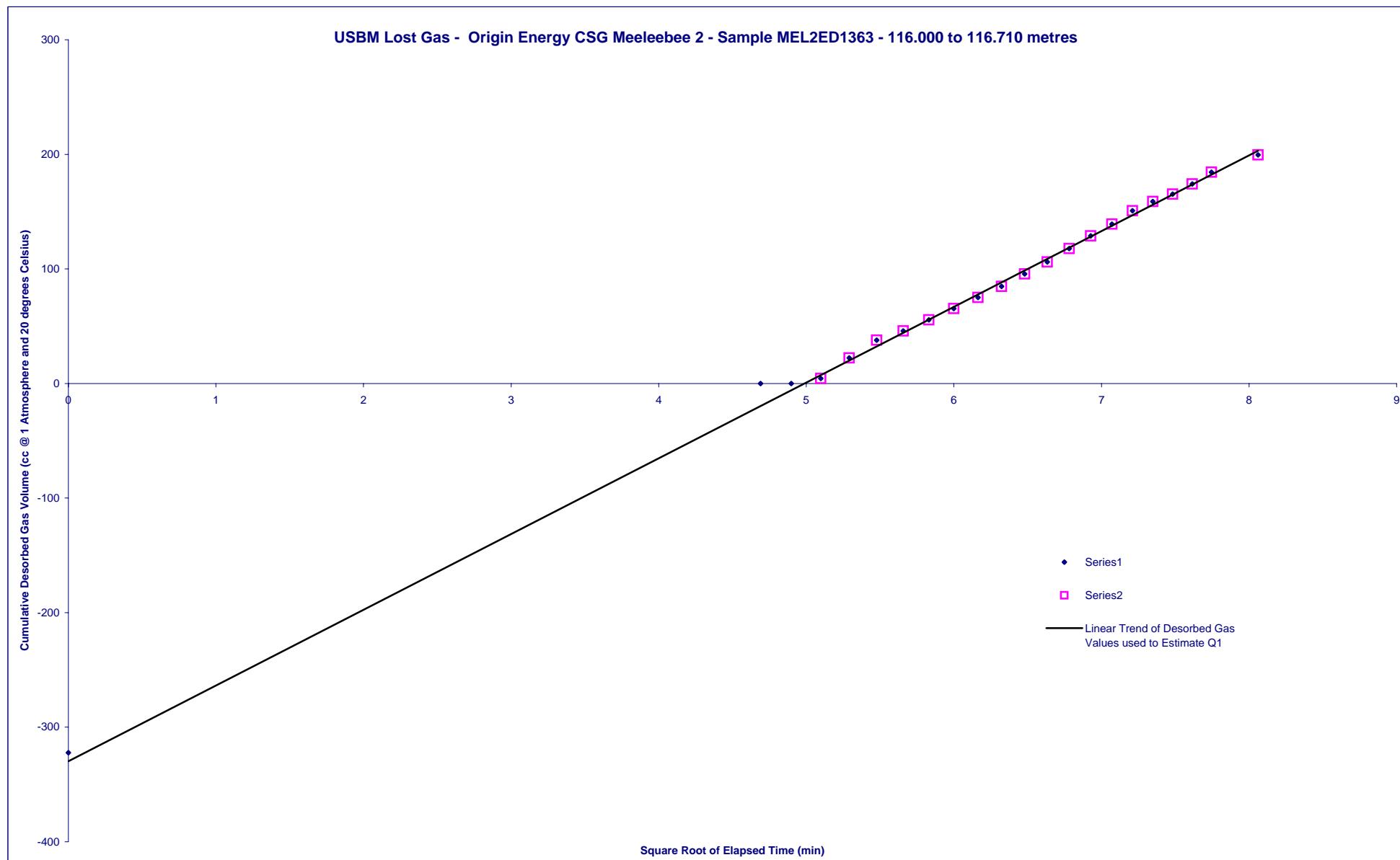


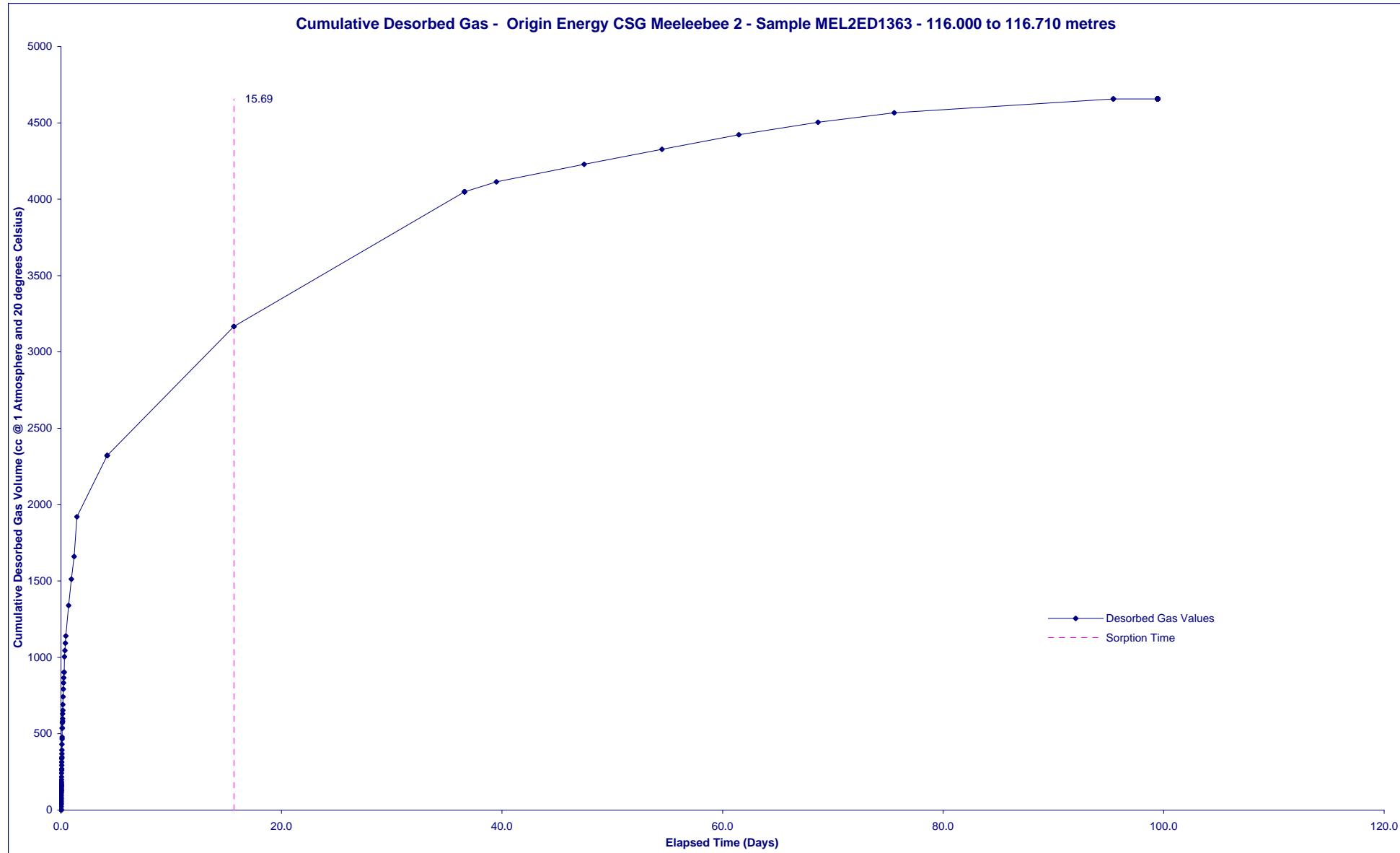
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1363 - 116.000 to 116.710 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | | | |
|----------------------|---------------------|-------------------|---|-----------------|-------------------------|-------------------------------------|-------------------------|---------------------------|---|-----|
| Sample ID | MEL2ED1363 | Sample Type | Core | Sample Top (m) | 116.000 | Sample Base (m) | 116.710 | | | |
| Sample Volume (cc) | 2109 | Mass (g) | 2324 | RD (g/cc) | 1.47 | Moisture (%ad) | 6.8 | | | |
| Q3 Volume (cc@STP) | 65.35 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 7.5 | | | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1602 | | | |
| Date and Time | DD/MM/YY HH:MM | | Mud Weight (ppg) | 8.3454 | | Trip Rate (m/min) | 23.3 | | | |
| Sample Penetrated | 11/02/2009 21:15 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 1.14 | | Surface Time Ratio | 0.773 | | | |
| Sample Off Bottom | 11/02/2009 21:32 | | Formation Pressure Gradient (psi/ft) | 0.433 | | Lost Time Ratio | 0.036 | | | |
| Sample at Surface | 11/02/2009 21:37 | | Depth HSP=Formation Pressure (m) | 115.86 | | USBM Q1 - Surface Time Correction | 1.27 | | | |
| Sample Sealed | 11/02/2009 21:54 | | Formation Temperature (°C) | | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | | | |
| Time Zero | 11/02/2009 21:32 | | Standard Temperature (°C) | 20.00 | Comments: | | 20 | | | |
| Last Entry | 22/05/2009 8:30 | | Standard Pressure (hPa) | 1013 | | | -322 | | | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | | | |
| m³ | 0.000 | 0.000 | 0.000 | 0.005 | 0.000 | 0.000 | 0.000 | | | |
| m³/tonne (raw) | 0.14 | 0.18 | 0.00 | 2.00 | 0.33 | 2.470 | 2.510 | | | |
| SCF/T (raw) | 4 | 6 | 0 | 64 | 10 | 79.100 | 80.300 | | | |
| m³/tonne (daf) | 0.22 | 0.27 | 0.00 | 3.13 | 0.44 | 3.79 | 3.84 | | | |
| SCF/T (daf) | 7 | 9 | 0 | 100 | 14 | 121 | 123 | | | |
| Percent of daf total | 5.71% | 7.16% | 0.00% | 81.40% | Sorption Time (days) | 15.69 | Diffusivity (sec⁻¹) | | | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) | | |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size | | |
| 11/02/2009 | 21:54:00 | | 31.7 | 21.9 | 21.8 | 979.8 | 100 | 100 | 2 | 0 |
| 11/02/2009 | 21:56:00 | | 33.0 | 21.9 | 21.8 | 980.2 | 100 | 190 | 2 | 0 |
| 11/02/2009 | 21:58:00 | | 34.0 | 21.8 | 21.7 | 980.0 | 190 | 200 | 2 | 4 |
| 11/02/2009 | 22:00:00 | | 34.3 | 21.7 | 21.7 | 980.0 | 200 | 220 | 2 | 22 |
| 11/02/2009 | 22:02:00 | | 35.1 | 21.8 | 21.6 | 980.0 | 220 | 240 | 2 | 38 |
| 11/02/2009 | 22:04:00 | | 35.5 | 21.7 | 21.6 | 980.2 | 240 | 250 | 2 | 46 |
| 11/02/2009 | 22:06:00 | | 35.5 | 21.7 | 21.6 | 980.2 | 250 | 260 | 2 | 56 |
| 11/02/2009 | 22:08:00 | | 35.5 | 21.6 | 21.6 | 980.2 | 260 | 270 | 2 | 65 |
| 11/02/2009 | 22:10:00 | | 35.5 | 21.6 | 21.6 | 980.2 | 270 | 280 | 2 | 75 |
| 11/02/2009 | 22:12:00 | | 35.5 | 21.6 | 21.5 | 980.2 | 280 | 290 | 2 | 85 |
| 11/02/2009 | 22:14:00 | | 35.2 | 21.6 | 21.4 | 980.0 | 290 | 300 | 2 | 96 |
| 11/02/2009 | 22:16:00 | | 35.1 | 21.6 | 21.4 | 980.2 | 300 | 310 | 2 | 106 |
| 11/02/2009 | 22:18:00 | | 34.7 | 21.6 | 21.4 | 980.2 | 310 | 320 | 2 | 118 |
| 11/02/2009 | 22:20:00 | | 34.4 | 21.5 | 21.4 | 980.2 | 320 | 330 | 2 | 129 |
| 11/02/2009 | 22:22:00 | | 34.3 | 21.5 | 21.4 | 980.2 | 330 | 340 | 2 | 139 |
| 11/02/2009 | 22:24:00 | | 33.9 | 21.4 | 21.3 | 980.2 | 340 | 350 | 2 | 151 |
| 11/02/2009 | 22:26:00 | | 34.1 | 21.4 | 21.4 | 979.8 | 350 | 360 | 2 | 159 |
| 11/02/2009 | 22:28:00 | | 34.9 | 21.4 | 21.4 | 980.2 | 360 | 370 | 2 | 165 |
| 11/02/2009 | 22:30:00 | | 35.1 | 21.4 | 21.3 | 980.2 | 370 | 380 | 2 | 174 |
| 11/02/2009 | 22:32:00 | | 35.0 | 21.3 | 21.2 | 980.2 | 380 | 390 | 2 | 184 |
| 11/02/2009 | 22:37:00 | | 35.7 | 21.2 | 21.2 | 979.6 | 390 | 410 | 2 | 199 |
| 11/02/2009 | 22:42:00 | | 36.1 | 21.2 | 21.2 | 980.2 | 410 | 430 | 2 | 218 |
| 11/02/2009 | 22:47:00 | | 35.1 | 21.1 | 21.1 | 980.2 | 430 | 450 | 2 | 242 |
| 11/02/2009 | 22:52:00 | | 35.1 | 20.9 | 21.0 | 980.2 | 450 | 470 | 2 | 262 |
| 11/02/2009 | 22:57:00 | | 35.2 | 20.6 | 20.9 | 980.2 | 470 | 480 | 2 | 271 |
| 11/02/2009 | 23:02:00 | | 34.8 | 20.8 | 20.8 | 980.2 | 480 | 500 | 2 | 293 |
| 11/02/2009 | 23:07:00 | | 34.5 | 20.1 | 20.7 | 980.2 | 500 | 520 | 2 | 314 |
| 11/02/2009 | 23:12:00 | | 35.5 | 20.1 | 20.7 | 980.2 | 520 | 550 | 2 | 339 |
| 11/02/2009 | 23:17:00 | | 36.2 | 20.6 | 20.7 | 980.2 | 550 | 550 | 2 | 339 |
| 11/02/2009 | 23:22:00 | | 36.3 | 20.6 | 20.6 | 979.4 | 550 | 560 | 2 | 347 |
| 11/02/2009 | 23:27:00 | | 35.7 | 20.0 | 20.6 | 979.4 | 560 | 580 | 2 | 369 |
| 11/02/2009 | 23:32:00 | | 35.2 | 20.3 | 20.4 | 980.4 | 580 | 600 | 2 | 393 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1363 - 116.000 to 116.710 metres

| Date DD/MM/YY | Time HH:MM | Canister | Temperature (°C) | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|----------|------------------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 11/02/2009 | 23:42:00 | | 35.5 | 20.2 | 980.2 | 600 | 640 | 2 | 431 |
| 11/02/2009 | 23:52:00 | | 35.5 | 20.1 | 980.2 | 640 | 675 | 2 | 465 |
| 12/02/2009 | 0:02:00 | | 35.9 | 20.0 | 980.4 | 675 | 690 | 2 | 478 |
| 12/02/2009 | 0:12:00 | | 34.2 | 19.8 | 980.6 | 690 | 740 | 2 | 537 |
| 12/02/2009 | 0:22:00 | | 36.9 | 19.8 | 980.0 | 740 | 750 | 2 | 537 |
| 12/02/2009 | 0:40:00 | | 35.1 | 19.6 | 980.6 | 750 | 775 | 2 | 571 |
| 12/02/2009 | 0:50:00 | | 35.7 | 19.6 | 980.2 | 775 | 790 | 2 | 583 |
| 12/02/2009 | 1:00:00 | | 36.5 | 19.5 | 980.0 | 790 | 810 | 2 | 598 |
| 12/02/2009 | 1:15:00 | | 35.9 | 18.1 | 979.8 | 810 | 840 | 2 | 631 |
| 12/02/2009 | 1:30:00 | | 35.5 | 18.1 | 980.2 | 840 | 860 | 2 | 654 |
| 12/02/2009 | 1:45:00 | | 36.1 | 17.7 | 980.6 | 860 | 900 | 2 | 691 |
| 12/02/2009 | 2:00:00 | | 35.5 | 20.6 | 980.0 | 900 | 950 | 2 | 743 |
| 12/02/2009 | 2:30:00 | | 35.7 | 21.1 | 980.0 | 950 | 1000 | 2 | 792 |
| 12/02/2009 | 3:00:00 | | 35.9 | 23.3 | 979.2 | 1000 | 1045 | 2 | 834 |
| 12/02/2009 | 3:30:00 | | 35.5 | 23.5 | 979.6 | 1045 | 1075 | 2 | 866 |
| 12/02/2009 | 4:00:00 | | 35.1 | 23.6 | 979.8 | 1075 | 1110 | 2 | 903 |
| 12/02/2009 | 4:30:00 | | 36.7 | 23.1 | 979.8 | 1110 | 1100 | 2 | 903 |
| 12/02/2009 | 5:00:00 | | 36.6 | 22.5 | 980.4 | 1100 | 1200 | 2 | 1004 |
| 12/02/2009 | 6:00:00 | | 36.7 | 22.4 | 981.3 | 1200 | 1240 | 2 | 1045 |
| 12/02/2009 | 7:00:00 | | 34.7 | 24.6 | 981.9 | 100 | 200 | 2 | 1093 |
| 12/02/2009 | 8:00:00 | | 34.7 | 26.1 | 981.9 | 200 | 250 | 2 | 1141 |
| 12/02/2009 | 14:00:00 | | 35.6 | 30.2 | 978.5 | 100 | 330 | 2 | 1340 |
| 12/02/2009 | 20:00:00 | | 36.1 | 22.7 | 980.6 | 100 | 290 | 2 | 1513 |
| 13/02/2009 | 2:00:00 | | 36.0 | 21.9 | 981.7 | 100 | 260 | 2 | 1660 |
| 13/02/2009 | 8:00:00 | | 34.8 | 21.9 | 981.7 | 260 | 520 | 2 | 1920 |
| 13/02/2009 | 14:00:00 | | 34.3 | 24.3 | 977.7 | 520 | 620 | 2 | 2013 |
| 15/02/2009 | 2:03:00 | | 36.1 | 22.9 | 978.5 | 100 | 240 | 2 | 2113 |
| 15/02/2009 | 14:00:00 | | 34.8 | 31.7 | 978.8 | 100 | 210 | 2 | 2216 |
| 16/02/2009 | 2:00:00 | | 35.7 | 21.9 | 978.8 | 100 | 220 | 2 | 2321 |
| 25/02/2009 | 11:03:00 | | 34.4 | 28.5 | 1025.8 | 200 | 770 | 2 | 2974 |
| 27/02/2009 | 14:01:00 | | 33.7 | 27.2 | 1024.8 | 200 | 420 | 2 | 3166 |
| 04/03/2009 | 13:24:00 | | 34.7 | 29.1 | 1014.3 | 200 | 420 | 2 | 3350 |
| 06/03/2009 | 14:04:00 | | 35.0 | 25.9 | 1021.1 | 200 | 300 | 2 | 3447 |
| 10/03/2009 | 16:35:00 | | 29.1 | 25.2 | 1029.3 | 200 | 510 | 2 | 3799 |
| 13/03/2009 | 11:08:00 | | 33.5 | 27.5 | 1028.4 | 200 | 330 | 2 | 3889 |
| 17/03/2009 | 10:36:00 | | 34.5 | 25.1 | 1025.1 | 200 | 340 | 2 | 4012 |
| 20/03/2009 | 11:51:00 | | 32.5 | 27.6 | 1027.6 | 200 | 230 | 2 | 4049 |
| 23/03/2009 | 9:05:00 | | 31.5 | 21.6 | 1028.0 | 200 | 260 | 2 | 4114 |
| 31/03/2009 | 8:25:00 | | 31.5 | 23.2 | 1020.2 | 200 | 330 | 2 | 4229 |
| 07/04/2009 | 9:46:00 | | 31.7 | 22.6 | 1023.4 | 200 | 300 | 2 | 4327 |
| 14/04/2009 | 8:53:00 | | 31.3 | 23.3 | 1013.1 | 200 | 315 | 2 | 4422 |
| 21/04/2009 | 13:08:00 | | 32.0 | 23.6 | 1019.7 | 200 | 280 | 2 | 4504 |
| 28/04/2009 | 11:02:00 | | 29.7 | 23.4 | 1015.2 | 1200 | 1210 | 2 | 4566 |
| 05/05/2009 | 14:00:00 | | 32.3 | 21.1 | 1029.4 | 200 | 250 | 2 | 4573 |
| 12/05/2009 | 13:57:00 | | 32.7 | 20.3 | 1017.9 | 200 | 270 | 2 | 4621 |
| 18/05/2009 | 7:54:00 | | 31.1 | 15.5 | 1024.3 | 200 | 220 | 2 | 4656 |
| 22/05/2009 | 8:30:00 | | 32.3 | 23.1 | 1019.9 | 200 | 210 | 2 | 4656 |



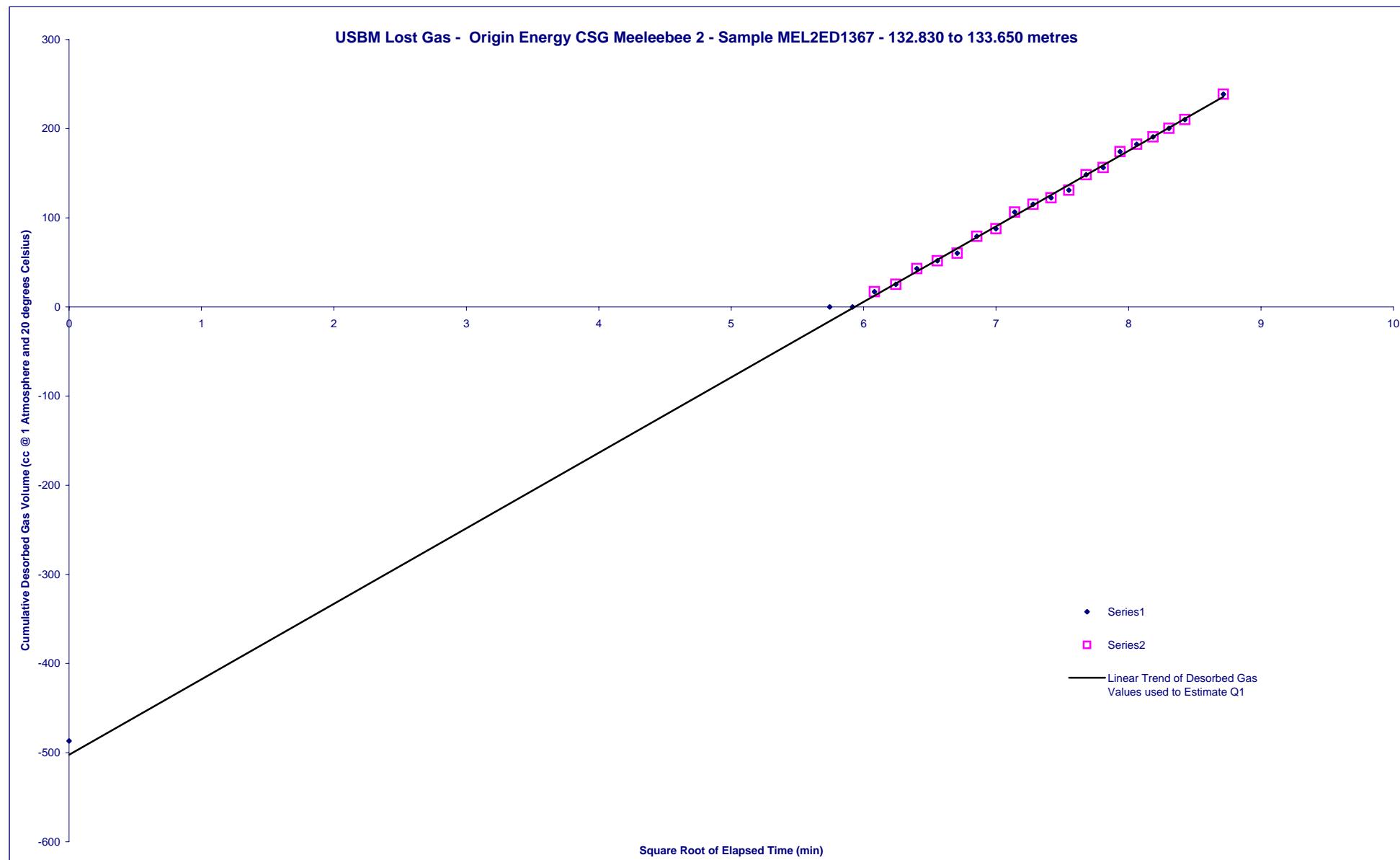


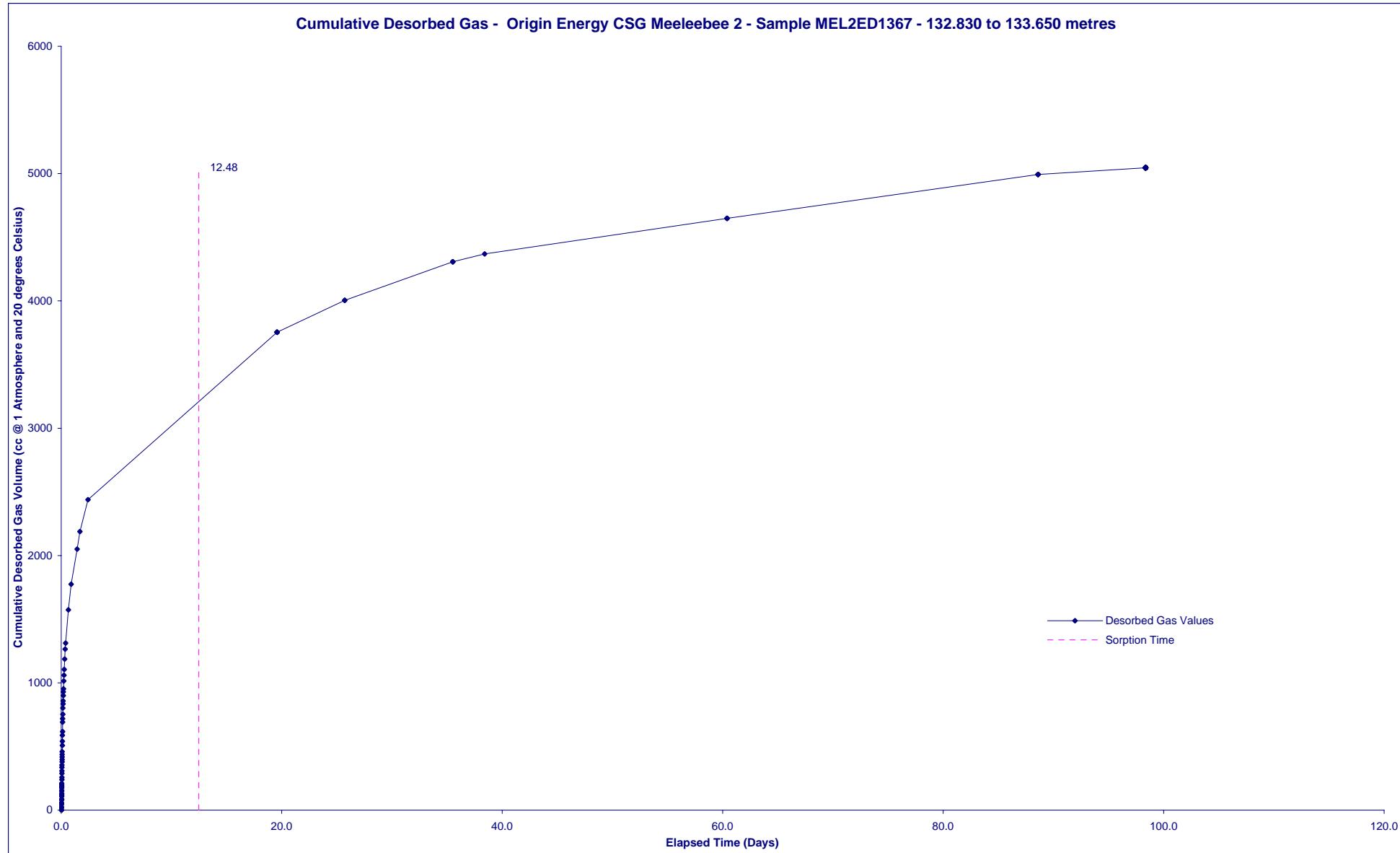
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1367 - 132.830 to 133.650 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | | | |
|----------------------|---------------------|-------------------|---------------------|---|-------------------------|-------------------------------------|-------------------------|---------------------------|---|-----|
| Sample ID | MEL2ED1367 | Sample Type | Core | Sample Top (m) | 132.830 | Sample Base (m) | 133.650 | | | |
| Sample Volume (cc) | 2436 | Mass (g) | 3320 | RD (g/cc) | 1.57 | Moisture (%ad) | 7.1 | | | |
| Q3 Volume (cc@STP) | 51.67 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 7.2 | | | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1317 | | | |
| Date and Time | DD/MM/YY | HH:MM | | Mud Weight (ppg) | 8.3454 | Trip Rate (m/min) | 19.1 | | | |
| Sample Penetrated | 12/02/2009 | 23:11 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 1.30 | Surface Time Ratio | 0.788 | | | |
| Sample Off Bottom | 12/02/2009 | 23:29 | | Formation Pressure Gradient (psi/ft) | 0.433 | Lost Time Ratio | 0.079 | | | |
| Sample at Surface | 12/02/2009 | 23:36 | | Depth HSP=Formation Pressure (m) | 132.67 | USBM Q1 - Surface Time Correction | 1.27 | | | |
| Sample Sealed | 13/02/2009 | 0:02 | | Formation Temperature (°C) | | Smith & Williams Q1 - Q2 Multiplier | 1.040 | | | |
| Time Zero | 12/02/2009 | 23:29 | | Standard Temperature (°C) | 20.00 | Comments: | 20 | | | |
| Last Entry | 22/05/2009 | 8:30 | | Standard Pressure (hPa) | 1013 | | -487 | | | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | | | |
| m³ | 0.000 | 0.001 | 0.000 | 0.005 | 0.000 | 0.010 | 0.010 | | | |
| m³/tonne (raw) | 0.15 | 0.19 | 0.06 | 1.52 | 0.26 | 1.930 | 1.970 | | | |
| SCF/T (raw) | 5 | 6 | 2 | 49 | 8 | 61.660 | 62.930 | | | |
| m³/tonne (daf) | 0.27 | 0.34 | 0.11 | 2.76 | 0.41 | 3.44 | 3.51 | | | |
| SCF/T (daf) | 9 | 11 | 4 | 89 | 13 | 110 | 112 | | | |
| Percent of daf total | 7.75% | 9.65% | 3.37% | 78.71% | Sorption Time (days) | 12.48 | Diffusivity (sec⁻¹) | | | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) | | |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | | Start (cc) | Finish (cc) | Size | | |
| 13/02/2009 | 0:02:00 | | 29.6 | 28.2 | 24.2 | 982.1 | 100 | 100 | 2 | 0 |
| 13/02/2009 | 0:04:00 | | 29.6 | 28.2 | 24.2 | 982.1 | 100 | 150 | 2 | 0 |
| 13/02/2009 | 0:06:00 | | 30.0 | 28.3 | 24.2 | 982.1 | 150 | 170 | 2 | 17 |
| 13/02/2009 | 0:08:00 | | 30.2 | 28.2 | 24.4 | 981.9 | 170 | 180 | 2 | 25 |
| 13/02/2009 | 0:10:00 | | 30.5 | 28.1 | 24.4 | 981.9 | 180 | 200 | 2 | 43 |
| 13/02/2009 | 0:12:00 | | 30.7 | 27.9 | 24.4 | 981.9 | 200 | 210 | 2 | 52 |
| 13/02/2009 | 0:14:00 | | 30.9 | 27.7 | 24.4 | 981.9 | 210 | 220 | 2 | 60 |
| 13/02/2009 | 0:16:00 | | 30.9 | 27.5 | 24.4 | 981.9 | 220 | 240 | 2 | 79 |
| 13/02/2009 | 0:18:00 | | 31.1 | 27.3 | 24.4 | 981.9 | 240 | 250 | 2 | 88 |
| 13/02/2009 | 0:20:00 | | 31.1 | 26.9 | 24.4 | 981.7 | 250 | 270 | 2 | 106 |
| 13/02/2009 | 0:22:00 | | 31.3 | 26.7 | 24.4 | 981.7 | 270 | 280 | 2 | 115 |
| 13/02/2009 | 0:24:00 | | 31.8 | 26.2 | 24.4 | 981.7 | 280 | 290 | 2 | 123 |
| 13/02/2009 | 0:26:00 | | 32.2 | 26.0 | 24.4 | 982.1 | 290 | 300 | 2 | 131 |
| 13/02/2009 | 0:28:00 | | 32.6 | 25.7 | 24.3 | 982.1 | 300 | 320 | 2 | 148 |
| 13/02/2009 | 0:30:00 | | 33.0 | 25.4 | 24.2 | 982.1 | 320 | 330 | 2 | 156 |
| 13/02/2009 | 0:32:00 | | 33.3 | 25.0 | 24.2 | 982.1 | 330 | 350 | 2 | 174 |
| 13/02/2009 | 0:34:00 | | 33.6 | 24.7 | 24.2 | 982.1 | 350 | 360 | 2 | 183 |
| 13/02/2009 | 0:36:00 | | 33.9 | 24.4 | 24.2 | 982.1 | 360 | 370 | 2 | 191 |
| 13/02/2009 | 0:38:00 | | 33.9 | 24.2 | 24.1 | 982.1 | 370 | 380 | 2 | 200 |
| 13/02/2009 | 0:40:00 | | 33.9 | 24.0 | 24.1 | 982.1 | 380 | 390 | 2 | 210 |
| 13/02/2009 | 0:45:00 | | 33.9 | 23.3 | 23.9 | 981.9 | 390 | 420 | 2 | 239 |
| 13/02/2009 | 0:50:00 | | 33.9 | 23.0 | 23.8 | 981.7 | 420 | 440 | 2 | 258 |
| 13/02/2009 | 0:55:00 | | 33.6 | 22.6 | 23.7 | 982.1 | 440 | 470 | 2 | 288 |
| 13/02/2009 | 1:00:00 | | 33.4 | 22.3 | 23.6 | 981.9 | 470 | 490 | 2 | 308 |
| 13/02/2009 | 1:05:00 | | 33.7 | 22.0 | 23.4 | 981.9 | 490 | 520 | 2 | 336 |
| 13/02/2009 | 1:10:00 | | 34.3 | 21.8 | 23.3 | 981.9 | 520 | 540 | 2 | 353 |
| 13/02/2009 | 1:15:00 | | 34.9 | 21.6 | 23.2 | 981.1 | 540 | 570 | 2 | 379 |
| 13/02/2009 | 1:20:00 | | 35.2 | 21.3 | 23.1 | 981.7 | 570 | 590 | 2 | 398 |
| 13/02/2009 | 1:25:00 | | 35.1 | 21.2 | 22.9 | 981.5 | 590 | 610 | 2 | 417 |
| 13/02/2009 | 1:30:00 | | 34.8 | 21.0 | 22.9 | 981.5 | 610 | 630 | 2 | 438 |
| 13/02/2009 | 1:35:00 | | 34.6 | 20.7 | 21.7 | 981.5 | 630 | 650 | 2 | 458 |
| 13/02/2009 | 1:45:00 | | 34.5 | 20.4 | 22.5 | 981.5 | 650 | 700 | 2 | 508 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1367 - 132.830 to 133.650 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 13/02/2009 | 1:55:00 | 36.2 | 21.2 | 22.4 | 981.9 | 700 | 740 | 2 | 541 |
| 13/02/2009 | 2:05:00 | 36.6 | 22.4 | 22.6 | 981.7 | 740 | 790 | 2 | 587 |
| 13/02/2009 | 2:15:00 | 36.3 | 23.2 | 22.7 | 980.8 | 790 | 820 | 2 | 617 |
| 13/02/2009 | 2:36:00 | 35.3 | 23.6 | 22.7 | 982.1 | 820 | 890 | 2 | 691 |
| 13/02/2009 | 2:45:00 | 35.7 | 23.6 | 22.7 | 981.7 | 890 | 920 | 2 | 718 |
| 13/02/2009 | 3:00:00 | 36.8 | 23.6 | 22.7 | 981.7 | 920 | 960 | 2 | 753 |
| 13/02/2009 | 3:15:00 | 36.3 | 24.0 | 22.9 | 981.1 | 960 | 1010 | 2 | 803 |
| 13/02/2009 | 3:30:00 | 35.3 | 24.0 | 22.9 | 982.1 | 100 | 170 | 2 | 835 |
| 13/02/2009 | 3:45:00 | 36.5 | 23.7 | 22.9 | 981.9 | 170 | 200 | 2 | 859 |
| 13/02/2009 | 4:02:00 | 35.9 | 23.6 | 22.9 | 981.9 | 200 | 240 | 2 | 900 |
| 13/02/2009 | 4:15:00 | 35.9 | 23.9 | 22.9 | 981.9 | 240 | 270 | 2 | 928 |
| 13/02/2009 | 4:30:00 | 36.8 | 24.0 | 22.9 | 981.7 | 270 | 300 | 2 | 953 |
| 13/02/2009 | 5:00:00 | 36.1 | 24.2 | 23.2 | 982.1 | 300 | 360 | 2 | 1014 |
| 13/02/2009 | 5:30:00 | 36.8 | 23.8 | 23.0 | 983.2 | 360 | 410 | 2 | 1060 |
| 13/02/2009 | 6:00:00 | 35.5 | 23.7 | 23.1 | 983.4 | 410 | 450 | 2 | 1104 |
| 13/02/2009 | 7:00:00 | 37.1 | 24.0 | 23.4 | 984.6 | 450 | 540 | 2 | 1186 |
| 13/02/2009 | 8:00:00 | 36.7 | 23.9 | 23.5 | 983.8 | 540 | 620 | 2 | 1264 |
| 13/02/2009 | 9:00:00 | 37.0 | 23.6 | 23.1 | 984.0 | 620 | 670 | 2 | 1312 |
| 13/02/2009 | 15:00:00 | 37.1 | 22.3 | 21.4 | 981.7 | 100 | 400 | 2 | 1573 |
| 13/02/2009 | 21:00:00 | 36.4 | 24.8 | 22.7 | 982.9 | 100 | 320 | 2 | 1774 |
| 14/02/2009 | 10:00:00 | 36.7 | 23.0 | 22.4 | 980.8 | 320 | 610 | 2 | 2051 |
| 14/02/2009 | 16:00:00 | 36.9 | 23.9 | 22.4 | 975.4 | 610 | 760 | 2 | 2188 |
| 15/02/2009 | 10:00:00 | 35.5 | 26.8 | 22.2 | 980.8 | 100 | 380 | 2 | 2438 |
| 15/02/2009 | 16:00:00 | 36.5 | 31.7 | 27.5 | 977.5 | 350 | 450 | 2 | 2521 |
| 16/02/2009 | 4:00:00 | 36.9 | 22.9 | 22.6 | 978.8 | 100 | 260 | 2 | 2659 |
| 25/02/2009 | 11:03:00 | 34.5 | 28.5 | 27.2 | 1025.8 | 200 | 780 | 2 | 3306 |
| 27/02/2009 | 14:01:00 | 34.0 | 27.2 | 24.9 | 1024.8 | 200 | 450 | 2 | 3530 |
| 04/03/2009 | 13:24:00 | 35.1 | 29.1 | 28.4 | 1014.3 | 200 | 460 | 2 | 3754 |
| 06/03/2009 | 14:04:00 | 35.1 | 25.9 | 23.1 | 1021.1 | 200 | 315 | 2 | 3866 |
| 10/03/2009 | 16:35:00 | 29.5 | 25.2 | 25.5 | 1029.3 | 200 | 310 | 2 | 4004 |
| 13/03/2009 | 11:08:00 | 33.9 | 27.5 | 26.7 | 1028.4 | 200 | 350 | 2 | 4129 |
| 17/03/2009 | 10:36:00 | 35.5 | 25.1 | 22.2 | 1025.1 | 200 | 350 | 2 | 4260 |
| 20/03/2009 | 11:51:00 | 33.1 | 27.6 | 25.2 | 1027.6 | 200 | 240 | 2 | 4307 |
| 23/03/2009 | 9:05:00 | 32.4 | 21.6 | 22.2 | 1028.0 | 200 | 260 | 2 | 4369 |
| 31/03/2009 | 8:25:00 | 32.0 | 23.2 | 23.7 | 1020.2 | 200 | 290 | 2 | 4447 |
| 07/04/2009 | 9:46:00 | 32.3 | 22.6 | 21.9 | 1023.4 | 200 | 300 | 2 | 4546 |
| 14/04/2009 | 8:53:00 | 31.9 | 23.3 | 23.3 | 1013.1 | 200 | 320 | 2 | 4649 |
| 21/04/2009 | 13:08:00 | 32.5 | 23.6 | 23.2 | 1019.7 | 200 | 380 | 2 | 4829 |
| 28/04/2009 | 11:02:00 | 29.7 | 23.4 | 18.7 | 1015.2 | 1220 | 1270 | 2 | 4922 |
| 05/05/2009 | 14:00:00 | 32.7 | 21.1 | 22.7 | 1029.4 | 200 | 250 | 2 | 4932 |
| 12/05/2009 | 13:57:00 | 32.9 | 20.3 | 19.4 | 1017.9 | 200 | 280 | 2 | 4994 |
| 18/05/2009 | 7:54:00 | 31.1 | 15.5 | 20.1 | 1024.3 | 200 | 230 | 2 | 5037 |
| 22/05/2009 | 8:30:00 | 32.3 | 23.1 | 2.1 | 1019.9 | 200 | 220 | 2 | 5045 |



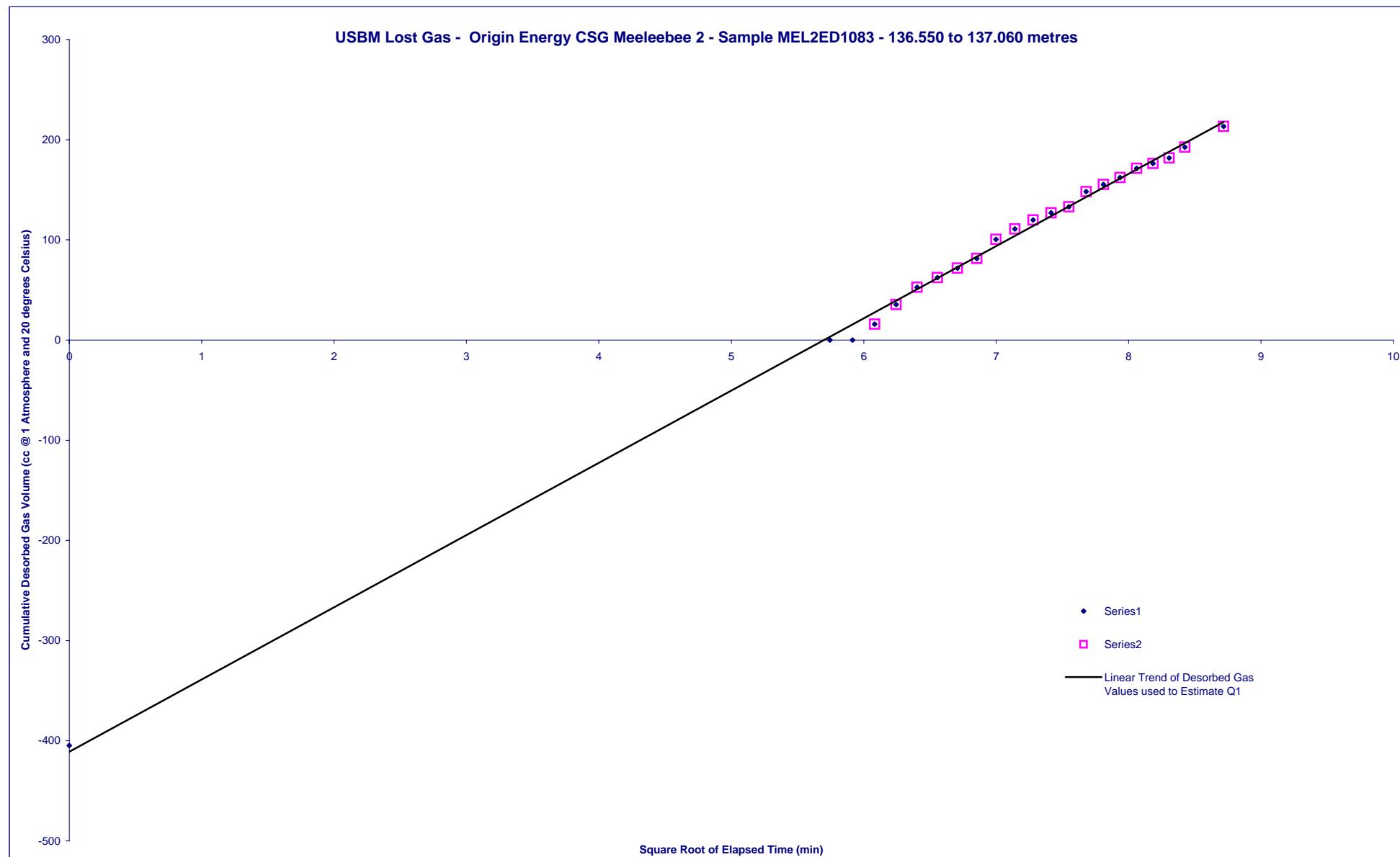


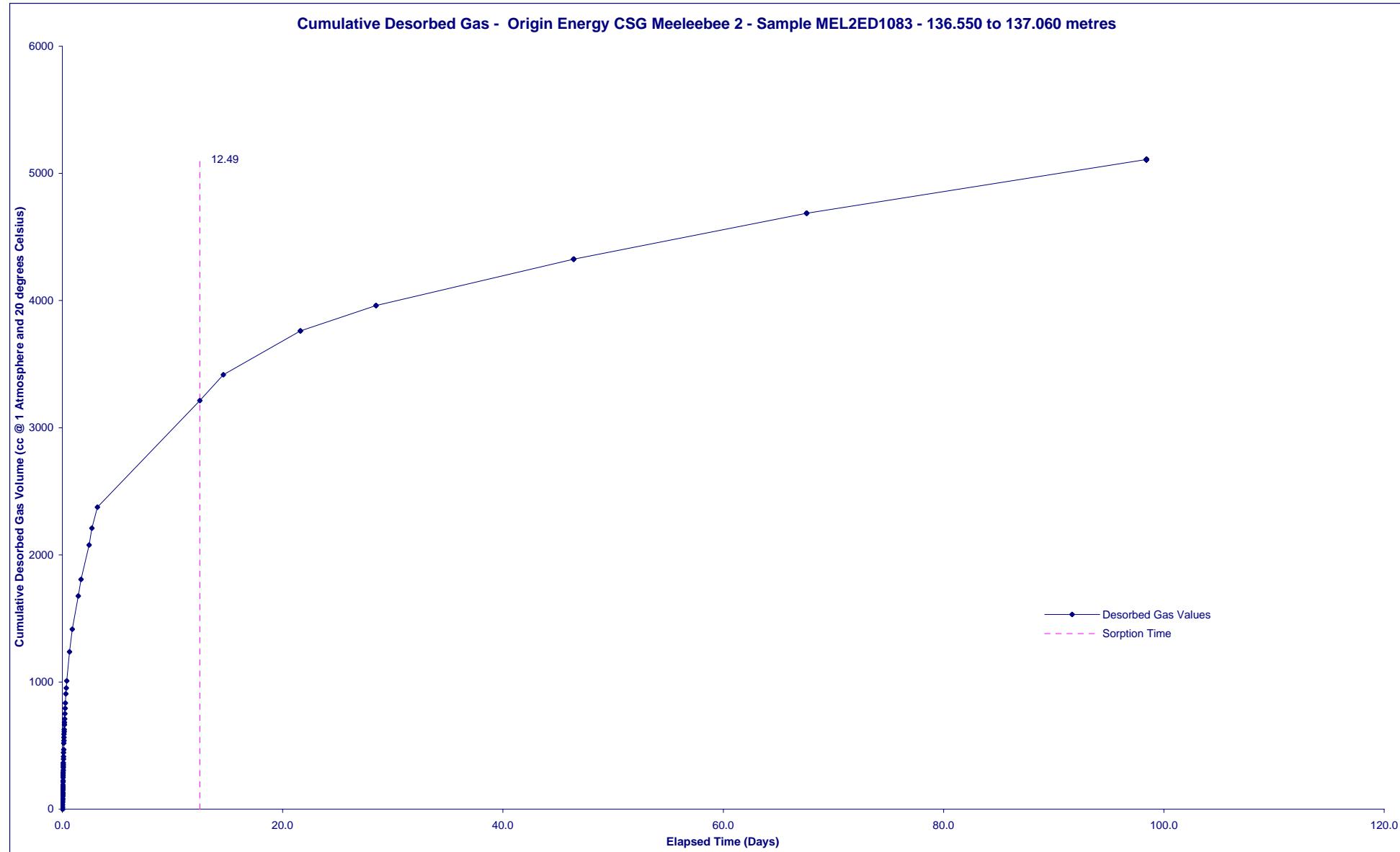
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1083 - 136.550 to 137.060 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | | |
|----------------------|---------------------|-------------------|---|-----------------|-------------------------|-------------------------------------|-------------------------|---------------------------|-----|
| Sample ID | MEL2ED1083 | Sample Type | Core | Sample Top (m) | 136.550 | Sample Base (m) | 137.060 | | |
| Sample Volume (cc) | 1515 | Mass (g) | 1830 | RD (g/cc) | 1.35 | Moisture (%ad) | 6.4 | | |
| Q3 Volume (cc@STP) | 61.82 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 5.9 | | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1767 | | |
| Date and Time | DD/MM/YY HH:MM | | Mud Weight (ppg) | 8.3454 | | Trip Rate (m/min) | 19.6 | | |
| Sample Penetrated | 12/02/2009 23:17 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 1.34 | | Surface Time Ratio | 0.788 | | |
| Sample Off Bottom | 12/02/2009 23:29 | | Formation Pressure Gradient (psi/ft) | 0.433 | | Lost Time Ratio | 0.037 | | |
| Sample at Surface | 12/02/2009 23:36 | | Depth HSP=Formation Pressure (m) | 136.38 | | USBM Q1 - Surface Time Correction | 1.27 | | |
| Sample Sealed | 13/02/2009 0:02 | | Formation Temperature (°C) | | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | | |
| Time Zero | 12/02/2009 23:29 | | Standard Temperature (°C) | 20.00 | Comments: | | Q1 Points Plotted | | |
| Last Entry | 22/05/2009 9:20 | | Standard Pressure (hPa) | 1013 | | | 20 | | |
| | | | | | | | -405 | | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | | |
| m³ | 0.000 | 0.001 | 0.000 | 0.005 | 0.000 | 0.010 | 0.010 | | |
| m³/tonne (raw) | 0.22 | 0.28 | 0.00 | 2.79 | 0.31 | 3.320 | 3.380 | | |
| SCF/T (raw) | 7 | 9 | 0 | 89 | 10 | 106.430 | 108.350 | | |
| m³/tonne (daf) | 0.28 | 0.36 | 0.00 | 3.57 | 0.38 | 4.23 | 4.31 | | |
| SCF/T (daf) | 9 | 12 | 0 | 114 | 12 | 136 | 138 | | |
| Percent of daf total | 6.68% | 8.33% | 0.00% | 82.84% | Sorption Time (days) | 12.49 | Diffusivity (sec⁻¹) | | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) | |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size | |
| 13/02/2009 0:02:00 | | 33.9 | 28.2 | 24.2 | 982.1 | 100 | 100 | 2 | 0 |
| 13/02/2009 0:04:00 | | 33.9 | 28.2 | 24.2 | 982.1 | 100 | 180 | 2 | 0 |
| 13/02/2009 0:06:00 | | 34.5 | 28.3 | 24.2 | 982.1 | 180 | 200 | 2 | 16 |
| 13/02/2009 0:08:00 | | 34.4 | 28.2 | 24.4 | 981.9 | 200 | 220 | 2 | 35 |
| 13/02/2009 0:10:00 | | 34.7 | 28.1 | 24.4 | 981.9 | 220 | 240 | 2 | 53 |
| 13/02/2009 0:12:00 | | 34.7 | 27.9 | 24.4 | 981.9 | 240 | 250 | 2 | 62 |
| 13/02/2009 0:14:00 | | 34.7 | 27.7 | 24.4 | 981.9 | 250 | 260 | 2 | 72 |
| 13/02/2009 0:16:00 | | 34.7 | 27.5 | 24.4 | 981.9 | 260 | 270 | 2 | 81 |
| 13/02/2009 0:18:00 | | 34.7 | 27.3 | 24.4 | 981.9 | 270 | 290 | 2 | 101 |
| 13/02/2009 0:20:00 | | 34.5 | 26.9 | 24.4 | 981.7 | 290 | 300 | 2 | 111 |
| 13/02/2009 0:22:00 | | 34.6 | 26.7 | 24.4 | 981.7 | 300 | 310 | 2 | 120 |
| 13/02/2009 0:24:00 | | 35.1 | 26.2 | 24.4 | 981.7 | 310 | 320 | 2 | 127 |
| 13/02/2009 0:26:00 | | 35.9 | 26.0 | 24.4 | 982.1 | 320 | 330 | 2 | 133 |
| 13/02/2009 0:28:00 | | 36.7 | 25.7 | 24.3 | 982.1 | 330 | 350 | 2 | 148 |
| 13/02/2009 0:30:00 | | 37.2 | 25.4 | 24.2 | 982.1 | 350 | 360 | 2 | 155 |
| 13/02/2009 0:32:00 | | 37.7 | 25.0 | 24.2 | 982.1 | 360 | 370 | 2 | 162 |
| 13/02/2009 0:34:00 | | 37.8 | 24.7 | 24.2 | 982.1 | 370 | 380 | 2 | 171 |
| 13/02/2009 0:36:00 | | 37.8 | 24.4 | 24.2 | 982.1 | 380 | 385 | 2 | 176 |
| 13/02/2009 0:38:00 | | 37.7 | 24.2 | 24.1 | 982.1 | 385 | 390 | 2 | 182 |
| 13/02/2009 0:40:00 | | 37.5 | 24.0 | 24.1 | 982.1 | 390 | 400 | 2 | 192 |
| 13/02/2009 0:45:00 | | 37.2 | 23.3 | 23.9 | 981.9 | 400 | 420 | 2 | 213 |
| 13/02/2009 0:50:00 | | 36.9 | 23.0 | 23.8 | 981.7 | 420 | 430 | 2 | 224 |
| 13/02/2009 0:55:00 | | 36.1 | 22.6 | 23.7 | 982.1 | 430 | 450 | 2 | 249 |
| 13/02/2009 1:00:00 | | 35.3 | 22.3 | 23.6 | 981.9 | 450 | 460 | 2 | 263 |
| 13/02/2009 1:05:00 | | 36.0 | 22.0 | 23.4 | 981.9 | 460 | 480 | 2 | 278 |
| 13/02/2009 1:10:00 | | 37.3 | 21.8 | 23.3 | 981.9 | 480 | 500 | 2 | 291 |
| 13/02/2009 1:15:00 | | 37.9 | 21.6 | 23.2 | 981.1 | 500 | 520 | 2 | 306 |
| 13/02/2009 1:20:00 | | 37.8 | 21.3 | 23.1 | 981.7 | 520 | 540 | 2 | 327 |
| 13/02/2009 1:25:00 | | 37.4 | 21.2 | 22.9 | 981.5 | 540 | 550 | 2 | 339 |
| 13/02/2009 1:30:00 | | 36.9 | 21.0 | 22.9 | 981.5 | 550 | 560 | 2 | 352 |
| 13/02/2009 1:35:00 | | 36.2 | 20.7 | 21.7 | 981.5 | 560 | 570 | 2 | 365 |
| 13/02/2009 1:45:00 | | 36.3 | 20.4 | 22.5 | 981.5 | 570 | 600 | 2 | 395 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1083 - 136.550 to 137.060 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 13/02/2009 | 1:55:00 | 38.4 | 21.2 | 22.4 | 981.9 | 600 | 630 | 2 | 414 |
| 13/02/2009 | 2:05:00 | 38.1 | 22.4 | 22.6 | 981.7 | 630 | 660 | 2 | 444 |
| 13/02/2009 | 2:15:00 | 37.1 | 23.2 | 22.7 | 980.8 | 660 | 680 | 2 | 468 |
| 13/02/2009 | 2:36:00 | 35.2 | 23.6 | 22.7 | 982.1 | 680 | 720 | 2 | 520 |
| 13/02/2009 | 2:45:00 | 37.0 | 23.6 | 22.7 | 981.7 | 720 | 750 | 2 | 539 |
| 13/02/2009 | 3:00:00 | 37.7 | 23.6 | 22.7 | 981.7 | 750 | 780 | 2 | 565 |
| 13/02/2009 | 3:15:00 | 36.4 | 24.0 | 22.9 | 981.1 | 780 | 800 | 2 | 590 |
| 13/02/2009 | 3:30:00 | 34.5 | 24.0 | 22.9 | 982.1 | 100 | 150 | 2 | 610 |
| 13/02/2009 | 3:45:00 | 36.9 | 23.7 | 22.9 | 981.9 | 150 | 180 | 2 | 626 |
| 13/02/2009 | 4:02:00 | 35.4 | 23.6 | 22.9 | 981.9 | 180 | 210 | 2 | 663 |
| 13/02/2009 | 4:15:00 | 35.4 | 23.9 | 22.9 | 981.9 | 210 | 230 | 2 | 683 |
| 13/02/2009 | 4:30:00 | 37.5 | 24.0 | 22.9 | 981.7 | 230 | 270 | 2 | 710 |
| 13/02/2009 | 5:00:00 | 35.3 | 24.2 | 23.2 | 982.1 | 270 | 300 | 2 | 751 |
| 13/02/2009 | 5:30:00 | 36.8 | 23.8 | 23.0 | 983.2 | 300 | 350 | 2 | 794 |
| 13/02/2009 | 6:00:00 | 34.7 | 23.7 | 23.1 | 983.4 | 350 | 380 | 2 | 835 |
| 13/02/2009 | 7:00:00 | 38.0 | 24.0 | 23.4 | 984.6 | 380 | 470 | 2 | 907 |
| 13/02/2009 | 8:00:00 | 36.4 | 23.9 | 23.5 | 983.8 | 470 | 510 | 2 | 953 |
| 13/02/2009 | 9:00:00 | 37.1 | 23.6 | 23.1 | 984.0 | 510 | 570 | 2 | 1009 |
| 13/02/2009 | 15:00:00 | 37.9 | 22.3 | 21.4 | 981.7 | 100 | 370 | 2 | 1237 |
| 13/02/2009 | 21:00:00 | 36.3 | 24.8 | 22.7 | 982.9 | 100 | 290 | 2 | 1416 |
| 14/02/2009 | 10:00:00 | 36.5 | 23.0 | 22.4 | 980.8 | 290 | 560 | 2 | 1676 |
| 14/02/2009 | 16:00:00 | 37.5 | 23.9 | 22.4 | 975.4 | 560 | 710 | 2 | 1808 |
| 15/02/2009 | 10:00:00 | 34.5 | 26.8 | 22.2 | 980.8 | 100 | 390 | 2 | 2077 |
| 15/02/2009 | 16:00:00 | 36.3 | 31.7 | 27.5 | 977.5 | 320 | 480 | 2 | 2210 |
| 16/02/2009 | 4:00:00 | 38.0 | 22.9 | 22.6 | 978.8 | 100 | 300 | 2 | 2375 |
| 25/02/2009 | 11:10:00 | 34.1 | 28.7 | 27.2 | 1025.8 | 200 | 930 | 2 | 3213 |
| 27/02/2009 | 14:05:00 | 33.3 | 27.2 | 24.9 | 1025.1 | 200 | 440 | 2 | 3416 |
| 04/03/2009 | 13:15:00 | 35.1 | 28.9 | 28.6 | 1014.3 | 200 | 480 | 2 | 3651 |
| 06/03/2009 | 14:00:00 | 34.4 | 25.9 | 23.1 | 1020.8 | 200 | 310 | 2 | 3760 |
| 10/03/2009 | 16:43:00 | 29.5 | 25.4 | 25.2 | 1029.7 | 200 | 170 | 2 | 3767 |
| 13/03/2009 | 11:02:00 | 34.2 | 25.9 | 26.1 | 1028.0 | 200 | 420 | 2 | 3961 |
| 17/03/2009 | 10:29:00 | 33.6 | 24.9 | 22.2 | 1024.0 | 200 | 370 | 2 | 4117 |
| 20/03/2009 | 11:57:00 | 32.7 | 27.6 | 25.4 | 1027.2 | 200 | 240 | 2 | 4158 |
| 23/03/2009 | 9:15:00 | 33.0 | 22.5 | 22.2 | 1028.2 | 200 | 260 | 2 | 4217 |
| 31/03/2009 | 9:42:00 | 31.3 | 23.2 | 23.7 | 1020.2 | 200 | 315 | 2 | 4325 |
| 07/04/2009 | 10:16:00 | 31.6 | 22.7 | 22.0 | 1024.3 | 200 | 400 | 2 | 4528 |
| 14/04/2009 | 9:01:00 | 31.7 | 23.1 | 23.2 | 1013.5 | 200 | 310 | 2 | 4607 |
| 21/04/2009 | 12:58:00 | 32.6 | 23.7 | 23.1 | 1019.5 | 200 | 280 | 2 | 4687 |
| 28/04/2009 | 10:50:00 | 28.7 | 23.4 | 18.5 | 1015.2 | 1000 | 1200 | 2 | 4949 |
| 05/05/2009 | 14:06:00 | 31.7 | 21.1 | 22.3 | 1029.6 | 200 | 290 | 2 | 4991 |
| 12/05/2009 | 14:32:00 | 32.0 | 21.1 | 19.6 | 1017.2 | 200 | 310 | 2 | 5074 |
| 18/05/2009 | 7:47:00 | 30.8 | 15.4 | 20.2 | 1024.1 | 200 | 210 | 2 | 5097 |
| 22/05/2009 | 9:20:00 | 30.9 | 23.1 | 21.2 | 1020.5 | 200 | 220 | 2 | 5110 |



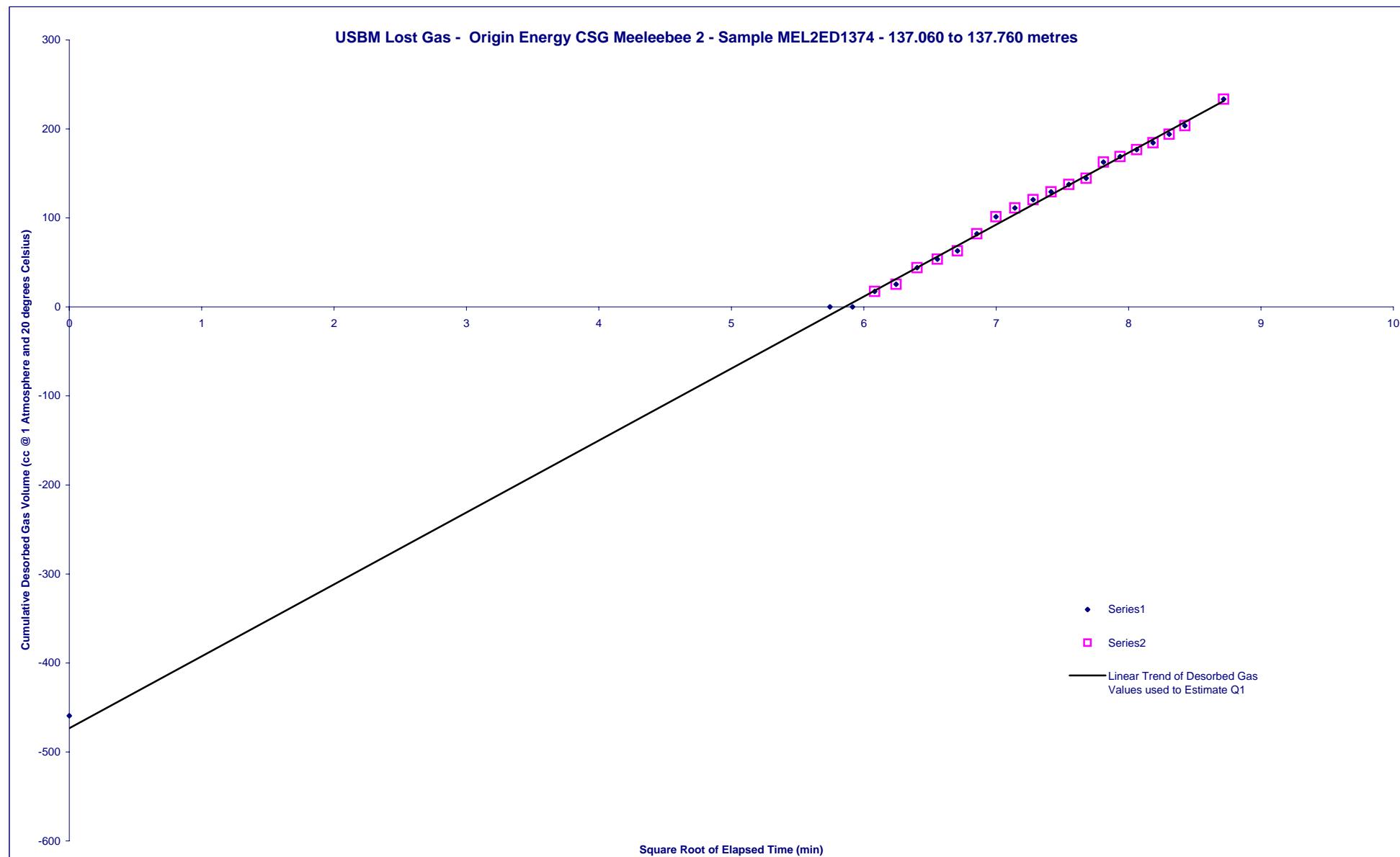


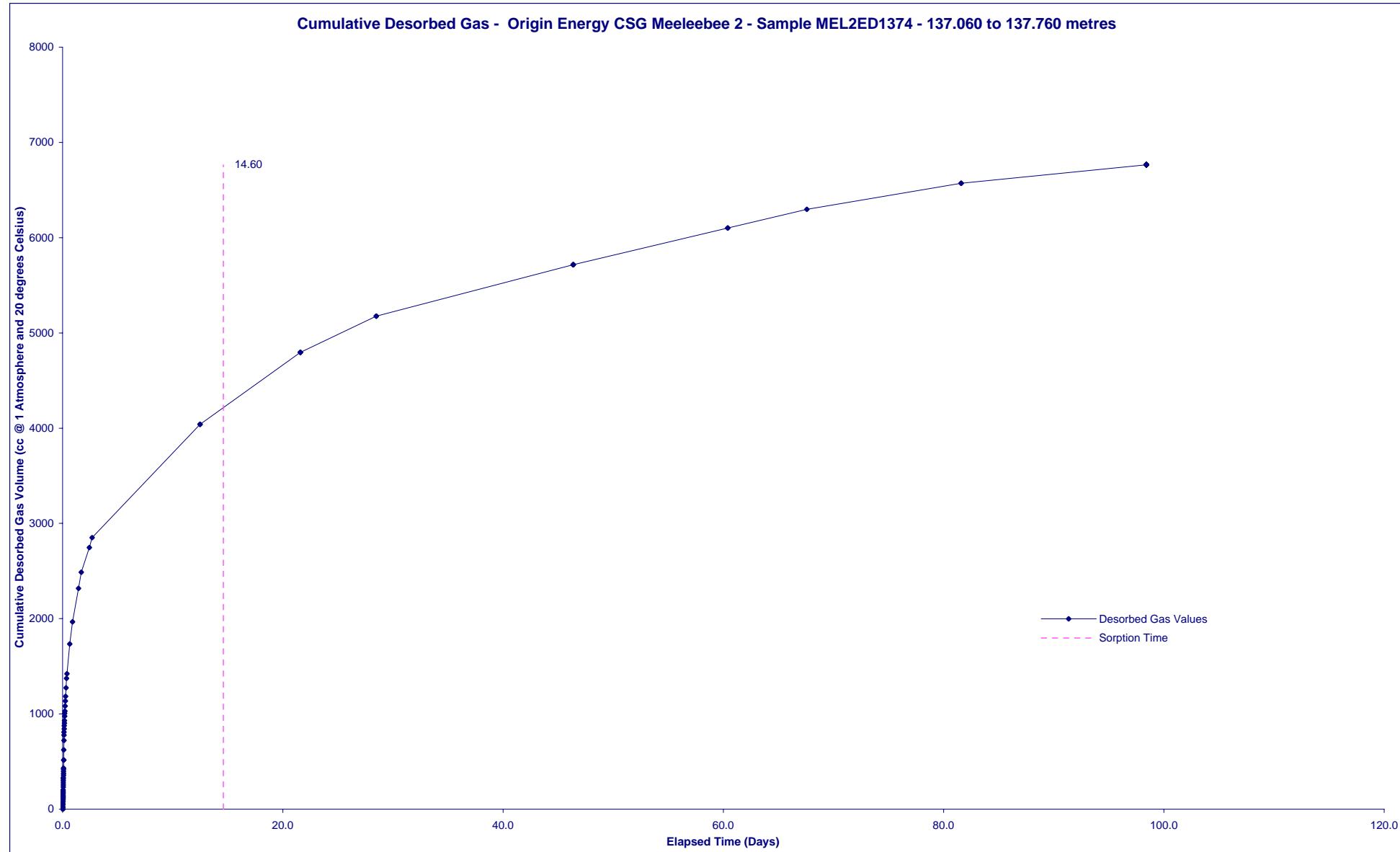
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1374 - 137.060 to 137.760 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | | |
|----------------------|---------------------|-------------------|---|-----------------|-------------------------|-------------------------------------|-------------------------|---------------------------|-----|
| Sample ID | MEL2ED1374 | Sample Type | Core | Sample Top (m) | 137.060 | Sample Base (m) | 137.760 | | |
| Sample Volume (cc) | 2079 | Mass (g) | 2514 | RD (g/cc) | 1.33 | Moisture (%ad) | 6.7 | | |
| Q3 Volume (cc@STP) | 52.95 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 6.2 | | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1452 | | |
| Date and Time | DD/MM/YY HH:MM | | Mud Weight (ppg) | 8.3454 | | Trip Rate (m/min) | 19.7 | | |
| Sample Penetrated | 12/02/2009 23:19 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 1.34 | | Surface Time Ratio | 0.788 | | |
| Sample Off Bottom | 12/02/2009 23:29 | | Formation Pressure Gradient (psi/ft) | 0.433 | | Lost Time Ratio | 0.061 | | |
| Sample at Surface | 12/02/2009 23:36 | | Depth HSP=Formation Pressure (m) | 136.89 | | USBM Q1 - Surface Time Correction | 1.27 | | |
| Sample Sealed | 13/02/2009 0:02 | | Formation Temperature (°C) | | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | | |
| Time Zero | 12/02/2009 23:29 | | Standard Temperature (°C) | 20.00 | Comments: | | Q1 Points Plotted | | |
| Last Entry | 22/05/2009 9:30 | | Standard Pressure (hPa) | 1013 | | | 20 | | |
| | | | | | | | -459 | | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | | |
| m³ | 0.000 | 0.001 | 0.000 | 0.007 | 0.000 | 0.010 | 0.010 | | |
| m³/tonne (raw) | 0.18 | 0.23 | 0.00 | 2.69 | 0.26 | 3.130 | 3.180 | | |
| SCF/T (raw) | 6 | 7 | 0 | 86 | 8 | 100.530 | 102.110 | | |
| m³/tonne (daf) | 0.22 | 0.28 | 0.00 | 3.28 | 0.32 | 3.82 | 3.88 | | |
| SCF/T (daf) | 7 | 9 | 0 | 105 | 10 | 123 | 124 | | |
| Percent of daf total | 5.83% | 7.28% | 0.00% | 84.46% | Sorption Time (days) | 14.60 | Diffusivity (sec⁻¹) | | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) | |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size | |
| 13/02/2009 0:02:00 | | 33.7 | 28.2 | 24.2 | 982.1 | 100 | 100 | 2 | 0 |
| 13/02/2009 0:04:00 | | 33.7 | 28.2 | 24.2 | 982.1 | 100 | 140 | 2 | 0 |
| 13/02/2009 0:06:00 | | 34.0 | 28.3 | 24.2 | 982.1 | 140 | 160 | 2 | 18 |
| 13/02/2009 0:08:00 | | 34.3 | 28.2 | 24.4 | 981.9 | 160 | 170 | 2 | 25 |
| 13/02/2009 0:10:00 | | 34.3 | 28.1 | 24.4 | 981.9 | 170 | 190 | 2 | 44 |
| 13/02/2009 0:12:00 | | 34.3 | 27.9 | 24.4 | 981.9 | 190 | 200 | 2 | 54 |
| 13/02/2009 0:14:00 | | 34.3 | 27.7 | 24.4 | 981.9 | 200 | 210 | 2 | 63 |
| 13/02/2009 0:16:00 | | 34.3 | 27.5 | 24.4 | 981.9 | 210 | 230 | 2 | 82 |
| 13/02/2009 0:18:00 | | 34.2 | 27.3 | 24.4 | 981.9 | 230 | 250 | 2 | 101 |
| 13/02/2009 0:20:00 | | 34.1 | 26.9 | 24.4 | 981.7 | 250 | 260 | 2 | 111 |
| 13/02/2009 0:22:00 | | 34.1 | 26.7 | 24.4 | 981.7 | 260 | 270 | 2 | 121 |
| 13/02/2009 0:24:00 | | 34.3 | 26.2 | 24.4 | 981.7 | 270 | 280 | 2 | 129 |
| 13/02/2009 0:26:00 | | 34.7 | 26.0 | 24.4 | 982.1 | 280 | 290 | 2 | 138 |
| 13/02/2009 0:28:00 | | 35.3 | 25.7 | 24.3 | 982.1 | 290 | 300 | 2 | 145 |
| 13/02/2009 0:30:00 | | 35.5 | 25.4 | 24.2 | 982.1 | 300 | 320 | 2 | 163 |
| 13/02/2009 0:32:00 | | 36.3 | 25.0 | 24.2 | 982.1 | 320 | 330 | 2 | 169 |
| 13/02/2009 0:34:00 | | 36.7 | 24.7 | 24.2 | 982.1 | 330 | 340 | 2 | 177 |
| 13/02/2009 0:36:00 | | 37.1 | 24.4 | 24.2 | 982.1 | 340 | 350 | 2 | 185 |
| 13/02/2009 0:38:00 | | 37.1 | 24.2 | 24.1 | 982.1 | 350 | 360 | 2 | 194 |
| 13/02/2009 0:40:00 | | 37.1 | 24.0 | 24.1 | 982.1 | 360 | 370 | 2 | 204 |
| 13/02/2009 0:45:00 | | 36.9 | 23.3 | 23.9 | 981.9 | 370 | 400 | 2 | 233 |
| 13/02/2009 0:50:00 | | 36.3 | 23.0 | 23.8 | 981.7 | 400 | 420 | 2 | 255 |
| 13/02/2009 0:55:00 | | 35.9 | 22.6 | 23.7 | 982.1 | 420 | 440 | 2 | 277 |
| 13/02/2009 1:00:00 | | 35.4 | 22.3 | 23.6 | 981.9 | 440 | 460 | 2 | 298 |
| 13/02/2009 1:05:00 | | 35.4 | 22.0 | 23.4 | 981.9 | 460 | 480 | 2 | 317 |
| 13/02/2009 1:10:00 | | 36.3 | 21.8 | 23.3 | 981.9 | 480 | 500 | 2 | 333 |
| 13/02/2009 1:15:00 | | 37.2 | 21.6 | 23.2 | 981.1 | 500 | 530 | 2 | 357 |
| 13/02/2009 1:20:00 | | 37.5 | 21.3 | 23.1 | 981.7 | 530 | 550 | 2 | 376 |
| 13/02/2009 1:25:00 | | 37.2 | 21.2 | 22.9 | 981.5 | 550 | 570 | 2 | 397 |
| 13/02/2009 1:30:00 | | 36.6 | 21.0 | 22.9 | 981.5 | 570 | 590 | 2 | 419 |
| 13/02/2009 1:35:00 | | 35.8 | 20.7 | 21.7 | 981.5 | 590 | 600 | 2 | 432 |
| 13/02/2009 1:45:00 | | 25.7 | 20.4 | 22.5 | 981.5 | 600 | 640 | 2 | 517 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1374 - 137.060 to 137.760 metres

| Date DD/MM/YY | Time HH:MM | Canister | Temperature (°C) | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|----------|------------------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 13/02/2009 | 1:55:00 | | 37.8 | 21.2 | 981.9 | 640 | 680 | 2 | 517 |
| 13/02/2009 | 2:05:00 | | 38.0 | 22.4 | 981.7 | 680 | 790 | 2 | 623 |
| 13/02/2009 | 2:15:00 | | 37.1 | 23.2 | 980.8 | 720 | 820 | 2 | 721 |
| 13/02/2009 | 2:36:00 | | 35.2 | 23.6 | 982.1 | 750 | 800 | 2 | 776 |
| 13/02/2009 | 2:45:00 | | 36.3 | 23.6 | 981.7 | 800 | 840 | 2 | 810 |
| 13/02/2009 | 3:00:00 | | 37.8 | 23.6 | 981.7 | 840 | 880 | 2 | 843 |
| 13/02/2009 | 3:15:00 | | 36.3 | 24.0 | 981.1 | 880 | 910 | 2 | 878 |
| 13/02/2009 | 3:30:00 | | 35.1 | 24.0 | 982.1 | 100 | 160 | 2 | 903 |
| 13/02/2009 | 3:45:00 | | 37.5 | 23.7 | 981.9 | 160 | 200 | 2 | 931 |
| 13/02/2009 | 4:02:00 | | 35.9 | 23.6 | 981.9 | 200 | 240 | 2 | 976 |
| 13/02/2009 | 4:15:00 | | 35.9 | 23.9 | 981.9 | 240 | 270 | 2 | 1005 |
| 13/02/2009 | 4:30:00 | | 37.1 | 24.0 | 981.7 | 270 | 300 | 2 | 1028 |
| 13/02/2009 | 5:00:00 | | 35.7 | 24.2 | 982.1 | 300 | 350 | 2 | 1083 |
| 13/02/2009 | 5:30:00 | | 37.1 | 23.8 | 983.2 | 350 | 410 | 2 | 1136 |
| 13/02/2009 | 6:00:00 | | 35.1 | 23.7 | 983.4 | 410 | 450 | 2 | 1184 |
| 13/02/2009 | 7:00:00 | | 37.2 | 24.0 | 984.6 | 450 | 550 | 2 | 1274 |
| 13/02/2009 | 8:00:00 | | 36.5 | 23.9 | 983.8 | 550 | 650 | 2 | 1373 |
| 13/02/2009 | 9:00:00 | | 36.3 | 23.6 | 984.0 | 650 | 700 | 2 | 1423 |
| 13/02/2009 | 15:00:00 | | 35.2 | 22.3 | 981.7 | 100 | 450 | 2 | 1735 |
| 13/02/2009 | 21:00:00 | | 35.7 | 24.8 | 982.9 | 100 | 360 | 2 | 1968 |
| 14/02/2009 | 10:00:00 | | 35.5 | 23.0 | 980.8 | 360 | 720 | 2 | 2317 |
| 14/02/2009 | 16:00:00 | | 34.7 | 23.9 | 975.4 | 720 | 900 | 2 | 2488 |
| 15/02/2009 | 10:00:00 | | 36.1 | 26.8 | 980.8 | 100 | 410 | 2 | 2747 |
| 15/02/2009 | 16:00:00 | | 36.9 | 31.7 | 977.5 | 410 | 530 | 2 | 2852 |
| 16/02/2009 | 4:00:00 | | 35.6 | 22.9 | 978.8 | 100 | 290 | 2 | 3021 |
| 25/02/2009 | 10:57:00 | | 35.2 | 28.1 | 1026.1 | 200 | 1140 | 2 | 4041 |
| 27/02/2009 | 13:57:00 | | 34.1 | 27.2 | 1025.5 | 200 | 540 | 2 | 4341 |
| 04/03/2009 | 13:31:00 | | 34.5 | 29.2 | 1014.3 | 200 | 550 | 2 | 4651 |
| 06/03/2009 | 13:55:00 | | 33.9 | 25.7 | 1021.0 | 200 | 350 | 2 | 4796 |
| 10/03/2009 | 16:41:00 | | 26.2 | 25.4 | 1029.7 | 200 | 390 | 2 | 5027 |
| 13/03/2009 | 11:11:00 | | 34.7 | 27.6 | 1028.2 | 200 | 400 | 2 | 5175 |
| 17/03/2009 | 10:46:00 | | 35.3 | 25.2 | 1023.8 | 200 | 400 | 2 | 5357 |
| 20/03/2009 | 11:40:00 | | 33.1 | 27.2 | 1026.5 | 200 | 290 | 2 | 5450 |
| 23/03/2009 | 8:55:00 | | 31.3 | 21.6 | 1028.0 | 200 | 290 | 2 | 5548 |
| 31/03/2009 | 8:20:00 | | 31.5 | 23.2 | 1020.2 | 200 | 385 | 2 | 5717 |
| 07/04/2009 | 9:46:00 | | 32.3 | 21.7 | 1024.1 | 200 | 300 | 2 | 5811 |
| 14/04/2009 | 8:49:00 | | 37.3 | 23.4 | 1013.3 | 200 | 535 | 2 | 6102 |
| 21/04/2009 | 13:15:00 | | 32.3 | 23.4 | 1019.5 | 200 | 380 | 2 | 6298 |
| 28/04/2009 | 10:45:00 | | 29.6 | 23.4 | 1015.2 | 1000 | 1170 | 2 | 6507 |
| 05/05/2009 | 13:55:00 | | 32.3 | 21.1 | 1029.3 | 200 | 300 | 2 | 6570 |
| 12/05/2009 | 14:05:00 | | 32.3 | 21.4 | 1017.4 | 200 | 320 | 2 | 6668 |
| 18/05/2009 | 7:52:00 | | 31.3 | 15.5 | 1024.7 | 200 | 250 | 2 | 6730 |
| 22/05/2009 | 9:30:00 | | 31.9 | 23.1 | 1024.3 | 200 | 240 | 2 | 6764 |



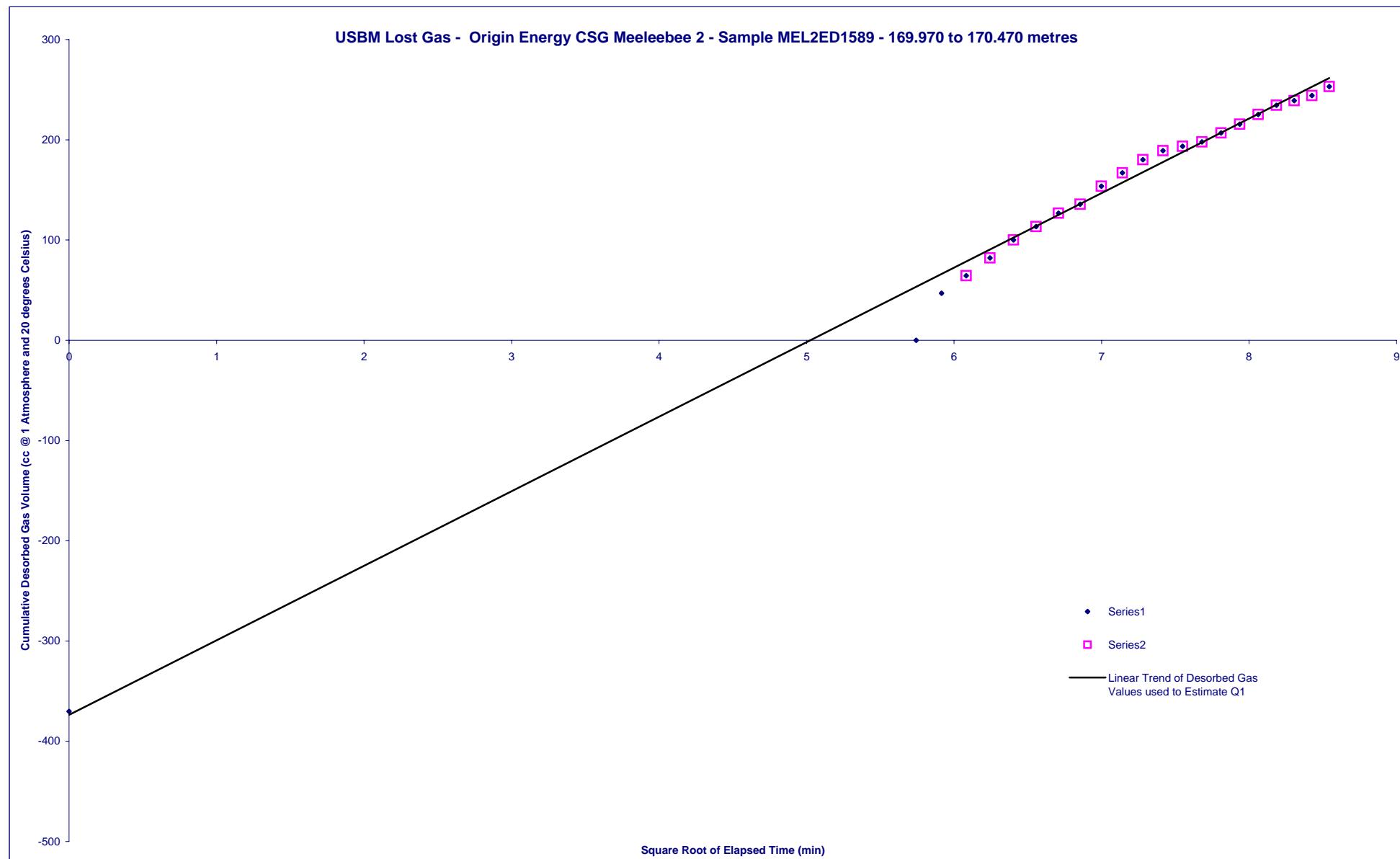


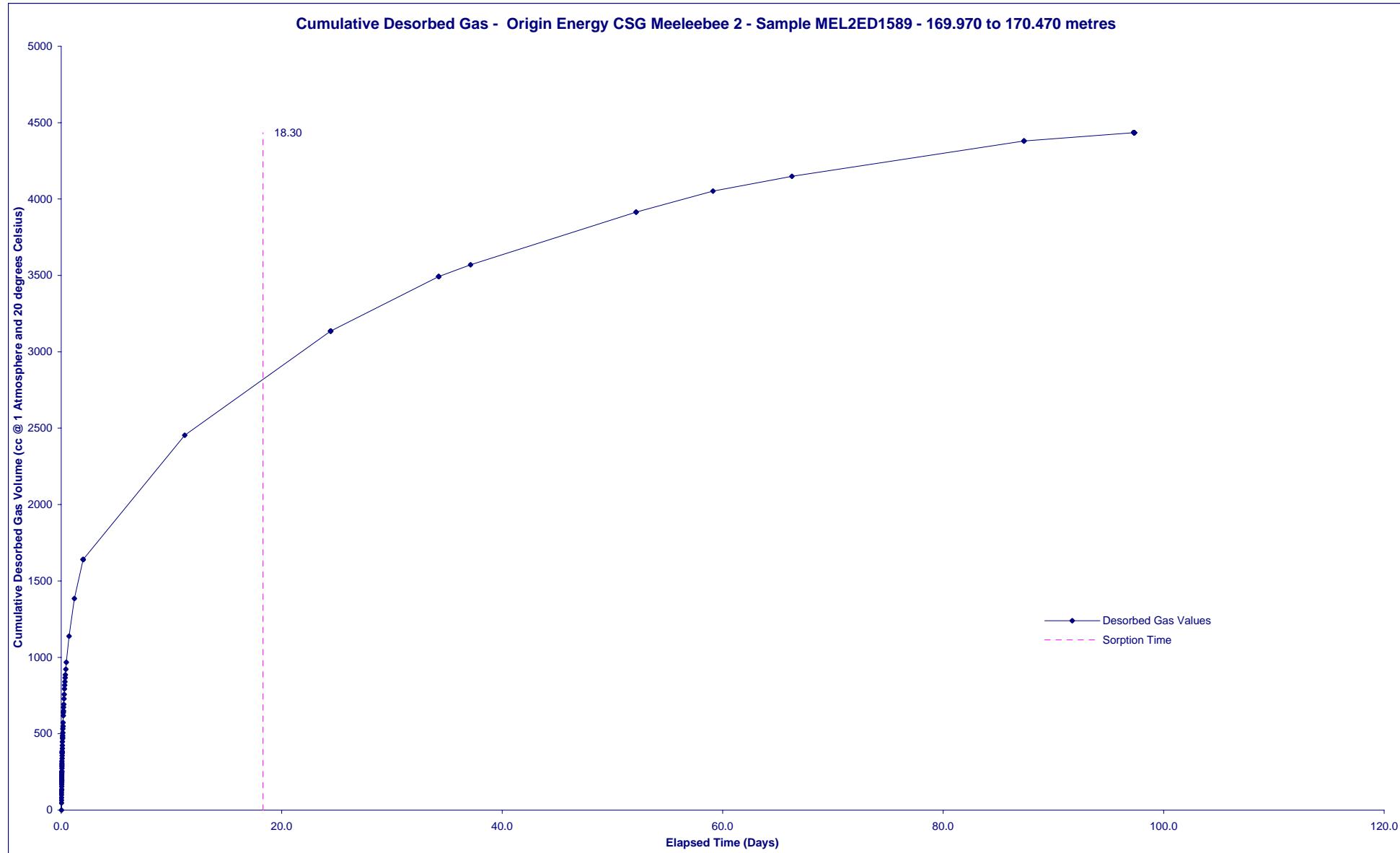
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1589 - 169.970 to 170.470 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | |
|---|---------------------|-------------------|---|-----------------|-------------------------|-------------------------------------|-------------------------|---------------------------|
| Sample ID | MEL2ED1589 | Sample Type | Core | Sample Top (m) | 169.970 | Sample Base (m) | 170.470 | |
| Sample Volume (cc) | 1485 | Mass (g) | 1586 | RD (g/cc) | 1.28 | Moisture (%ad) | 7.1 | |
| Q3 Volume (cc@STP) | 67.11 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 6.4 | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 313 | |
| Date and Time | DD/MM/YY HH:MM | | Mud Weight (ppg) | 8.3454 | | Trip Rate (m/min) | 17.0 | |
| Sample Penetrated | 14/02/2009 5:56 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 1.66 | | Surface Time Ratio | 0.697 | |
| Sample Off Bottom | 14/02/2009 6:07 | | Formation Pressure Gradient (psi/ft) | 0.433 | | Lost Time Ratio | 0.053 | |
| Sample at Surface | 14/02/2009 6:17 | | Depth HSP=Formation Pressure (m) | 169.76 | | USBM Q1 - Surface Time Correction | 1.225 | |
| Sample Sealed | 14/02/2009 6:40 | | Formation Temperature (°C) | | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | |
| Time Zero | 14/02/2009 6:07 | | Standard Temperature (°C) | 20.00 | Comments: | | 20 | |
| Last Entry | 22/05/2009 13:35 | | Standard Pressure (hPa) | 1013 | | | -370 | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | |
| m³ | 0.000 | 0.000 | 0.000 | 0.004 | 0.000 | 0.000 | 0.000 | |
| m³/tonne (raw) | 0.23 | 0.29 | 0.00 | 2.80 | 0.34 | 3.370 | 3.430 | |
| SCF/T (raw) | 7 | 9 | 0 | 90 | 11 | 107.810 | 109.490 | |
| m³/tonne (daf) | 0.27 | 0.33 | 0.00 | 3.23 | 0.39 | 3.89 | 3.95 | |
| SCF/T (daf) | 9 | 11 | 0 | 103 | 13 | 124 | 126 | |
| Percent of daf total | 6.92% | 8.35% | 0.00% | 81.65% | Sorption Time (days) | 18.30 | Diffusivity (sec⁻¹) | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size |
| 14/02/2009 | 6:40:00 | | 30.7 | 23.8 | 980.9 | 100 | 100 | 2 |
| 14/02/2009 | 6:42:00 | | 30.9 | 23.8 | 980.9 | 100 | 170 | 2 |
| 14/02/2009 | 6:44:00 | | 31.6 | 23.8 | 980.6 | 170 | 190 | 2 |
| 14/02/2009 | 6:46:00 | | 32.3 | 23.7 | 980.6 | 190 | 210 | 2 |
| 14/02/2009 | 6:48:00 | | 32.9 | 23.6 | 980.6 | 210 | 230 | 2 |
| 14/02/2009 | 6:50:00 | | 33.3 | 23.4 | 980.6 | 230 | 245 | 2 |
| 14/02/2009 | 6:52:00 | | 33.7 | 23.2 | 980.6 | 245 | 260 | 2 |
| 14/02/2009 | 6:54:00 | | 34.0 | 23.0 | 980.6 | 260 | 270 | 2 |
| 14/02/2009 | 6:56:00 | | 34.6 | 23.0 | 980.6 | 270 | 290 | 2 |
| 14/02/2009 | 6:58:00 | | 35.1 | 23.2 | 980.8 | 290 | 305 | 2 |
| 14/02/2009 | 7:00:00 | | 35.9 | 23.4 | 980.8 | 305 | 320 | 2 |
| 14/02/2009 | 7:02:00 | | 36.1 | 23.4 | 980.8 | 320 | 330 | 2 |
| 14/02/2009 | 7:04:00 | | 36.4 | 23.4 | 980.8 | 330 | 335 | 2 |
| 14/02/2009 | 7:06:00 | | 36.7 | 23.6 | 980.8 | 335 | 340 | 2 |
| 14/02/2009 | 7:08:00 | | 37.0 | 23.6 | 980.8 | 340 | 350 | 2 |
| 14/02/2009 | 7:10:00 | | 37.4 | 23.7 | 980.8 | 350 | 360 | 2 |
| 14/02/2009 | 7:12:00 | | 37.1 | 23.6 | 980.8 | 360 | 370 | 2 |
| 14/02/2009 | 7:14:00 | | 37.1 | 23.4 | 980.8 | 370 | 380 | 2 |
| 14/02/2009 | 7:16:00 | | 37.1 | 23.3 | 980.8 | 380 | 385 | 2 |
| 14/02/2009 | 7:18:00 | | 36.7 | 23.0 | 980.8 | 385 | 390 | 2 |
| 14/02/2009 | 7:20:00 | | 37.1 | 23.0 | 980.9 | 390 | 400 | 2 |
| 14/02/2009 | 7:25:00 | | 36.5 | 23.1 | 980.8 | 400 | 400 | 2 |
| 14/02/2009 | 7:30:00 | | 35.6 | 23.2 | 980.6 | 400 | 420 | 2 |
| 14/02/2009 | 7:35:00 | | 36.3 | 23.3 | 980.9 | 420 | 435 | 2 |
| 14/02/2009 | 7:40:00 | | 35.1 | 23.6 | 980.9 | 435 | 445 | 2 |
| 14/02/2009 | 7:45:00 | | 34.8 | 22.9 | 980.2 | 445 | 455 | 2 |
| 14/02/2009 | 7:50:00 | | 35.1 | 22.9 | 980.4 | 455 | 470 | 2 |
| 14/02/2009 | 7:55:00 | | 35.7 | 23.3 | 980.4 | 470 | 490 | 2 |
| 14/02/2009 | 8:00:00 | | 36.3 | 23.4 | 981.1 | 490 | 510 | 2 |
| 14/02/2009 | 8:05:00 | | 37.1 | 23.6 | 981.1 | 510 | 530 | 2 |
| 14/02/2009 | 8:10:00 | | 36.5 | 23.2 | 981.1 | 530 | 530 | 2 |
| 14/02/2009 | 8:15:00 | | 35.9 | 22.9 | 981.1 | 530 | 535 | 2 |
| <input checked="" type="radio"/> Volumetric <input type="radio"/> He Reference | | | | | | | | |
| <input checked="" type="radio"/> Auto <input type="radio"/> Manual <input type="radio"/> Cut Time | | | | | | | | |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1589 - 169.970 to 170.470 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 14/02/2009 | 8:20:00 | 35.6 | 23.4 | 22.9 | 981.1 | 535 | 540 | 2 | 385 |
| 14/02/2009 | 8:30:00 | 34.9 | 23.6 | 22.7 | 981.1 | 540 | 560 | 2 | 404 |
| 14/02/2009 | 8:40:00 | 34.9 | 23.1 | 22.9 | 981.1 | 560 | 580 | 2 | 423 |
| 14/02/2009 | 8:50:00 | 37.6 | 23.4 | 22.8 | 980.4 | 580 | 610 | 2 | 448 |
| 14/02/2009 | 9:00:00 | 36.3 | 23.0 | 22.9 | 980.9 | 610 | 630 | 2 | 468 |
| 14/02/2009 | 9:10:00 | 35.9 | 23.6 | 22.7 | 980.9 | 630 | 640 | 2 | 478 |
| 14/02/2009 | 9:20:00 | 35.1 | 23.4 | 22.8 | 980.8 | 640 | 650 | 2 | 488 |
| 14/02/2009 | 9:30:00 | 35.3 | 23.0 | 22.6 | 980.9 | 650 | 670 | 2 | 507 |
| 14/02/2009 | 9:45:00 | 37.3 | 23.2 | 22.7 | 980.8 | 670 | 700 | 2 | 533 |
| 14/02/2009 | 10:00:00 | 35.9 | 23.0 | 22.4 | 980.8 | 700 | 715 | 2 | 548 |
| 14/02/2009 | 10:15:00 | 34.7 | 22.9 | 22.1 | 980.8 | 715 | 740 | 2 | 573 |
| 14/02/2009 | 10:30:00 | 37.9 | 23.5 | 22.2 | 980.8 | 100 | 160 | 2 | 618 |
| 14/02/2009 | 10:45:00 | 36.0 | 23.2 | 22.3 | 979.4 | 160 | 180 | 2 | 637 |
| 14/02/2009 | 11:00:00 | 34.7 | 22.8 | 22.2 | 980.2 | 180 | 190 | 2 | 648 |
| 14/02/2009 | 11:15:00 | 37.8 | 23.7 | 22.3 | 980.2 | 190 | 220 | 2 | 673 |
| 14/02/2009 | 11:30:00 | 35.9 | 24.4 | 22.4 | 979.0 | 220 | 240 | 2 | 693 |
| 14/02/2009 | 12:00:00 | 36.0 | 24.7 | 22.6 | 979.4 | 240 | 280 | 2 | 729 |
| 14/02/2009 | 12:30:00 | 34.7 | 23.3 | 22.4 | 978.3 | 280 | 310 | 2 | 758 |
| 14/02/2009 | 13:00:00 | 36.3 | 23.6 | 22.4 | 978.8 | 310 | 350 | 2 | 793 |
| 14/02/2009 | 13:30:00 | 35.3 | 23.7 | 22.3 | 978.5 | 350 | 375 | 2 | 817 |
| 14/02/2009 | 14:00:00 | 35.5 | 24.3 | 22.4 | 977.7 | 375 | 400 | 2 | 840 |
| 14/02/2009 | 14:30:00 | 37.1 | 24.6 | 22.4 | 976.9 | 400 | 430 | 2 | 866 |
| 14/02/2009 | 15:00:00 | 34.8 | 24.6 | 22.6 | 976.0 | 430 | 450 | 2 | 886 |
| 14/02/2009 | 16:00:00 | 34.8 | 23.9 | 22.4 | 975.4 | 450 | 490 | 2 | 923 |
| 14/02/2009 | 17:00:00 | 36.5 | 26.3 | 22.3 | 975.8 | 490 | 540 | 2 | 967 |
| 14/02/2009 | 23:00:00 | 34.7 | 23.1 | 22.8 | 979.8 | 540 | 720 | 2 | 1139 |
| 15/02/2009 | 11:00:00 | 36.3 | 29.1 | 22.8 | 980.4 | 100 | 380 | 2 | 1385 |
| 15/02/2009 | 17:00:00 | 34.3 | 37.3 | 28.3 | 977.4 | 380 | 430 | 2 | 1431 |
| 16/02/2009 | 0:00:00 | 36.0 | 20.4 | 23.7 | 980.4 | 100 | 230 | 2 | 1547 |
| 16/02/2009 | 6:00:00 | 35.5 | 22.9 | 22.8 | 979.8 | 230 | 330 | 2 | 1640 |
| 25/02/2009 | 11:03:00 | 35.1 | 28.5 | 27.2 | 1025.8 | 200 | 1020 | 2 | 2453 |
| 27/02/2009 | 14:01:00 | 34.3 | 27.2 | 24.9 | 1024.8 | 200 | 400 | 2 | 2636 |
| 04/03/2009 | 13:24:00 | 34.7 | 29.1 | 28.4 | 1014.3 | 200 | 505 | 2 | 2919 |
| 06/03/2009 | 14:04:00 | 34.9 | 25.9 | 23.1 | 1021.1 | 200 | 310 | 2 | 3022 |
| 10/03/2009 | 16:35:00 | 29.6 | 25.2 | 25.5 | 1029.3 | 200 | 310 | 2 | 3136 |
| 13/03/2009 | 11:08:00 | 34.5 | 27.5 | 26.7 | 1028.4 | 200 | 370 | 2 | 3292 |
| 17/03/2009 | 10:36:00 | 35.1 | 25.1 | 22.2 | 1025.1 | 200 | 360 | 2 | 3443 |
| 20/03/2009 | 11:51:00 | 32.7 | 27.6 | 25.2 | 1027.6 | 200 | 250 | 2 | 3492 |
| 23/03/2009 | 9:05:00 | 32.1 | 21.6 | 22.2 | 1028.0 | 200 | 280 | 2 | 3570 |
| 31/03/2009 | 8:25:00 | 32.3 | 23.2 | 23.7 | 1020.2 | 200 | 360 | 2 | 3721 |
| 07/04/2009 | 9:46:00 | 32.7 | 22.6 | 21.9 | 1023.4 | 200 | 400 | 2 | 3914 |
| 14/04/2009 | 8:53:00 | 32.2 | 23.3 | 23.3 | 1013.1 | 200 | 350 | 2 | 4053 |
| 21/04/2009 | 13:08:00 | 33.1 | 23.6 | 23.2 | 1019.7 | 200 | 300 | 2 | 4148 |
| 28/04/2009 | 11:02:00 | 29.9 | 23.4 | 18.7 | 1015.2 | 1000 | 1050 | 2 | 4207 |
| 05/05/2009 | 14:00:00 | 33.2 | 21.1 | 22.7 | 1029.4 | 200 | 290 | 2 | 4287 |
| 12/05/2009 | 13:57:00 | 32.4 | 20.3 | 19.4 | 1017.9 | 200 | 300 | 2 | 4380 |
| 18/05/2009 | 7:54:00 | 32.3 | 15.5 | 20.1 | 1024.3 | 200 | 220 | 2 | 4401 |
| 22/05/2009 | 13:35:00 | 33.3 | 33.1 | 21.2 | 1017.7 | 200 | 240 | 2 | 4435 |



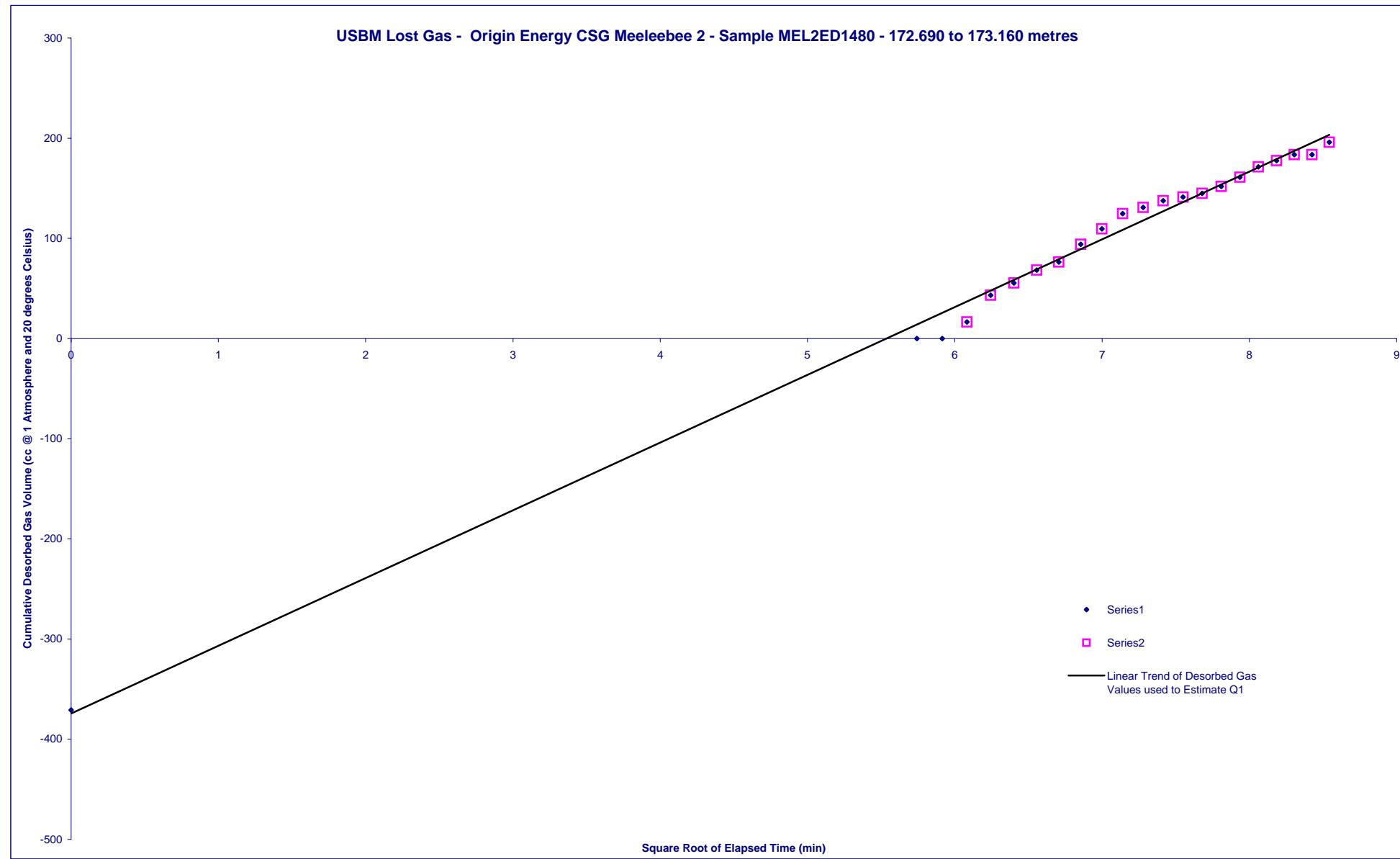


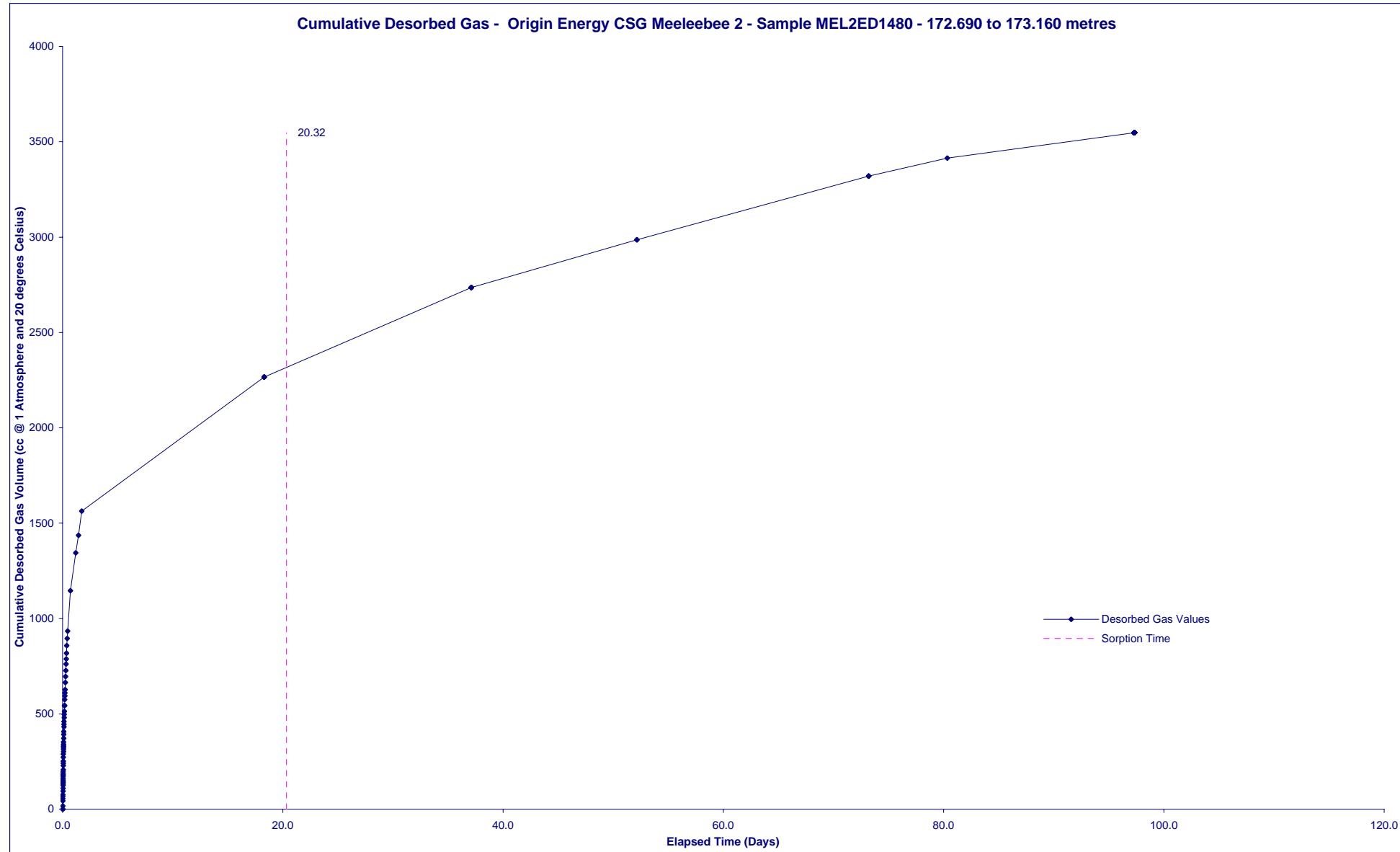
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1480 - 172.690 to 173.160 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | | |
|----------------------|---------------------|-------------------|---------------------|---|----------------------|-------------------------------------|-------------------------|------|---------------------------|
| Sample ID | MEL2ED1480 | Sample Type | Core | Sample Top (m) | 172.690 | Sample Base (m) | 173.160 | | |
| Sample Volume (cc) | 1396 | Mass (g) | 1702 | RD (g/cc) | 1.35 | Moisture (%ad) | 8.9 | | |
| Q3 Volume (cc@STP) | 75.24 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 8.2 | | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 2003 | | |
| Date and Time | DD/MM/YY | HH:MM | | Mud Weight (ppg) | 8.3454 | Trip Rate (m/min) | 17.3 | | |
| Sample Penetrated | 14/02/2009 | 5:59 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 1.69 | Surface Time Ratio | 0.697 | | |
| Sample Off Bottom | 14/02/2009 | 6:07 | | Formation Pressure Gradient (psi/ft) | 0.433 | Lost Time Ratio | 0.066 | | |
| Sample at Surface | 14/02/2009 | 6:17 | | Depth HSP=Formation Pressure (m) | 172.48 | USBM Q1 - Surface Time Correction | 1.225 | | |
| Sample Sealed | 14/02/2009 | 6:40 | | Formation Temperature (°C) | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | | |
| Time Zero | 14/02/2009 | 6:07 | | Standard Temperature (°C) | 20.00 | Comments: | Q1 Points Plotted | | |
| Last Entry | 22/05/2009 | 13:35 | | Standard Pressure (hPa) | 1013 | | 20 | | |
| | | | | | | | -371 | | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | | |
| m³ | 0.000 | 0.000 | 0.000 | 0.004 | 0.000 | 0.000 | 0.000 | | |
| m³/tonne (raw) | 0.22 | 0.27 | 0.00 | 2.08 | 0.38 | 2.680 | 2.730 | | |
| SCF/T (raw) | 7 | 9 | 0 | 67 | 12 | 85.790 | 87.360 | | |
| m³/tonne (daf) | 0.28 | 0.34 | 0.00 | 2.65 | 0.48 | 3.41 | 3.47 | | |
| SCF/T (daf) | 9 | 11 | 0 | 85 | 15 | 109 | 111 | | |
| Percent of daf total | 8.12% | 9.78% | 0.00% | 76.31% | Sorption Time (days) | 20.32 | Diffusivity (sec⁻¹) | | |
| Date | Time | | Temperature (°C) | Abs. Air Pressure (hPa) | | Measurement Device | | | |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size | Cumulative Q2 (cc at STP) |
| 14/02/2009 | 6:40:00 | | 31.6 | 23.8 | 980.9 | 100 | 100 | 2 | 0 |
| 14/02/2009 | 6:42:00 | | 31.9 | 23.8 | 980.9 | 100 | 190 | 2 | 0 |
| 14/02/2009 | 6:44:00 | | 32.3 | 23.8 | 980.6 | 190 | 210 | 2 | 16 |
| 14/02/2009 | 6:46:00 | | 32.7 | 23.7 | 980.6 | 210 | 240 | 2 | 43 |
| 14/02/2009 | 6:48:00 | | 33.1 | 23.6 | 980.6 | 240 | 255 | 2 | 56 |
| 14/02/2009 | 6:50:00 | | 33.4 | 23.4 | 980.6 | 255 | 270 | 2 | 68 |
| 14/02/2009 | 6:52:00 | | 33.7 | 23.2 | 980.6 | 270 | 280 | 2 | 76 |
| 14/02/2009 | 6:54:00 | | 34.0 | 23.0 | 980.6 | 280 | 300 | 2 | 94 |
| 14/02/2009 | 6:56:00 | | 34.7 | 23.0 | 980.6 | 300 | 320 | 2 | 109 |
| 14/02/2009 | 6:58:00 | | 35.5 | 23.2 | 980.8 | 320 | 340 | 2 | 125 |
| 14/02/2009 | 7:00:00 | | 36.1 | 23.4 | 980.8 | 340 | 350 | 2 | 131 |
| 14/02/2009 | 7:02:00 | | 36.6 | 23.4 | 980.8 | 350 | 360 | 2 | 138 |
| 14/02/2009 | 7:04:00 | | 36.8 | 23.4 | 980.8 | 360 | 365 | 2 | 141 |
| 14/02/2009 | 7:06:00 | | 37.0 | 23.6 | 980.8 | 365 | 370 | 2 | 145 |
| 14/02/2009 | 7:08:00 | | 37.5 | 23.6 | 980.8 | 370 | 380 | 2 | 152 |
| 14/02/2009 | 7:10:00 | | 37.6 | 23.7 | 980.8 | 380 | 390 | 2 | 161 |
| 14/02/2009 | 7:12:00 | | 37.5 | 23.6 | 980.8 | 390 | 400 | 2 | 171 |
| 14/02/2009 | 7:14:00 | | 37.3 | 23.4 | 980.8 | 400 | 405 | 2 | 178 |
| 14/02/2009 | 7:16:00 | | 37.1 | 23.3 | 980.8 | 405 | 410 | 2 | 184 |
| 14/02/2009 | 7:18:00 | | 37.1 | 23.0 | 980.8 | 410 | 410 | 2 | 184 |
| 14/02/2009 | 7:20:00 | | 36.7 | 23.0 | 980.9 | 410 | 420 | 2 | 196 |
| 14/02/2009 | 7:25:00 | | 36.6 | 23.1 | 980.8 | 420 | 430 | 2 | 206 |
| 14/02/2009 | 7:30:00 | | 36.0 | 23.2 | 980.6 | 430 | 450 | 2 | 229 |
| 14/02/2009 | 7:35:00 | | 35.9 | 23.3 | 980.9 | 450 | 460 | 2 | 240 |
| 14/02/2009 | 7:40:00 | | 35.6 | 23.6 | 980.9 | 460 | 470 | 2 | 252 |
| 14/02/2009 | 7:45:00 | | 35.2 | 22.9 | 980.2 | 470 | 490 | 2 | 273 |
| 14/02/2009 | 7:50:00 | | 35.8 | 22.9 | 980.4 | 490 | 510 | 2 | 289 |
| 14/02/2009 | 7:55:00 | | 36.1 | 23.3 | 980.4 | 510 | 525 | 2 | 302 |
| 14/02/2009 | 8:00:00 | | 36.5 | 23.4 | 981.1 | 525 | 540 | 2 | 316 |
| 14/02/2009 | 8:05:00 | | 37.3 | 23.6 | 981.1 | 540 | 555 | 2 | 326 |
| 14/02/2009 | 8:10:00 | | 37.1 | 23.2 | 981.1 | 555 | 560 | 2 | 332 |
| 14/02/2009 | 8:15:00 | | 36.6 | 22.9 | 981.1 | 560 | 565 | 2 | 340 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1480 - 172.690 to 173.160 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 14/02/2009 | 8:20:00 | 36.3 | 23.4 | 22.9 | 981.1 | 565 | 575 | 2 | 352 |
| 14/02/2009 | 8:30:00 | 35.5 | 23.6 | 22.7 | 981.1 | 575 | 590 | 2 | 371 |
| 14/02/2009 | 8:40:00 | 35.3 | 23.1 | 22.9 | 981.1 | 590 | 610 | 2 | 392 |
| 14/02/2009 | 8:50:00 | 37.6 | 23.4 | 22.8 | 980.4 | 610 | 640 | 2 | 407 |
| 14/02/2009 | 9:00:00 | 36.9 | 23.0 | 22.9 | 980.9 | 640 | 660 | 2 | 432 |
| 14/02/2009 | 9:10:00 | 36.3 | 23.6 | 22.7 | 980.9 | 660 | 670 | 2 | 445 |
| 14/02/2009 | 9:20:00 | 35.5 | 23.4 | 22.8 | 980.8 | 670 | 680 | 2 | 460 |
| 14/02/2009 | 9:30:00 | 35.4 | 23.0 | 22.6 | 980.9 | 680 | 700 | 2 | 480 |
| 14/02/2009 | 9:45:00 | 37.5 | 23.2 | 22.7 | 980.8 | 700 | 730 | 2 | 497 |
| 14/02/2009 | 10:00:00 | 36.5 | 23.0 | 22.4 | 980.8 | 730 | 740 | 2 | 513 |
| 14/02/2009 | 10:15:00 | 34.9 | 22.9 | 22.1 | 980.8 | 740 | 760 | 2 | 543 |
| 14/02/2009 | 10:30:00 | 37.6 | 23.5 | 22.2 | 980.8 | 100 | 130 | 2 | 543 |
| 14/02/2009 | 10:45:00 | 36.7 | 23.2 | 22.3 | 979.4 | 130 | 160 | 2 | 575 |
| 14/02/2009 | 11:00:00 | 35.4 | 22.8 | 22.2 | 980.2 | 160 | 170 | 2 | 594 |
| 14/02/2009 | 11:15:00 | 37.5 | 23.7 | 22.3 | 980.2 | 170 | 200 | 2 | 610 |
| 14/02/2009 | 11:30:00 | 36.7 | 24.4 | 22.4 | 979.0 | 200 | 215 | 2 | 627 |
| 14/02/2009 | 12:00:00 | 36.3 | 24.7 | 22.6 | 979.4 | 215 | 250 | 2 | 664 |
| 14/02/2009 | 12:30:00 | 35.5 | 23.3 | 22.4 | 978.3 | 250 | 280 | 2 | 696 |
| 14/02/2009 | 13:00:00 | 37.1 | 23.6 | 22.4 | 978.8 | 280 | 320 | 2 | 727 |
| 14/02/2009 | 13:30:00 | 36.2 | 23.7 | 22.3 | 978.5 | 320 | 350 | 2 | 761 |
| 14/02/2009 | 14:00:00 | 36.3 | 24.3 | 22.4 | 977.7 | 350 | 380 | 2 | 788 |
| 14/02/2009 | 14:30:00 | 37.6 | 24.6 | 22.4 | 976.9 | 380 | 420 | 2 | 817 |
| 14/02/2009 | 15:00:00 | 35.5 | 24.6 | 22.6 | 976.0 | 420 | 450 | 2 | 857 |
| 14/02/2009 | 16:00:00 | 35.5 | 23.9 | 22.4 | 975.4 | 450 | 490 | 2 | 895 |
| 14/02/2009 | 17:00:00 | 37.3 | 26.3 | 22.3 | 975.8 | 490 | 540 | 2 | 934 |
| 14/02/2009 | 23:00:00 | 34.7 | 23.1 | 22.8 | 979.8 | 540 | 730 | 2 | 1146 |
| 15/02/2009 | 11:00:00 | 36.7 | 29.1 | 22.8 | 980.4 | 100 | 360 | 2 | 1345 |
| 15/02/2009 | 17:00:00 | 34.4 | 37.3 | 28.3 | 977.4 | 360 | 450 | 2 | 1436 |
| 16/02/2009 | 0:00:00 | 36.8 | 20.4 | 23.7 | 980.4 | 100 | 260 | 2 | 1563 |
| 16/02/2009 | 6:00:00 | 36.5 | 22.9 | 22.8 | 979.8 | 260 | 340 | 2 | 1642 |
| 25/02/2009 | 10:57:00 | 35.5 | 28.1 | 27.1 | 1026.1 | 200 | 350 | 2 | 1880 |
| 27/02/2009 | 13:57:00 | 34.3 | 27.2 | 25.0 | 1025.5 | 200 | 320 | 2 | 1998 |
| 04/03/2009 | 13:31:00 | 34.5 | 29.2 | 28.4 | 1014.3 | 200 | 500 | 2 | 2267 |
| 06/03/2009 | 13:55:00 | 34.0 | 25.7 | 23.1 | 1021.0 | 200 | 300 | 2 | 2365 |
| 10/03/2009 | 16:41:00 | 29.1 | 25.4 | 25.4 | 1029.7 | 200 | 290 | 2 | 2498 |
| 13/03/2009 | 11:11:00 | 34.0 | 27.6 | 26.6 | 1028.2 | 200 | 350 | 2 | 2609 |
| 20/03/2009 | 11:40:00 | 32.9 | 27.2 | 25.2 | 1026.5 | 200 | 260 | 2 | 2664 |
| 23/03/2009 | 8:55:00 | 31.1 | 21.6 | 22.2 | 1028.0 | 200 | 260 | 2 | 2736 |
| 31/03/2009 | 8:20:00 | 31.5 | 23.2 | 23.7 | 1020.2 | 200 | 320 | 2 | 2836 |
| 07/04/2009 | 9:46:00 | 32.2 | 21.7 | 21.5 | 1024.1 | 200 | 350 | 2 | 2986 |
| 14/04/2009 | 8:49:00 | 31.1 | 23.4 | 23.3 | 1013.3 | 200 | 310 | 2 | 3073 |
| 21/04/2009 | 13:15:00 | 32.9 | 23.4 | 23.1 | 1019.5 | 200 | 290 | 2 | 3158 |
| 28/04/2009 | 10:45:00 | 29.1 | 23.4 | 18.5 | 1015.2 | 200 | 350 | 2 | 3320 |
| 05/05/2009 | 13:55:00 | 31.6 | 21.1 | 22.7 | 1029.3 | 200 | 290 | 2 | 3415 |
| 12/05/2009 | 14:05:00 | 31.5 | 21.4 | 19.5 | 1017.4 | 200 | 300 | 2 | 3488 |
| 18/05/2009 | 7:52:00 | 30.9 | 15.5 | 20.1 | 1024.7 | 200 | 210 | 2 | 3511 |
| 22/05/2009 | 13:35:00 | 32.3 | 23.1 | 21.2 | 1017.2 | 200 | 260 | 2 | 3547 |



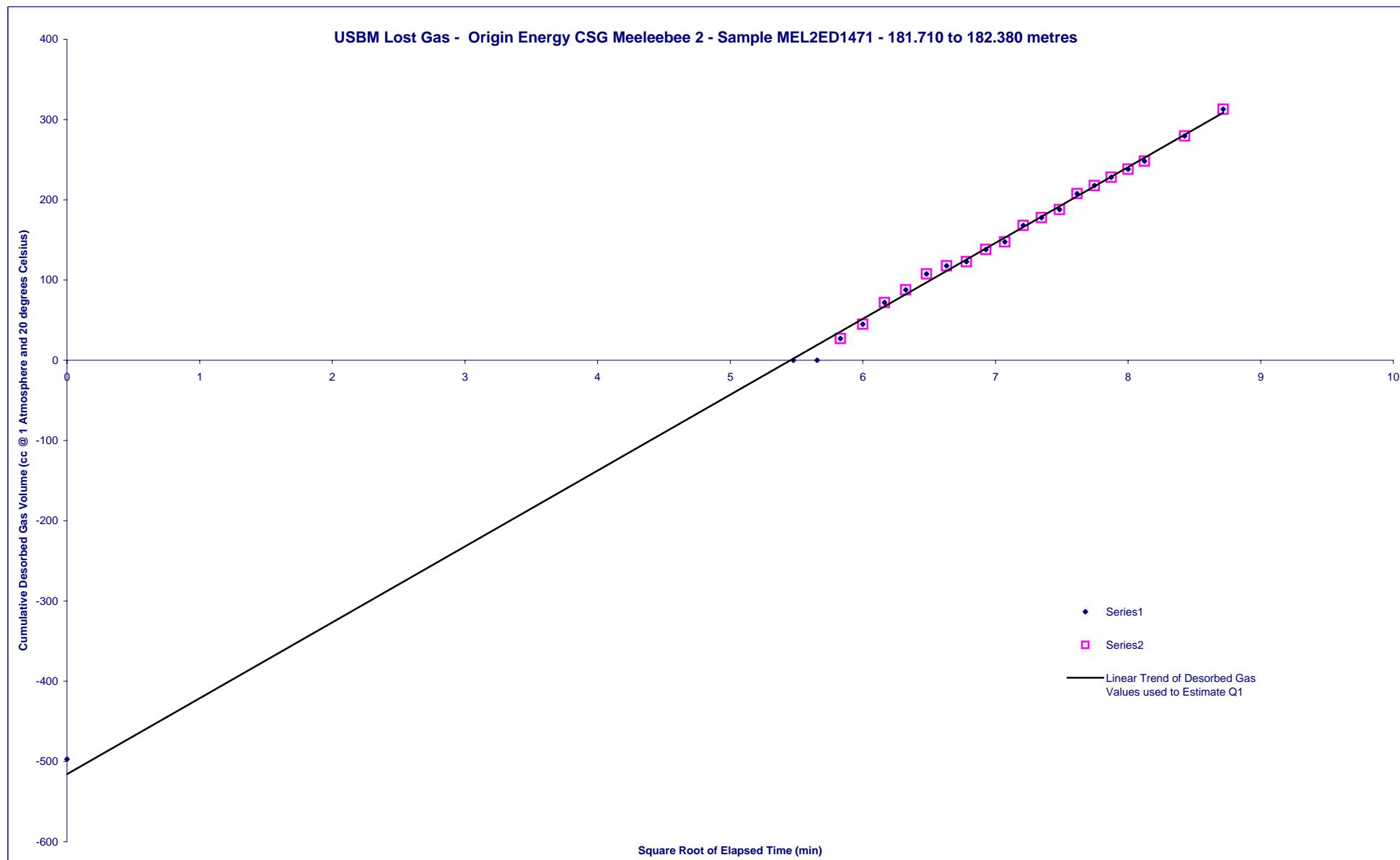


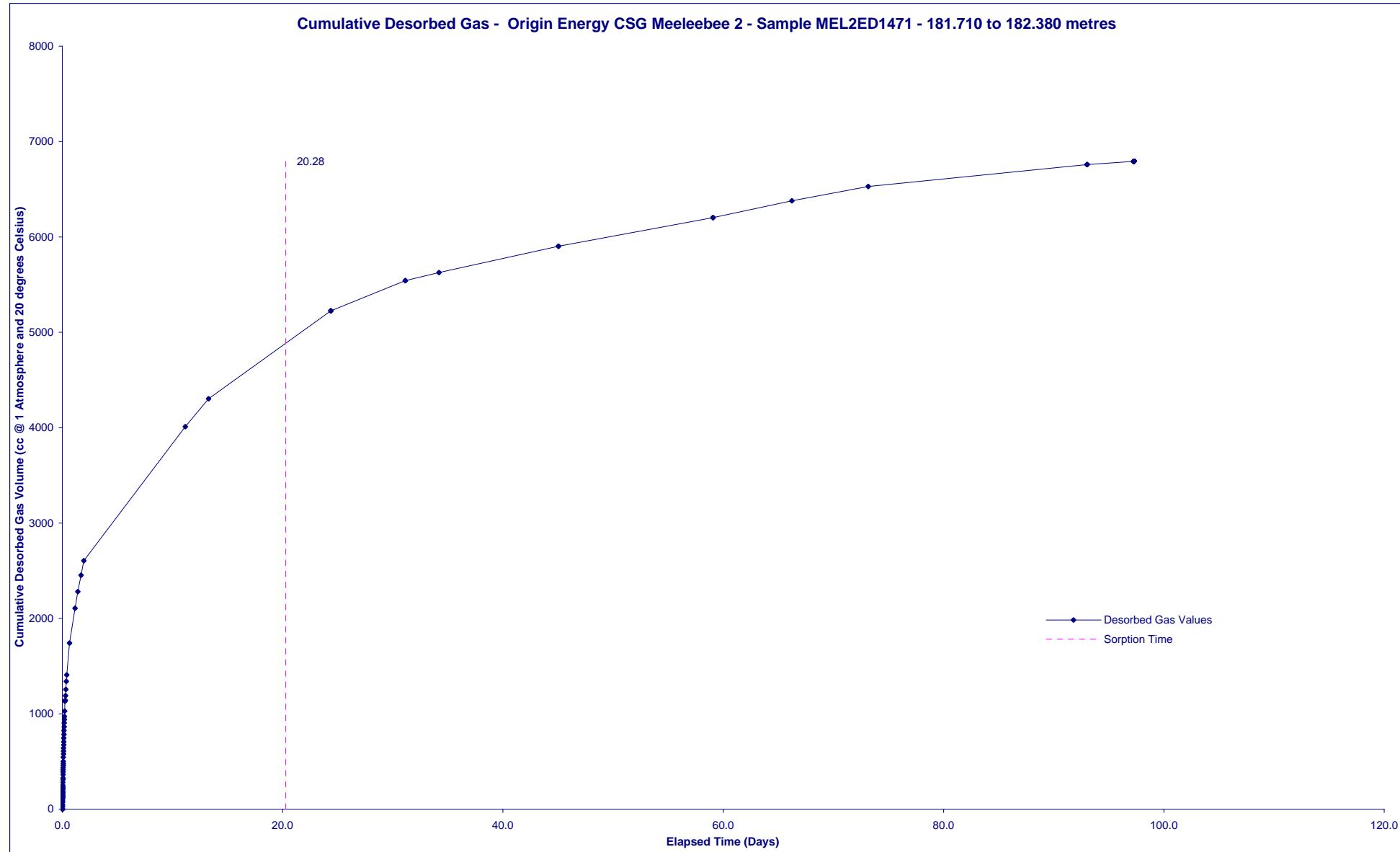
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1471 - 181.710 to 182.380 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | | | |
|----------------------|---------------------|-------------------|---|-----------------|-------------------------|-------------------------------------|-------------------------|---------------------------|---|-----|
| Sample ID | MEL2ED1471 | Sample Type | Core | Sample Top (m) | 181.710 | Sample Base (m) | 182.380 | | | |
| Sample Volume (cc) | 1990 | Mass (g) | 2508 | RD (g/cc) | 1.39 | Moisture (%ad) | 6.2 | | | |
| Q3 Volume (cc@STP) | 86.43 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 5.9 | | | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1602 | | | |
| Date and Time | DD/MM/YY HH:MM | | Mud Weight (ppg) | 8.3454 | | Trip Rate (m/min) | 30.4 | | | |
| Sample Penetrated | 14/02/2009 7:12 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 1.78 | | Surface Time Ratio | 0.800 | | | |
| Sample Off Bottom | 14/02/2009 7:24 | | Formation Pressure Gradient (psi/ft) | 0.433 | | Lost Time Ratio | 0.055 | | | |
| Sample at Surface | 14/02/2009 7:30 | | Depth HSP=Formation Pressure (m) | 181.49 | | USBM Q1 - Surface Time Correction | 1.3 | | | |
| Sample Sealed | 14/02/2009 7:54 | | Formation Temperature (°C) | | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | | | |
| Time Zero | 14/02/2009 7:24 | | Standard Temperature (°C) | 20.00 | Comments: | | 20 | | | |
| Last Entry | 22/05/2009 13:55 | | Standard Pressure (hPa) | 1013 | | | -497 | | | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | | | |
| m³ | 0.000 | 0.001 | 0.000 | 0.007 | 0.000 | 0.010 | 0.010 | | | |
| m³/tonne (raw) | 0.20 | 0.26 | 0.00 | 2.71 | 0.43 | 3.340 | 3.400 | | | |
| SCF/T (raw) | 6 | 8 | 0 | 87 | 14 | 106.970 | 108.870 | | | |
| m³/tonne (daf) | 0.27 | 0.35 | 0.00 | 3.67 | 0.64 | 4.58 | 4.66 | | | |
| SCF/T (daf) | 9 | 11 | 0 | 118 | 21 | 147 | 149 | | | |
| Percent of daf total | 5.86% | 7.49% | 0.00% | 78.76% | Sorption Time (days) | 20.28 | Diffusivity (sec⁻¹) | | | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) | | |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | | Start (cc) | Finish (cc) | Size | | |
| 14/02/2009 | 7:54:00 | | 33.9 | 23.3 | 22.9 | 980.4 | 100 | 100 | 2 | 0 |
| 14/02/2009 | 7:56:00 | | 33.9 | 23.3 | 22.9 | 980.4 | 100 | 160 | 2 | 0 |
| 14/02/2009 | 7:58:00 | | 34.4 | 23.4 | 23.0 | 980.8 | 160 | 190 | 2 | 27 |
| 14/02/2009 | 8:00:00 | | 34.8 | 23.4 | 23.1 | 981.1 | 190 | 210 | 2 | 45 |
| 14/02/2009 | 8:02:00 | | 35.2 | 23.6 | 23.0 | 981.1 | 210 | 240 | 2 | 72 |
| 14/02/2009 | 8:04:00 | | 35.9 | 23.6 | 22.7 | 981.1 | 240 | 260 | 2 | 88 |
| 14/02/2009 | 8:06:00 | | 35.8 | 23.6 | 22.7 | 981.1 | 260 | 280 | 2 | 108 |
| 14/02/2009 | 8:08:00 | | 35.7 | 23.4 | 22.9 | 981.1 | 280 | 290 | 2 | 118 |
| 14/02/2009 | 8:10:00 | | 35.6 | 23.2 | 22.9 | 981.1 | 290 | 295 | 2 | 123 |
| 14/02/2009 | 8:12:00 | | 35.5 | 22.9 | 22.9 | 981.1 | 295 | 310 | 2 | 138 |
| 14/02/2009 | 8:14:00 | | 35.5 | 23.2 | 22.9 | 981.1 | 310 | 320 | 2 | 148 |
| 14/02/2009 | 8:16:00 | | 35.3 | 22.9 | 22.9 | 981.1 | 320 | 340 | 2 | 168 |
| 14/02/2009 | 8:18:00 | | 35.3 | 23.3 | 22.9 | 981.1 | 340 | 350 | 2 | 178 |
| 14/02/2009 | 8:20:00 | | 35.2 | 23.4 | 22.9 | 981.1 | 350 | 360 | 2 | 188 |
| 14/02/2009 | 8:22:00 | | 35.1 | 23.5 | 22.7 | 981.1 | 360 | 380 | 2 | 208 |
| 14/02/2009 | 8:24:00 | | 35.0 | 23.6 | 23.0 | 981.1 | 380 | 390 | 2 | 218 |
| 14/02/2009 | 8:26:00 | | 34.9 | 23.6 | 23.0 | 981.1 | 390 | 400 | 2 | 228 |
| 14/02/2009 | 8:28:00 | | 34.8 | 23.6 | 23.0 | 981.1 | 400 | 410 | 2 | 238 |
| 14/02/2009 | 8:30:00 | | 34.7 | 23.6 | 22.7 | 981.1 | 410 | 420 | 2 | 248 |
| 14/02/2009 | 8:35:00 | | 34.3 | 22.9 | 22.9 | 981.1 | 420 | 450 | 2 | 279 |
| 14/02/2009 | 8:40:00 | | 35.4 | 23.1 | 22.9 | 981.1 | 450 | 490 | 2 | 313 |
| 14/02/2009 | 8:45:00 | | 36.6 | 23.2 | 22.9 | 981.1 | 490 | 510 | 2 | 327 |
| 14/02/2009 | 8:50:00 | | 37.1 | 23.4 | 22.8 | 980.4 | 510 | 550 | 2 | 362 |
| 14/02/2009 | 8:55:00 | | 37.0 | 23.3 | 22.9 | 981.1 | 550 | 580 | 2 | 393 |
| 14/02/2009 | 9:00:00 | | 36.5 | 23.0 | 22.9 | 980.9 | 580 | 600 | 2 | 414 |
| 14/02/2009 | 9:05:00 | | 36.3 | 23.3 | 22.7 | 980.9 | 600 | 620 | 2 | 435 |
| 14/02/2009 | 9:10:00 | | 35.9 | 23.6 | 22.7 | 980.9 | 620 | 640 | 2 | 456 |
| 14/02/2009 | 9:15:00 | | 35.5 | 23.5 | 22.8 | 980.2 | 640 | 660 | 2 | 477 |
| 14/02/2009 | 9:20:00 | | 34.9 | 23.4 | 22.8 | 980.8 | 660 | 680 | 2 | 500 |
| 14/02/2009 | 9:30:00 | | 36.0 | 23.0 | 22.6 | 980.9 | 680 | 730 | 2 | 544 |
| 14/02/2009 | 9:40:00 | | 37.1 | 23.3 | 22.7 | 980.9 | 730 | 770 | 2 | 578 |
| 14/02/2009 | 9:50:00 | | 36.7 | 23.1 | 22.6 | 980.6 | 770 | 800 | 2 | 609 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1471 - 181.710 to 182.380 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 14/02/2009 | 10:00:00 | 36.0 | 23.0 | 22.4 | 980.8 | 800 | 830 | 2 | 642 |
| 14/02/2009 | 10:10:00 | 35.1 | 23.3 | 22.2 | 980.8 | 830 | 860 | 2 | 676 |
| 14/02/2009 | 10:20:00 | 37.0 | 23.3 | 22.2 | 980.8 | 860 | 900 | 2 | 706 |
| 14/02/2009 | 10:30:00 | 37.1 | 23.5 | 22.2 | 980.8 | 900 | 940 | 2 | 745 |
| 14/02/2009 | 10:45:00 | 35.9 | 23.2 | 22.3 | 979.4 | 940 | 975 | 2 | 783 |
| 14/02/2009 | 11:00:00 | 34.7 | 22.8 | 22.2 | 980.2 | 975 | 1010 | 2 | 825 |
| 14/02/2009 | 11:15:00 | 37.1 | 23.7 | 22.3 | 980.2 | 1010 | 1060 | 2 | 862 |
| 14/02/2009 | 11:30:00 | 36.0 | 24.4 | 22.4 | 979.0 | 1060 | 1100 | 2 | 905 |
| 14/02/2009 | 11:45:00 | 35.1 | 24.7 | 22.6 | 979.8 | 1100 | 1130 | 2 | 941 |
| 14/02/2009 | 12:00:00 | 36.7 | 24.7 | 22.6 | 979.4 | 1130 | 1170 | 2 | 972 |
| 14/02/2009 | 12:30:00 | 34.9 | 23.3 | 22.4 | 978.3 | 1170 | 1220 | 2 | 1028 |
| 14/02/2009 | 13:00:00 | 26.3 | 23.6 | 22.4 | 978.8 | 1220 | 1280 | 2 | 1132 |
| 14/02/2009 | 13:30:00 | 36.5 | 23.7 | 22.3 | 978.5 | 1280 | 1340 | 2 | 1139 |
| 14/02/2009 | 14:00:00 | 35.5 | 24.3 | 22.4 | 977.7 | 1340 | 100 | 2 | 1139 |
| 14/02/2009 | 14:30:00 | 36.6 | 24.6 | 22.4 | 976.9 | 100 | 160 | 2 | 1189 |
| 14/02/2009 | 15:00:00 | 34.4 | 24.6 | 22.6 | 976.0 | 160 | 220 | 2 | 1256 |
| 14/02/2009 | 16:00:00 | 34.4 | 23.9 | 22.4 | 975.4 | 220 | 310 | 2 | 1341 |
| 14/02/2009 | 17:00:00 | 36.7 | 26.3 | 22.3 | 975.8 | 310 | 390 | 2 | 1407 |
| 14/02/2009 | 23:00:00 | 35.5 | 23.1 | 22.8 | 979.8 | 390 | 720 | 2 | 1742 |
| 15/02/2009 | 11:00:00 | 36.3 | 29.1 | 22.8 | 980.4 | 100 | 520 | 2 | 2108 |
| 15/02/2009 | 17:00:00 | 34.1 | 37.3 | 28.3 | 977.3 | 520 | 700 | 2 | 2281 |
| 16/02/2009 | 0:00:00 | 37.1 | 20.4 | 23.7 | 980.4 | 100 | 320 | 2 | 2454 |
| 16/02/2009 | 6:00:00 | 35.9 | 22.9 | 22.8 | 979.8 | 320 | 470 | 2 | 2605 |
| 25/02/2009 | 11:03:00 | 34.1 | 28.5 | 27.2 | 1025.8 | 200 | 1500 | 2 | 4010 |
| 27/02/2009 | 14:01:00 | 33.1 | 27.2 | 24.9 | 1024.8 | 200 | 555 | 2 | 4303 |
| 04/03/2009 | 13:24:00 | 34.3 | 29.1 | 28.4 | 1014.3 | 200 | 580 | 2 | 4638 |
| 06/03/2009 | 14:04:00 | 34.7 | 25.9 | 23.1 | 1021.1 | 200 | 370 | 2 | 4797 |
| 10/03/2009 | 16:35:00 | 28.9 | 25.2 | 25.5 | 1029.3 | 200 | 590 | 2 | 5226 |
| 13/03/2009 | 11:08:00 | 33.7 | 27.5 | 26.7 | 1028.4 | 200 | 380 | 2 | 5360 |
| 17/03/2009 | 10:36:00 | 34.7 | 25.1 | 22.2 | 1025.1 | 200 | 400 | 2 | 5541 |
| 20/03/2009 | 11:51:00 | 32.1 | 27.6 | 25.2 | 1027.6 | 200 | 280 | 2 | 5628 |
| 23/03/2009 | 9:05:00 | 32.3 | 21.6 | 22.2 | 1028.0 | 200 | 290 | 2 | 5715 |
| 31/03/2009 | 8:25:00 | 31.7 | 23.2 | 23.7 | 1020.2 | 200 | 400 | 2 | 5902 |
| 07/04/2009 | 9:46:00 | 32.1 | 22.6 | 21.9 | 1023.4 | 200 | 360 | 2 | 6057 |
| 14/04/2009 | 8:53:00 | 31.8 | 23.3 | 23.3 | 1013.1 | 200 | 370 | 2 | 6203 |
| 21/04/2009 | 13:08:00 | 33.2 | 23.6 | 23.2 | 1019.7 | 200 | 380 | 2 | 6379 |
| 28/04/2009 | 11:02:00 | 29.8 | 23.4 | 18.7 | 1015.2 | 1110 | 1210 | 2 | 6530 |
| 05/05/2009 | 14:00:00 | 32.7 | 21.1 | 22.7 | 1029.4 | 200 | 310 | 2 | 6596 |
| 12/05/2009 | 13:57:00 | 32.3 | 20.3 | 19.4 | 1017.9 | 200 | 320 | 2 | 6696 |
| 18/05/2009 | 7:54:00 | 31.8 | 15.5 | 20.1 | 1024.3 | 200 | 255 | 2 | 6759 |
| 22/05/2009 | 13:55:00 | 32.2 | 23.1 | 21.2 | 1017.4 | 200 | 250 | 2 | 6793 |



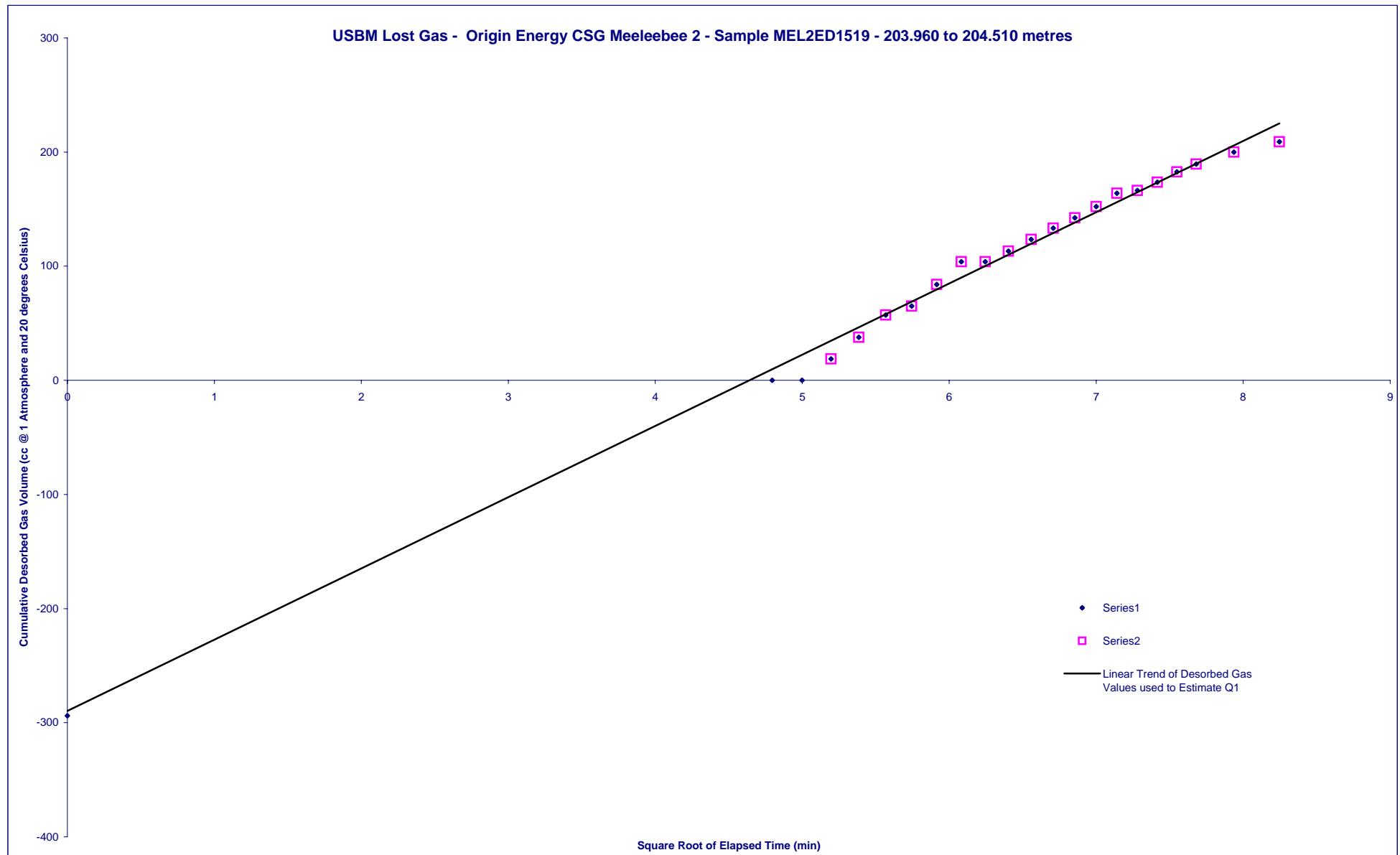


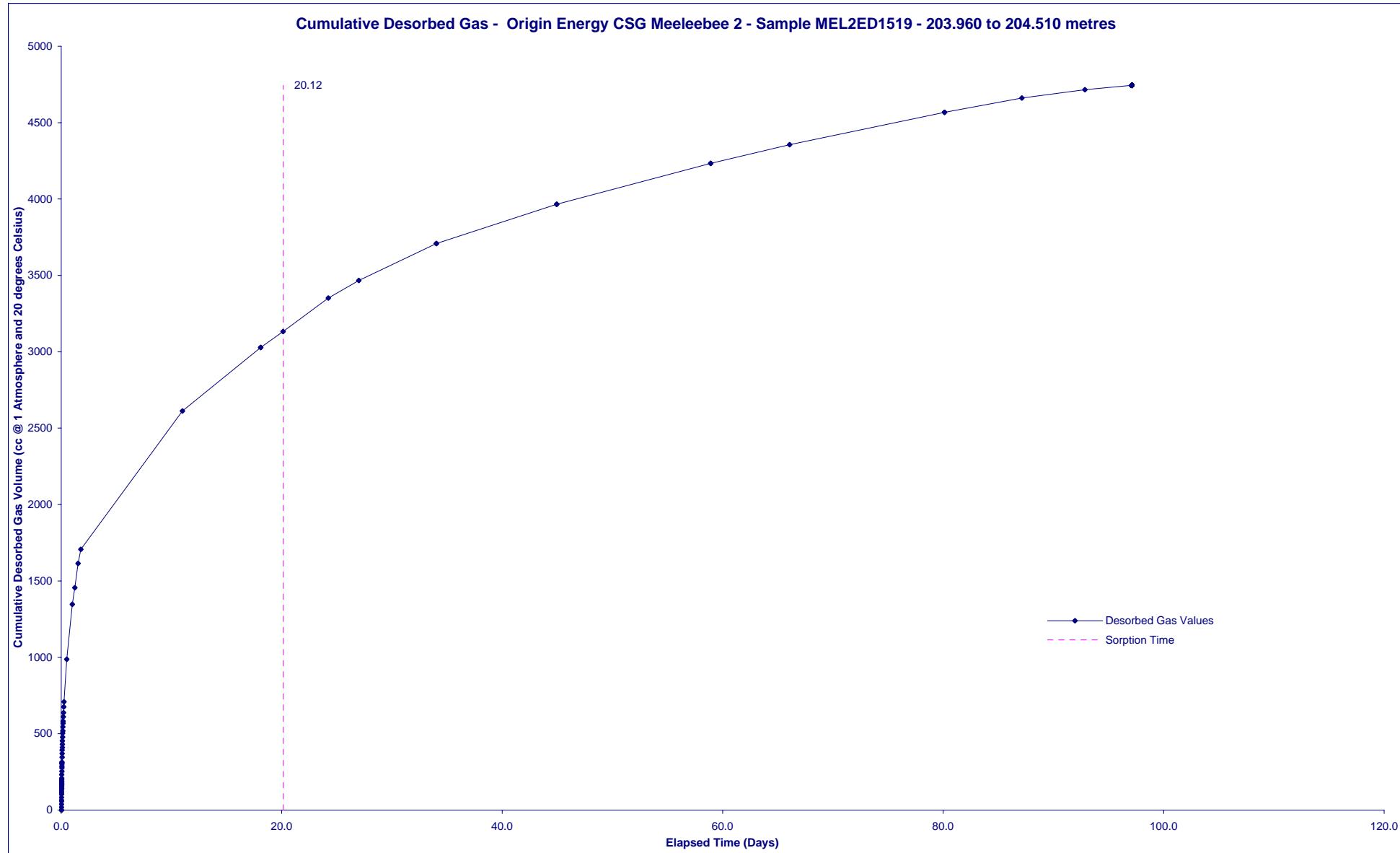
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1519 - 203.960 to 204.510 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | |
|----------------------|---------------------|-------------------|---|-----------------|-------------------------|-------------------------------------|-------------------------|---------------------------|
| Sample ID | MEL2ED1519 | Sample Type | Core | Sample Top (m) | 203.960 | Sample Base (m) | 204.510 | |
| Sample Volume (cc) | 1634 | Mass (g) | 2172 | RD (g/cc) | 1.43 | Moisture (%ad) | 7 | |
| Q3 Volume (cc@STP) | 66.93 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 6.6 | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 2081 | |
| Date and Time | DD/MM/YY HH:MM | | Mud Weight (ppg) | 8.3454 | | Trip Rate (m/min) | 51.1 | |
| Sample Penetrated | 14/02/2009 10:53 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 2.00 | | Surface Time Ratio | 0.826 | |
| Sample Off Bottom | 14/02/2009 11:07 | | Formation Pressure Gradient (psi/ft) | 0.433 | | Lost Time Ratio | 0.033 | |
| Sample at Surface | 14/02/2009 11:11 | | Depth HSP=Formation Pressure (m) | 203.71 | | USBM Q1 - Surface Time Correction | 1.3 | |
| Sample Sealed | 14/02/2009 11:30 | | Formation Temperature (°C) | | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | |
| Time Zero | 14/02/2009 11:07 | | Standard Temperature (°C) | 20.00 | Comments: | | 20 | |
| Last Entry | 22/05/2009 13:55 | | Standard Pressure (hPa) | 1013 | | | -294 | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | |
| m³ | 0.000 | 0.000 | 0.000 | 0.005 | 0.000 | 0.000 | 0.000 | |
| m³/tonne (raw) | 0.14 | 0.18 | 0.00 | 2.18 | 0.33 | 2.650 | 2.690 | |
| SCF/T (raw) | 4 | 6 | 0 | 70 | 11 | 85.030 | 86.340 | |
| m³/tonne (daf) | 0.20 | 0.25 | 0.00 | 3.17 | 0.46 | 3.83 | 3.88 | |
| SCF/T (daf) | 6 | 8 | 0 | 101 | 15 | 122 | 124 | |
| Percent of daf total | 5.12% | 6.57% | 0.00% | 81.59% | Sorption Time (days) | 20.12 | Diffusivity (sec⁻¹) | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size |
| 14/02/2009 | 11:30:00 | | 33.9 | 24.4 | 979.0 | 100 | 100 | 2 |
| 14/02/2009 | 11:32:00 | | 33.9 | 24.4 | 979.0 | 100 | 180 | 2 |
| 14/02/2009 | 11:34:00 | | 34.2 | 24.4 | 979.6 | 180 | 200 | 2 |
| 14/02/2009 | 11:36:00 | | 34.3 | 24.4 | 979.6 | 200 | 220 | 2 |
| 14/02/2009 | 11:38:00 | | 34.3 | 24.5 | 979.6 | 220 | 240 | 2 |
| 14/02/2009 | 11:40:00 | | 34.6 | 24.6 | 979.6 | 240 | 250 | 2 |
| 14/02/2009 | 11:42:00 | | 34.7 | 24.7 | 979.6 | 250 | 270 | 2 |
| 14/02/2009 | 11:44:00 | | 34.7 | 24.7 | 979.8 | 270 | 290 | 2 |
| 14/02/2009 | 11:46:00 | | 34.7 | 24.8 | 979.8 | 290 | 290 | 2 |
| 14/02/2009 | 11:48:00 | | 34.7 | 24.9 | 979.6 | 290 | 300 | 2 |
| 14/02/2009 | 11:50:00 | | 34.6 | 25.0 | 979.6 | 300 | 310 | 2 |
| 14/02/2009 | 11:52:00 | | 34.6 | 25.1 | 979.6 | 310 | 320 | 2 |
| 14/02/2009 | 11:54:00 | | 34.7 | 25.0 | 979.6 | 320 | 330 | 2 |
| 14/02/2009 | 11:56:00 | | 34.7 | 25.0 | 979.6 | 330 | 340 | 2 |
| 14/02/2009 | 11:58:00 | | 35.0 | 24.8 | 979.6 | 340 | 354 | 2 |
| 14/02/2009 | 12:00:00 | | 35.5 | 27.7 | 979.4 | 354 | 360 | 2 |
| 14/02/2009 | 12:02:00 | | 35.9 | 24.6 | 979.4 | 360 | 370 | 2 |
| 14/02/2009 | 12:04:00 | | 36.0 | 24.6 | 979.4 | 370 | 380 | 2 |
| 14/02/2009 | 12:06:00 | | 36.3 | 24.4 | 978.8 | 380 | 390 | 2 |
| 14/02/2009 | 12:10:00 | | 36.3 | 24.2 | 979.2 | 390 | 400 | 2 |
| 14/02/2009 | 12:15:00 | | 36.3 | 23.9 | 978.8 | 400 | 410 | 2 |
| 14/02/2009 | 12:20:00 | | 35.7 | 23.6 | 979.0 | 410 | 430 | 2 |
| 14/02/2009 | 12:25:00 | | 35.5 | 23.4 | 979.0 | 430 | 450 | 2 |
| 14/02/2009 | 12:30:00 | | 34.8 | 23.3 | 978.3 | 450 | 470 | 2 |
| 14/02/2009 | 12:35:00 | | 34.8 | 23.4 | 978.8 | 470 | 480 | 2 |
| 14/02/2009 | 12:40:00 | | 35.5 | 23.4 | 978.8 | 480 | 500 | 2 |
| 14/02/2009 | 12:45:00 | | 36.0 | 23.4 | 978.8 | 500 | 510 | 2 |
| 14/02/2009 | 12:50:00 | | 36.6 | 23.6 | 978.6 | 510 | 520 | 2 |
| 14/02/2009 | 13:00:00 | | 36.3 | 23.6 | 978.8 | 520 | 550 | 2 |
| 14/02/2009 | 13:10:00 | | 35.7 | 23.6 | 978.5 | 550 | 570 | 2 |
| 14/02/2009 | 13:20:00 | | 34.8 | 23.6 | 977.7 | 570 | 590 | 2 |
| 14/02/2009 | 13:30:00 | | 35.7 | 23.7 | 978.5 | 590 | 610 | 2 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1519 - 203.960 to 204.510 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 14/02/2009 | 13:40:00 | 36.8 | 24.2 | 22.4 | 977.7 | 610 | 640 | 2 | 430 |
| 14/02/2009 | 13:50:00 | 36.4 | 24.1 | 22.4 | 978.1 | 640 | 660 | 2 | 453 |
| 14/02/2009 | 14:00:00 | 35.5 | 24.3 | 22.4 | 977.7 | 660 | 680 | 2 | 478 |
| 14/02/2009 | 14:15:00 | 34.5 | 24.4 | 22.4 | 977.7 | 680 | 700 | 2 | 504 |
| 14/02/2009 | 14:30:00 | 36.5 | 24.6 | 22.4 | 976.9 | 700 | 730 | 2 | 519 |
| 14/02/2009 | 14:45:00 | 35.5 | 24.6 | 22.6 | 976.2 | 730 | 750 | 2 | 544 |
| 14/02/2009 | 15:00:00 | 34.7 | 24.6 | 22.6 | 976.0 | 750 | 770 | 2 | 568 |
| 14/02/2009 | 15:15:00 | 35.5 | 24.5 | 22.4 | 976.0 | 770 | 790 | 2 | 583 |
| 14/02/2009 | 15:30:00 | 35.8 | 24.3 | 22.5 | 976.0 | 790 | 820 | 2 | 611 |
| 14/02/2009 | 16:00:00 | 36.0 | 23.9 | 22.4 | 975.4 | 820 | 850 | 2 | 638 |
| 14/02/2009 | 16:30:00 | 36.2 | 25.6 | 22.3 | 975.4 | 850 | 890 | 2 | 676 |
| 14/02/2009 | 17:00:00 | 35.8 | 26.3 | 22.3 | 975.8 | 890 | 920 | 2 | 709 |
| 14/02/2009 | 23:00:00 | 35.8 | 26.3 | 22.3 | 975.8 | 920 | 1200 | 2 | 988 |
| 15/02/2009 | 11:00:00 | 35.5 | 29.1 | 22.8 | 978.4 | 100 | 540 | 2 | 1347 |
| 15/02/2009 | 17:00:00 | 34.3 | 37.3 | 28.3 | 977.3 | 540 | 650 | 2 | 1456 |
| 16/02/2009 | 0:00:00 | 35.6 | 20.4 | 23.7 | 980.4 | 100 | 300 | 2 | 1615 |
| 16/02/2009 | 6:00:00 | 34.9 | 22.9 | 22.8 | 979.8 | 300 | 390 | 2 | 1707 |
| 25/02/2009 | 11:10:00 | 34.5 | 28.7 | 27.2 | 1025.8 | 200 | 1000 | 2 | 2613 |
| 27/02/2009 | 14:05:00 | 33.9 | 27.2 | 24.9 | 1025.1 | 200 | 450 | 2 | 2816 |
| 04/03/2009 | 13:15:00 | 35.3 | 28.9 | 28.6 | 1014.3 | 200 | 460 | 2 | 3028 |
| 06/03/2009 | 14:00:00 | 39.5 | 25.9 | 23.1 | 1020.8 | 200 | 335 | 2 | 3133 |
| 10/03/2009 | 16:43:00 | 29.2 | 25.4 | 25.2 | 1029.7 | 200 | 340 | 2 | 3352 |
| 13/03/2009 | 11:02:00 | 34.4 | 25.9 | 26.1 | 1028.0 | 200 | 360 | 2 | 3467 |
| 17/03/2009 | 10:29:00 | 34.1 | 24.9 | 22.2 | 1024.0 | 200 | 380 | 2 | 3634 |
| 20/03/2009 | 11:57:00 | 32.7 | 27.6 | 25.4 | 1027.2 | 200 | 270 | 2 | 3708 |
| 23/03/2009 | 9:15:00 | 32.7 | 22.5 | 22.2 | 1028.2 | 200 | 290 | 2 | 3798 |
| 31/03/2009 | 9:42:00 | 31.7 | 23.2 | 23.7 | 1020.2 | 200 | 380 | 2 | 3966 |
| 07/04/2009 | 10:16:00 | 32.1 | 22.7 | 22.0 | 1024.3 | 200 | 370 | 2 | 4135 |
| 14/04/2009 | 9:01:00 | 32.0 | 23.1 | 23.2 | 1013.5 | 200 | 330 | 2 | 4233 |
| 21/04/2009 | 12:58:00 | 32.5 | 23.7 | 23.1 | 1019.5 | 200 | 320 | 2 | 4356 |
| 28/04/2009 | 10:50:00 | 29.7 | 23.4 | 18.5 | 1015.2 | 1000 | 1150 | 2 | 4568 |
| 05/05/2009 | 14:06:00 | 33.1 | 21.1 | 22.3 | 1029.6 | 200 | 250 | 2 | 4568 |
| 12/05/2009 | 14:32:00 | 33.1 | 21.1 | 19.6 | 1017.2 | 200 | 320 | 2 | 4662 |
| 18/05/2009 | 7:47:00 | 32.3 | 15.4 | 20.2 | 1024.1 | 200 | 240 | 2 | 4715 |
| 22/05/2009 | 13:55:00 | 33.1 | 23.1 | 22.2 | 1017.4 | 200 | 250 | 2 | 4744 |



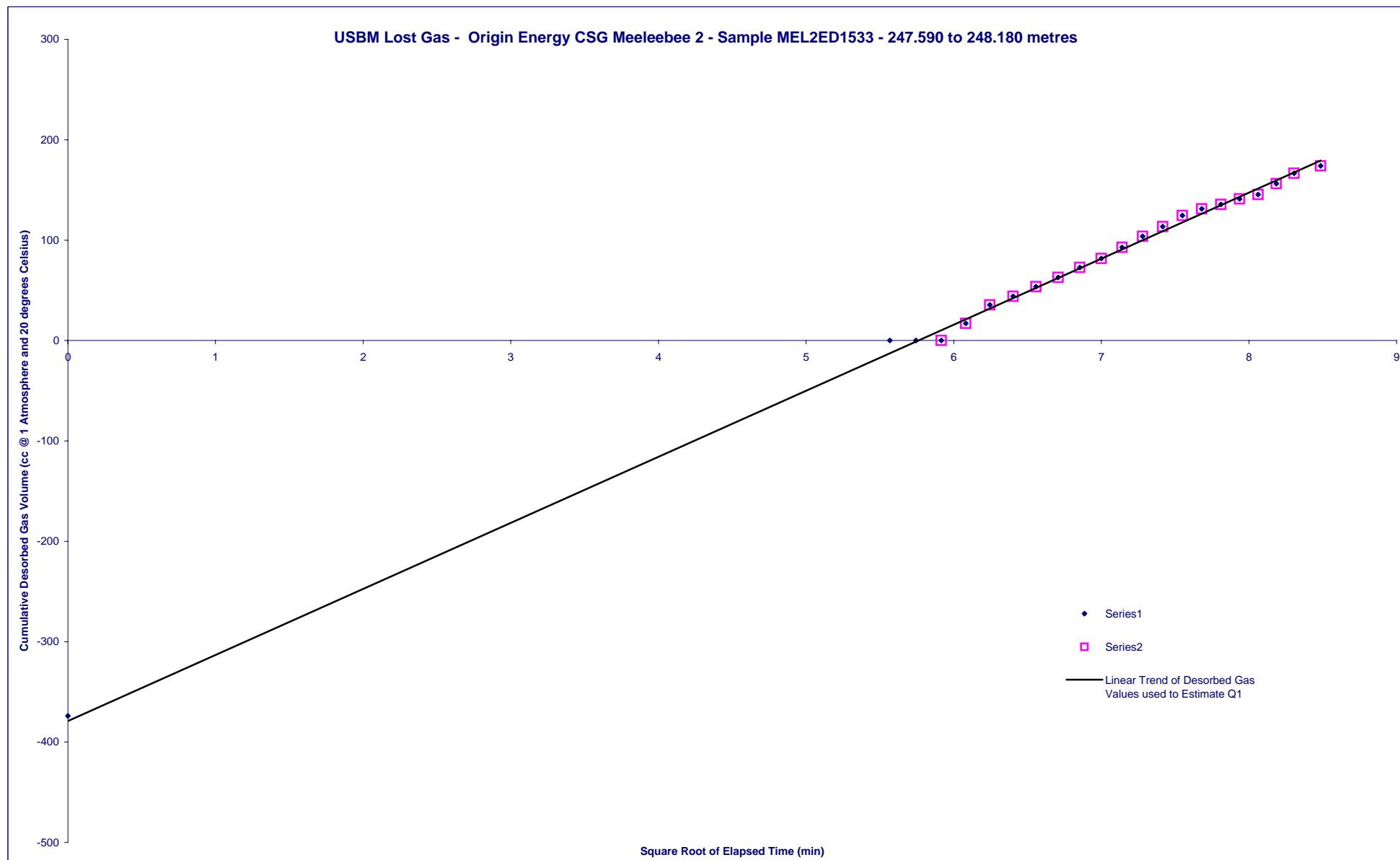


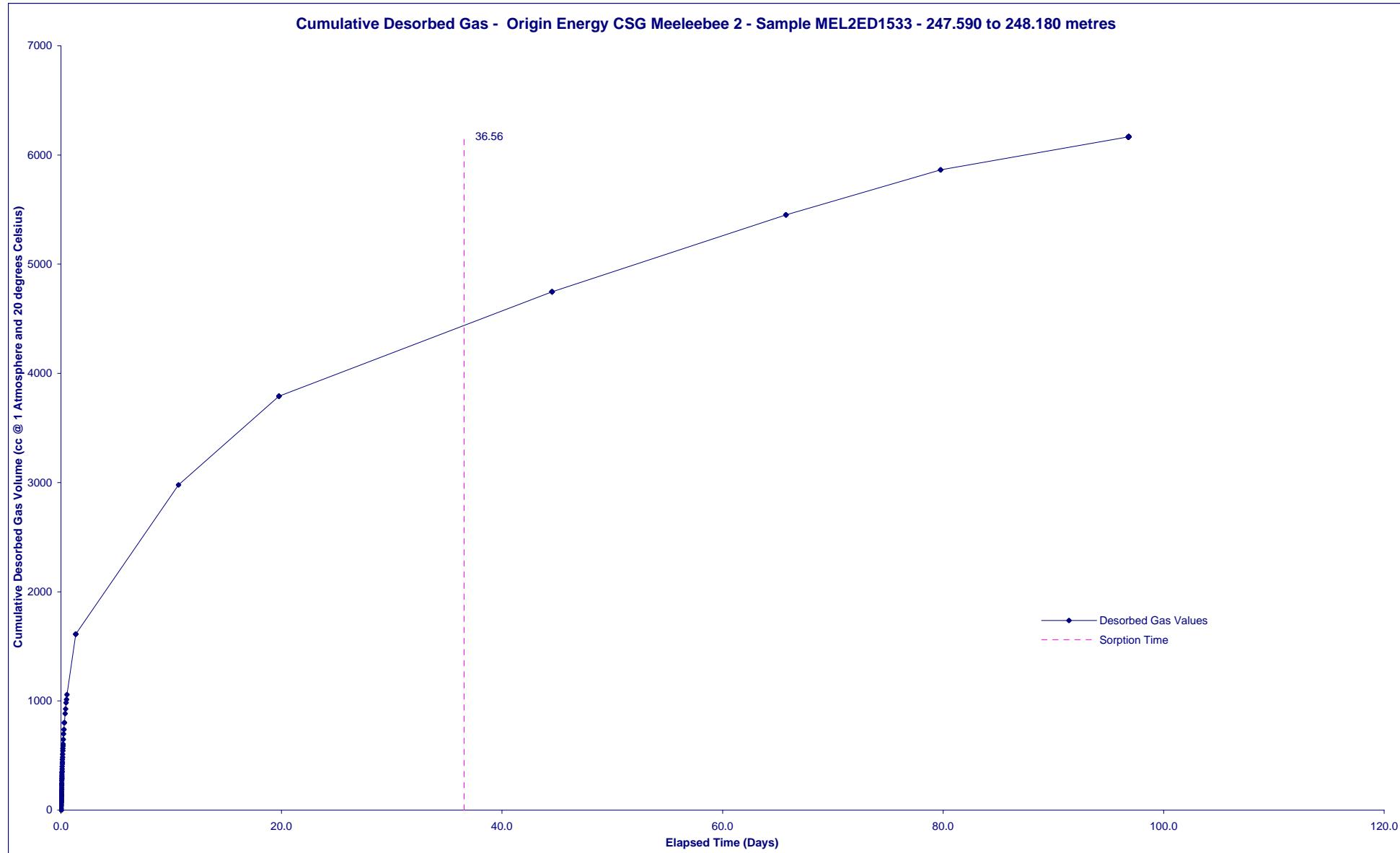
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1533 - 247.590 to 248.180 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | | | |
|----------------------|---------------------|-------------------|---|-----------------|-------------------------|-------------------------------------|-------------------------|---------------------------|---|-----|
| Sample ID | MEL2ED1533 | Sample Type | Core | Sample Top (m) | 247.590 | Sample Base (m) | 248.180 | | | |
| Sample Volume (cc) | 1753 | Mass (g) | 1952 | RD (g/cc) | 1.26 | Moisture (%ad) | 5.6 | | | |
| Q3 Volume (cc@STP) | 128.53 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 4.9 | | | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1967 | | | |
| Date and Time | DD/MM/YY HH:MM | | Mud Weight (ppg) | 8.3454 | | Trip Rate (m/min) | 35.5 | | | |
| Sample Penetrated | 14/02/2009 18:52 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 2.43 | | Surface Time Ratio | 0.774 | | | |
| Sample Off Bottom | 14/02/2009 19:23 | | Formation Pressure Gradient (psi/ft) | 0.433 | | Lost Time Ratio | 0.026 | | | |
| Sample at Surface | 14/02/2009 19:30 | | Depth HSP=Formation Pressure (m) | 247.29 | | USBM Q1 - Surface Time Correction | 1.27 | | | |
| Sample Sealed | 14/02/2009 19:54 | | Formation Temperature (°C) | | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | | | |
| Time Zero | 14/02/2009 19:23 | | Standard Temperature (°C) | 20.00 | Comments: | | 20 | | | |
| Last Entry | 22/05/2009 15:00 | | Standard Pressure (hPa) | 1013 | | | -374 | | | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | | | |
| m³ | 0.000 | 0.000 | 0.000 | 0.006 | 0.000 | 0.010 | 0.010 | | | |
| m³/tonne (raw) | 0.19 | 0.24 | 0.00 | 3.16 | 0.64 | 3.990 | 4.040 | | | |
| SCF/T (raw) | 6 | 8 | 0 | 101 | 21 | 127.940 | 129.590 | | | |
| m³/tonne (daf) | 0.22 | 0.28 | 0.00 | 3.60 | 0.72 | 4.54 | 4.60 | | | |
| SCF/T (daf) | 7 | 9 | 0 | 115 | 23 | 145 | 147 | | | |
| Percent of daf total | 4.80% | 6.02% | 0.00% | 78.22% | Sorption Time (days) | 36.56 | Diffusivity (sec⁻¹) | | | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) | | |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size | | |
| 14/02/2009 | 19:54:00 | | 33.9 | 23.1 | 22.5 | 987.3 | 100 | 100 | 2 | 0 |
| 14/02/2009 | 19:56:00 | | 34.5 | 23.2 | 22.4 | 987.3 | 100 | 190 | 2 | 0 |
| 14/02/2009 | 19:58:00 | | 34.9 | 23.1 | 22.5 | 978.5 | 190 | 210 | 2 | 0 |
| 14/02/2009 | 20:00:00 | | 35.3 | 23.1 | 22.5 | 978.5 | 210 | 230 | 2 | 17 |
| 14/02/2009 | 20:02:00 | | 35.5 | 23.1 | 22.5 | 978.5 | 230 | 250 | 2 | 35 |
| 14/02/2009 | 20:04:00 | | 35.7 | 23.1 | 22.5 | 978.5 | 250 | 260 | 2 | 44 |
| 14/02/2009 | 20:06:00 | | 35.8 | 23.2 | 22.6 | 978.8 | 260 | 270 | 2 | 54 |
| 14/02/2009 | 20:08:00 | | 35.8 | 23.2 | 22.6 | 978.5 | 270 | 280 | 2 | 63 |
| 14/02/2009 | 20:10:00 | | 35.8 | 23.2 | 22.6 | 978.5 | 280 | 290 | 2 | 73 |
| 14/02/2009 | 20:12:00 | | 35.9 | 23.1 | 22.6 | 978.5 | 290 | 300 | 2 | 82 |
| 14/02/2009 | 20:14:00 | | 35.7 | 23.1 | 22.6 | 978.5 | 300 | 310 | 2 | 93 |
| 14/02/2009 | 20:16:00 | | 35.5 | 23.2 | 22.6 | 978.5 | 310 | 320 | 2 | 104 |
| 14/02/2009 | 20:18:00 | | 35.5 | 23.1 | 22.6 | 978.5 | 320 | 330 | 2 | 113 |
| 14/02/2009 | 20:20:00 | | 35.3 | 23.1 | 22.6 | 978.5 | 330 | 340 | 2 | 124 |
| 14/02/2009 | 20:22:00 | | 35.1 | 22.9 | 22.6 | 978.8 | 340 | 345 | 2 | 131 |
| 14/02/2009 | 20:24:00 | | 35.1 | 22.9 | 22.5 | 978.6 | 345 | 350 | 2 | 136 |
| 14/02/2009 | 20:26:00 | | 35.0 | 22.9 | 22.5 | 978.6 | 350 | 355 | 2 | 141 |
| 14/02/2009 | 20:28:00 | | 35.1 | 22.9 | 22.5 | 978.6 | 355 | 360 | 2 | 145 |
| 14/02/2009 | 20:30:00 | | 34.9 | 23.0 | 22.6 | 978.6 | 360 | 370 | 2 | 156 |
| 14/02/2009 | 20:32:00 | | 34.9 | 23.1 | 22.5 | 978.8 | 370 | 380 | 2 | 167 |
| 14/02/2009 | 20:35:00 | | 35.3 | 23.2 | 22.6 | 978.8 | 380 | 390 | 2 | 174 |
| 14/02/2009 | 20:40:00 | | 36.1 | 23.4 | 22.6 | 978.8 | 390 | 410 | 2 | 189 |
| 14/02/2009 | 20:45:00 | | 36.5 | 23.2 | 22.6 | 978.8 | 410 | 430 | 2 | 206 |
| 14/02/2009 | 20:50:00 | | 36.6 | 23.1 | 22.5 | 978.8 | 430 | 450 | 2 | 225 |
| 14/02/2009 | 20:55:00 | | 36.5 | 23.2 | 22.6 | 978.8 | 450 | 460 | 2 | 235 |
| 14/02/2009 | 21:00:00 | | 36.3 | 23.4 | 22.6 | 979.2 | 460 | 470 | 2 | 247 |
| 14/02/2009 | 21:05:00 | | 35.9 | 23.6 | 22.7 | 979.2 | 470 | 490 | 2 | 269 |
| 14/02/2009 | 21:10:00 | | 35.3 | 23.1 | 22.7 | 979.2 | 490 | 500 | 2 | 283 |
| 14/02/2009 | 21:15:00 | | 35.1 | 23.1 | 22.7 | 979.2 | 500 | 510 | 2 | 294 |
| 14/02/2009 | 21:20:00 | | 35.1 | 23.2 | 22.7 | 979.2 | 510 | 525 | 2 | 308 |
| 14/02/2009 | 21:25:00 | | 35.9 | 23.4 | 22.7 | 979.4 | 525 | 545 | 2 | 324 |
| 14/02/2009 | 21:30:00 | | 36.9 | 23.6 | 22.8 | 979.4 | 545 | 570 | 2 | 342 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1533 - 247.590 to 248.180 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 14/02/2009 | 21:40:00 | 36.4 | 23.1 | 22.7 | 979.6 | 570 | 580 | 2 | 356 |
| 14/02/2009 | 21:51:00 | 35.9 | 23.1 | 22.7 | 979.2 | 580 | 600 | 2 | 377 |
| 14/02/2009 | 22:00:00 | 35.5 | 23.7 | 22.8 | 979.8 | 600 | 620 | 2 | 401 |
| 14/02/2009 | 22:10:00 | 35.0 | 23.1 | 22.8 | 979.8 | 620 | 640 | 2 | 423 |
| 14/02/2009 | 22:20:00 | 37.1 | 23.4 | 22.8 | 979.2 | 640 | 670 | 2 | 439 |
| 14/02/2009 | 22:30:00 | 36.9 | 23.2 | 22.8 | 980.2 | 670 | 690 | 2 | 462 |
| 14/02/2009 | 22:45:00 | 36.0 | 23.1 | 22.9 | 979.2 | 690 | 710 | 2 | 485 |
| 14/02/2009 | 23:00:00 | 35.0 | 23.1 | 22.8 | 979.8 | 710 | 730 | 2 | 512 |
| 14/02/2009 | 23:15:00 | 36.3 | 23.5 | 22.9 | 979.2 | 730 | 770 | 2 | 543 |
| 14/02/2009 | 23:30:00 | 36.0 | 23.1 | 22.8 | 979.6 | 770 | 790 | 2 | 566 |
| 14/02/2009 | 23:45:00 | 35.3 | 23.4 | 22.9 | 979.0 | 790 | 810 | 2 | 588 |
| 15/02/2009 | 0:00:00 | 35.9 | 23.2 | 22.8 | 979.2 | 810 | 830 | 2 | 605 |
| 15/02/2009 | 0:30:00 | 35.5 | 23.1 | 22.9 | 978.8 | 830 | 870 | 2 | 646 |
| 15/02/2009 | 1:00:00 | 35.1 | 23.1 | 22.9 | 978.6 | 870 | 920 | 2 | 698 |
| 15/02/2009 | 2:00:00 | 36.5 | 22.9 | 22.9 | 977.7 | 920 | 970 | 2 | 738 |
| 15/02/2009 | 2:30:00 | 34.7 | 22.9 | 22.9 | 978.3 | 970 | 1020 | 2 | 800 |
| 15/02/2009 | 3:00:00 | 35.9 | 23.5 | 22.1 | 978.5 | 100 | 170 | 2 | 802 |
| 15/02/2009 | 4:30:00 | 37.1 | 23.4 | 22.7 | 979.0 | 170 | 260 | 2 | 884 |
| 15/02/2009 | 5:30:00 | 36.6 | 22.7 | 22.8 | 979.2 | 260 | 300 | 2 | 926 |
| 15/02/2009 | 6:30:00 | 35.5 | 22.4 | 22.6 | 980.0 | 300 | 350 | 2 | 983 |
| 15/02/2009 | 7:30:00 | 37.1 | 20.5 | 22.3 | 980.2 | 350 | 390 | 2 | 1014 |
| 15/02/2009 | 8:30:00 | 36.7 | 19.9 | 21.5 | 980.8 | 390 | 430 | 2 | 1057 |
| 15/02/2009 | 9:30:00 | 35.5 | 24.7 | 21.8 | 980.8 | 430 | 480 | 2 | 1113 |
| 15/02/2009 | 15:30:00 | 36.3 | 31.7 | 27.2 | 977.5 | 480 | 530 | 2 | 1150 |
| 16/02/2009 | 3:30:00 | 37.5 | 22.6 | 22.6 | 979.0 | 100 | 600 | 2 | 1612 |
| 25/02/2009 | 10:57:00 | 35.7 | 28.1 | 27.1 | 1026.1 | 200 | 1440 | 2 | 2979 |
| 27/02/2009 | 13:57:00 | 34.4 | 27.2 | 25.0 | 1025.5 | 200 | 580 | 2 | 3294 |
| 04/03/2009 | 13:31:00 | 34.7 | 29.2 | 28.4 | 1014.3 | 200 | 630 | 2 | 3677 |
| 06/03/2009 | 13:55:00 | 34.5 | 25.7 | 23.1 | 1021.0 | 200 | 325 | 2 | 3790 |
| 10/03/2009 | 16:41:00 | 26.2 | 25.4 | 25.4 | 1029.7 | 200 | 450 | 2 | 4105 |
| 13/03/2009 | 11:11:00 | 34.3 | 27.6 | 26.6 | 1028.2 | 200 | 400 | 2 | 4238 |
| 17/03/2009 | 10:46:00 | 36.3 | 25.2 | 22.4 | 1023.8 | 200 | 220 | 2 | 4238 |
| 20/03/2009 | 11:40:00 | 33.5 | 27.2 | 25.2 | 1026.5 | 200 | 295 | 2 | 4354 |
| 23/03/2009 | 8:55:00 | 32.3 | 21.6 | 22.2 | 1028.0 | 200 | 310 | 2 | 4472 |
| 31/03/2009 | 8:20:00 | 32.3 | 23.2 | 23.7 | 1020.2 | 200 | 490 | 2 | 4746 |
| 07/04/2009 | 9:46:00 | 32.9 | 21.7 | 21.5 | 1024.1 | 200 | 300 | 2 | 4834 |
| 14/04/2009 | 8:49:00 | 31.9 | 23.4 | 23.3 | 1013.3 | 200 | 430 | 2 | 5046 |
| 21/04/2009 | 13:15:00 | 32.2 | 23.4 | 23.1 | 1019.5 | 200 | 600 | 2 | 5451 |
| 28/04/2009 | 10:45:00 | 30.3 | 23.4 | 18.5 | 1015.2 | 800 | 1050 | 2 | 5726 |
| 05/05/2009 | 13:55:00 | 33.5 | 21.1 | 22.7 | 1029.3 | 200 | 380 | 2 | 5865 |
| 12/05/2009 | 14:05:00 | 32.9 | 21.4 | 19.5 | 1017.4 | 200 | 380 | 2 | 6017 |
| 18/05/2009 | 7:52:00 | 32.7 | 15.5 | 20.1 | 1024.7 | 200 | 290 | 2 | 6116 |
| 22/05/2009 | 15:00:00 | 32.5 | 23.0 | 21.2 | 1016.7 | 200 | 270 | 2 | 6167 |



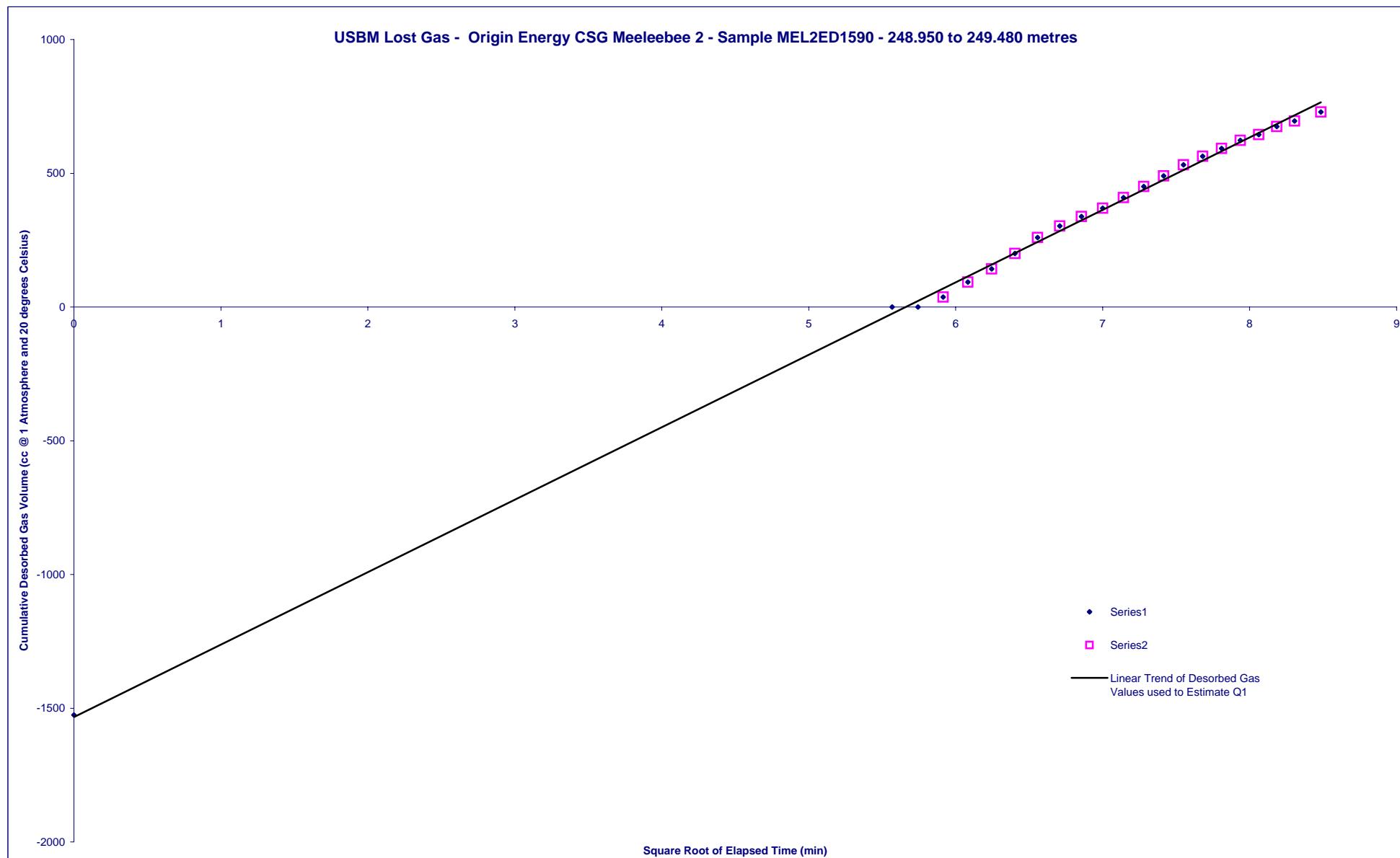


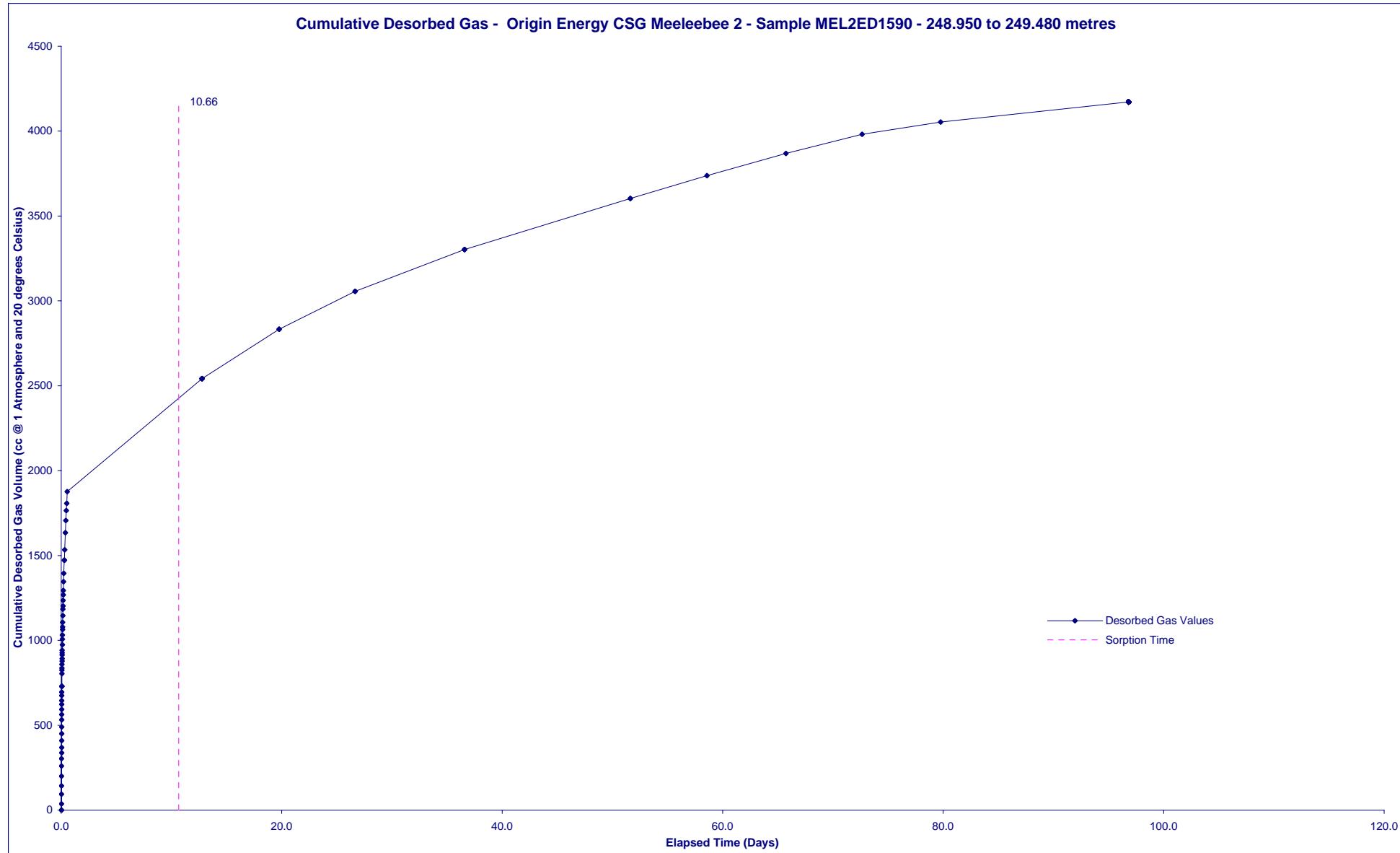
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1590 - 248.950 to 249.480 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | | |
|----------------------|---------------------|-------------------|---|-----------------|-------------------------|-------------------------------------|-------------------------|---------------------------|-----|
| Sample ID | MEL2ED1590 | Sample Type | Core | Sample Top (m) | 248.950 | Sample Base (m) | 249.480 | | |
| Sample Volume (cc) | 1574 | Mass (g) | 1656 | RD (g/cc) | 1.29 | Moisture (%ad) | 4.9 | | |
| Q3 Volume (cc@STP) | 101.12 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 5.3 | | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 2238 | | |
| Date and Time | DD/MM/YY HH:MM | | Mud Weight (ppg) | 8.3454 | | Trip Rate (m/min) | 35.6 | | |
| Sample Penetrated | 14/02/2009 18:59 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 2.44 | | Surface Time Ratio | 0.774 | | |
| Sample Off Bottom | 14/02/2009 19:23 | | Formation Pressure Gradient (psi/ft) | 0.433 | | Lost Time Ratio | 0.246 | | |
| Sample at Surface | 14/02/2009 19:30 | | Depth HSP=Formation Pressure (m) | 248.65 | | USBM Q1 - Surface Time Correction | 1.27 | | |
| Sample Sealed | 14/02/2009 19:54 | | Formation Temperature (°C) | | | Smith & Williams Q1 - Q2 Multiplier | 1.150 | | |
| Time Zero | 14/02/2009 19:23 | | Standard Temperature (°C) | 20.00 | Comments: | | 20 | | |
| Last Entry | 22/05/2009 15:00 | | Standard Pressure (hPa) | 1013 | | | -1525 | | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | | |
| m³ | 0.002 | 0.002 | 0.001 | 0.004 | 0.000 | 0.000 | 0.000 | | |
| m³/tonne (raw) | 0.92 | 1.17 | 0.38 | 2.52 | 0.51 | 3.950 | 4.200 | | |
| SCF/T (raw) | 30 | 37 | 12 | 81 | 16 | 126.430 | 134.390 | | |
| m³/tonne (daf) | 1.10 | 1.40 | 0.45 | 3.01 | 0.61 | 4.72 | 5.02 | | |
| SCF/T (daf) | 35 | 45 | 14 | 96 | 19 | 151 | 161 | | |
| Percent of daf total | 23.31% | 27.84% | 11.09% | 59.97% | Sorption Time (days) | 10.66 | Diffusivity (sec⁻¹) | | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) | |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size | |
| 14/02/2009 | 19:54:00 | 34.3 | 23.1 | 22.5 | 987.3 | 100 | 100 | 2 | 0 |
| 14/02/2009 | 19:56:00 | 34.7 | 23.2 | 22.4 | 987.3 | 100 | 200 | 2 | 0 |
| 14/02/2009 | 19:58:00 | 35.1 | 23.1 | 22.5 | 978.5 | 200 | 260 | 2 | 37 |
| 14/02/2009 | 20:00:00 | 35.5 | 23.1 | 22.5 | 978.5 | 260 | 320 | 2 | 93 |
| 14/02/2009 | 20:02:00 | 35.5 | 23.1 | 22.5 | 978.5 | 320 | 370 | 2 | 143 |
| 14/02/2009 | 20:04:00 | 35.7 | 23.1 | 22.5 | 978.5 | 370 | 430 | 2 | 201 |
| 14/02/2009 | 20:06:00 | 35.9 | 23.2 | 22.6 | 978.8 | 430 | 490 | 2 | 259 |
| 14/02/2009 | 20:08:00 | 35.9 | 23.2 | 22.6 | 978.5 | 490 | 535 | 2 | 303 |
| 14/02/2009 | 20:10:00 | 35.9 | 23.2 | 22.6 | 978.5 | 535 | 570 | 2 | 338 |
| 14/02/2009 | 20:12:00 | 35.7 | 23.1 | 22.6 | 978.5 | 570 | 600 | 2 | 369 |
| 14/02/2009 | 20:14:00 | 35.7 | 23.1 | 22.6 | 978.5 | 600 | 640 | 2 | 409 |
| 14/02/2009 | 20:16:00 | 35.5 | 23.2 | 22.6 | 978.5 | 640 | 680 | 2 | 450 |
| 14/02/2009 | 20:18:00 | 35.5 | 23.1 | 22.6 | 978.5 | 680 | 720 | 2 | 490 |
| 14/02/2009 | 20:20:00 | 35.3 | 23.1 | 22.6 | 978.5 | 720 | 760 | 2 | 531 |
| 14/02/2009 | 20:22:00 | 35.1 | 22.9 | 22.6 | 978.8 | 760 | 790 | 2 | 564 |
| 14/02/2009 | 20:24:00 | 35.1 | 22.9 | 22.5 | 978.6 | 790 | 820 | 2 | 593 |
| 14/02/2009 | 20:26:00 | 35.1 | 22.9 | 22.5 | 978.6 | 820 | 850 | 2 | 623 |
| 14/02/2009 | 20:28:00 | 34.9 | 22.9 | 22.5 | 978.6 | 850 | 870 | 2 | 645 |
| 14/02/2009 | 20:30:00 | 34.9 | 23.0 | 22.6 | 978.6 | 870 | 900 | 2 | 675 |
| 14/02/2009 | 20:32:00 | 34.9 | 23.1 | 22.5 | 978.8 | 900 | 920 | 2 | 695 |
| 14/02/2009 | 20:35:00 | 35.1 | 23.2 | 22.6 | 978.8 | 920 | 955 | 2 | 729 |
| 14/02/2009 | 20:40:00 | 36.1 | 23.4 | 22.6 | 978.8 | 955 | 410 | 2 | 729 |
| 14/02/2009 | 20:45:00 | 36.6 | 23.2 | 22.6 | 978.8 | 1040 | 430 | 2 | 729 |
| 14/02/2009 | 20:50:00 | 36.4 | 23.1 | 22.5 | 978.8 | 100 | 200 | 2 | 805 |
| 14/02/2009 | 20:55:00 | 36.4 | 23.2 | 22.6 | 978.8 | 200 | 220 | 2 | 824 |
| 14/02/2009 | 21:00:00 | 36.2 | 23.4 | 22.6 | 979.2 | 220 | 230 | 2 | 836 |
| 14/02/2009 | 21:05:00 | 35.8 | 23.6 | 22.7 | 979.2 | 230 | 250 | 2 | 859 |
| 14/02/2009 | 21:10:00 | 35.1 | 23.1 | 22.7 | 979.2 | 250 | 265 | 2 | 878 |
| 14/02/2009 | 21:15:00 | 35.1 | 23.1 | 22.7 | 979.2 | 265 | 280 | 2 | 893 |
| 14/02/2009 | 21:20:00 | 34.9 | 23.2 | 22.7 | 979.2 | 280 | 300 | 2 | 914 |
| 14/02/2009 | 21:25:00 | 35.9 | 23.4 | 22.7 | 979.4 | 300 | 320 | 2 | 927 |
| 14/02/2009 | 21:30:00 | 36.7 | 23.6 | 22.8 | 979.4 | 320 | 340 | 2 | 942 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1590 - 248.950 to 249.480 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 14/02/2009 | 21:40:00 | 36.4 | 23.1 | 22.7 | 979.6 | 340 | 370 | 2 | 974 |
| 14/02/2009 | 21:51:00 | 35.7 | 23.1 | 22.7 | 979.2 | 370 | 400 | 2 | 1007 |
| 14/02/2009 | 22:00:00 | 35.3 | 23.7 | 22.8 | 979.8 | 400 | 420 | 2 | 1031 |
| 14/02/2009 | 22:10:00 | 34.8 | 23.1 | 22.8 | 979.8 | 420 | 450 | 2 | 1064 |
| 14/02/2009 | 22:20:00 | 36.8 | 23.4 | 22.8 | 979.2 | 450 | 480 | 2 | 1079 |
| 14/02/2009 | 22:30:00 | 36.7 | 23.2 | 22.8 | 980.2 | 480 | 505 | 2 | 1107 |
| 14/02/2009 | 22:45:00 | 35.7 | 23.1 | 22.9 | 979.2 | 505 | 540 | 2 | 1146 |
| 14/02/2009 | 23:00:00 | 34.6 | 23.1 | 22.8 | 979.8 | 540 | 570 | 2 | 1184 |
| 14/02/2009 | 23:15:00 | 36.1 | 23.5 | 22.9 | 979.2 | 570 | 600 | 2 | 1203 |
| 14/02/2009 | 23:30:00 | 35.9 | 23.1 | 22.8 | 979.6 | 600 | 630 | 2 | 1235 |
| 14/02/2009 | 23:45:00 | 35.1 | 23.4 | 22.9 | 979.0 | 630 | 660 | 2 | 1269 |
| 15/02/2009 | 0:00:00 | 35.9 | 23.2 | 22.8 | 979.2 | 660 | 690 | 2 | 1294 |
| 15/02/2009 | 0:30:00 | 35.5 | 23.1 | 22.9 | 978.8 | 690 | 740 | 2 | 1346 |
| 15/02/2009 | 1:00:00 | 35.5 | 23.1 | 22.9 | 978.6 | 740 | 790 | 2 | 1395 |
| 15/02/2009 | 2:00:00 | 35.7 | 22.9 | 22.9 | 977.7 | 790 | 870 | 2 | 1472 |
| 15/02/2009 | 2:30:00 | 34.3 | 22.9 | 22.9 | 978.3 | 870 | 100 | 2 | 1472 |
| 15/02/2009 | 3:00:00 | 35.5 | 23.5 | 22.1 | 978.5 | 100 | 170 | 2 | 1533 |
| 15/02/2009 | 4:30:00 | 36.7 | 23.4 | 22.7 | 979.0 | 170 | 280 | 2 | 1634 |
| 15/02/2009 | 5:30:00 | 36.3 | 22.7 | 22.8 | 979.2 | 280 | 350 | 2 | 1707 |
| 15/02/2009 | 6:30:00 | 35.2 | 22.4 | 22.6 | 980.0 | 350 | 400 | 2 | 1765 |
| 15/02/2009 | 7:30:00 | 36.5 | 20.5 | 22.3 | 980.2 | 400 | 450 | 2 | 1807 |
| 15/02/2009 | 8:30:00 | 33.9 | 19.9 | 21.5 | 980.8 | 450 | 500 | 2 | 1876 |
| 15/02/2009 | 9:30:00 | 34.9 | 24.7 | 21.8 | 980.8 | 500 | 540 | 2 | 1909 |
| 15/02/2009 | 15:30:00 | 35.9 | 31.7 | 27.2 | 977.5 | 540 | 575 | 2 | 1929 |
| 16/02/2009 | 3:30:00 | 36.0 | 22.6 | 22.6 | 979.0 | 100 | 320 | 2 | 2114 |
| 25/02/2009 | 11:10:00 | 34.3 | 28.7 | 27.2 | 1025.8 | 200 | 360 | 2 | 2381 |
| 27/02/2009 | 14:05:00 | 33.5 | 27.2 | 24.9 | 1025.1 | 200 | 365 | 2 | 2541 |
| 04/03/2009 | 13:15:00 | 35.5 | 28.9 | 28.6 | 1014.3 | 200 | 395 | 2 | 2688 |
| 06/03/2009 | 14:00:00 | 34.3 | 25.9 | 23.1 | 1020.8 | 200 | 335 | 2 | 2833 |
| 10/03/2009 | 16:43:00 | 29.1 | 25.4 | 25.2 | 1029.7 | 200 | 310 | 2 | 2993 |
| 13/03/2009 | 11:02:00 | 34.3 | 25.9 | 26.1 | 1028.0 | 200 | 310 | 2 | 3056 |
| 17/03/2009 | 10:29:00 | 34.0 | 24.9 | 22.2 | 1024.0 | 200 | 270 | 2 | 3113 |
| 20/03/2009 | 11:57:00 | 33.0 | 27.6 | 25.4 | 1027.2 | 200 | 300 | 2 | 3224 |
| 23/03/2009 | 9:15:00 | 32.9 | 22.5 | 22.2 | 1028.2 | 200 | 280 | 2 | 3302 |
| 31/03/2009 | 9:42:00 | 31.6 | 23.2 | 23.7 | 1020.2 | 200 | 380 | 2 | 3473 |
| 07/04/2009 | 10:16:00 | 31.5 | 22.7 | 22.0 | 1024.3 | 200 | 330 | 2 | 3604 |
| 14/04/2009 | 9:01:00 | 32.3 | 23.1 | 23.2 | 1013.5 | 200 | 370 | 2 | 3738 |
| 21/04/2009 | 12:58:00 | 32.7 | 23.7 | 23.1 | 1019.5 | 200 | 330 | 2 | 3869 |
| 28/04/2009 | 10:50:00 | 29.7 | 23.4 | 18.5 | 1015.2 | 1000 | 1050 | 2 | 3982 |
| 05/05/2009 | 14:06:00 | 32.8 | 21.1 | 22.3 | 1029.6 | 200 | 320 | 2 | 4054 |
| 12/05/2009 | 14:32:00 | 32.7 | 21.1 | 19.6 | 1017.2 | 200 | 270 | 2 | 4090 |
| 18/05/2009 | 7:47:00 | 31.9 | 15.4 | 20.2 | 1024.1 | 200 | 235 | 2 | 4143 |
| 22/05/2009 | 15:00:00 | 32.3 | 23.1 | 22.2 | 1016.7 | 200 | 250 | 2 | 4173 |



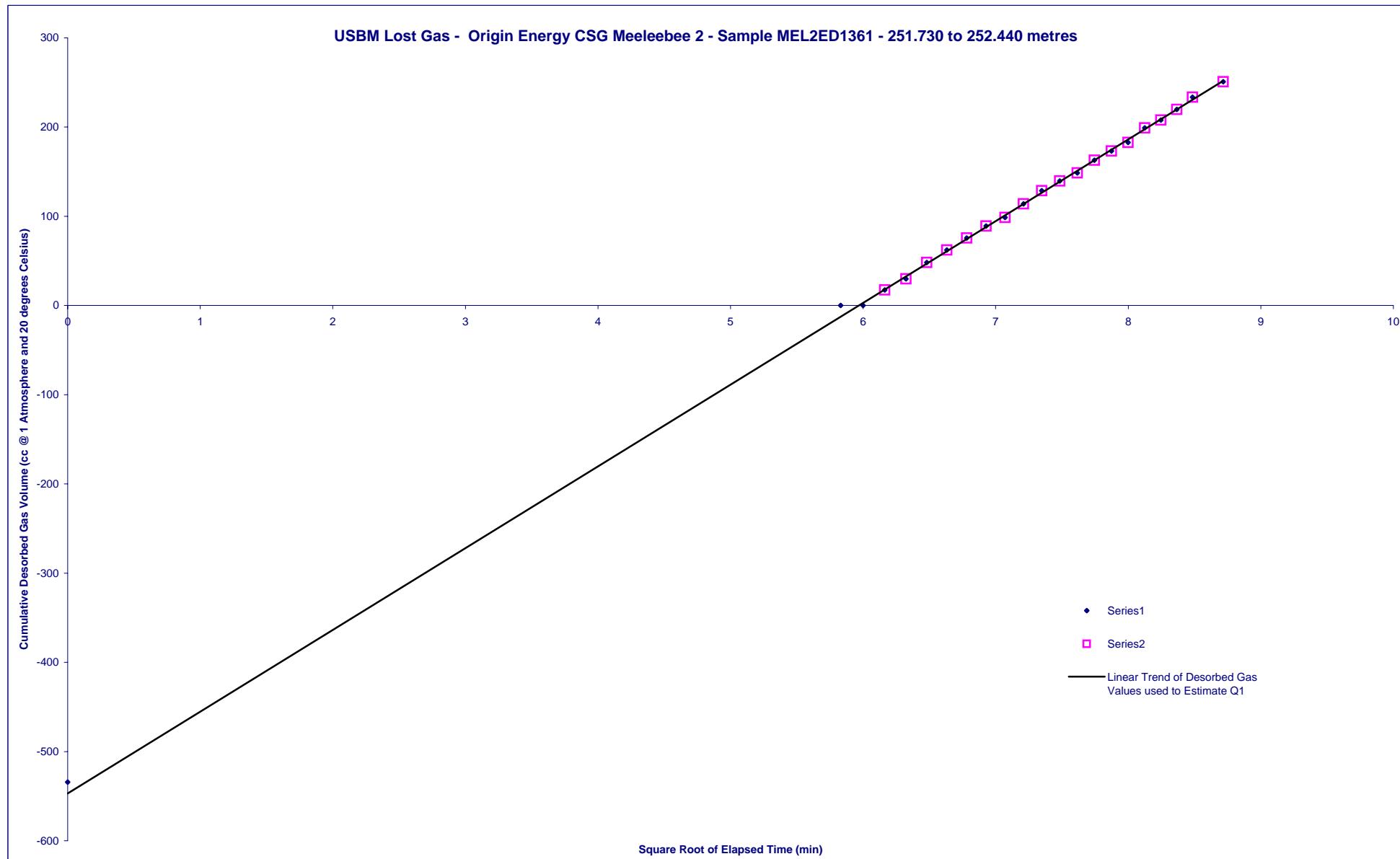


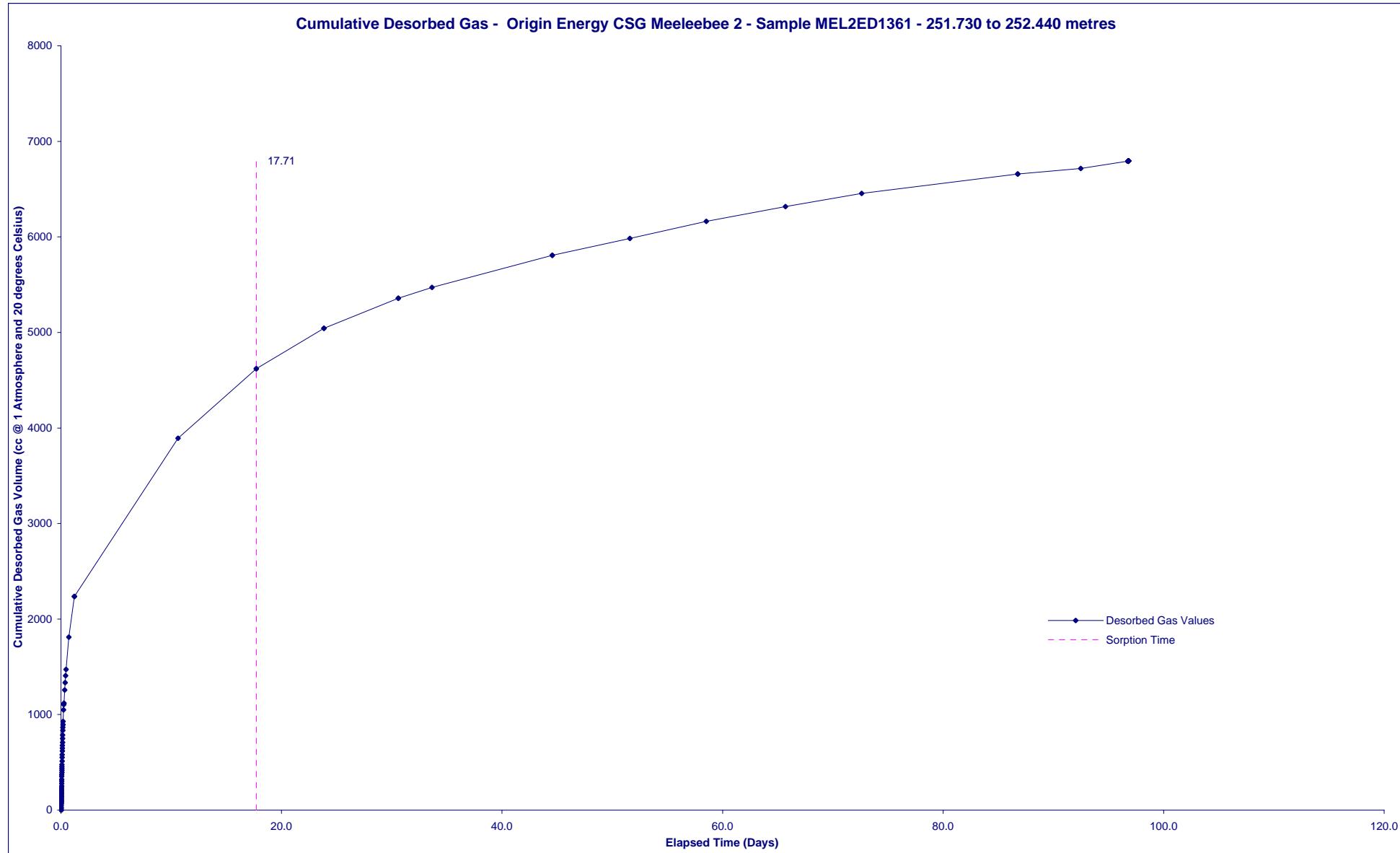
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1361 - 251.730 to 252.440 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | | | |
|----------------------|---------------------|-------------------|---------------------|---|-------------------------|-------------------------------------|-------------------------|---------------------------|---|-----|
| Sample ID | MEL2ED1361 | Sample Type | Core | Sample Top (m) | 251.730 | Sample Base (m) | 252.440 | | | |
| Sample Volume (cc) | 2109 | Mass (g) | 2492 | RD (g/cc) | 1.35 | Moisture (%ad) | 5.2 | | | |
| Q3 Volume (cc@STP) | 85.51 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 4.3 | | | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1452 | | | |
| Date and Time | DD/MM/YY | HH:MM | | Mud Weight (ppg) | 8.3454 | Trip Rate (m/min) | 36.1 | | | |
| Sample Penetrated | 14/02/2009 | 19:44 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 2.47 | Surface Time Ratio | 0.794 | | | |
| Sample Off Bottom | 14/02/2009 | 20:14 | | Formation Pressure Gradient (psi/ft) | 0.433 | Lost Time Ratio | 0.053 | | | |
| Sample at Surface | 14/02/2009 | 20:21 | | Depth HSP=Formation Pressure (m) | 251.42 | USBM Q1 - Surface Time Correction | 1.27 | | | |
| Sample Sealed | 14/02/2009 | 20:48 | | Formation Temperature (°C) | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | | | |
| Time Zero | 14/02/2009 | 20:14 | | Standard Temperature (°C) | 20.00 | Comments: | | | | |
| Last Entry | 22/05/2009 | 15:36 | | Standard Pressure (hPa) | 1013 | | -534 | | | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | | | |
| m³ | 0.001 | 0.001 | 0.000 | 0.007 | 0.000 | 0.010 | 0.010 | | | |
| m³/tonne (raw) | 0.21 | 0.27 | 0.00 | 2.73 | 0.43 | 3.370 | 3.430 | | | |
| SCF/T (raw) | 7 | 9 | 0 | 87 | 14 | 107.900 | 109.750 | | | |
| m³/tonne (daf) | 0.28 | 0.35 | 0.00 | 3.52 | 0.63 | 4.43 | 4.50 | | | |
| SCF/T (daf) | 9 | 11 | 0 | 113 | 20 | 142 | 144 | | | |
| Percent of daf total | 6.25% | 7.82% | 0.00% | 78.26% | Sorption Time (days) | 17.71 | Diffusivity (sec⁻¹) | | | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) | | |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | | Start (cc) | Finish (cc) | Size | | |
| 14/02/2009 | 20:48:00 | | 33.5 | 23.1 | 22.4 | 978.8 | 100 | 100 | 2 | 0 |
| 14/02/2009 | 20:50:00 | | 33.5 | 23.1 | 22.5 | 978.8 | 100 | 130 | 2 | 0 |
| 14/02/2009 | 20:52:00 | | 33.9 | 23.1 | 22.6 | 978.8 | 130 | 150 | 2 | 17 |
| 14/02/2009 | 20:54:00 | | 34.3 | 23.2 | 22.6 | 978.8 | 150 | 165 | 2 | 30 |
| 14/02/2009 | 20:56:00 | | 34.5 | 23.2 | 22.6 | 978.8 | 165 | 185 | 2 | 48 |
| 14/02/2009 | 20:58:00 | | 34.7 | 23.4 | 22.7 | 979.2 | 185 | 200 | 2 | 62 |
| 14/02/2009 | 21:00:00 | | 34.9 | 23.4 | 22.7 | 979.2 | 200 | 215 | 2 | 76 |
| 14/02/2009 | 21:02:00 | | 35.1 | 23.6 | 22.7 | 979.2 | 215 | 230 | 2 | 89 |
| 14/02/2009 | 21:04:00 | | 35.1 | 23.6 | 22.7 | 979.2 | 230 | 240 | 2 | 99 |
| 14/02/2009 | 21:06:00 | | 34.9 | 23.6 | 22.7 | 979.2 | 240 | 255 | 2 | 114 |
| 14/02/2009 | 21:08:00 | | 34.8 | 23.4 | 22.7 | 979.2 | 255 | 270 | 2 | 129 |
| 14/02/2009 | 21:10:00 | | 34.5 | 23.1 | 22.7 | 979.2 | 270 | 280 | 2 | 140 |
| 14/02/2009 | 21:12:00 | | 34.7 | 23.2 | 22.7 | 979.4 | 280 | 290 | 2 | 149 |
| 14/02/2009 | 21:14:00 | | 34.7 | 23.1 | 22.7 | 979.2 | 290 | 305 | 2 | 163 |
| 14/02/2009 | 21:16:00 | | 34.5 | 23.1 | 22.7 | 979.2 | 305 | 315 | 2 | 173 |
| 14/02/2009 | 21:18:00 | | 34.5 | 23.1 | 22.7 | 979.2 | 315 | 325 | 2 | 183 |
| 14/02/2009 | 21:20:00 | | 34.1 | 23.2 | 22.7 | 979.2 | 325 | 340 | 2 | 199 |
| 14/02/2009 | 21:22:00 | | 34.3 | 23.2 | 22.7 | 979.2 | 340 | 350 | 2 | 208 |
| 14/02/2009 | 21:24:00 | | 34.9 | 23.4 | 22.6 | 979.4 | 350 | 365 | 2 | 220 |
| 14/02/2009 | 21:26:00 | | 35.1 | 23.4 | 22.7 | 979.4 | 365 | 380 | 2 | 233 |
| 14/02/2009 | 21:30:00 | | 35.5 | 23.6 | 22.8 | 979.4 | 380 | 400 | 2 | 251 |
| 14/02/2009 | 21:35:00 | | 35.8 | 23.4 | 22.8 | 978.8 | 400 | 430 | 2 | 278 |
| 14/02/2009 | 21:40:00 | | 35.8 | 23.1 | 22.7 | 979.8 | 430 | 455 | 2 | 303 |
| 14/02/2009 | 21:45:00 | | 35.7 | 23.1 | 22.7 | 979.6 | 455 | 475 | 2 | 323 |
| 14/02/2009 | 21:50:00 | | 35.5 | 23.1 | 22.7 | 979.2 | 475 | 505 | 2 | 352 |
| 14/02/2009 | 21:55:00 | | 35.3 | 23.4 | 22.8 | 979.8 | 505 | 525 | 2 | 373 |
| 14/02/2009 | 22:00:00 | | 35.1 | 23.7 | 22.8 | 979.8 | 525 | 545 | 2 | 393 |
| 14/02/2009 | 22:05:00 | | 34.5 | 23.2 | 22.8 | 980.0 | 545 | 565 | 2 | 416 |
| 14/02/2009 | 22:10:00 | | 34.5 | 23.1 | 22.8 | 979.8 | 565 | 585 | 2 | 435 |
| 14/02/2009 | 22:15:00 | | 35.2 | 23.2 | 22.7 | 979.4 | 585 | 610 | 2 | 455 |
| 14/02/2009 | 22:20:00 | | 36.0 | 23.4 | 22.8 | 979.2 | 610 | 635 | 2 | 476 |
| 14/02/2009 | 22:30:00 | | 35.9 | 23.2 | 22.8 | 980.2 | 635 | 670 | 2 | 512 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1361 - 251.730 to 252.440 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 14/02/2009 | 22:40:00 | 35.5 | 23.1 | 22.8 | 979.2 | 670 | 710 | 2 | 551 |
| 14/02/2009 | 22:50:00 | 35.3 | 23.6 | 22.8 | 979.4 | 710 | 740 | 2 | 581 |
| 14/02/2009 | 23:00:00 | 34.6 | 23.1 | 22.8 | 979.8 | 740 | 775 | 2 | 619 |
| 14/02/2009 | 23:10:00 | 35.5 | 23.1 | 22.9 | 979.0 | 775 | 810 | 2 | 648 |
| 14/02/2009 | 23:20:00 | 35.9 | 23.5 | 22.9 | 979.4 | 810 | 840 | 2 | 676 |
| 14/02/2009 | 23:30:00 | 35.5 | 23.1 | 22.8 | 979.6 | 840 | 870 | 2 | 707 |
| 14/02/2009 | 23:45:00 | 34.9 | 23.4 | 22.9 | 979.0 | 870 | 910 | 2 | 748 |
| 15/02/2009 | 0:00:00 | 35.2 | 23.2 | 22.8 | 979.2 | 910 | 950 | 2 | 787 |
| 15/02/2009 | 0:15:00 | 35.7 | 23.7 | 22.9 | 979.6 | 950 | 1000 | 2 | 834 |
| 15/02/2009 | 0:30:00 | 35.1 | 23.1 | 22.9 | 978.8 | 1000 | 1030 | 2 | 865 |
| 15/02/2009 | 0:45:00 | 34.7 | 23.6 | 22.9 | 978.3 | 1030 | 1060 | 2 | 896 |
| 15/02/2009 | 1:00:00 | 36.2 | 23.1 | 22.9 | 978.6 | 1060 | 1100 | 2 | 929 |
| 15/02/2009 | 2:00:00 | 35.3 | 22.9 | 22.9 | 977.7 | 1100 | 1220 | 2 | 1050 |
| 15/02/2009 | 2:30:00 | 34.2 | 22.9 | 22.9 | 978.3 | 1220 | 1270 | 2 | 1105 |
| 15/02/2009 | 3:00:00 | 35.5 | 23.5 | 22.1 | 978.5 | 100 | 180 | 2 | 1121 |
| 15/02/2009 | 4:30:00 | 35.3 | 23.4 | 22.7 | 979.0 | 180 | 320 | 2 | 1256 |
| 15/02/2009 | 5:30:00 | 35.3 | 22.7 | 22.8 | 979.2 | 320 | 400 | 2 | 1334 |
| 15/02/2009 | 6:30:00 | 34.3 | 22.4 | 22.6 | 980.0 | 400 | 470 | 2 | 1407 |
| 15/02/2009 | 7:30:00 | 35.1 | 20.5 | 22.3 | 980.2 | 470 | 540 | 2 | 1472 |
| 15/02/2009 | 13:30:00 | 35.5 | 31.3 | 22.2 | 978.8 | 540 | 900 | 2 | 1812 |
| 15/02/2009 | 19:30:00 | 35.1 | 36.0 | 27.8 | 978.8 | 900 | 1030 | 2 | 1936 |
| 16/02/2009 | 1:30:00 | 34.6 | 20.3 | 21.8 | 979.8 | 100 | 450 | 2 | 2236 |
| 25/02/2009 | 11:10:00 | 34.0 | 28.7 | 27.2 | 1025.8 | 200 | 1750 | 2 | 3893 |
| 27/02/2009 | 14:05:00 | 33.6 | 27.2 | 24.9 | 1025.1 | 200 | 600 | 2 | 4221 |
| 04/03/2009 | 13:15:00 | 35.8 | 28.9 | 28.6 | 1014.3 | 200 | 650 | 2 | 4621 |
| 06/03/2009 | 14:00:00 | 34.5 | 25.9 | 23.1 | 1020.8 | 200 | 400 | 2 | 4814 |
| 10/03/2009 | 16:43:00 | 29.2 | 25.4 | 25.2 | 1029.7 | 200 | 400 | 2 | 5042 |
| 13/03/2009 | 11:02:00 | 34.3 | 25.9 | 26.1 | 1028.0 | 200 | 400 | 2 | 5207 |
| 17/03/2009 | 10:29:00 | 37.5 | 24.9 | 22.2 | 1024.0 | 200 | 380 | 2 | 5357 |
| 20/03/2009 | 11:57:00 | 31.0 | 27.6 | 25.4 | 1027.2 | 200 | 290 | 2 | 5471 |
| 23/03/2009 | 9:15:00 | 33.3 | 22.5 | 22.2 | 1028.2 | 200 | 300 | 2 | 5559 |
| 31/03/2009 | 9:42:00 | 32.3 | 23.2 | 23.7 | 1020.2 | 200 | 460 | 2 | 5808 |
| 07/04/2009 | 10:16:00 | 32.0 | 22.7 | 22.0 | 1024.3 | 200 | 380 | 2 | 5985 |
| 14/04/2009 | 9:01:00 | 33.4 | 23.1 | 23.2 | 1013.5 | 200 | 410 | 2 | 6163 |
| 21/04/2009 | 12:58:00 | 32.4 | 23.7 | 23.1 | 1019.5 | 200 | 350 | 2 | 6316 |
| 28/04/2009 | 10:50:00 | 29.8 | 23.4 | 18.5 | 1015.2 | 1000 | 1100 | 2 | 6455 |
| 05/05/2009 | 14:06:00 | 32.1 | 21.1 | 22.3 | 1029.6 | 200 | 300 | 2 | 6524 |
| 12/05/2009 | 14:32:00 | 30.9 | 21.1 | 19.6 | 1017.2 | 200 | 350 | 2 | 6657 |
| 18/05/2009 | 7:47:00 | 32.0 | 15.4 | 20.2 | 1024.1 | 200 | 260 | 2 | 6717 |
| 22/05/2009 | 15:36:00 | 32.4 | 23.1 | 21.2 | 1018.0 | 200 | 290 | 2 | 6793 |



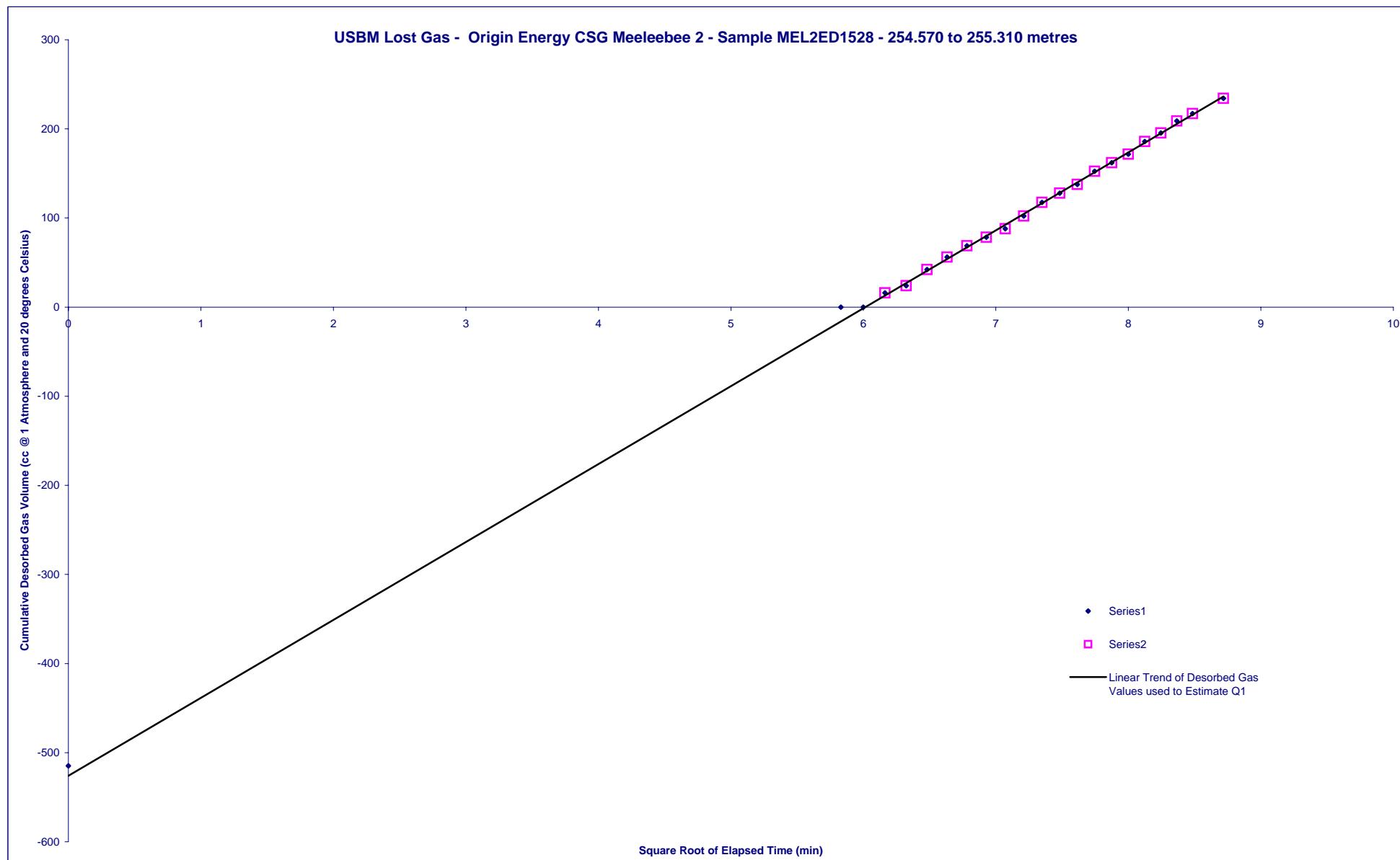


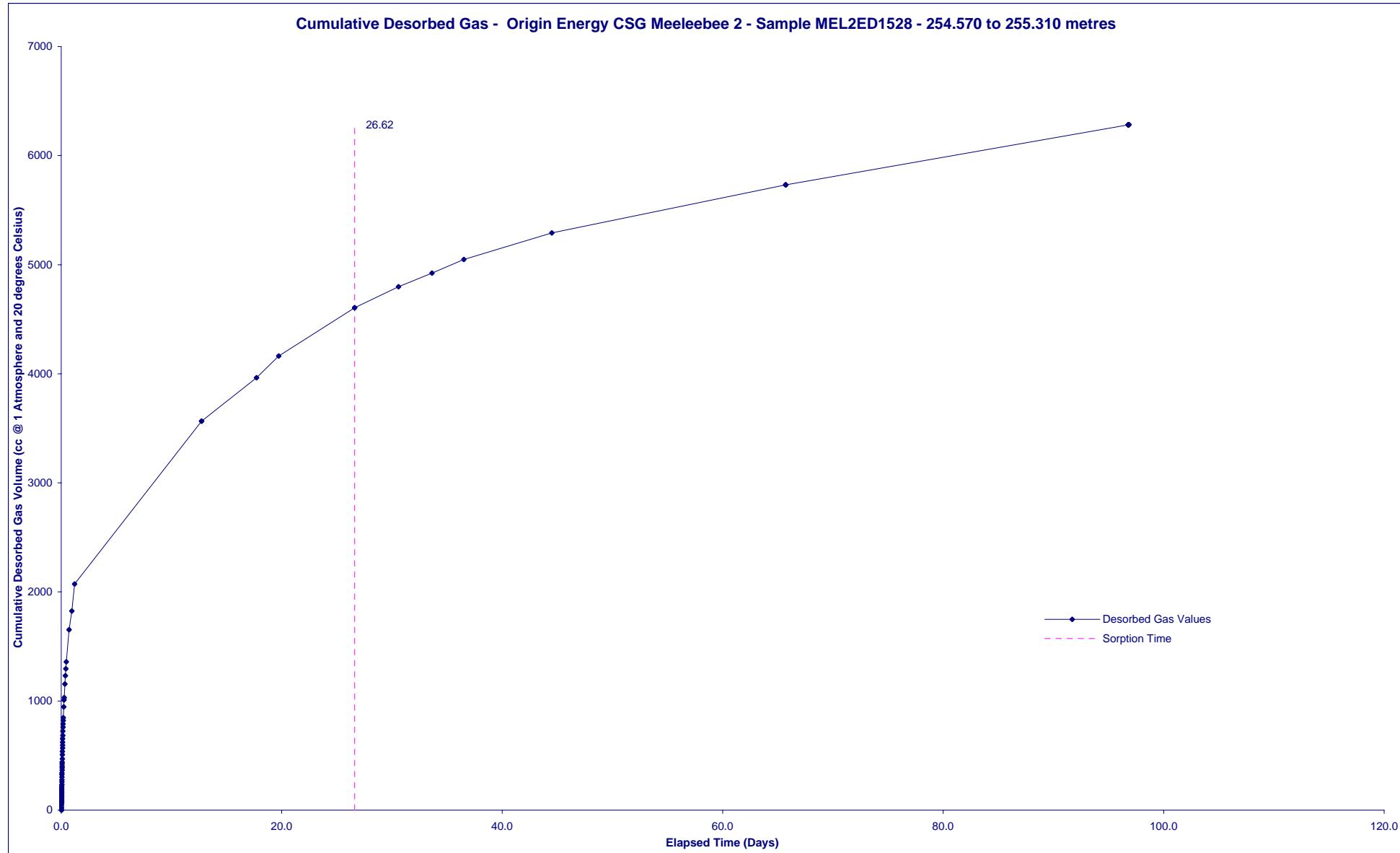
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1528 - 254.570 to 255.310 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | | | |
|----------------------|---------------------|-------------------|---|-----------------|-------------------------|-------------------------------------|-------------------------|---------------------------|---|-----|
| Sample ID | MEL2ED1528 | Sample Type | Core | Sample Top (m) | 254.570 | Sample Base (m) | 255.310 | | | |
| Sample Volume (cc) | 2198 | Mass (g) | 2444 | RD (g/cc) | 1.29 | Moisture (%ad) | 5.2 | | | |
| Q3 Volume (cc@STP) | 130.28 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 5.1 | | | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1428 | | | |
| Date and Time | DD/MM/YY HH:MM | | Mud Weight (ppg) | 8.3454 | | Trip Rate (m/min) | 36.5 | | | |
| Sample Penetrated | 14/02/2009 19:53 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 2.49 | | Surface Time Ratio | 0.794 | | | |
| Sample Off Bottom | 14/02/2009 20:14 | | Formation Pressure Gradient (psi/ft) | 0.433 | | Lost Time Ratio | 0.053 | | | |
| Sample at Surface | 14/02/2009 20:21 | | Depth HSP=Formation Pressure (m) | 254.26 | | USBM Q1 - Surface Time Correction | 1.27 | | | |
| Sample Sealed | 14/02/2009 20:48 | | Formation Temperature (°C) | | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | | | |
| Time Zero | 14/02/2009 20:14 | | Standard Temperature (°C) | 20.00 | Comments: | | 20 | | | |
| Last Entry | 22/05/2009 15:36 | | Standard Pressure (hPa) | 1013 | | | -515 | | | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | | | |
| m³ | 0.001 | 0.001 | 0.000 | 0.006 | 0.000 | 0.010 | 0.010 | | | |
| m³/tonne (raw) | 0.21 | 0.27 | 0.00 | 2.57 | 0.65 | 3.430 | 3.490 | | | |
| SCF/T (raw) | 7 | 9 | 0 | 82 | 21 | 109.970 | 111.790 | | | |
| m³/tonne (daf) | 0.25 | 0.31 | 0.00 | 3.02 | 0.76 | 4.03 | 4.09 | | | |
| SCF/T (daf) | 8 | 10 | 0 | 97 | 24 | 129 | 131 | | | |
| Percent of daf total | 6.15% | 7.70% | 0.00% | 73.94% | Sorption Time (days) | 26.62 | Diffusivity (sec⁻¹) | | | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) | | |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size | | |
| 14/02/2009 | 20:48:00 | | 32.8 | 23.1 | 22.4 | 978.8 | 100 | 100 | 2 | 0 |
| 14/02/2009 | 20:50:00 | | 32.8 | 23.1 | 22.5 | 978.8 | 100 | 140 | 2 | 0 |
| 14/02/2009 | 20:52:00 | | 33.5 | 23.1 | 22.6 | 978.8 | 140 | 160 | 2 | 16 |
| 14/02/2009 | 20:54:00 | | 33.9 | 23.2 | 22.6 | 978.8 | 160 | 170 | 2 | 24 |
| 14/02/2009 | 20:56:00 | | 34.1 | 23.2 | 22.6 | 978.8 | 170 | 190 | 2 | 42 |
| 14/02/2009 | 20:58:00 | | 34.3 | 23.4 | 22.7 | 979.2 | 190 | 205 | 2 | 56 |
| 14/02/2009 | 21:00:00 | | 34.7 | 23.4 | 22.7 | 979.2 | 205 | 220 | 2 | 69 |
| 14/02/2009 | 21:02:00 | | 34.7 | 23.6 | 22.7 | 979.2 | 220 | 230 | 2 | 78 |
| 14/02/2009 | 21:04:00 | | 34.7 | 23.6 | 22.7 | 979.2 | 230 | 240 | 2 | 88 |
| 14/02/2009 | 21:06:00 | | 34.7 | 23.6 | 22.7 | 979.2 | 240 | 255 | 2 | 102 |
| 14/02/2009 | 21:08:00 | | 34.5 | 23.4 | 22.7 | 979.2 | 255 | 270 | 2 | 117 |
| 14/02/2009 | 21:10:00 | | 34.3 | 23.1 | 22.7 | 979.2 | 270 | 280 | 2 | 128 |
| 14/02/2009 | 21:12:00 | | 34.3 | 23.2 | 22.7 | 979.4 | 280 | 290 | 2 | 138 |
| 14/02/2009 | 21:14:00 | | 34.2 | 23.1 | 22.7 | 979.2 | 290 | 305 | 2 | 152 |
| 14/02/2009 | 21:16:00 | | 34.2 | 23.1 | 22.7 | 979.2 | 305 | 315 | 2 | 162 |
| 14/02/2009 | 21:18:00 | | 34.2 | 23.1 | 22.7 | 979.2 | 315 | 325 | 2 | 171 |
| 14/02/2009 | 21:20:00 | | 34.2 | 23.2 | 22.7 | 979.2 | 325 | 340 | 2 | 186 |
| 14/02/2009 | 21:22:00 | | 34.2 | 23.2 | 22.7 | 979.2 | 340 | 350 | 2 | 196 |
| 14/02/2009 | 21:24:00 | | 34.5 | 23.4 | 22.6 | 979.4 | 350 | 365 | 2 | 209 |
| 14/02/2009 | 21:26:00 | | 34.8 | 23.4 | 22.7 | 979.4 | 365 | 375 | 2 | 217 |
| 14/02/2009 | 21:30:00 | | 35.3 | 23.6 | 22.8 | 979.4 | 375 | 395 | 2 | 234 |
| 14/02/2009 | 21:35:00 | | 35.3 | 23.4 | 22.8 | 978.8 | 395 | 420 | 2 | 257 |
| 14/02/2009 | 21:40:00 | | 35.3 | 23.1 | 22.7 | 979.8 | 420 | 440 | 2 | 278 |
| 14/02/2009 | 21:45:00 | | 35.3 | 23.1 | 22.7 | 979.6 | 440 | 465 | 2 | 302 |
| 14/02/2009 | 21:50:00 | | 35.2 | 23.1 | 22.7 | 979.2 | 465 | 490 | 2 | 326 |
| 14/02/2009 | 21:55:00 | | 35.1 | 23.4 | 22.8 | 979.8 | 490 | 505 | 2 | 342 |
| 14/02/2009 | 22:00:00 | | 35.1 | 23.7 | 22.8 | 979.8 | 505 | 530 | 2 | 366 |
| 14/02/2009 | 22:05:00 | | 34.6 | 23.2 | 22.8 | 980.0 | 530 | 550 | 2 | 388 |
| 14/02/2009 | 22:10:00 | | 34.5 | 23.1 | 22.8 | 979.8 | 550 | 565 | 2 | 402 |
| 14/02/2009 | 22:15:00 | | 34.9 | 23.2 | 22.7 | 979.4 | 565 | 590 | 2 | 424 |
| 14/02/2009 | 22:20:00 | | 35.7 | 23.4 | 22.8 | 979.2 | 590 | 610 | 2 | 440 |
| 14/02/2009 | 22:30:00 | | 35.9 | 23.2 | 22.8 | 980.2 | 610 | 640 | 2 | 470 |
| | | | | | | | | | | |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1528 - 254.570 to 255.310 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 14/02/2009 | 22:40:00 | 35.7 | 23.1 | 22.8 | 979.2 | 640 | 680 | 2 | 508 |
| 14/02/2009 | 22:50:00 | 35.5 | 23.6 | 22.8 | 979.4 | 680 | 710 | 2 | 538 |
| 14/02/2009 | 23:00:00 | 34.9 | 23.1 | 22.8 | 979.8 | 710 | 740 | 2 | 571 |
| 14/02/2009 | 23:10:00 | 35.5 | 23.1 | 22.9 | 979.0 | 740 | 770 | 2 | 596 |
| 14/02/2009 | 23:20:00 | 36.1 | 23.5 | 22.9 | 979.4 | 770 | 800 | 2 | 623 |
| 14/02/2009 | 23:30:00 | 35.9 | 23.1 | 22.8 | 979.6 | 800 | 830 | 2 | 654 |
| 14/02/2009 | 23:45:00 | 35.5 | 23.4 | 22.9 | 979.0 | 830 | 860 | 2 | 684 |
| 15/02/2009 | 0:00:00 | 35.5 | 23.2 | 22.8 | 979.2 | 860 | 900 | 2 | 723 |
| 15/02/2009 | 0:15:00 | 36.3 | 23.7 | 22.9 | 979.6 | 900 | 940 | 2 | 759 |
| 15/02/2009 | 0:30:00 | 35.6 | 23.1 | 22.9 | 978.8 | 940 | 970 | 2 | 791 |
| 15/02/2009 | 0:45:00 | 35.2 | 23.6 | 22.9 | 978.3 | 970 | 1000 | 2 | 821 |
| 15/02/2009 | 1:00:00 | 35.9 | 23.1 | 22.9 | 978.6 | 1000 | 1030 | 2 | 848 |
| 15/02/2009 | 2:00:00 | 35.7 | 22.9 | 22.9 | 977.7 | 1030 | 1130 | 2 | 946 |
| 15/02/2009 | 2:30:00 | 34.9 | 22.9 | 22.9 | 978.3 | 1130 | 1190 | 2 | 1010 |
| 15/02/2009 | 3:00:00 | 35.9 | 23.5 | 22.1 | 978.5 | 100 | 180 | 2 | 1031 |
| 15/02/2009 | 4:30:00 | 33.9 | 23.4 | 22.7 | 979.0 | 180 | 300 | 2 | 1155 |
| 15/02/2009 | 5:30:00 | 33.9 | 22.7 | 22.8 | 979.2 | 300 | 380 | 2 | 1232 |
| 15/02/2009 | 6:30:00 | 35.3 | 22.4 | 22.6 | 980.0 | 380 | 450 | 2 | 1295 |
| 15/02/2009 | 7:30:00 | 36.1 | 20.5 | 22.3 | 980.2 | 450 | 520 | 2 | 1360 |
| 15/02/2009 | 13:30:00 | 35.6 | 31.5 | 22.2 | 978.8 | 520 | 830 | 2 | 1655 |
| 15/02/2009 | 19:30:00 | 35.5 | 36.0 | 27.8 | 978.8 | 830 | 1010 | 2 | 1824 |
| 16/02/2009 | 1:30:00 | 35.7 | 20.3 | 21.8 | 979.8 | 100 | 400 | 2 | 2074 |
| 25/02/2009 | 10:57:00 | 37.4 | 28.1 | 27.1 | 1026.1 | 200 | 1250 | 2 | 3191 |
| 27/02/2009 | 13:57:00 | 34.3 | 27.2 | 25.0 | 1025.5 | 200 | 610 | 2 | 3566 |
| 04/03/2009 | 13:31:00 | 34.5 | 29.2 | 28.4 | 1014.3 | 200 | 640 | 2 | 3964 |
| 06/03/2009 | 13:55:00 | 34.1 | 25.7 | 23.1 | 1021.0 | 200 | 410 | 2 | 4164 |
| 10/03/2009 | 16:41:00 | 26.2 | 25.4 | 25.4 | 1029.7 | 200 | 400 | 2 | 4403 |
| 13/03/2009 | 11:11:00 | 33.9 | 27.6 | 26.6 | 1028.2 | 200 | 450 | 2 | 4605 |
| 17/03/2009 | 10:46:00 | 35.7 | 25.2 | 22.4 | 1023.8 | 200 | 420 | 2 | 4799 |
| 20/03/2009 | 11:40:00 | 33.1 | 27.2 | 25.2 | 1026.5 | 200 | 320 | 2 | 4923 |
| 23/03/2009 | 8:55:00 | 31.7 | 21.6 | 22.2 | 1028.0 | 200 | 320 | 2 | 5048 |
| 31/03/2009 | 8:20:00 | 31.7 | 23.2 | 23.7 | 1020.3 | 200 | 460 | 2 | 5292 |
| 07/04/2009 | 9:46:00 | 32.7 | 21.7 | 21.5 | 1024.1 | 200 | 280 | 2 | 5361 |
| 14/04/2009 | 8:49:00 | 31.5 | 23.4 | 23.3 | 1013.3 | 200 | 410 | 2 | 5557 |
| 21/04/2009 | 13:15:00 | 32.3 | 23.4 | 23.1 | 1019.5 | 200 | 380 | 2 | 5732 |
| 28/04/2009 | 10:45:00 | 29.7 | 23.4 | 18.5 | 1015.2 | 1000 | 1140 | 2 | 5909 |
| 05/05/2009 | 13:55:00 | 32.6 | 21.1 | 22.7 | 1029.3 | 200 | 310 | 2 | 5983 |
| 12/05/2009 | 14:05:00 | 32.4 | 21.4 | 19.5 | 1017.4 | 200 | 350 | 2 | 6113 |
| 18/05/2009 | 7:52:00 | 32.3 | 15.5 | 20.1 | 1024.7 | 200 | 280 | 2 | 6199 |
| 22/05/2009 | 15:36:00 | 34.1 | 23.1 | 21.2 | 1018.0 | 200 | 305 | 2 | 6282 |



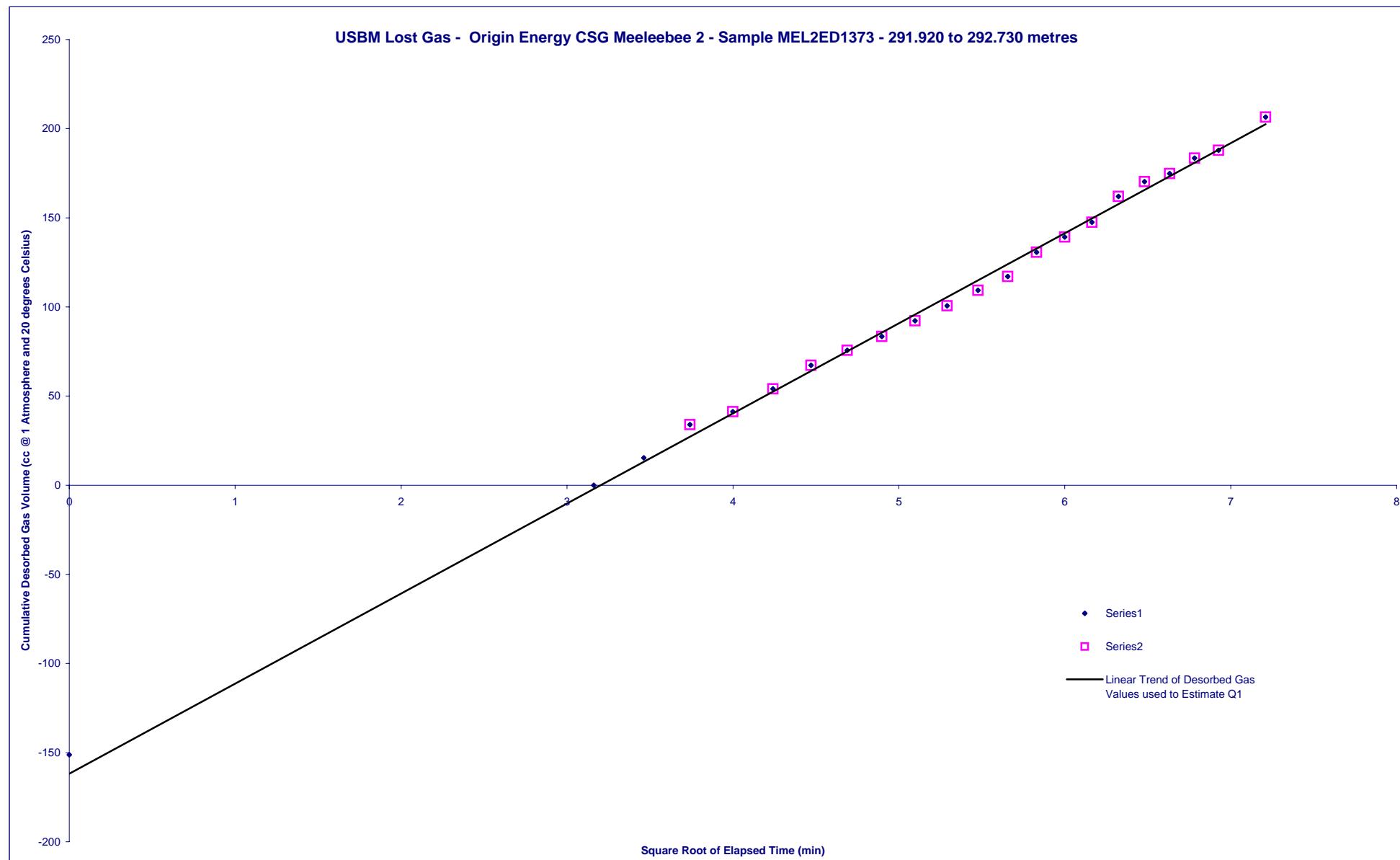


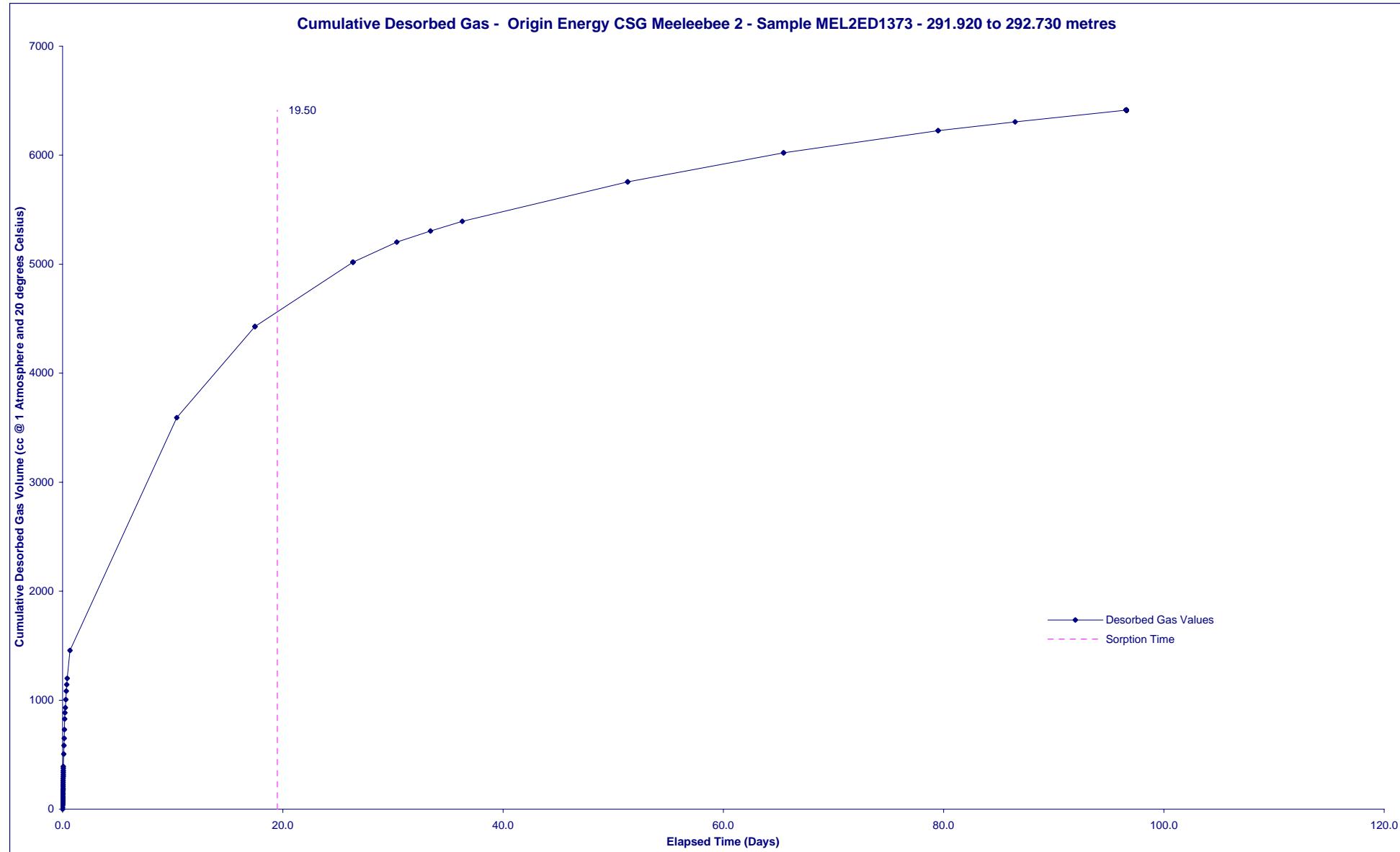
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1373 - 291.920 to 292.730 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD |
|----------------------|---------------------|-------------------|---------------------|---|-------------------------|-------------------------------------|-------------------------|
| Sample ID | MEL2ED1373 | Sample Type | Core | Sample Top (m) | 291.920 | Sample Base (m) | 292.730 |
| Sample Volume (cc) | 2406 | Mass (g) | 3224 | RD (g/cc) | 1.45 | Moisture (%ad) | 6.4 |
| Q3 Volume (cc@STP) | 79.66 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 6.3 |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1168 |
| Date and Time | DD/MM/YY HH:MM | | | Mud Weight (ppg) | 8.3454 | Trip Rate (m/min) | 36.6 |
| Sample Penetrated | 15/02/2009 1:41 | | | Formation Pressure (Mpa) @ 0.433 psi/ft | 2.86 | Surface Time Ratio | 0.200 |
| Sample Off Bottom | 15/02/2009 2:08 | | | Formation Pressure Gradient (psi/ft) | 0.433 | Lost Time Ratio | 0.011 |
| Sample at Surface | 15/02/2009 2:16 | | | Depth HSP=Formation Pressure (m) | 291.56 | USBM Q1 - Surface Time Correction | 1.02 |
| Sample Sealed | 15/02/2009 2:18 | | | Formation Temperature (°C) | | Smith & Williams Q1 - Q2 Multiplier | 1.000 |
| Time Zero | 15/02/2009 2:08 | | | Standard Temperature (°C) | 20.00 | Comments: | |
| Last Entry | 22/05/2009 16:03 | | | Standard Pressure (hPa) | 1013 | | -151 |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 |
| m³ | 0.000 | 0.000 | 0.000 | 0.006 | 0.000 | 0.010 | 0.010 |
| m³/tonne (raw) | 0.05 | 0.05 | 0.00 | 1.99 | 0.40 | 2.440 | 2.440 |
| SCF/T (raw) | 2 | 2 | 0 | 64 | 13 | 77.990 | 78.020 |
| m³/tonne (daf) | 0.07 | 0.07 | 0.00 | 2.91 | 0.52 | 3.50 | 3.50 |
| SCF/T (daf) | 2 | 2 | 0 | 93 | 17 | 112 | 110 |
| Percent of daf total | 1.96% | 2.00% | 0.00% | 83.10% | Sorption Time (days) | 19.50 | Diffusivity (sec⁻¹) |
| Date | Time | | | Temperature (°C) | Abs. Air Pressure (hPa) | | Measurement Device |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) |
| 15/02/2009 | 2:18:00 | | 27.2 | 22.9 | 977.9 | 100 | 100 |
| 15/02/2009 | 2:20:00 | | 27.3 | 22.9 | 977.9 | 100 | 180 |
| 15/02/2009 | 2:22:00 | | 27.5 | 22.9 | 978.3 | 180 | 200 |
| 15/02/2009 | 2:24:00 | | 28.1 | 22.9 | 978.3 | 200 | 210 |
| 15/02/2009 | 2:26:00 | | 28.5 | 22.9 | 978.3 | 210 | 225 |
| 15/02/2009 | 2:28:00 | | 28.8 | 22.9 | 978.3 | 225 | 240 |
| 15/02/2009 | 2:30:00 | | 29.1 | 22.9 | 978.3 | 240 | 250 |
| 15/02/2009 | 2:32:00 | | 29.5 | 22.9 | 978.1 | 250 | 260 |
| 15/02/2009 | 2:34:00 | | 29.7 | 22.9 | 978.1 | 260 | 270 |
| 15/02/2009 | 2:36:00 | | 30.0 | 23.1 | 978.1 | 270 | 280 |
| 15/02/2009 | 2:38:00 | | 30.3 | 23.1 | 978.3 | 280 | 290 |
| 15/02/2009 | 2:40:00 | | 30.7 | 23.1 | 978.1 | 290 | 300 |
| 15/02/2009 | 2:42:00 | | 30.9 | 23.1 | 978.1 | 300 | 315 |
| 15/02/2009 | 2:44:00 | | 31.3 | 23.3 | 978.5 | 315 | 325 |
| 15/02/2009 | 2:46:00 | | 31.5 | 23.3 | 978.1 | 325 | 335 |
| 15/02/2009 | 2:48:00 | | 31.6 | 23.4 | 978.6 | 335 | 350 |
| 15/02/2009 | 2:50:00 | | 31.9 | 23.4 | 978.5 | 350 | 360 |
| 15/02/2009 | 2:52:00 | | 32.0 | 23.5 | 978.6 | 360 | 365 |
| 15/02/2009 | 2:54:00 | | 32.2 | 23.5 | 978.5 | 365 | 375 |
| 15/02/2009 | 2:56:00 | | 32.3 | 23.6 | 978.5 | 375 | 380 |
| 15/02/2009 | 3:00:00 | | 32.4 | 23.5 | 978.5 | 380 | 400 |
| 15/02/2009 | 3:05:00 | | 32.5 | 23.6 | 978.5 | 400 | 420 |
| 15/02/2009 | 3:10:00 | | 32.7 | 23.6 | 978.5 | 420 | 440 |
| 15/02/2009 | 3:15:00 | | 32.8 | 23.6 | 978.6 | 440 | 460 |
| 15/02/2009 | 3:20:00 | | 32.8 | 23.6 | 978.6 | 460 | 480 |
| 15/02/2009 | 3:25:00 | | 32.9 | 23.6 | 978.5 | 480 | 500 |
| 15/02/2009 | 3:30:00 | | 33.1 | 23.6 | 978.5 | 500 | 520 |
| 15/02/2009 | 3:35:00 | | 33.5 | 23.7 | 978.8 | 520 | 540 |
| 15/02/2009 | 3:40:00 | | 33.9 | 23.7 | 979.0 | 540 | 560 |
| 15/02/2009 | 3:45:00 | | 33.9 | 23.7 | 979.0 | 560 | 580 |
| 15/02/2009 | 3:50:00 | | 34.0 | 23.7 | 978.8 | 580 | 600 |
| 15/02/2009 | 4:30:00 | | 34.6 | 23.4 | 979.0 | 600 | 720 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1373 - 291.920 to 292.730 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 15/02/2009 | 5:00:00 | 34.6 | 23.6 | 22.9 | 979.2 | 720 | 800 | 2 | 583 |
| 15/02/2009 | 5:30:00 | 34.9 | 22.7 | 22.8 | 979.2 | 800 | 870 | 2 | 650 |
| 15/02/2009 | 6:00:00 | 34.4 | 22.2 | 22.7 | 978.8 | 870 | 950 | 2 | 729 |
| 15/02/2009 | 6:30:00 | 34.6 | 22.4 | 22.6 | 980.0 | 950 | 1050 | 2 | 828 |
| 15/02/2009 | 7:00:00 | 35.2 | 23.0 | 22.7 | 980.0 | 1050 | 1110 | 2 | 884 |
| 15/02/2009 | 8:00:00 | 36.0 | 19.2 | 21.7 | 980.8 | 1110 | 1160 | 2 | 932 |
| 15/02/2009 | 9:00:00 | 35.0 | 21.9 | 21.4 | 980.8 | 1160 | 1230 | 2 | 1005 |
| 15/02/2009 | 10:00:00 | 34.4 | 26.8 | 22.2 | 980.8 | 1230 | 1310 | 2 | 1085 |
| 15/02/2009 | 11:00:00 | 34.5 | 29.1 | 22.8 | 980.4 | 1310 | 1370 | 2 | 1142 |
| 15/02/2009 | 12:00:00 | 34.3 | 30.4 | 24.1 | 979.8 | 1370 | 1430 | 2 | 1200 |
| 15/02/2009 | 18:00:00 | 34.7 | 37.7 | 28.7 | 977.9 | 100 | 440 | 2 | 1457 |
| 25/02/2009 | 11:03:00 | 34.4 | 28.5 | 27.2 | 1025.8 | 200 | 2210 | 2 | 3592 |
| 27/02/2009 | 14:01:00 | 34.1 | 27.2 | 24.9 | 1024.8 | 200 | 705 | 2 | 4018 |
| 04/03/2009 | 13:24:00 | 34.7 | 29.1 | 28.4 | 1014.3 | 200 | 655 | 2 | 4429 |
| 06/03/2009 | 14:04:00 | 34.7 | 25.9 | 23.1 | 1021.1 | 200 | 400 | 2 | 4616 |
| 10/03/2009 | 16:35:00 | 29.1 | 25.2 | 25.5 | 1029.3 | 200 | 410 | 2 | 4848 |
| 13/03/2009 | 11:08:00 | 33.9 | 27.5 | 26.7 | 1028.4 | 200 | 400 | 2 | 5019 |
| 17/03/2009 | 10:36:00 | 34.9 | 25.1 | 22.2 | 1025.1 | 200 | 400 | 2 | 5202 |
| 20/03/2009 | 11:51:00 | 32.4 | 27.6 | 25.2 | 1027.6 | 200 | 300 | 2 | 5305 |
| 23/03/2009 | 9:05:00 | 31.9 | 21.6 | 22.2 | 1028.0 | 200 | 290 | 2 | 5394 |
| 31/03/2009 | 8:25:00 | 31.9 | 23.2 | 23.7 | 1020.2 | 200 | 390 | 2 | 5570 |
| 07/04/2009 | 9:46:00 | 32.2 | 22.6 | 21.9 | 1023.4 | 200 | 390 | 2 | 5755 |
| 14/04/2009 | 8:53:00 | 35.6 | 23.3 | 23.3 | 1013.1 | 200 | 370 | 2 | 5890 |
| 21/04/2009 | 13:08:00 | 32.3 | 23.6 | 23.2 | 1019.7 | 200 | 320 | 2 | 6022 |
| 28/04/2009 | 11:02:00 | 29.7 | 23.4 | 18.7 | 1015.2 | 1210 | 1330 | 2 | 6183 |
| 05/05/2009 | 14:00:00 | 32.4 | 21.1 | 22.7 | 1029.4 | 200 | 280 | 2 | 6226 |
| 12/05/2009 | 13:57:00 | 33.1 | 20.3 | 19.4 | 1017.9 | 200 | 300 | 2 | 6306 |
| 18/05/2009 | 7:54:00 | 32.0 | 15.5 | 20.1 | 1024.3 | 200 | 240 | 2 | 6355 |
| 22/05/2009 | 16:03:00 | 32.5 | 23.1 | 21.2 | 1018.3 | 200 | 270 | 2 | 6414 |



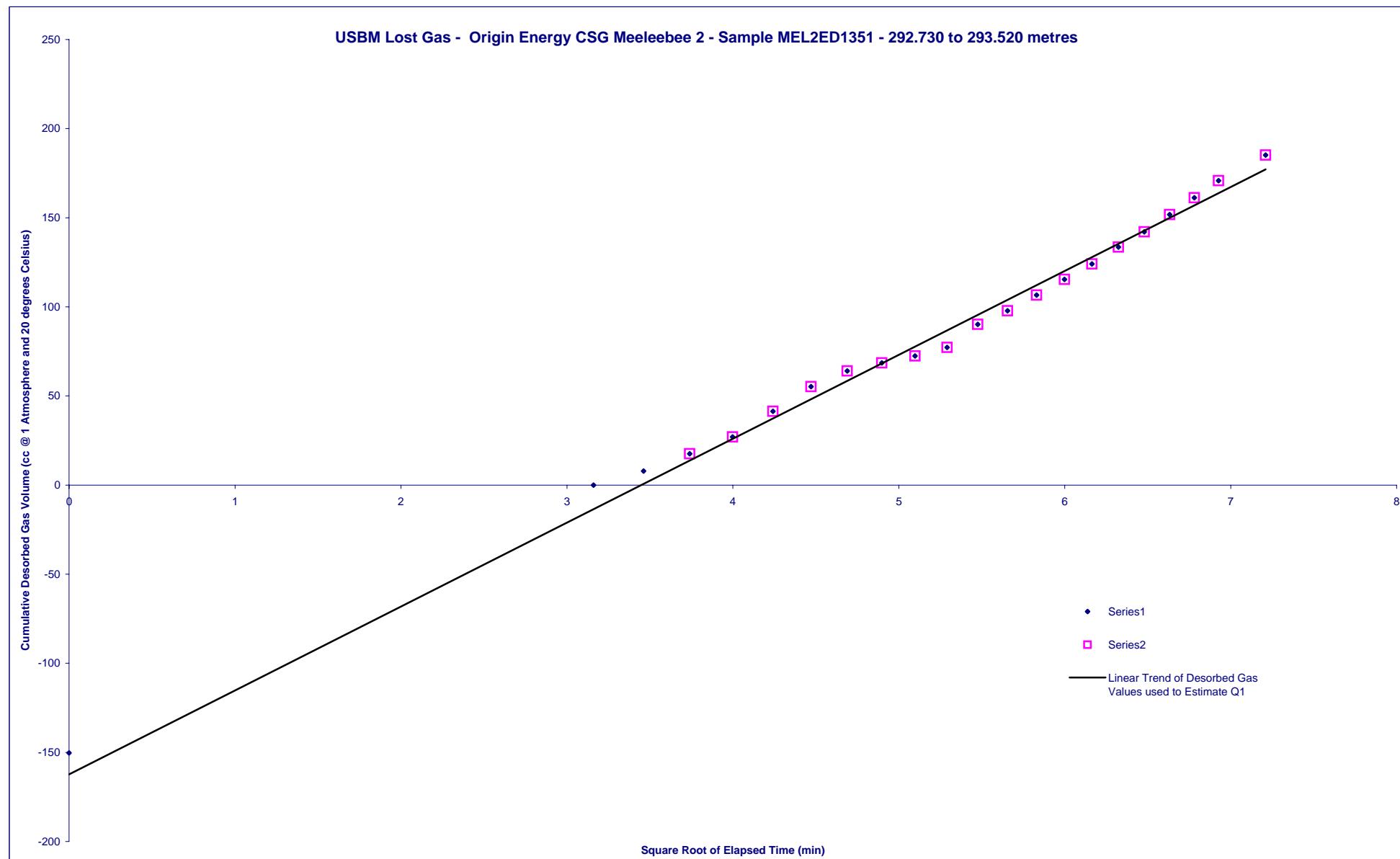


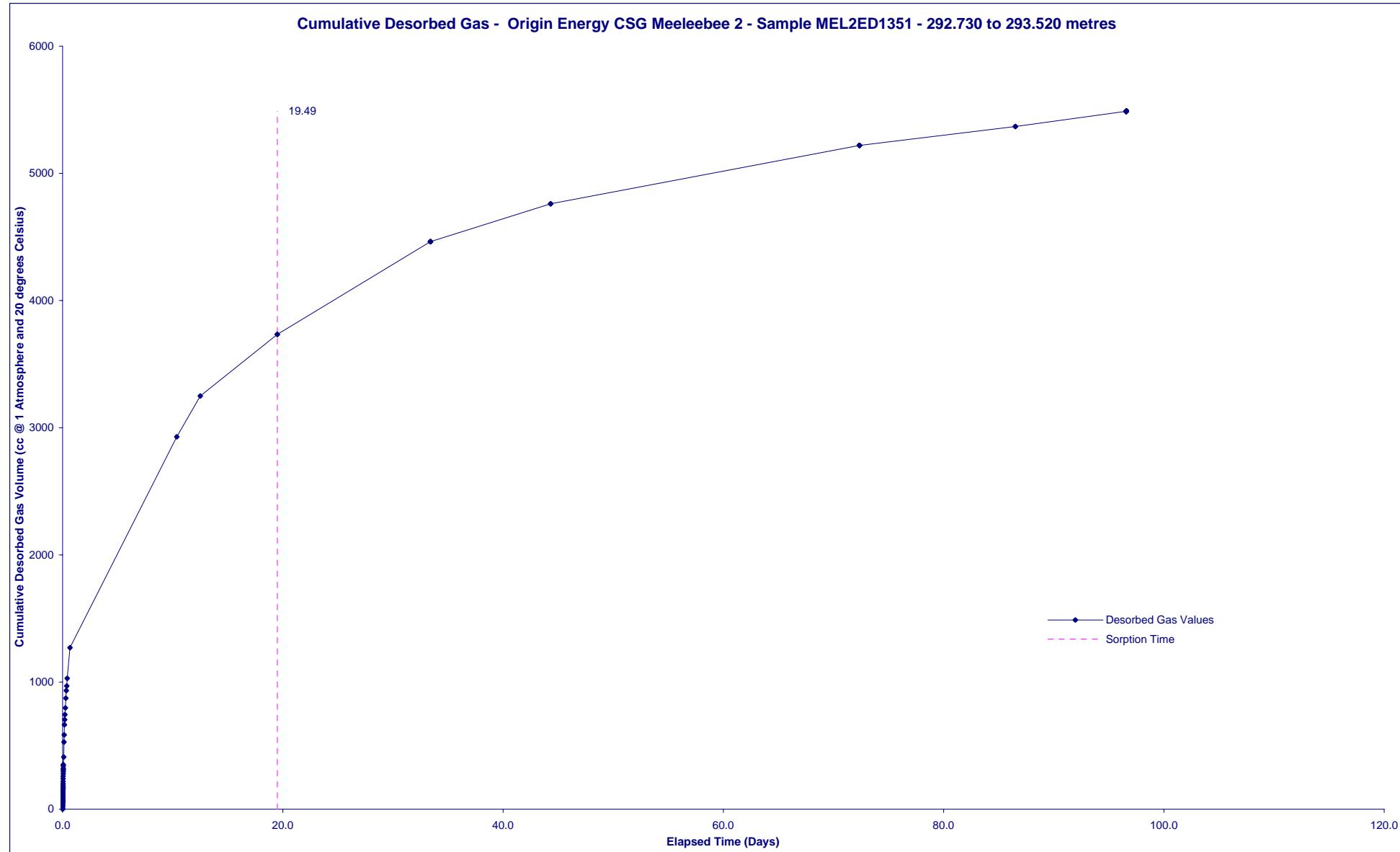
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1351 - 292.730 to 293.520 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | | |
|----------------------|---------------------|-------------------|---------------------|---|-------------------------|-------------------------------------|-------------------------|-----------------------------|---|
| Sample ID | MEL2ED1351 | Sample Type | Core | Sample Top (m) | 292.730 | Sample Base (m) | 293.520 | | |
| Sample Volume (cc) | 2347 | Mass (g) | 2858 | RD (g/cc) | 1.45 | Moisture (%ad) | 5.4 | | |
| Q3 Volume (cc@STP) | 66.69 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 5.8 | | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1332 | | |
| Date and Time | DD/MM/YY | HH:MM | | Mud Weight (ppg) | 8.3454 | Trip Rate (m/min) | 36.7 | | |
| Sample Penetrated | 15/02/2009 | 1:43 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 2.87 | Surface Time Ratio | 0.200 | | |
| Sample Off Bottom | 15/02/2009 | 2:08 | | Formation Pressure Gradient (psi/ft) | 0.433 | Lost Time Ratio | 0.011 | | |
| Sample at Surface | 15/02/2009 | 2:16 | | Depth HSP=Formation Pressure (m) | 292.37 | USBM Q1 - Surface Time Correction | 1.02 | | |
| Sample Sealed | 15/02/2009 | 2:18 | | Formation Temperature (°C) | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | | |
| Time Zero | 15/02/2009 | 2:08 | | Standard Temperature (°C) | 20.00 | Comments: | | | |
| Last Entry | 22/05/2009 | 16:03 | | Standard Pressure (hPa) | 1013 | | | | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | Smith and Williams Q1+Q2+Q3 | Can Void Calculation |
| m³ | 0.000 | 0.000 | 0.000 | 0.005 | 0.000 | 0.010 | 0.010 | 0.010 | <input type="radio"/> Volumetric <input checked="" type="radio"/> He Reference |
| m³/tonne (raw) | 0.05 | 0.05 | 0.00 | 1.92 | 0.33 | 2.300 | 2.300 | 2.300 | Time Zero Calculation |
| SCF/T (raw) | 2 | 2 | 0 | 62 | 11 | 73.890 | 73.920 | 73.920 | <input checked="" type="radio"/> Auto <input type="radio"/> Manual <input type="radio"/> Cut Time |
| m³/tonne (daf) | 0.08 | 0.08 | 0.00 | 2.79 | 0.40 | 3.27 | 3.27 | 3.19 | |
| SCF/T (daf) | 2 | 3 | 0 | 90 | 13 | 105 | 105 | 102 | |
| Percent of daf total | 2.34% | 2.39% | 0.00% | 85.47% | Sorption Time (days) | 19.49 | Diffusivity (sec⁻¹) | 4.40726E-06 | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size | |
| 15/02/2009 | 2:18:00 | 32.3 | 22.9 | 22.7 | 977.9 | 100 | 100 | 2 | 0 |
| 15/02/2009 | 2:20:00 | 32.3 | 22.9 | 22.7 | 977.9 | 100 | 180 | 2 | 8 |
| 15/02/2009 | 2:22:00 | 32.4 | 22.9 | 22.9 | 978.3 | 180 | 190 | 2 | 18 |
| 15/02/2009 | 2:24:00 | 32.4 | 22.9 | 22.9 | 978.3 | 190 | 200 | 2 | 27 |
| 15/02/2009 | 2:26:00 | 32.4 | 22.9 | 22.9 | 978.3 | 200 | 215 | 2 | 41 |
| 15/02/2009 | 2:28:00 | 32.5 | 22.9 | 22.9 | 978.3 | 215 | 230 | 2 | 55 |
| 15/02/2009 | 2:30:00 | 32.7 | 22.9 | 22.9 | 978.3 | 230 | 240 | 2 | 64 |
| 15/02/2009 | 2:32:00 | 32.7 | 22.9 | 22.9 | 978.1 | 240 | 245 | 2 | 68 |
| 15/02/2009 | 2:34:00 | 32.9 | 22.9 | 22.9 | 978.1 | 245 | 250 | 2 | 72 |
| 15/02/2009 | 2:36:00 | 32.9 | 23.1 | 21.9 | 978.1 | 250 | 255 | 2 | 77 |
| 15/02/2009 | 2:38:00 | 33.3 | 23.1 | 21.8 | 978.3 | 255 | 270 | 2 | 90 |
| 15/02/2009 | 2:40:00 | 33.7 | 23.1 | 21.8 | 978.1 | 270 | 280 | 2 | 98 |
| 15/02/2009 | 2:42:00 | 33.9 | 23.1 | 21.7 | 978.1 | 280 | 290 | 2 | 107 |
| 15/02/2009 | 2:44:00 | 34.2 | 23.3 | 21.8 | 978.5 | 290 | 300 | 2 | 115 |
| 15/02/2009 | 2:46:00 | 34.3 | 23.3 | 21.8 | 978.1 | 300 | 310 | 2 | 124 |
| 15/02/2009 | 2:48:00 | 34.5 | 23.4 | 21.9 | 978.6 | 310 | 320 | 2 | 133 |
| 15/02/2009 | 2:50:00 | 34.7 | 23.4 | 21.9 | 978.5 | 320 | 330 | 2 | 142 |
| 15/02/2009 | 2:52:00 | 34.7 | 23.5 | 21.9 | 978.6 | 330 | 340 | 2 | 152 |
| 15/02/2009 | 2:54:00 | 34.7 | 23.5 | 22.1 | 978.5 | 340 | 350 | 2 | 161 |
| 15/02/2009 | 2:56:00 | 34.7 | 23.6 | 22.0 | 978.5 | 350 | 360 | 2 | 171 |
| 15/02/2009 | 3:00:00 | 34.7 | 23.5 | 22.1 | 978.5 | 360 | 375 | 2 | 185 |
| 15/02/2009 | 3:05:00 | 34.7 | 23.6 | 22.2 | 978.5 | 375 | 390 | 2 | 199 |
| 15/02/2009 | 3:10:00 | 34.7 | 23.6 | 22.3 | 978.5 | 390 | 410 | 2 | 219 |
| 15/02/2009 | 3:15:00 | 34.5 | 23.6 | 22.3 | 978.6 | 410 | 430 | 2 | 239 |
| 15/02/2009 | 3:20:00 | 34.2 | 23.6 | 22.4 | 978.6 | 430 | 450 | 2 | 259 |
| 15/02/2009 | 3:25:00 | 34.1 | 23.6 | 22.3 | 978.5 | 450 | 470 | 2 | 279 |
| 15/02/2009 | 3:30:00 | 34.2 | 23.6 | 22.4 | 978.5 | 470 | 490 | 2 | 297 |
| 15/02/2009 | 3:35:00 | 34.8 | 23.7 | 22.5 | 978.8 | 490 | 505 | 2 | 310 |
| 15/02/2009 | 3:40:00 | 35.5 | 23.7 | 22.4 | 979.0 | 505 | 520 | 2 | 322 |
| 15/02/2009 | 3:45:00 | 35.3 | 23.7 | 22.6 | 979.0 | 520 | 540 | 2 | 342 |
| 15/02/2009 | 3:50:00 | 35.3 | 23.7 | 22.6 | 978.8 | 540 | 550 | 2 | 351 |
| 15/02/2009 | 4:30:00 | 35.2 | 23.4 | 22.7 | 979.0 | 550 | 610 | 2 | 410 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1351 - 292.730 to 293.520 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 15/02/2009 | 5:00:00 | 34.7 | 23.6 | 22.9 | 979.2 | 610 | 730 | 2 | 528 |
| 15/02/2009 | 5:30:00 | 35.1 | 22.7 | 22.8 | 979.2 | 730 | 790 | 2 | 585 |
| 15/02/2009 | 6:00:00 | 34.6 | 22.2 | 22.7 | 978.8 | 790 | 870 | 2 | 664 |
| 15/02/2009 | 6:30:00 | 34.7 | 22.4 | 22.6 | 980.0 | 870 | 910 | 2 | 705 |
| 15/02/2009 | 7:00:00 | 34.6 | 23.0 | 22.7 | 980.0 | 910 | 950 | 2 | 744 |
| 15/02/2009 | 8:00:00 | 34.4 | 19.2 | 21.7 | 980.8 | 950 | 1000 | 2 | 796 |
| 15/02/2009 | 9:00:00 | 35.0 | 21.9 | 21.4 | 980.8 | 1000 | 1080 | 2 | 872 |
| 15/02/2009 | 10:00:00 | 34.5 | 26.8 | 22.2 | 980.8 | 1080 | 1140 | 2 | 933 |
| 15/02/2009 | 11:00:00 | 35.1 | 29.1 | 22.8 | 980.4 | 1140 | 1180 | 2 | 968 |
| 15/02/2009 | 12:00:00 | 34.5 | 30.4 | 24.1 | 979.8 | 1180 | 1240 | 2 | 1028 |
| 15/02/2009 | 18:00:00 | 35.0 | 37.7 | 28.7 | 977.9 | 1240 | 1500 | 2 | 1270 |
| 25/02/2009 | 11:10:00 | 34.1 | 28.7 | 27.2 | 1025.8 | 200 | 1800 | 2 | 2929 |
| 27/02/2009 | 14:05:00 | 33.5 | 27.2 | 24.9 | 1025.1 | 200 | 590 | 2 | 3250 |
| 04/03/2009 | 13:15:00 | 35.5 | 28.9 | 28.6 | 1014.3 | 200 | 565 | 2 | 3568 |
| 06/03/2009 | 14:00:00 | 34.3 | 25.9 | 23.1 | 1020.8 | 200 | 370 | 2 | 3734 |
| 10/03/2009 | 16:43:00 | 29.0 | 25.4 | 25.2 | 1029.7 | 200 | 370 | 2 | 3931 |
| 13/03/2009 | 11:02:00 | 34.1 | 25.9 | 26.1 | 1028.0 | 200 | 400 | 2 | 4099 |
| 17/03/2009 | 10:29:00 | 33.7 | 24.9 | 22.2 | 1024.0 | 200 | 450 | 2 | 4336 |
| 20/03/2009 | 11:57:00 | 32.7 | 27.6 | 25.4 | 1027.2 | 200 | 330 | 2 | 4462 |
| 23/03/2009 | 9:15:00 | 32.3 | 22.5 | 22.2 | 1028.2 | 200 | 270 | 2 | 4530 |
| 31/03/2009 | 9:42:00 | 31.5 | 23.2 | 23.7 | 1020.2 | 200 | 440 | 2 | 4760 |
| 07/04/2009 | 10:16:00 | 31.5 | 22.7 | 22.0 | 1023.4 | 200 | 310 | 2 | 4864 |
| 14/04/2009 | 9:01:00 | 31.7 | 23.1 | 23.2 | 1013.5 | 200 | 330 | 2 | 4974 |
| 21/04/2009 | 12:58:00 | 32.3 | 23.7 | 23.7 | 1019.5 | 200 | 350 | 2 | 5123 |
| 28/04/2009 | 10:50:00 | 28.9 | 23.4 | 18.5 | 1015.2 | 1000 | 1060 | 2 | 5221 |
| 05/05/2009 | 14:06:00 | 33.3 | 21.1 | 22.3 | 1029.6 | 200 | 270 | 2 | 5254 |
| 12/05/2009 | 14:32:00 | 32.3 | 21.1 | 19.6 | 1017.2 | 200 | 330 | 2 | 5368 |
| 18/05/2009 | 7:47:00 | 31.1 | 15.4 | 20.2 | 1024.1 | 200 | 250 | 2 | 5428 |
| 22/05/2009 | 16:03:00 | 32.3 | 23.1 | 21.2 | 1018.3 | 200 | 275 | 2 | 5488 |





Origin Energy CSG Meeleebee 2 - Sample MEL2ED1401 - 304.520 to 305.200 metres

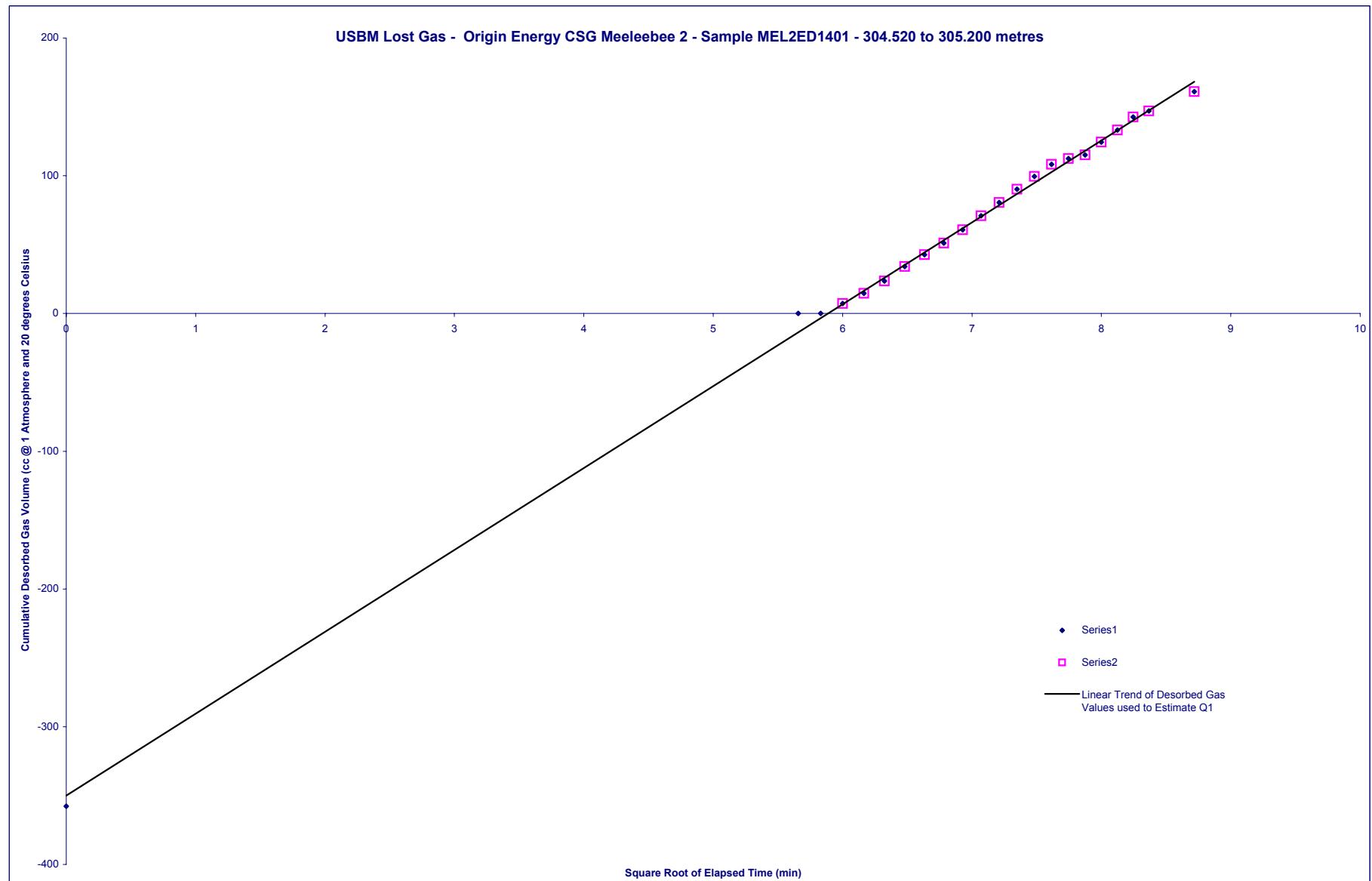
| Hole Name | Meeleebee 2 | | Operator | Origin Energy CSG | | Basin | Surat | State | QLD |
|----------------------|---------------------|-------------------|---------------------|---|-------------------------|-------------------------------------|-------------------------|-----------------------------|---|
| Sample ID | MEL2ED1401 | Sample Type | Core | Sample Top (m) | 304.520 | Sample Base (m) | 305.200 | Core Diameter (cm) | 6.15 |
| Sample Volume (cc) | 2020 | Mass (g) | 2628 | RD (g/cc) | 1.39 | Moisture (%ad) | 5.3 | Ash (%ad) | 20.4 |
| Q3 Volume (cc@STP) | 61.10 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 5.7 | Q3 Ash (%ad) | 14.7 |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1452 | | |
| Date and Time | DD/MM/YY | HH:MM | | Mud Weight (ppg) | 8.3454 | Trip Rate (m/min) | | 61.0 | Minimum Q1 Point |
| Sample Penetrated | 15/02/2009 | 3:10 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 2.98 | Surface Time Ratio | | 0.844 | 2 |
| Sample Off Bottom | 15/02/2009 | 3:24 | | Formation Pressure Gradient (psi/ft) | 0.433 | Lost Time Ratio | | 0.044 | Maximum Q1 Point |
| Sample at Surface | 15/02/2009 | 3:29 | | Depth HSP=Formation Pressure (m) | 304.15 | USBM Q1 - Surface Time Correction | | 1.3 | 20 |
| Sample Sealed | 15/02/2009 | 3:56 | | Formation Temperature (°C) | | Smith & Williams Q1 - Q2 Multiplier | | 1.000 | Q1 Points Plotted |
| Time Zero | 15/02/2009 | 3:24 | | Standard Temperature (°C) | 20.00 | Comments: | | | 20 |
| Last Entry | 22/05/2009 | 17:30 | | Standard Pressure (hPa) | 1013 | | -358 | | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | Smith and Williams Q1+Q2+Q3 | Can Void Calculation ○ Volumetric ● He Reference |
| m³ | 0.000 | 0.000 | 0.000 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | |
| m³/tonne (raw) | 0.14 | 0.18 | 0.00 | 1.83 | 0.31 | 2.280 | 2.320 | | Time Zero Calculation ● Auto ○ Manual ○ Cut Time |
| SCF/T (raw) | 4 | 6 | 0 | 59 | 10 | 72.740 | 74.050 | | |
| m³/tonne (daf) | 0.18 | 0.24 | 0.00 | 2.46 | 0.38 | 3.02 | 3.08 | 2.84 | |
| SCF/T (daf) | 6 | 8 | 0 | 79 | 12 | 97 | 99 | 91 | |
| Percent of daf total | 6.07% | 7.73% | 0.00% | 79.91% | Sorption Time (days) | 19.44 | Diffusivity (sec⁻¹) | 8.67411E-06 | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
| DD/MM/YY | HH:MM | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 15/02/2009 | 3:56:00 | 32.3 | 23.7 | 22.6 | 977.9 | 100 | 100 | 2 | 0 |
| 15/02/2009 | 3:58:00 | 32.9 | 23.6 | 22.7 | 978.6 | 100 | 160 | 2 | 0 |
| 15/02/2009 | 4:00:00 | 33.5 | 23.6 | 22.6 | 978.8 | 160 | 170 | 2 | 7 |
| 15/02/2009 | 4:02:00 | 33.9 | 23.5 | 22.7 | 978.6 | 170 | 180 | 2 | 15 |
| 15/02/2009 | 4:04:00 | 33.9 | 23.5 | 22.7 | 978.1 | 180 | 190 | 2 | 24 |
| 15/02/2009 | 4:06:00 | 33.9 | 23.5 | 22.6 | 978.8 | 190 | 200 | 2 | 34 |
| 15/02/2009 | 4:08:00 | 34.1 | 23.5 | 22.6 | 978.8 | 200 | 210 | 2 | 43 |
| 15/02/2009 | 4:10:00 | 34.2 | 23.4 | 22.7 | 978.3 | 210 | 220 | 2 | 51 |
| 15/02/2009 | 4:12:00 | 34.2 | 23.4 | 22.7 | 978.3 | 220 | 230 | 2 | 61 |
| 15/02/2009 | 4:14:00 | 34.2 | 23.4 | 22.7 | 978.8 | 230 | 240 | 2 | 71 |
| 15/02/2009 | 4:16:00 | 34.2 | 23.4 | 22.8 | 978.8 | 240 | 250 | 2 | 81 |
| 15/02/2009 | 4:18:00 | 34.2 | 23.4 | 22.8 | 978.8 | 250 | 260 | 2 | 90 |
| 15/02/2009 | 4:20:00 | 34.3 | 23.4 | 22.7 | 979.0 | 260 | 270 | 2 | 100 |
| 15/02/2009 | 4:22:00 | 34.5 | 23.4 | 22.7 | 979.0 | 270 | 280 | 2 | 108 |
| 15/02/2009 | 4:24:00 | 34.7 | 23.3 | 22.7 | 979.2 | 280 | 285 | 2 | 112 |
| 15/02/2009 | 4:26:00 | 35.0 | 23.3 | 22.7 | 978.6 | 285 | 290 | 2 | 115 |

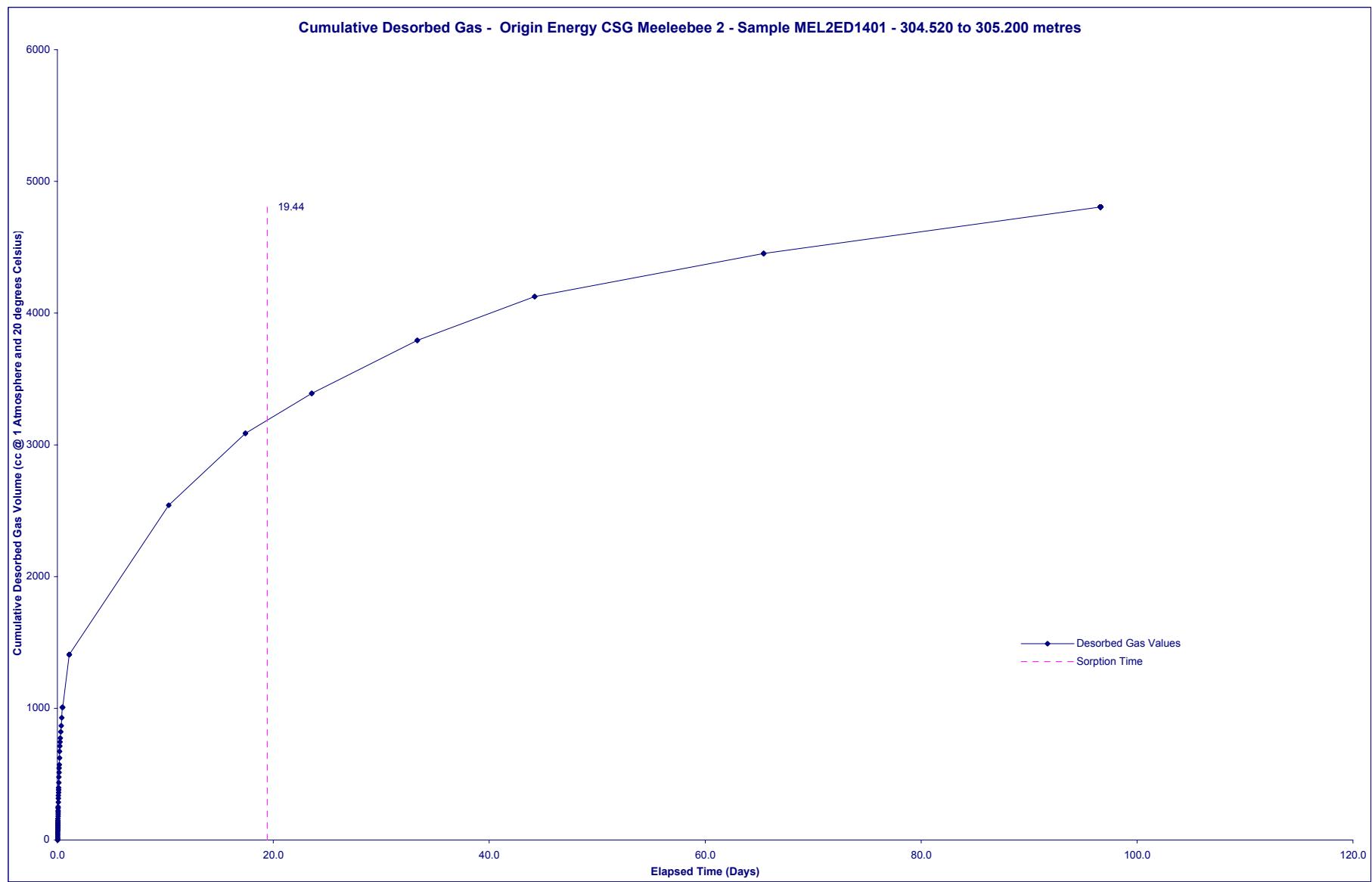
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1401 - 304.520 to 305.200 metres

| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------|----------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| DD/MM/YY | HH:MM | | | | | | | | |
| 15/02/2009 | 4:28:00 | 35.2 | 23.3 | 22.7 | 979.0 | 290 | 300 | 2 | 124 |
| 15/02/2009 | 4:30:00 | 35.4 | 23.4 | 22.8 | 979.0 | 300 | 310 | 2 | 133 |
| 15/02/2009 | 4:32:00 | 35.4 | 23.4 | 22.8 | 979.0 | 310 | 320 | 2 | 143 |
| 15/02/2009 | 4:34:00 | 35.5 | 23.5 | 22.8 | 979.0 | 320 | 325 | 2 | 147 |
| 15/02/2009 | 4:40:00 | 35.5 | 23.5 | 22.8 | 978.8 | 325 | 340 | 2 | 161 |
| 15/02/2009 | 4:45:00 | 35.5 | 23.5 | 22.8 | 979.0 | 340 | 360 | 2 | 181 |
| 15/02/2009 | 4:50:00 | 35.3 | 23.5 | 22.8 | 979.0 | 360 | 375 | 2 | 196 |
| 15/02/2009 | 4:55:00 | 35.1 | 23.5 | 22.9 | 979.2 | 375 | 390 | 2 | 212 |
| 15/02/2009 | 5:00:00 | 34.9 | 23.6 | 22.9 | 979.2 | 390 | 400 | 2 | 222 |
| 15/02/2009 | 5:05:00 | 34.7 | 23.5 | 22.9 | 979.0 | 400 | 420 | 2 | 242 |
| 15/02/2009 | 5:10:00 | 34.7 | 23.5 | 22.9 | 979.2 | 420 | 430 | 2 | 252 |
| 15/02/2009 | 5:25:00 | 35.5 | 22.9 | 22.8 | 979.2 | 430 | 470 | 2 | 287 |
| 15/02/2009 | 5:35:00 | 35.4 | 22.6 | 22.8 | 979.4 | 470 | 500 | 2 | 317 |
| 15/02/2009 | 5:45:00 | 34.9 | 22.3 | 22.7 | 979.4 | 500 | 520 | 2 | 338 |
| 15/02/2009 | 5:55:00 | 34.3 | 22.1 | 22.6 | 979.4 | 520 | 540 | 2 | 360 |
| 15/02/2009 | 6:05:00 | 34.5 | 22.2 | 22.7 | 979.8 | 540 | 560 | 2 | 380 |
| 15/02/2009 | 6:15:00 | 35.1 | 22.1 | 22.6 | 979.8 | 560 | 580 | 2 | 396 |
| 15/02/2009 | 6:30:00 | 34.9 | 22.4 | 22.6 | 980.0 | 580 | 620 | 2 | 436 |
| 15/02/2009 | 6:45:00 | 34.6 | 22.7 | 22.6 | 980.2 | 620 | 660 | 2 | 477 |
| 15/02/2009 | 7:00:00 | 35.5 | 23.0 | 22.7 | 980.2 | 660 | 700 | 2 | 512 |
| 15/02/2009 | 7:15:00 | 34.7 | 23.0 | 22.7 | 980.8 | 700 | 730 | 2 | 546 |
| 15/02/2009 | 7:30:00 | 33.5 | 20.5 | 22.3 | 980.8 | 730 | 750 | 2 | 571 |
| 15/02/2009 | 8:00:00 | 34.9 | 19.2 | 21.7 | 980.8 | 750 | 810 | 2 | 624 |
| 15/02/2009 | 8:30:00 | 35.1 | 19.9 | 21.5 | 980.8 | 810 | 860 | 2 | 672 |
| 15/02/2009 | 9:00:00 | 34.7 | 21.9 | 21.4 | 980.8 | 860 | 900 | 2 | 714 |
| 15/02/2009 | 9:30:00 | 34.5 | 24.7 | 21.8 | 980.8 | 900 | 930 | 2 | 744 |
| 15/02/2009 | 10:00:00 | 34.2 | 26.8 | 22.2 | 980.8 | 930 | 960 | 2 | 774 |
| 15/02/2009 | 11:00:00 | 34.5 | 29.1 | 22.8 | 980.4 | 960 | 1010 | 2 | 821 |
| 15/02/2009 | 12:00:00 | 34.5 | 30.4 | 24.1 | 979.8 | 1010 | 1060 | 2 | 868 |
| 15/02/2009 | 13:00:00 | 33.9 | 30.8 | 25.2 | 979.2 | 1060 | 1120 | 2 | 927 |
| 15/02/2009 | 14:00:00 | 35.1 | 31.7 | 26.2 | 978.8 | 1120 | 1210 | 2 | 1008 |
| 15/02/2009 | 15:00:00 | 33.9 | 31.7 | 27.0 | 977.9 | 100 | 150 | 2 | 1008 |
| 15/02/2009 | 16:00:00 | 34.9 | 31.7 | 27.5 | 977.5 | 150 | 180 | 2 | 1031 |
| 16/02/2009 | 0:00:00 | 35.8 | 20.4 | 23.7 | 980.4 | 100 | 350 | 2 | 1270 |
| 16/02/2009 | 6:00:00 | 35.3 | 22.9 | 22.8 | 979.8 | 350 | 490 | 2 | 1407 |
| 25/02/2009 | 10:57:00 | 35.1 | 28.1 | 27.1 | 1026.1 | 200 | 1260 | 2 | 2541 |

Origin Energy CSG Meeleebie 2 - Sample MEL2ED1401 - 304.520 to 305.200 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 27/02/2009 | 13:57:00 | 33.9 | 27.2 | 25.0 | 1025.5 | 200 | 510 | 2 | 2805 |
| 4/03/2009 | 13:31:00 | 34.3 | 29.2 | 28.4 | 1014.3 | 200 | 520 | 2 | 3087 |
| 6/03/2009 | 13:55:00 | 33.6 | 25.7 | 23.1 | 1021.0 | 200 | 330 | 2 | 3214 |
| 10/03/2009 | 16:41:00 | 29.1 | 25.4 | 25.4 | 1029.7 | 200 | 350 | 2 | 3391 |
| 13/03/2009 | 11:11:00 | 33.8 | 27.6 | 26.6 | 1028.2 | 200 | 370 | 2 | 3529 |
| 20/03/2009 | 11:40:00 | 32.9 | 27.2 | 25.2 | 1026.5 | 200 | 470 | 2 | 3793 |
| 23/03/2009 | 8:55:00 | 31.4 | 21.6 | 22.2 | 1028.0 | 200 | 320 | 2 | 3910 |
| 31/03/2009 | 8:20:00 | 31.5 | 23.2 | 23.7 | 1020.7 | 200 | 430 | 2 | 4125 |
| 7/04/2009 | 9:46:00 | 32.3 | 21.7 | 21.5 | 1024.1 | 200 | 310 | 2 | 4226 |
| 14/04/2009 | 8:49:00 | 31.3 | 23.4 | 23.3 | 1013.3 | 200 | 315 | 2 | 4324 |
| 21/04/2009 | 13:15:00 | 32.3 | 23.4 | 23.1 | 1019.5 | 200 | 330 | 2 | 4453 |
| 28/04/2009 | 10:45:00 | 29.4 | 23.4 | 18.5 | 1015.2 | 1000 | 110 | 2 | 4453 |
| 5/05/2009 | 13:55:00 | 32.7 | 21.1 | 22.7 | 1029.3 | 200 | 300 | 2 | 4564 |
| 12/05/2009 | 14:05:00 | 32.0 | 21.4 | 19.5 | 1017.4 | 200 | 330 | 2 | 4675 |
| 18/05/2009 | 7:52:00 | 31.7 | 15.5 | 20.1 | 1024.7 | 200 | 250 | 2 | 4733 |
| 22/05/2009 | 17:30:00 | 28.7 | 23.1 | 22.2 | 1019.1 | 400 | 460 | 2 | 4806 |



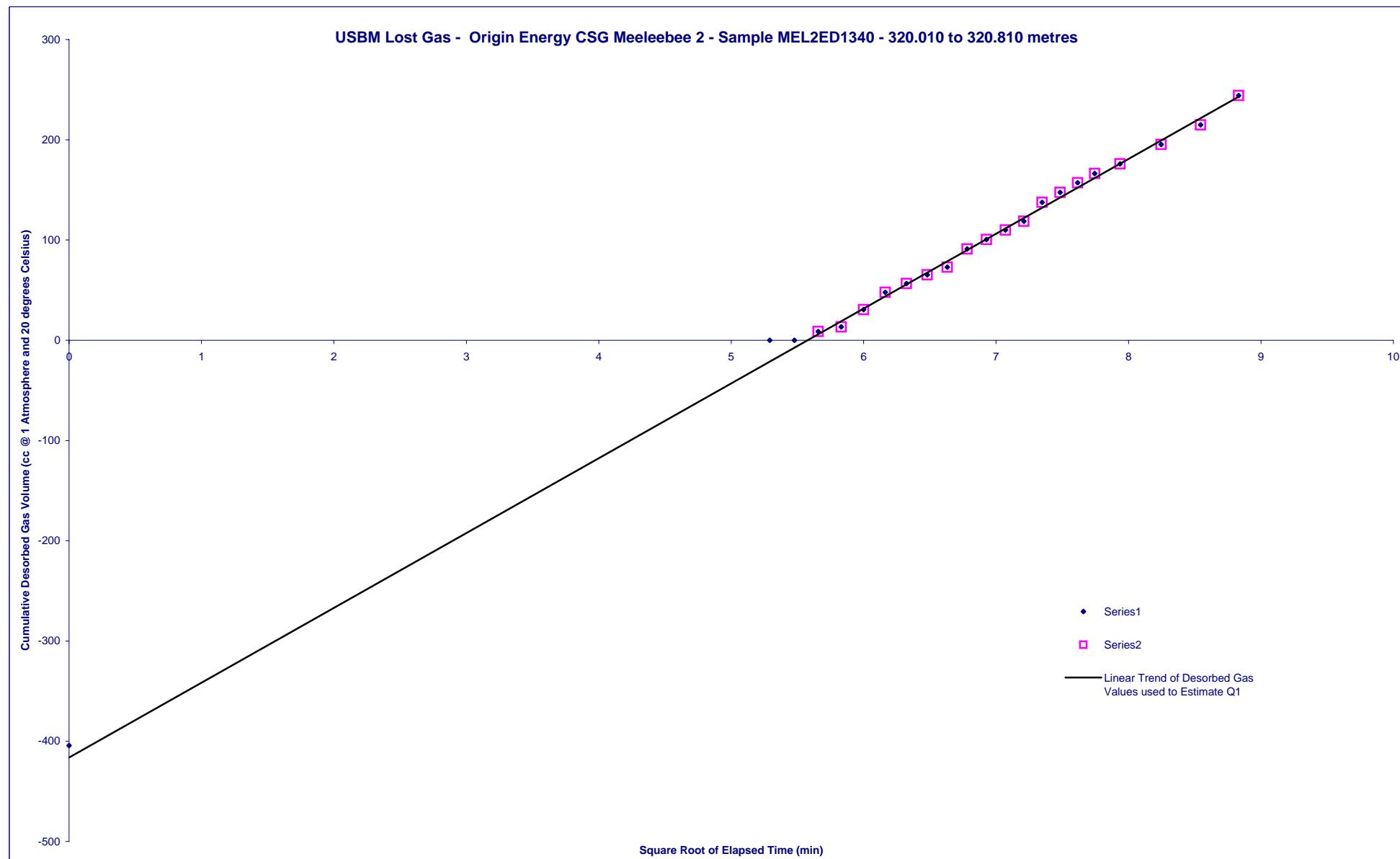


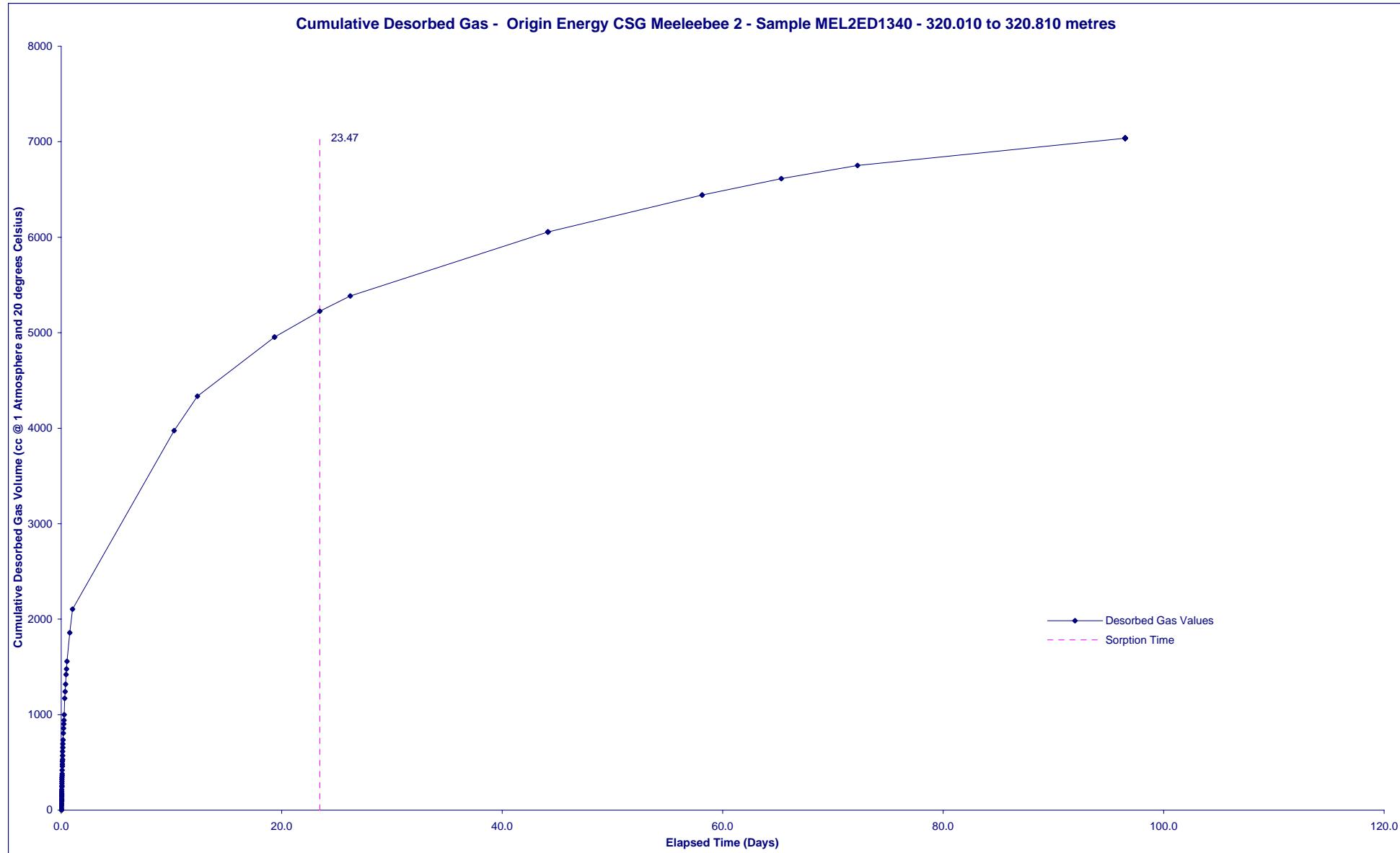
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1340 - 320.010 to 320.810 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | |
|----------------------|---------------------|-------------------|---|-----------------|-------------------------|-------------------------------------|-------------------------|---------------------------|
| Sample ID | MEL2ED1340 | Sample Type | Core | Sample Top (m) | 320.010 | Sample Base (m) | 320.810 | |
| Sample Volume (cc) | 2376 | Mass (g) | 2696 | RD (g/cc) | 1.37 | Moisture (%ad) | 5.9 | |
| Q3 Volume (cc@STP) | 137.91 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 6.2 | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1658 | |
| Date and Time | DD/MM/YY HH:MM | | Mud Weight (ppg) | 8.3454 | | Trip Rate (m/min) | 53.5 | |
| Sample Penetrated | 15/02/2009 5:16 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 3.13 | | Surface Time Ratio | 0.786 | |
| Sample Off Bottom | 15/02/2009 5:32 | | Formation Pressure Gradient (psi/ft) | 0.433 | | Lost Time Ratio | 0.039 | |
| Sample at Surface | 15/02/2009 5:38 | | Depth HSP=Formation Pressure (m) | 319.62 | | USBM Q1 - Surface Time Correction | 1.27 | |
| Sample Sealed | 15/02/2009 6:00 | | Formation Temperature (°C) | | | Smith & Williams Q1 - Q2 Multiplier | 1.000 | |
| Time Zero | 15/02/2009 5:32 | | Standard Temperature (°C) | 20.00 | Comments: | | 20 | |
| Last Entry | 22/05/2009 17:52 | | Standard Pressure (hPa) | 1013 | | | -404 | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | |
| m³ | 0.000 | 0.001 | 0.000 | 0.007 | 0.000 | 0.010 | 0.010 | |
| m³/tonne (raw) | 0.15 | 0.19 | 0.00 | 2.61 | 0.69 | 3.450 | 3.490 | |
| SCF/T (raw) | 5 | 6 | 0 | 84 | 22 | 110.510 | 111.810 | |
| m³/tonne (daf) | 0.20 | 0.25 | 0.00 | 3.43 | 0.78 | 4.41 | 4.46 | |
| SCF/T (daf) | 6 | 8 | 0 | 110 | 25 | 141 | 143 | |
| Percent of daf total | 4.46% | 5.60% | 0.00% | 76.80% | Sorption Time (days) | 23.47 | Diffusivity (sec⁻¹) | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size |
| 15/02/2009 | 6:00:00 | | 30.1 | 22.2 | 979.8 | 100 | 100 | 2 |
| 15/02/2009 | 6:02:00 | | 30.1 | 22.2 | 979.8 | 100 | 170 | 2 |
| 15/02/2009 | 6:04:00 | | 30.3 | 22.2 | 979.8 | 170 | 180 | 2 |
| 15/02/2009 | 6:06:00 | | 31.3 | 22.2 | 979.8 | 180 | 190 | 2 |
| 15/02/2009 | 6:08:00 | | 31.7 | 22.2 | 979.8 | 190 | 210 | 2 |
| 15/02/2009 | 6:10:00 | | 32.1 | 22.2 | 979.8 | 210 | 230 | 2 |
| 15/02/2009 | 6:12:00 | | 32.3 | 22.1 | 979.8 | 230 | 240 | 2 |
| 15/02/2009 | 6:14:00 | | 32.5 | 22.1 | 979.8 | 240 | 250 | 2 |
| 15/02/2009 | 6:16:00 | | 32.9 | 22.1 | 979.8 | 250 | 260 | 2 |
| 15/02/2009 | 6:18:00 | | 33.1 | 22.1 | 979.8 | 260 | 280 | 2 |
| 15/02/2009 | 6:20:00 | | 33.2 | 22.1 | 979.8 | 280 | 290 | 2 |
| 15/02/2009 | 6:22:00 | | 33.3 | 22.2 | 980.0 | 290 | 300 | 2 |
| 15/02/2009 | 6:24:00 | | 33.5 | 22.2 | 980.0 | 300 | 310 | 2 |
| 15/02/2009 | 6:26:00 | | 33.6 | 22.2 | 980.0 | 310 | 330 | 2 |
| 15/02/2009 | 6:28:00 | | 33.6 | 22.2 | 980.0 | 330 | 340 | 2 |
| 15/02/2009 | 6:30:00 | | 33.6 | 22.4 | 980.0 | 340 | 350 | 2 |
| 15/02/2009 | 6:32:00 | | 33.7 | 22.4 | 980.0 | 350 | 360 | 2 |
| 15/02/2009 | 6:35:00 | | 33.7 | 22.7 | 980.0 | 360 | 370 | 2 |
| 15/02/2009 | 6:40:00 | | 33.7 | 22.7 | 980.0 | 370 | 390 | 2 |
| 15/02/2009 | 6:45:00 | | 33.7 | 22.7 | 980.0 | 390 | 410 | 2 |
| 15/02/2009 | 6:50:00 | | 33.7 | 22.8 | 980.0 | 410 | 440 | 2 |
| 15/02/2009 | 6:55:00 | | 33.9 | 22.9 | 980.2 | 440 | 450 | 2 |
| 15/02/2009 | 7:00:00 | | 34.5 | 23.0 | 980.0 | 450 | 480 | 2 |
| 15/02/2009 | 7:05:00 | | 34.2 | 23.0 | 980.0 | 480 | 500 | 2 |
| 15/02/2009 | 7:10:00 | | 33.9 | 23.0 | 980.4 | 500 | 520 | 2 |
| 15/02/2009 | 7:15:00 | | 33.9 | 23.0 | 980.4 | 520 | 540 | 2 |
| 15/02/2009 | 7:20:00 | | 33.8 | 22.0 | 980.2 | 540 | 560 | 2 |
| 15/02/2009 | 7:30:00 | | 33.9 | 20.5 | 980.2 | 560 | 580 | 2 |
| 15/02/2009 | 7:40:00 | | 34.1 | 19.3 | 980.2 | 580 | 620 | 2 |
| 15/02/2009 | 7:50:00 | | 34.1 | 19.1 | 980.8 | 620 | 660 | 2 |
| 15/02/2009 | 8:00:00 | | 33.9 | 19.2 | 980.8 | 660 | 680 | 2 |
| 15/02/2009 | 8:10:00 | | 33.9 | 19.6 | 980.6 | 680 | 710 | 2 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1340 - 320.010 to 320.810 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 15/02/2009 | 8:20:00 | 33.9 | 18.9 | 20.6 | 980.8 | 710 | 730 | 2 | 530 |
| 15/02/2009 | 8:30:00 | 33.9 | 19.9 | 21.5 | 980.8 | 730 | 770 | 2 | 570 |
| 15/02/2009 | 8:45:00 | 34.7 | 20.5 | 21.4 | 980.8 | 770 | 820 | 2 | 615 |
| 15/02/2009 | 9:00:00 | 34.7 | 21.9 | 21.4 | 980.8 | 820 | 860 | 2 | 655 |
| 15/02/2009 | 9:15:00 | 34.6 | 23.4 | 21.6 | 980.8 | 860 | 900 | 2 | 695 |
| 15/02/2009 | 9:30:00 | 34.4 | 24.7 | 21.8 | 980.8 | 900 | 940 | 2 | 735 |
| 15/02/2009 | 10:00:00 | 33.9 | 26.8 | 22.2 | 980.8 | 940 | 1010 | 2 | 806 |
| 15/02/2009 | 10:30:00 | 33.9 | 27.4 | 22.2 | 980.8 | 1010 | 1060 | 2 | 855 |
| 15/02/2009 | 11:00:00 | 33.9 | 29.1 | 22.8 | 980.4 | 1060 | 1110 | 2 | 903 |
| 15/02/2009 | 11:30:00 | 34.2 | 30.1 | 23.6 | 980.2 | 100 | 200 | 2 | 942 |
| 15/02/2009 | 12:00:00 | 34.2 | 30.4 | 24.1 | 979.8 | 200 | 260 | 2 | 998 |
| 15/02/2009 | 13:00:00 | 33.7 | 30.8 | 25.2 | 979.2 | 260 | 440 | 2 | 1170 |
| 15/02/2009 | 14:00:00 | 34.7 | 31.7 | 26.2 | 978.8 | 440 | 520 | 2 | 1240 |
| 15/02/2009 | 15:00:00 | 33.8 | 31.7 | 27.0 | 977.9 | 520 | 600 | 2 | 1319 |
| 15/02/2009 | 16:00:00 | 34.4 | 31.7 | 27.5 | 977.5 | 600 | 710 | 2 | 1420 |
| 15/02/2009 | 17:00:00 | 34.0 | 37.3 | 28.3 | 977.3 | 710 | 770 | 2 | 1478 |
| 15/02/2009 | 18:00:00 | 35.1 | 37.7 | 28.7 | 977.9 | 770 | 860 | 2 | 1557 |
| 16/02/2009 | 0:00:00 | 34.1 | 20.4 | 23.7 | 980.4 | 100 | 440 | 2 | 1859 |
| 16/02/2009 | 6:00:00 | 33.7 | 22.9 | 22.8 | 979.8 | 440 | 690 | 2 | 2105 |
| 25/02/2009 | 11:10:00 | 33.3 | 28.7 | 27.2 | 1025.8 | 200 | 1940 | 2 | 3974 |
| 27/02/2009 | 14:05:00 | 38.7 | 27.2 | 24.9 | 1025.1 | 200 | 680 | 2 | 4334 |
| 04/03/2009 | 13:15:00 | 35.4 | 28.9 | 28.6 | 1014.3 | 200 | 630 | 2 | 4735 |
| 06/03/2009 | 14:00:00 | 34.3 | 25.9 | 23.1 | 1020.8 | 200 | 425 | 2 | 4954 |
| 10/03/2009 | 16:43:00 | 29.2 | 25.4 | 25.2 | 1029.7 | 200 | 440 | 2 | 5226 |
| 13/03/2009 | 11:02:00 | 34.2 | 25.9 | 26.1 | 1028.0 | 200 | 400 | 2 | 5385 |
| 17/03/2009 | 10:29:00 | 31.9 | 24.9 | 22.2 | 1024.0 | 200 | 440 | 2 | 5622 |
| 20/03/2009 | 11:57:00 | 31.7 | 27.6 | 25.4 | 1027.2 | 200 | 330 | 2 | 5745 |
| 23/03/2009 | 9:15:00 | 32.8 | 22.5 | 22.2 | 1028.2 | 200 | 300 | 2 | 5836 |
| 31/03/2009 | 9:15:00 | 31.8 | 23.2 | 23.7 | 1020.2 | 200 | 430 | 2 | 6055 |
| 07/04/2009 | 10:16:00 | 31.5 | 22.7 | 22.0 | 1024.3 | 200 | 430 | 2 | 6284 |
| 14/04/2009 | 9:01:00 | 33.8 | 23.1 | 23.2 | 1013.5 | 200 | 400 | 2 | 6442 |
| 21/04/2009 | 12:58:00 | 31.6 | 23.7 | 23.1 | 1019.5 | 200 | 360 | 2 | 6614 |
| 28/04/2009 | 10:50:00 | 29.7 | 23.4 | 18.5 | 1015.2 | 1150 | 1240 | 2 | 6752 |
| 05/05/2009 | 14:06:00 | 32.5 | 21.1 | 22.3 | 1029.6 | 200 | 285 | 2 | 6791 |
| 12/05/2009 | 14:32:00 | 32.3 | 21.1 | 19.6 | 1017.2 | 200 | 340 | 2 | 6909 |
| 18/05/2009 | 7:47:00 | 32.0 | 15.4 | 20.2 | 1024.1 | 200 | 250 | 2 | 6966 |
| 22/05/2009 | 17:52:00 | 28.0 | 23.1 | 21.2 | 1019.0 | 400 | 450 | 2 | 7037 |



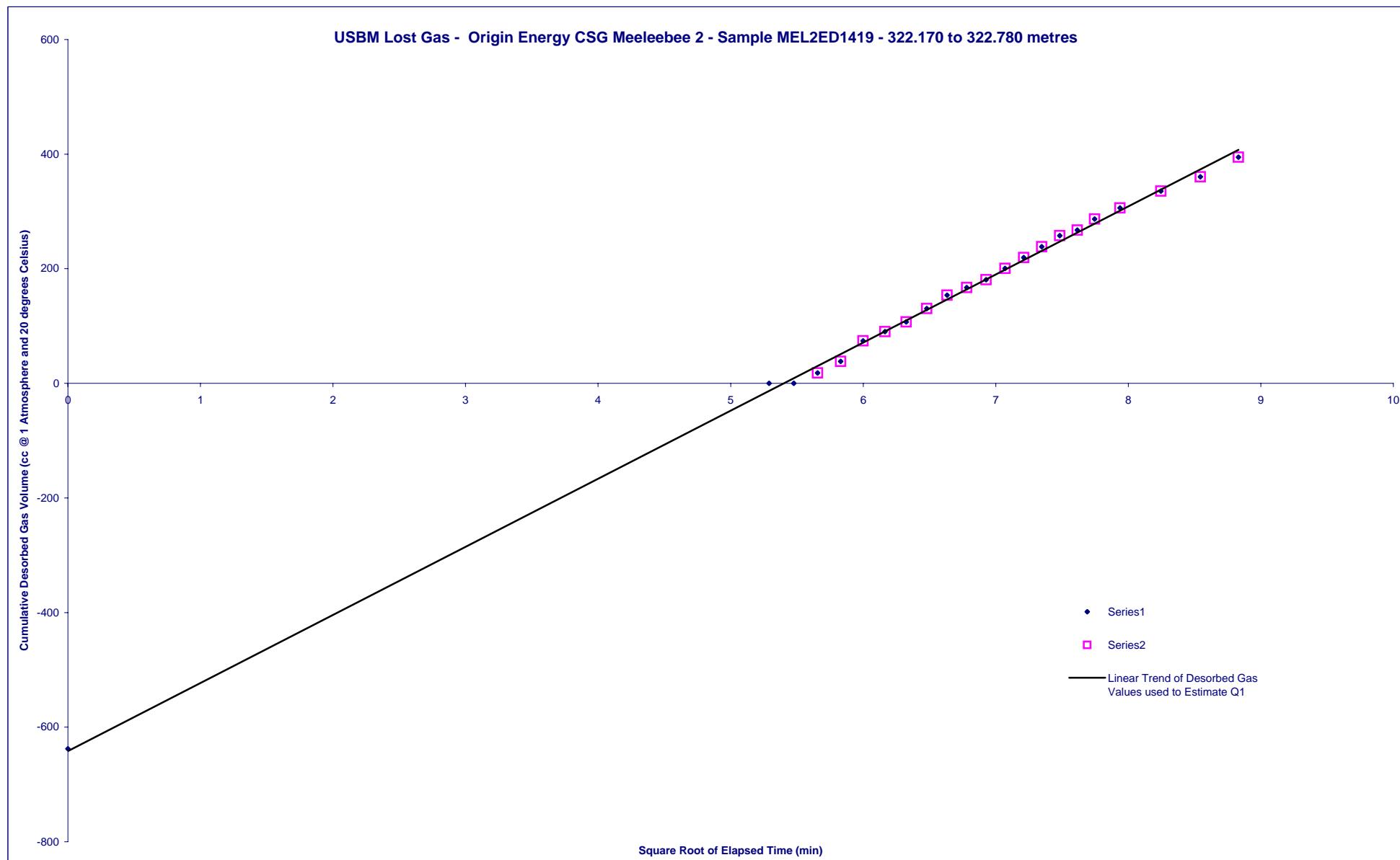


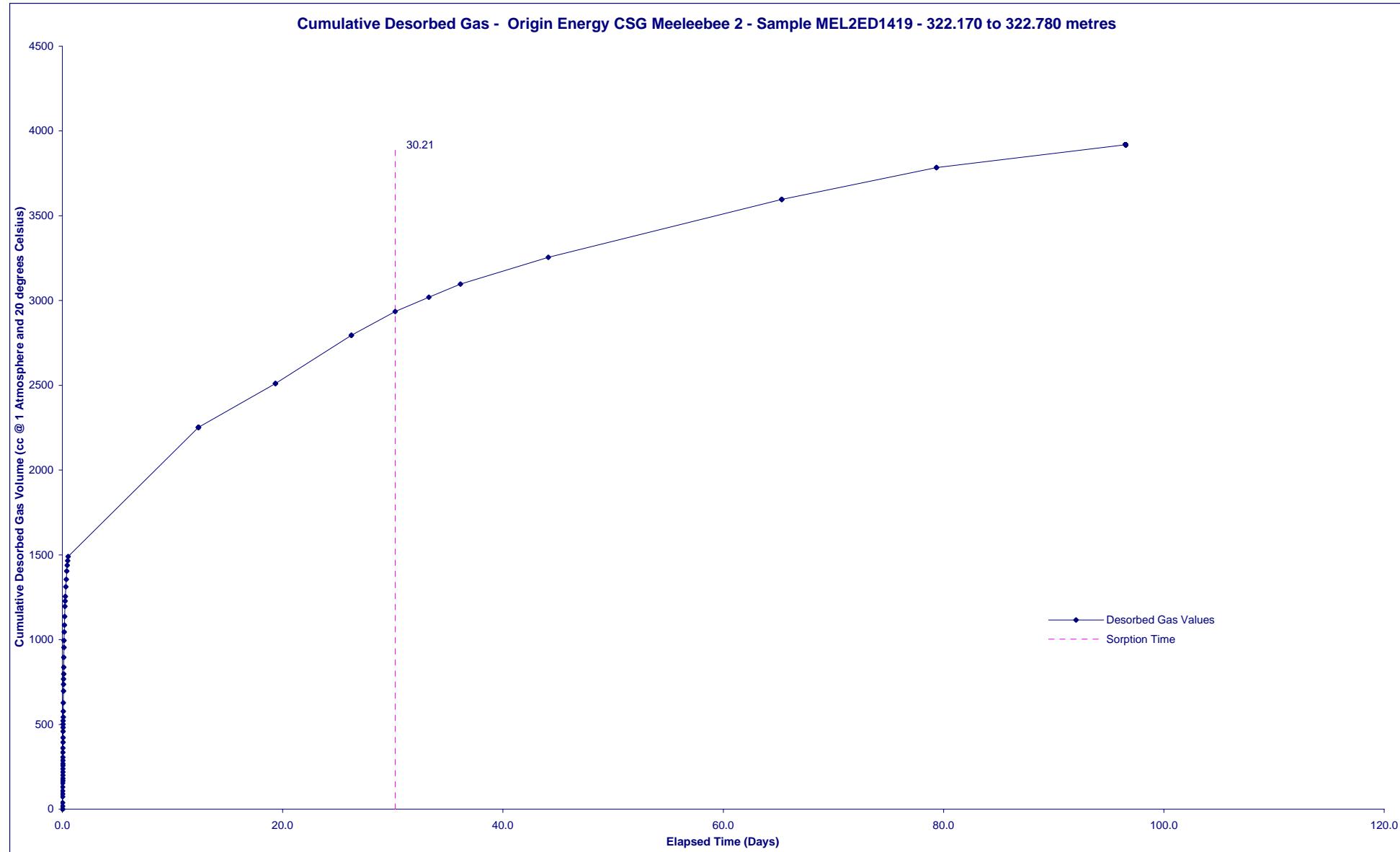
Origin Energy CSG Meeleebee 2 - Sample MEL2ED1419 - 322.170 to 322.780 metres

| Hole Name | Meeleebee 2 | Operator | Origin Energy CSG | Basin | Surat | State | QLD | |
|----------------------|---------------------|-------------------|---|-----------------|-------------------------|-------------------------------------|-------------------------|---------------------------|
| Sample ID | MEL2ED1419 | Sample Type | Core | Sample Top (m) | 322.170 | Sample Base (m) | 322.780 | |
| Sample Volume (cc) | 1812 | Mass (g) | 2368 | RD (g/cc) | 1.38 | Moisture (%ad) | 5.6 | |
| Q3 Volume (cc@STP) | 108.67 | Q3 Mass (g) | 200.00 | Q3 <212 µm (%) | 100 | Q3 Moisture (%ad) | 5.9 | |
| Can Length (cm) | 87 | Can Diameter (cm) | 8 | Can Volume (cc) | 4373 | Can Void (cc) | 1452 | |
| Date and Time | DD/MM/YY HH:MM | | Mud Weight (ppg) | 8.3454 | | Trip Rate (m/min) | 53.8 | |
| Sample Penetrated | 15/02/2009 5:20 | | Formation Pressure (Mpa) @ 0.433 psi/ft | 3.16 | | Surface Time Ratio | 0.786 | |
| Sample Off Bottom | 15/02/2009 5:32 | | Formation Pressure Gradient (psi/ft) | 0.433 | | Lost Time Ratio | 0.156 | |
| Sample at Surface | 15/02/2009 5:38 | | Depth HSP=Formation Pressure (m) | 321.78 | | USBM Q1 - Surface Time Correction | 1.27 | |
| Sample Sealed | 15/02/2009 6:00 | | Formation Temperature (°C) | 20.00 | | Smith & Williams Q1 - Q2 Multiplier | 1.090 | |
| Time Zero | 15/02/2009 5:32 | | Standard Temperature (°C) | | | | Q1 Points Plotted | |
| Last Entry | 22/05/2009 18:04 | | Standard Pressure (hPa) | 1013 | Comments: | | 20 | |
| | | | | | | | -638 | |
| Network | Uncorrected USBM Q1 | Corrected USBM Q1 | Smith & Williams Q1 | Q2 | Q3 | Uncorrected USBM Q1+Q2+Q3 | Corrected USBM Q1+Q2+Q3 | |
| m³ | 0.001 | 0.001 | 0.000 | 0.004 | 0.000 | 0.000 | 0.000 | |
| m³/tonne (raw) | 0.27 | 0.34 | 0.15 | 1.66 | 0.54 | 2.470 | 2.540 | |
| SCF/T (raw) | 9 | 11 | 5 | 53 | 17 | 79.070 | 81.390 | |
| m³/tonne (daf) | 0.35 | 0.44 | 0.19 | 2.14 | 0.67 | 3.16 | 3.25 | |
| SCF/T (daf) | 11 | 14 | 6 | 69 | 22 | 101 | 104 | |
| Percent of daf total | 11.02% | 13.61% | 6.42% | 65.89% | Sorption Time (days) | 30.21 | Diffusivity (sec⁻¹) | |
| Date | Time | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | Cumulative Q2 (cc at STP) |
| DD/MM/YY | HH:MM | Canister | Air | H₂O | (hPa) | Start (cc) | Finish (cc) | Size |
| 15/02/2009 | 6:00:00 | | 29.7 | 22.2 | 979.8 | 100 | 100 | 2 |
| 15/02/2009 | 6:02:00 | | 29.7 | 22.2 | 979.8 | 100 | 170 | 2 |
| 15/02/2009 | 6:04:00 | | 29.9 | 22.2 | 979.8 | 170 | 190 | 2 |
| 15/02/2009 | 6:06:00 | | 31.9 | 22.2 | 979.8 | 190 | 220 | 2 |
| 15/02/2009 | 6:08:00 | | 32.5 | 22.2 | 979.8 | 220 | 260 | 2 |
| 15/02/2009 | 6:10:00 | | 33.2 | 22.2 | 979.8 | 260 | 280 | 2 |
| 15/02/2009 | 6:12:00 | | 33.7 | 22.1 | 979.8 | 280 | 300 | 2 |
| 15/02/2009 | 6:14:00 | | 33.9 | 22.1 | 979.8 | 300 | 325 | 2 |
| 15/02/2009 | 6:16:00 | | 34.1 | 22.1 | 979.8 | 325 | 350 | 2 |
| 15/02/2009 | 6:18:00 | | 34.3 | 22.1 | 979.8 | 350 | 365 | 2 |
| 15/02/2009 | 6:20:00 | | 34.5 | 22.1 | 979.8 | 365 | 380 | 2 |
| 15/02/2009 | 6:22:00 | | 34.5 | 22.2 | 980.0 | 380 | 400 | 2 |
| 15/02/2009 | 6:24:00 | | 34.6 | 22.2 | 980.0 | 400 | 420 | 2 |
| 15/02/2009 | 6:26:00 | | 34.7 | 22.2 | 980.0 | 420 | 440 | 2 |
| 15/02/2009 | 6:28:00 | | 34.7 | 22.2 | 980.0 | 440 | 460 | 2 |
| 15/02/2009 | 6:30:00 | | 34.7 | 22.4 | 980.0 | 460 | 470 | 2 |
| 15/02/2009 | 6:32:00 | | 34.7 | 22.4 | 980.0 | 470 | 490 | 2 |
| 15/02/2009 | 6:35:00 | | 34.7 | 22.7 | 980.0 | 490 | 510 | 2 |
| 15/02/2009 | 6:40:00 | | 34.7 | 22.7 | 980.0 | 510 | 540 | 2 |
| 15/02/2009 | 6:45:00 | | 34.5 | 22.7 | 980.0 | 540 | 565 | 2 |
| 15/02/2009 | 6:50:00 | | 34.5 | 22.8 | 980.0 | 565 | 600 | 2 |
| 15/02/2009 | 6:55:00 | | 34.9 | 22.9 | 980.2 | 600 | 630 | 2 |
| 15/02/2009 | 7:00:00 | | 35.3 | 23.0 | 980.0 | 630 | 670 | 2 |
| 15/02/2009 | 7:05:00 | | 34.5 | 23.0 | 980.0 | 670 | 690 | 2 |
| 15/02/2009 | 7:10:00 | | 34.7 | 23.0 | 980.4 | 690 | 710 | 2 |
| 15/02/2009 | 7:15:00 | | 34.7 | 23.0 | 980.4 | 710 | 730 | 2 |
| 15/02/2009 | 7:20:00 | | 33.9 | 22.0 | 980.2 | 730 | 750 | 2 |
| 15/02/2009 | 7:30:00 | | 33.0 | 20.5 | 980.2 | 750 | 780 | 2 |
| 15/02/2009 | 7:40:00 | | 35.1 | 19.3 | 980.2 | 780 | 840 | 2 |
| 15/02/2009 | 7:50:00 | | 35.3 | 19.1 | 980.8 | 840 | 910 | 2 |
| 15/02/2009 | 8:00:00 | | 35.5 | 19.2 | 980.8 | 910 | 950 | 2 |
| 15/02/2009 | 8:10:00 | | 35.1 | 19.6 | 980.6 | 950 | 980 | 2 |
| | | | | | | | | 736 |
| | | | | | | | | 767 |

Origin Energy CSG Meeleebee 2 - Sample MEL2ED1419 - 322.170 to 322.780 metres

| Date DD/MM/YY | Time HH:MM | Temperature (°C) | | | Abs. Air Pressure (hPa) | Measurement Device | | | Cumulative Q2 (cc at STP) |
|------------------|---------------|------------------|------|------------------|----------------------------|--------------------|-------------|------|------------------------------|
| | | Canister | Air | H ₂ O | | Start (cc) | Finish (cc) | Size | |
| 15/02/2009 | 8:20:00 | 35.1 | 18.9 | 20.6 | 980.8 | 980 | 1010 | 2 | 797 |
| 15/02/2009 | 8:30:00 | 35.1 | 19.9 | 21.5 | 980.8 | 1010 | 1050 | 2 | 837 |
| 15/02/2009 | 8:45:00 | 35.5 | 20.5 | 21.4 | 980.8 | 1050 | 1110 | 2 | 895 |
| 15/02/2009 | 9:00:00 | 35.6 | 21.9 | 21.4 | 980.8 | 1110 | 1170 | 2 | 954 |
| 15/02/2009 | 9:15:00 | 35.5 | 23.4 | 21.6 | 980.8 | 1170 | 1210 | 2 | 994 |
| 15/02/2009 | 9:30:00 | 35.1 | 24.7 | 21.8 | 980.8 | 1210 | 1260 | 2 | 1045 |
| 15/02/2009 | 10:00:00 | 34.7 | 26.8 | 22.2 | 980.8 | 1260 | 1300 | 2 | 1086 |
| 15/02/2009 | 10:30:00 | 34.5 | 27.4 | 22.2 | 980.8 | 1300 | 1350 | 2 | 1136 |
| 15/02/2009 | 11:00:00 | 34.0 | 29.1 | 22.8 | 980.4 | 1350 | 1410 | 2 | 1197 |
| 15/02/2009 | 11:30:00 | 34.5 | 30.1 | 23.6 | 980.2 | 100 | 200 | 2 | 1227 |
| 15/02/2009 | 12:00:00 | 34.3 | 30.4 | 24.1 | 979.8 | 200 | 230 | 2 | 1255 |
| 15/02/2009 | 13:00:00 | 33.9 | 30.8 | 25.2 | 979.2 | 230 | 290 | 2 | 1312 |
| 15/02/2009 | 14:00:00 | 34.7 | 31.7 | 26.2 | 978.8 | 290 | 340 | 2 | 1355 |
| 15/02/2009 | 15:00:00 | 33.9 | 31.7 | 27.0 | 977.9 | 340 | 390 | 2 | 1404 |
| 15/02/2009 | 16:00:00 | 34.3 | 31.7 | 27.5 | 977.5 | 390 | 430 | 2 | 1439 |
| 15/02/2009 | 17:00:00 | 34.3 | 37.3 | 28.3 | 977.3 | 430 | 460 | 2 | 1466 |
| 15/02/2009 | 18:00:00 | 35.4 | 37.7 | 28.7 | 977.9 | 460 | 490 | 2 | 1490 |
| 16/02/2009 | 0:00:00 | 34.7 | 20.4 | 23.7 | 980.4 | 100 | 320 | 2 | 1692 |
| 16/02/2009 | 6:00:00 | 34.6 | 22.9 | 22.8 | 979.8 | 320 | 480 | 2 | 1846 |
| 25/02/2009 | 11:03:00 | 34.7 | 28.5 | 27.2 | 1025.8 | 200 | 400 | 2 | 2096 |
| 27/02/2009 | 14:01:00 | 33.9 | 27.2 | 24.9 | 1024.8 | 200 | 365 | 2 | 2253 |
| 04/03/2009 | 13:24:00 | 34.7 | 29.1 | 28.4 | 1014.3 | 200 | 360 | 2 | 2383 |
| 06/03/2009 | 14:04:00 | 35.4 | 25.9 | 23.1 | 1021.1 | 200 | 330 | 2 | 2511 |
| 10/03/2009 | 16:35:00 | 29.3 | 25.2 | 25.5 | 1029.3 | 200 | 320 | 2 | 2664 |
| 13/03/2009 | 11:08:00 | 34.0 | 27.5 | 26.7 | 1028.4 | 200 | 360 | 2 | 2795 |
| 17/03/2009 | 10:36:00 | 35.5 | 25.1 | 22.2 | 1025.1 | 200 | 360 | 2 | 2936 |
| 20/03/2009 | 11:51:00 | 32.6 | 27.6 | 25.2 | 1027.6 | 200 | 275 | 2 | 3019 |
| 23/03/2009 | 9:05:00 | 32.7 | 21.6 | 22.2 | 1028.0 | 200 | 280 | 2 | 3097 |
| 31/03/2009 | 8:25:00 | 32.1 | 23.2 | 23.7 | 1020.2 | 200 | 370 | 2 | 3255 |
| 07/04/2009 | 9:46:00 | 32.5 | 22.6 | 21.9 | 1023.4 | 200 | 370 | 2 | 3421 |
| 14/04/2009 | 8:53:00 | 32.0 | 23.3 | 23.3 | 1013.1 | 200 | 350 | 2 | 3549 |
| 21/04/2009 | 13:08:00 | 33.1 | 23.6 | 23.2 | 1019.7 | 200 | 250 | 2 | 3596 |
| 28/04/2009 | 11:02:00 | 29.7 | 23.4 | 18.7 | 1015.2 | 960 | 1050 | 2 | 3731 |
| 05/05/2009 | 14:00:00 | 33.3 | 21.1 | 22.7 | 1029.4 | 200 | 290 | 2 | 3785 |
| 12/05/2009 | 13:57:00 | 33.1 | 20.3 | 19.4 | 1017.9 | 200 | 250 | 2 | 3815 |
| 18/05/2009 | 7:54:00 | 32.3 | 15.5 | 20.1 | 1024.3 | 200 | 240 | 2 | 3867 |
| 22/05/2009 | 18:04:00 | 27.5 | 23.0 | 21.2 | 1019.9 | 800 | 810 | 2 | 3920 |





Appendix II

Geological Logs, Graphics and Core Photos

Origin Energy CSG Meeleebee 2

Hole Summary

| | Easting | Northing | Zone | | |
|-------------------------------|-----------------------------|-----------------------------|---------------------------|-------------------------|-----------------------|
| MGA: | 723991.000 | 7100151.000 | | | |
| RL Ground (AHD): | | RL RKB (AHD): | | | |
| Accuracy: | Pre-spud Survey | Survey Source: | Well Proposal | | |
| Start Date: | 09-Feb-09 | Finish Date: | 15-Feb-09 | | |
| Base of Alluvials (m): | | Weathered Depth (m): | | | |
| SWL(m): | | Deviation at TD: | | | |
| Total Depth (m): | 384.470 | Hole Status: | | | |
| Non Cored From (m) | Non Cored To (m) | Non Cored Size | Cored From (m) | Cored To (m) | Cored Size |
| 0.000 | 72.000 | 12 1/4" PDC | 72.000 | 384.470 | HQ |

| | | | | | |
|----------------------|------------------|-------------|-----------------|-------------|------------------|
| Casing: | Depth (m) | Size | Material | Type | Recovered |
| CSG String 1: | 76.000 | 9 5/8" | Steel | Surface | |

Geophysical Logs: **From (m)** **To(m)** **Logging Tool**

Geology: Earth Data Pty Ltd
Drilling Contractor: Ensign International
Geophysics: Weatherford
Total Core Trays: 69
Formation at TD: Eurombah Formation

Geologist: Alex Necovski
Driller:
Laboratory: ACIRL Maitland
Core Photos: YES

Comments:

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|-------------------|
| SANDSTONE | grey, fine to medium grained. | 20.000 | 20.000 | 0.000 | |
| SANDSTONE | grey, fine to medium grained, occasional coal traces, silty in part. | 10.000 | 30.000 | 0.000 | |
| SANDSTONE | grey, fine to medium grained, occasional coal traces. | 13.000 | 43.000 | 0.000 | |
| COAL | Undifferentiated. | 1.000 | 44.000 | 0.000 | |
| SANDSTONE | 20% grey, fine to medium grained. | | | | |
| SILTSTONE | 80% dark grey. tends to mud. | 2.500 | 46.500 | 0.000 | |
| SANDSTONE | 20% grey, fine grained. | | | | |
| SILTSTONE | 80% dark grey, tends to mud. tends to mud, coal traces throughout. | 3.000 | 49.500 | 0.000 | |
| COAL | Undifferentiated, minor fine to medium grained sand in parts. | 3.500 | 53.000 | 0.000 | |
| COAL | Undifferentiated, minor fine to medium grained sand throughout, tends to silt. | 4.000 | 57.000 | 0.000 | |
| MUDSTONE | grey, tends to clay. | 6.000 | 63.000 | 0.000 | |
| SANDSTONE | 10% grey, fine grained, silty traces throughout. | | | | |
| SILTSTONE | 90% dark grey, tends to mud. occasional coal traces in part, tends to mud. | 4.000 | 67.000 | 0.000 | |
| MUDSTONE | light grey, tends to clay, coal traces in part. | 5.000 | 72.000 | 0.000 | |
| SILTSTONE | 70% dark grey. | | | | |
| MUDSTONE | 30% light grey, tends to clay. coal traces in part. | 4.940 | 76.940 | 0.000 | CORE POINT |
| COAL | Dull minor bright, sharp basal contact, face cleat, average spacing 5mm, penetrating 50% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 10mm, penetrating 50% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | | | | |
| | | 0.200 | 77.140 | 0.200 | |
| MUDSTONE | dark grey, very low strength, sharp basal contact. | 3.480 | 80.620 | 3.480 | |
| COAL | Dull, sharp basal contact, no visible cleat or fractures. | 0.100 | 80.720 | 0.100 | |
| MUDSTONE | dark grey, silty at base, low strength. | 2.210 | 82.930 | 2.210 | |
| CORE LOSS | | 0.050 | 82.980 | 0.000 | 82.99 D5.99 R5.94 |
| SILTSTONE | grey, sandy in part, occasional coal laminae, | | | | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|-------------------|
| COAL | low strength, sharp basal contact. | 0.800 | 83.780 | 0.800 | |
| | Dull banded, sharp basal contact, face cleat, average spacing 8mm, penetrating 40% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 40% of unit, no visible mineralisation, dips 90 degrees with azimuth 70 degrees to face cleat. | | | | |
| SANDSTONE | light grey, medium to coarse grained, silty in part, medium strength, sharp basal contact. | 0.090 | 83.870 | 0.090 | |
| CARB MUDSTONE | black brown, occasional coal laminae, low strength, gradational basal contact. | 2.680 | 86.550 | 2.660 | |
| COAL | Dull banded, sharp basal contact, face cleat, average spacing 8mm, penetrating 40% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 40% of unit, no visible mineralisation, dips 90 degrees with azimuth 70 degrees to face cleat. | 0.110 | 86.660 | 0.110 | |
| SILTSTONE | grey, occasional coal laminae, low strength, sharp basal contact. | 0.150 | 86.810 | 0.150 | |
| COAL | Dull banded, gradational basal contact, face cleat, average spacing 8mm, penetrating 40% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 40% of unit, no visible mineralisation, dips 90 degrees with azimuth 70 degrees to face cleat. | 0.820 | 87.630 | 0.820 | |
| CARB MUDSTONE | black brown, occasional coal laminae, low strength, gradational basal contact. | 0.090 | 87.720 | 0.090 | |
| MUDSTONE | dark grey, very low strength, sharp basal contact. | 0.050 | 87.770 | 0.050 | |
| COAL | Dull banded, face cleat, average spacing 8mm, penetrating 40% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 40% of unit, no visible mineralisation, dips 90 degrees with azimuth 70 degrees to face cleat. | 0.330 | 88.100 | 0.330 | |
| SILTSTONE | grey, sandy in part, low strength. | 0.050 | 88.150 | 0.050 | |
| SANDSTONE | light grey, medium to coarse grained, silty in part, medium strength. | 0.930 | 89.080 | 0.930 | 89.08 D6.08 R6.08 |
| | | 5.180 | 94.260 | 5.180 | 94.07 D5.00 R5.18 |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| SANDSTONE | light grey, medium to coarse grained, silty in part, medium strength. | 1.500 | 95.760 | 1.500 | 95.17 D1.10 R1.50 |
| SANDSTONE | grey, medium grained, silty laminae in part, medium to high strength. | 6.180 | 101.940 | 6.180 | 101.34 D6.17 R6.18 |
| SANDSTONE | grey, medium grained, carbonaceous laminae in part, high strength. | 1.410 | 103.350 | 1.410 | |
| SANDSTONE | 70% grey, medium grained, carbonaceous laminae in part throughout, high strength. | | | | |
| SILTSTONE | 30% dark grey, carbonaceous throughout, tends to mud, low strength. | | | | |
| | thinly interbedded, carbonaceous throughout, tends to mud, carbonaceous mudstone lenses at top approx 2.0 cm thick, sharp basal contact. | | | | |
| CARB MUDSTONE | dark grey brown, sharp basal contact. | 0.150 | 103.500 | 0.150 | |
| SILTSTONE | dark grey, carbonaceous wisps throughout, low strength, sharp basal contact. | 0.050 | 103.550 | 0.050 | |
| SANDSTONE | grey, medium grained, carbonaceous laminae in part throughout, high strength, gradational basal contact. | 0.170 | 103.720 | 0.170 | |
| SANDSTONE | 80% grey, medium grained, carbonaceous wisps throughout, high strength. | 2.440 | 106.160 | 2.440 | |
| SILTSTONE | 20% dark grey, carbonaceous throughout, low strength. | | | | |
| | thinly interbedded, carbonaceous laminae throughout, sharp basal contact. | | | | |
| SANDSTONE | grey, medium grained, carbonaceous laminae in part throughout, high strength, sharp basal contact. | 0.170 | 106.330 | 0.170 | 108.34 D7.00 R6.24 |
| CORE LOSS | | | | | |
| COAL | Dull minor bright, no visible cleat or fractures. | 1.850 | 108.180 | 1.850 | |
| | | 0.080 | 108.260 | 0.000 | |
| SILTSTONE | dark grey, carbonaceous throughout, tends to mud, low strength. | 0.060 | 108.320 | 0.060 | |
| SANDSTONE | grey, fine to medium grained, carbonaceous laminae in part throughout, high strength, sharp basal contact. | 0.440 | 108.760 | 0.440 | |
| CARB MUDSTONE | grey brown, low strength. | 0.120 | 108.880 | 0.120 | |
| COAL | Dull, carbonaceous mudstone in part, sharp basal contact, no visible cleat or fractures. | 0.380 | 109.260 | 0.380 | |
| | | 0.370 | 109.630 | 0.370 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| SILTSTONE | dark grey, carbonaceous throughout, tends to mud, sandy laminae in part throughout, low strength, sharp basal contact. | 1.570 | 111.200 | 1.590 | |
| SANDSTONE | light grey, fine to medium grained, mudstone rip-up clasts in part, high strength, sharp basal contact. | 0.100 | 111.300 | 0.100 | |
| SILTSTONE | dark grey, carbonaceous throughout, tends to mud, sandy laminae in part throughout, low strength, sharp basal contact. | 1.060 | 112.360 | 1.100 | |
| COAL | Dull minor bright, sharp basal contact, no visible cleat or fractures. | 0.070 | 112.430 | 0.070 | |
| SANDSTONE | grey, medium grained, carbonaceous laminae in part throughout, high strength, sharp basal contact. | 0.270 | 112.700 | 0.270 | |
| CARB MUDSTONE | grey brown, low strength, sharp basal contact. | 0.040 | 112.740 | 0.040 | Top of MEL2ED1511 |
| COAL | Dull, face cleat, average spacing 20mm, penetrating 80% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 80% of unit, no visible mineralisation, dips 90 degrees with azimuth 45 degrees to face cleat. | 0.300 | 113.040 | 0.300 | |
| TUFF | buff, carbonaceous wisps throughout, low strength, sharp basal contact. | 0.025 | 113.065 | 0.025 | |
| COAL | Dull minor bright, slickensided at base, face cleat, average spacing 1mm, penetrating 5% of unit, no visible mineralisation, dips 90 degrees, secondary face cleat, average spacing 20mm, penetrating 5% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 2mm, penetrating 5% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.245 | 113.310 | 0.245 | Base of MEL2ED1511 |
| SILTSTONE | dark grey, carbonaceous throughout, tends to mud in part, low strength, sharp basal contact. | 0.800 | 114.110 | 0.800 | |
| CARB MUDSTONE | grey brown, low strength. | 0.050 | 114.160 | 0.050 | 113.90 D5.56 D5.85 |
| CARB MUDSTONE | dark grey brown, low strength, gradational basal contact. | 0.690 | 114.850 | 0.690 | |
| MUDSTONE | grey brown, carbonaceous in part, low strength, sharp basal contact. | 0.430 | 115.280 | 0.430 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| CARB MUDSTONE | black brown, low strength, sharp basal contact. | 0.025 | 115.305 | 0.025 | Top of MEL2ED1358 |
| COAL | Dull, face cleat, average spacing 30mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 50mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.100 | 115.405 | 0.100 | |
| CARB MUDSTONE | black brown, low strength, sharp basal contact. | 0.065 | 115.470 | 0.065 | |
| COAL | Dull, no visible cleat or fractures. | 0.015 | 115.485 | 0.015 | |
| CARB MUDSTONE | black brown, low strength, sharp basal contact. | 0.045 | 115.530 | 0.045 | |
| COAL | Dull, face cleat, average spacing 12mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 15mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 70 degrees to face cleat, fracture set 1, average spacing 200mm, penetrating 100% of unit, 40% carbonate filled, dips 80 degrees with azimuth 20 degrees to face cleat. | 0.230 | 115.760 | 0.230 | |
| CARB MUDSTONE | black brown, low strength, sharp basal contact. | 0.050 | 115.810 | 0.050 | |
| COAL | Dull, face cleat, average spacing 12mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 15mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 70 degrees to face cleat. | 0.190 | 116.000 | 0.190 | Base of MEL2ED1358 |
| COAL | Dull, face cleat, average spacing 12mm, penetrating 50% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 70% of unit, no visible mineralisation, dips 90 degrees with azimuth 30 degrees to face cleat. | 0.040 | 116.040 | 0.040 | Top of MEL2ED1363 |
| CARB MUDSTONE | dark brown, coaly fragments towards base, low strength, slickensided 2cm from top of unit, 1 fracture, sharp basal contact. | 0.135 | 116.175 | 0.135 | |
| COAL | Dull, tuffaceous bands at middle, tending to stony coal at top, face cleat, average spacing 12mm, penetrating 90% of unit, no visible mineralisation, dips 90 degrees, butt cleat, | | | | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| CARB MUDSTONE | average spacing 25mm, penetrating 90% of unit, no visible mineralisation, dips 90 degrees with azimuth 75 degrees to face cleat. | 0.255 | 116.430 | 0.255 | |
| COAL | dark brown, coaly fragments throughout, low strength, sharp basal contact. | 0.040 | 116.470 | 0.040 | |
| COAL | Dull minor bright, badly broken, face cleat, average spacing 6mm, penetrating 40% of unit, 10% carbonate filled, dips 90 degrees, butt cleat, average spacing 8mm, penetrating 40% of unit, 30% carbonate filled, dips 90 degrees with azimuth 70 degrees to face cleat, fracture set 1, average spacing 200mm, penetrating 100% of unit, 60% carbonate filled, dips 80 degrees with azimuth 20 degrees to face cleat. | | | | Base of MEL2ED1363 |
| CARB MUDSTONE | dark grey brown, low strength, sharp basal contact. | 0.240 | 116.710 | 0.240 | |
| COAL | Dull minor bright, sharp basal contact, no visible cleat or fractures. | 1.270 | 117.980 | 1.270 | |
| CARB MUDSTONE | dark grey brown, low strength, sharp basal contact. | 0.150 | 118.130 | 0.150 | |
| COAL | Dull, sharp basal contact, no visible cleat or fractures. | 0.050 | 118.180 | 0.050 | |
| SANDSTONE | dark grey, medium grained, carbonaceous throughout, tends to silt, medium strength, gradational basal contact. | 0.080 | 118.260 | 0.080 | |
| SILTSTONE | dark grey, carbonaceous throughout, tends to mud, low strength, gradational basal contact. | 0.150 | 118.410 | 0.150 | |
| SANDSTONE | grey, medium grained, carbonaceous wisps at base, medium strength, gradational basal contact. | 0.300 | 118.710 | 0.300 | |
| CARB MUDSTONE | dark grey brown, low strength, sharp basal contact. | 0.300 | 119.010 | 0.300 | |
| SILTSTONE | dark grey, carbonaceous throughout, tends to mud, sandy laminae in part throughout, low strength, gradational basal contact. | 0.400 | 119.410 | 0.400 | |
| CARB MUDSTONE | dark grey brown, low strength, sharp basal contact. | 0.220 | 119.630 | 0.220 | |
| COAL | Dull minor bright, sharp basal contact, no visible cleat or fractures. | 0.170 | 119.800 | 0.170 | |
| | | 0.360 | 120.160 | 0.360 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| CARB MUDSTONE | dark grey brown, low strength. | 0.090 | 120.250 | 0.090 | 119.94 D6.04 R6.15 |
| SILTSTONE | dark grey, carbonaceous throughout, tends to mud, low strength, gradational basal contact. | 0.340 | 120.590 | 0.280 | |
| CARB MUDSTONE | dark grey brown, silty in part throughout, low strength, gradational basal contact. | 0.390 | 120.980 | 0.390 | |
| SILTSTONE | dark grey, carbonaceous laminae in part, tends to mud, sandy laminae in part, low strength, sharp basal contact. | 0.280 | 121.260 | 0.280 | |
| CARB MUDSTONE | dark grey brown, coal laminae in part, low strength, gradational basal contact. | 0.330 | 121.590 | 0.330 | |
| SILTSTONE | dark grey, carbonaceous laminae in part throughout, low strength, gradational basal contact. | 0.400 | 121.990 | 0.410 | |
| CARB MUDSTONE | dark grey brown, coal laminae in part, silty laminae in part throughout, sandy laminae in part throughout, low strength, sharp basal contact. | 1.180 | 123.170 | 1.180 | |
| SANDSTONE | grey, fine grained, carbonaceous laminae in part throughout, tends to silt, medium strength, sharp basal contact. | 0.090 | 123.260 | 0.100 | |
| CARB MUDSTONE | dark grey brown, tends to silt, low strength, sharp basal contact. | 0.090 | 123.350 | 0.070 | |
| SANDSTONE | grey, fine grained, carbonaceous laminae throughout, tends to silt, medium strength, sharp basal contact. | 0.080 | 123.430 | 0.080 | |
| CARB MUDSTONE | dark grey brown, silty in part, sandy in part, low strength, sharp basal contact. | 1.040 | 124.470 | 1.040 | |
| SANDSTONE | grey, fine grained, coal laminae in part, carbonaceous laminae in part, medium strength, sharp basal contact. | 0.040 | 124.510 | 0.050 | |
| CARB MUDSTONE | dark grey brown, silty in part, sandy in part, low strength, sharp basal contact. | 0.210 | 124.720 | 0.200 | |
| SANDSTONE | grey, fine grained, carbonaceous laminae in part throughout, medium strength, sharp basal contact. | 0.080 | 124.800 | 0.070 | |
| CARB MUDSTONE | dark grey brown, silty in part, sandy in part, low strength, sharp basal contact. | 0.430 | 125.230 | 0.430 | |
| SANDSTONE | grey, fine grained, tends to silt, carbonaceous laminae in part throughout, medium strength, | | | | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| SILTSTONE | sharp basal contact. dark grey, carbonaceous laminae throughout, sandy laminae in part throughout, tends to mud, low strength, sharp basal contact. | 0.060 | 125.290 | 0.060 | |
| CARB MUDSTONE | dark grey brown, silty laminae in part throughout, sandy laminae in part throughout, low strength, sharp basal contact. | 0.440 | 125.730 | 0.440 | |
| SILTSTONE | dark grey, carbonaceous laminae throughout, sandy laminae in part throughout, tends to mud, low strength, sharp basal contact. | 0.230 | 125.960 | 0.230 | |
| SANDSTONE | dark grey, carbonaceous laminae throughout, sandy laminae in part throughout, tends to mud, low strength. | 0.520 | 126.480 | 0.520 | 126.31 D6.37 R6.24 |
| SANDSTONE | grey, medium grained, carbonaceous laminae in part throughout, high strength, sharp basal contact. | 1.090 | 127.570 | 1.090 | |
| SANDSTONE | grey, medium grained, carbonaceous laminae in part throughout, carbonate cementation, high strength. | 0.190 | 127.760 | 0.190 | |
| SANDSTONE | grey, medium grained, carbonaceous laminae in part throughout, high strength, sharp basal contact. | 2.130 | 129.890 | 2.310 | |
| COAL | Dull minor bright, muddy in part, sharp basal contact, no visible cleat or fractures. | 0.130 | 130.020 | 0.130 | |
| MUDSTONE | dark grey brown, carbonaceous in part, low strength, sharp basal contact. | 0.580 | 130.600 | 0.580 | |
| COAL | Dull minor bright, sharp basal contact, no visible cleat or fractures. | 0.060 | 130.660 | 0.060 | |
| MUDSTONE | dark grey brown, carbonaceous in part, low strength, sharp basal contact. | 0.100 | 130.760 | 0.100 | |
| COAL | Dull minor bright, tends to carbonaceous mud at base, gradational basal contact. | 0.250 | 131.010 | 0.250 | |
| MUDSTONE | dark grey brown, carbonaceous in part, low strength, sharp basal contact. | 0.040 | 131.050 | 0.040 | |
| CARB MUDSTONE | dark grey brown, low strength, sharp basal contact. | 0.060 | 131.110 | 0.060 | |
| SILTSTONE | dark grey, carbonaceous throughout, tends to mud, low strength. | 1.030 | 132.140 | 1.000 | |
| SANDSTONE | grey, fine to medium grained, carbonaceous laminae in part throughout, muddy rip-up clasts, high strength, sharp basal contact. | 0.230 | 132.370 | 0.230 | 132.31 D5.80 R5.70 |
| MUDSTONE | dark grey brown, carbonaceous in part, low | | | | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|-------------------|
| COAL | strength, sharp basal contact. Dull, broken, face cleat, average spacing 30mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 80% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.460 | 132.830 | 0.460 | Top of MEL2ED1367 |
| CARB MUDSTONE | dark brown, tuffaceous throughout, low strength, broken, slickensided 3cm from top, 2 fractures, gradational basal contact. | 0.060 | 132.890 | 0.060 | |
| COAL | Dull minor bright, tending to stony coal throughout, face cleat, average spacing 20mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 90 degrees to face cleat. | 0.090 | 132.980 | 0.080 | |
| CARB MUDSTONE | tuffaceous throughout, coal bleb towards top, low strength, 1 fracture, sharp basal contact. | 0.060 | 133.040 | 0.060 | |
| COAL | Dull, carbonaceous band at middle and lenses throughout, fractured throughout, face cleat, average spacing 20mm, penetrating 80% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 60% of unit, no visible mineralisation, dips 90 degrees with azimuth 50 degrees to face cleat. | 0.050 | 133.090 | 0.050 | |
| CARB MUDSTONE | dark brown, puggy, low strength, sharp basal contact. | 0.160 | 133.250 | 0.160 | |
| COAL | Dull, badly broken, face cleat, average spacing 20mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 45 degrees to face cleat. | 0.050 | 133.300 | 0.050 | |
| CARB MUDSTONE | dark brown, low strength, sharp basal contact. | 0.020 | 133.320 | 0.020 | |
| COAL | Dull, fractured towards base, face cleat, average spacing 30mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 60mm, penetrating 100% of | 0.020 | 133.340 | 0.020 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| COAL | unit, 80% carbonate filled, dips 90 degrees with azimuth 90 degrees to face cleat. Dull banded, friable, face cleat, average spacing 4mm, penetrating 30% of unit, no visible mineralisation, dips 90 degrees, secondary face cleat, average spacing 10mm, penetrating 90% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 5mm, penetrating 30% of unit, no visible mineralisation, dips 90 degrees with azimuth 85 degrees to face cleat, secondary butt cleat, average spacing 12mm, penetrating 90% of unit, | 0.145 | 133.485 | 0.145 | |
| CARB MUDSTONE | azimuth 45 degrees to face cleat, fracture set 1, average spacing 200mm, penetrating 100% of unit, 80% carbonate filled, dips 85 degrees with azimuth 45 degrees to face cleat. dark brown, tuffaceous, low strength, sharp basal contact. | 0.080 | 133.565 | 0.080 | |
| COAL | Dull banded, fractured, face cleat, average spacing 30mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, secondary face cleat, average spacing 30mm, penetrating 80% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 50% of unit, no visible mineralisation, dips 90 degrees with azimuth 90 degrees to face cleat. | 0.010 | 133.575 | 0.010 | Base of MEL2ED1367 |
| MUDSTONE | dark grey brown, carbonaceous in part, low strength, sharp basal contact. | 0.075 | 133.650 | 0.075 | |
| SILTSTONE | dark grey, carbonaceous throughout, low strength, gradational basal contact. | 0.490 | 134.140 | 0.490 | |
| MUDSTONE | dark grey brown, low strength, sharp basal contact. | 0.130 | 134.270 | 0.130 | |
| COAL | Dull minor bright, tends to carbonaceous in part, sharp basal contact. | 0.220 | 134.490 | 0.220 | |
| CARB MUDSTONE | dark grey brown, low strength, gradational basal contact. | 0.140 | 134.630 | 0.140 | |
| COAL | Dull minor bright, tends to carbonaceous mud in | 0.070 | 134.700 | 0.070 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| MUDSTONE | part, sharp basal contact. dark grey brown, carbonaceous in part, low strength, sharp basal contact. | 0.230 | 134.930 | 0.230 | |
| COAL | Dull minor bright, tends to carbonaceous mud in part, sharp basal contact, no visible cleat or fractures. | 0.610 | 135.540 | 0.620 | |
| MUDSTONE | dark grey brown, low strength, gradational basal contact. | 0.160 | 135.700 | 0.160 | |
| CARB MUDSTONE | dark grey brown, tends to coal in part, low strength. | 0.230 | 135.930 | 0.230 | |
| SILTSTONE | dark grey, carbonaceous throughout, low strength, gradational basal contact. | 0.080 | 136.010 | 0.080 | |
| MUDSTONE | dark grey brown, carbonaceous in part, low strength, sharp basal contact. | 0.120 | 136.130 | 0.120 | |
| COAL | Dull, face cleat, average spacing 30mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 90% of unit, no visible mineralisation, dips 90 degrees with azimuth 90 degrees to face cleat. | 0.420 | 136.550 | 0.410 | Top of MEL2ED1083 |
| COAL | Dull minor bright, tuffaceous lenses throughout, friable in part, face cleat, average spacing 10mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 12mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 45 degrees to face cleat. | 0.070 | 136.620 | 0.070 | |
| CARB MUDSTONE | dark brown, low strength, sharp basal contact. | 0.185 | 136.805 | 0.185 | |
| COAL | Dull banded, face cleat, average spacing 30mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 60mm, penetrating 100% of unit, 30% carbonate filled, dips 90 degrees with azimuth 45 degrees to face cleat. | 0.010 | 136.815 | 0.010 | |
| COAL | Dull minor bright, badly broken, face cleat, average spacing 20mm, penetrating 100% of unit, 60% carbonate filled, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 100% of unit, 20% carbonate filled, dips 90 degrees with | 0.185 | 137.000 | 0.185 | Base of MEL2ED1083 |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| COAL | azimuth 45 degrees to face cleat. Dull banded, fractured, face cleat, average spacing 15mm, penetrating 100% of unit, 80% carbonate filled, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 100% of unit, 80% carbonate filled, dips 90 degrees with azimuth 45 degrees to face cleat. | 0.060 | 137.060 | 0.060 | Top of MEL2ED1374 |
| COAL | Dull minor bright, face cleat, average spacing 12mm, penetrating 80% of unit, 50% carbonate filled, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 70% of unit, 50% carbonate filled, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.080 | 137.140 | 0.080 | |
| COAL | Bright banded, face cleat, average spacing 30mm, penetrating 100% of unit, 60% carbonate filled, dips 90 degrees, butt cleat, average spacing 60mm, penetrating 100% of unit, 60% carbonate filled, dips 90 degrees with azimuth 45 degrees to face cleat. | 0.300 | 137.440 | 0.300 | |
| COAL | Stony, no visible cleat or fractures. | 0.040 | 137.480 | 0.040 | |
| COAL | Dull banded, face cleat, average spacing 12mm, penetrating 100% of unit, 20% carbonate filled, dips 90 degrees, butt cleat, average spacing 15mm, penetrating 100% of unit, 70% carbonate filled, dips 90 degrees with azimuth 85 degrees to face cleat. | 0.040 | 137.520 | 0.040 | |
| COAL | Stony, tending to carbonaceous mud, no visible cleat, fracture set 1, average spacing 200mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees. | 0.230 | 137.750 | 0.230 | Base of MEL2ED1374 |
| MUDSTONE | dark grey brown, carbonaceous in part, low strength. | 0.010 | 137.760 | 0.010 | 138.31 D6.00 R6.08 |
| CORE LOSS | | | | | |
| COAL | Stony, no visible cleat or fractures. | 0.250 | 138.410 | 0.000 | |
| MUDSTONE | dark grey brown, carbonaceous in part, low strength, sharp basal contact. | 0.050 | 138.460 | 0.050 | |
| COAL | Dull minor bright, tends to carbonaceous mud in part, sharp basal contact, no visible cleat or fractures. | 0.750 | 139.210 | 0.750 | |
| | | 0.030 | 139.240 | 0.030 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| MUDSTONE | dark grey brown, low strength, sharp basal contact. | 0.180 | 139.420 | 0.180 | |
| SILTSTONE | dark grey, sandy laminae in part throughout, carbonaceous throughout, low strength. | 0.820 | 140.240 | 0.820 | |
| MUDSTONE | dark grey brown, carbonaceous in part, low strength, gradational basal contact. | 1.130 | 141.370 | 1.130 | |
| COAL | Dull minor bright, sharp basal contact, no visible cleat or fractures. | 0.050 | 141.420 | 0.050 | |
| SILTSTONE | dark grey, sandy laminae in part throughout, carbonaceous throughout, low strength. | 0.780 | 142.200 | 0.780 | |
| MUDSTONE | dark grey brown, low strength, gradational basal contact. | 0.280 | 142.480 | 0.280 | |
| CARB MUDSTONE | dark grey brown, low strength, gradational basal contact. | 0.160 | 142.640 | 0.160 | |
| MUDSTONE | dark grey brown, carbonaceous in part, low strength, gradational basal contact. | 0.380 | 143.020 | 0.380 | |
| SILTSTONE | 50% dark grey, carbonaceous laminae throughout, low strength. | | | | |
| MUDSTONE | 50% dark grey brown, low strength. thickly interbedded, low strength, gradational basal contact. | 0.440 | 143.460 | 0.440 | |
| MUDSTONE | dark grey brown, carbonaceous in part, low strength, sharp basal contact. | 0.710 | 144.170 | 0.680 | |
| COAL | Dull minor bright, no visible cleat or fractures. | 0.130 | 144.300 | 0.130 | |
| MUDSTONE | dark grey brown, low strength. | 0.090 | 144.390 | 0.090 | 144.55 D6.24 R6.04 |
| MUDSTONE | dark grey brown, carbonaceous in part, coal laminae in middle, low strength, gradational basal contact. | 0.620 | 145.010 | 0.620 | |
| SILTSTONE | dark grey, carbonaceous laminae throughout, sandy in part, low strength, gradational basal contact. | 3.170 | 148.180 | 3.170 | |
| SANDSTONE | grey, fine grained, sideritic, high strength, gradational basal contact. | 0.250 | 148.430 | 0.250 | 149.17 D4.62 R4.62 |
| SILTSTONE | dark grey, carbonaceous laminae throughout, sandy in part, low strength, gradational basal contact. | 0.550 | 148.980 | 0.550 | |
| SANDSTONE | grey, fine grained, occasional coal laminae, silty in part, low strength, sharp basal | | | | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| SANDSTONE | contact. light grey, medium grained, carbonate matrix, very high strength, gradational basal contact. | 1.960 | 150.940 | 1.960 | |
| SANDSTONE | grey, fine grained, occasional carbonaceous laminae, rip up clasts, high strength, sharp basal contact. | 0.060 | 151.000 | 0.060 | |
| SANDSTONE | light grey, fine to medium grained, occasional carbonaceous laminae, high strength. | 0.910 | 151.910 | 0.910 | |
| SANDSTONE | 3.230 | 155.140 | 3.230 | | 155.43 D5.26 R5.16 |
| SANDSTONE | grey, fine to medium grained, occasional carbonaceous laminae, coal laminae at base, high strength, sharp basal contact. | 2.420 | 157.560 | 2.400 | |
| COAL | Stony, tending to carb mud, no visible cleat or fractures. | 0.250 | 157.810 | 0.250 | |
| SILTSTONE | dark grey, occasional coal wisps muddy in part, low strength, gradational basal contact. | 1.260 | 159.070 | 1.260 | |
| MUDSTONE | dark grey brown, carbonaceous in part, low strength, gradational basal contact. | 1.520 | 160.590 | 1.520 | |
| SILTSTONE | grey, low strength, gradational basal contact. | 0.090 | 160.680 | 0.090 | |
| MUDSTONE | dark grey, tends to carb mud at base, low strength. | 0.500 | 161.180 | 0.500 | D6.03 R6.03 161.46 |
| CARB MUDSTONE | dark grey, tends to stony coal, low strength, gradational basal contact. | 0.240 | 161.420 | 0.240 | |
| COAL | Stony, gradational basal contact, no visible cleat or fractures. | 0.190 | 161.610 | 0.190 | 161.46 D6.03 R5.80 |
| CORE LOSS | | 0.230 | 161.840 | 0.000 | |
| MUDSTONE | dark grey, silty in part, low strength, gradational basal contact. | 0.620 | 162.460 | 0.620 | |
| COAL | Stony, carb mud throughout, gradational basal contact, no visible cleat or fractures. | 0.240 | 162.700 | 0.240 | |
| SILTSTONE | dark grey, muddy in part, low strength, puggy. | 4.400 | 167.100 | 4.430 | 167.27 D5.81 R5.90 |
| CARB MUDSTONE | black brown, tends to stony coal in part, occasional tuffaceous laminae, low strength, puggy, basal parting. | 0.270 | 167.370 | 0.270 | |
| COAL | Dull minor bright, broken. | 0.080 | 167.450 | 0.080 | |
| CORE LOSS | | 0.330 | 167.780 | 0.000 | |
| CARB MUDSTONE | tending to stony coal, low strength, puggy. | 0.080 | 167.860 | 0.080 | |
| COAL | Stony, carb mud bands throughout, tuffaceous laminae in part, gradational basal contact, no visible cleat or fractures. | 0.200 | 168.060 | 0.200 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| TUFF | off white. | 0.030 | 168.090 | 0.030 | |
| COAL | Dull banded. | 0.050 | 168.140 | 0.050 | |
| CARB MUDSTONE | dark brown. | 0.070 | 168.210 | 0.070 | 168.31 D1.03 R.73 |
| CORE LOSS | | 0.230 | 168.440 | 0.000 | |
| CARB MUDSTONE | black brown, tends to stony coal in part, low strength, sharp basal contact. | 0.360 | 168.800 | 0.360 | |
| MUDSTONE | dark grey, silty in part, very low strength, sharp basal contact. | 0.800 | 169.600 | 0.800 | |
| COAL | Dull, sharp basal contact, no visible cleat or fractures. | 0.150 | 169.750 | 0.150 | |
| MUDSTONE | dark grey, very low strength, sharp basal contact. | 0.220 | 169.970 | 0.220 | |
| COAL | Dull banded, fractured, 1 fracture, face cleat, average spacing 10mm, penetrating 60% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 12mm, penetrating 60% of unit, 30% carbonate filled, dips 90 degrees with azimuth 90 degrees to face cleat, secondary butt cleat, average spacing 60mm, penetrating 80% of unit, 80% carbonate filled, dips 90 degrees with azimuth 45 degrees to face cleat. | 0.500 | 170.470 | 0.500 | MEL2ED1589 |
| MUDSTONE | dark grey, very low strength, sharp basal contact. | 2.220 | 172.690 | 2.260 | |
| COAL | Stony, face cleat, average spacing 60mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, no visible butt cleat. | 0.040 | 172.730 | 0.040 | Top of MEL2ED1480 |
| COAL | Dull banded, face cleat, average spacing 15mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 14mm, penetrating 80% of unit, 80% carbonate filled, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.430 | 173.160 | 0.430 | Base of MEL2ED1480 |
| MUDSTONE | dark grey, very low strength. | 1.180 | 174.340 | 1.180 | 174.46 D6.15 R5.94 |
| SILTSTONE | dark grey, medium strength, gradational basal contact. | 2.240 | 176.580 | 2.240 | |
| SANDSTONE | grey, medium to coarse grained, medium strength. | 2.760 | 179.340 | 2.760 | 179.46 D5.00 R5.00 |
| SANDSTONE | grey, medium to coarse grained, medium strength, | | | | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| COAL | sharp basal contact. | 0.640 | 179.980 | 0.640 | |
| MUDSTONE | Dull, sharp basal contact, no visible cleat or fractures. | 0.130 | 180.110 | 0.130 | |
| COAL | dark grey, low strength, sharp basal contact. | 1.600 | 181.710 | 1.630 | |
| CARB MUDSTONE | Dull, face cleat, average spacing 15mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 15mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.270 | 181.980 | 0.270 | Top of MEL2ED1471 |
| COAL | grey brown, tuffaceous throughout, medium strength, sharp basal contact. | 0.020 | 182.000 | 0.020 | |
| COAL | Dull banded, face cleat, average spacing 10mm, penetrating 70% of unit, 50% carbonate filled, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 60% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.235 | 182.235 | 0.235 | |
| COAL | Stony, tending to carbonaceous mud, no visible cleat or fractures. | 0.045 | 182.280 | 0.045 | |
| CARB MUDSTONE | Dull banded, face cleat, average spacing 30mm, penetrating 70% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 70% of unit, 40% carbonate filled, dips 90 degrees with azimuth 45 degrees to face cleat. | 0.100 | 182.380 | 0.100 | Base of MEL2ED1471 |
| MUDSTONE | dark grey, very low strength. | 3.100 | 185.480 | 3.100 | 185.46 D6.01 R6.17 |
| SANDSTONE | grey, fine to medium grained, silty throughout, medium strength. | 6.020 | 191.500 | 6.020 | 191.56 D6.09 R6.02 |
| SANDSTONE | grey, fine to medium grained, medium strength. | 5.630 | 197.130 | 5.680 | 197.55 D5.99 R5.68 |
| SANDSTONE | grey, fine to medium grained, silty, medium strength, sharp basal contact. | 0.450 | 197.580 | 0.450 | |
| CARB MUDSTONE | black brown, tends to stony coal at top, low strength, sharp basal contact. | 0.100 | 197.680 | 0.100 | |
| SANDSTONE | grey, fine to medium grained, medium strength, sharp basal contact. | 3.630 | 201.310 | 3.590 | |
| MUDSTONE | dark grey, very low strength. | 2.010 | 203.320 | 1.970 | 203.51 D5.96 R6.11 |
| CARB MUDSTONE | black brown, tends to stony coal, low strength, gradational basal contact. | 0.090 | 203.410 | 0.090 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| MUDSTONE | dark grey, very low strength, fractured throughout, sharp basal contact. | 0.550 | 203.960 | 0.550 | |
| COAL | Dull, tending to stony coal at top, 1 fracture, face cleat, average spacing 10mm, penetrating 50% of unit, 30% carbonate filled, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 80% of unit, 80% carbonate filled, dips 90 degrees with azimuth 90 degrees to face cleat. | 0.240 | 204.200 | 0.240 | Top of MEL2ED1519 |
| COAL | Dull minor bright, fractured, face cleat, average spacing 6mm, penetrating 70% of unit, 80% carbonate filled, dips 90 degrees, secondary face cleat, average spacing 30mm, penetrating 70% of unit, 80% carbonate filled, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 70% of unit, 80% carbonate filled, dips 90 degrees with azimuth 90 degrees to face cleat. | 0.095 | 204.295 | 0.095 | |
| CARB MUDSTONE | dark brown, low strength, 1 fracture, sharp basal contact. | 0.080 | 204.375 | 0.080 | |
| COAL | Dull minor bright, fractured, face cleat, average spacing 15mm, penetrating 70% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 50% of unit, 10% carbonate filled, dips 90 degrees with azimuth 90 degrees to face cleat. | 0.095 | 204.470 | 0.095 | |
| CARB MUDSTONE | dark brown, low strength. | 0.040 | 204.510 | 0.040 | Base of MEL2ED1519 |
| SILTSTONE | dark grey, sandy in part, medium strength, gradational basal contact. | 2.200 | 206.710 | 2.200 | |
| SANDSTONE | grey, medium to coarse grained, silty at base, medium strength. | 2.810 | 209.520 | 2.810 | 209.64 D6.10 R6.20 |
| SANDSTONE | grey, medium to coarse grained, silty in part, carbonaceous laminae throughout, medium strength. | 6.040 | 215.560 | 6.090 | 215.62 D6.01 R6.09 |
| SANDSTONE | grey, medium to coarse grained, carbonaceous laminae throughout, gradational basal contact. | 2.080 | 217.640 | 2.080 | |
| SIDERITE | light brown, carbonate, very high strength, sharp basal contact. | 0.370 | 218.010 | 0.370 | |
| MUDSTONE | dark grey, tuffaceous in part, very low | | | | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| COAL | strength, sharp basal contact. Dull minor bright, tending to stony coal, carb mud throughout, muddy laminae at base, sharp basal contact. | 1.750 | 219.760 | 1.790 | |
| MUDSTONE | dark grey, tuffaceous in part, very low strength, sharp basal contact. | 0.310 | 220.070 | 0.310 | |
| CARB MUDSTONE | black brown, occasional coal laminae, low strength, sharp basal contact. | 0.110 | 220.180 | 0.110 | |
| SILTSTONE | dark grey, sandy, medium strength. | 0.050 | 220.230 | 0.050 | |
| CORE LOSS | | 0.670 | 220.900 | 0.670 | |
| MUDSTONE | dark grey, very low strength, gradational basal contact. | 0.590 | 221.490 | 0.000 | 221.76 D6.14 R5.39 |
| SIDERITE | brown, siltstone, high strength, sharp basal contact. | 0.820 | 222.310 | 0.820 | |
| SILTSTONE | dark grey, sandy in part, medium strength. | 0.230 | 222.540 | 0.230 | |
| SILTSTONE | dark grey, sandy, medium strength, gradational basal contact. | 4.950 | 227.490 | 4.950 | 227.76 D6.00 R6.00 |
| SANDSTONE | grey, medium to coarse grained, medium strength. | 3.030 | 230.520 | 3.030 | |
| SANDSTONE | grey, fine to medium grained, silty at base, medium strength, sharp basal contact. | 2.940 | 233.460 | 2.970 | |
| CARB MUDSTONE | black brown, occasional coal laminae, low strength, sharp basal contact. | 3.520 | 236.980 | 3.590 | |
| SILTSTONE | dark grey, muddy at top, low strength. | 0.370 | 237.350 | 0.370 | |
| MUDSTONE | grey brown, tends to silt in part, light grey brown sandy nodules in part, low strength, gradational basal contact. | 2.220 | 239.570 | 2.310 | 239.76 D6.00 R6.27 |
| SILTSTONE | dark grey, tends to mud, low strength, gradational basal contact. | 0.720 | 240.290 | 0.720 | |
| MUDSTONE | grey brown, tends to silt in part, low strength, gradational basal contact. | 1.200 | 241.490 | 1.200 | |
| SILTSTONE | dark grey, tends to mud, sandy in part, carbonaceous laminae in part throughout, low strength, gradational basal contact. | 1.000 | 242.490 | 1.000 | |
| MUDSTONE | grey brown, tends to silt in part, low strength, gradational basal contact. | 0.140 | 242.630 | 0.140 | |
| CARB MUDSTONE | black brown, tends to mudstone at top, low strength, gradational basal contact. | 0.420 | 243.050 | 0.420 | |
| SILTSTONE | dark grey, carbonaceous laminae in part | 0.290 | 243.340 | 0.290 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| SANDSTONE | throughout, tends to mud in part, low strength, gradational basal contact. | 1.330 | 244.670 | 1.350 | |
| SILTSTONE | 50% grey, fine grained, silty laminae in part, medium strength. | | | | |
| SILTSTONE | 50% dark grey, carbonaceous laminae throughout, sandy laminae in part, tends to mud in part, low strength. | | | | |
| SILTSTONE | thickly interbedded, carbonaceous in part throughout, gradational basal contact. | 0.600 | 245.270 | 0.600 | |
| SILTSTONE | dark grey, tends to sand in part throughout, carbonaceous laminae in part throughout, low strength. | 0.370 | 245.640 | 0.370 | 245.76 D6.00 R6.09 |
| SILTSTONE | dark grey, sandy in part, sandy nodules in part, low strength, sharp basal contact. | 0.350 | 245.990 | 0.350 | |
| SANDSTONE | grey, fine grained, tends to silt in part, high strength, sharp basal contact. | 0.100 | 246.090 | 0.100 | |
| SILTSTONE | dark grey, sandy laminae in part throughout, low strength, gradational basal contact. | 0.940 | 247.030 | 0.940 | |
| MUDSTONE | grey brown, carbonaceous laminae throughout, tends to silt in part, low strength, sharp basal contact. | 0.560 | 247.590 | 0.560 | |
| COAL | Dull, no visible cleat or fractures. | 0.230 | 247.820 | 0.230 | Top of MEL2ED1533 |
| COAL | Dull minor bright, broken towards base, face cleat, average spacing 20mm, penetrating 100% of unit, 15% carbonate filled, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 80% of unit, 30% carbonate filled, dips 90 degrees with azimuth 45 degrees to face cleat. | 0.360 | 248.180 | 0.360 | Base of MEL2ED1533 |
| MUDSTONE | grey brown, tends to silt in part, carbonaceous laminae throughout, low strength, gradational basal contact. | 0.210 | 248.390 | 0.210 | |
| COAL | Dull, gradational basal contact, no visible cleat or fractures. | 0.100 | 248.490 | 0.100 | |
| CARB MUDSTONE | black brown, tends to mud in part, low strength, basal parting. | 0.060 | 248.550 | 0.060 | |
| MUDSTONE | grey brown, carbonaceous laminae in part, tends to silt in part, low strength, gradational basal contact. | 0.400 | 248.950 | 0.400 | |
| COAL | Dull, fractured, face cleat, average spacing | | | | Top of MEL2ED1590 |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| COAL | 30mm, penetrating 100% of unit, 40% carbonate filled, dips 90 degrees, secondary face cleat, average spacing 60mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 60mm, penetrating 40% of unit, no visible mineralisation, dips 90 degrees with azimuth 45 degrees to face cleat. | 0.370 | 249.320 | 0.370 | |
| COAL | Stony, carbonaceous mud lenses, face cleat, average spacing 20mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 60mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 85 degrees to face cleat. | 0.070 | 249.390 | 0.070 | |
| CARB MUDSTONE | Dull minor bright, face cleat, average spacing 20mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 60mm, penetrating 100% of unit, 70% carbonate filled, dips 90 degrees with azimuth 85 degrees to face cleat. | 0.090 | 249.480 | 0.090 | |
| MUDSTONE | black brown, tends to mud in part, low strength, gradational basal contact. | 0.120 | 249.600 | 0.120 | |
| CARB MUDSTONE | grey brown, carbonaceous in part, tends to silt in part, low strength, 60 degree slickensided fracture at base, gradational basal contact. | 1.600 | 251.200 | 1.600 | |
| COAL | black brown, tends to mud in part, low strength, gradational basal contact. | 0.080 | 251.280 | 0.080 | |
| MUDSTONE | Dull minor bright, tends to carbonaceous mud in part, no visible cleat or fractures. | 0.200 | 251.480 | 0.200 | |
| COAL | grey brown, low strength, sharp basal contact. | 0.070 | 251.550 | 0.070 | |
| CORE LOSS | Dull minor bright, no visible cleat or fractures. | 0.020 | 251.570 | 0.020 | 251.76 D6.00 R5.92 |
| CARB MUDSTONE | grey brown, low strength. | 0.120 | 251.690 | 0.000 | |
| COAL | Dull, face cleat, average spacing 25mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.040 | 251.730 | 0.040 | |
| | | 0.080 | 251.810 | 0.080 | Top of MEL2ED1361 |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| COAL | Stony, face cleat, average spacing 5mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 8mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.030 | 251.840 | 0.030 | |
| TUFF | buff, carbonaceous wisps throughout, low strength, sharp basal contact. | 0.050 | 251.890 | 0.050 | |
| COAL | Dull, tending to stony coal at base, face cleat, average spacing 20mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat, fracture set 1, average spacing 200mm, penetrating 100% of unit, 30% carbonate filled, dips 80 degrees with azimuth 45 degrees to face cleat. | 0.550 | 252.440 | 0.550 | Base of MEL2ED1361 |
| CARB MUDSTONE | black brown, tends to mud in part, low strength, gradational basal contact. | 0.170 | 252.610 | 0.170 | |
| MUDSTONE | grey brown, carbonaceous in part, tends to silt in part, low strength, 45 degree slickensided fracture at top, subvertical fracture at mid, gradational basal contact. | 1.610 | 254.220 | 1.630 | |
| CARB MUDSTONE | black brown, tends to mud in part, low strength, gradational basal contact. | 0.100 | 254.320 | 0.100 | |
| COAL | Dull minor bright, face cleat, average spacing 3mm, penetrating 30% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 6mm, penetrating 60% of unit, no visible mineralisation, dips 90 degrees with azimuth 70 degrees to face cleat. | 0.250 | 254.570 | 0.250 | |
| COAL | Dull, face cleat, average spacing 3mm, penetrating 5% of unit, no visible mineralisation, dips 90 degrees, secondary face cleat, average spacing 12mm, penetrating 90% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 6mm, penetrating 5% of unit, no visible mineralisation, dips 90 degrees with azimuth 70 | | | | MEL2ED1528 |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| CARB MUDSTONE | degrees to face cleat, secondary butt cleat, average spacing 40mm, penetrating 90% of unit, no visible mineralisation, dips 90 degrees with azimuth 60 degrees to face cleat. | 0.740 | 255.310 | 0.740 | |
| SILTSTONE | black brown, tends to silt at base, low strength, gradational basal contact. | 0.090 | 255.400 | 0.090 | |
| SANDSTONE | dark grey, tends to mud in part, sandy in part, low strength, gradational basal contact. | 0.860 | 256.260 | 0.860 | |
| MUDSTONE | grey, fine grained, carbonaceous laminae in part throughout, coal laminae in part, medium to high strength, sharp basal contact. | 0.500 | 256.760 | 0.500 | |
| SILTSTONE | grey brown, low strength, gradational basal contact. | 0.180 | 256.940 | 0.180 | |
| MUDSTONE | dark grey, tends to mud in part, low strength, sharp basal contact. | 0.230 | 257.170 | 0.230 | |
| COAL | grey brown, tends to silt in part, low strength, 60 degree slickensided fracture at base. | 0.320 | 257.490 | 0.320 | |
| COAL | Dull minor bright, tends to carbonaceous mud in part. | 0.120 | 257.610 | 0.120 | 257.78 D6.00 R5.93 |
| MUDSTONE | Dull minor bright, tends to carbonaceous mud at base, , gradational basal contact. | 0.200 | 257.810 | 0.200 | |
| SILTSTONE | grey brown, tends to silt at base, low strength, gradational basal contact. | 0.230 | 258.040 | 0.230 | |
| MUDSTONE | dark grey, carbonaceous laminae throughout, tends to sand in part throughout, low strength, sharp basal contact. | 2.040 | 260.080 | 2.040 | |
| SANDSTONE | grey brown, low strength, sharp basal contact. | 0.050 | 260.130 | 0.050 | |
| SILTSTONE | 30% grey, fine grained, carbonaceous laminae throughout, medium strength. | | | | |
| SANDSTONE | 70% dark grey, carbonaceous throughout, low strength. | | | | |
| SANDSTONE | thinly interbedded, carbonaceous laminae throughout, gradational basal contact. | 0.890 | 261.020 | 0.890 | |
| SANDSTONE | grey, fine grained, tends to silt in part, carbonaceous laminae throughout, medium strength. | 2.600 | 263.620 | 2.630 | 263.76 D6.00 R6.06 |
| SANDSTONE | grey, fine grained, medium strength, gradational basal contact. | 0.320 | 263.940 | 0.320 | |
| SANDSTONE | grey, medium grained, medium strength, | | | | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| SANDSTONE | gradational basal contact. grey, fine grained, medium strength, sharp basal contact. | 0.300 | 264.240 | 0.300 | |
| SANDSTONE | grey, fine to medium grained, carbonaceous laminae throughout, medium strength, gradational basal contact. | 0.050 | 264.290 | 0.050 | |
| SANDSTONE | grey, medium grained, coal laminae at base, medium strength, sharp basal contact. | 0.270 | 264.560 | 0.270 | |
| SANDSTONE | grey, medium grained, coal laminae at base, medium strength, sharp basal contact. | 1.610 | 266.170 | 1.610 | |
| SANDSTONE | dark grey, fine grained, coal laminae throughout, medium strength, gradational basal contact. | 0.060 | 266.230 | 0.060 | |
| SANDSTONE | grey, fine to medium grained, grey brown sandy nodules in part, medium strength. | 0.830 | 267.060 | 0.830 | |
| COAL | Dull minor bright, tends to carbonaceous mud at base, gradational basal contact. | 0.390 | 267.450 | 0.390 | |
| CARB MUDSTONE | black brown, coal laminae throughout, low strength, gradational basal contact. | 0.060 | 267.510 | 0.060 | |
| SILTSTONE | dark grey, carbonaceous laminae in part, coal laminae in part, low strength, sharp basal contact. | 0.130 | 267.640 | 0.130 | |
| MUDSTONE | grey brown, coal laminae at top, low strength, 50 degree slickensided fracture, gradational basal contact. | 0.230 | 267.870 | 0.230 | |
| SILTSTONE | dark grey, tends to mud, low strength, sharp basal contact. | 0.310 | 268.180 | 0.310 | |
| MUDSTONE | grey brown, coal laminae in part, low strength, 50 degree fracture at base, gradational basal contact. | 0.680 | 268.860 | 0.680 | |
| SILTSTONE | dark grey, carbonaceous throughout, tends to mud, low strength, 30 degree slickensided fracture at base. | 0.550 | 269.410 | 0.550 | |
| CORE LOSS | | 0.250 | 269.660 | 0.000 | 269.76 D6.00 R5.93 |
| SILTSTONE | dark grey, tends to mud in part, low strength, 30 degree and 60 degree slickensided fractures, sharp basal contact. | 0.830 | 270.490 | 0.830 | |
| COAL | Dull minor bright, gradational basal contact, no visible cleat or fractures. | 0.050 | 270.540 | 0.050 | |
| MUDSTONE | grey brown, carbonaceous in part, low strength, sharp basal contact. | 0.040 | 270.580 | 0.040 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| COAL | Dull minor bright, tends to carbonaceous mud at base, gradational basal contact. | 0.210 | 270.790 | 0.210 | |
| MUDSTONE | grey brown, carbonaceous in part, low strength, sharp basal contact. | 0.100 | 270.890 | 0.100 | |
| SILTSTONE | dark grey, tends to mud throughout, coal laminae at base, low strength, sharp basal contact. | 0.800 | 271.690 | 0.760 | |
| CARB MUDSTONE | black brown, low strength, sharp basal contact. | 0.200 | 271.890 | 0.200 | |
| COAL | Dull minor bright, gradational basal contact. | 0.260 | 272.150 | 0.260 | |
| SILTSTONE | grey, tends to mud in part, tends to sand in part, low strength, 45 degree slickensided fracture at base, gradational basal contact. | 0.930 | 273.080 | 0.930 | |
| MUDSTONE | grey brown, tends to silt, low strength, gradational basal contact. | 0.700 | 273.780 | 0.700 | |
| SILTSTONE | grey, tends to mud, low strength, gradational basal contact. | 0.300 | 274.080 | 0.300 | |
| CARB MUDSTONE | black brown, tends to mud at base, low strength, gradational basal contact. | 0.080 | 274.160 | 0.080 | |
| MUDSTONE | grey brown, carbonaceous at base, tends to carbonaceous mud at top, low strength, sharp basal contact. | 0.100 | 274.260 | 0.100 | |
| SILTSTONE | grey, tends to sand in part throughout, carbonaceous laminae throughout, low strength. | 1.300 | 275.560 | 1.300 | |
| CORE LOSS | | 0.040 | 275.600 | 0.000 | 275.76 D6.00 R5.84 |
| SILTSTONE | grey, tends to sand in part, low strength, gradational basal contact. | 0.220 | 275.820 | 0.220 | |
| SANDSTONE | grey, fine grained, tends to silt, medium strength, gradational basal contact. | 0.140 | 275.960 | 0.140 | |
| SANDSTONE | 50% grey, fine grained, silty laminae throughout, medium strength. | | | | |
| SILTSTONE | 50% dark grey, carbonaceous throughout, low strength. | | | | |
| | thinly interbedded to thickly interbedded, carbonaceous laminae throughout. | 0.750 | 276.710 | 0.750 | |
| SANDSTONE | grey, fine grained, coal laminae at base, medium strength, sharp basal contact. | 0.110 | 276.820 | 0.110 | |
| MUDSTONE | grey brown, low strength, 70 degree slickensided fracture at mid, gradational basal contact. | 0.520 | 277.340 | 0.520 | |
| SANDSTONE | grey, fine grained, silty laminae throughout, medium strength, sharp basal contact. | 0.150 | 277.490 | 0.150 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|-------------------|
| SILTSTONE | dark grey, sandy laminae in part, carbonaceous laminae in part throughout, low strength, gradational basal contact. | 0.270 | 277.760 | 0.270 | |
| MUDSTONE | grey brown, carbonaceous in part, tends to silt in part, low strength, 70 degree slickensided fracture at base, basal parting. | 0.160 | 277.920 | 0.160 | |
| CARB MUDSTONE | black brown, low strength, gradational basal contact. | 0.130 | 278.050 | 0.130 | |
| MUDSTONE | grey brown, low strength, 45 degree slickensided fracture at top, gradational basal contact. | 1.180 | 279.230 | 1.200 | |
| CARB MUDSTONE | black brown, low strength, gradational basal contact. | 0.070 | 279.300 | 0.070 | |
| COAL | Dull minor bright, tends to carbonaceous mud in part, sharp basal contact. | 0.260 | 279.560 | 0.260 | |
| MUDSTONE | grey brown, low strength, 45 degree and 60 degree slickensided fractures at top, gradational basal contact. | 1.320 | 280.880 | 1.320 | |
| SILTSTONE | dark grey, tends to mud in part, tends to sand in part, low strength. | 0.670 | 281.550 | 0.670 | |
| CORE LOSS | | 0.160 | 281.710 | 0.000 | 282.0 D6.24 R6.11 |
| MUDSTONE | grey brown, low strength, sharp basal contact. | 0.100 | 281.810 | 0.100 | |
| SILTSTONE | dark grey, sandy in part throughout, carbonaceous laminae throughout, low strength, gradational basal contact. | 0.290 | 282.100 | 0.290 | |
| SANDSTONE | grey, fine grained, carbonaceous laminae throughout, silty laminae throughout, medium strength, sharp basal contact. | 1.070 | 283.170 | 1.070 | |
| SILTSTONE | dark grey, sandy in part throughout, carbonaceous laminae throughout, low strength, gradational basal contact. | 0.270 | 283.440 | 0.270 | |
| MUDSTONE | grey brown, tends to silt in part, low strength, sharp basal contact. | 0.270 | 283.710 | 0.270 | |
| SILTSTONE | dark grey, tends to sand in part, carbonaceous laminae throughout, low strength, gradational basal contact. | 1.090 | 284.800 | 1.090 | |
| MUDSTONE | grey brown, tends to silt in part, low strength, sharp basal contact. | 0.410 | 285.210 | 0.410 | |
| SILTSTONE | dark grey, tends to sand in part, carbonaceous laminae throughout, low strength, 20 degrees | | | | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| MUDSTONE | stepping fracture. grey brown, tends to silt in part, carbonaceous in part, low strength. | 0.450 | 285.660 | 0.450 | 288.04 D6.04 R6.18 |
| MUDSTONE | grey brown, carbonaceous in part throughout, tends to carbonaceous mud at base, low strength, gradational basal contact. | 2.150 | 287.810 | 2.150 | |
| COAL | Dull minor bright, sharp basal contact. | 0.750 | 288.560 | 0.750 | |
| CARB MUDSTONE | black brown, tends to mud at base, low strength, sharp basal contact. | 0.320 | 288.880 | 0.320 | |
| SILTSTONE | black brown, tends to mud at base, low strength, sharp basal contact. | 0.330 | 289.210 | 0.330 | |
| SANDSTONE | dark grey, carbonaceous throughout, tends to mud in part, low strength, sharp basal contact. | 0.220 | 289.430 | 0.220 | |
| MUDSTONE | grey, fine grained, tends to silt in part, carbonaceous laminae in part throughout, medium strength, sharp basal contact. | 1.520 | 290.950 | 1.520 | |
| MUDSTONE | grey brown, carbonaceous in part throughout, low strength, gradational basal contact. | 0.520 | 291.470 | 0.520 | |
| CARB MUDSTONE | black brown, tends to stony coal, low strength, gradational basal contact. | 0.050 | 291.520 | 0.050 | |
| MUDSTONE | grey brown, carbonaceous in part, low strength, gradational basal contact. | 0.400 | 291.920 | 0.400 | |
| COAL | Dull banded, face cleat, average spacing 2mm, penetrating 40% of unit, 10% carbonate filled, dips 90 degrees, butt cleat, average spacing 4mm, penetrating 40% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.045 | 291.965 | 0.045 | Top of MEL2ED1373 |
| COAL | Dull, face cleat, average spacing 12mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, no visible butt cleat. | 0.150 | 292.115 | 0.150 | |
| CARB MUDSTONE | black brown, low strength, 1 fracture, sharp basal contact. | 0.080 | 292.195 | 0.080 | |
| COAL | Dull, face cleat, average spacing 12mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 15mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 70 degrees to face cleat. | 0.090 | 292.285 | 0.090 | |
| COAL | Stony, no visible cleat or fractures. | 0.040 | 292.325 | 0.040 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| COAL | Dull, tending to stony coal at base, fractured throughout, face cleat, average spacing 15mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 70 degrees to face cleat. | | | | Base of MEL2ED1373 |
| COAL | Dull, badly broken, face cleat, average spacing 15mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat, fracture set 1, average spacing 200mm, penetrating 100% of unit, no visible mineralisation, dips 80 degrees with azimuth 45 degrees to face cleat. | 0.405 | 292.730 | 0.405 | Top of MEL2ED1351 |
| COAL | Dull minor bright, badly broken, face cleat, average spacing 3mm, penetrating 5% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 5mm, penetrating 5% of unit, no visible mineralisation, dips 90 degrees with azimuth 70 degrees to face cleat, fracture set 1, average spacing 200mm, penetrating 100% of unit, no visible mineralisation, dips 80 degrees with azimuth 70 degrees to face cleat. | 0.315 | 293.045 | 0.315 | |
| COAL | Dull, pyritic inclusions throughout cleats and fracture, badly broken, face cleat, average spacing 15mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat, fracture set 1, average spacing 200mm, penetrating 100% of unit, no visible mineralisation, dips 80 degrees with azimuth 45 degrees to face cleat. | 0.045 | 293.090 | 0.045 | |
| CARB MUDSTONE | black brown, low strength, sharp basal contact. | 0.140 | 293.230 | 0.140 | |
| COAL | Dull minor bright, face cleat, average spacing 2mm, penetrating 5% of unit, no visible mineralisation, dips 90 degrees, butt cleat, | 0.025 | 293.255 | 0.025 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| CARB MUDSTONE | average spacing 8mm, penetrating 5% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.215 | 293.470 | 0.215 | |
| COAL | black brown, medium strength. | 0.050 | 293.520 | 0.050 | Base of MEL2ED1351 |
| CARB MUDSTONE | Dull minor bright, no visible cleat or fractures. | 0.100 | 293.620 | 0.100 | |
| CARB MUDSTONE | black brown, low strength. | 0.100 | 293.720 | 0.100 | 294.15 D6.11 R5.97 |
| CARB MUDSTONE | black brown, low strength, gradational basal contact. | 0.440 | 294.160 | 0.440 | |
| MUDSTONE | grey brown, carbonaceous in part, low strength, 60 degree slickensided fracture at base, gradational basal contact. | 1.130 | 295.290 | 1.130 | |
| SILTSTONE | dark grey, sandy laminae throughout, tends to mud, carbonaceous throughout, low strength, sharp basal contact. | 1.400 | 296.690 | 1.400 | |
| SANDSTONE | light grey, fine to medium grained, carbonaceous laminae throughout, high strength. | 3.110 | 299.800 | 3.150 | 300.16 D6.01 R6.10 |
| SANDSTONE | grey, fine to medium grained, carbonaceous laminae throughout, tends to silt in part, high strength, sharp basal contact. | 0.150 | 299.950 | 0.150 | |
| SILTSTONE | dark grey, carbonaceous throughout, sandy laminae throughout, low strength, sharp basal contact. | 0.750 | 300.700 | 0.750 | |
| SANDSTONE | grey, medium grained, carbonaceous laminae in part throughout, high strength, sharp basal contact. | 1.350 | 302.050 | 1.350 | |
| SILTSTONE | dark grey, carbonaceous throughout, sandy laminae throughout, low strength, sharp basal contact. | 1.250 | 303.300 | 1.250 | |
| SANDSTONE | grey, fine to medium grained, carbonaceous laminae throughout, coal laminae in part, high strength, sharp basal contact. | 0.420 | 303.720 | 0.420 | |
| SILTSTONE | dark grey, carbonaceous throughout, sandy laminae throughout, low strength, sharp basal contact. | 0.800 | 304.520 | 0.800 | |
| CARB MUDSTONE | black brown, low strength, fissile, sharp basal contact. | 0.090 | 304.610 | 0.090 | Top of MEL2ED1401 |
| COAL | Dull, face cleat, average spacing 18mm, penetrating 100% of unit, no visible | | | | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| COAL | mineralisation, dips 90 degrees, butt cleat, average spacing 30mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.190 | 304.800 | 0.190 | |
| COAL | Dull minor bright, face cleat, average spacing 2mm, penetrating 10% of unit, no visible mineralisation, dips 90 degrees, secondary face cleat, average spacing 15mm, penetrating 90% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 6mm, penetrating 10% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.125 | 304.925 | 0.125 | |
| CARB MUDSTONE | Dull, face cleat, average spacing 10mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 70 degrees to face cleat. | 0.100 | 305.025 | 0.100 | |
| COAL | black brown, low strength, sharp basal contact. | 0.030 | 305.055 | 0.030 | |
| CARB MUDSTONE | Dull, no visible cleat, fracture set 1, average spacing 200mm, penetrating 100% of unit, no visible mineralisation, dips 70 degrees. | 0.145 | 305.200 | 0.145 | |
| COAL | black brown, low strength, gradational basal contact. | 0.180 | 305.380 | 0.180 | |
| MUDSTONE | Dull minor bright, sharp basal contact, no visible cleat or fractures. | 0.050 | 305.430 | 0.050 | |
| MUDSTONE | grey brown, carbonaceous in part, low strength. | 0.420 | 305.850 | 0.420 | 306.17 D6.01 R6.05 |
| SILTSTONE | grey brown, tends to silt in part, low strength, gradational basal contact. | 0.800 | 306.650 | 0.800 | |
| SANDSTONE | dark grey, carbonaceous throughout, tends to mud in part, low strength, sharp basal contact. | 3.050 | 309.700 | 3.100 | |
| SANDSTONE | grey, fine grained, tends to silt in part, medium strength, sharp basal contact. | 0.100 | 309.800 | 0.100 | |
| MUDSTONE | grey, fine to medium grained, tends to silt in part, medium strength, sharp basal contact. | 0.200 | 310.000 | 0.200 | |
| | grey brown, tends to silt in part, carbonaceous at base, low strength, 2 fractures, healed 45 degree fractures . | 1.180 | 311.180 | 1.180 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| CARB MUDSTONE | black brown, coal laminae in part, low strength, gradational basal contact. | 0.100 | 311.280 | 0.100 | |
| COAL | Dull, sharp basal contact, no visible cleat or fractures. | 0.220 | 311.500 | 0.220 | |
| SILTSTONE | dark brown, carbonaceous throughout, sandy laminae in part throughout, low strength. | 0.360 | 311.860 | 0.360 | |
| CORE LOSS | | 0.100 | 311.960 | 0.000 | |
| SANDSTONE | grey, fine grained, carbonaceous laminae in part throughout, high strength, gradational basal contact. | 1.000 | 312.960 | 1.000 | |
| SANDSTONE | grey, medium grained, silty laminae in part throughout, high strength, gradational basal contact. | 1.310 | 314.270 | 1.310 | |
| SANDSTONE | 60% grey, fine to medium grained, carbonaceous laminae in part throughout, high strength. | | | | |
| SILTSTONE | 40% dark grey, carbonaceous in part throughout, sandy laminae throughout, low strength. thinly interbedded to thickly interbedded, gradational basal contact. | | | | |
| SANDSTONE | grey, fine to medium grained, carbonaceous laminae in part throughout, high strength, sharp basal contact. | 1.620 | 315.890 | 1.620 | |
| SILTSTONE | dark grey, carbonaceous in part throughout, sandy laminae in part throughout, low strength, 45 degree stepped and slickensided fracture, basal parting. | 0.230 | 316.120 | 0.230 | |
| MUDSTONE | grey brown, carbonaceous in part, low strength, gradational basal contact. | 1.430 | 317.550 | 1.430 | |
| CARB MUDSTONE | black brown, low strength. | 0.370 | 317.920 | 0.370 | |
| COAL | Dull, sharp basal contact, no visible cleat or fractures. | 0.280 | 318.200 | 0.280 | 318.41 D6.18 R6.24 |
| MUDSTONE | dark grey, low strength, sharp basal contact. | 0.130 | 318.330 | 0.130 | |
| CORE LOSS | | 1.530 | 319.860 | 1.530 | |
| COAL | Dull, sharp basal contact, no visible cleat or fractures. | 0.070 | 319.930 | 0.000 | |
| COAL | Dull, sharp basal contact, no visible cleat or fractures. | 0.080 | 320.010 | 0.080 | |
| | Dull, face cleat, average spacing 10mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 25mm, penetrating 100% of unit, | | | | Top of MEL2ED1340 |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|---|-------------|------------|-----------|--------------------|
| COAL | no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.150 | 320.160 | 0.150 | |
| COAL | Dull minor bright, face cleat, average spacing 1mm, penetrating 10% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 3mm, penetrating 10% of unit, no visible mineralisation, dips 90 degrees with azimuth 70 degrees to face cleat. | 0.070 | 320.230 | 0.070 | |
| COAL | Dull banded, face cleat, average spacing 2mm, penetrating 20% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 8mm, penetrating 20% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat, fracture set 1, average spacing 200mm, penetrating 100% of unit, no visible mineralisation, dips 80 degrees with azimuth 70 degrees to face cleat. | 0.160 | 320.390 | 0.160 | |
| COAL | Stony, tuffaceous laminae at middle, no visible cleat or fractures. | 0.100 | 320.490 | 0.100 | |
| COAL | Dull, tending to stony coal at base, face cleat, average spacing 5mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 20mm, penetrating 100% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | | | | Base of MEL2ED1340 |
| SANDSTONE | grey, fine to medium grained, silty, medium strength, sharp basal contact. | 0.320 | 320.810 | 0.320 | |
| CARB MUDSTONE | black brown, low strength, fissile, sharp basal contact. | 1.360 | 322.170 | 1.360 | Top of MEL2ED1419 |
| COAL | Dull, tending to stony coal at top, face cleat, average spacing 30mm, penetrating 90% of unit, 10% carbonate filled, dips 90 degrees, no visible butt cleat. | 0.010 | 322.180 | 0.010 | |
| COAL | Stony, no visible cleat or fractures. | 0.205 | 322.385 | 0.205 | |
| COAL | Dull minor bright, face cleat, average spacing 2mm, penetrating 10% of unit, no visible mineralisation, dips 90 degrees, secondary face cleat, average spacing 2mm, penetrating 10% of unit, no visible mineralisation, dips 90 | 0.035 | 322.420 | 0.035 | |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|-------------|------------|-----------|--------------------|
| COAL | degrees, butt cleat, average spacing 8mm, penetrating 10% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | 0.130 | 322.550 | 0.130 | |
| | Dull and bright, slickensided at base, face cleat, average spacing 1mm, penetrating 50% of unit, no visible mineralisation, dips 90 degrees, secondary face cleat, average spacing 2mm, penetrating 50% of unit, no visible mineralisation, dips 90 degrees, butt cleat, average spacing 8mm, penetrating 50% of unit, no visible mineralisation, dips 90 degrees with azimuth 80 degrees to face cleat. | | | | Base of MEL2ED1419 |
| MUDSTONE | dark grey, low strength, sharp basal contact. | 0.230 | 322.780 | 0.230 | |
| CARB MUDSTONE | black brown, tends to stony coal, low strength, sharp basal contact. | 0.130 | 322.910 | 0.130 | |
| SILTSTONE | dark grey, low strength. | 0.150 | 323.060 | 0.150 | |
| SILTSTONE | dark grey, low strength, sharp basal contact. | 1.320 | 324.380 | 1.340 | 324.58 D6.17 R6.13 |
| CARB MUDSTONE | black brown, occasional coal laminae, low strength, sharp basal contact. | 0.670 | 325.050 | 0.670 | |
| COAL | Dull minor bright, sharp basal contact. | 0.100 | 325.150 | 0.100 | |
| CARB MUDSTONE | black brown, tuffaceous bands throughout, low strength, sharp basal contact. | 0.340 | 325.490 | 0.340 | |
| SILTSTONE | dark grey, occasional coal laminae, medium strength. | 0.120 | 325.610 | 0.120 | |
| SILTSTONE | dark grey, occasional coal laminae, medium strength, gradational basal contact. | 4.360 | 329.970 | 4.360 | 330.17 D5.59 R5.59 |
| SANDSTONE | grey, fine to medium grained, silty in part, medium strength. | 2.450 | 332.420 | 2.450 | |
| CORE LOSS | | 3.640 | 336.060 | 3.640 | |
| SANDSTONE | grey, fine to medium grained, silty, medium strength, gradational basal contact. | 0.090 | 336.150 | 0.000 | 336.35 D6.18 R6.07 |
| SILTSTONE | dark grey, muddy, low strength. | 3.090 | 339.240 | 3.090 | |
| SANDSTONE | dark grey, sandy, carbonaceous bands at middle, medium strength. | 2.950 | 342.190 | 2.950 | 342.39 D6.04 R6.04 |
| SANDSTONE | grey, fine to medium grained, silty at top, medium strength. | 5.870 | 348.060 | 5.870 | 348.37 D5.98 R5.87 |
| SANDSTONE | light grey, medium to coarse grained, occasional coal wisps, pebbly bands at middle, medium | 6.110 | 354.170 | 6.110 | 354.48 D6.11 R6.11 |

| GEOLOGICAL DESCRIPTION OF STRATA | | EST' THICK. | EST. DEPTH | RECOVERED | REMARKS |
|----------------------------------|--|----------------|--------------------|----------------|----------------------------|
| SILTSTONE | strength, sharp basal contact. grey, medium strength. | 4.730 1.240 | 358.900 360.140 | 4.730 1.240 | 360.40 D5.92 R5.97 |
| SANDSTONE | grey, fine to medium grained, occasional sideritic bands, medium strength. | 5.860 | 366.000 | 5.860 | 366.29 D5.89 R5.86 |
| SANDSTONE | grey, medium to coarse grained, medium strength. | 6.180 | 372.180 | 6.180 | 372.47 D6.18 R6.18 |
| SANDSTONE | grey, medium to coarse grained, silty bands throughout, medium strength. | 6.200 | 378.380 | 6.200 | 378.47 D6.00 R6.20 |
| SANDSTONE | grey, medium to coarse grained, occasional silty bands, medium strength. | 6.140 | 384.520 | 6.140 | 384.47 D6.00 R6.14 T.D. |

Definition of Geological Terms

| Weathering | |
|----------------------|--|
| Soil | Rock has been totally degraded to a soil in which no evidence of the original rock fabric is preserved. |
| Completely Weathered | Rock has been weathered to the point where it exhibits only soil properties (disintegrates in water or with light handling). Original fabric is mainly preserved. Coal has weathered to a powdery or clayey soot. Colour ranges from black to medium brown with further deterioration. |
| Highly Weathered | Rock strength and competence has been clearly reduced, such that pieces are either friable or able to be broken across the rock fabric. Discolouring is evident, usually by oxide staining. Coal shows some original fabric (cleats, bands, etc.) but is friable between fingers and disintegrates in water. |
| Moderately Weathered | Rock has undergone prominent changes in colour, lustre, and strength. However, the material is not friable and cannot be broken by hand across the fabric. Coal may appear dustier or cause smudging to fingers when moist. |
| Slightly Weathered | Rock shows slight change of colour and lustre, but usually has little reduction in strength when compared with fresh material. Coal may show discolouration. |
| Fresh | Rock or coal shows no sign of decomposition. |

Note: Rock is fresh unless stated otherwise.

| Strength | |
|-------------------------|--|
| Extremely Low Strength | May be broken in hand with difficulty, Crumbles under firm blows with hammer. |
| Very Low Strength | May be peeled with pocketknife. Drill cuttings often destroyed by drilling. |
| Low Strength | Deep indentations made with pick. May be peeled with difficulty with pocketknife. Cuttings easily broken with fingers. |
| Medium Strength | Fractures with moderate blow of hammer. Cannot be peeled with pocketknife. Pick indents to 5mm. Cuttings require mild effort to break between fingers. |
| High Strength | Fractures with full blow of hammer. Cuttings require maximum effort to break between fingers. |
| Very High Strength | Requires several hammer blows to break. Cuttings not breakable with fingers. |
| Extremely High Strength | Maximum effort necessary to chip rock. Drill return likely to be fine grains or paste. |

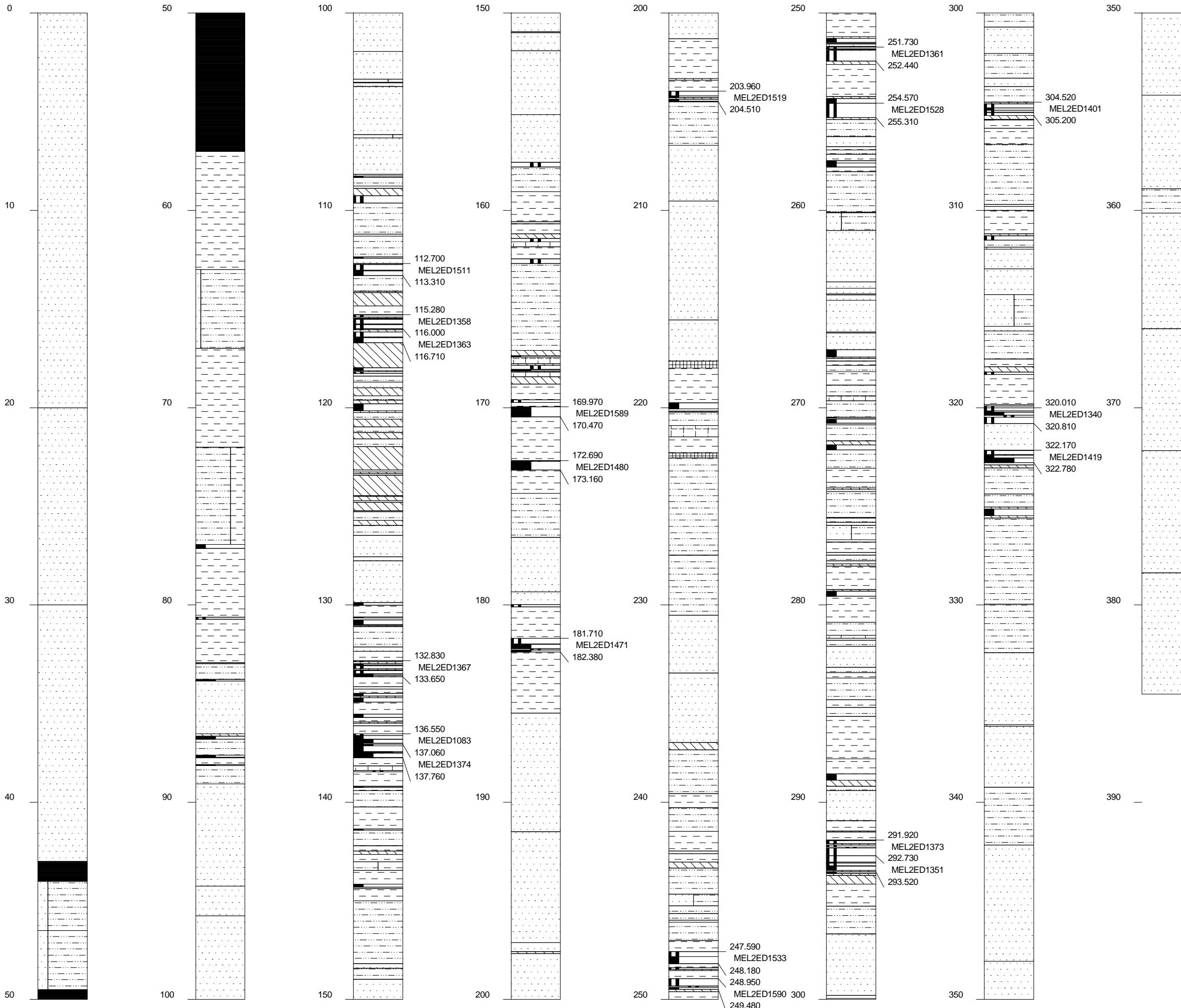
| Grain Size | | | | |
|-------------------|-------------|---------------|--------------|--|
| Lithology | Description | Smallest (mm) | Largest (mm) | Comments |
| Conglomerate | Boulder | 256 | | |
| | Cobble | 64 | 256 | |
| | Pebble | 4 | 64 | |
| | Granule | 2 | 4 | |
| Sandstone | Very Coarse | 1 | 2 | |
| | Coarse | 0.5 | 1 | |
| | Medium | 0.25 | 0.5 | |
| | Fine | 0.125 | 0.25 | |
| | Very Fine | 0.0625 | 0.125 | Particles visible |
| Siltstone | | 0.0039 | 0.0625 | Particles not visible, distinguishable by scraping |
| Mudstone | | | 0.0039 | Impossible to feel particles when scraping |

| Bedding | |
|---------------------|--------------|
| Very thickly bedded | >2.0m |
| Thickly bedded | 0.60 - 2.0m |
| Medium bedded | 0.20 - 0.60m |
| Thinly bedded | 0.06 - 0.20m |
| Very thinly bedded | 0.02 - 0.06m |
| Thickly laminated | 6mm - 2cm |
| Thinly laminated | <6mm |

| Coal Brightness | | |
|------------------------|--------------|---------------|
| Coal lithotype | Abbreviation | % Bright Coal |
| Bright | B | >90 |
| Bright banded | Bb | 60 to 90 |
| Dull and bright | DB | 40 to 60 |
| Dull banded | Db | 10 to 40 |
| Dull minor bright | Dmb | 1 to 10 |
| Dull | D | <1 |

LEGEND

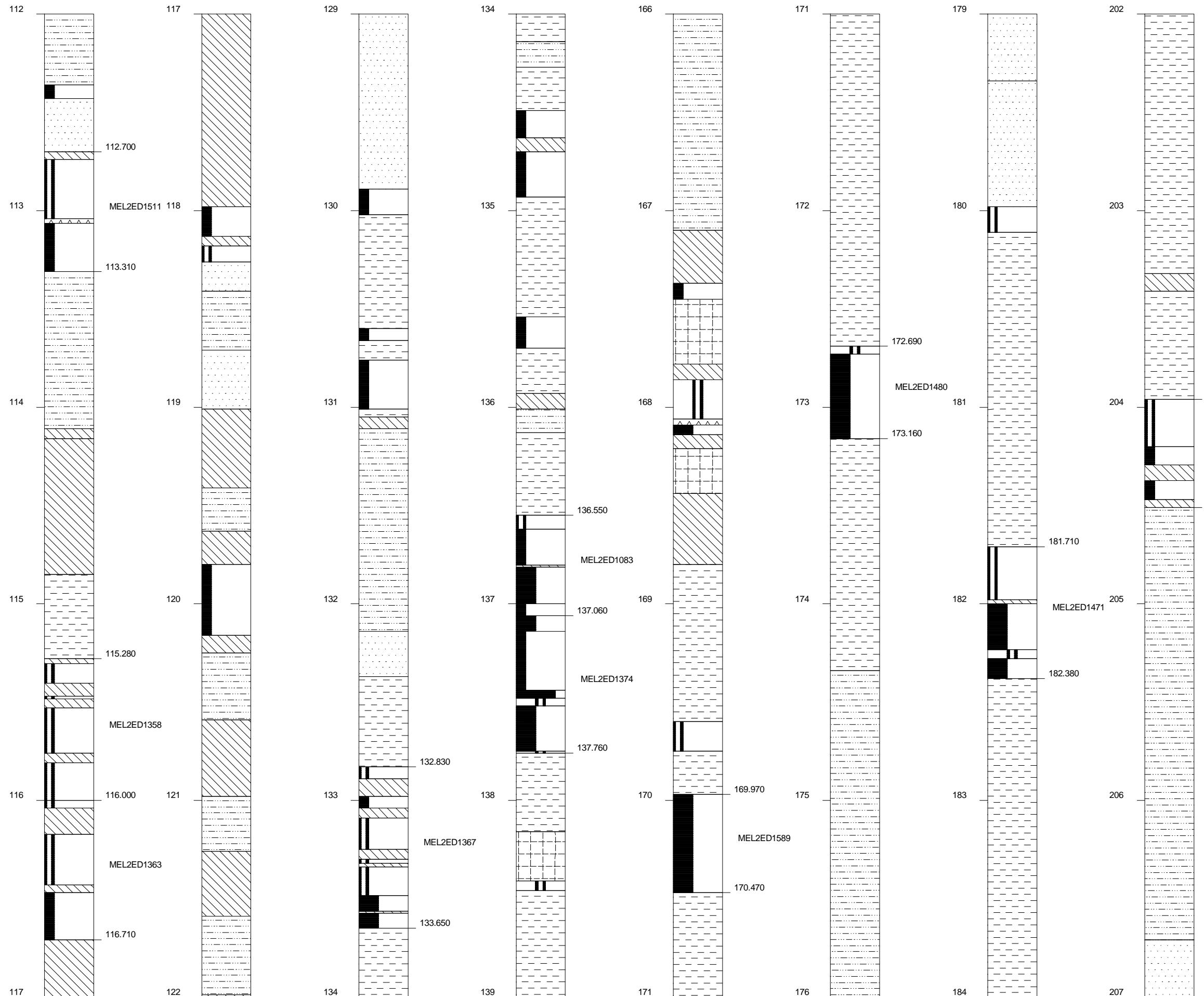
| | |
|--------|------------------------|
| | SANDSTONE |
| ██████ | COAL Undifferentiated |
| ---- | MUDSTONE |
| | SILTSTONE |
| ███ | COAL Dull minor bright |
| ███ | COAL Dull |
| ██████ | CORE LOSS |
| ██████ | COAL Dull banded |
| ██████ | CARB MUDSTONE |
| ██████ | TUFF |
| ██████ | COAL Bright banded |
| ██████ | COAL Stony |
| ██████ | SIDERITE |
| ██████ | COAL Dull and bright |



| | |
|---------------------------|---------------|
| BOREHOLE NO: | |
| PROJECT | |
| Origin Energy Meeleebee 2 | |
| DATE DRILLED | February 2009 |
| LOGGED BY: | Alex Necovsli |
| SCALE: | As shown |
| PLAN NO: | 1 |

LEGEND

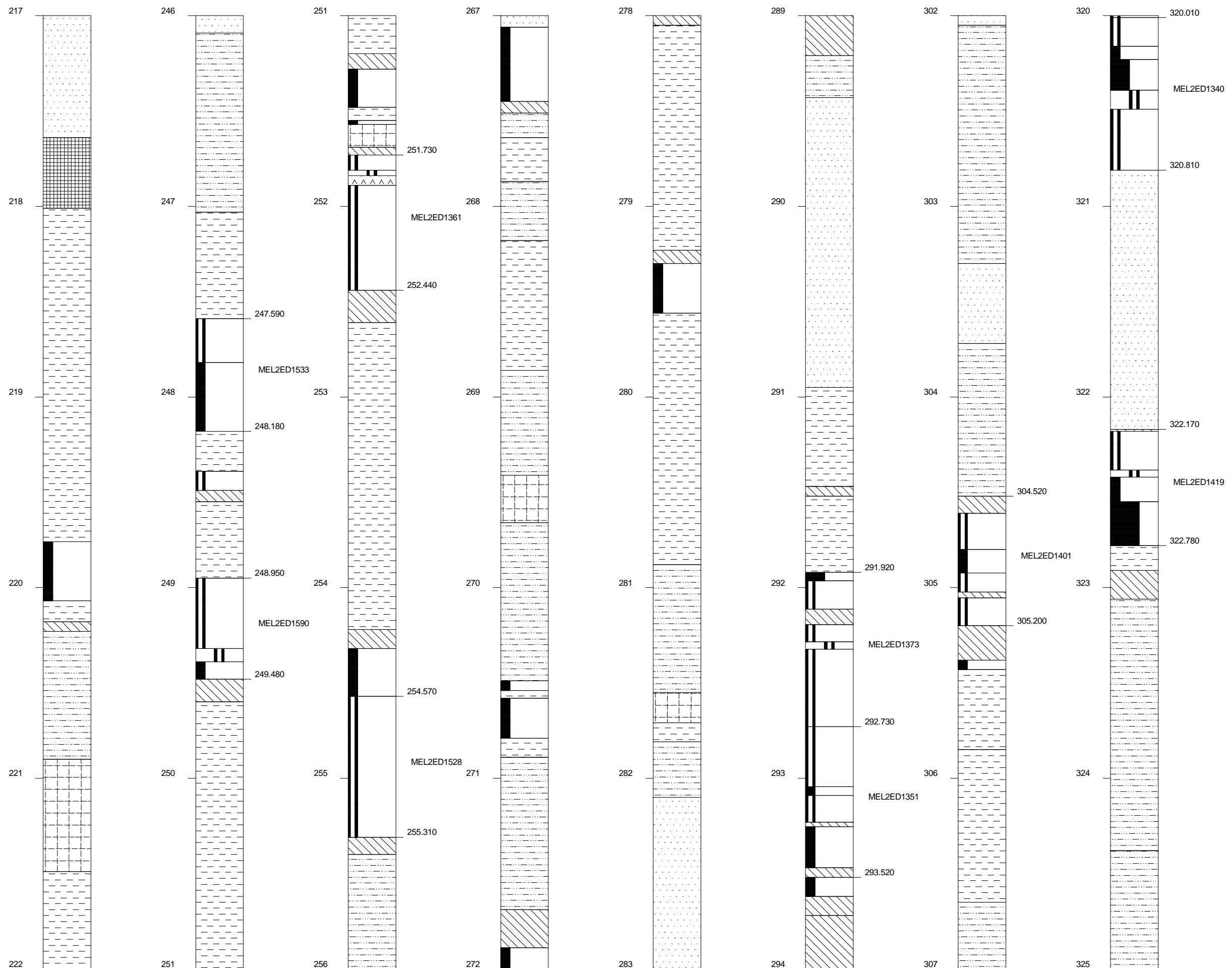
| | |
|--------------------------|------------------------|
| [SILTSTONE] | SILTSTONE |
| [COAL Dull minor bright] | COAL Dull minor bright |
| [SANDSTONE] | SANDSTONE |
| [CARB MUDSTONE] | CARB MUDSTONE |
| [COAL Dull] | COAL Dull |
| [TUFF] | TUFF |
| [MUDSTONE] | MUDSTONE |
| [COAL Dull banded] | COAL Dull banded |
| [COAL Bright banded] | COAL Bright banded |
| [COAL Stony] | COAL Stony |
| [CORE LOSS] | CORE LOSS |



| | |
|---------------------------|---------------|
| BOREHOLE NO: | |
| PROJECT | |
| Origin Energy Meeleebee 2 | |
| DATE DRILLED | February 2009 |
| LOGGED BY: | Alex Necovsli |
| SCALE: | As shown |
| PLAN NO: | 2 |

LEGEND

| | |
|-------------------|------------------------|
| [Dotted Pattern] | SANDSTONE |
| [Cross-hatch] | SIDERITE |
| [Dashed Pattern] | MUDSTONE |
| [Solid Black] | COAL Dull minor bright |
| [Hatched Pattern] | CARB MUDSTONE |
| [Dotted Pattern] | SILTSTONE |
| [Cross-hatch] | CORE LOSS |
| [Solid Black] | COAL Dull |
| [Hatched Pattern] | COAL Stony |
| [Cross-hatch] | TUFF |
| [Solid Black] | COAL Dull banded |
| [Solid Black] | COAL Dull and bright |



| | |
|---------------------------|---------------|
| BOREHOLE NO: | |
| PROJECT | |
| Origin Energy Meeleebee 2 | |
| DATE DRILLED | February 2009 |
| LOGGED BY: | Alex Necovsli |
| SCALE: | As shown |
| PLAN NO: | 3 |



No Box 3











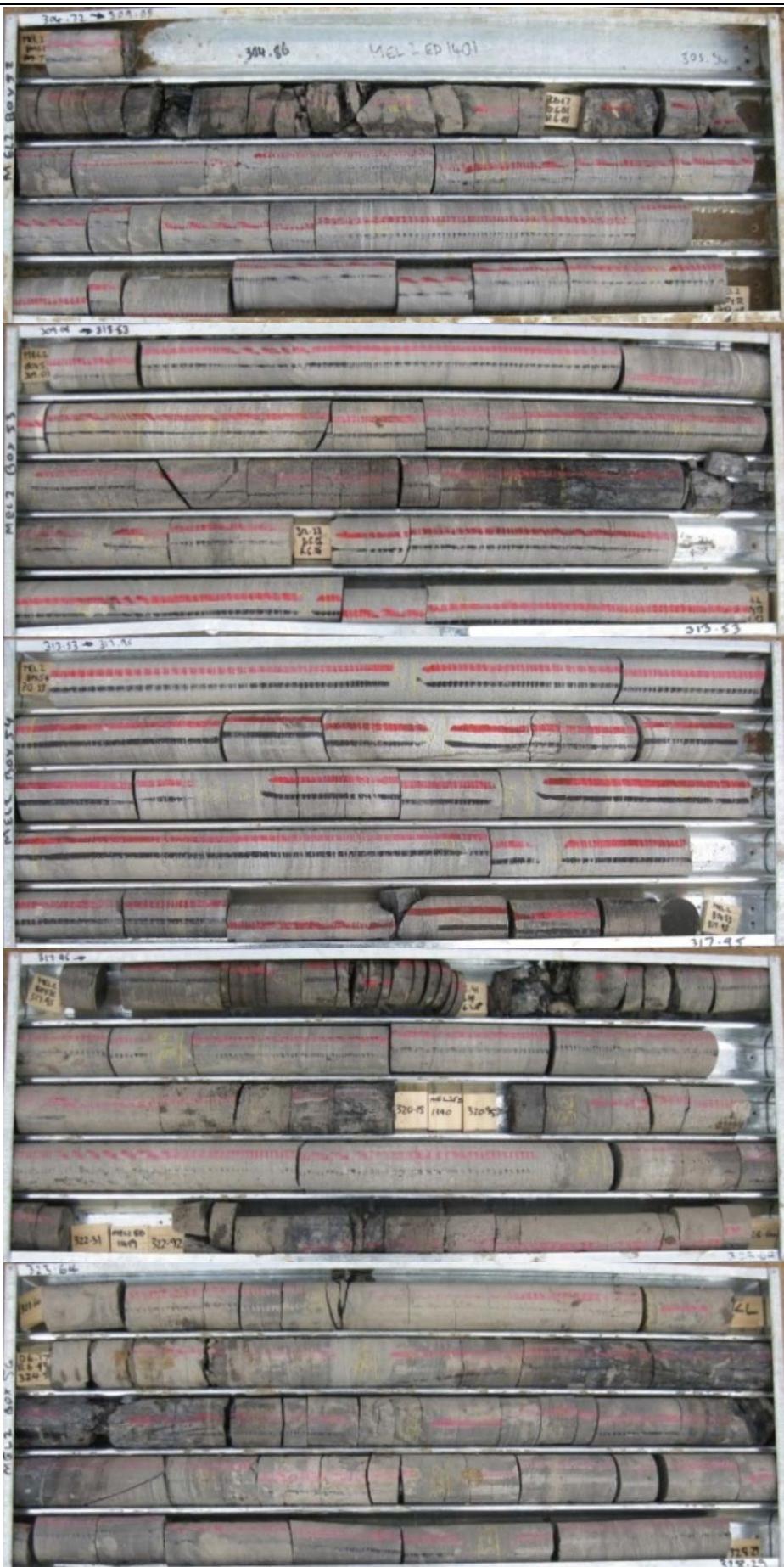




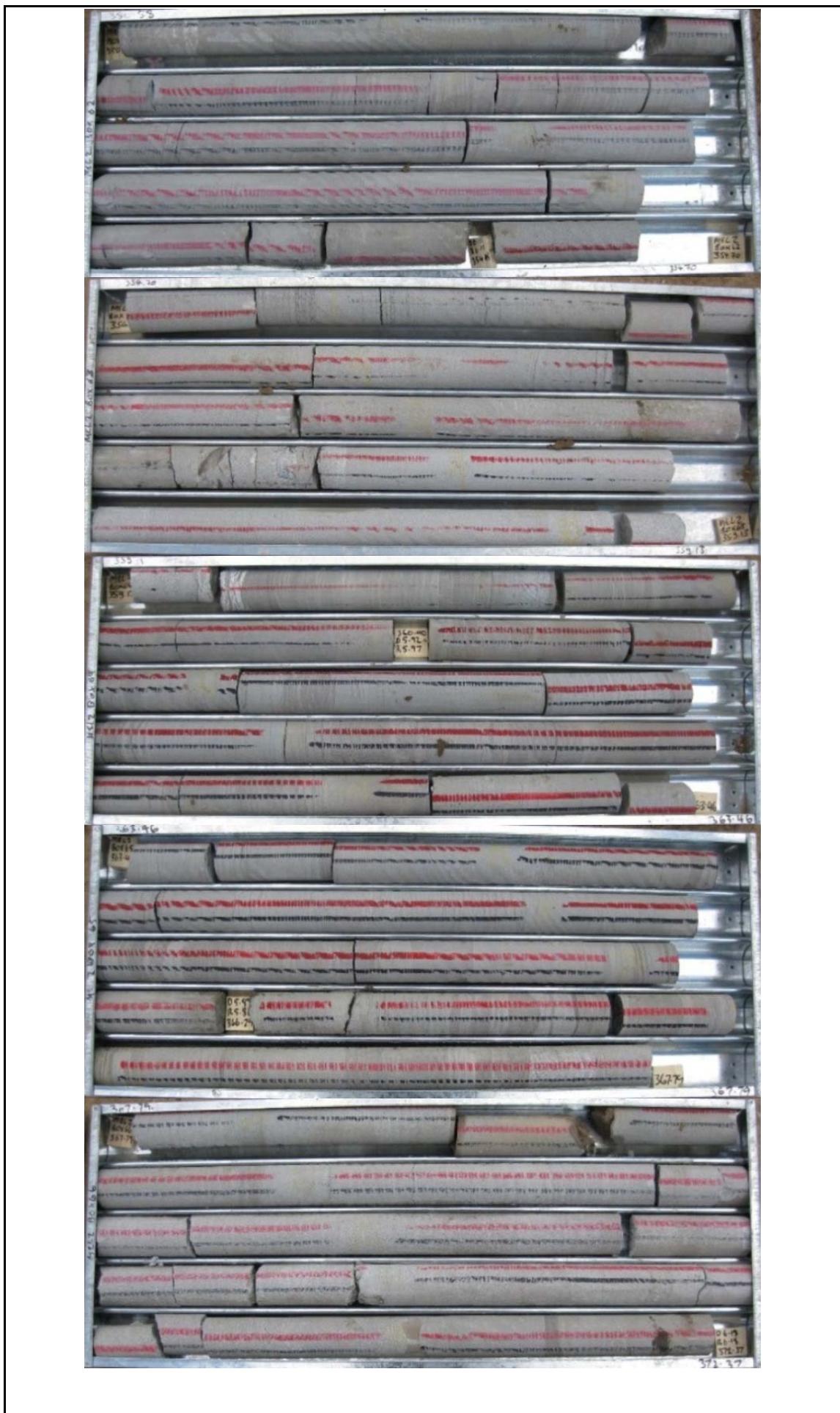


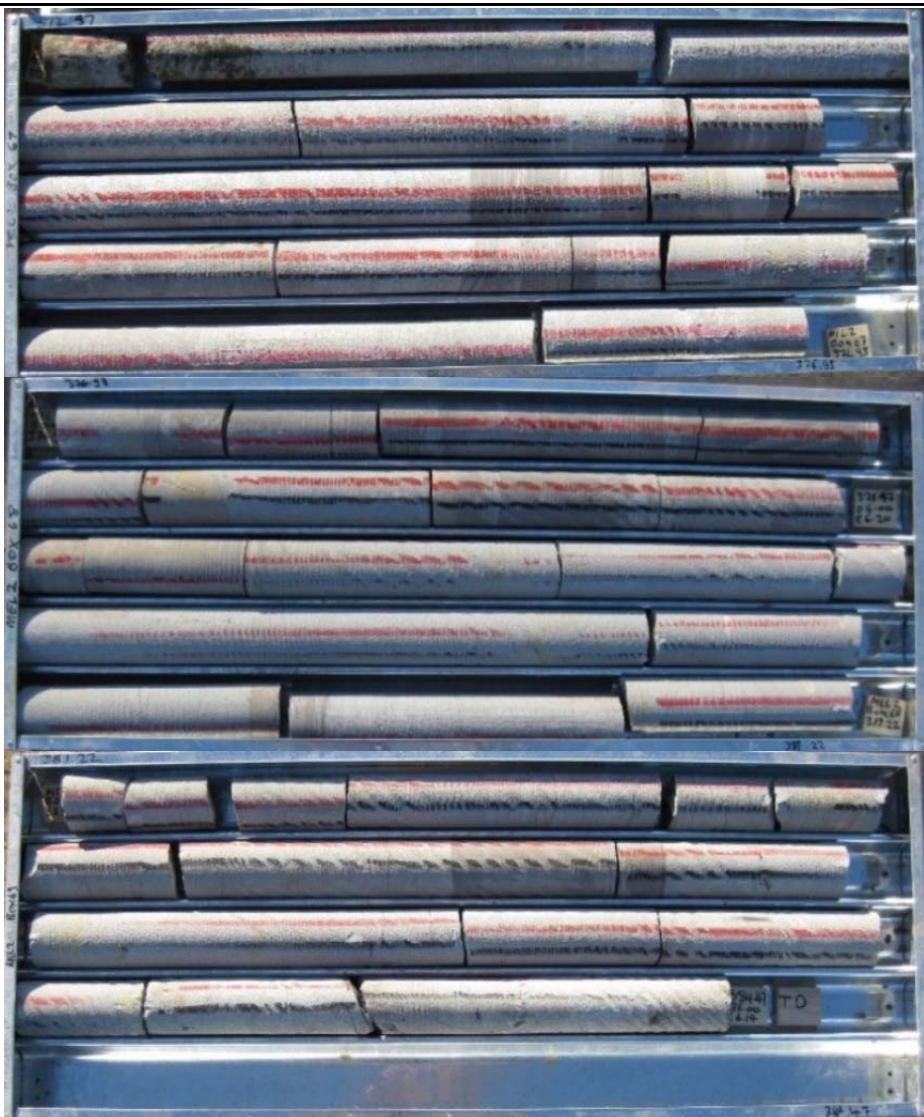


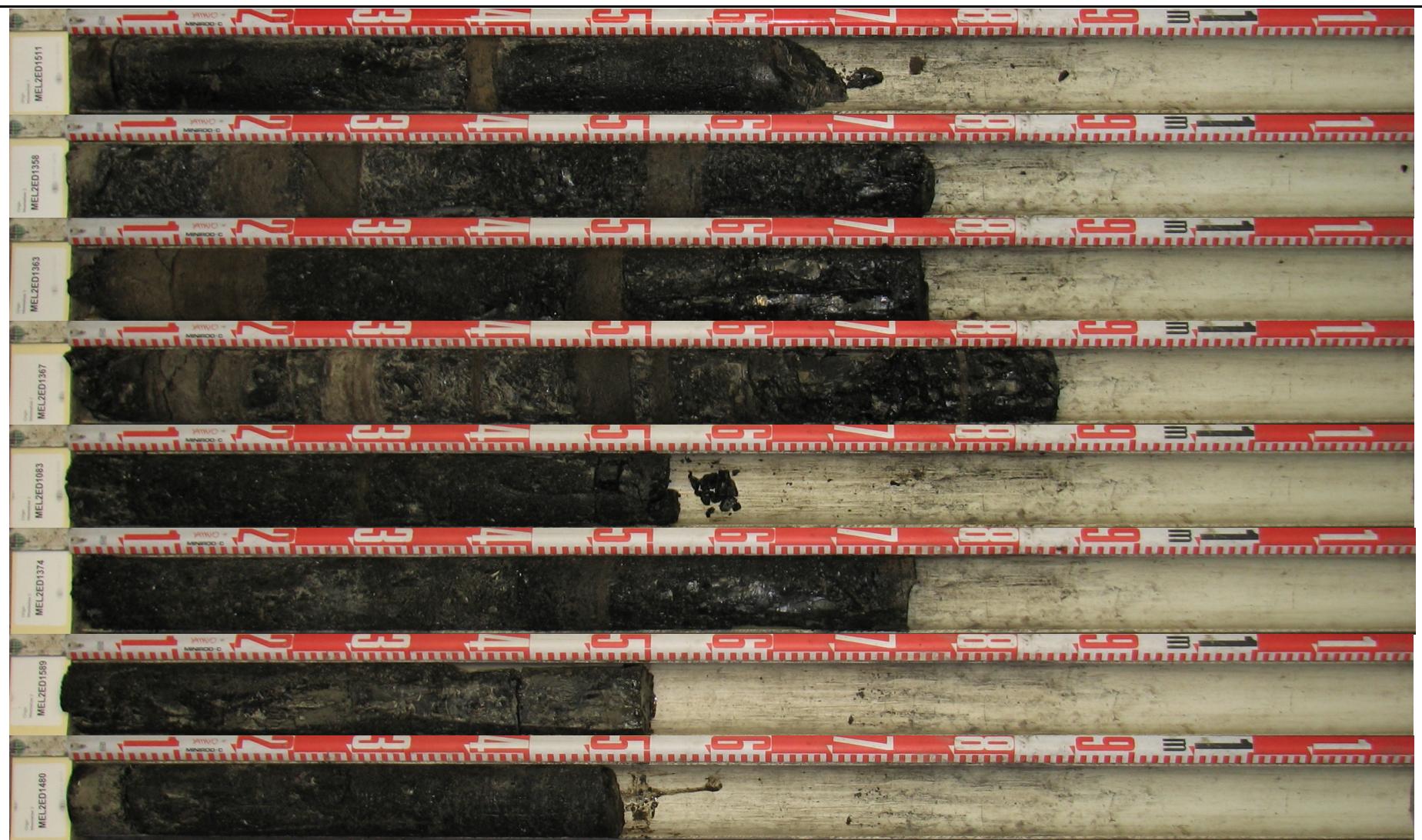


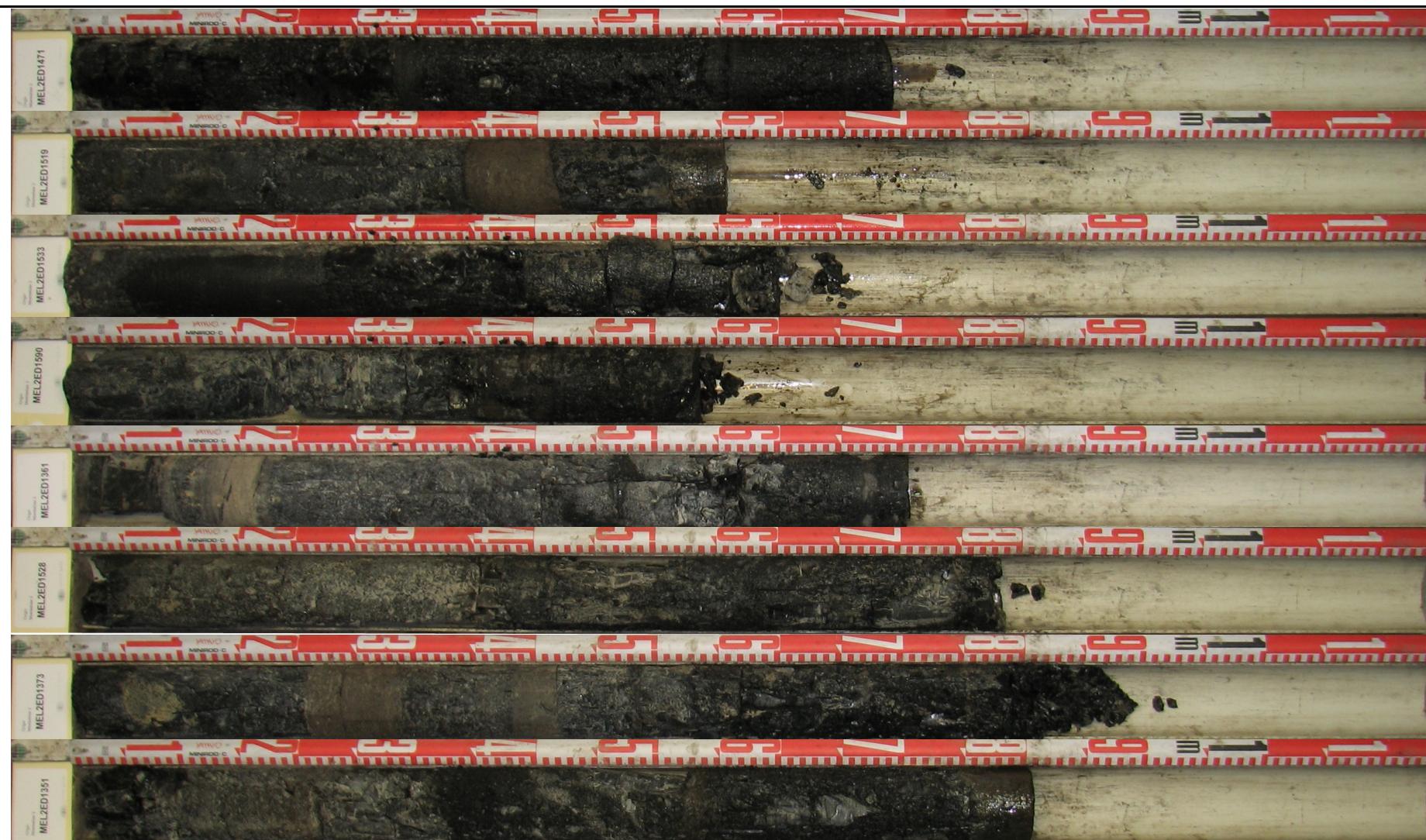


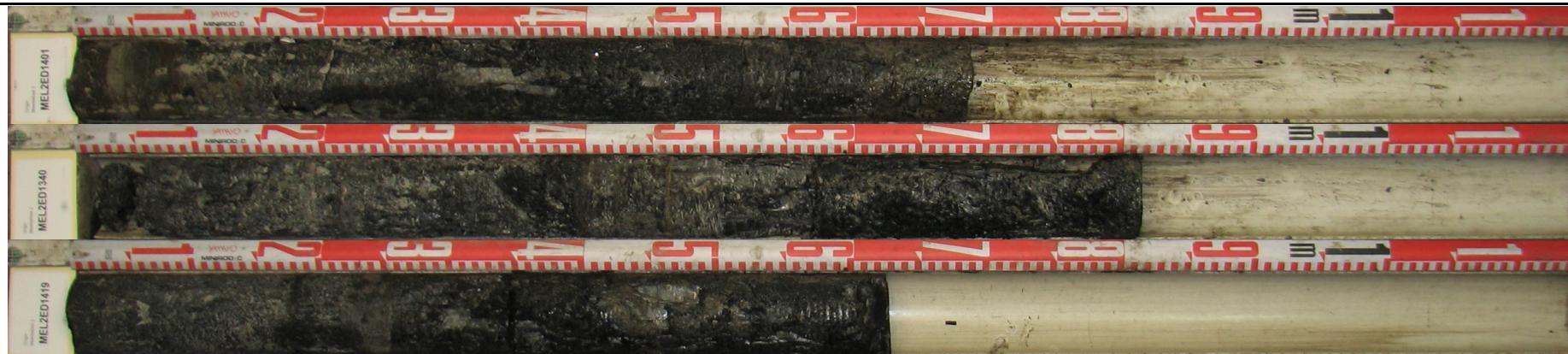












Appendix III

Coal Analyses



REPORT TO: EARTHDATA PTY LTD

REPORT ON: ORIGIN GAS RESIDUAL HOLE MEL2

REPORT NO: 20007522

DATE REPORTED: 21/10/09

A handwritten signature in black ink, appearing to read "N. Stanning".

N. Stanning
Graduate Trainee
Maitland Laboratory

ANALYSIS AND TESTING REPORT

EARTHDATA PTY LTD

| | | | |
|-----------------------------|---|---|---|
| Sample Details | Sample: MEL2ED151 1 Hole: MEL2 From: 112.720 m To: 113.330 m Mass: 0.49 kg | Sample: MEL2ED135 8 Hole: MEL2 From: 115.000 m To: 115.790 m Mass: 0.59 kg | Sample: MEL2ED136 3 Hole: MEL2 From: 115.790 m To: 116.480 m Mass: 0.66 kg |
| Relative Density | 1.36 | 1.46 | 1.47 |
| PROXIMATE ANALYSIS | | | |
| Air Dried Moisture % | 7.3 | 5.9 | 6.8 |
| Ash % | 15.7 | 28.9 | 29.1 |
| Volatile Matter % | 41.1 | 37.8 | 36.7 |
| Fixed Carbon % | 35.9 | 27.5 | 27.4 |

All results reported to air dried basis

| | | | |
|-----------------------------------|---|---|---|
| Sample Details | Sample: MEL2ED136 7 Hole: MEL2 From: 132.990 m To: 133.810 m Mass: 0.67 kg | Sample: MEL2ED108 3 Hole: MEL2 From: 136.710 m To: 137.220 m Mass: 0.33 kg | Sample: MEL2ED137 4 Hole: MEL2 From: 137.220 m To: 137.920 m Mass: 0.49 kg |
| Relative Density | 1.57 | 1.35 | 1.33 |
| PROXIMATE ANALYSIS | | | |
| Air Dried Moisture % | 7.1 | 6.4 | 6.7 |
| Ash % | 37.9 | 15.4 | 11.2 |
| Volatile Matter % | 30.7 | 42.9 | 45.3 |
| Fixed Carbon % | 24.3 | 35.3 | 36.9 |
| ULTIMATE ANALYSIS (d.a.f.) | | | |
| Carbon % | | 79.6 | |
| Hydrogen % | | 6.59 | |
| Nitrogen % | | 1.04 | |
| Sulfur % | | 0.37 | |
| Oxygen % | | 12.4 | |
| Total Sulfur % | | 0.29 | |

All results reported to air dried basis unless noted

d.a.f. = dry ash free basis

ANALYSIS AND TESTING REPORT

EARTHDATA PTY LTD

| | | | |
|-----------------------------|---|---|---|
| Sample Details | Sample: MEL2ED158 9 Hole: MEL2 From: 169.830 m To: 170.330 m Mass: 0.37 kg | Sample: MEL2ED148 0 Hole: MEL2 From: 172.590 m To: 173.060 m Mass: 0.39 kg | Sample: MEL2ED147 1 Hole: MEL2 From: 181.860 m To: 182.530 m Mass: 0.60 kg |
| Relative Density | 1.28 | 1.35 | 1.39 |
| PROXIMATE ANALYSIS | | | |
| Air Dried Moisture % | 7.1 | 8.9 | 6.2 |
| Ash % | 6.2 | 12.4 | 20.0 |
| Volatile Matter % | 45.3 | 40.2 | 40.0 |
| Fixed Carbon % | 41.5 | 38.5 | 33.8 |

All results reported to air dried basis

| | | | |
|-----------------------------|---|---|---|
| Sample Details | Sample: MEL2ED151 9 Hole: MEL2 From: 204.140 m To: 204.700 m Mass: 0.46 kg | Sample: MEL2ED153 3 Hole: MEL2 From: 247.640 m To: 248.230 m Mass: 0.45 kg | Sample: MEL2ED159 0 Hole: MEL2 From: 248.980 m To: 249.510 m Mass: 0.33 kg |
| Relative Density | 1.43 | 1.26 | 1.29 |
| PROXIMATE ANALYSIS | | | |
| Air Dried Moisture % | 7.0 | 5.6 | 4.9 |
| Ash % | 24.0 | 6.6 | 11.4 |
| Volatile Matter % | 36.6 | 47.0 | 46.1 |
| Fixed Carbon % | 32.4 | 40.8 | 37.7 |

All results reported to air dried basis

ANALYSIS AND TESTING REPORT

EARTHDATA PTY LTD

| | | | |
|-----------------------------------|---|---|---|
| Sample Details | Sample: MEL2ED136 1 Hole: MEL2 From: 251.800 m To: 252.510 m Mass: 0.56 kg | Sample: MEL2ED152 8 Hole: MEL2 From: 254.670 m To: 255.410 m Mass: 0.60 kg | Sample: MEL2ED137 3 Hole: MEL2 From: 292.210 m To: 293.020 m Mass: 0.83 kg |
| Relative Density | 1.35 | 1.29 | 1.45 |
| PROXIMATE ANALYSIS | | | |
| Air Dried Moisture % | 5.2 | 5.2 | 6.4 |
| Ash % | 17.4 | 9.8 | 25.2 |
| Volatile Matter % | 42.5 | 45.3 | 35.2 |
| Fixed Carbon % | 34.9 | 39.7 | 33.2 |
| ULTIMATE ANALYSIS (d.a.f.) | | | |
| Carbon % | | 80.8 | |
| Hydrogen % | | 6.67 | |
| Nitrogen % | | 1.19 | |
| Sulfur % | | 0.40 | |
| Oxygen % | | 10.9 | |
| Total Sulfur % | | 0.34 | |

All results reported to air dried basis unless noted

d.a.f. = dry ash free basis

| | | | |
|---------------------------|---|---|---|
| Sample Details | Sample: MEL2ED135 1 Hole: MEL2 From: 293.020 m To: 293.810 m Mass: 0.67 kg | Sample: MEL2ED140 1 Hole: MEL2 From: 304.860 m To: 305.540 m Mass: 0.58 kg | Sample: MEL2ED134 0 Hole: MEL2 From: 320.090 m To: 320.890 m Mass: 0.55 kg |
| Relative Density | 1.45 | 1.39 | 1.37 |
| PROXIMATE ANALYSIS | | | |
| Air Dried Moisture % | 5.4 | 5.3 | 5.9 |
| Ash % | 25.9 | 20.4 | 17.9 |
| Volatile Matter % | 37.0 | 38.8 | 39.5 |
| Fixed Carbon % | 31.7 | 35.5 | 36.7 |

All results reported to air dried basis

ANALYSIS AND TESTING REPORT

EARTHDATA PTY LTD

| | | | |
|-----------------------------|---|--|--|
| Sample Details | Sample: MEL2ED141 9 Hole: MEL2 From: 322.230 m To: 322.840 m Mass: 0.51 kg | Sample: MEL2ED151 1Q Hole: MEL2 Mass: 0.20 kg | Sample: MEL2ED135 8Q Hole: MEL2 Mass: 0.20 kg |
| Relative Density | 1.38 | | |
| Moisture % | | 7.5 | 6.0 |
| Ash % | | 17.5 | 18.5 |
| PROXIMATE ANALYSIS | | | |
| Air Dried Moisture % | 5.6 | | |
| Ash % | 17.1 | | |
| Volatile Matter % | 39.4 | | |
| Fixed Carbon % | 37.9 | | |

All results reported to air dried basis

| | | | |
|-----------------------|--|--|--|
| Sample Details | Sample: MEL2ED136 3Q Hole: MEL2 Mass: 0.20 kg | Sample: MEL2ED136 7Q Hole: MEL2 Mass: 0.20 kg | Sample: MEL2ED108 3Q Hole: MEL2 Mass: 0.20 kg |
| Moisture % | 7.5 | 7.2 | 5.9 |
| Ash % | 18.2 | 29.5 | 12.1 |

All results reported to air dried basis

| | | | |
|-----------------------|--|--|--|
| Sample Details | Sample: MEL2ED137 4Q Hole: MEL2 Mass: 0.20 kg | Sample: MEL2ED158 9Q Hole: MEL2 Mass: 0.20 kg | Sample: MEL2ED148 0Q Hole: MEL2 Mass: 0.20 kg |
| Moisture % | 6.2 | 6.4 | 8.2 |
| Ash % | 12.3 | 7.9 | 13.1 |

All results reported to air dried basis

| | | | |
|-----------------------|--|--|--|
| Sample Details | Sample: MEL2ED147 1Q Hole: MEL2 Mass: 0.20 kg | Sample: MEL2ED151 9Q Hole: MEL2 Mass: 0.20 kg | Sample: MEL2ED153 3Q Hole: MEL2 Mass: 0.20 kg |
| Moisture % | 5.9 | 6.6 | 4.9 |
| Ash % | 26.8 | 19.9 | 6.4 |

All results reported to air dried basis

ANALYSIS AND TESTING REPORT

EARTHDATA PTY LTD

| | | | |
|-----------------------|--|--|--|
| Sample Details | Sample: MEL2ED159 0Q Hole: MEL2 Mass: 0.20 kg | Sample: MEL2ED136 1Q Hole: MEL2 Mass: 0.20 kg | Sample: MEL2ED152 8Q Hole: MEL2 Mass: 0.21 kg |
| Moisture % | 5.3 | 4.3 | 5.1 |
| Ash % | 11.4 | 27.9 | 9.4 |

All results reported to air dried basis

| | | | |
|-----------------------|--|--|--|
| Sample Details | Sample: MEL2ED137 3Q Hole: MEL2 Mass: 0.20 kg | Sample: MEL2ED135 1Q Hole: MEL2 Mass: 0.20 kg | Sample: MEL2ED140 1Q Hole: MEL2 Mass: 0.20 kg |
| Moisture % | 6.3 | 5.8 | 5.7 |
| Ash % | 16.9 | 11.3 | 14.7 |

All results reported to air dried basis

| | | | |
|-----------------------|--|--|--|
| Sample Details | Sample: MEL2ED134 0Q Hole: MEL2 Mass: 0.20 kg | Sample: MEL2ED141 9Q Hole: MEL2 Mass: 0.20 kg | |
| Moisture % | 6.2 | 5.9 | |
| Ash % | 5.5 | 13.4 | |

All results reported to air dried basis

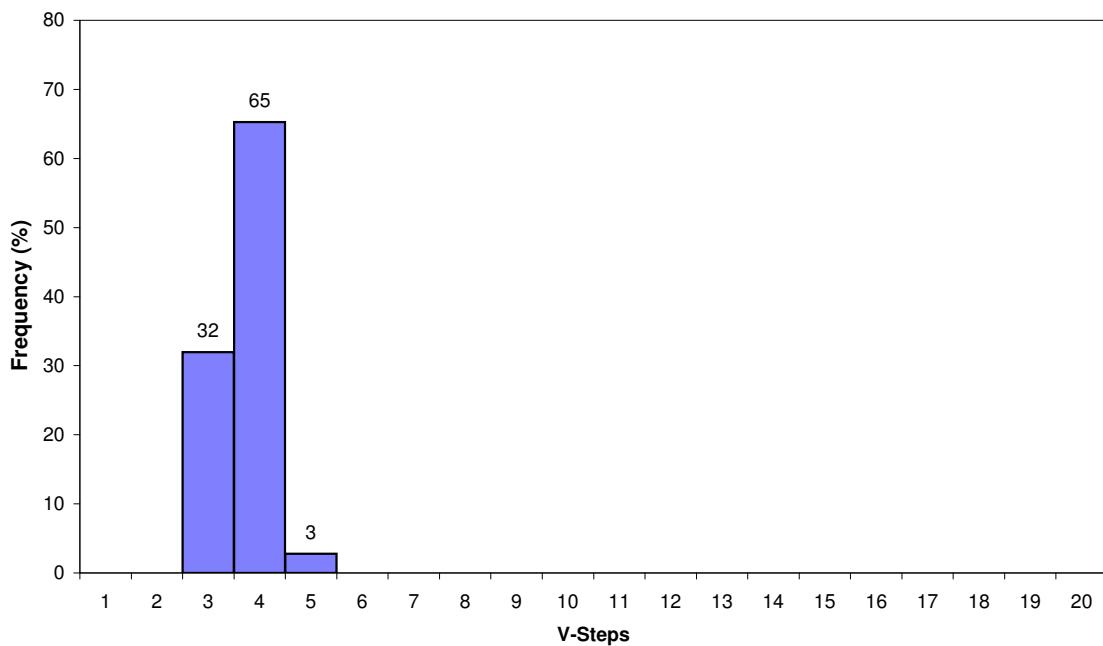
Report No: 20007522
Petro. No: 1633E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1083 Hole: MEL2 MM542322

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.41 | 0.40 | 0.41 |
| Estimated Confidence (95%) of Mean | 0.011 | 0.038 | 0.010 |
| Standard Deviation of Sample | 0.04 | 0.06 | 0.04 |
| Maximum Value (%) | 0.50 | 0.48 | 0.50 |
| Minimum Value (%) | 0.32 | 0.31 | 0.31 |
| Number of Measurements | 62 | 10 | 72 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 23
Magnification: x400 Measurements required (std dev method): 19
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1633E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1083 Hole: MEL2 MM542322

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 85.4 | 94.7 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 62.9 | 69.8 |
| | | | | Attrinite | 0.0 | 0.0 |
| | | | Detrovitrinite | Densinite | 0.0 | 0.0 |
| | | | | Desmocollinite | 21.5 | 23.9 |
| | | | Gelovitrinite | Corpogellinite | 1.0 | 1.1 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 3.7 | 4.2 | | Sporinite | 3.6 | 3.9 |
| | | | | Cutinite | 0.2 | 0.2 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 1.0 | 1.1 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.6 | 0.7 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.4 | 0.4 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 9.9 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 507 Date: 15/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

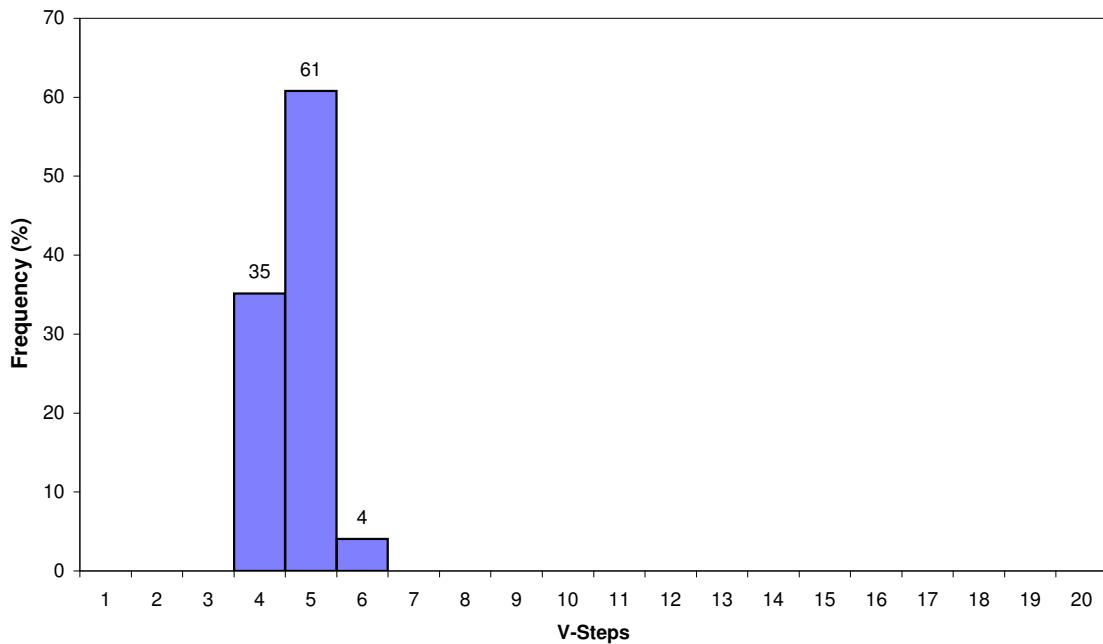
Report No: 20007522
Petro. No: 1646E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1340 Hole: MEL2 MM542335

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.50 | 0.50 | 0.50 |
| Estimated Confidence (95%) of Mean | 0.012 | 0.038 | 0.012 |
| Standard Deviation of Sample | 0.05 | 0.06 | 0.05 |
| Maximum Value (%) | 0.63 | 0.60 | 0.63 |
| Minimum Value (%) | 0.41 | 0.40 | 0.40 |
| Number of Measurements | 64 | 10 | 74 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 34
Magnification: x400 Measurements required (std dev method): 25
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1646E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1340 Hole: MEL2 MM542335

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|----------------|-------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 75.9 | 96.1 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 61.9 | 78.3 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 13.4 | 17.0 |
| | | | | Corpogellinite | 0.6 | 0.7 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 3.1 | 3.9 | | Sporinite | 2.3 | 3.0 |
| | | | | Cutinite | 0.8 | 1.0 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.0 | 0.0 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.0 | 0.0 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 21.0 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 514 Date: 17/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

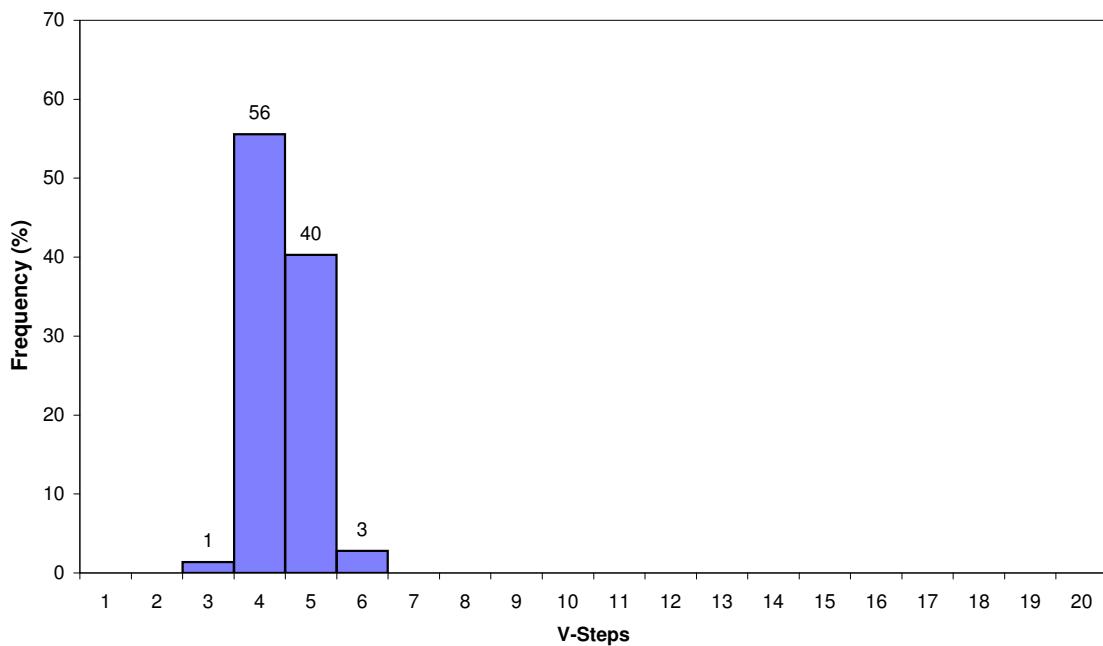
Report No: 20007522
Petro. No: 1644E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1351 Hole: MEL2 MM542333

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.49 | 0.49 | 0.49 |
| Estimated Confidence (95%) of Mean | 0.010 | 0.044 | 0.011 |
| Standard Deviation of Sample | 0.04 | 0.07 | 0.05 |
| Maximum Value (%) | 0.63 | 0.62 | 0.63 |
| Minimum Value (%) | 0.40 | 0.39 | 0.39 |
| Number of Measurements | 62 | 10 | 72 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 36
Magnification: x400 Measurements required (std dev method): 21
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1644E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1351 Hole: MEL2 MM542333

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|-------------------|-------------|------------------------------|-------------------------|-----------------|------------|------------------------------|
| VITRINITE | 67.2 | 97.4 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 58.3 | 84.5 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 8.7 | 12.6 |
| | | | | Corpogellinite | 0.2 | 0.3 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 1.6 | 2.3 | | Sporinite | 1.2 | 1.7 |
| | | | | Cutinite | 0.4 | 0.6 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.2 | 0.3 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.2 | 0.3 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 31.0 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 506 Date: 17/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

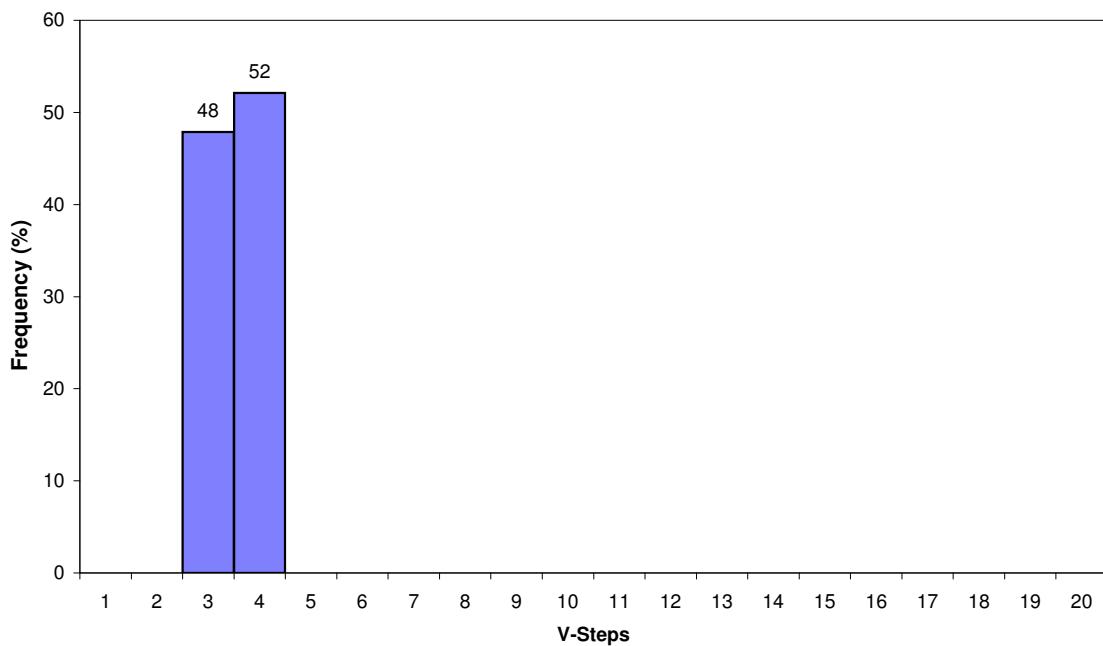
Report No: 20007522
Petro. No: 1630E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1358 Hole: MEL2 MM542319

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.40 | 0.39 | 0.40 |
| Estimated Confidence (95%) of Mean | 0.011 | 0.032 | 0.010 |
| Standard Deviation of Sample | 0.04 | 0.05 | 0.04 |
| Maximum Value (%) | 0.49 | 0.48 | 0.49 |
| Minimum Value (%) | 0.31 | 0.31 | 0.31 |
| Number of Measurements | 61 | 10 | 71 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 19
Magnification: x400 Measurements required (std dev method): 19
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1630E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1358 Hole: MEL2 MM542319

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 73.4 | 92.0 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 33.5 | 42.0 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 37.2 | 46.6 |
| | | | | Corpogellinite | 2.7 | 3.4 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 4.3 | 5.3 | | Sporinite | 4.1 | 5.1 |
| | | | | Cutinite | 0.2 | 0.2 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 2.1 | 2.7 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 1.0 | 1.2 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 1.2 | 1.5 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 20.2 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 516 Date: 15/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

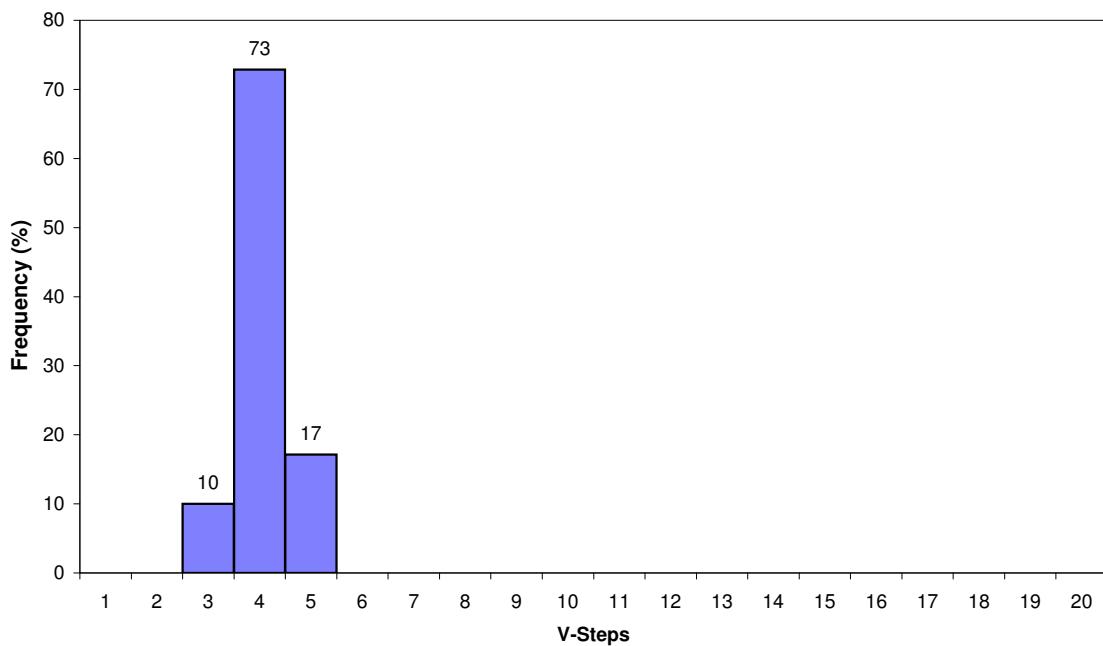
Report No: 20007522
Petro. No: 1641E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1361 Hole: MEL2 MM542330

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.45 | 0.45 | 0.45 |
| Estimated Confidence (95%) of Mean | 0.010 | 0.032 | 0.010 |
| Standard Deviation of Sample | 0.04 | 0.05 | 0.04 |
| Maximum Value (%) | 0.53 | 0.52 | 0.53 |
| Minimum Value (%) | 0.37 | 0.34 | 0.34 |
| Number of Measurements | 60 | 10 | 70 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 22
Magnification: x400 Measurements required (std dev method): 17
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1641E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1361 Hole: MEL2 MM542330

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|-------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 83.0 | 96.4 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 52.0 | 60.3 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 29.7 | 34.5 |
| | | | | Corpogellinite | 1.4 | 1.6 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 2.9 | 3.4 | | Sporinite | 2.9 | 3.4 |
| | | | | Cutinite | 0.0 | 0.0 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.2 | 0.2 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.2 | 0.2 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 13.9 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 512 Date: 17/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

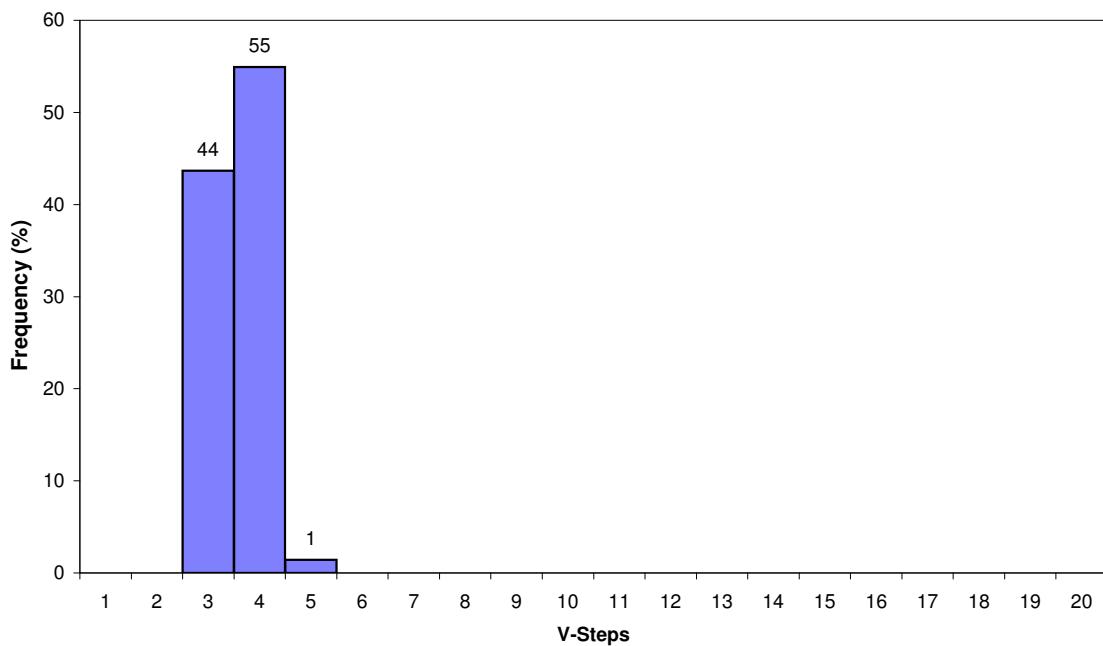
Report No: 20007522
Petro. No: 1631E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1363 Hole: MEL2 MM542320

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.40 | 0.40 | 0.40 |
| Estimated Confidence (95%) of Mean | 0.010 | 0.032 | 0.009 |
| Standard Deviation of Sample | 0.04 | 0.05 | 0.04 |
| Maximum Value (%) | 0.49 | 0.48 | 0.49 |
| Minimum Value (%) | 0.33 | 0.32 | 0.32 |
| Number of Measurements | 61 | 10 | 71 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 19
Magnification: x400 Measurements required (std dev method): 15
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1631E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1363 Hole: MEL2 MM542320

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|-------------------|-------------|------------------------------|-------------------------|-----------------|------------|------------------------------|
| VITRINITE | 67.9 | 95.9 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 39.6 | 56.0 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 27.7 | 39.1 |
| | | | | Corpogellinite | 0.6 | 0.8 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 2.2 | 3.1 | | Sporinite | 2.0 | 2.8 |
| | | | | Cutinite | 0.2 | 0.3 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.7 | 1.0 | Telo-inertinite | Fusinite | 0.2 | 0.3 |
| | | | | Semifusinite | 0.6 | 0.8 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 29.2 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 545 Date: 15/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

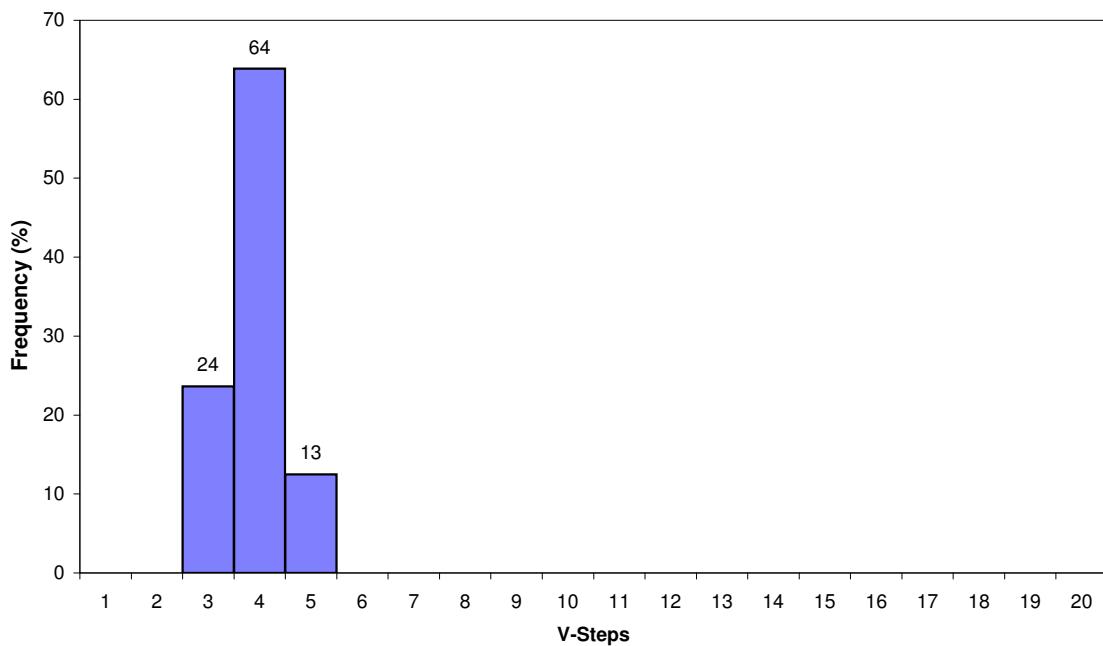
Report No: 20007522
Petro. No: 1632E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1367 Hole: MEL2 MM542321

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.42 | 0.42 | 0.42 |
| Estimated Confidence (95%) of Mean | 0.012 | 0.044 | 0.012 |
| Standard Deviation of Sample | 0.05 | 0.07 | 0.05 |
| Maximum Value (%) | 0.53 | 0.51 | 0.53 |
| Minimum Value (%) | 0.31 | 0.31 | 0.31 |
| Number of Measurements | 62 | 10 | 72 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 31
Magnification: x400 Measurements required (std dev method): 26
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1632E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1367 Hole: MEL2 MM542321

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|------------|------------------------------|------------------|-------------------|------------|------------------------------|
| VITRINITE | 64.2 | 92.0 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 40.6 | 58.2 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 23.4 | 33.5 |
| | | | | Corpogellinite | 0.2 | 0.3 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 5.1 | 7.4 | | Sporinite | 5.0 | 7.1 |
| | | | | Cutinite | 0.2 | 0.3 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinitite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.4 | 0.6 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.2 | 0.3 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinitite | 0.2 | 0.3 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 30.3 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 505 Date: 15/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

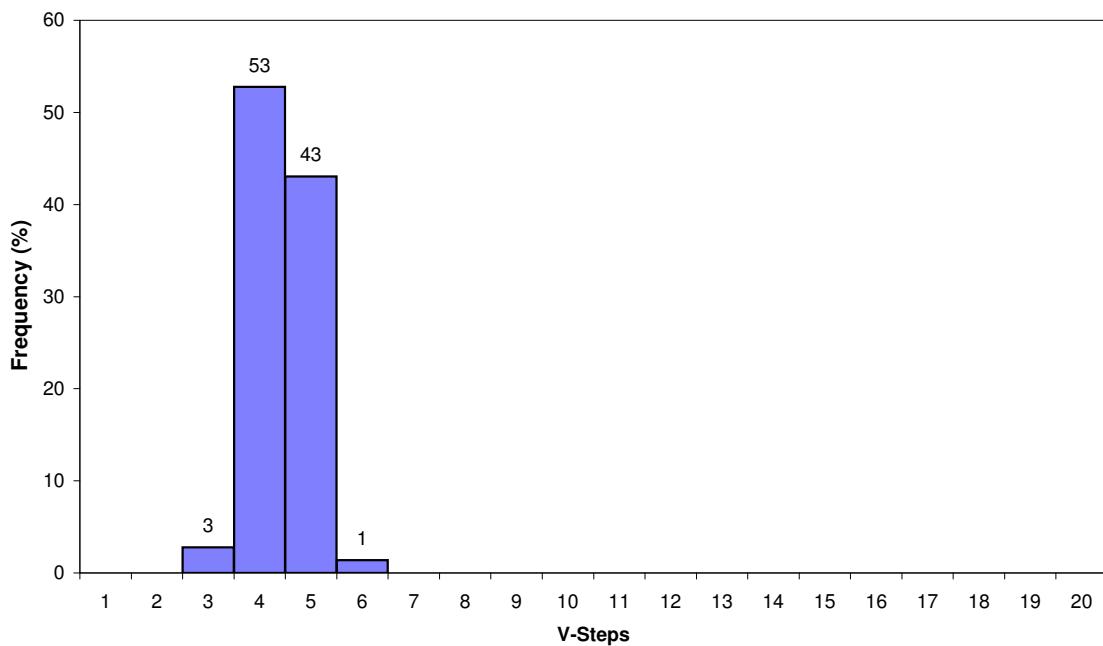
Report No: 20007522
Petro. No: 1643E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1373 Hole: MEL2 MM542332

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.48 | 0.48 | 0.48 |
| Estimated Confidence (95%) of Mean | 0.012 | 0.038 | 0.012 |
| Standard Deviation of Sample | 0.05 | 0.06 | 0.05 |
| Maximum Value (%) | 0.60 | 0.58 | 0.60 |
| Minimum Value (%) | 0.39 | 0.36 | 0.36 |
| Number of Measurements | 62 | 10 | 72 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 34
Magnification: x400 Measurements required (std dev method): 25
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1643E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1373 Hole: MEL2 MM542332

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 81.2 | 96.9 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 70.1 | 83.6 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 11.2 | 13.3 |
| | | | | Corpogellinite | 0.0 | 0.0 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 2.4 | 2.9 | | Sporinite | 2.0 | 2.4 |
| | | | | Cutinite | 0.4 | 0.5 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.2 | 0.2 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.2 | 0.2 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 16.2 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 501 Date: 17/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

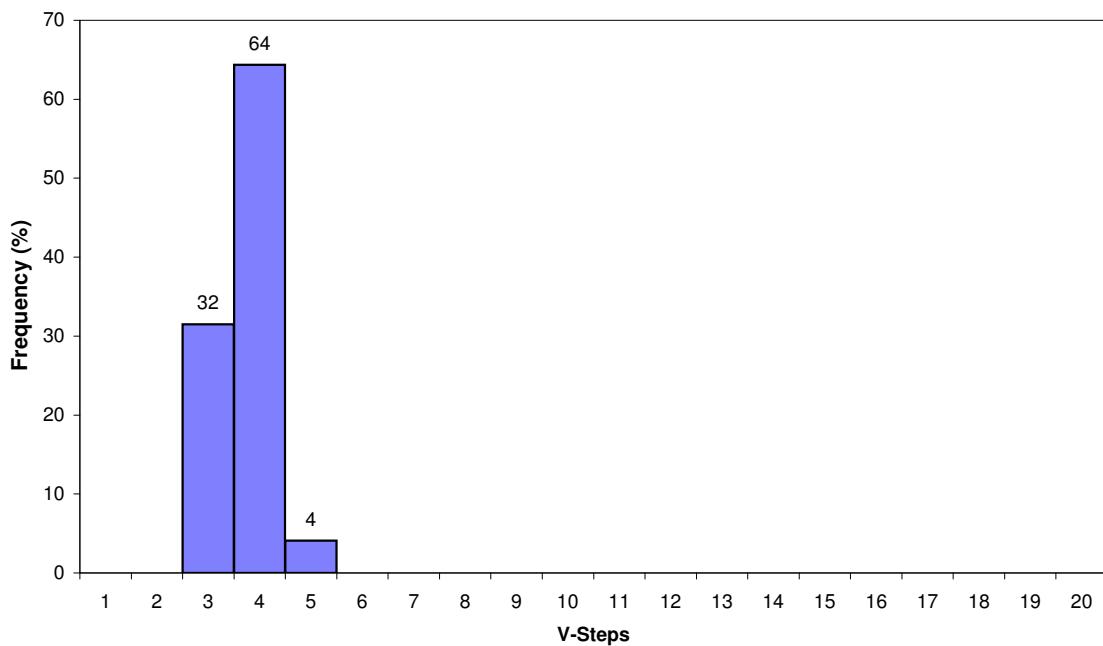
Report No: 20007522
Petro. No: 1634E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1374 Hole: MEL2 MM542323

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.41 | 0.40 | 0.41 |
| Estimated Confidence (95%) of Mean | 0.010 | 0.038 | 0.010 |
| Standard Deviation of Sample | 0.04 | 0.06 | 0.04 |
| Maximum Value (%) | 0.53 | 0.52 | 0.53 |
| Minimum Value (%) | 0.32 | 0.32 | 0.32 |
| Number of Measurements | 63 | 10 | 73 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 28
Magnification: x400 Measurements required (std dev method): 17
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1634E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1374 Hole: MEL2 MM542323

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|-------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 84.8 | 93.2 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 62.6 | 68.8 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 21.8 | 23.9 |
| | | | | Corpogellinite | 0.4 | 0.4 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 5.3 | 5.8 | | Sporinite | 4.5 | 4.9 |
| | | | | Cutinite | 0.8 | 0.9 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 1.0 | 1.1 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 1.0 | 1.1 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 8.9 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 514 Date: 15/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

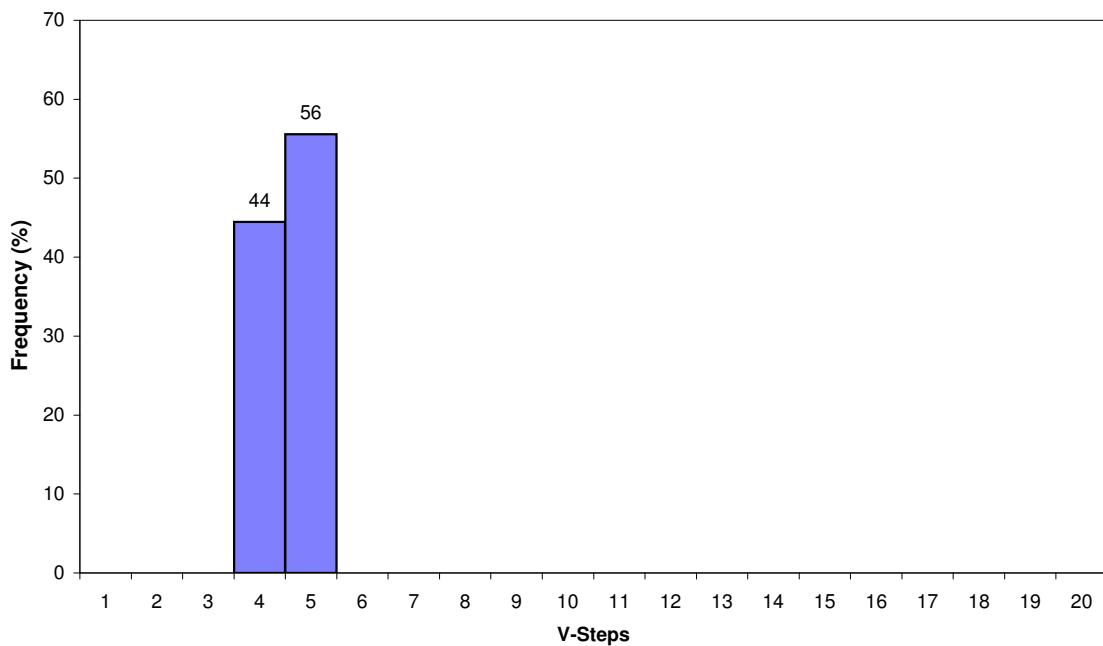
Report No: 20007522
Petro. No: 1645E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1401 Hole: MEL2 MM542334

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.50 | 0.49 | 0.50 |
| Estimated Confidence (95%) of Mean | 0.012 | 0.025 | 0.011 |
| Standard Deviation of Sample | 0.05 | 0.04 | 0.05 |
| Maximum Value (%) | 0.59 | 0.57 | 0.59 |
| Minimum Value (%) | 0.42 | 0.41 | 0.41 |
| Number of Measurements | 62 | 10 | 72 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 20
Magnification: x400 Measurements required (std dev method): 21
This data has not been artificially rounded to avoid misleading presentation of results.

A handwritten signature in black ink, appearing to read "John Doe".

Report No: 20007522
Petro. No: 1645E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1401 Hole: MEL2 MM542334

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|-------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 79.3 | 93.8 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 58.7 | 69.4 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 20.7 | 24.4 |
| | | | | Corpogellinite | 0.0 | 0.0 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 3.9 | 4.6 | | Sporinite | 3.1 | 3.7 |
| | | | | Cutinite | 0.8 | 0.9 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 1.4 | 1.6 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 1.0 | 1.2 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.4 | 0.5 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 15.4 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 513 Date: 17/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

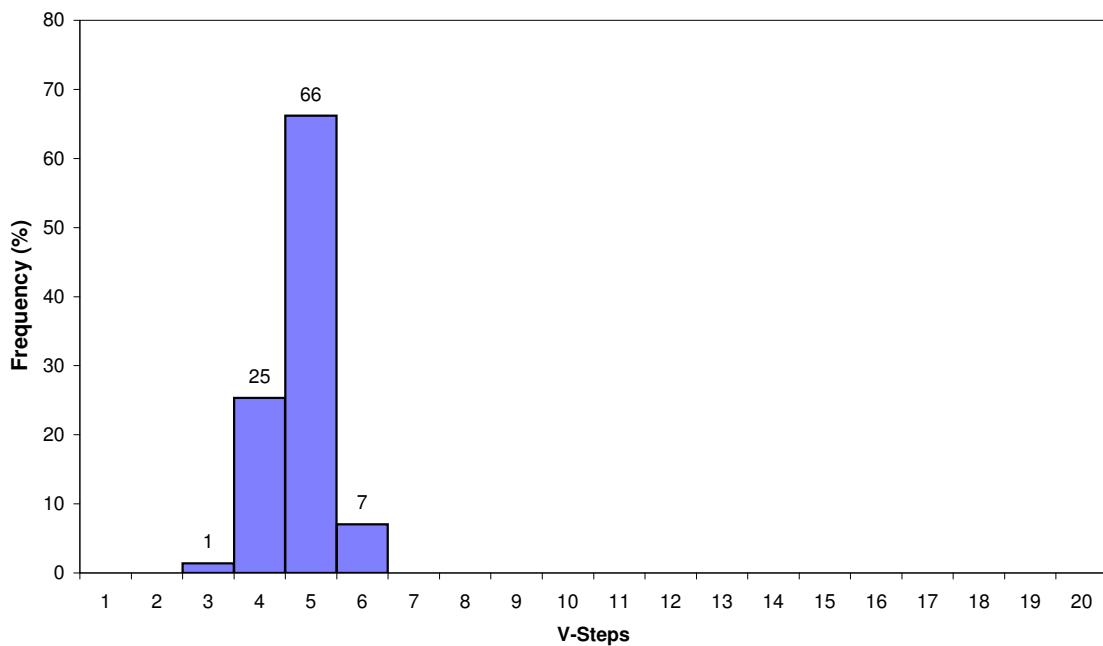
Report No: 20007522
Petro. No: 1647E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1419 Hole: MEL2 MM542336

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.52 | 0.51 | 0.52 |
| Estimated Confidence (95%) of Mean | 0.013 | 0.044 | 0.013 |
| Standard Deviation of Sample | 0.05 | 0.07 | 0.05 |
| Maximum Value (%) | 0.64 | 0.62 | 0.64 |
| Minimum Value (%) | 0.40 | 0.38 | 0.38 |
| Number of Measurements | 61 | 10 | 71 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 42
Magnification: x400 Measurements required (std dev method): 29
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1647E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1419 Hole: MEL2 MM542336

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|-------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 82.9 | 98.6 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 69.0 | 82.0 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 13.9 | 16.5 |
| | | | | Corpogellinite | 0.0 | 0.0 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 1.0 | 1.2 | | Sporinite | 1.0 | 1.2 |
| | | | | Cutinite | 0.0 | 0.0 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.2 | 0.2 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.2 | 0.2 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 15.9 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 503 Date: 17/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

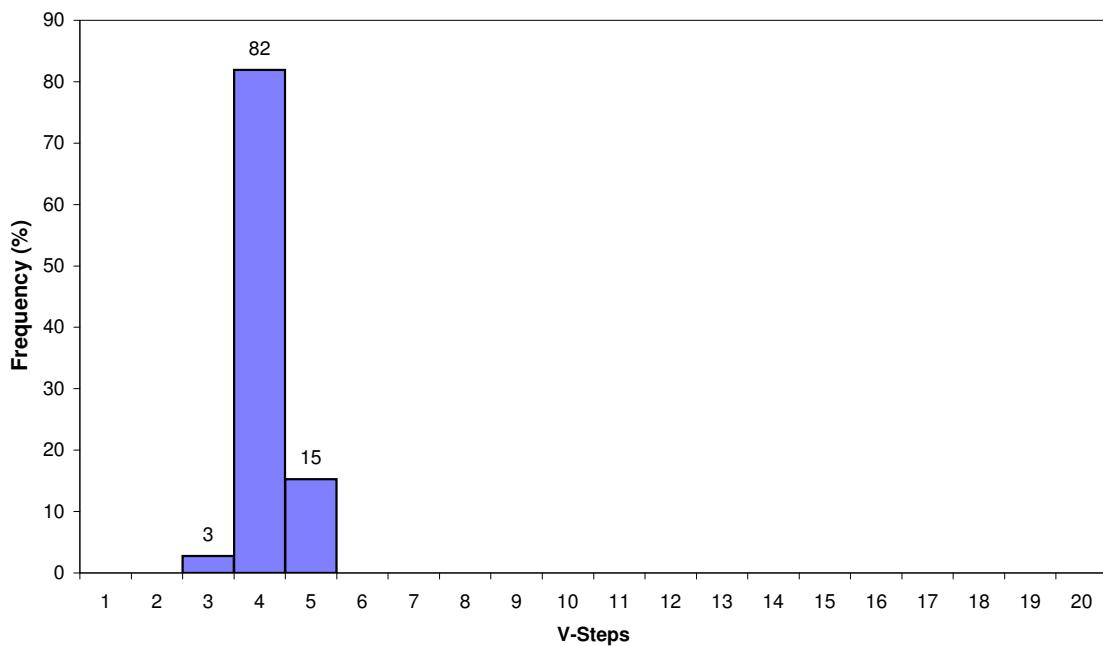
Report No: 20007522
Petro. No: 1637E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1471 Hole: MEL2 MM542326

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.45 | 0.44 | 0.45 |
| Estimated Confidence (95%) of Mean | 0.008 | 0.025 | 0.008 |
| Standard Deviation of Sample | 0.03 | 0.04 | 0.03 |
| Maximum Value (%) | 0.53 | 0.52 | 0.53 |
| Minimum Value (%) | 0.39 | 0.39 | 0.39 |
| Number of Measurements | 62 | 10 | 72 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 12
Magnification: x400 Measurements required (std dev method): 12
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1637E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1471 Hole: MEL2 MM542326

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 72.4 | 92.4 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 52.2 | 66.7 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 19.8 | 25.2 |
| | | | | Corpogellinite | 0.4 | 0.5 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 4.4 | 5.6 | | Sporinite | 4.2 | 5.4 |
| | | | | Cutinite | 0.2 | 0.2 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 1.5 | 2.0 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.0 | 0.0 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 1.5 | 2.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 21.7 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 521 Date: 15/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

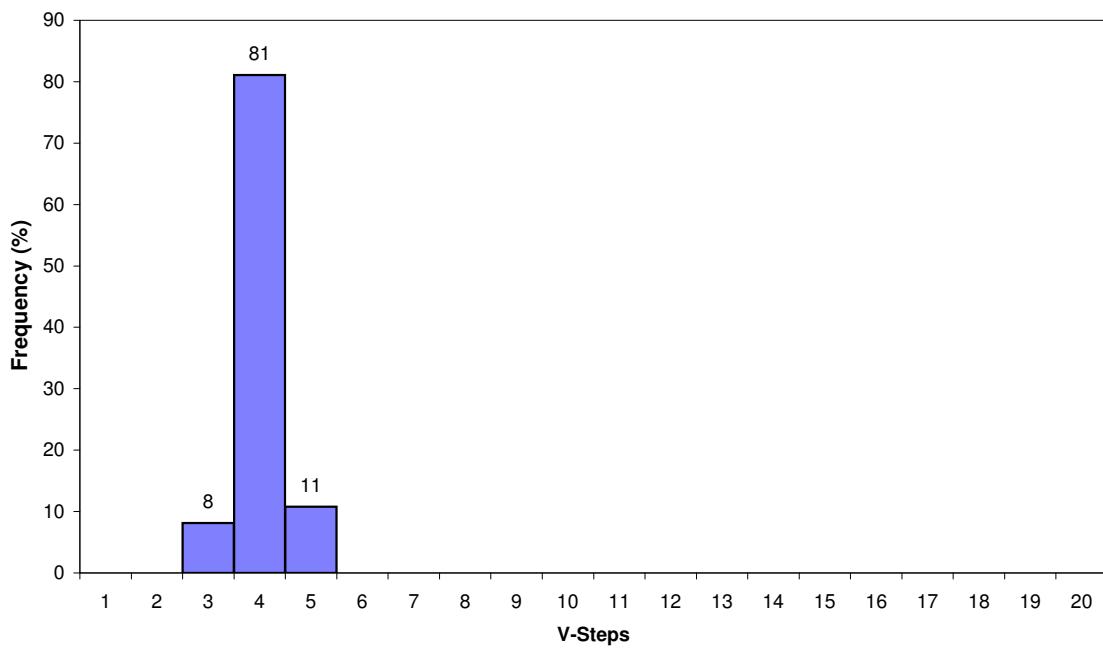
Report No: 20007522
Petro. No: 1636E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1480 Hole: MEL2 MM542325

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.44 | 0.43 | 0.44 |
| Estimated Confidence (95%) of Mean | 0.010 | 0.038 | 0.010 |
| Standard Deviation of Sample | 0.04 | 0.06 | 0.04 |
| Maximum Value (%) | 0.55 | 0.53 | 0.55 |
| Minimum Value (%) | 0.38 | 0.35 | 0.35 |
| Number of Measurements | 64 | 10 | 74 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 25
Magnification: x400 Measurements required (std dev method): 18
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1636E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1480 Hole: MEL2 MM542325

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|-------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 82.9 | 93.2 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 59.7 | 67.1 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 20.7 | 23.2 |
| | | | | Corpogellinite | 2.5 | 2.8 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 5.5 | 6.2 | | Sporinite | 5.5 | 6.2 |
| | | | | Cutinite | 0.0 | 0.0 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.5 | 0.6 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.5 | 0.6 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 11.1 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 561 Date: 15/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

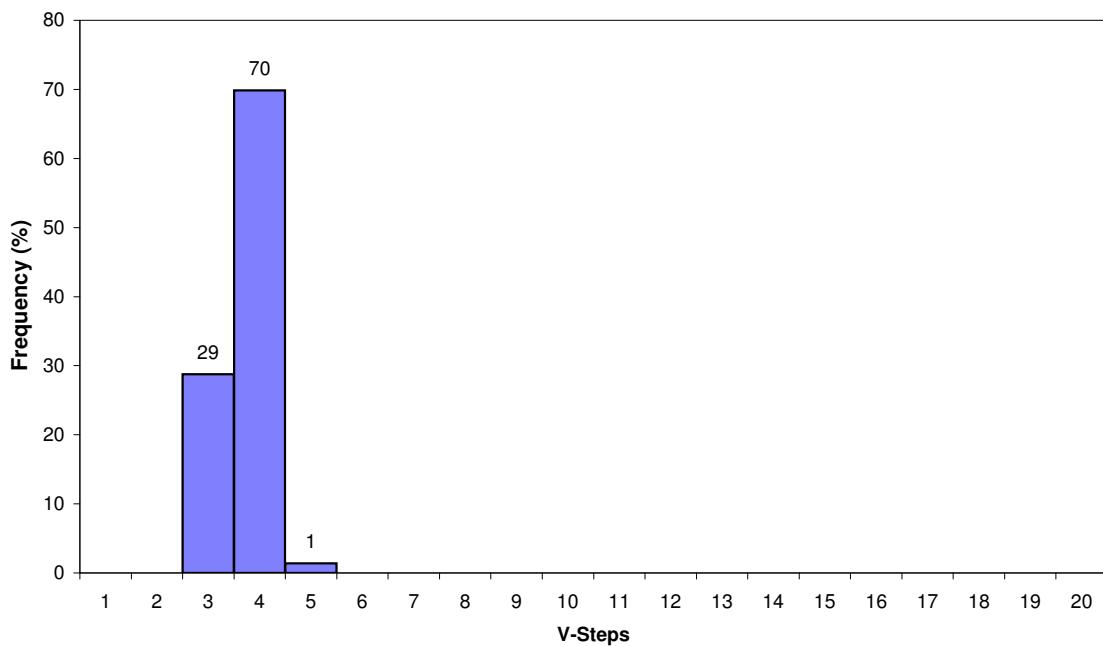
Report No: 20007522
Petro. No: 1629E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1511 Hole: MEL2 MM542318

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.41 | 0.40 | 0.41 |
| Estimated Confidence (95%) of Mean | 0.008 | 0.025 | 0.008 |
| Standard Deviation of Sample | 0.03 | 0.04 | 0.03 |
| Maximum Value (%) | 0.50 | 0.47 | 0.50 |
| Minimum Value (%) | 0.33 | 0.32 | 0.32 |
| Number of Measurements | 63 | 10 | 73 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 21
Magnification: x400 Measurements required (std dev method): 12
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1629E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1511 Hole: MEL2 MM542318

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|-------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 78.3 | 93.0 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 58.2 | 69.1 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 19.3 | 23.0 |
| | | | | Corpogellinite | 0.8 | 0.9 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 4.1 | 4.9 | | Sporinite | 3.7 | 4.4 |
| | | | | Cutinite | 0.4 | 0.5 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 1.8 | 2.1 | Telo-inertinite | Fusinite | 0.4 | 0.5 |
| | | | | Semifusinite | 1.4 | 1.6 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 15.8 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 507 Date: 15/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

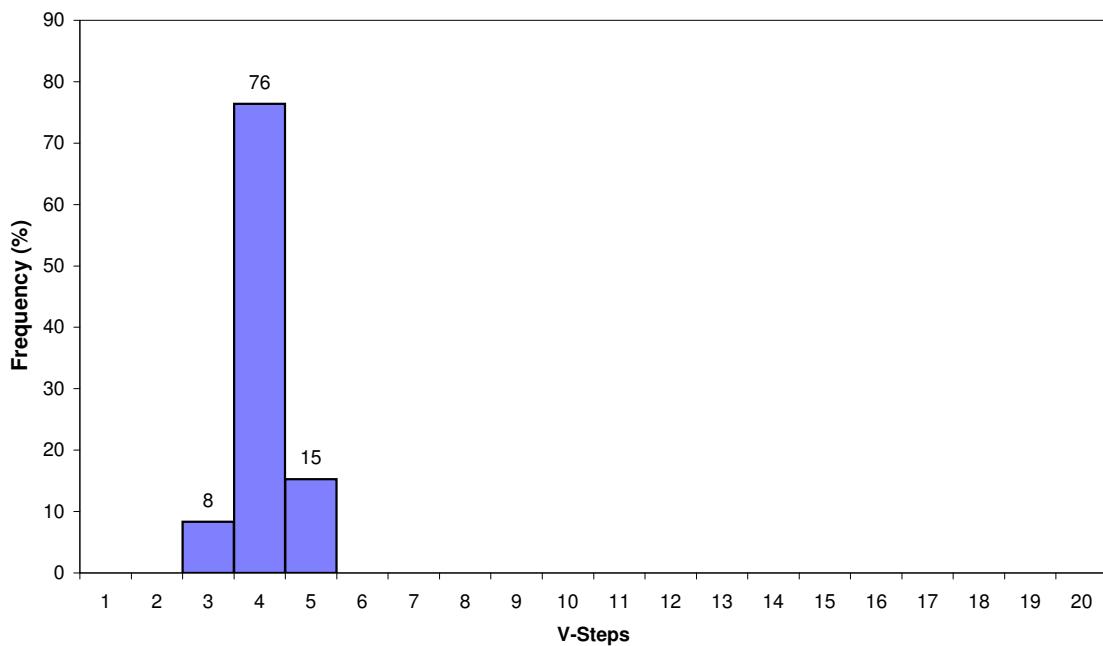
Report No: 20007522
Petro. No: 1638E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1519 Hole: MEL2 MM542327

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.45 | 0.44 | 0.44 |
| Estimated Confidence (95%) of Mean | 0.009 | 0.032 | 0.009 |
| Standard Deviation of Sample | 0.04 | 0.05 | 0.04 |
| Maximum Value (%) | 0.53 | 0.51 | 0.53 |
| Minimum Value (%) | 0.37 | 0.35 | 0.35 |
| Number of Measurements | 62 | 10 | 72 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 20
Magnification: x400 Measurements required (std dev method): 15
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1638E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1519 Hole: MEL2 MM542327

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|-------------------|-------------|------------------------------|-------------------------|-----------------|------------|------------------------------|
| VITRINITE | 74.2 | 91.2 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 54.0 | 66.3 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 19.8 | 24.4 |
| | | | | Corpogellinite | 0.4 | 0.5 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 6.9 | 8.5 | | Sporinite | 6.7 | 8.3 |
| | | | | Cutinite | 0.2 | 0.2 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.2 | 0.2 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.2 | 0.2 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 18.7 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 504 Date: 16/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

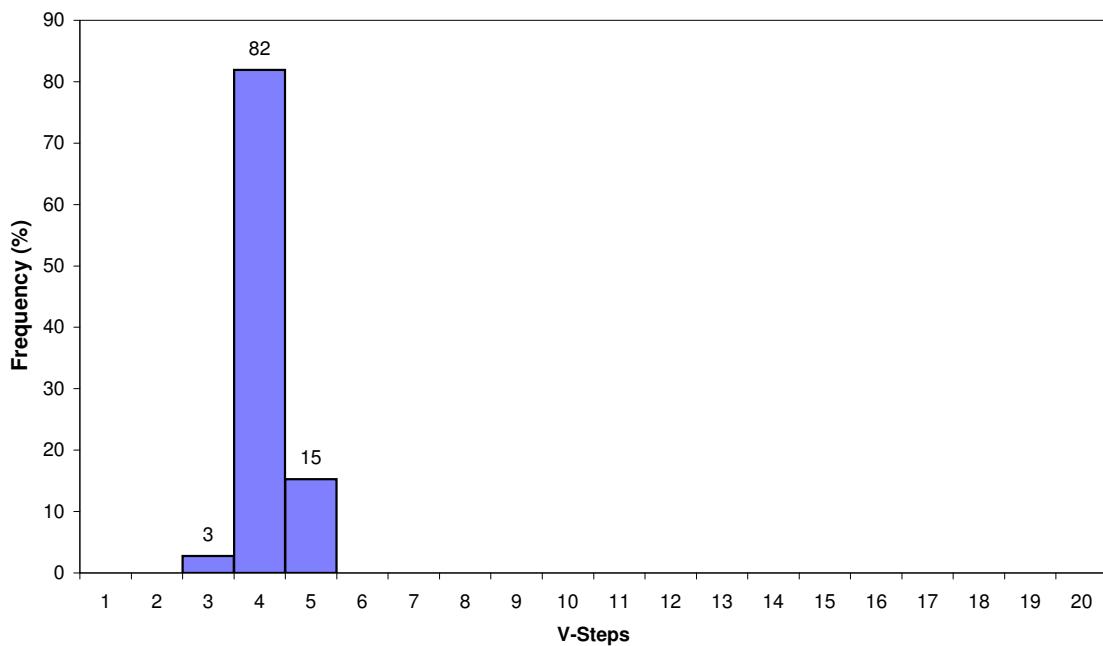
Report No: 20007522
Petro. No: 1642E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1528 Hole: MEL2 MM542331

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.45 | 0.44 | 0.45 |
| Estimated Confidence (95%) of Mean | 0.008 | 0.025 | 0.008 |
| Standard Deviation of Sample | 0.03 | 0.04 | 0.03 |
| Maximum Value (%) | 0.53 | 0.51 | 0.53 |
| Minimum Value (%) | 0.38 | 0.38 | 0.38 |
| Number of Measurements | 62 | 10 | 72 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 15
Magnification: x400 Measurements required (std dev method): 11
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1642E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1528 Hole: MEL2 MM542331

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|-------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 88.6 | 94.5 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 62.7 | 66.9 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 23.9 | 25.5 |
| | | | | Corpogellinite | 2.0 | 2.1 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 4.6 | 4.9 | | Sporinite | 4.4 | 4.7 |
| | | | | Cutinite | 0.2 | 0.2 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.6 | 0.6 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.6 | 0.6 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 6.2 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 502 Date: 17/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

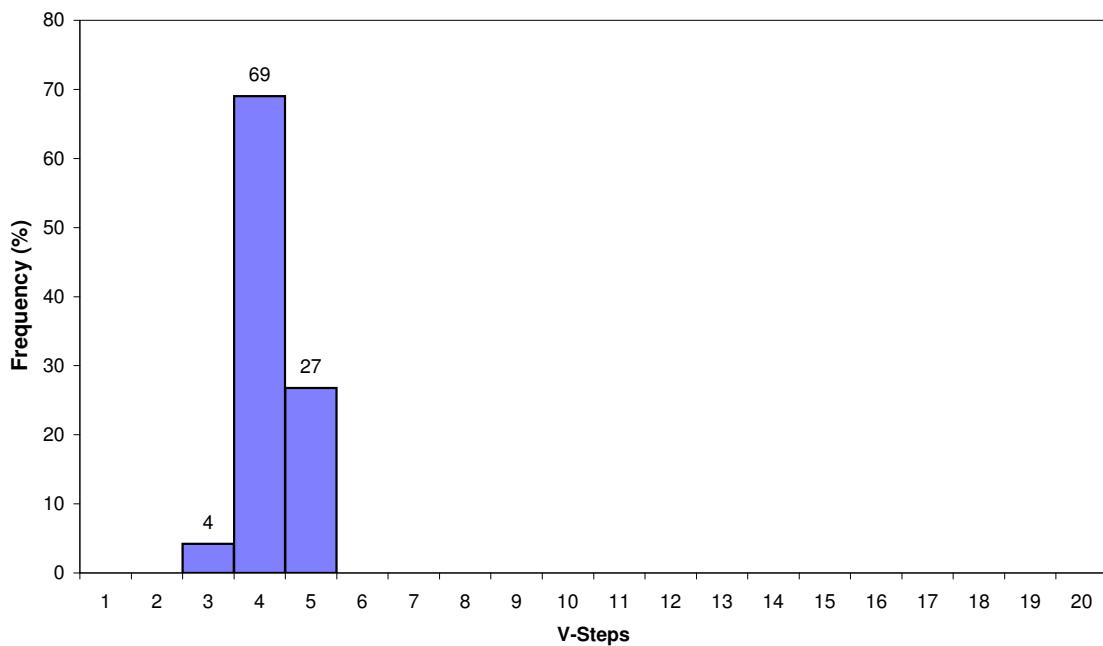
Report No: 20007522
Petro. No: 1639E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1533 Hole: MEL2 MM542328

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.46 | 0.45 | 0.46 |
| Estimated Confidence (95%) of Mean | 0.010 | 0.032 | 0.010 |
| Standard Deviation of Sample | 0.04 | 0.05 | 0.04 |
| Maximum Value (%) | 0.56 | 0.55 | 0.56 |
| Minimum Value (%) | 0.39 | 0.39 | 0.39 |
| Number of Measurements | 61 | 10 | 71 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 18
Magnification: x400 Measurements required (std dev method): 16
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1639E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1533 Hole: MEL2 MM542328

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|-------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 82.9 | 90.4 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 61.8 | 67.4 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 18.0 | 19.7 |
| | | | | Corpogellinite | 3.1 | 3.3 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 8.4 | 9.2 | | Sporinite | 7.9 | 8.6 |
| | | | | Cutinite | 0.6 | 0.6 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinitite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.4 | 0.4 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.4 | 0.4 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 8.3 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 521 Date: 16/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

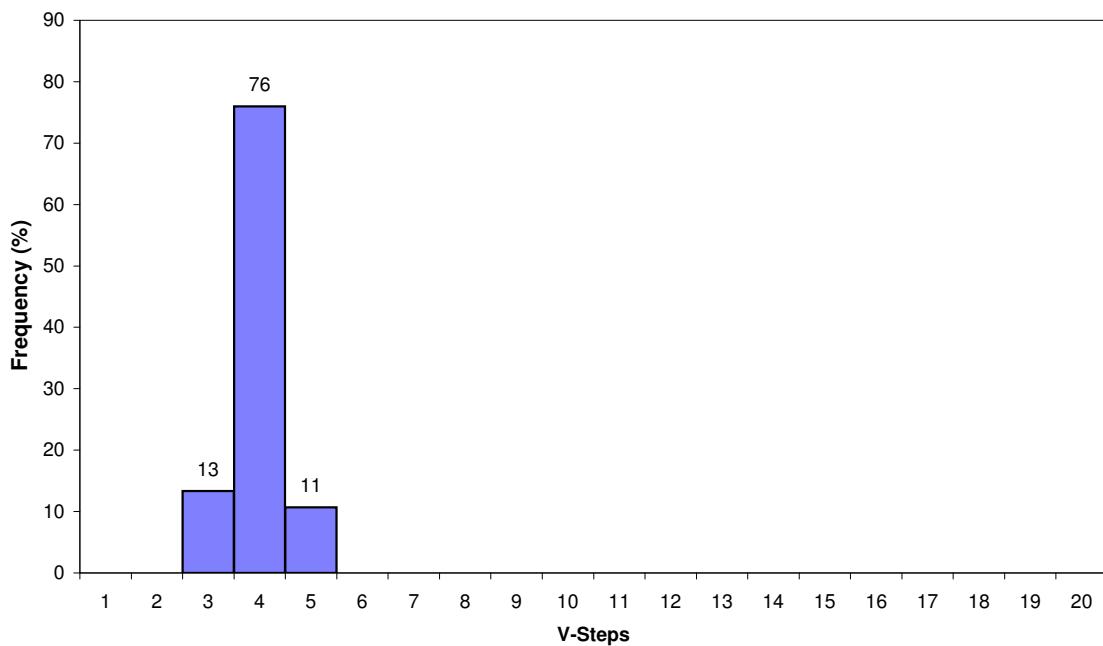
Report No: 20007522
Petro. No: 1635E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1589 Hole: MEL2 MM542324

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.44 | 0.43 | 0.44 |
| Estimated Confidence (95%) of Mean | 0.010 | 0.032 | 0.010 |
| Standard Deviation of Sample | 0.04 | 0.05 | 0.04 |
| Maximum Value (%) | 0.54 | 0.53 | 0.54 |
| Minimum Value (%) | 0.37 | 0.36 | 0.36 |
| Number of Measurements | 65 | 10 | 75 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 20
Magnification: x400 Measurements required (std dev method): 17
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1635E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1589 Hole: MEL2 MM542324

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 86.3 | 91.5 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 58.0 | 61.5 |
| | | | | Attrinite | 0.0 | 0.0 |
| | | | Detrovitrinite | Densinite | 0.0 | 0.0 |
| | | | | Desmocollinite | 27.1 | 28.8 |
| | | | Gelovitrinite | Corpogellinite | 1.2 | 1.2 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 7.4 | 7.9 | | Sporinite | 7.0 | 7.5 |
| | | | | Cutinite | 0.4 | 0.4 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.6 | 0.6 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.6 | 0.6 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 5.7 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 512 Date: 15/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

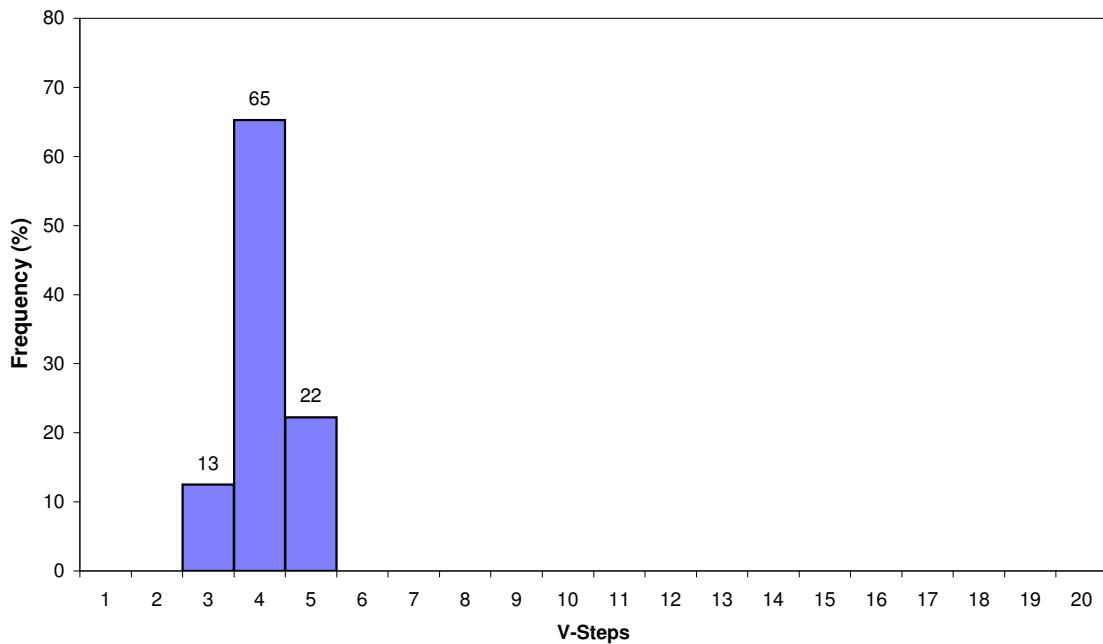
Report No: 20007522
Petro. No: 1640E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: MEL2ED1590 Hole: MEL2 MM542329

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.46 | 0.46 | 0.46 |
| Estimated Confidence (95%) of Mean | 0.012 | 0.044 | 0.012 |
| Standard Deviation of Sample | 0.05 | 0.07 | 0.05 |
| Maximum Value (%) | 0.55 | 0.54 | 0.55 |
| Minimum Value (%) | 0.36 | 0.34 | 0.34 |
| Number of Measurements | 62 | 10 | 72 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 6/05/2009 Measurements required (range method): 29
Magnification: x400 Measurements required (std dev method): 25
This data has not been artificially rounded to avoid misleading presentation of results.

Report No: 20007522
Petro. No: 1640E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: MEL2ED1590 Hole: MEL2 MM542329

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 82.7 | 95.1 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 47.2 | 54.2 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 33.0 | 37.9 |
| | | | | Corpogellinite | 2.5 | 2.9 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 4.1 | 4.7 | | Sporinite | 3.3 | 3.8 |
| | | | | Cutinite | 0.8 | 0.9 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.2 | 0.2 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.2 | 0.2 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 13.0 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 515 Date: 17/07/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Fiona McNeil

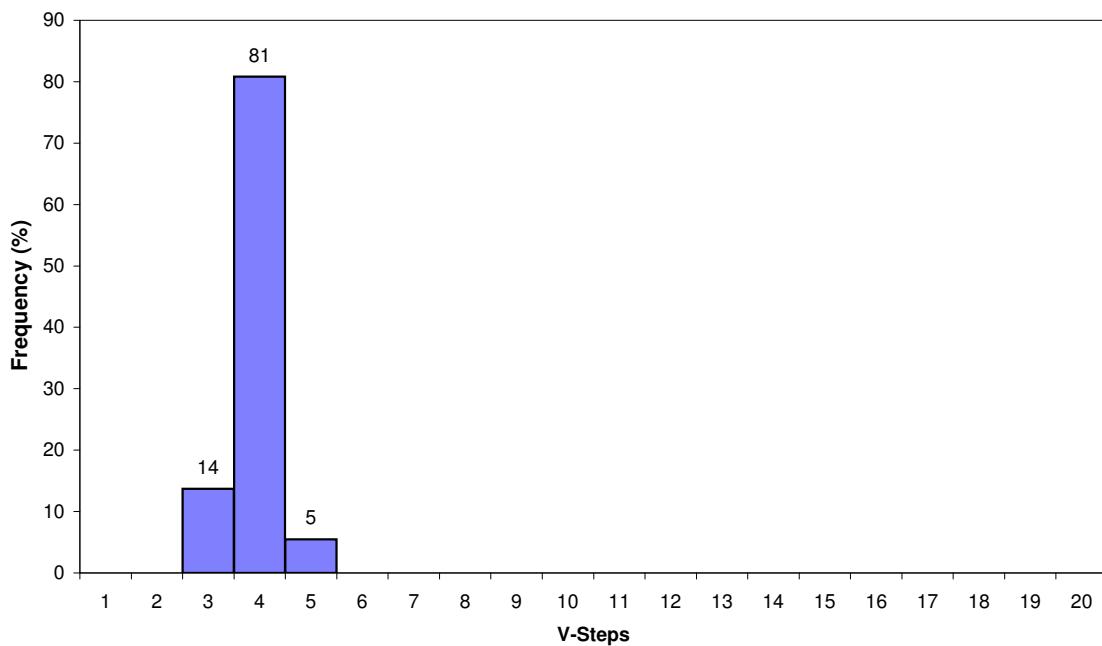
Report No: 20007522
Petro. No: 2109E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: Hole:MEL2 Composite 1 MM543230

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.43 | 0.42 | 0.43 |
| Estimated Confidence (95%) of Mean | 0.009 | 0.029 | 0.009 |
| Standard Deviation of Sample | 0.04 | 0.05 | 0.04 |
| Maximum Value (%) | 0.52 | 0.51 | 0.52 |
| Minimum Value (%) | 0.35 | 0.35 | 0.35 |
| Number of Measurements | 61 | 12 | 73 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 11/09/2009

Measurements required (range method):

18

Magnification: x400

Measurements required (std dev method):

15

This data has not been artificially rounded to avoid misleading presentation of results.

Luke Beattie

Report No: 20007522
Petro. No: 2109E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: Hole:MEL2 Composite 1 MM543230

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 75.5 | 94.6 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 43.8 | 54.9 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 31.1 | 39.0 |
| | | | | Corpogellinite | 0.6 | 0.7 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 4.1 | 5.1 | | Sporinite | 3.5 | 4.4 |
| | | | | Cutinite | 0.4 | 0.5 |
| | | | | Resinite | 0.2 | 0.2 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinitite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.2 | 0.2 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.0 | 0.0 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.2 | 0.2 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 20.2 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 514

Date: 14/09/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Melinda Kokay

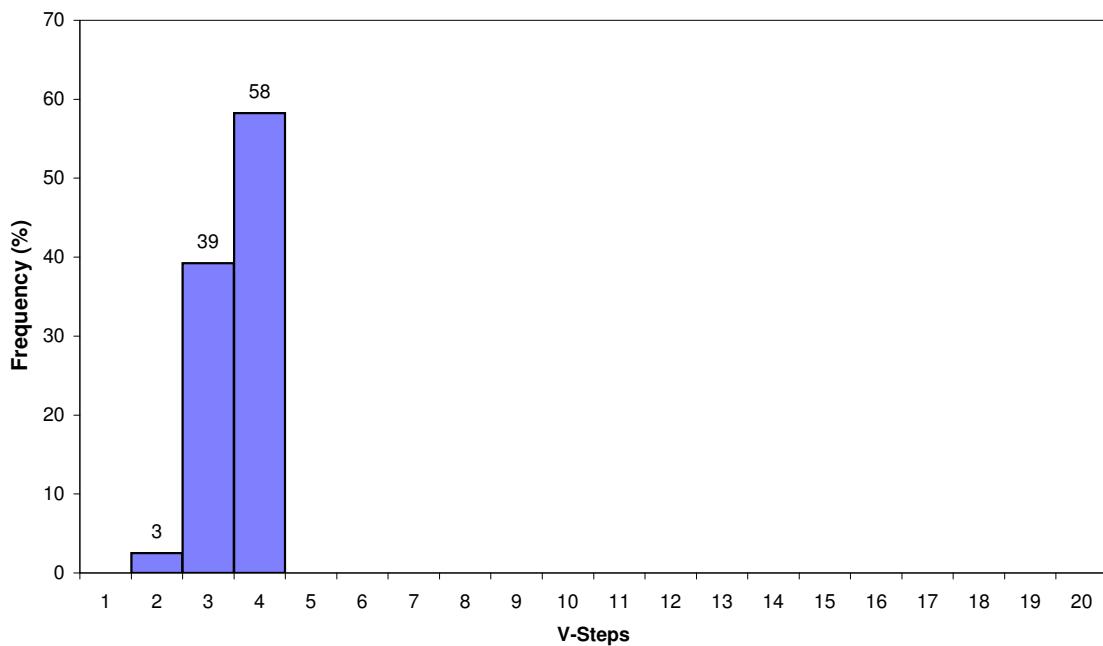
Report No: 20007522
Petro. No: 2110E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: Hole:MEL2 Composite 2 MM543232

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.40 | 0.39 | 0.40 |
| Estimated Confidence (95%) of Mean | 0.012 | 0.021 | 0.011 |
| Standard Deviation of Sample | 0.05 | 0.04 | 0.05 |
| Maximum Value (%) | 0.49 | 0.45 | 0.49 |
| Minimum Value (%) | 0.28 | 0.31 | 0.28 |
| Number of Measurements | 65 | 14 | 79 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 14/09/2009

Measurements required (range method):

28

Magnification: x400

Measurements required (std dev method):

22

This data has not been artificially rounded to avoid misleading presentation of results.

Luke Beattie

Report No: 20007522
Petro. No: 2110E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|-------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 77.3 | 95.9 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 45.2 | 56.1 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 31.5 | 39.1 |
| | | | | Corpogellinite | 0.6 | 0.7 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 3.1 | 3.9 | | Sporinite | 2.9 | 3.6 |
| | | | | Cutinite | 0.2 | 0.2 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinitite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.2 | 0.2 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.0 | 0.0 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.2 | 0.2 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 19.4 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 511

Date: 14/09/2009

This data has not been artificially rounded to avoid misleading presentation of results.

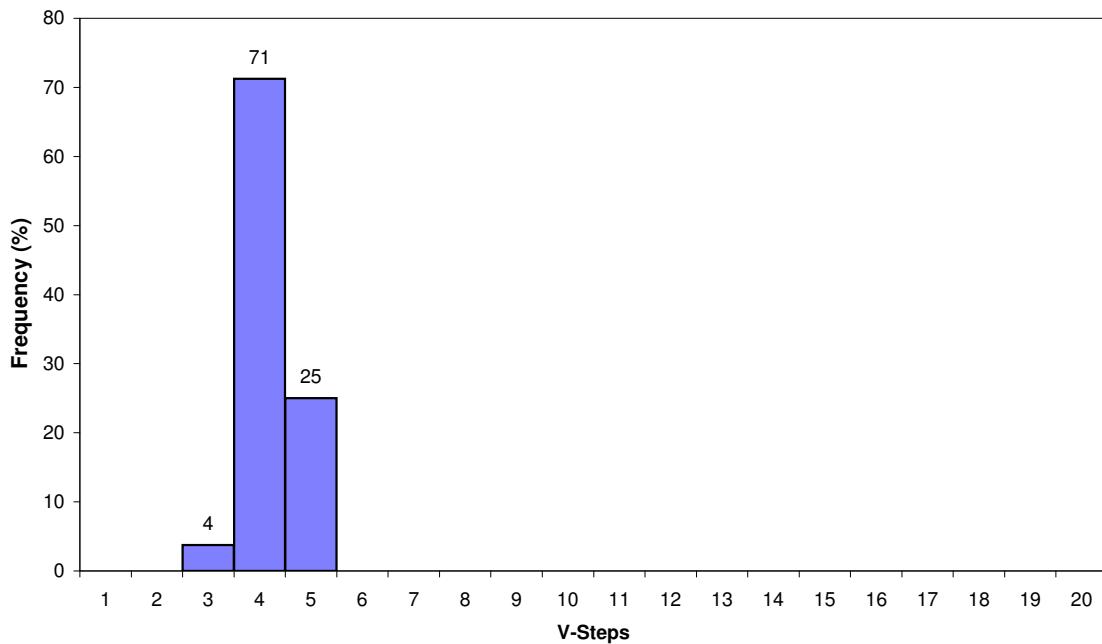
Report No: 20007522
Petro. No: 2111E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: Hole:MEL2 Composite 3 MM543233

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.46 | 0.45 | 0.46 |
| Estimated Confidence (95%) of Mean | 0.010 | 0.022 | 0.009 |
| Standard Deviation of Sample | 0.04 | 0.04 | 0.04 |
| Maximum Value (%) | 0.56 | 0.52 | 0.56 |
| Minimum Value (%) | 0.36 | 0.40 | 0.36 |
| Number of Measurements | 67 | 13 | 80 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 14/09/2009

Measurements required (range method):

25

Magnification: x400

Measurements required (std dev method):

17

This data has not been artificially rounded to avoid misleading presentation of results.

Luke Beattie

Report No: 20007522
Petro. No: 2111E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: Hole:MEL2 Composite 3 MM543233

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 85.7 | 95.4 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 56.3 | 62.7 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 28.0 | 31.1 |
| | | | | Corpogellinite | 1.4 | 1.5 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 4.0 | 4.4 | | Sporinite | 3.4 | 3.8 |
| | | | | Cutinite | 0.6 | 0.7 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinitite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.2 | 0.2 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.2 | 0.2 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 10.1 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 504

Date: 15/09/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Melinda Kokay

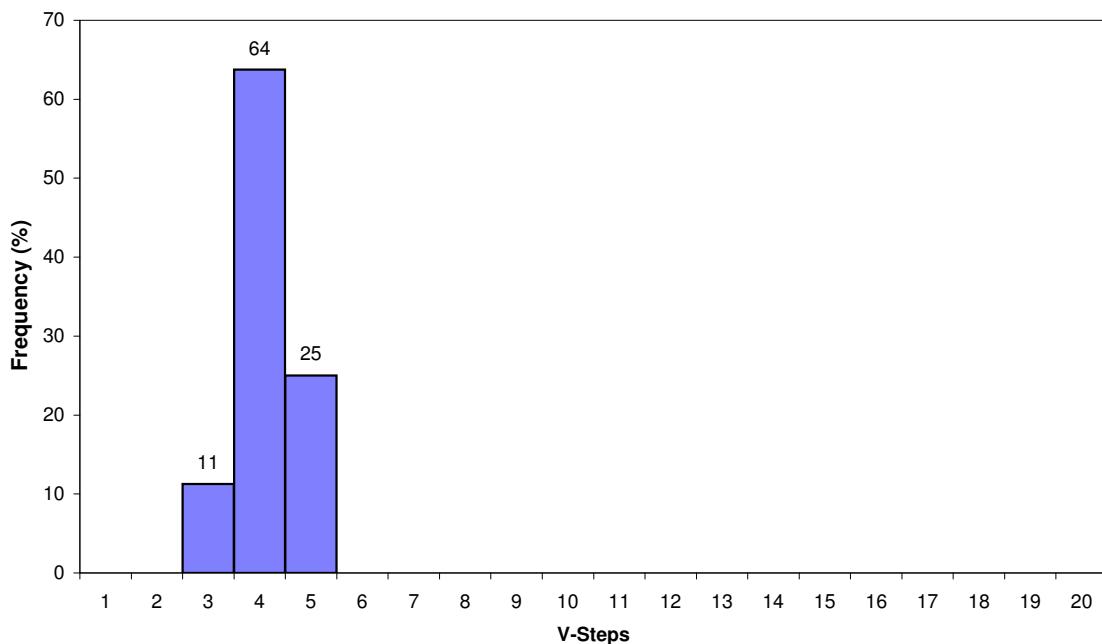
Report No: 20007522
Petro. No: 2112E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: Hole:MEL2 Composite 4 MM543234

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.46 | 0.45 | 0.46 |
| Estimated Confidence (95%) of Mean | 0.013 | 0.027 | 0.012 |
| Standard Deviation of Sample | 0.05 | 0.05 | 0.05 |
| Maximum Value (%) | 0.56 | 0.53 | 0.56 |
| Minimum Value (%) | 0.31 | 0.34 | 0.31 |
| Number of Measurements | 66 | 14 | 80 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 14/09/2009

Measurements required (range method):

39

Magnification: x400

Measurements required (std dev method):

29

This data has not been artificially rounded to avoid misleading presentation of results.

Luke Beattie

Report No: 20007522
Petro. No: 2112E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: Hole:MEL2 Composite 4 MM543234

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 86.1 | 96.0 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 46.0 | 51.3 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 38.2 | 42.6 |
| | | | | Corpogellinite | 1.9 | 2.1 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 3.1 | 3.4 | | Sporinite | 2.5 | 2.8 |
| | | | | Cutinite | 0.4 | 0.4 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.2 | 0.2 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinitite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.6 | 0.6 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.6 | 0.6 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.0 | 0.0 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 10.3 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 524

Date: 15/09/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Melinda Kokay

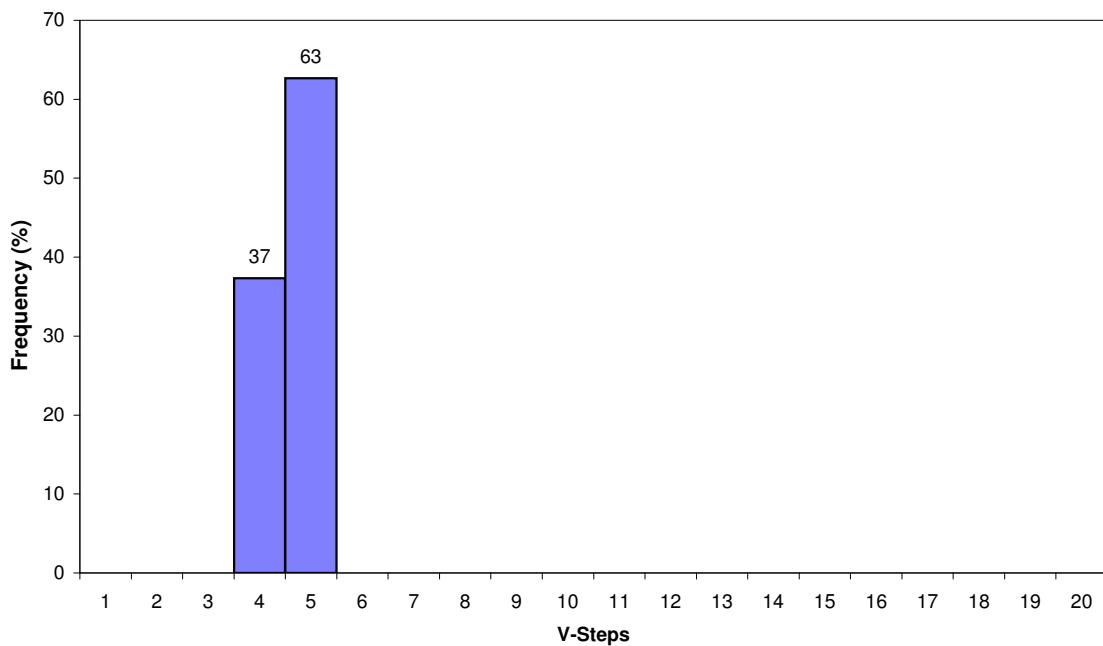
Report No: 20007522
Petro. No: 2113E
Client: EARTHDATA PTY LTD



VITRINITE REFLECTANCE ANALYSIS

Sample Details: Hole:MEL2 Composite 5 MM543235

| | TELOVITRINITE | DETROVITRINITE | VITRINITE |
|---|---------------|----------------|-------------|
| Mean Maximum Reflectance ($R_{v,max}$, %) | 0.51 | 0.50 | 0.51 |
| Estimated Confidence (95%) of Mean | 0.010 | 0.025 | 0.009 |
| Standard Deviation of Sample | 0.04 | 0.04 | 0.04 |
| Maximum Value (%) | 0.59 | 0.56 | 0.59 |
| Minimum Value (%) | 0.41 | 0.42 | 0.41 |
| Number of Measurements | 65 | 10 | 75 |



Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2; AS 2856.3.

Date: 14/09/2009

Measurements required (range method):

20

Magnification: x400

Measurements required (std dev method):

16

This data has not been artificially rounded to avoid misleading presentation of results.

Luke Beattie

Report No: 20007522
Petro. No: 2113E
Client: EARTHDATA PTY LTD



MACERAL ANALYSIS

Sample Details: Hole:MEL2 Composite 5 MM543235

| Group | Volume (%) | Volume (%) (mineral free) | SubGroup | Maceral | Volume (%) | Volume (%) (mineral free) |
|------------|------------|------------------------------|------------------|-----------------|------------|------------------------------|
| VITRINITE | 80.7 | 96.5 | Telovitrinite | Textinite | 0.0 | 0.0 |
| | | | | Texto-ulminite | 0.0 | 0.0 |
| | | | | Eu-ulminite | 0.0 | 0.0 |
| | | | | Telocollinite | 53.8 | 64.4 |
| | | | Detrovitrinite | Attrinite | 0.0 | 0.0 |
| | | | | Densinite | 0.0 | 0.0 |
| | | | Gelovitrinite | Desmocollinite | 25.6 | 30.7 |
| | | | | Corpogellinite | 1.2 | 1.4 |
| | | | | Proigelinite | 0.0 | 0.0 |
| | | | | Eugelinite | 0.0 | 0.0 |
| LIPTINITE | 2.6 | 3.1 | | Sporinite | 2.6 | 3.1 |
| | | | | Cutinite | 0.0 | 0.0 |
| | | | | Resinite | 0.0 | 0.0 |
| | | | | Liptodetrinite | 0.0 | 0.0 |
| | | | | Alginite | 0.0 | 0.0 |
| | | | | Suberinite | 0.0 | 0.0 |
| | | | | Fluorinite | 0.0 | 0.0 |
| | | | | Exsudatinitite | 0.0 | 0.0 |
| | | | | Bituminite | 0.0 | 0.0 |
| | | | | | | |
| INERTINITE | 0.4 | 0.5 | Telo-inertinite | Fusinite | 0.0 | 0.0 |
| | | | | Semifusinite | 0.2 | 0.2 |
| | | | | Funginite | 0.0 | 0.0 |
| | | | Detro-inertinite | Inertodetrinite | 0.2 | 0.2 |
| | | | | Micrinite | 0.0 | 0.0 |
| | | | Gelo-inertinite | Macrinite | 0.0 | 0.0 |
| MINERAL | 16.4 | | | | | |

Prepared and measured in accordance with Australian Standards AS 2856.1; AS 2856.2.

Observations: 507

Date: 15/09/2009

This data has not been artificially rounded to avoid misleading presentation of results.

Melinda Kokay

Appendix IV

Sorption Isotherm Report

ANALYTICAL REPORT

METHANE ADSORPTION ISOTHERMS

MEELEEBEE #2

**PREPARED FOR
ORIGIN ENERGY LTD**

OCTOBER 2009



Prepared by Dr P. J. Crosdale (MAIG)
Energy Resources Consulting Pty Ltd
PO Box 54
Coorparoo, Qld 4151
Australia

ADSORPTION ISOTHERM ANALYSIS

INTRODUCTION

Seven samples, comprising both composites and single desorption cannister samples, were received from the Origin Energy Ltd Muggleton #2 well (see table below) for evaluation their methane adsorption isotherm properties.

| Composite Isotherm | Single Sample Isotherm | Avg Depth | Isotherm Temperature degC | Earth Data Sample ID | From (m) | To (m) | Thickness | Seam |
|--------------------|------------------------|-----------|---------------------------|----------------------|----------|--------|-----------|------------------|
| 1 | | 114.6 | 30 | MEL2ED 1511 | 112.72 | 113.33 | 0.61 | Lower Juandah CM |
| | | | | MEL2ED 1358 | 115.00 | 115.79 | 0.79 | Lower Juandah CM |
| | | | | MEL2ED 1363 | 115.79 | 116.48 | 0.69 | Lower Juandah CM |
| 2 | 1 | 135.5 | 30 | MEL2ED 1367 | 132.99 | 133.81 | 0.82 | Lower Juandah CM |
| | | | | MEL2ED 1083 | 136.71 | 137.22 | 0.51 | Lower Juandah CM |
| | | | | MEL2ED 1374 | 137.22 | 137.92 | 0.70 | Lower Juandah CM |
| 3 | | 176.18 | 33 | MEL2ED 1589 | 169.83 | 170.33 | 0.50 | Lower Juandah CM |
| | | | | MEL2ED 1480 | 172.59 | 173.06 | 0.47 | Lower Juandah CM |
| | | | | MEL2ED 1471 | 181.86 | 182.53 | 0.67 | Lower Juandah CM |
| 4 | 2 | 251.5 | 33 | MEL2ED 1533 | 247.64 | 248.23 | 0.59 | Taroom CM |
| | | | | MEL2ED 1590 | 248.98 | 249.51 | 0.53 | Taroom CM |
| | | | | MEL2ED 1361 | 251.8 | 252.51 | 0.71 | Taroom CM |
| | | | | MEL2ED 1528 | 254.67 | 255.41 | 0.74 | Taroom CM |
| 5 | | 307.5 | 35 | MEL2ED 1373 | 292.21 | 293.02 | 0.81 | Taroom CM |
| | | | | MEL2ED 1351 | 293.02 | 293.81 | 0.79 | Taroom CM |
| | | | | MEL2ED 1401 | 304.86 | 305.54 | 0.68 | Taroom CM |
| | | | | MEL2ED 1340 | 320.09 | 320.89 | 0.80 | Taroom CM |
| | | | | MEL2ED 1419 | 322.23 | 322.84 | 0.61 | Taroom CM |

ADSORPTION ISOTHERMS

Sample Preparation

Samples were as -12 mm coal which had been crushed and composited as necessary elsewhere. Approximately 200 g of each sample was received, which was crushed to less than 0.212 mm and brought to an equilibrium moist state (AS 1038.17-1989) for methane adsorption isotherm analysis.

Moisture Content and Ash Yield

Equilibrium moisture content, ash yield and helium density (for evaluation of dead volume of the system) were determined prior to methane adsorption isotherm analysis.

Moisture content was determined by weighing approximately 0.5 to 1 g of coal in a 4 digit balance (i.e to 0.1 mg), heating it to 110 °C in a nitrogen atmosphere, and then re-weighing the dry sample. The method is similar to AS1038.3-1989 "Methods for the analysis and testing of coal and coke. Part 3: Proximate analysis of higher rank coal."

Ash yield was determined on dry coal by weighing approximately 0.5 to 1 g of dry coal in a 4 digit balance (i.e. to 0.1 mg), heating it to 500 °C and holding it there for one hour and then raising the heat to 815 °C and maintaining this for a further one hour. The ash yield is then determined following re-weighing at room temperature. The method is similar to AS1038.3-1989 "Methods for the analysis and testing of coal and coke. Part 3: Proximate analysis of higher rank coal."

Adsorption Isotherm

Isotherm determination used at least nine pressure steps up to a maximum pressure of around 8 MPa (1160 psia) where the coals are at 800 m or shallower and additional pressure steps may be used for deeper coals. Analysis was performed as close as possible to formation temperature as advised. The procedure is detailed as follows:

1. adsorption isotherm cells are weighed
2. the equilibrium moist coal is placed in the cells and the cells weighed
3. the cells are evacuated and weighed
4. helium is introduced into the cells at pressures of approximately 2, 4, 6 and 8 MPa; this data is used to calculate the free volume of the cells and consequently the helium density of the coal
5. the cells are evacuated
6. a fixed volume of methane is introduced into the cell and the pressure monitored to the nearest 1 kPa until there is no change in pressure for a period of at least one hour
7. the adsorption is determined
8. steps 6 and 7 are repeated for each pressure step

RESULTS

Isotherm results are tabulated and presented graphically as follows. Isotherm results are calculated to standardised conditions of 20°C and 1 atmosphere (101.3 kPa) pressure per gram of coal as well as in standard cubic feet (scf) at 60 °F and 1 atmosphere (14.7 psia) per short ton (2000 lb) of coal.

| | | |
|----------------------------|--|---|
| Client | Origin Energy Ltd | |
| Sample Details | Meeleebee #2 (112.72 - 116.48 m) Composite 1 | |
| Sample Properties | | |
| Inherent Moisture (% , ad) | n.d. | Isotherm Sample Mass (g) [lb] 107.888 [0.23785] |
| Ash (% , ad) | n.d. | Particle Size (mm) [US mesh] -0.212 [70] |
| Volatile Matter (% , ad) | n.d. | Helium density (g/cc) 1.45 |
| Fixed Carbon (% , ad) | n.d. | Test Temperature (°C) [°F] 30.0 [86.0] |
| Ash (% , eq. moist) | 25.6 | Analysis date 26-Sep-09 |
| Equilibrium Moisture (%) | 6.4 | Test Gas Methane |

Methane Adsorption at Equilibrium Moisture

at 20°C; 101.1kPa (1 atm)

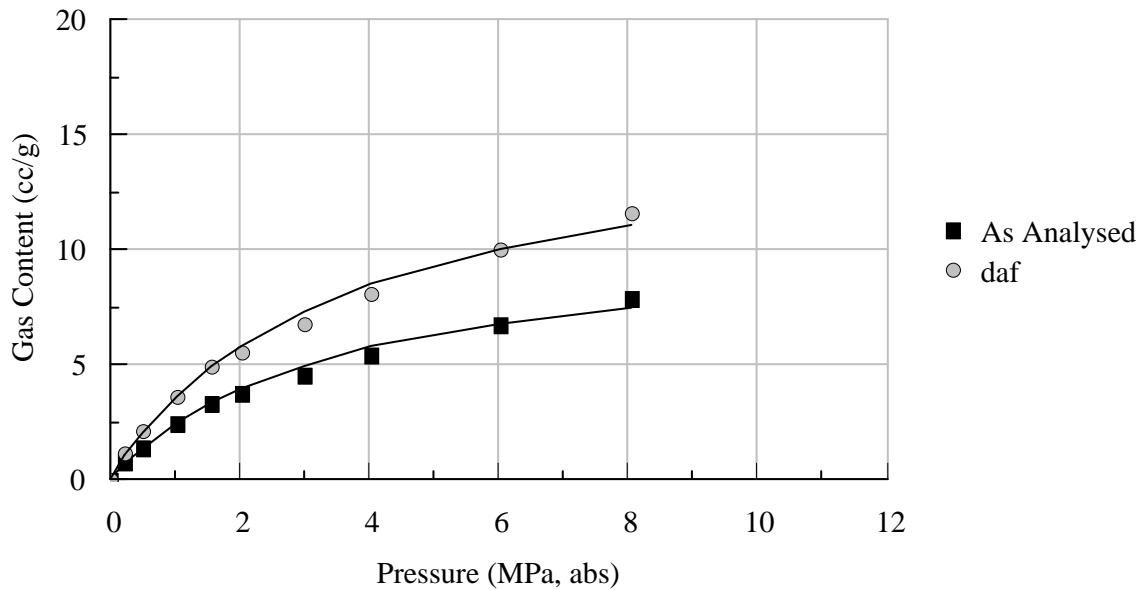
at 60°F, 14.7 psia

| Pressure (MPa) (absolute) | Gas Content (cc/g) (as analysed) | Gas Content (cc/g) (daf) | Pressure (psia) | Gas Content (scf/t) (as analysed) | Gas Content (scf/t) (daf) |
|---------------------------------|--|--------------------------------|--------------------|---|---------------------------------|
| 0.247 | 0.82 | 1.20 | 36 | 26 | 38 |
| 0.513 | 1.49 | 2.19 | 74 | 47 | 69 |
| 1.042 | 2.49 | 3.67 | 151 | 79 | 116 |
| 1.569 | 3.35 | 4.92 | 228 | 106 | 156 |
| 2.035 | 3.80 | 5.59 | 295 | 120 | 177 |
| 2.996 | 4.59 | 6.76 | 435 | 145 | 214 |
| 4.034 | 5.52 | 8.12 | 585 | 175 | 257 |
| 6.018 | 6.81 | 10.02 | 873 | 215 | 317 |
| 8.072 | 7.90 | 11.62 | 1171 | 250 | 368 |

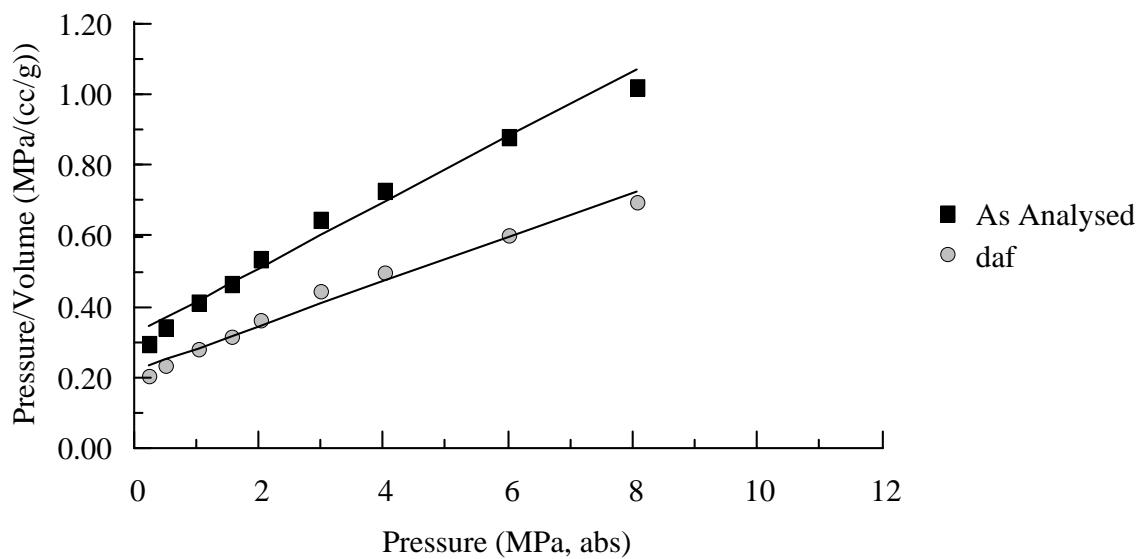
Langmuir Isotherm Coefficients

| | P _L (MPa, abs) | V _L (cc/g) | P _L (psia) | V _L (scf/t) |
|-------------|------------------------------|--------------------------|--------------------------|---------------------------|
| As analysed | 3.47 | 10.78 | 504 | 341 |
| daf | 3.47 | 15.86 | 504 | 502 |

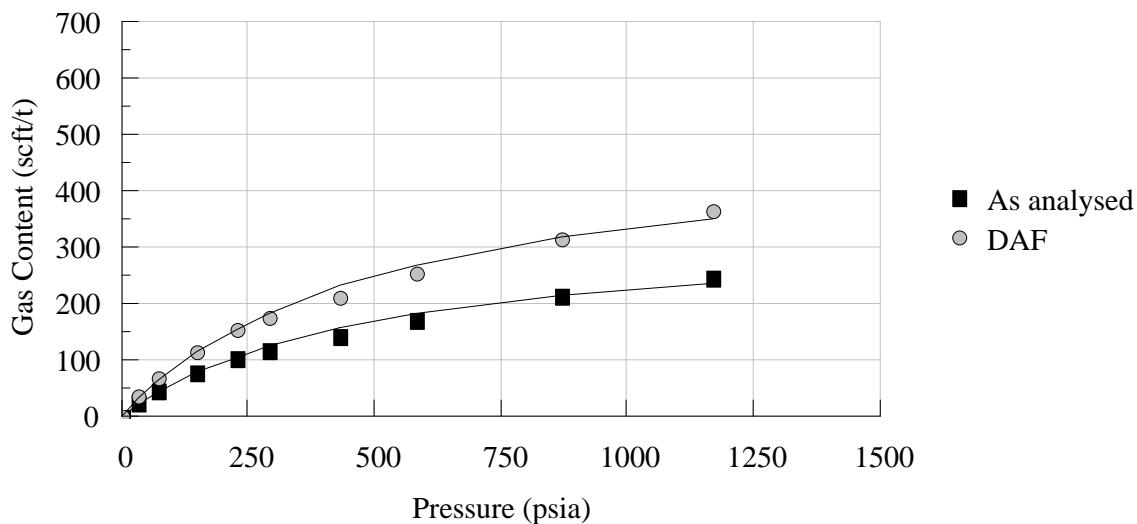
Methane Adsorption Isotherm (20 °C, 101.3 kPa)
 Meeleebee #2 (112.72 - 116.48 m) Composite 1
 Analysis Temperature 30.0 °C



Methane Adsorption Langmuir Plot (20 °C, 101.3 kPa)
 Meeleebee #2 (112.72 - 116.48 m) Composite 1
 Analysis Temperature 30.0 °C



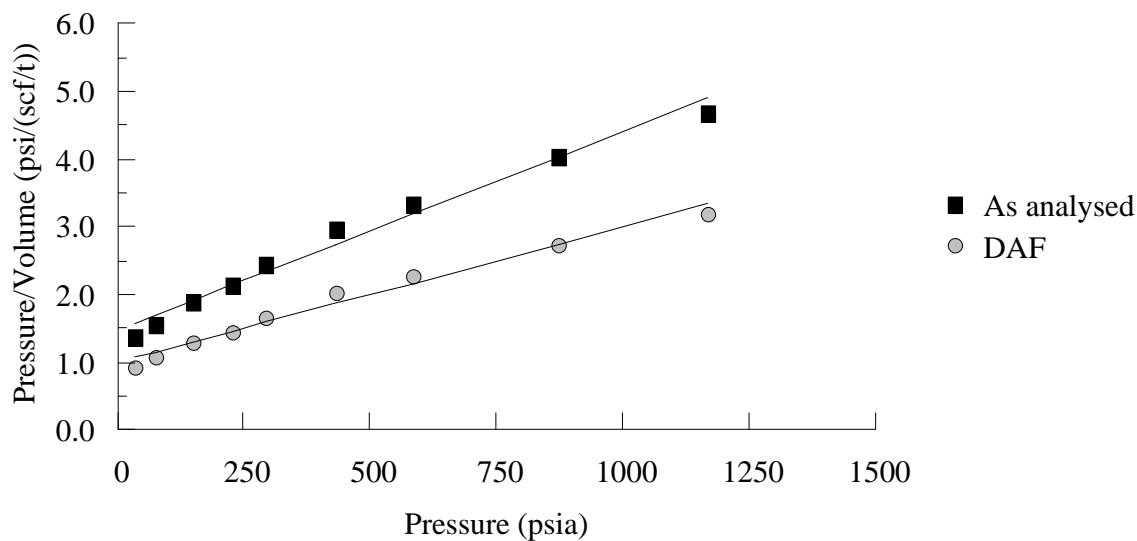
Methane Adsorption Isotherm (60 °F, 14.7 psia)
 Meeleebee #2 (112.72 - 116.48 m) Composite 1
 Analysis Temperature 86.0 °F



$$V = 341 P / (P + 504) \quad (\text{As analysed})$$

$$V = 502 P / (P + 504) \quad (\text{daf})$$

Methane Adsorption Langmuir Plot (60 °F, 14.7 psia)
 Meeleebee #2 (112.72 - 116.48 m) Composite 1
 Analysis Temperature 86.0 °F



$$P/V = 0.00293 P + 1.477; \quad r^2 = 0.981 \quad (\text{As analysed})$$

$$P/V = 0.00199 P + 1.004; \quad r^2 = 0.981 \quad (\text{daf})$$

| | | |
|----------------------------|--|---|
| Client | Origin Energy Ltd | |
| Sample Details | Meeleebee #2 (132.99 - 137.92 m) Composite 2 | |
| Sample Properties | | |
| Inherent Moisture (% , ad) | n.d. | Isotherm Sample Mass (g) [lb] 108.853 [0.23998] |
| Ash (% , ad) | n.d. | Particle Size (mm) [US mesh] -0.212 [70] |
| Volatile Matter (% , ad) | n.d. | Helium density (g/cc) 1.42 |
| Fixed Carbon (% , ad) | n.d. | Test Temperature (°C) [°F] 30.0 [86.0] |
| Ash (% , eq. moist) | 23.7 | Analysis date 26-Sep-09 |
| Equilibrium Moisture (%) | 6.4 | Test Gas Methane |

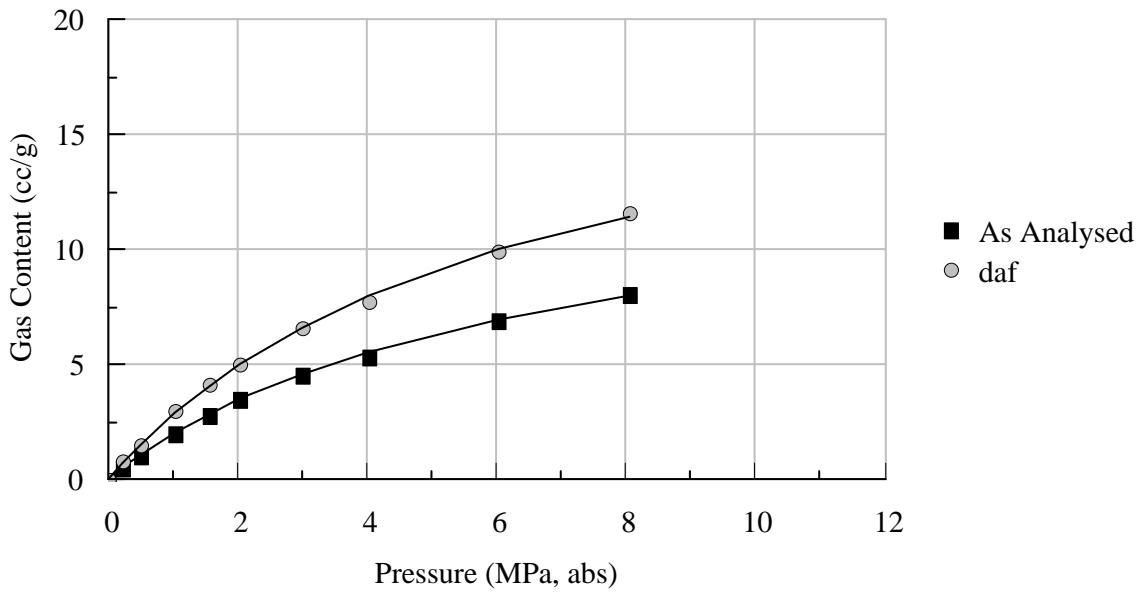
Methane Adsorption at Equilibrium Moisture

| at 20°C; 101.1kPa (1 atm) | | | at 60°F, 14.7 psia | | |
|---------------------------------|--|--------------------------------|--------------------|---|---------------------------------|
| Pressure (MPa) (absolute) | Gas Content (cc/g) (as analysed) | Gas Content (cc/g) (daf) | Pressure (psia) | Gas Content (scf/t) (as analysed) | Gas Content (scf/t) (daf) |
| 0.247 | 0.55 | 0.79 | 36 | 18 | 25 |
| 0.513 | 1.08 | 1.55 | 74 | 34 | 49 |
| 1.042 | 2.08 | 2.98 | 151 | 66 | 94 |
| 1.569 | 2.89 | 4.14 | 228 | 92 | 131 |
| 2.035 | 3.54 | 5.07 | 295 | 112 | 160 |
| 2.996 | 4.61 | 6.61 | 435 | 146 | 209 |
| 4.034 | 5.43 | 7.78 | 585 | 172 | 246 |
| 6.018 | 6.96 | 9.97 | 873 | 220 | 315 |
| 8.072 | 8.13 | 11.64 | 1171 | 257 | 368 |

Langmuir Isotherm Coefficients

| | P _L (MPa, abs) | V _L (cc/g) | P _L (psia) | V _L (scf/t) |
|-------------|------------------------------|--------------------------|--------------------------|---------------------------|
| As analysed | 6.10 | 14.08 | 885 | 445 |
| daf | 6.10 | 20.16 | 885 | 638 |

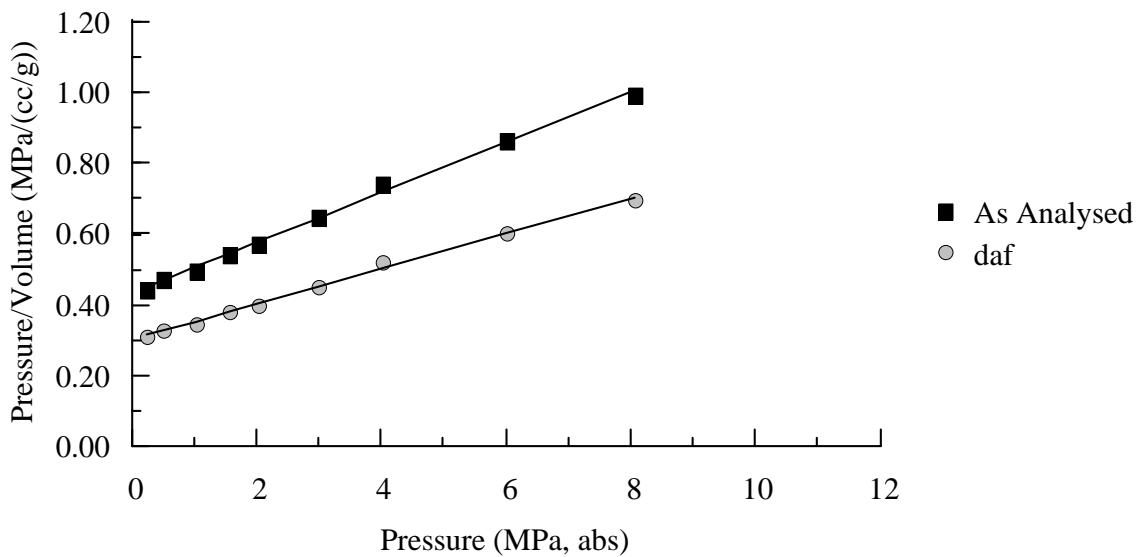
Methane Adsorption Isotherm (20 °C, 101.3 kPa)
Meeleebee #2 (132.99 - 137.92 m) Composite 2
Analysis Temperature 30.0 °C



$$V = 14.08 P / (P + 6.10) \quad (\text{As analysed})$$

$$V = 20.16 P / (P + 6.10) \quad (\text{daf})$$

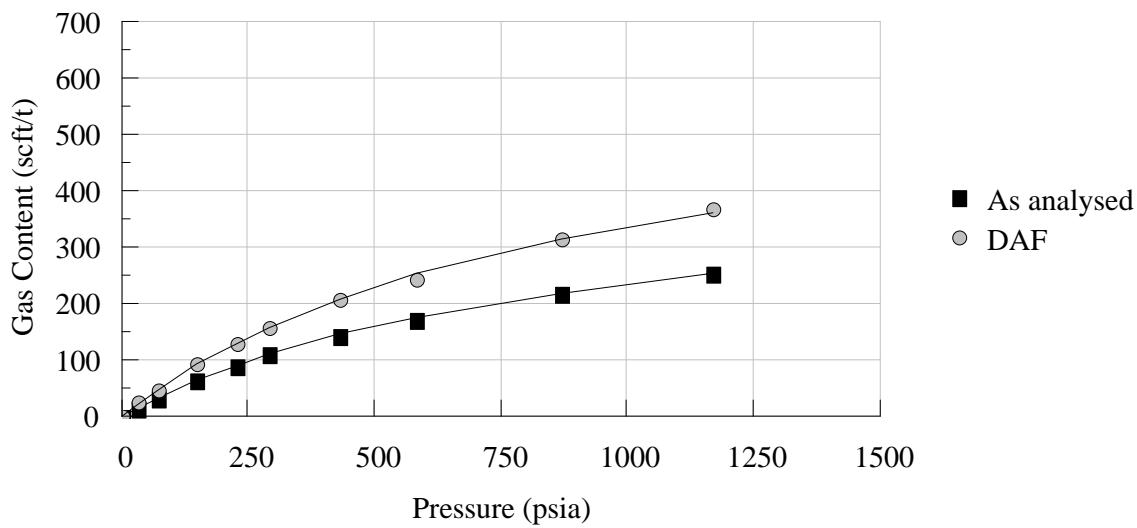
Methane Adsorption Langmuir Plot (20 °C, 101.3 kPa)
Meeleebee #2 (132.99 - 137.92 m) Composite 2
Analysis Temperature 30.0 °C



$$P/V = 0.071 P + 0.433; \quad r^2 = 0.997 \quad (\text{As analysed})$$

$$P/V = 0.050 P + 0.303; \quad r^2 = 0.997 \quad (\text{daf})$$

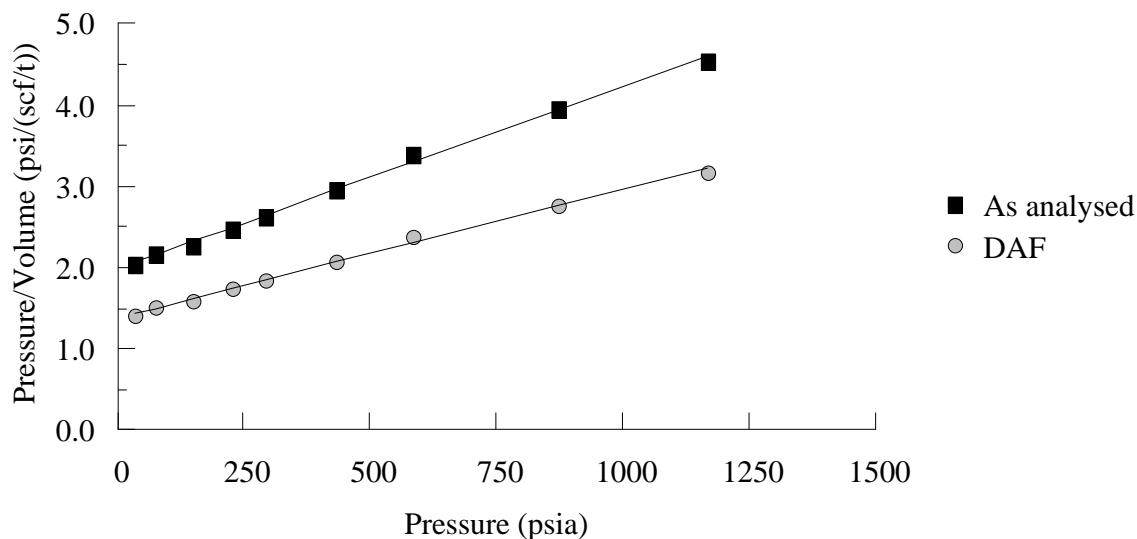
Methane Adsorption Isotherm (60 °F, 14.7 psia)
 Meeleebee #2 (132.99 - 137.92 m) Composite 2
 Analysis Temperature 86.0 °F



$$V = 445 P / (P + 885) \quad (\text{As analysed})$$

$$V = 638 P / (P + 885) \quad (\text{daf})$$

Methane Adsorption Langmuir Plot (60 °F, 14.7 psia)
 Meeleebee #2 (132.99 - 137.92 m) Composite 2
 Analysis Temperature 86.0 °F



$$P/V = 0.00225 P + 1.988; \quad r^2 = 0.997 \quad (\text{As analysed})$$

$$P/V = 0.00157 P + 1.388; \quad r^2 = 0.997 \quad (\text{daf})$$

| | | | |
|----------------------------|---|-------------------------------|------------------|
| Client | Origin Energy Ltd | | |
| Sample Details | Meeleebee #2 (136.71 - 137.22 m) MEL2ED1083 | | |
| Sample Properties | | | |
| Inherent Moisture (% , ad) | n.d. | Isotherm Sample Mass (g) [lb] | 83.313 [0.18367] |
| Ash (% , ad) | n.d. | Particle Size (mm) [US mesh] | -0.212 [70] |
| Volatile Matter (% , ad) | n.d. | Helium density (g/cc) | 1.35 |
| Fixed Carbon (% , ad) | n.d. | Test Temperature (°C) [°F] | 30.0 [86.0] |
| Ash (% , eq. moist) | 15.1 | Analysis date | 26-Sep-09 |
| Equilibrium Moisture (%) | 5.8 | Test Gas | Methane |

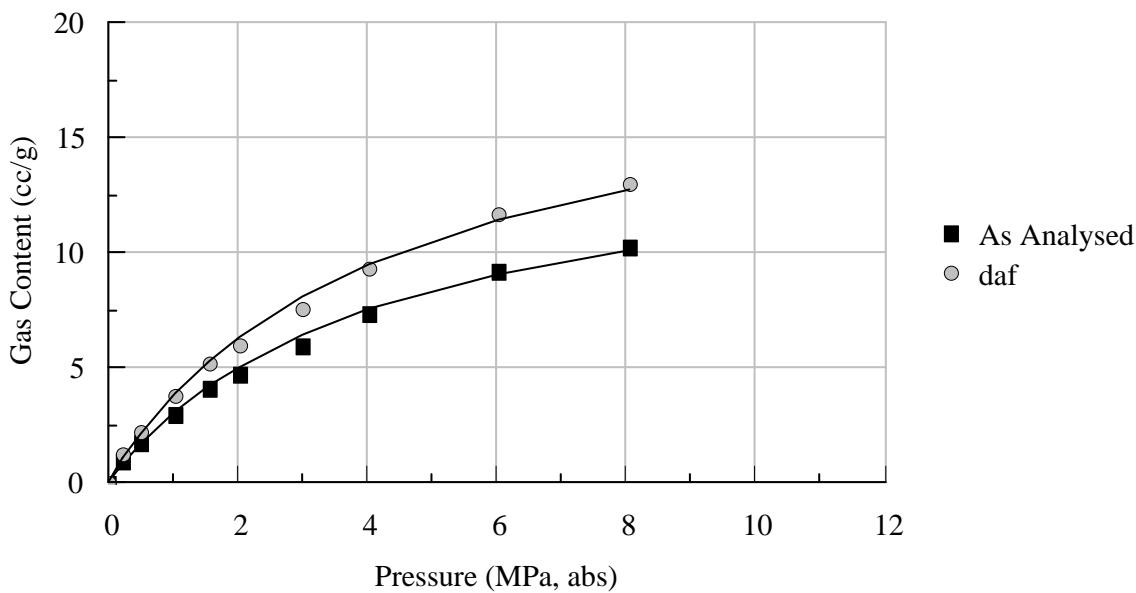
Methane Adsorption at Equilibrium Moisture

| at 20°C; 101.1kPa (1 atm) | | | at 60°F, 14.7 psia | | |
|---------------------------------|--|--------------------------------|--------------------|---|---------------------------------|
| Pressure (MPa) (absolute) | Gas Content (cc/g) (as analysed) | Gas Content (cc/g) (daf) | Pressure (psia) | Gas Content (scf/t) (as analysed) | Gas Content (scf/t) (daf) |
| 0.247 | 1.00 | 1.26 | 36 | 32 | 40 |
| 0.513 | 1.80 | 2.28 | 74 | 57 | 72 |
| 1.042 | 2.99 | 3.78 | 151 | 95 | 119 |
| 1.569 | 4.14 | 5.24 | 228 | 131 | 166 |
| 2.035 | 4.77 | 6.03 | 295 | 151 | 191 |
| 2.996 | 6.01 | 7.60 | 435 | 190 | 240 |
| 4.034 | 7.37 | 9.31 | 585 | 233 | 295 |
| 6.018 | 9.26 | 11.70 | 873 | 293 | 370 |
| 8.072 | 10.32 | 13.04 | 1171 | 326 | 412 |

Langmuir Isotherm Coefficients

| | P _L (MPa, abs) | V _L (cc/g) | P _L (psia) | V _L (scf/t) |
|-------------|------------------------------|--------------------------|--------------------------|---------------------------|
| As analysed | 4.07 | 15.18 | 591 | 480 |
| daf | 4.07 | 19.17 | 591 | 606 |

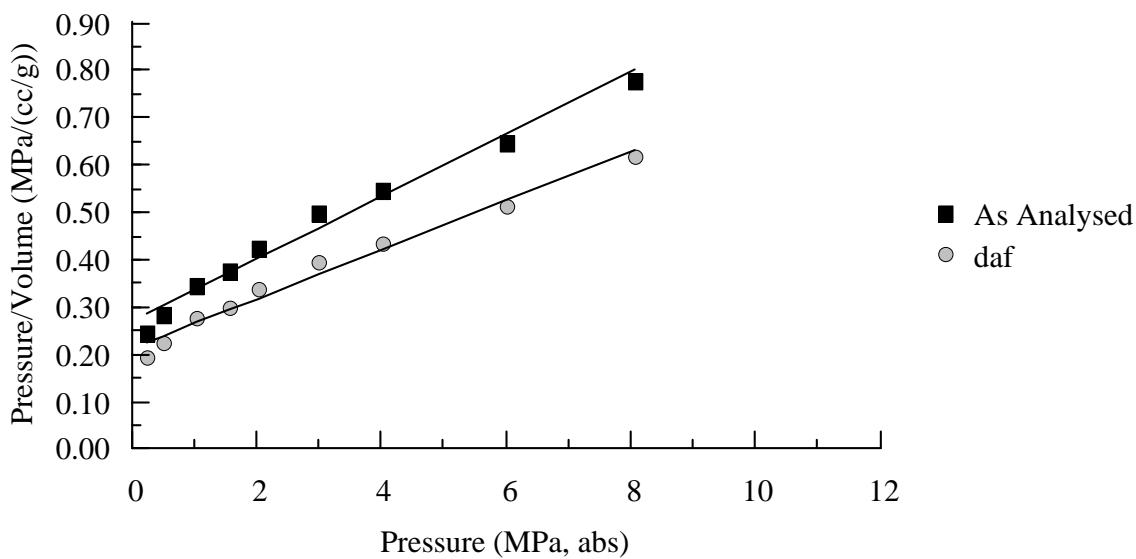
Methane Adsorption Isotherm (20 °C, 101.3 kPa)
 Meeleebee #2 (136.71 - 137.22 m) MEL2ED1083
 Analysis Temperature 30.0 °C



$$V = 15.18 P / (P + 4.07) \quad (\text{As analysed})$$

$$V = 19.17 P / (P + 4.07) \quad (\text{daf})$$

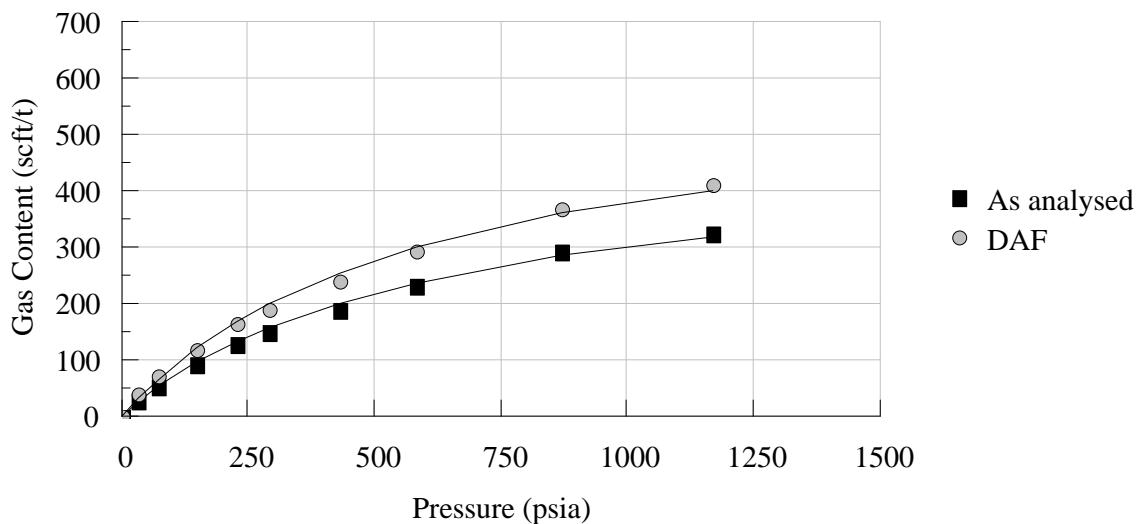
Methane Adsorption Langmuir Plot (20 °C, 101.3 kPa)
 Meeleebee #2 (136.71 - 137.22 m) MEL2ED1083
 Analysis Temperature 30.0 °C



$$P/V = 0.066 P + 0.268; \quad r^2 = 0.983 \quad (\text{As analysed})$$

$$P/V = 0.052 P + 0.212; \quad r^2 = 0.983 \quad (\text{daf})$$

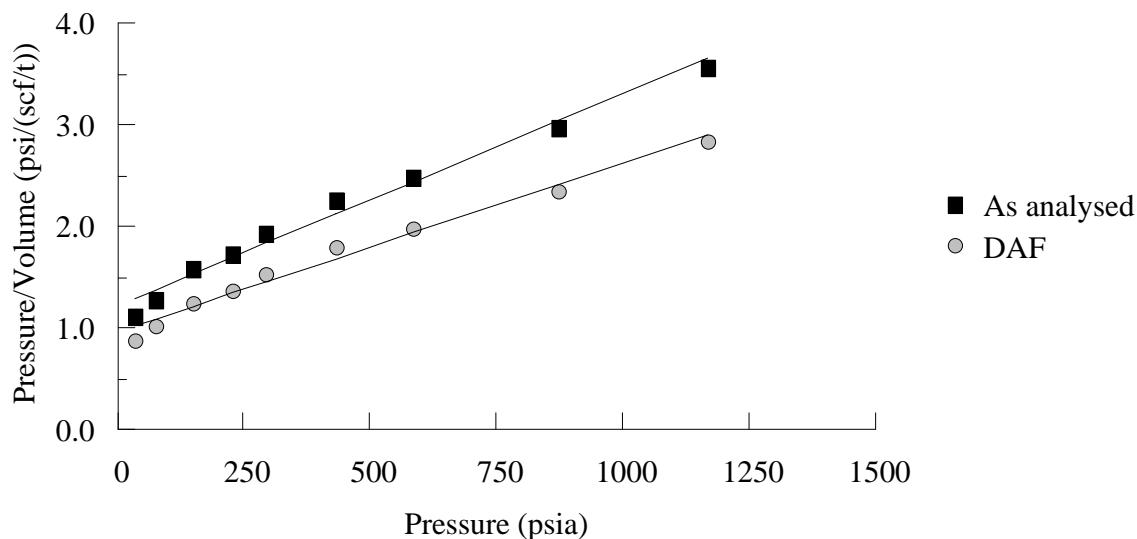
Methane Adsorption Isotherm (60 °F, 14.7 psia)
Meeleebee #2 (136.71 - 137.22 m) MEL2ED1083
Analysis Temperature 86.0 °F



$$V = 480 P / (P + 591) \quad (\text{As analysed})$$

$$V = 606 P / (P + 591) \quad (\text{daf})$$

Methane Adsorption Langmuir Plot (60 °F, 14.7 psia)
Meeleebee #2 (136.71 - 137.22 m) MEL2ED1083
Analysis Temperature 86.0 °F



$$P/V = 0.00208 P + 1.230; \quad r^2 = 0.983 \quad (\text{As analysed})$$

$$P/V = 0.00165 P + 0.974; \quad r^2 = 0.983 \quad (\text{daf})$$

| | | | |
|----------------------------|--|-------------------------------|------------------|
| Client | Origin Energy Ltd | | |
| Sample Details | Meeleebee #2 (169.83 - 182.53 m) Composite 3 | | |
| Sample Properties | | | |
| Inherent Moisture (% , ad) | n.d. | Isotherm Sample Mass (g) [lb] | 99.430 [0.21921] |
| Ash (% , ad) | n.d. | Particle Size (mm) [US mesh] | -0.212 [70] |
| Volatile Matter (% , ad) | n.d. | Helium density (g/cc) | 1.35 |
| Fixed Carbon (% , ad) | n.d. | Test Temperature (°C) [°F] | 33.0 [91.4] |
| Ash (% , eq. moist) | 14.3 | Analysis date | 26-Sep-09 |
| Equilibrium Moisture (%) | 6.9 | Test Gas | Methane |

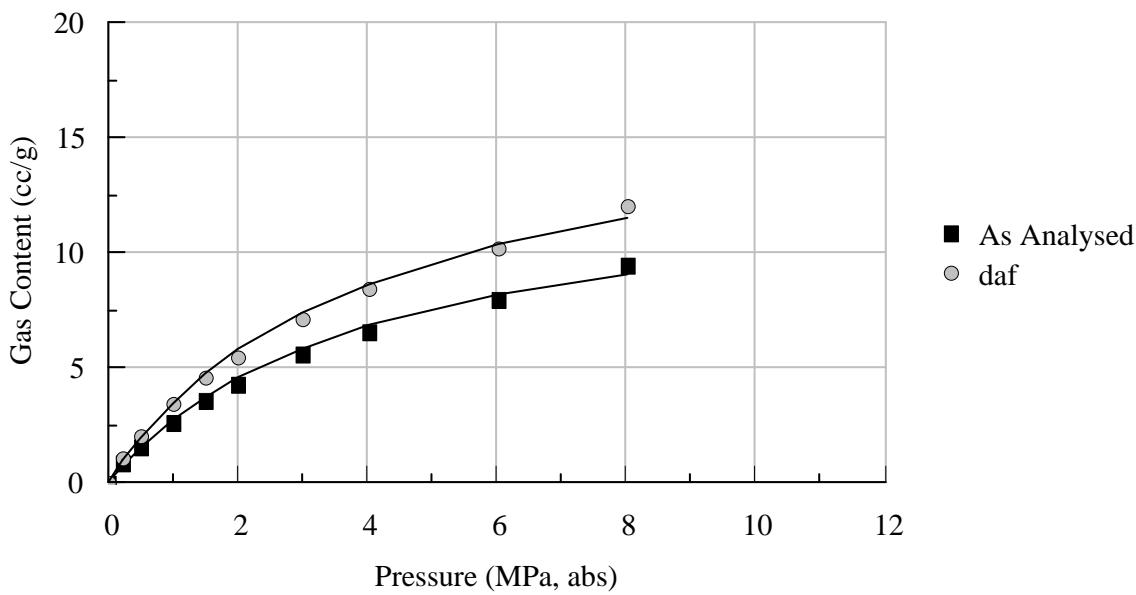
Methane Adsorption at Equilibrium Moisture

| at 20°C; 101.1kPa (1 atm) | | | at 60°F, 14.7 psia | | |
|---------------------------------|--|--------------------------------|--------------------|---|---------------------------------|
| Pressure (MPa) (absolute) | Gas Content (cc/g) (as analysed) | Gas Content (cc/g) (daf) | Pressure (psia) | Gas Content (scf/t) (as analysed) | Gas Content (scf/t) (daf) |
| 0.241 | 0.88 | 1.12 | 35 | 28 | 35 |
| 0.517 | 1.65 | 2.09 | 75 | 52 | 66 |
| 1.012 | 2.70 | 3.43 | 147 | 85 | 108 |
| 1.514 | 3.60 | 4.57 | 220 | 114 | 145 |
| 2.024 | 4.31 | 5.47 | 294 | 136 | 173 |
| 3.001 | 5.63 | 7.14 | 435 | 178 | 226 |
| 4.036 | 6.66 | 8.45 | 585 | 211 | 267 |
| 6.029 | 8.06 | 10.22 | 874 | 255 | 323 |
| 8.020 | 9.51 | 12.06 | 1163 | 301 | 381 |

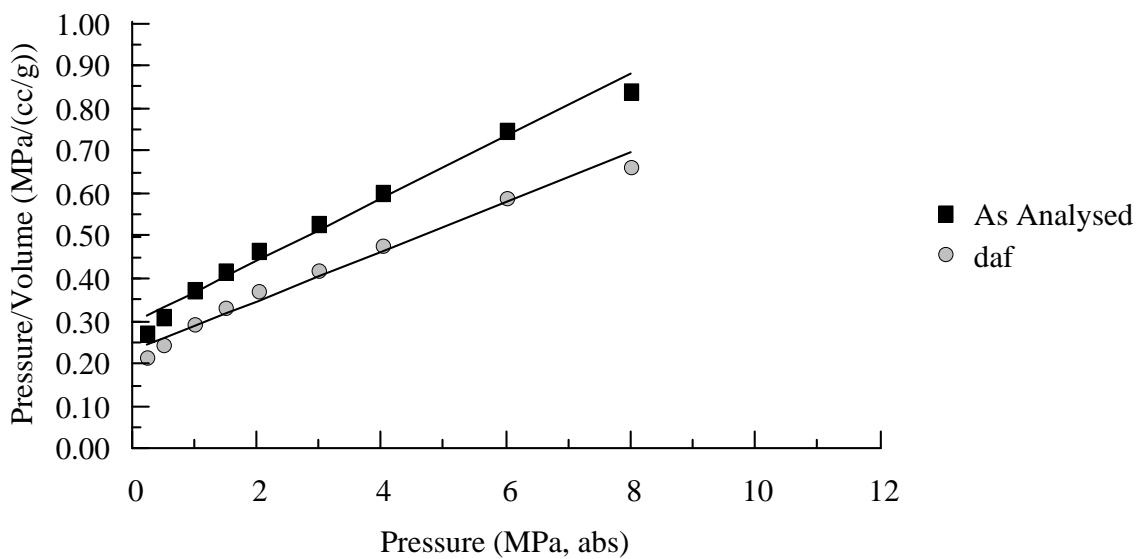
Langmuir Isotherm Coefficients

| | P _L (MPa, abs) | V _L (cc/g) | P _L (psia) | V _L (scf/t) |
|-------------|------------------------------|--------------------------|--------------------------|---------------------------|
| As analysed | 4.03 | 13.68 | 585 | 433 |
| daf | 4.03 | 17.36 | 585 | 549 |

Methane Adsorption Isotherm (20 °C, 101.3 kPa)
 Meeleebee #2 (169.83 - 182.53 m) Composite 3
 Analysis Temperature 33.0 °C



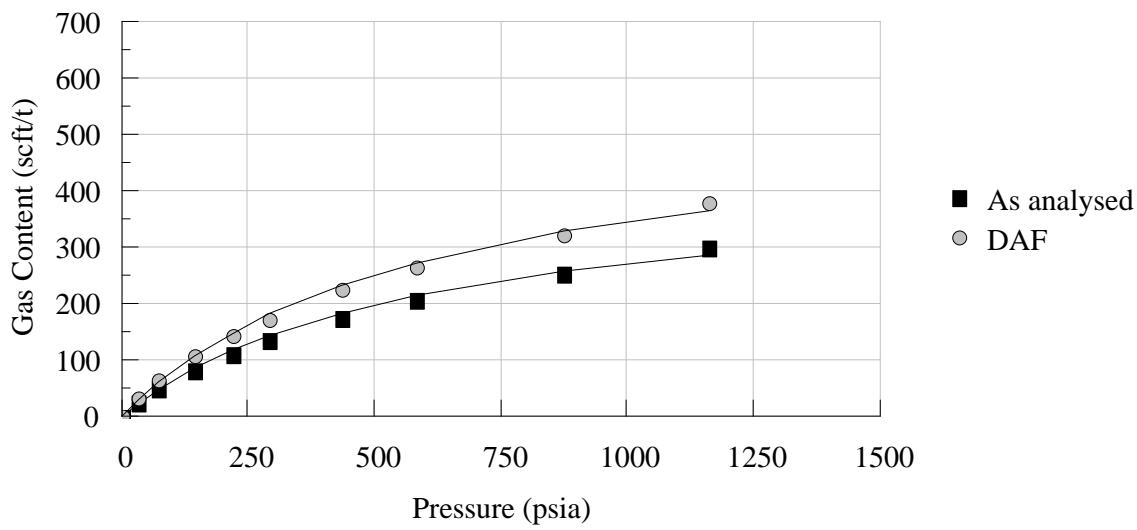
Methane Adsorption Langmuir Plot (20 °C, 101.3 kPa)
 Meeleebee #2 (169.83 - 182.53 m) Composite 3
 Analysis Temperature 33.0 °C



$$P/V = 0.073 P + 0.295; \quad r^2 = 0.983 \text{ (As analysed)}$$

$$P/V = 0.058 P + 0.232; \quad r^2 = 0.983 \text{ (daf)}$$

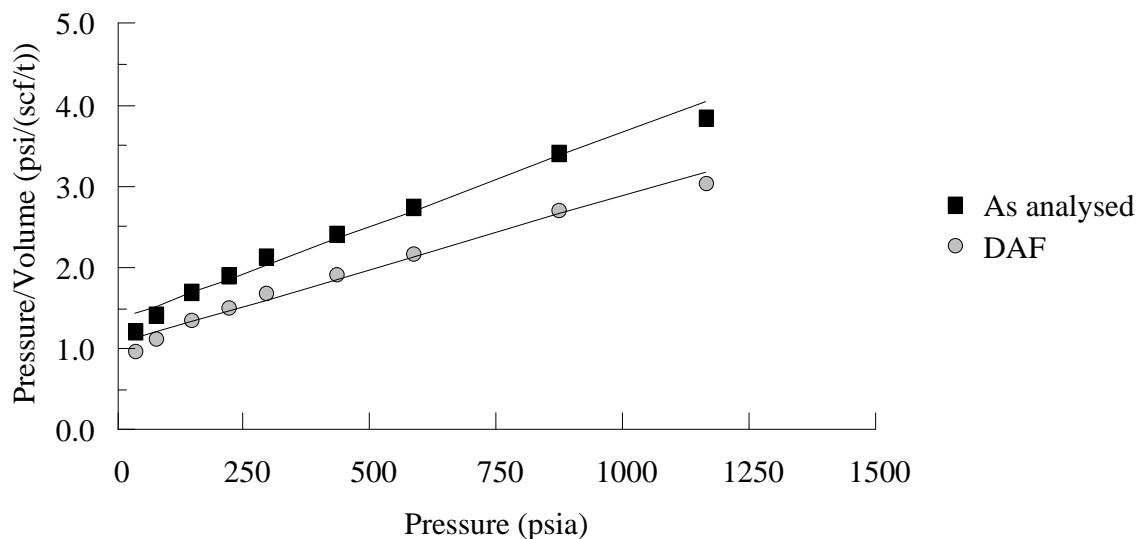
Methane Adsorption Isotherm (60 °F, 14.7 psia)
 Meeleebee #2 (169.83 - 182.53 m) Composite 3
 Analysis Temperature 91.4 °F



$$V = 433 P / (P + 585) \quad (\text{As analysed})$$

$$V = 549 P / (P + 585) \quad (\text{daf})$$

Methane Adsorption Langmuir Plot (60 °F, 14.7 psia)
 Meeleebee #2 (169.83 - 182.53 m) Composite 3
 Analysis Temperature 91.4 °F



$$P/V = 0.00231 P + 1.351; \quad r^2 = 0.983 \quad (\text{As analysed})$$

$$P/V = 0.00182 P + 1.065; \quad r^2 = 0.983 \quad (\text{daf})$$

| | | | |
|----------------------------|--|-------------------------------|------------------|
| Client | Origin Energy Ltd | | |
| Sample Details | Meeleebee #2 (247.64 - 255.41 m) Composite 4 | | |
| Sample Properties | | | |
| Inherent Moisture (% , ad) | n.d. | Isotherm Sample Mass (g) [lb] | 98.236 [0.21657] |
| Ash (% , ad) | n.d. | Particle Size (mm) [US mesh] | -0.212 [70] |
| Volatile Matter (% , ad) | n.d. | Helium density (g/cc) | 1.30 |
| Fixed Carbon (% , ad) | n.d. | Test Temperature (°C) [°F] | 33.0 [91.4] |
| Ash (% , eq. moist) | 11.4 | Analysis date | 28-Sep-09 |
| Equilibrium Moisture (%) | 5.4 | Test Gas | Methane |

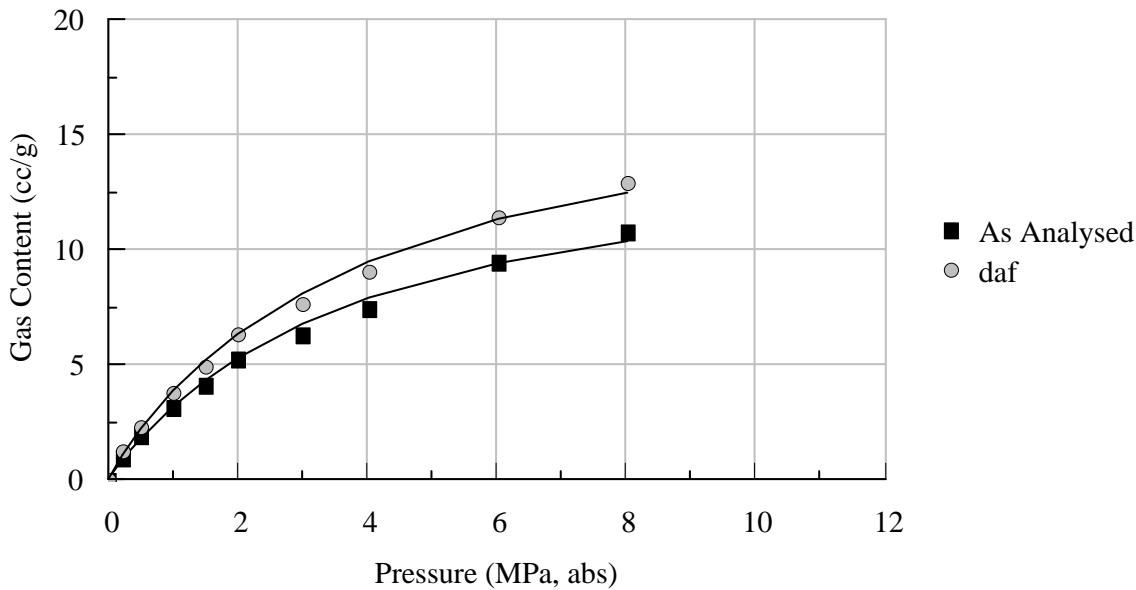
Methane Adsorption at Equilibrium Moisture

| at 20°C; 101.1kPa (1 atm) | | | at 60°F, 14.7 psia | | |
|---------------------------------|--|--------------------------------|--------------------|---|---------------------------------|
| Pressure (MPa) (absolute) | Gas Content (cc/g) (as analysed) | Gas Content (cc/g) (daf) | Pressure (psia) | Gas Content (scf/t) (as analysed) | Gas Content (scf/t) (daf) |
| 0.241 | 1.02 | 1.23 | 35 | 32 | 39 |
| 0.517 | 1.96 | 2.36 | 75 | 62 | 75 |
| 1.012 | 3.19 | 3.83 | 147 | 101 | 121 |
| 1.514 | 4.13 | 4.96 | 220 | 131 | 157 |
| 2.024 | 5.30 | 6.37 | 294 | 168 | 202 |
| 3.001 | 6.38 | 7.66 | 435 | 202 | 242 |
| 4.036 | 7.53 | 9.04 | 585 | 238 | 286 |
| 6.029 | 9.50 | 11.42 | 874 | 301 | 361 |
| 8.020 | 10.80 | 12.97 | 1163 | 341 | 410 |

Langmuir Isotherm Coefficients

| | P _L (MPa, abs) | V _L (cc/g) | P _L (psia) | V _L (scf/t) |
|-------------|------------------------------|--------------------------|--------------------------|---------------------------|
| As analysed | 3.83 | 15.42 | 556 | 488 |
| daf | 3.83 | 18.52 | 556 | 586 |

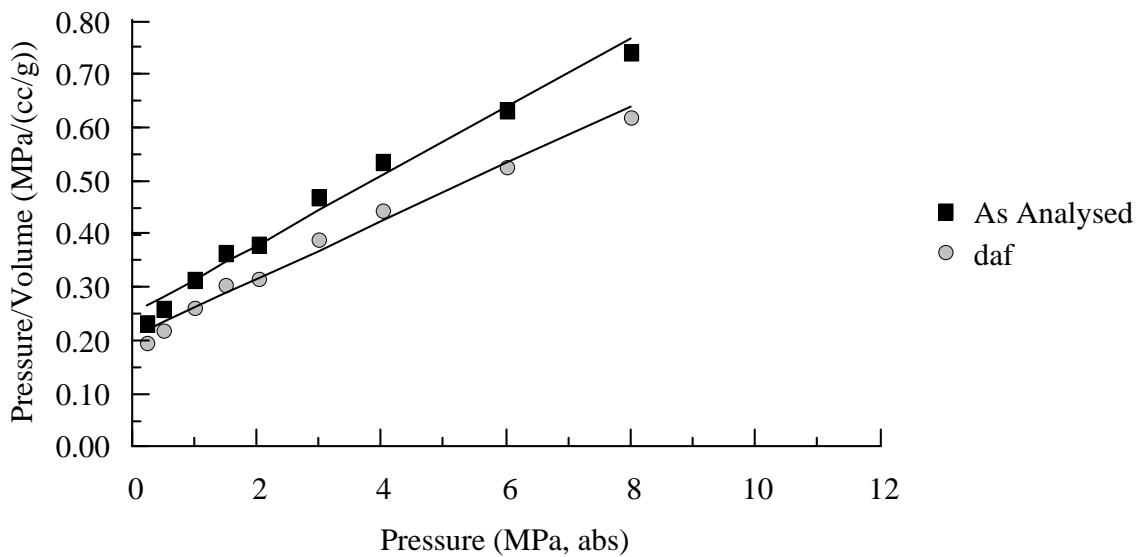
Methane Adsorption Isotherm (20 °C, 101.3 kPa)
 Meeleebee #2 (247.64 - 255.41 m) Composite 4
 Analysis Temperature 33.0 °C



$$V = 15.42 P / (P + 3.83) \quad (\text{As analysed})$$

$$V = 18.52 P / (P + 3.83) \quad (\text{daf})$$

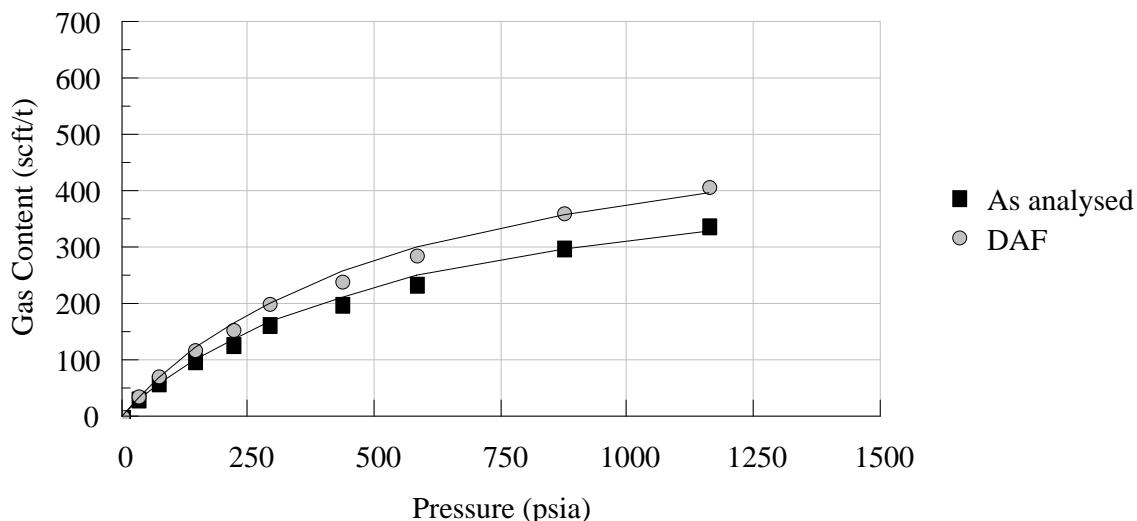
Methane Adsorption Langmuir Plot (20 °C, 101.3 kPa)
 Meeleebee #2 (247.64 - 255.41 m) Composite 4
 Analysis Temperature 33.0 °C



$$P/V = 0.065 P + 0.248; \quad r^2 = 0.984 \quad (\text{As analysed})$$

$$P/V = 0.054 P + 0.207; \quad r^2 = 0.984 \quad (\text{daf})$$

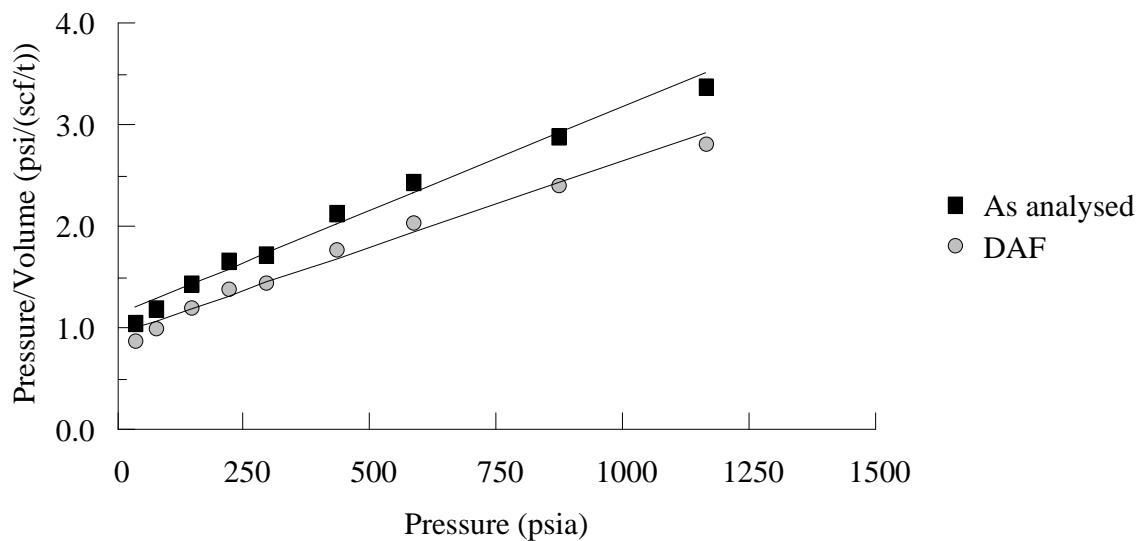
Methane Adsorption Isotherm (60 °F, 14.7 psia)
Meeleebee #2 (247.64 - 255.41 m) Composite 4
Analysis Temperature 91.4 °F



$$V = 488 P / (P + 556) \quad (\text{As analysed})$$

$$V = 586 P / (P + 556) \quad (\text{daf})$$

Methane Adsorption Langmuir Plot (60 °F, 14.7 psia)
Meeleebee #2 (247.64 - 255.41 m) Composite 4
Analysis Temperature 91.4 °F



$$P/V = 0.00205 P + 1.139; \quad r^2 = 0.984 \quad (\text{As analysed})$$

$$P/V = 0.00171 P + 0.948; \quad r^2 = 0.984 \quad (\text{daf})$$

| | | | |
|----------------------------|---|-------------------------------|------------------|
| Client | Origin Energy Ltd | | |
| Sample Details | Meeleebee #2 (254.67 - 255.41 m) MEL2ED1528 | | |
| Sample Properties | | | |
| Inherent Moisture (% , ad) | n.d. | Isotherm Sample Mass (g) [lb] | 90.982 [0.20058] |
| Ash (% , ad) | n.d. | Particle Size (mm) [US mesh] | -0.212 [70] |
| Volatile Matter (% , ad) | n.d. | Helium density (g/cc) | 1.29 |
| Fixed Carbon (% , ad) | n.d. | Test Temperature (°C) [°F] | 33.0 [91.4] |
| Ash (% , eq. moist) | 9.2 | Analysis date | 28-Sep-09 |
| Equilibrium Moisture (%) | 5.3 | Test Gas | Methane |

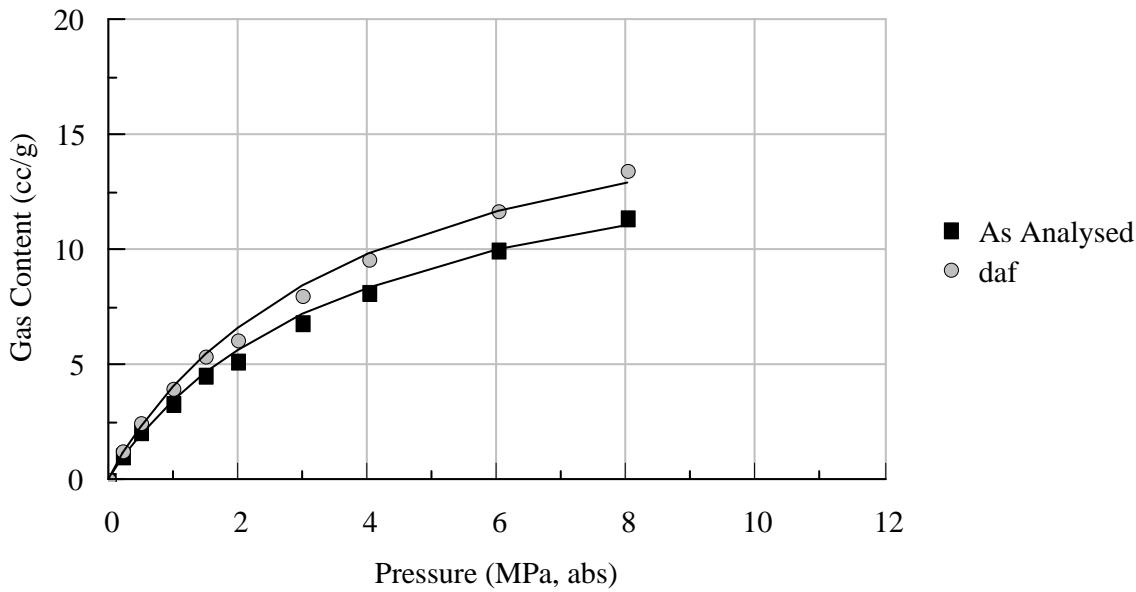
Methane Adsorption at Equilibrium Moisture

| at 20°C; 101.1kPa (1 atm) | | | at 60°F, 14.7 psia | | |
|---------------------------------|--|--------------------------------|--------------------|---|---------------------------------|
| Pressure (MPa) (absolute) | Gas Content (cc/g) (as analysed) | Gas Content (cc/g) (daf) | Pressure (psia) | Gas Content (scf/t) (as analysed) | Gas Content (scf/t) (daf) |
| 0.241 | 1.12 | 1.31 | 35 | 35 | 41 |
| 0.517 | 2.12 | 2.48 | 75 | 67 | 78 |
| 1.012 | 3.40 | 3.98 | 147 | 108 | 126 |
| 1.514 | 4.60 | 5.38 | 220 | 145 | 170 |
| 2.024 | 5.21 | 6.10 | 294 | 165 | 193 |
| 3.001 | 6.87 | 8.04 | 435 | 217 | 254 |
| 4.036 | 8.24 | 9.64 | 585 | 261 | 305 |
| 6.029 | 10.00 | 11.70 | 874 | 316 | 370 |
| 8.020 | 11.47 | 13.43 | 1163 | 363 | 425 |

Langmuir Isotherm Coefficients

| | P _L (MPa, abs) | V _L (cc/g) | P _L (psia) | V _L (scf/t) |
|-------------|------------------------------|--------------------------|--------------------------|---------------------------|
| As analysed | 3.76 | 16.27 | 545 | 515 |
| daf | 3.76 | 19.03 | 545 | 602 |

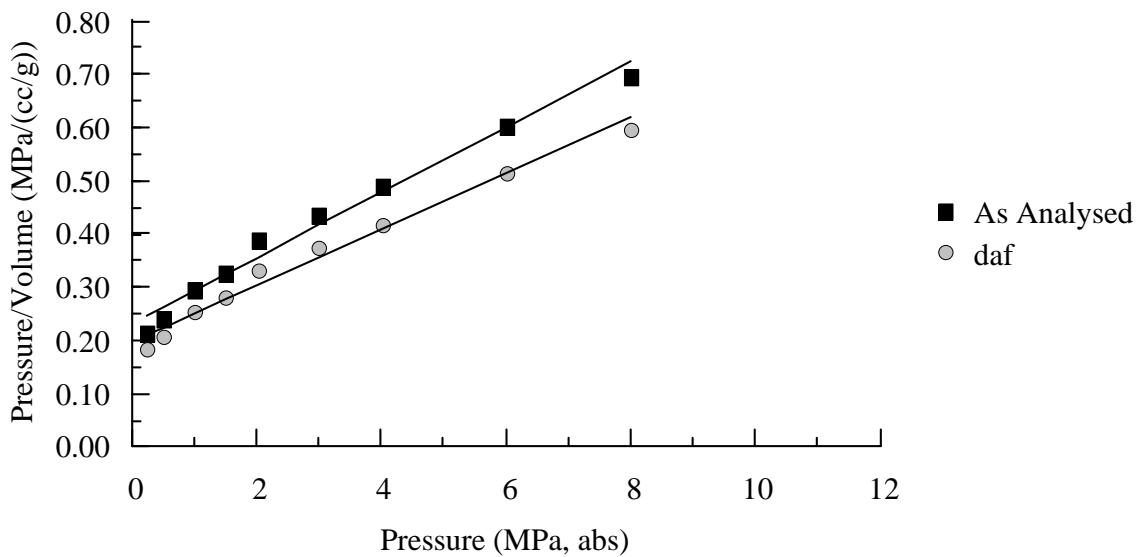
Methane Adsorption Isotherm (20 °C, 101.3 kPa)
Meeleebee #2 (254.67 - 255.41 m) MEL2ED1528
Analysis Temperature 33.0 °C



$$V = 16.27 P / (P + 3.76) \quad (\text{As analysed})$$

$$V = 19.03 P / (P + 3.76) \quad (\text{daf})$$

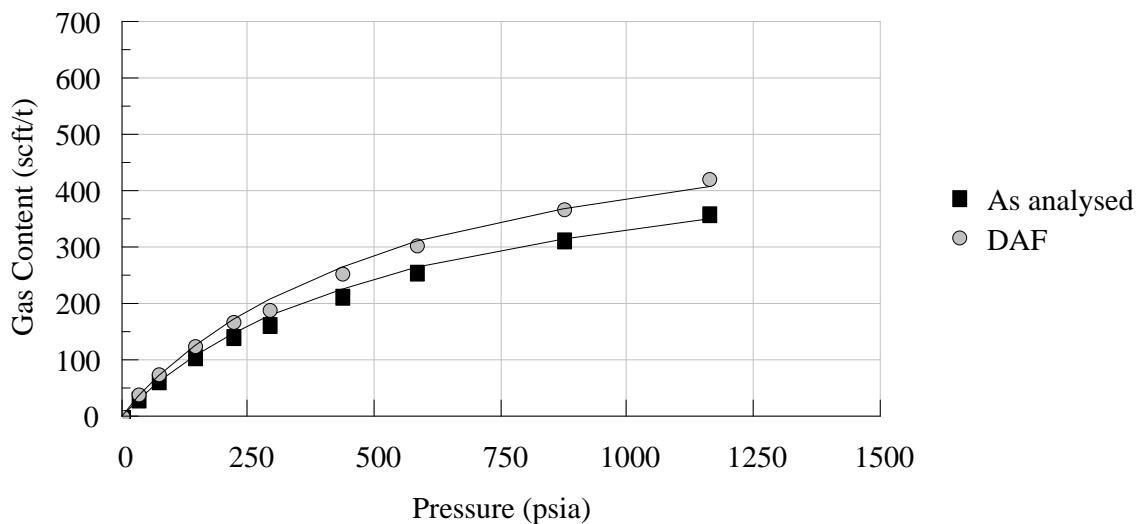
Methane Adsorption Langmuir Plot (20 °C, 101.3 kPa)
Meeleebee #2 (254.67 - 255.41 m) MEL2ED1528
Analysis Temperature 33.0 °C



$$P/V = 0.061 P + 0.231; \quad r^2 = 0.983 \quad (\text{As analysed})$$

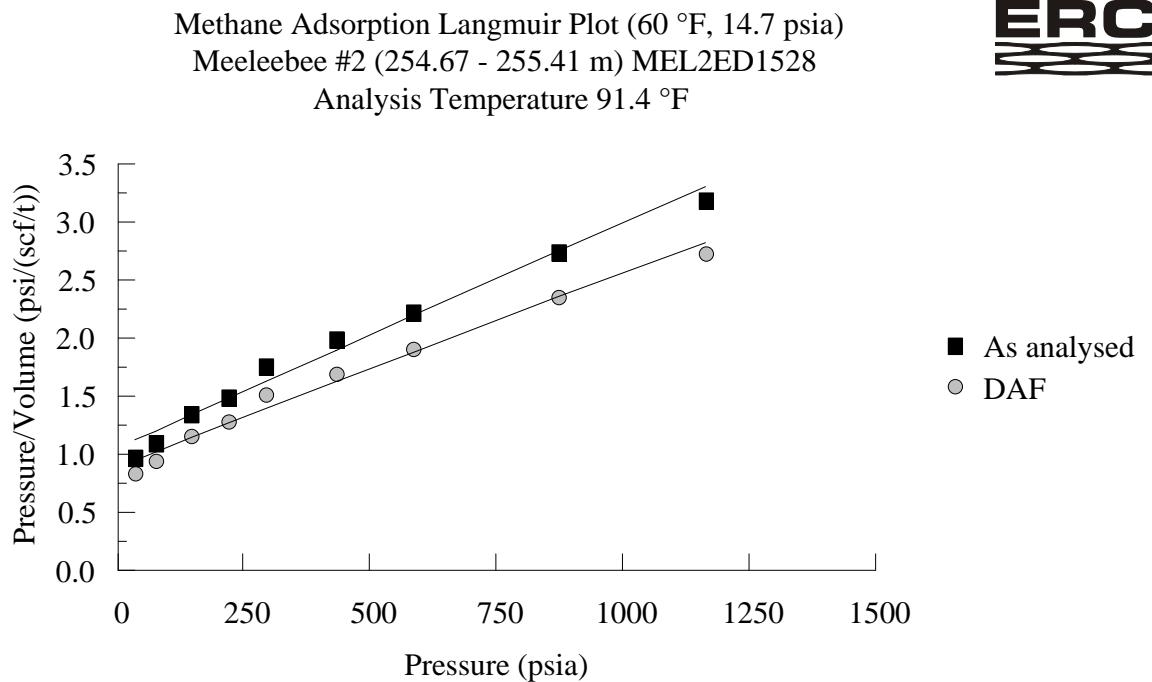
$$P/V = 0.053 P + 0.198; \quad r^2 = 0.983 \quad (\text{daf})$$

Methane Adsorption Isotherm (60 °F, 14.7 psia)
 Meeleebee #2 (254.67 - 255.41 m) MEL2ED1528
 Analysis Temperature 91.4 °F



$$V = 515 P / (P + 545) \quad (\text{As analysed})$$

$$V = 602 P / (P + 545) \quad (\text{daf})$$



$$P/V = 0.00194 P + 1.060; \quad r^2 = 0.983 \quad (\text{As analysed})$$

$$P/V = 0.00166 P + 0.906; \quad r^2 = 0.983 \quad (\text{daf})$$

| | | |
|----------------------------|--|--|
| Client | Origin Energy Ltd | |
| Sample Details | Meeleebee #2 (292.21 - 322.84 m) Composite 5 | |
| Sample Properties | | |
| Inherent Moisture (% , ad) | n.d. | Isotherm Sample Mass (g) [lb] 101.53 [0.22384] |
| Ash (% , ad) | n.d. | Particle Size (mm) [US mesh] -0.212 [70] |
| Volatile Matter (% , ad) | n.d. | Helium density (g/cc) 1.402 |
| Fixed Carbon (% , ad) | n.d. | Test Temperature (°C) [°F] 35.0 [95.1] |
| Ash (% , eq. moist) | 22.4 | Analysis date 27-Sep-09 |
| Equilibrium Moisture (%) | 5.7 | Test Gas Methane |

Methane Adsorption at Equilibrium Moisture

at 20°C; 101.1kPa (1 atm)

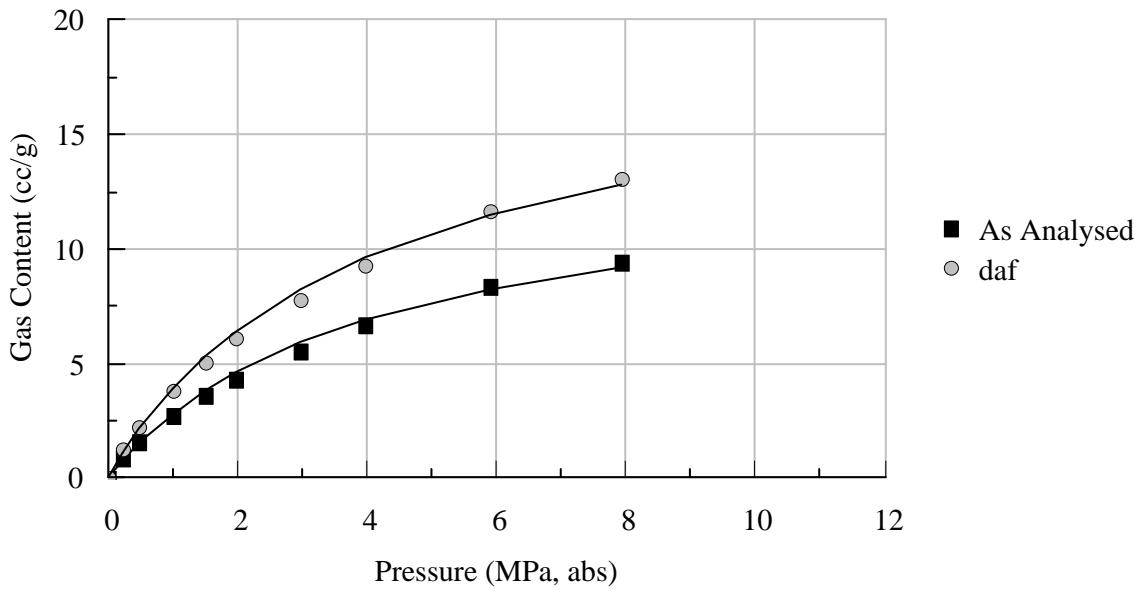
at 60°F, 14.7 psia

| Pressure (MPa) (absolute) | Gas Content (cc/g) (as analysed) | Gas Content (cc/g) (daf) | Pressure (psia) | Gas Content (scf/t) (as analysed) | Gas Content (scf/t) (daf) |
|---------------------------------|--|--------------------------------|--------------------|---|---------------------------------|
| 0.238 | 0.89 | 1.24 | 34 | 28 | 39 |
| 0.491 | 1.62 | 2.25 | 71 | 51 | 71 |
| 1.008 | 2.77 | 3.85 | 146 | 87 | 121 |
| 1.511 | 3.66 | 5.08 | 219 | 115 | 160 |
| 1.994 | 4.38 | 6.09 | 289 | 138 | 192 |
| 2.965 | 5.62 | 7.81 | 430 | 177 | 246 |
| 3.980 | 6.70 | 9.31 | 577 | 211 | 294 |
| 5.916 | 8.42 | 11.70 | 858 | 266 | 369 |
| 7.932 | 9.44 | 13.11 | 1150 | 298 | 414 |

Langmuir Isotherm Coefficients

| | P _L (MPa, abs) | V _L (cc/g) | P _L (psia) | V _L (scf/t) |
|-------------|------------------------------|--------------------------|--------------------------|---------------------------|
| As analysed | 3.96 | 13.80 | 574 | 436 |
| daf | 3.96 | 19.17 | 574 | 605 |

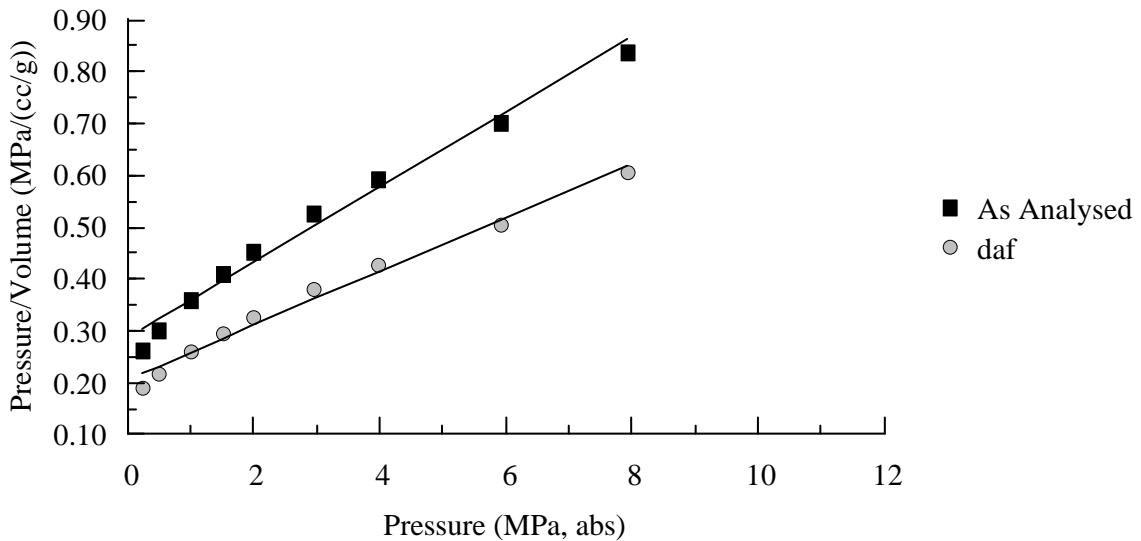
Methane Adsorption Isotherm (20 °C, 101.3 kPa)
 Meeleebee #2 (292.21 - 322.84 m) Composite 5
 Analysis Temperature 35.0 °C



$$V = 13.80 P / (P + 3.96) \quad (\text{As analysed})$$

$$V = 19.17 P / (P + 3.96) \quad (\text{daf})$$

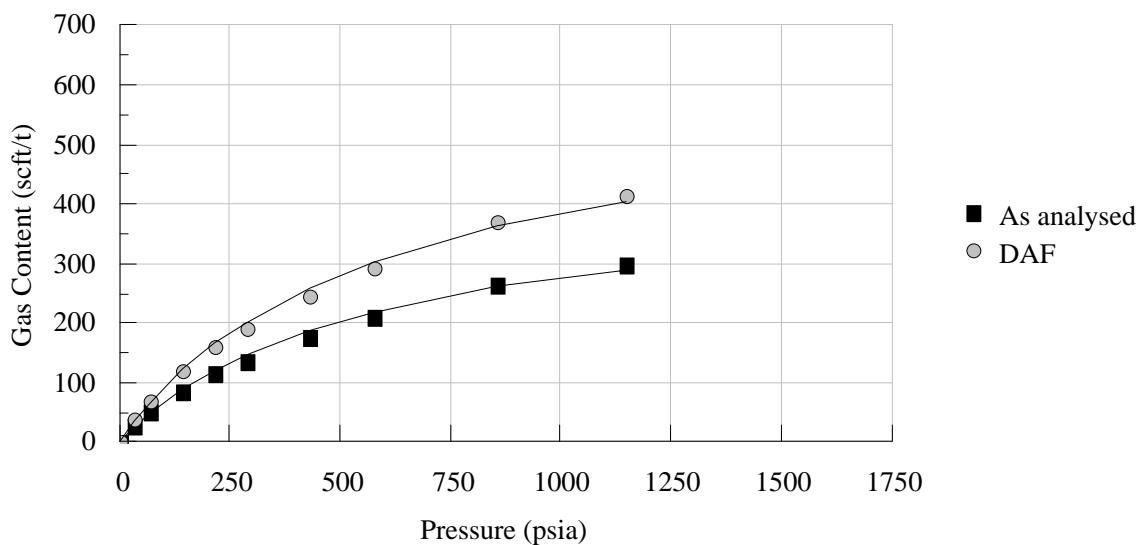
Methane Adsorption Langmuir Plot (20 °C, 101.3 kPa)
 Meeleebee #2 (292.21 - 322.84 m) Composite 5
 Analysis Temperature 35.0 °C



$$P/V = 0.072 P + 0.287; \quad r^2 = 0.985 \quad (\text{As analysed})$$

$$P/V = 0.052 P + 0.206; \quad r^2 = 0.985 \quad (\text{daf})$$

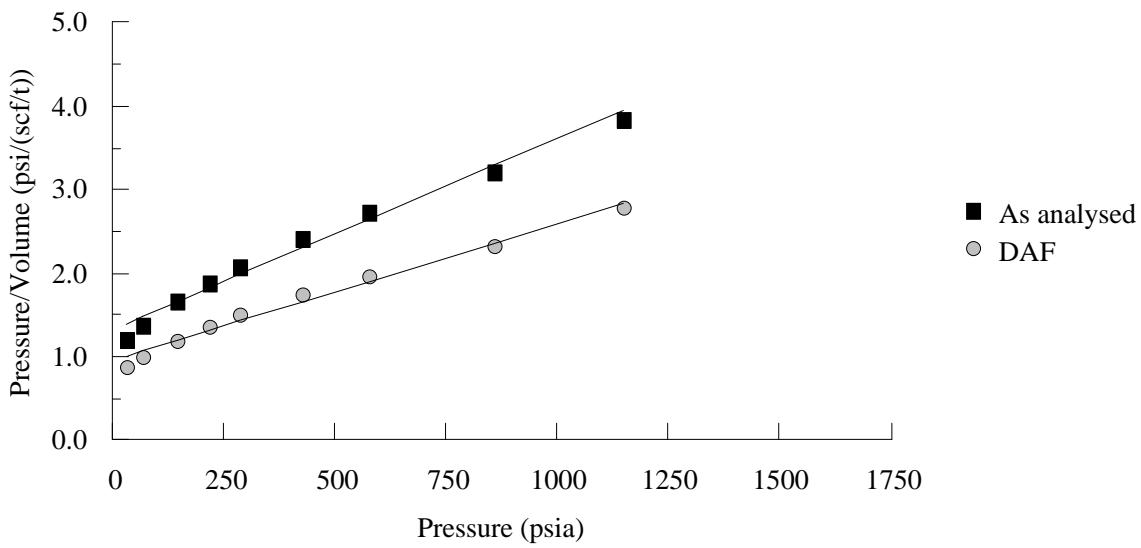
Methane Adsorption Isotherm (60 °F, 14.7 psia)
 Meeleebee #2 (292.21 - 322.84 m) Composite 5
 Analysis Temperature 95.1 °F



$$V = 436 P / (P + 574) \quad (\text{As analysed})$$

$$V = 605 P / (P + 574) \quad (\text{daf})$$

Methane Adsorption Langmuir Plot (60 °F, 14.7 psia)
 Meeleebee #2 (292.21 - 322.84 m) Composite 5
 Analysis Temperature 95.1 °F



$$P/V = 0.00230 P + 1.318; \quad r^2 = 0.985 \quad (\text{As analysed})$$

$$P/V = 0.00165 P + 0.948; \quad r^2 = 0.985 \quad (\text{daf})$$

Dr Peter Crosdale (MAIG)
Director, ERC
14th October, 2009

APPENDIX 5 - WIRELINE LOGS



PHOTO DENSITY

1:500

| | |
|------------------------|---------------------------------------|
| COMPANY | ORIGIN CSG |
| WELL | MEELEEBEE 2 |
| FIELD | MEELEEBEE |
| PROVINCE/COUNTY | QUEENSLAND |
| COUNTRY/STATE | AUSTRALIA |
| LOCATION | ATP 606P |
| Latitude | 26° 12' 2.63" S |
| Longitude | 149° 14' 29.9" E |
| Permanent Datum | M.S.L., Elevation 0.00 metres |
| Log Measured From | D.F. @ 304.35 M above Permanent Datum |
| Drilling Measured From | D.F. |
| Date | 15-FEB-2009 |
| Run Number | 1 |
| Depth Driller | 384.35 |
| Depth Logger | 384.30 |
| First Reading | 383.80 |
| Last Reading | 2.00 |
| Casing Driller | 75.08 |
| Casing Logger | 74.70 |
| Bit Size | 6.25 |
| Hole Fluid Type | FRESH |
| Density / Viscosity | 1.03 g/c3 |
| PH / Fluid Loss | 32.00 sec/qt |
| Sample Source | FLOWLINE |
| Rm @ Measured Temp | 7.457 @ 25.0 ohm-m |
| Rmf @ Measured Temp | |
| Rmc @ Measured Temp | |
| Source Rmf / Rmc | |
| Rm @ BHT | 5.86 @ 37.0 ohm-m |
| Time Since Circulation | 4.5 HOURS |
| Max Recorded Temp | 37.00 deg C |
| Equipment Name | MAI_MSS_MPД |
| Equipment / Base | 11563 ROMA |
| Recorded By | B. MILLSOM |
| Witnessed By | S. VICKERS |
| Stop Circulation | 19:00/15 JAN . |
| Other Services | |
| COMPACT MICRO IMAGER | |
| COMPENSATED SONIC | |
| ARRAY INDUCTION | |
| Elevations: | |
| KB | metres |
| DF | 304.35 |
| GL | 300.00 |

BOREHOLE RECORD

Last Edited: 16-FEB-2009 00:57

| Bit Size inches | Depth From metres | Depth To metres |
|--------------------|----------------------|--------------------|
| 6.250 | 75.08 | 384.75 |

CASING RECORD

| Type | Size inches | Depth From metres | Shoe Depth metres | Weight pounds/ft |
|---------|----------------|----------------------|----------------------|---------------------|
| SURFACE | 9.625 | 0.00 | 75.08 | 36.00 |

REMARKS

RUN NUMBER 1 IS THE PRIMARY DEPTH REFERENCE LOG. ALL OTHER RUNS ARE CORRELATED BACK TO THIS LOG.

SOFTWARE ISSUE: VERSION 8.05.0177 - SEP 11, 2008.

CUSTOMER SCALES AND INTERVALS LOGGED.

RUN 1 - HFS, MAI, MFE, MSS, SKJ, MPD, MDN, MCG, SHA TOOLS RAN IN COMBINATION.

RUN 2 - MIE, MIM, MCG, SHA TOOLS RAN IN COMBINATION.

HARDWARE:

RUN 1

- MAI: 2 x 1.0" STANDOFFS.
- MSS: 3 x 1.0" STANDOFFS.
- MDN: 1 x DUAL BOWSPRING.

RUN 2

- MIE: 1 x 1.5" STANDOFF.

- MIM: 1 x NON MAGNETIC CENTRALISER.

DUAL BOWSPRING ON MDN TOOL USED TO SIDEWALL THE MPD.

MPD CORRECTED FOR CALIPER AND MUD WEIGHT.

SERVICE REPORT NUMBER: 6179.

RIG: ENSIGN48.

TOTAL HOLE VOLUME (HVOL) FROM T.D. TO SURFACE CASING = 6.1 CUBIC METERS.

TOTAL ANNULAR VOLUME (AVOL) WITH 7" PRODUCTION CASING = 0.1 CUBIC METERS.

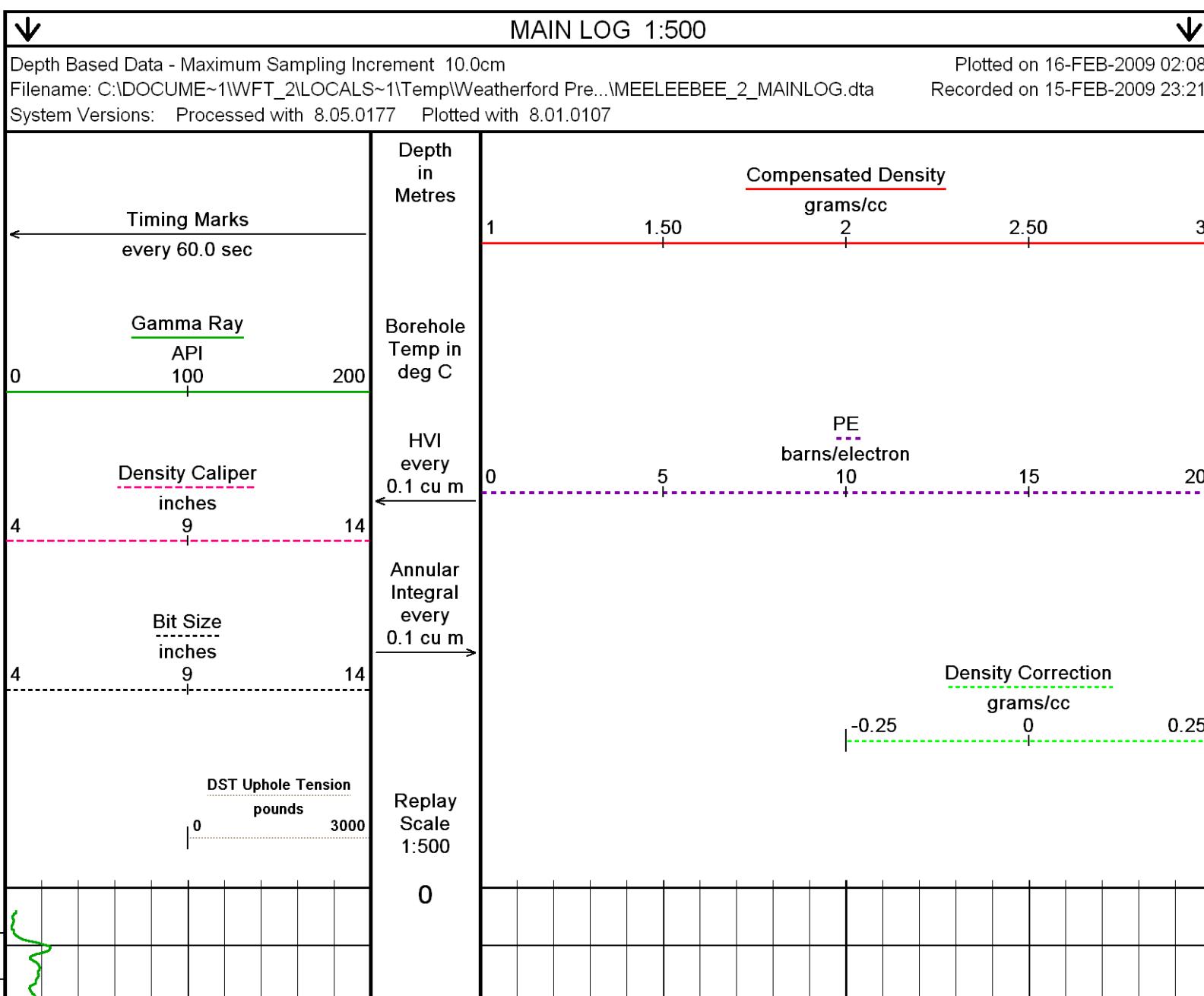
SONIC CASING SIGNAL OBSERVED AT 42 METERS.

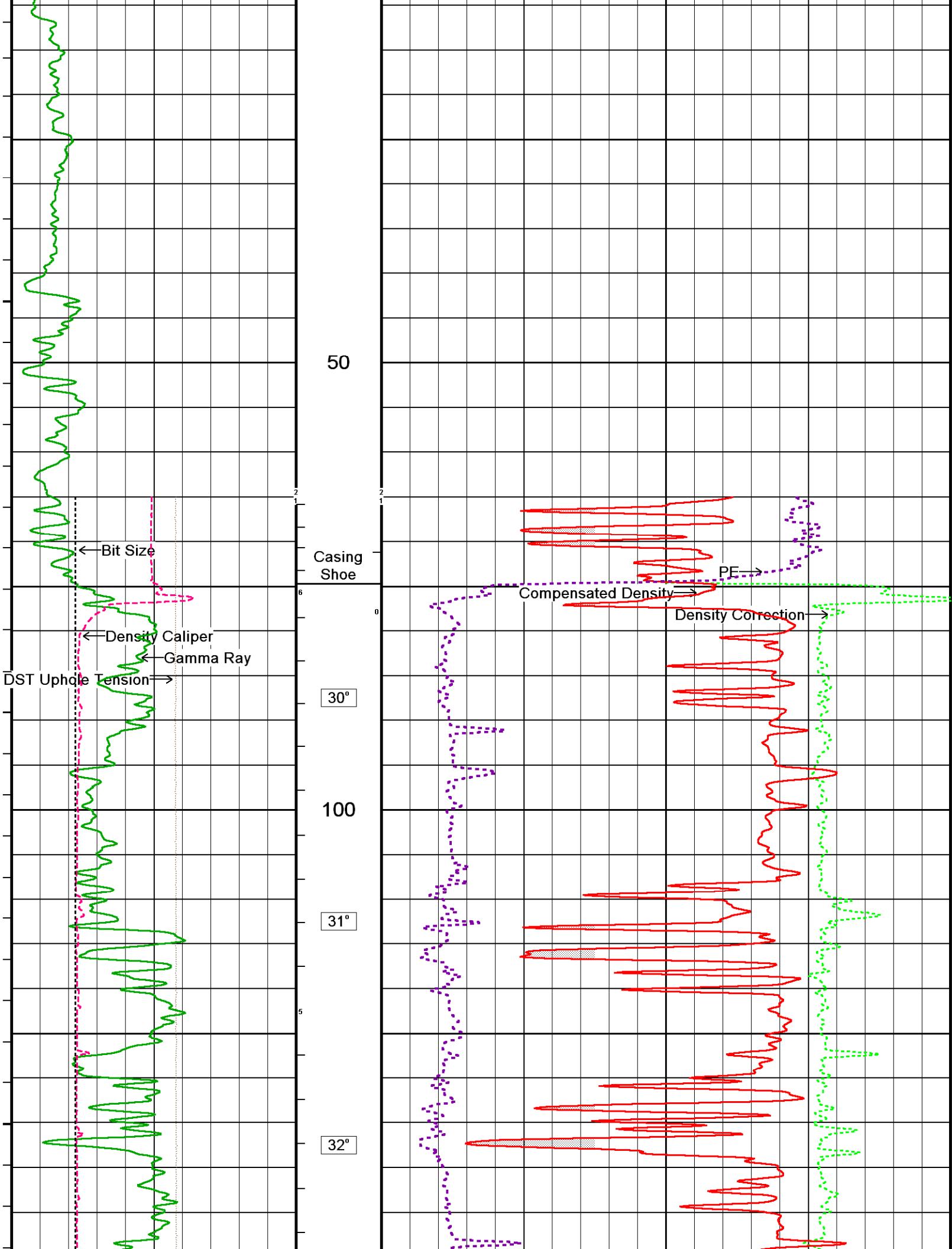
TIME ON BOTTOM: 23:20 - 15 FEB 2009.

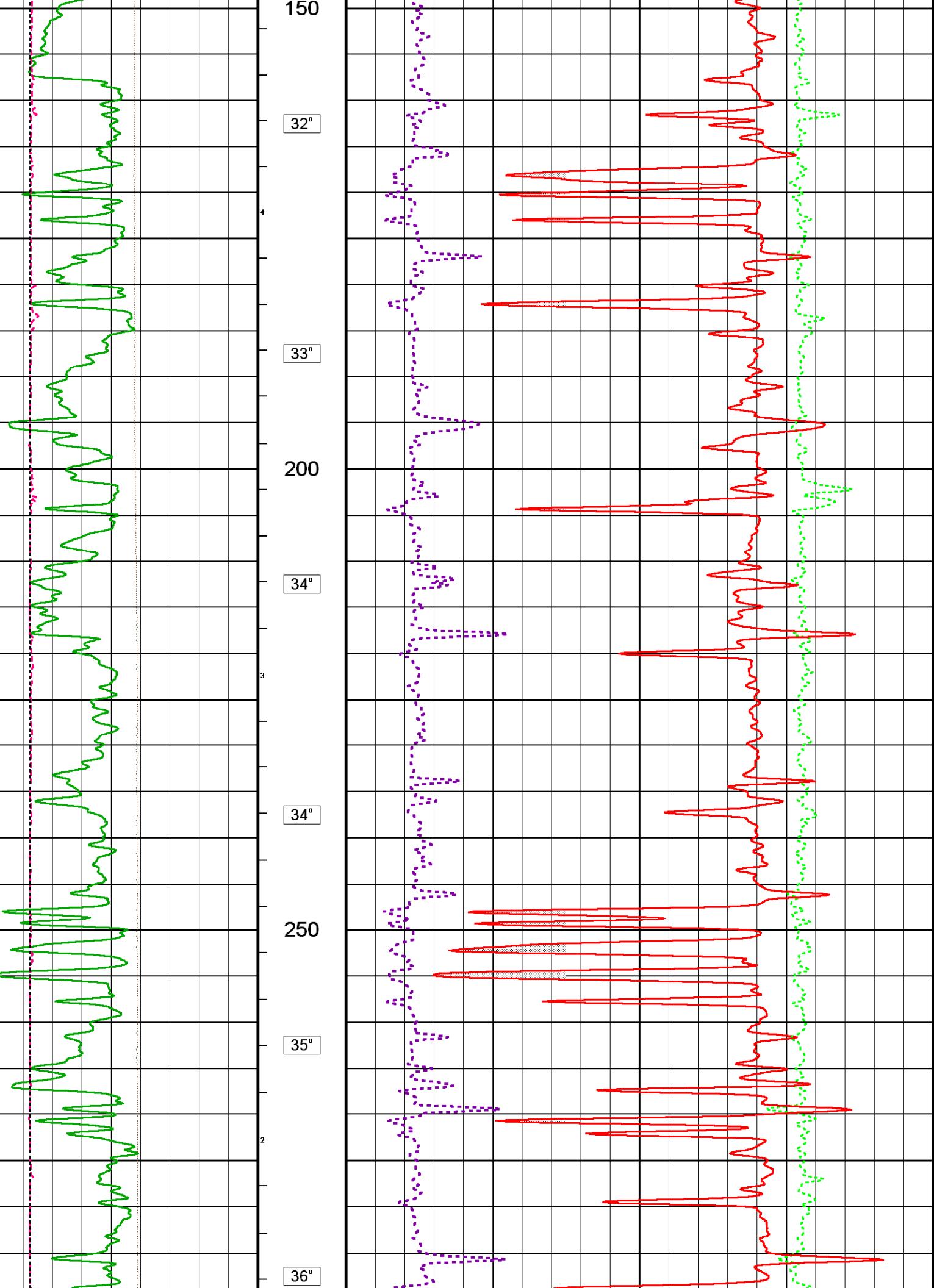
LOGGING UNIT J-FACTOR FOR V11563: 0.5129.

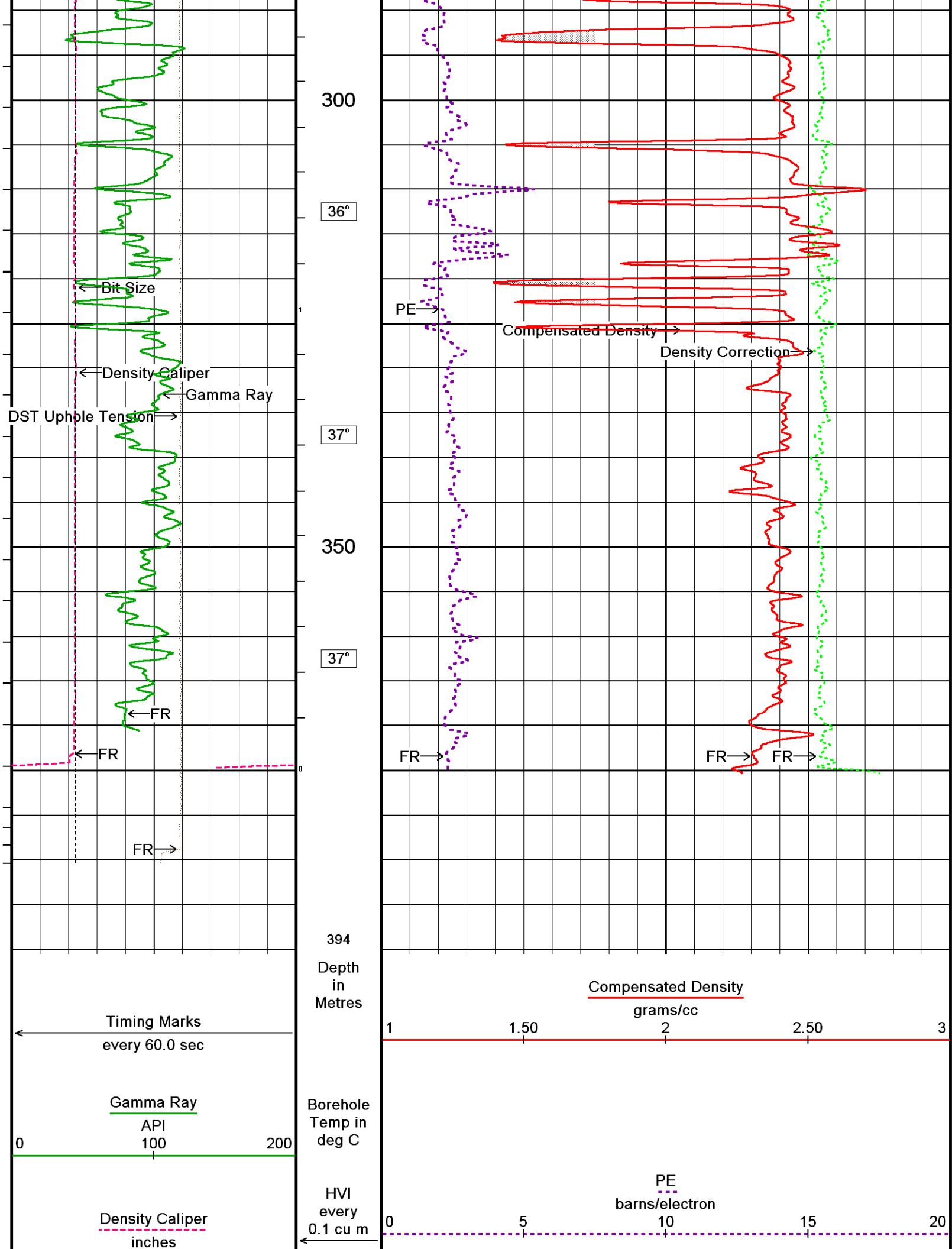
LOGGING CREW: ENGINEER - B. MILLSOM, TRAINEE ENGINEER - V. VO, OPERATOR 1 - L. ABLE, OPERATOR 2 - T. WILSON.

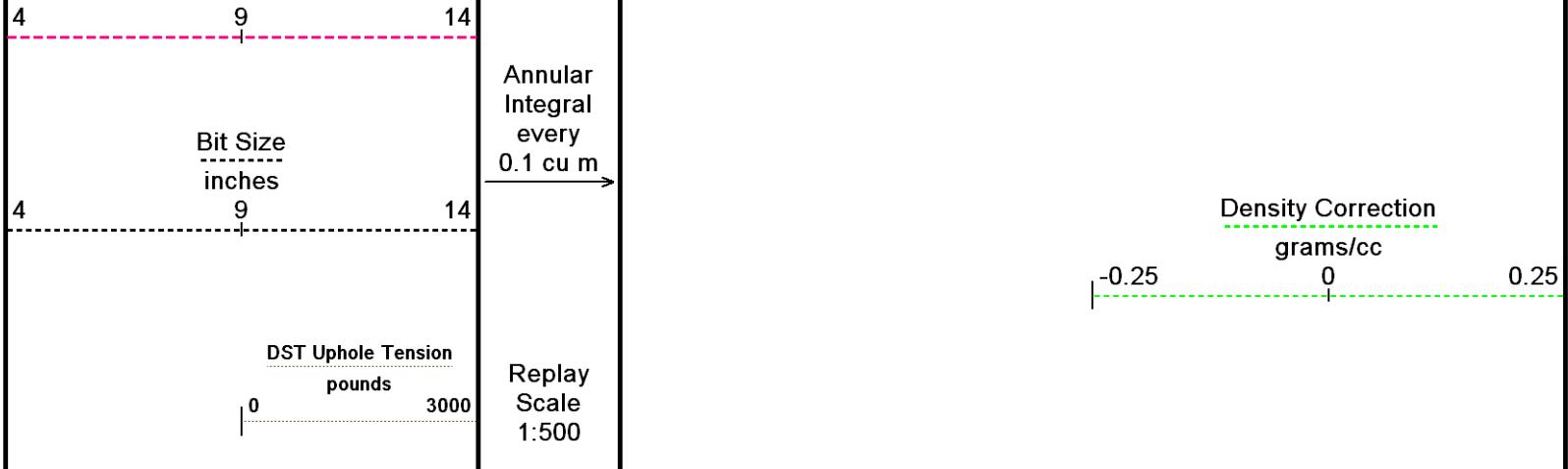
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions in our price schedule.











Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 16-FEB-2009 02:08

Filename: C:\DOCUME~1\WFT_2\LOCALS~1\Temp\Weatherford Pre...\\MEELEEBEE_2_MAINLOG.dta

Recorded on 15-FEB-2009 23:21

System Versions: Processed with 8.05.0177 Plotted with 8.01.0107



MAIN LOG 1:500



BEFORE SURVEY CALIBRATION

C:\DOCUME~1\WFT_2\LOCALS~1\Temp\Weatherford PreView\0\MEELEEBEE_2_MAINLOG.dta

General Constants All 000

Last Edited on 15-FEB-2009,23:05

General Parameters

| | | |
|-----------------------------|----------|------------|
| Mud Resistivity | 7.457 | ohm-metres |
| Mud Resistivity Temperature | 25.000 | degrees C |
| Water Level | 0.000 | metres |
| Density/Neutron Processing | Wet Hole | |

Hole/Annular Volume and Differential Caliper Parameters

| | | |
|----------------------------------|-----------------|--------|
| HVOL Caliper 1 | Density Caliper | |
| HVOL Caliper 2 | None | |
| Annular Volume Diameter | 7.000 | inches |
| Caliper for Differential Caliper | Density Caliper | |

Rwa Parameters

| | | |
|------------------|------------------------|--|
| Porosity used | Limestone Density Por. | |
| Resistivity used | Deep Induction | |
| RWA Constant A | 0.610 | |
| RWA Constant M | 2.150 | |

Down-hole Tension Calibration SMS 000

Field Calibration on 10-FEB-2009 11:26

| Reading No | Measured | Calibrated (lbs) |
|------------|----------|------------------|
| 1 | 14319.40 | 0.00 |
| 2 | 15406.44 | 795.90 |

High Resolution Temperature Calibration MCG 253

Field Calibration on 15-FEB-2009,19:52

| | Measured | Calibrated(Deg C) |
|-------|----------|-------------------|
| Lower | 0.00 | 0.00 |
| Upper | 100.00 | 100.00 |

High Resolution Temperature Constants MCG 253

Last Edited on 15-FEB-2009,19:52

| | |
|-------------------|----|
| Pre-filter Length | 11 |
|-------------------|----|

SP Calibration MCG 253

Field Calibration on 15-FEB-2009 20:21

| | Measured | Calibrated (mV) |
|-------------|----------|-----------------|
| Reference 1 | 88.7 | 86.1 |
| Reference 2 | -83.9 | -86.2 |

Gamma Calibration MCG 253

Field Calibration on 15-FEB-2009 20:26

| | Measured | Calibrated (API) |
|--|----------|------------------|
|--|----------|------------------|

| | | |
|--------------------|------|-----|
| Background | 63 | 46 |
| Calibrator (Gross) | 1085 | 795 |
| Calibrator (Net) | 1022 | 749 |

Gamma Constants MCG 253

Last Edited on 15-FEB-2009,20:27

| | | |
|-------------------------------|-----------------|-------|
| Gamma Calibrator Number | GRC030 | |
| Mud Density | 1.03 | gm/cc |
| Caliper Source for Processing | Density Caliper | |
| Tool Position | Eccentred | |
| Concentration of KCl | 0.00 | kppm |

Neutron Calibration MDN 099

Base Calibration on 4-FEB-2009 15:15
Field Check on 5-FEB-2009 15:23

| Base Calibration | | Measured | | Calibrated (cps) | |
|--------------------------|--|----------|-----|------------------|------------------|
| | | Near | Far | Near | Far |
| Ratio | | 3244 | 100 | 3714 | 110 |
| | | 32.521 | | 33.764 | |
| Field Calibrator at Base | | | | | Calibrated (cps) |
| Ratio | | | | 1656 | 2420 |
| | | | | 0.684 | |
| Field Check | | | | | Calibrated (cps) |
| Ratio | | | | 1624 | 2354 |
| | | | | 0.690 | |

Neutron Constants MDN 099

Last Edited on 15-FEB-2009,19:49

| | | |
|---------------------------------|-----------------|-----------|
| Neutron Source Id | 16150B | |
| Neutron Jig Number | 30 | |
| Epithermal Neutron | No | |
| Caliper Source for Processing | Density Caliper | |
| Stand-off | 0.00 | inches |
| Mud Density | 1.00 | gm/cc |
| Limestone Sigma | 7.10 | cu |
| Sandstone Sigma | 4.26 | cu |
| Dolomite Sigma | 4.70 | cu |
| Formation Pressure Source | Constant Value | |
| Formation Pressure | 0.00 | kpsi |
| Temperature Source | Constant Value | |
| Temperature | 20.00 | degrees C |
| Mud Salinity | 0.00 | kppm |
| Formation Fluid Salinity Source | Constant Value | |
| Formation Fluid Salinity | 0.00 | kppm |
| Barite Mud Correction | Not Applied | |

Caliper Calibration MPD 066

Base Calibration on 5-FEB-2009 09:49
Field Calibration on 15-FEB-2009,23:00

| Base Calibration | | Measured | | Calibrator Size (in) | |
|-------------------|--|-----------------------|-----|----------------------|-----|
| Reading No | | Near | Far | Near | Far |
| 1 | | 12719 | | 4.01 | |
| 2 | | 21344 | | 5.96 | |
| 3 | | 30096 | | 7.98 | |
| 4 | | 38288 | | 9.86 | |
| 5 | | 47324 | | 11.88 | |
| 6 | | N/A | | N/A | |
| Field Calibration | | Measured Caliper (in) | | Actual Caliper (in) | |
| | | 8.93 | | 8.92 | |

Photo Density Calibration MPD 066

Base Calibration on 5-FEB-2009 09:39
Field Check on 15-FEB-2009 20:18

| Density Calibration | | Measured | | Calibrated (sdu) | |
|---------------------|--|----------|-------|------------------|-------|
| Base Calibration | | Near | Far | Near | Far |
| Reference 1 | | 60133 | 31073 | 60218 | 32009 |
| Reference 2 | | 23822 | 2317 | 25199 | 2542 |

Field Check at Base

841.2 999.0

641.2 998.0

Field Check

834.7 999.0

PE Calibration

| Base Calibration | | Measured | Calibrated |
|------------------|-------|----------|------------|
| | WS | WH | Ratio |
| Background | 163 | 737 | |
| Reference 1 | 24927 | 59956 | 0.418 |
| Reference 2 | 6755 | 23708 | 0.287 |

Field Check at Base

162.8 737.1

Field Check

159.9 731.7

Density Constants MPD 066

Last Edited on 15-FEB-2009,20:27

| | | |
|--------------------------------|-----------------|-------|
| Density Source Id | NSD-L-270 | |
| Nylon Calibrator Number | 605 | |
| Aluminium/Fe Calibrator Number | 605 | |
| Density Shoe Profile | 8 inch | |
| Caliper Source for Processing | Density Caliper | |
| PE Correction to Density | Not Applied | |
| Mud Density | 1.03 | gm/cc |
| Mud Density Z/A Correction | 1.11 | |
| Mud Filtrate Density | 1.00 | gm/cc |
| Dry Hole Mud Filtrate Density | 1.00 | gm/cc |
| DNCT | 0.00 | gm/cc |
| CRCT | 0.00 | gm/cc |
| Density Z/A Correction | Advanced | |
| Matrix Density (gm/cc) | Depth (m) | |
| 2.71 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |

Sonic Constants MSS 223

Last Edited on 15-FEB-2009,19:48

| | | |
|---------------------------|------------------------|--------------|
| Maximum Boundary Contrast | 100.00 | micro-sec/ft |
| Fluid Transit Time | 189.00 | micro-sec/ft |
| Limestone Transit Time | 47.50 | micro-sec/ft |
| Sandstone Transit Time | 55.50 | micro-sec/ft |
| Dolomite Transit Time | 43.50 | micro-sec/ft |
| Sonic used for Porosities | 3-5' Compensated Sonic | |
| Correction for Sonde Skew | Applied | |
| Cycle Stretch Algorithm | Applied | |
| MN3FT | N/A | micro-sec |
| MX3FT | N/A | micro-sec |
| Hunt-Raymer Constant | 83.13 | micro-sec/ft |

Fixed Gate Parameters

| Start Time (micro-sec) | End Time (micro-sec) | Discriminator (mV) | N/A |
|------------------------|----------------------|--------------------|-----|
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |

Down Hole Fixed Gate Parameters

| | | |
|-----------------------------|--------|-----------|
| Gate Start | N/A | micro-sec |
| Gate Width | N/A | micro-sec |
| Initial Discriminator Level | 0.0000 | mVolts |

Full Waveform Parameters

| | | |
|---------------------------------|-----|-----------|
| Use 3' Waveform to derive TR | N/A | |
| Use 4' Waveform to derive TR | N/A | |
| Use 5' Waveform to derive TR | N/A | |
| Use 6' Waveform to derive TR | N/A | |
| 3' Waveform Discriminator Level | N/A | mV |
| 4' Waveform Discriminator Level | N/A | mV |
| 5' Waveform Discriminator Level | N/A | mV |
| 6' Waveform Discriminator Level | N/A | mV |
| 3' Waveform Filter | N/A | |
| 4' Waveform Filter | N/A | |
| 5' Waveform Filter | N/A | |
| 6' Waveform Filter | N/A | |
| Semblance Level | N/A | |
| Semblance Window Width | N/A | micro-sec |
| Sonic 1 Despiker | N/A | N/A |
| Sonic 2 Despiker | N/A | N/A |

| | |
|------------------------|--|
| FE Calibration MFE 138 | Base Calibration on 4-FEB-2009 11:52 Field Check on 15-FEB-2009 20:14 |
|------------------------|--|

| Base Calibration | Measured | Calibrated (ohm-m) |
|------------------|----------|--------------------|
| Reference 1 | 0.0 | 0.0 |
| Reference 2 | 959.5 | 126.8 |
| Base Check | | 281.3 |
| Field Check | | 281.7 |

| | |
|----------------------|----------------------------------|
| FE Constants MFE 138 | Last Edited on 15-FEB-2009,20:27 |
|----------------------|----------------------------------|

| | |
|----------------------------------|--------------------------|
| Caliper Source for FE correction | Density Caliper |
| Rm Source for FE correction | Temperature Corr |
| Temp. for Rm Corr. | MCG External Temperature |
| Stand-off | 1.0 inches |

| | | |
|---|--|-------|
| High Resolution Temperature Calibration MAI 140 | Field Calibration on 15-FEB-2009,19:47 | |
| Measured | Calibrated(Deg C) | |
| Lower | 0.00 | 0.00 |
| Upper | 10.00 | 10.00 |

| | |
|---|----------------------------------|
| High Resolution Temperature Constants MAI 140 | Last Edited on 15-FEB-2009,19:47 |
|---|----------------------------------|

| | |
|-------------------|----|
| Pre-filter Length | 11 |
|-------------------|----|

| | |
|-------------------------------|--|
| Induction Calibration MAI 140 | Base Calibration on 4-FEB-2009,09:49 Field Check on 15-FEB-2009 20:11 |
|-------------------------------|--|

| Base Calibration | Measured | Calibrated (mmho/m) |
|-----------------------|---------------------|----------------------|
| Test Loop Calibration | Low | High |
| Channel | Low | High |
| 1 | 17.0 | 464.1 |
| 2 | 6.9 | 382.1 |
| 3 | 4.1 | 264.5 |
| 4 | 2.2 | 137.4 |
| Array Temperature | 22.3 | Deg C |
| Channel | Base Check (mmho/m) | Field Check (mmho/m) |
| | Low | High |
| 1 | 15.1 | 3922.2 |
| 2 | 28.9 | 3538.1 |
| 3 | 26.9 | 3000.3 |
| 4 | 18.5 | 2015.3 |
| Deep | 16.6 | 1908.2 |
| Medium | 38.8 | 3974.4 |
| Shallow | 43.1 | 5306.7 |
| Array Temperature | 39.2 | 24.7 Deg C |

| | |
|-----------------------------|----------------------------------|
| Induction Constants MAI 140 | Last Edited on 15-FEB-2009,19:48 |
|-----------------------------|----------------------------------|

| | |
|----------------------------|-----------------|
| Induction Model | VECTAR |
| Caliper for Borehole Corr. | Density Caliper |

| | | | |
|---|--------------------------|-------------|--------|
| Hole Size for Borehole Correction | N/A | inches | |
| Stand-off | 0.00 | inches | |
| Number of Fins on Stand-off | 6.0000 | | |
| Stand-off Fin Width | 0.5000 | inches | |
| Borehole Corr. Rm Source | Temperature Corr | | |
| Temp. for Rm Corr. | MCG External Temperature | | |
| Squasher Start | 0.0020 | mhos/metre | |
| Borehole Normalisation | | | |
| DRM1 | 0.0000 | DRC1 | 0.0000 |
| DRM2 | 0.0000 | DRC2 | 0.0000 |
| MRM1 | 0.0000 | MRC1 | 0.0000 |
| MRM2 | 0.0000 | MRC2 | 0.0000 |
| SRM1 | 0.0000 | SRC1 | 0.0000 |
| SRM2 | 0.0000 | SRC2 | 0.0000 |
| Calibration Site Corrections | | | |
| Channel 1 | 0.00 | mmhos/metre | |
| Channel 2 | 0.00 | mmhos/metre | |
| Channel 3 | 0.00 | mmhos/metre | |
| Channel 4 | 0.00 | mmhos/metre | |
| Apparent Porosity and Water Saturation Constants | | | |
| Archie Constant (A) | 1.00 | | |
| Cementation Exponent (M) | 2.00 | | |
| Saturation Exponent (N) | 2.00 | | |
| Saturation of Water for Apor | 100.00 | percent | |
| Resistivity of Water for Apor and Sw | 0.05 | ohm-m | |
| Resistivity of Mud Filtrate for Sw | 0.00 | ohm-m | |

DOWNHOLE EQUIPMENT

C:\DOCUME~1\WFT_2\LOCALS~1\Temp\Weatherford PreView\0\MEELEEBEE_2_MAINLOG.dta

MCB-A 11B Tension Cablehead

MCB 1 Length: 0.66 m Weight: 19.8 lb

SHA-H Compact Swivel Head Adaptor

SHA 136 Length: 0.70 m Weight: 22.0 lb

Compact Gamma

MCG 253 Length: 2.65 m Weight: 63.9 lb

Compact Neutron

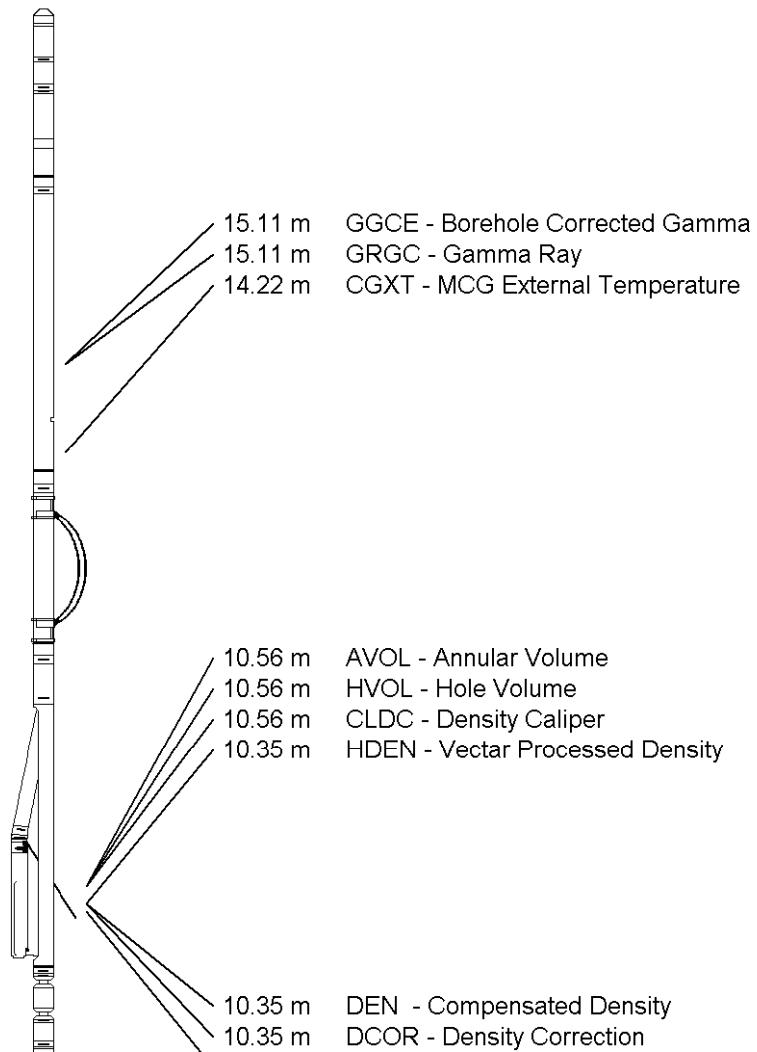
MDN 99 Length: 1.53 m Weight: 50.7 lb

Compact Density/Caliper

MPD 66 Length: 2.92 m Weight: 90.4 lb

SKJ-D.A Compact Knuckle Joint

SKJ 192 Length: 0.66 m Weight: 24.3 lb



Compact Sonic
MSS 223 Length: 3.82 m Weight: 72.8 lb

10.33 m PDPE - PE
5.79 m TR22 - 5' Transit Time
5.79 m TR11 - 4' Transit Time
5.79 m TR21 - 3' Transit Time
5.79 m DT35 - 3-5' Compensated Sonic
5.79 m TR12 - 6' Transit Time

Compact Focussed Electric
MFE 138 Length: 1.84 m Weight: 48.5 lb

4.18 m FEFE - Shallow FE

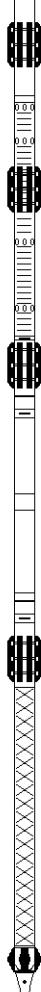
Compact Induction
MAI 140 Length: 3.29 m Weight: 48.5 lb

0.79 m RILM - Medium Induction
0.79 m RILD - Deep Induction
Tool Zero (0.57m from bottom)

Compact Hole Finder
HFS 4 Length: 0.54 m Weight: 2.2 lb

All measurements relative to tool zero.

Total Length: 18.62 m Weight: 443.1 lb



COMPANY
WELL
FIELD
PROVINCE/COUNTY
COUNTRY/STATE

ORIGIN CSG
MEELEEBEE 2
MEELEEBEE
QUEENSLAND
AUSTRALIA

| | | | | |
|-------------------------|--------|---------------|--------|--------|
| Elevation Kelly Bushing | metres | First Reading | 383.80 | metres |
| Elevation Drill Floor | 304.35 | Depth Driller | 384.35 | metres |
| Elevation Ground Level | 300.00 | Depth Logger | 384.30 | metres |



PHOTO DENSITY

1:500

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Weatherford®

MEELEEBEE_2_MPД_500



ARRAY INDUCTION - SONIC

PHOTO DENSITY

1:500

| | |
|------------------------|--|
| COMPANY | ORIGIN CSG |
| WELL | MEELEEBEE 2 |
| FIELD | MEELEEBEE |
| PROVINCE/COUNTY | QUEENSLAND |
| COUNTRY/STATE | AUSTRALIA |
| LOCATION | ATP 606P |
| Latitude | 26° 12' 2.63" S |
| Longitude | 149° 14' 29.9" E |
| | Other Services COMPACT MICRO IMAGER |
| Date | 15-FEB-2009 |
| Run Number | 1 |
| Depth Driller | 384.35 |
| Depth Logger | 384.30 |
| First Reading | 383.80 |
| Last Reading | 2.00 |
| Casing Driller | 75.08 |
| Casing Logger | 74.70 |
| Bit Size | 6.25 |
| Hole Fluid Type | FRESH |
| Density / Viscosity | 1.03 g/c3 |
| PH / Fluid Loss | 32.00 sec/qt |
| Sample Source | FLOWLINE |
| Rm @ Measured Temp | 7.457 @ 25.0 ohm-m |
| Rmf @ Measured Temp | |
| Rmc @ Measured Temp | |
| Source Rmf / Rmc | |
| Rm @ BHT | 5.86 @ 37.0 ohm-m |
| Time Since Circulation | 4.5 HOURS |
| Max Recorded Temp | 37.00 deg C |
| Equipment Name | MAI_MSS_MPД |
| Equipment / Base | 11563 ROMA |
| Recorded By | B. MILLSOM |
| Witnessed By | S. VICKERS |
| Stop Circulation | 19:00/15 JAN . |

BOREHOLE RECORD

Last Edited: 16-FEB-2009 00:57

| Bit Size inches | Depth From metres | Depth To metres |
|--------------------|----------------------|--------------------|
| 6.250 | 75.08 | 384.75 |

CASING RECORD

| Type | Size inches | Depth From metres | Shoe Depth metres | Weight pounds/ft |
|---------|----------------|----------------------|----------------------|---------------------|
| SURFACE | 9.625 | 0.00 | 75.08 | 36.00 |

REMARKS

RUN NUMBER 1 IS THE PRIMARY DEPTH REFERENCE LOG. ALL OTHER RUNS ARE CORRELATED BACK TO THIS LOG.

SOFTWARE ISSUE: VERSION 8.05.0177 - SEP 11, 2008.

CUSTOMER SCALES AND INTERVALS LOGGED.

RUN 1 - HFS, MAI, MFE, MSS, SKJ, MPD, MDN, MCG, SHA TOOLS RAN IN COMBINATION.

RUN 2 - MIE, MIM, MCG, SHA TOOLS RAN IN COMBINATION.

HARDWARE:

RUN 1

- MAI: 2 x 1.0" STANDOFFS.
- MSS: 3 x 1.0" STANDOFFS.
- MDN: 1 x DUAL BOWSPRING.

RUN 2

- MIE: 1 x 1.5" STANDOFF.

- MIM: 1 x NON MAGNETIC CENTRALISER.

DUAL BOWSPRING ON MDN TOOL USED TO SIDEWALL THE MPD.

MPD CORRECTED FOR CALIPER AND MUD WEIGHT.

SERVICE REPORT NUMBER: 6179.

RIG: ENSIGN48.

TOTAL HOLE VOLUME (HVOL) FROM T.D. TO SURFACE CASING = 6.1 CUBIC METERS.

TOTAL ANNULAR VOLUME (AVOL) WITH 7" PRODUCTION CASING = 0.1 CUBIC METERS.

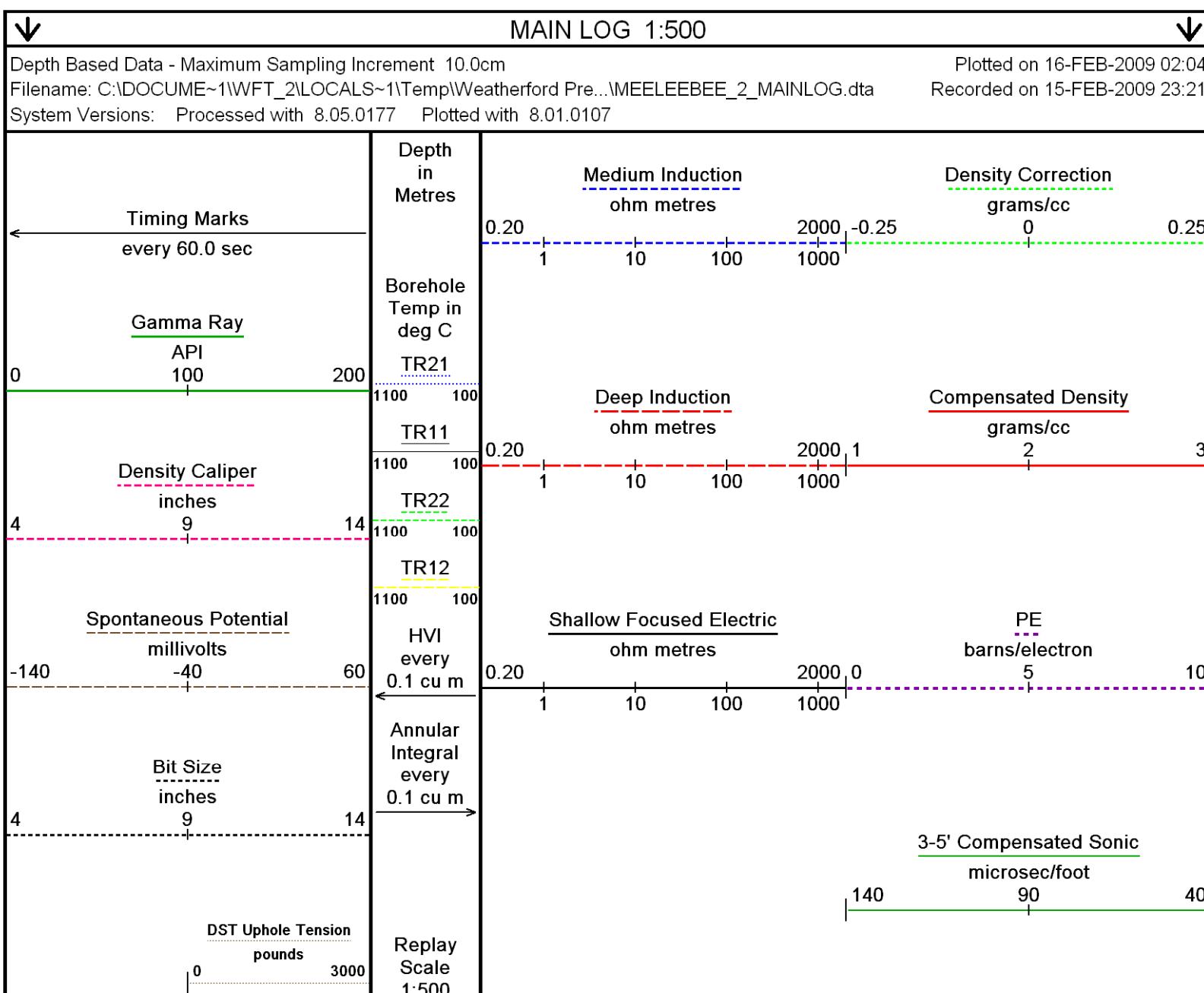
SONIC CASING SIGNAL OBSERVED AT 42 METERS.

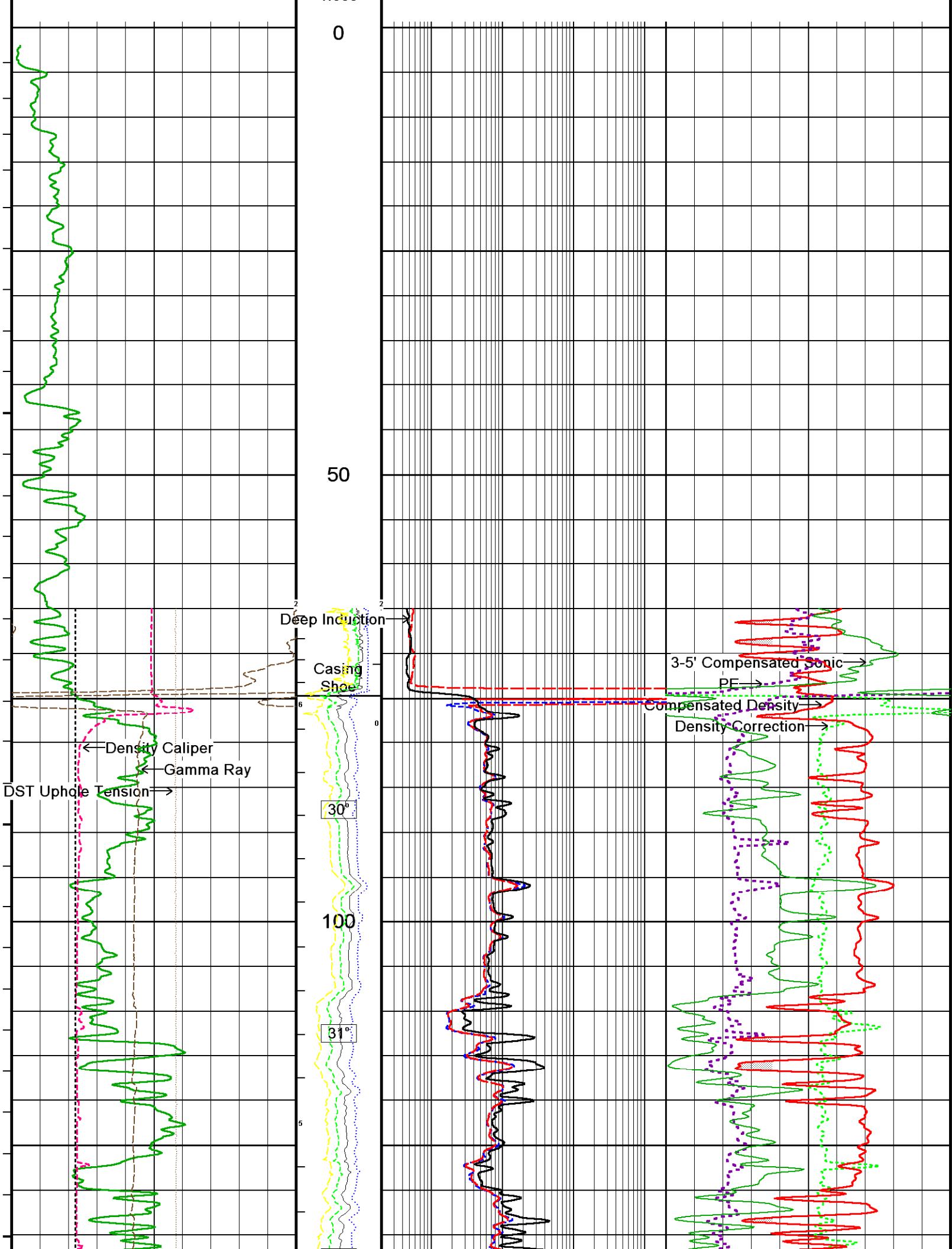
TIME ON BOTTOM: 23:20 - 15 FEB 2009.

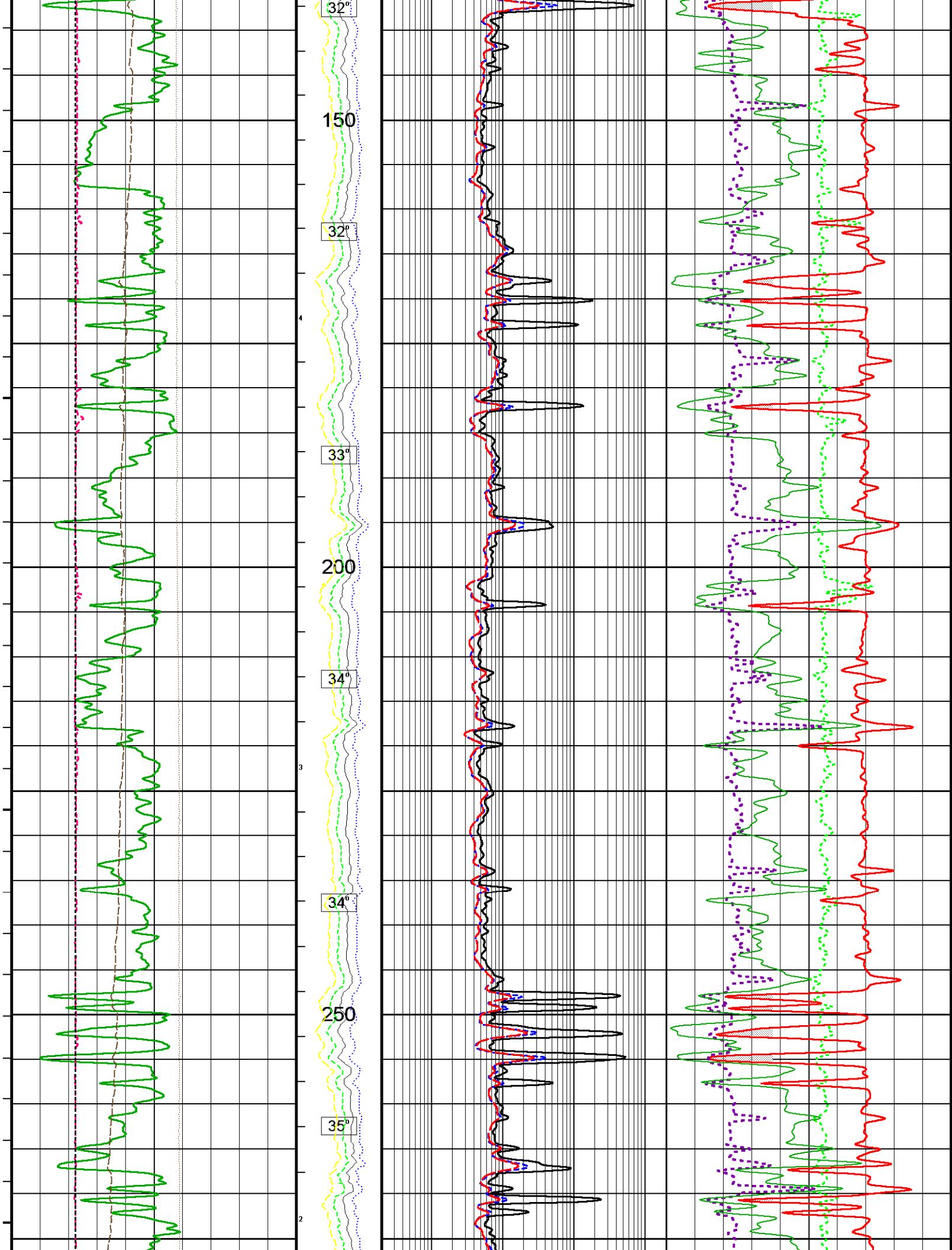
LOGGING UNIT J-FACTOR FOR V11563: 0.5129.

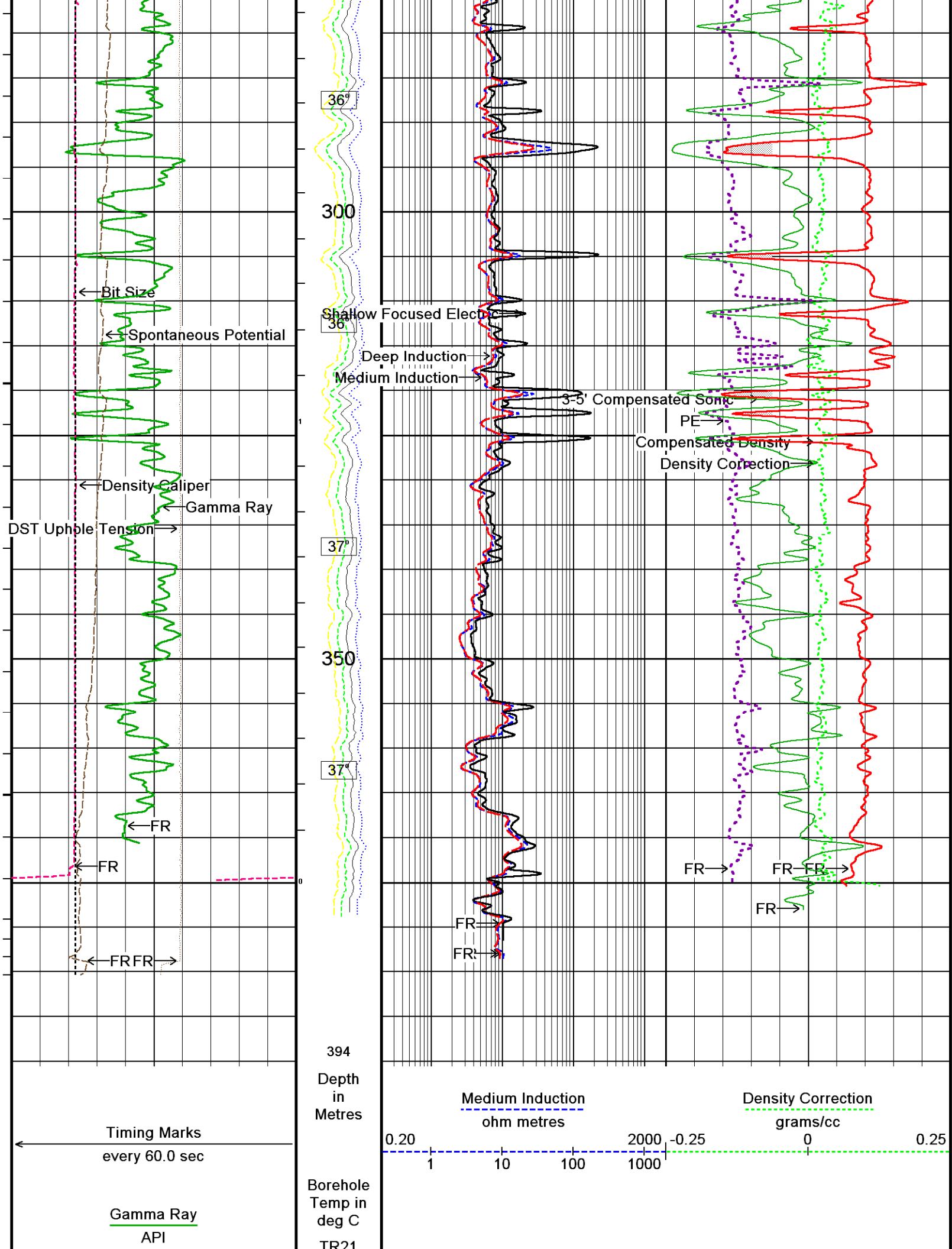
LOGGING CREW: ENGINEER - B. MILLSOM, TRAINEE ENGINEER - V. VO, OPERATOR 1 - L. ABLE, OPERATOR 2 - T. WILSON.

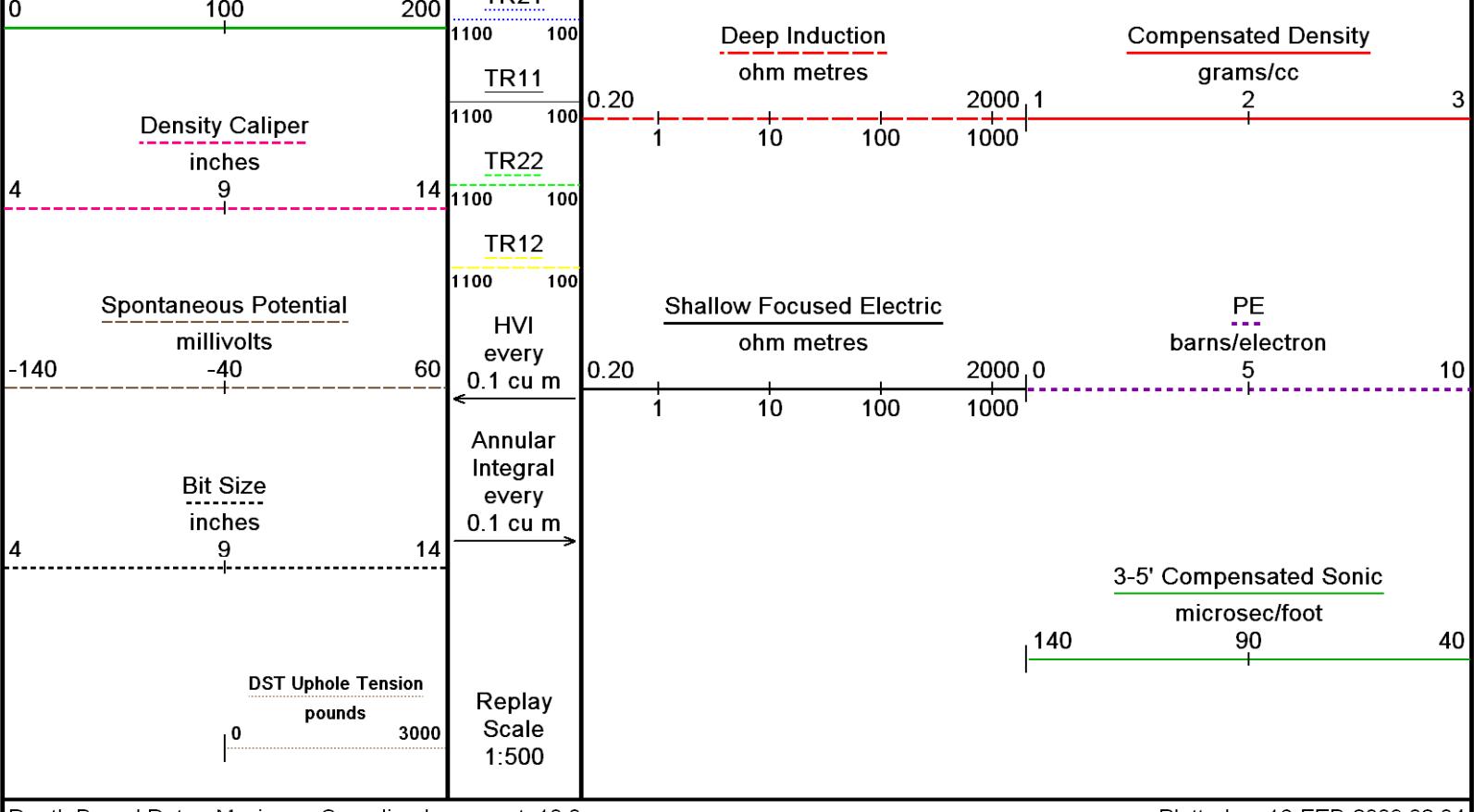
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions in our price schedule.











Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 16-FEB-2009 02:04
 Filename: C:\DOCUMENTUME~1\WFT_2\LOCALS~1\Temp\Weatherford Pre...\\MEELEEBEE_2_MAINLOG.dta
 Recorded on 15-FEB-2009 23:21
 System Versions: Processed with 8.05.0177 Plotted with 8.01.0107

MAIN LOG 1:500

BEFORE SURVEY CALIBRATION

C:\DOCUMENTUME~1\WFT_2\LOCALS~1\Temp\Weatherford PreView\0\MEELEEBEE_2_MAINLOG.dta

General Constants All 000 Last Edited on 15-FEB-2009,23:05

General Parameters

| | | |
|-----------------------------|----------|------------|
| Mud Resistivity | 7.457 | ohm-metres |
| Mud Resistivity Temperature | 25.000 | degrees C |
| Water Level | 0.000 | metres |
| Density/Neutron Processing | Wet Hole | |

Hole/Annular Volume and Differential Caliper Parameters

| | | |
|----------------------------------|-----------------|--------|
| HVOL Caliper 1 | Density Caliper | |
| HVOL Caliper 2 | None | |
| Annular Volume Diameter | 7.000 | inches |
| Caliper for Differential Caliper | Density Caliper | |

Rwa Parameters

| | | |
|------------------|------------------------|--|
| Porosity used | Limestone Density Por. | |
| Resistivity used | Deep Induction | |
| RWA Constant A | 0.610 | |
| RWA Constant M | 2.150 | |

Down-hole Tension Calibration SMS 000

| | | |
|------------|----------|------------------|
| Reading No | Measured | Calibrated (lbs) |
| 1 | 14319.40 | 0.00 |
| 2 | 15406.44 | 795.90 |

Field Calibration on 10-FEB-2009 11:26

High Resolution Temperature Calibration MCG 253

| | | |
|-------|----------|-------------------|
| Lower | Measured | Calibrated(Deg C) |
| Upper | 0.00 | 0.00 |
| | 100.00 | 100.00 |

Field Calibration on 15-FEB-2009,19:52

Pre-filter Length

11

SP Calibration MCG 253

| | Measured | Calibrated (mV) |
|-------------|----------|-----------------|
| Reference 1 | 88.7 | 86.1 |
| Reference 2 | -83.9 | -86.2 |

Field Calibration on 15-FEB-2009 20:21

Gamma Calibration MCG 253

| | Measured | Calibrated (API) |
|--------------------|----------|------------------|
| Background | 63 | 46 |
| Calibrator (Gross) | 1085 | 795 |
| Calibrator (Net) | 1022 | 749 |

Field Calibration on 15-FEB-2009 20:26

Gamma Constants MCG 253

| | | |
|-------------------------------|-----------------|-------|
| Gamma Calibrator Number | GRC030 | |
| Mud Density | 1.03 | gm/cc |
| Caliper Source for Processing | Density Caliper | |
| Tool Position | Eccentred | |
| Concentration of KCl | 0.00 | kppm |

Last Edited on 15-FEB-2009, 20:27

Neutron Calibration MDN 099

Base Calibration on 4-FEB-2009 15:15
Field Check on 5-FEB-2009 15:23

Base Calibration

| | Measured | | Calibrated (cps) | |
|-------|----------|--------|------------------|--------|
| | Near | Far | Near | Far |
| Ratio | 3244 | 100 | 3714 | 110 |
| | | 32.521 | | 33.764 |

Field Calibrator at Base

| | Calibrated (cps) |
|-------|------------------|
| Ratio | 1656 |
| | 2420 |

0.684

Field Check

| | Calibrated (cps) |
|-------|------------------|
| Ratio | 1624 |
| | 2354 |

0.690

Neutron Constants MDN 099

Last Edited on 15-FEB-2009, 19:49

| | | |
|---------------------------------|-----------------|-----------|
| Neutron Source Id | 16150B | |
| Neutron Jig Number | 30 | |
| Epithermal Neutron | No | |
| Caliper Source for Processing | Density Caliper | |
| Stand-off | 0.00 | inches |
| Mud Density | 1.00 | gm/cc |
| Limestone Sigma | 7.10 | cu |
| Sandstone Sigma | 4.26 | cu |
| Dolomite Sigma | 4.70 | cu |
| Formation Pressure Source | Constant Value | |
| Formation Pressure | 0.00 | kpsi |
| Temperature Source | Constant Value | |
| Temperature | 20.00 | degrees C |
| Mud Salinity | 0.00 | kppm |
| Formation Fluid Salinity Source | Constant Value | |
| Formation Fluid Salinity | 0.00 | kppm |
| Barite Mud Correction | Not Applied | |

Caliper Calibration MPD 066

Base Calibration on 5-FEB-2009 09:49
Field Calibration on 15-FEB-2009, 23:00

Base Calibration

| Reading No | Measured | Calibrator Size (in) |
|------------|----------|----------------------|
| 1 | 12719 | 4.01 |
| 2 | 21344 | 5.96 |
| 3 | 30096 | 7.98 |
| 4 | 38288 | 9.86 |
| 5 | 47324 | 11.88 |
| 6 | N/A | N/A |

Field Calibration

Field Calibration

Measured Caliper (in)
8.93Actual Caliper (in)
8.92

Photo Density Calibration MPD 066

Base Calibration on 5-FEB-2009 09:39
Field Check on 15-FEB-2009 20:18

Density Calibration

Base Calibration

| | Measured | | Calibrated (sdu) | |
|-------------|----------|-------|------------------|-------|
| | Near | Far | Near | Far |
| Reference 1 | 60133 | 31073 | 60218 | 32009 |
| Reference 2 | 23822 | 2317 | 25199 | 2542 |

Field Check at Base

841.2 998.0

Field Check

834.7 999.0

PE Calibration

Base Calibration

| | WS | Measured | Calibrated |
|-------------|-------|----------|------------|
| | WH | Ratio | Ratio |
| Background | 163 | 737 | |
| Reference 1 | 24927 | 59956 | 0.418 |
| Reference 2 | 6755 | 23708 | 0.287 |

Field Check at Base

162.8 737.1

Field Check

159.9 731.7

Density Constants MPD 066

Last Edited on 15-FEB-2009,20:27

| | | |
|--------------------------------|-----------------|-------|
| Density Source Id | NSD-L-270 | |
| Nylon Calibrator Number | 605 | |
| Aluminium/Fe Calibrator Number | 605 | |
| Density Shoe Profile | 8 inch | |
| Caliper Source for Processing | Density Caliper | |
| PE Correction to Density | Not Applied | |
| Mud Density | 1.03 | gm/cc |
| Mud Density Z/A Correction | 1.11 | |
| Mud Filtrate Density | 1.00 | gm/cc |
| Dry Hole Mud Filtrate Density | 1.00 | gm/cc |
| DNCT | 0.00 | gm/cc |
| CRCT | 0.00 | gm/cc |
| Density Z/A Correction | Advanced | |
| Matrix Density (gm/cc) | Depth (m) | |
| 2.71 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |

Sonic Constants MSS 223

Last Edited on 15-FEB-2009,19:48

| | | |
|---------------------------|------------------------|--------------|
| Maximum Boundary Contrast | 100.00 | micro-sec/ft |
| Fluid Transit Time | 189.00 | micro-sec/ft |
| Limestone Transit Time | 47.50 | micro-sec/ft |
| Sandstone Transit Time | 55.50 | micro-sec/ft |
| Dolomite Transit Time | 43.50 | micro-sec/ft |
| Sonic used for Porosities | 3-5' Compensated Sonic | |
| Correction for Sonde Skew | Applied | |
| Cycle Stretch Algorithm | Applied | |
| MN3FT | N/A | micro-sec |
| MX3FT | N/A | micro-sec |
| Hunt-Raymer Constant | 83.13 | micro-sec/ft |

Fixed Gate Parameters

© 2000-2009 Schlumberger

| Start Time (micro-sec) | End Time (micro-sec) | Discriminator (mV) | N/A |
|------------------------|----------------------|--------------------|-----|
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |

Down Hole Fixed Gate Parameters

| | | |
|-----------------------------|--------|-----------|
| Gate Start | N/A | micro-sec |
| Gate Width | N/A | micro-sec |
| Initial Discriminator Level | 0.0000 | mVolts |

Full Waveform Parameters

| | | |
|---------------------------------|-----|-----------|
| Use 3' Waveform to derive TR | N/A | |
| Use 4' Waveform to derive TR | N/A | |
| Use 5' Waveform to derive TR | N/A | |
| Use 6' Waveform to derive TR | N/A | |
| 3' Waveform Discriminator Level | N/A | mV |
| 4' Waveform Discriminator Level | N/A | mV |
| 5' Waveform Discriminator Level | N/A | mV |
| 6' Waveform Discriminator Level | N/A | mV |
| 3' Waveform Filter | N/A | |
| 4' Waveform Filter | N/A | |
| 5' Waveform Filter | N/A | |
| 6' Waveform Filter | N/A | |
| Semblance Level | N/A | |
| Semblance Window Width | N/A | micro-sec |
| Sonic 1 Despiker | N/A | N/A |
| Sonic 2 Despiker | N/A | N/A |

FE Calibration MFE 138

Base Calibration on 4-FEB-2009 11:52
Field Check on 15-FEB-2009 20:14

| Base Calibration | Measured | Calibrated (ohm-m) |
|------------------|----------|--------------------|
| Reference 1 | 0.0 | 0.0 |
| Reference 2 | 959.5 | 126.8 |
| Base Check | | 281.3 |
| Field Check | | 281.7 |

FE Constants MFE 138

Last Edited on 15-FEB-2009,20:27

| | |
|----------------------------------|--------------------------|
| Caliper Source for FE correction | Density Caliper |
| Rm Source for FE correction | Temperature Corr |
| Temp. for Rm Corr. | MCG External Temperature |
| Stand-off | 1.0 inches |

High Resolution Temperature Calibration MAI 140

Field Calibration on 15-FEB-2009,19:47

| | Measured | Calibrated(Deg C) |
|-------|----------|-------------------|
| Lower | 0.00 | 0.00 |
| Upper | 10.00 | 10.00 |

High Resolution Temperature Constants MAI 140

Last Edited on 15-FEB-2009,19:47

| | |
|-------------------|----|
| Pre-filter Length | 11 |
|-------------------|----|

Induction Calibration MAI 140

Base Calibration on 4-FEB-2009,09:49
Field Check on 15-FEB-2009 20:11

| Base Calibration | Measured | Calibrated (mmho/m) | | |
|-----------------------|----------|---------------------|-----|-------|
| Test Loop Calibration | Low | High | Low | High |
| Channel 1 | 17.0 | 464.1 | 9.3 | 967.1 |
| 2 | 6.9 | 382.1 | 7.6 | 822.1 |
| 3 | 4.1 | 264.5 | 5.2 | 566.5 |
| 4 | 2.2 | 137.4 | 2.6 | 279.5 |
| Array Temperature | 22.3 | Deg C | | |

| Channel | Base Check (mmho/m) | | Field Check (mmho/m) | |
|---------|---------------------|--------|----------------------|--------|
| | Low | High | Low | High |
| 1 | 15.1 | 3922.2 | 14.0 | 3923.3 |

| | | | | |
|---------|------|--------|------|--------|
| 2 | 28.9 | 3538.1 | 28.8 | 3540.2 |
| 3 | 26.9 | 3000.3 | 27.0 | 3002.2 |
| 4 | 18.5 | 2015.3 | 18.6 | 2016.8 |
| Deep | 16.6 | 1908.2 | 16.6 | 1909.5 |
| Medium | 38.8 | 3974.4 | 39.1 | 3977.0 |
| Shallow | 43.1 | 5306.7 | 42.9 | 5309.8 |

Array Temperature 39.2 24.7 Deg C

Induction Constants MAI 140

Last Edited on 15-FEB-2009, 19:48

Induction Model VECTAR

| | |
|-----------------------------------|--------------------------|
| Caliper for Borehole Corr. | Density Caliper |
| Hole Size for Borehole Correction | N/A |
| Stand-off | 0.00 |
| Number of Fins on Stand-off | 6.0000 |
| Stand-off Fin Width | 0.5000 |
| Borehole Corr. Rm Source | Temperature Corr |
| Temp. for Rm Corr. | MCG External Temperature |
| Squasher Start | 0.0020 |

Borehole Normalisation

| | | | |
|------|--------|------|--------|
| DRM1 | 0.0000 | DRC1 | 0.0000 |
| DRM2 | 0.0000 | DRC2 | 0.0000 |
| MRM1 | 0.0000 | MRC1 | 0.0000 |
| MRM2 | 0.0000 | MRC2 | 0.0000 |
| SRM1 | 0.0000 | SRC1 | 0.0000 |
| SRM2 | 0.0000 | SRC2 | 0.0000 |

Calibration Site Corrections

| | | |
|-----------|------|-------------|
| Channel 1 | 0.00 | mmhos/metre |
| Channel 2 | 0.00 | mmhos/metre |
| Channel 3 | 0.00 | mmhos/metre |
| Channel 4 | 0.00 | mmhos/metre |

Apparent Porosity and Water Saturation Constants

| | |
|--------------------------------------|--------|
| Archie Constant (A) | 1.00 |
| Cementation Exponent (M) | 2.00 |
| Saturation Exponent (N) | 2.00 |
| Saturation of Water for Apor | 100.00 |
| Resistivity of Water for Apor and Sw | 0.05 |
| Resistivity of Mud Filtrate for Sw | 0.00 |

DOWNHOLE EQUIPMENT

C:\DOCUME~1\WFT_2\LOCALS~1\Temp\Weatherford PreView\0\MEELEEBEE_2_MAINLOG.dta

MCB-A 11B Tension Cablehead

MCB 1 Length: 0.66 m Weight: 19.8 lb

SHA-H Compact Swivel Head Adaptor

SHA 136 Length: 0.70 m Weight: 22.0 lb

Compact Gamma

MCG 253 Length: 2.65 m Weight: 63.9 lb



15.11 m GGCE - Borehole Corrected Gamma
15.11 m GRGC - Gamma Ray
14.22 m CGXT - MCG External Temperature

Compact Neutron

MDN 99 Length: 1.53 m Weight: 50.7 lb

Compact Density/Caliper

10.56 m AVOL - Annular Volume

MPD 66 Length: 2.92 m

Weight: 90.4 lb

HVOL - Hole Volume
CLDC - Density Caliper
HDEN - Vector Processed Density

SKJ-D.A Compact Knuckle Joint
SKJ 192 Length: 0.66 m

Weight: 24.3 lb

10.56 m
10.56 m
10.35 m
10.35 m
10.33 m
DEN - Compensated Density
DCOR - Density Correction
PDPE - PE

Compact Sonic
MSS 223 Length: 3.82 m

Weight: 72.8 lb

5.79 m
5.79 m
5.79 m
5.79 m
5.79 m
TR22 - 5' Transit Time
TR11 - 4' Transit Time
TR21 - 3' Transit Time
DT35 - 3-5' Compensated Sonic
TR12 - 6' Transit Time

Compact Focussed Electric
MFE 138 Length: 1.84 m

Weight: 48.5 lb

4.18 m FEFE - Shallow FE

Compact Induction
MAI 140 Length: 3.29 m

Weight: 48.5 lb

0.79 m RILM - Medium Induction
0.79 m RILD - Deep Induction
Tool Zero (0.57m from bottom)

Compact Hole Finder
HFS 4 Length: 0.54 m

Weight: 2.2 lb

All measurements relative to tool zero.

Total Length: 18.62 m

Weight: 443.1 lb



COMPANY

ORIGIN CSG

WELL

MEELEEBEE 2

FIELD

MEELEEBEE

PROVINCE/COUNTY

QUEENSLAND

COUNTRY/STATE

AUSTRALIA

Elevation Kelly Bushing

metres

First Reading

383.80 metres

Elevation Drill Floor

304.35

metres

Depth Driller

384.35 metres

Elevation Ground Level

300.00

metres

Depth Logger

384.30 metres



ARRAY INDUCTION - SONIC

PHOTO DENSITY

1:500

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MEELEEBEE_2_MAI_MSS_MPД_500



**ARRAY INDUCTION
COMPENSATED SONIC**

1:500

| | |
|------------------------|---------------------------------------|
| COMPANY | ORIGIN CSG |
| WELL | MEELEEBEE 2 |
| FIELD | MEELEEBEE |
| PROVINCE/COUNTY | QUEENSLAND |
| COUNTRY/STATE | AUSTRALIA |
| LOCATION | ATP 606P |
| Latitude | 26° 12' 2.63" S |
| Longitude | 149° 14' 29.9" E |
| Permanent Datum | M.S.L., Elevation 0.00 metres |
| Log Measured From | D.F. @ 304.35 M above Permanent Datum |
| Drilling Measured From | D.F. |
| Date | 15-FEB-2009 |
| Run Number | 1 |
| Depth Driller | 384.35 |
| Depth Logger | 384.30 |
| First Reading | 383.80 |
| Last Reading | 2.00 |
| Casing Driller | 75.08 |
| Casing Logger | 74.70 |
| Bit Size | 6.25 |
| Hole Fluid Type | FRESH |
| Density / Viscosity | 1.03 g/c3 |
| PH / Fluid Loss | 32.00 sec/qt |
| Sample Source | FLOWLINE |
| Rm @ Measured Temp | 7.457 @ 25.0 ohmm-m |
| Rmf @ Measured Temp | |
| Rmc @ Measured Temp | |
| Source Rmf / Rmc | |
| Rm @ BHT | 5.86 @ 37.0 ohmm-m |
| Time Since Circulation | 4.5 HOURS |
| Max Recorded Temp | 37.00 deg C |
| Equipment Name | MAI_MSS_MPД |
| Equipment / Base | 11563 ROMA |
| Recorded By | B. MILLSOM |
| Witnessed By | S. VICKERS |
| Stop Circulation | 19:00/15 JAN . |
| Other Services | |
| COMPACT MICRO IMAGER | |
| PHOTO DENSITY | |
| Elevations: | metres |
| KB | 304.35 |
| DF | 300.00 |
| GL | |

BOREHOLE RECORD

Last Edited: 16-FEB-2009 00:57

| Bit Size inches | Depth From metres | Depth To metres |
|--------------------|----------------------|--------------------|
| 6.250 | 75.08 | 384.75 |

CASING RECORD

| Type | Size inches | Depth From metres | Shoe Depth metres | Weight pounds/ft |
|---------|----------------|----------------------|----------------------|---------------------|
| SURFACE | 9.625 | 0.00 | 75.08 | 36.00 |

REMARKS

RUN NUMBER 1 IS THE PRIMARY DEPTH REFERENCE LOG. ALL OTHER RUNS ARE CORRELATED BACK TO THIS LOG.

SOFTWARE ISSUE: VERSION 8.05.0177 - SEP 11, 2008.

CUSTOMER SCALES AND INTERVALS LOGGED.

RUN 1 - HFS, MAI, MFE, MSS, SKJ, MPD, MDN, MCG, SHA TOOLS RAN IN COMBINATION.

RUN 2 - MIE, MIM, MCG, SHA TOOLS RAN IN COMBINATION.

HARDWARE:

RUN 1

- MAI: 2 x 1.0" STANDOFFS.
- MSS: 3 x 1.0" STANDOFFS.
- MDN: 1 x DUAL BOWSPRING.

RUN 2

- MIE: 1 x 1.5" STANDOFF.

- MIM: 1 x NON MAGNETIC CENTRALISER.

DUAL BOWSPRING ON MDN TOOL USED TO SIDEWALL THE MPD.

MPD CORRECTED FOR CALIPER AND MUD WEIGHT.

SERVICE REPORT NUMBER: 6179.

RIG: ENSIGN48.

TOTAL HOLE VOLUME (HVOL) FROM T.D. TO SURFACE CASING = 6.1 CUBIC METERS.

TOTAL ANNULAR VOLUME (AVOL) WITH 7" PRODUCTION CASING = 0.1 CUBIC METERS.

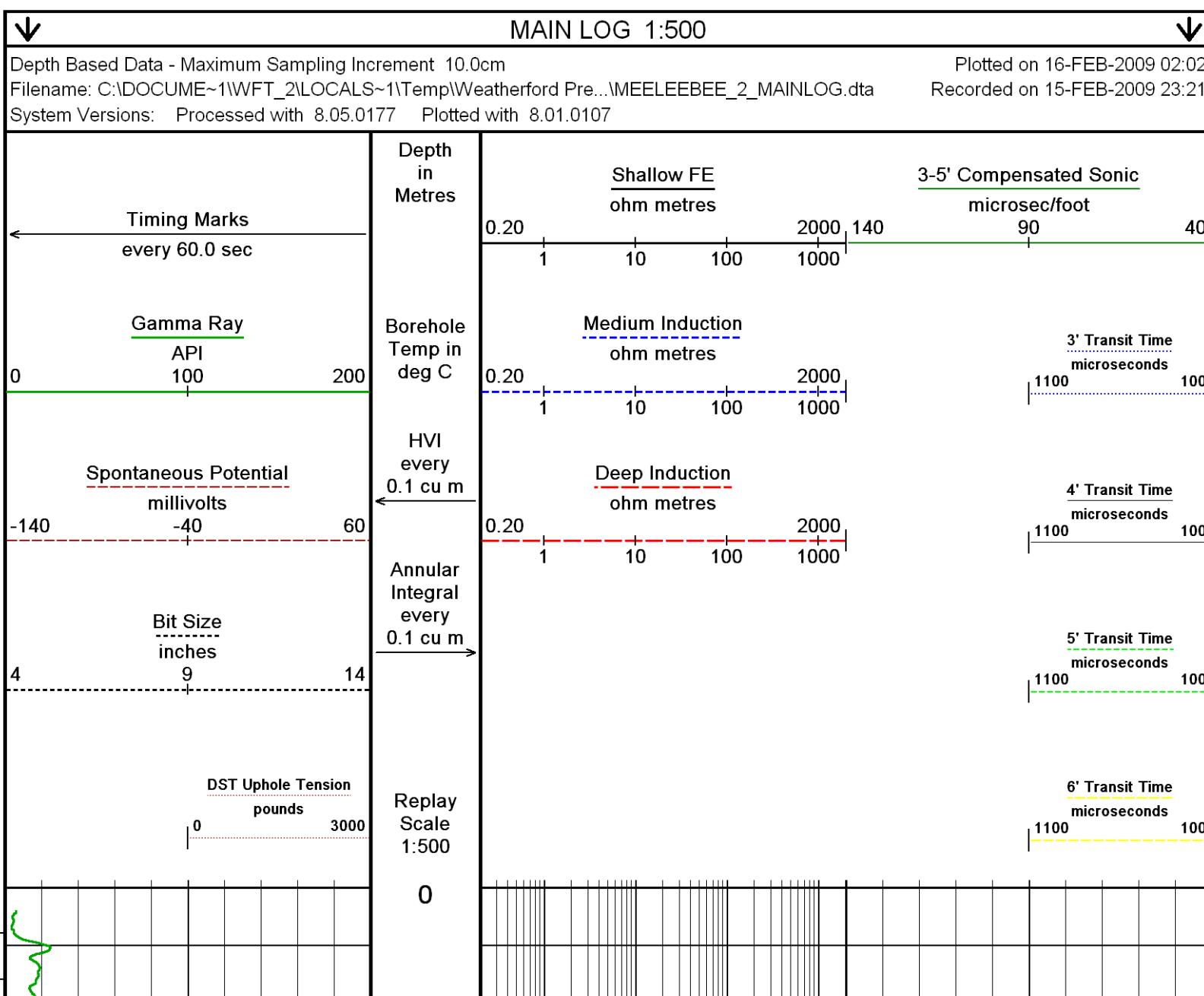
SONIC CASING SIGNAL OBSERVED AT 42 METERS.

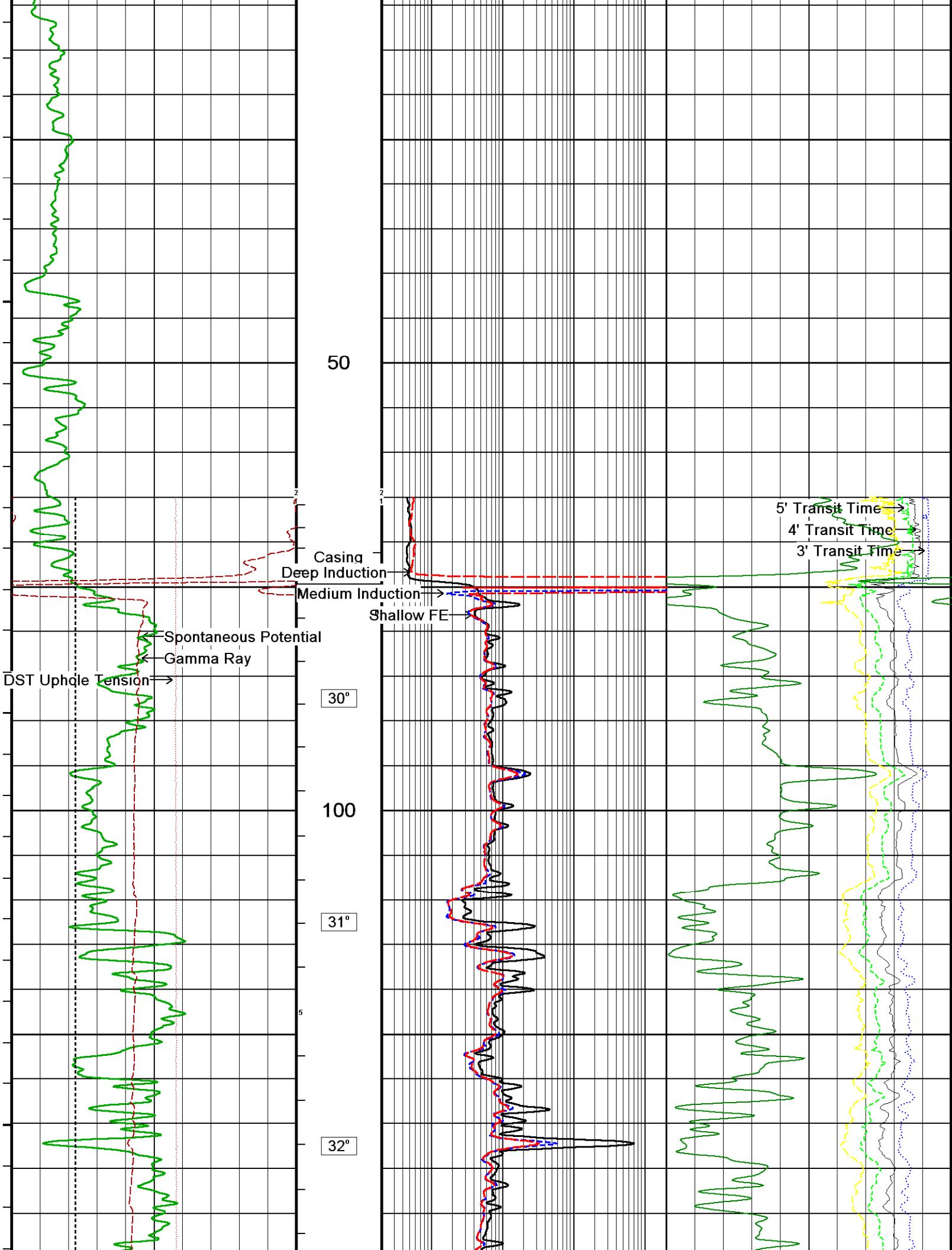
TIME ON BOTTOM: 23:20 - 15 FEB 2009.

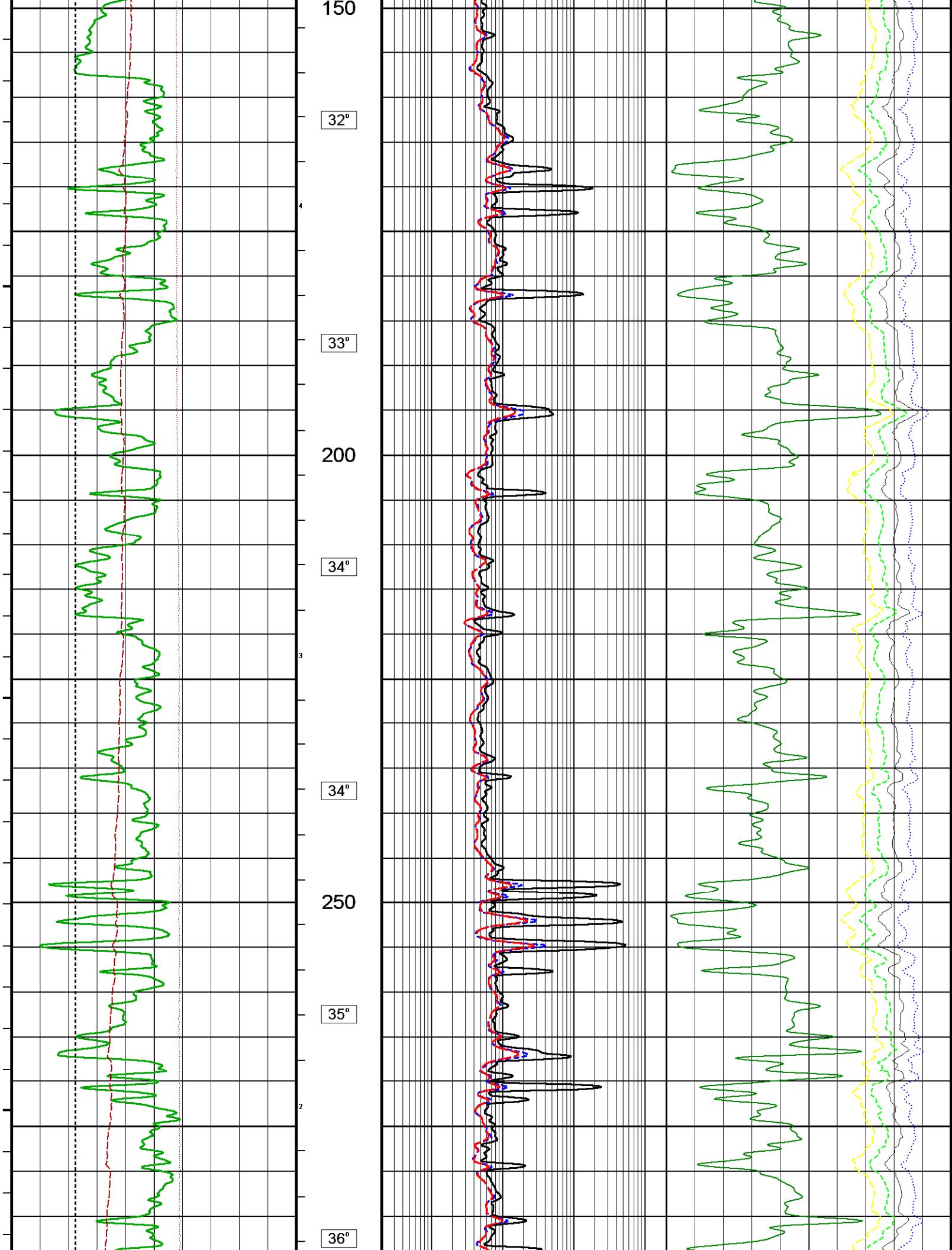
LOGGING UNIT J-FACTOR FOR V11563: 0.5129.

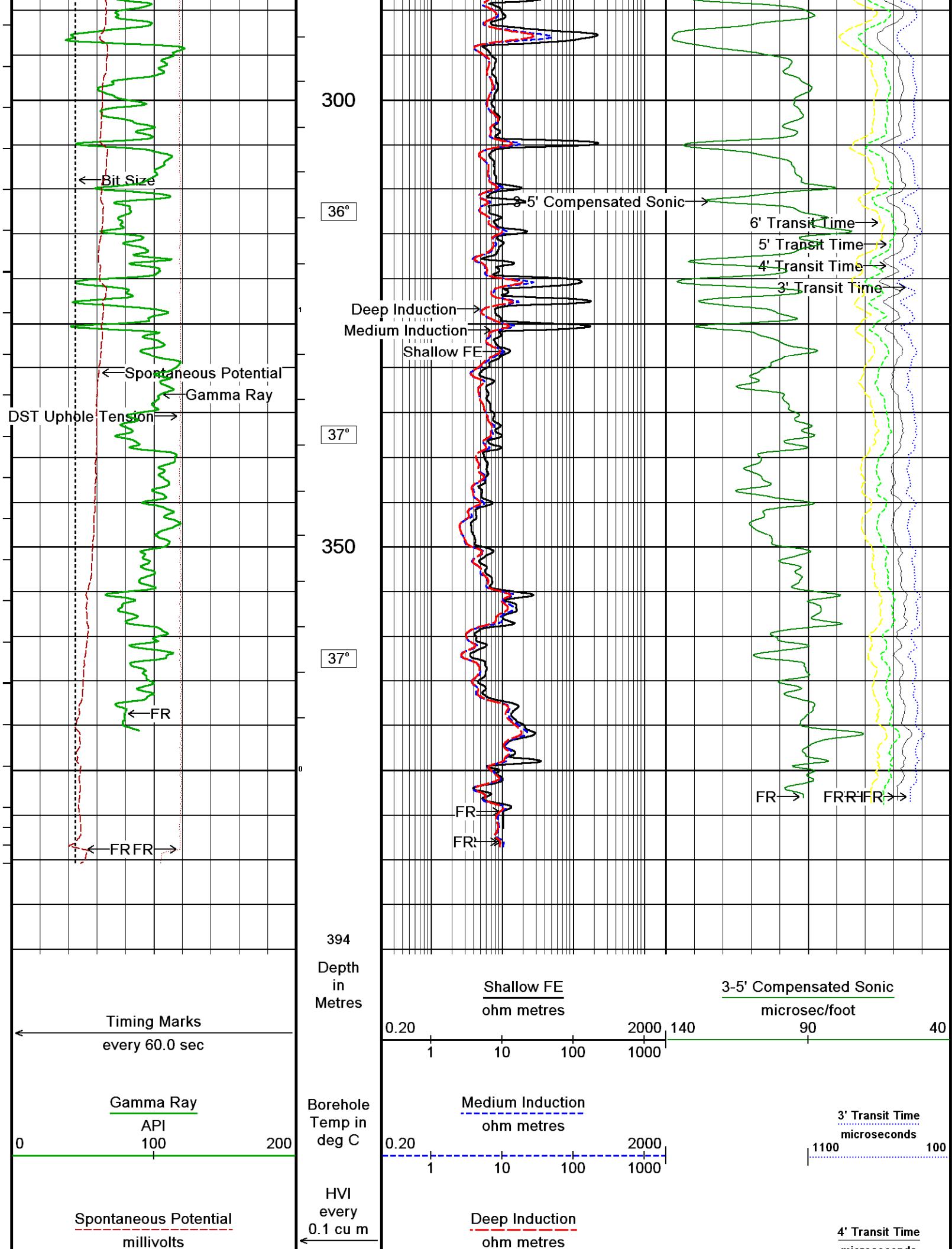
LOGGING CREW: ENGINEER - B. MILLSOM, TRAINEE ENGINEER - V. VO, OPERATOR 1 - L. ABLE, OPERATOR 2 - T. WILSON.

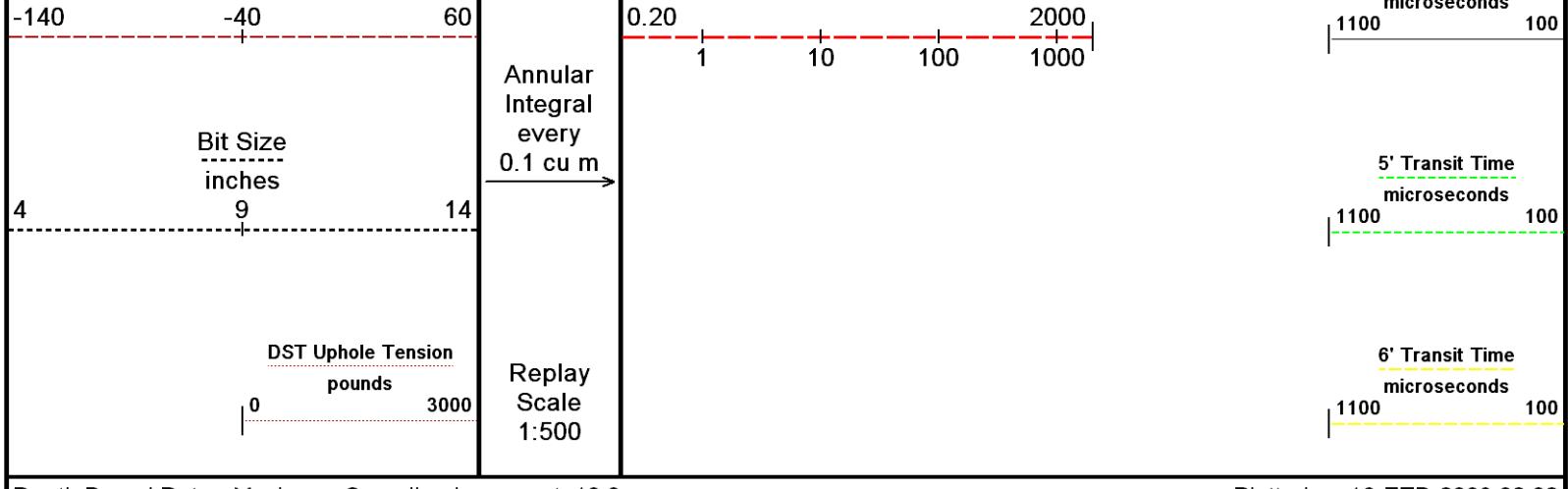
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions in our price schedule.











Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 16-FEB-2009 02:02
 Filename: C:\DOCUME~1\WFT_2\LOCALS~1\Temp\Weatherford Pre...\\MEELEEBEE_2_MAINLOG.dta
 Recorded on 15-FEB-2009 23:21
 System Versions: Processed with 8.05.0177 Plotted with 8.01.0107

MAIN LOG 1:500

BEFORE SURVEY CALIBRATION

C:\DOCUME~1\WFT_2\LOCALS~1\Temp\Weatherford PreView\0\MEELEEBEE_2_MAINLOG.dta

| | |
|--|----------------------------------|
| General Constants All 000 | Last Edited on 15-FEB-2009,23:05 |
| General Parameters | |
| Mud Resistivity | 7.457 ohm-metres |
| Mud Resistivity Temperature | 25.000 degrees C |
| Water Level | 0.000 metres |
| Density/Neutron Processing | Wet Hole |
| Hole/Annular Volume and Differential Caliper Parameters | |
| HVOL Caliper 1 | Density Caliper |
| HVOL Caliper 2 | None |
| Annular Volume Diameter | 7.000 inches |
| Caliper for Differential Caliper | Density Caliper |
| Rwa Parameters | |
| Porosity used | Limestone Density Por. |
| Resistivity used | Deep Induction |
| RWA Constant A | 0.610 |
| RWA Constant M | 2.150 |

| | |
|---------------------------------------|--|
| Down-hole Tension Calibration SMS 000 | Field Calibration on 10-FEB-2009 11:26 |
| Reading No | Measured Calibrated (lbs) |
| 1 | 14319.40 0.00 |
| 2 | 15406.44 795.90 |

| | |
|---|--|
| High Resolution Temperature Calibration MCG 253 | Field Calibration on 15-FEB-2009,19:52 |
| Lower | Measured Calibrated(Deg C) |
| Upper | 0.00 0.00 |
| | 100.00 100.00 |

| | |
|---|----------------------------------|
| High Resolution Temperature Constants MCG 253 | Last Edited on 15-FEB-2009,19:52 |
| Pre-filter Length | 11 |

| | |
|------------------------|--|
| SP Calibration MCG 253 | Field Calibration on 15-FEB-2009 20:21 |
| Reference 1 | Measured Calibrated (mV) |
| Reference 2 | 88.7 86.1 |
| | -83.9 -86.2 |

| | |
|---------------------------|--|
| Gamma Calibration MCG 253 | Field Calibration on 15-FEB-2009 20:26 |
| Measured | Calibrated (API) |

| | | |
|--------------------|------|-----|
| Background | 63 | 46 |
| Calibrator (Gross) | 1085 | 795 |
| Calibrator (Net) | 1022 | 749 |

Gamma Constants MCG 253

Last Edited on 15-FEB-2009,20:27

| | | |
|-------------------------------|-----------------|-------|
| Gamma Calibrator Number | GRC030 | |
| Mud Density | 1.03 | gm/cc |
| Caliper Source for Processing | Density Caliper | |
| Tool Position | Eccentred | |
| Concentration of KCl | 0.00 | kppm |

Neutron Calibration MDN 099

Base Calibration on 4-FEB-2009 15:15
Field Check on 5-FEB-2009 15:23

| Base Calibration | | Measured | | Calibrated (cps) | |
|--------------------------|--|----------|-----|------------------|------------------|
| | | Near | Far | Near | Far |
| Ratio | | 3244 | 100 | 3714 | 110 |
| | | 32.521 | | 33.764 | |
| Field Calibrator at Base | | | | | Calibrated (cps) |
| Ratio | | | | 1656 | 2420 |
| | | | | 0.684 | |
| Field Check | | | | | Calibrated (cps) |
| Ratio | | | | 1624 | 2354 |
| | | | | 0.690 | |

Neutron Constants MDN 099

Last Edited on 15-FEB-2009,19:49

| | | |
|---------------------------------|-----------------|-----------|
| Neutron Source Id | 16150B | |
| Neutron Jig Number | 30 | |
| Epithermal Neutron | No | |
| Caliper Source for Processing | Density Caliper | |
| Stand-off | 0.00 | inches |
| Mud Density | 1.00 | gm/cc |
| Limestone Sigma | 7.10 | cu |
| Sandstone Sigma | 4.26 | cu |
| Dolomite Sigma | 4.70 | cu |
| Formation Pressure Source | Constant Value | |
| Formation Pressure | 0.00 | kpsi |
| Temperature Source | Constant Value | |
| Temperature | 20.00 | degrees C |
| Mud Salinity | 0.00 | kppm |
| Formation Fluid Salinity Source | Constant Value | |
| Formation Fluid Salinity | 0.00 | kppm |
| Barite Mud Correction | Not Applied | |

Caliper Calibration MPD 066

Base Calibration on 5-FEB-2009 09:49
Field Calibration on 15-FEB-2009,23:00

| Base Calibration | | Measured | | Calibrator Size (in) | |
|-------------------|--|-----------------------|-----|----------------------|-----|
| Reading No | | Near | Far | Near | Far |
| 1 | | 12719 | | 4.01 | |
| 2 | | 21344 | | 5.96 | |
| 3 | | 30096 | | 7.98 | |
| 4 | | 38288 | | 9.86 | |
| 5 | | 47324 | | 11.88 | |
| 6 | | N/A | | N/A | |
| Field Calibration | | Measured Caliper (in) | | Actual Caliper (in) | |
| | | 8.93 | | 8.92 | |

Photo Density Calibration MPD 066

Base Calibration on 5-FEB-2009 09:39
Field Check on 15-FEB-2009 20:18

| Density Calibration | | Measured | | Calibrated (sdu) | |
|---------------------|--|----------|-------|------------------|-------|
| Base Calibration | | Near | Far | Near | Far |
| Reference 1 | | 60133 | 31073 | 60218 | 32009 |
| Reference 2 | | 23822 | 2317 | 25199 | 2542 |

Field Check at Base

841.2 999.0

641.2 998.0

Field Check

834.7 999.0

PE Calibration

| Base Calibration | | Measured | Calibrated |
|------------------|-------|----------|------------|
| | WS | WH | Ratio |
| Background | 163 | 737 | |
| Reference 1 | 24927 | 59956 | 0.418 |
| Reference 2 | 6755 | 23708 | 0.287 |

Field Check at Base

162.8 737.1

Field Check

159.9 731.7

Density Constants MPD 066

Last Edited on 15-FEB-2009,20:27

| | | |
|--------------------------------|-----------------|-------|
| Density Source Id | NSD-L-270 | |
| Nylon Calibrator Number | 605 | |
| Aluminium/Fe Calibrator Number | 605 | |
| Density Shoe Profile | 8 inch | |
| Caliper Source for Processing | Density Caliper | |
| PE Correction to Density | Not Applied | |
| Mud Density | 1.03 | gm/cc |
| Mud Density Z/A Correction | 1.11 | |
| Mud Filtrate Density | 1.00 | gm/cc |
| Dry Hole Mud Filtrate Density | 1.00 | gm/cc |
| DNCT | 0.00 | gm/cc |
| CRCT | 0.00 | gm/cc |
| Density Z/A Correction | Advanced | |
| Matrix Density (gm/cc) | Depth (m) | |
| 2.71 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |
| 0.00 | 0.00 | |

Sonic Constants MSS 223

Last Edited on 15-FEB-2009,19:48

| | | |
|---------------------------|------------------------|--------------|
| Maximum Boundary Contrast | 100.00 | micro-sec/ft |
| Fluid Transit Time | 189.00 | micro-sec/ft |
| Limestone Transit Time | 47.50 | micro-sec/ft |
| Sandstone Transit Time | 55.50 | micro-sec/ft |
| Dolomite Transit Time | 43.50 | micro-sec/ft |
| Sonic used for Porosities | 3-5' Compensated Sonic | |
| Correction for Sonde Skew | Applied | |
| Cycle Stretch Algorithm | Applied | |
| MN3FT | N/A | micro-sec |
| MX3FT | N/A | micro-sec |
| Hunt-Raymer Constant | 83.13 | micro-sec/ft |

Fixed Gate Parameters

| Start Time (micro-sec) | End Time (micro-sec) | Discriminator (mV) | N/A |
|------------------------|----------------------|--------------------|-----|
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |

Down Hole Fixed Gate Parameters

| | | |
|-----------------------------|--------|-----------|
| Gate Start | N/A | micro-sec |
| Gate Width | N/A | micro-sec |
| Initial Discriminator Level | 0.0000 | mVolts |

Full Waveform Parameters

| | | |
|---------------------------------|-----|-----------|
| Use 3' Waveform to derive TR | N/A | |
| Use 4' Waveform to derive TR | N/A | |
| Use 5' Waveform to derive TR | N/A | |
| Use 6' Waveform to derive TR | N/A | |
| 3' Waveform Discriminator Level | N/A | mV |
| 4' Waveform Discriminator Level | N/A | mV |
| 5' Waveform Discriminator Level | N/A | mV |
| 6' Waveform Discriminator Level | N/A | mV |
| 3' Waveform Filter | N/A | |
| 4' Waveform Filter | N/A | |
| 5' Waveform Filter | N/A | |
| 6' Waveform Filter | N/A | |
| Semblance Level | N/A | |
| Semblance Window Width | N/A | micro-sec |
| Sonic 1 Despiker | N/A | N/A |
| Sonic 2 Despiker | N/A | N/A |

| | |
|------------------------|--|
| FE Calibration MFE 138 | Base Calibration on 4-FEB-2009 11:52 Field Check on 15-FEB-2009 20:14 |
|------------------------|--|

| Base Calibration | Measured | Calibrated (ohm-m) |
|------------------|----------|--------------------|
| Reference 1 | 0.0 | 0.0 |
| Reference 2 | 959.5 | 126.8 |
| Base Check | | 281.3 |
| Field Check | | 281.7 |

| | |
|----------------------|----------------------------------|
| FE Constants MFE 138 | Last Edited on 15-FEB-2009,20:27 |
|----------------------|----------------------------------|

| | |
|----------------------------------|--------------------------|
| Caliper Source for FE correction | Density Caliper |
| Rm Source for FE correction | Temperature Corr |
| Temp. for Rm Corr. | MCG External Temperature |
| Stand-off | 1.0 inches |

| | | |
|---|--|-------|
| High Resolution Temperature Calibration MAI 140 | Field Calibration on 15-FEB-2009,19:47 | |
| Measured | Calibrated(Deg C) | |
| Lower | 0.00 | 0.00 |
| Upper | 10.00 | 10.00 |

| | |
|---|----------------------------------|
| High Resolution Temperature Constants MAI 140 | Last Edited on 15-FEB-2009,19:47 |
|---|----------------------------------|

| | |
|-------------------|----|
| Pre-filter Length | 11 |
|-------------------|----|

| | |
|-------------------------------|--|
| Induction Calibration MAI 140 | Base Calibration on 4-FEB-2009,09:49 Field Check on 15-FEB-2009 20:11 |
|-------------------------------|--|

| Base Calibration | Measured | Calibrated (mmho/m) | | |
|-----------------------|---------------------|----------------------|------|--------|
| Test Loop Calibration | Low High | Low High | | |
| Channel | | | | |
| 1 | 17.0 | 464.1 | 9.3 | 967.1 |
| 2 | 6.9 | 382.1 | 7.6 | 822.1 |
| 3 | 4.1 | 264.5 | 5.2 | 566.5 |
| 4 | 2.2 | 137.4 | 2.6 | 279.5 |
| Array Temperature | 22.3 | Deg C | | |
| Channel | Base Check (mmho/m) | Field Check (mmho/m) | | |
| | Low High | Low High | | |
| 1 | 15.1 | 3922.2 | 14.0 | 3923.3 |
| 2 | 28.9 | 3538.1 | 28.8 | 3540.2 |
| 3 | 26.9 | 3000.3 | 27.0 | 3002.2 |
| 4 | 18.5 | 2015.3 | 18.6 | 2016.8 |
| Deep | 16.6 | 1908.2 | 16.6 | 1909.5 |
| Medium | 38.8 | 3974.4 | 39.1 | 3977.0 |
| Shallow | 43.1 | 5306.7 | 42.9 | 5309.8 |
| Array Temperature | 39.2 | Deg C | 24.7 | Deg C |

| | |
|-----------------------------|----------------------------------|
| Induction Constants MAI 140 | Last Edited on 15-FEB-2009,19:48 |
|-----------------------------|----------------------------------|

| | |
|----------------------------|-----------------|
| Induction Model | VECTAR |
| Caliper for Borehole Corr. | Density Caliper |

| | | | |
|---|--------------------------|-------------|--------|
| Hole Size for Borehole Correction | N/A | inches | |
| Stand-off | 0.00 | inches | |
| Number of Fins on Stand-off | 6.0000 | | |
| Stand-off Fin Width | 0.5000 | inches | |
| Borehole Corr. Rm Source | Temperature Corr | | |
| Temp. for Rm Corr. | MCG External Temperature | | |
| Squasher Start | 0.0020 | mhos/metre | |
| Borehole Normalisation | | | |
| DRM1 | 0.0000 | DRC1 | 0.0000 |
| DRM2 | 0.0000 | DRC2 | 0.0000 |
| MRM1 | 0.0000 | MRC1 | 0.0000 |
| MRM2 | 0.0000 | MRC2 | 0.0000 |
| SRM1 | 0.0000 | SRC1 | 0.0000 |
| SRM2 | 0.0000 | SRC2 | 0.0000 |
| Calibration Site Corrections | | | |
| Channel 1 | 0.00 | mmhos/metre | |
| Channel 2 | 0.00 | mmhos/metre | |
| Channel 3 | 0.00 | mmhos/metre | |
| Channel 4 | 0.00 | mmhos/metre | |
| Apparent Porosity and Water Saturation Constants | | | |
| Archie Constant (A) | 1.00 | | |
| Cementation Exponent (M) | 2.00 | | |
| Saturation Exponent (N) | 2.00 | | |
| Saturation of Water for Apor | 100.00 | percent | |
| Resistivity of Water for Apor and Sw | 0.05 | ohm-m | |
| Resistivity of Mud Filtrate for Sw | 0.00 | ohm-m | |

DOWNHOLE EQUIPMENT

C:\DOCUME~1\WFT_2\LOCALS~1\Temp\Weatherford PreView\0\MEELEEBEE_2_MAINLOG.dta

MCB-A 11B Tension Cablehead

MCB 1 Length: 0.66 m Weight: 19.8 lb

SHA-H Compact Swivel Head Adaptor

SHA 136 Length: 0.70 m Weight: 22.0 lb

Compact Gamma

MCG 253 Length: 2.65 m Weight: 63.9 lb

Compact Neutron

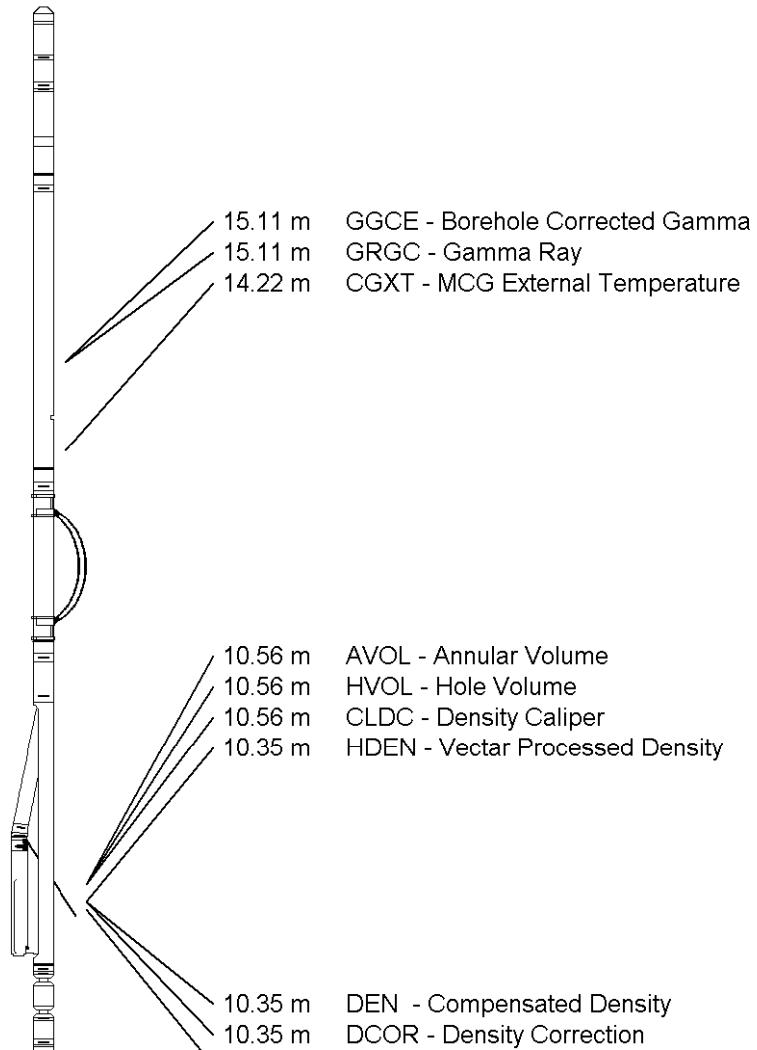
MDN 99 Length: 1.53 m Weight: 50.7 lb

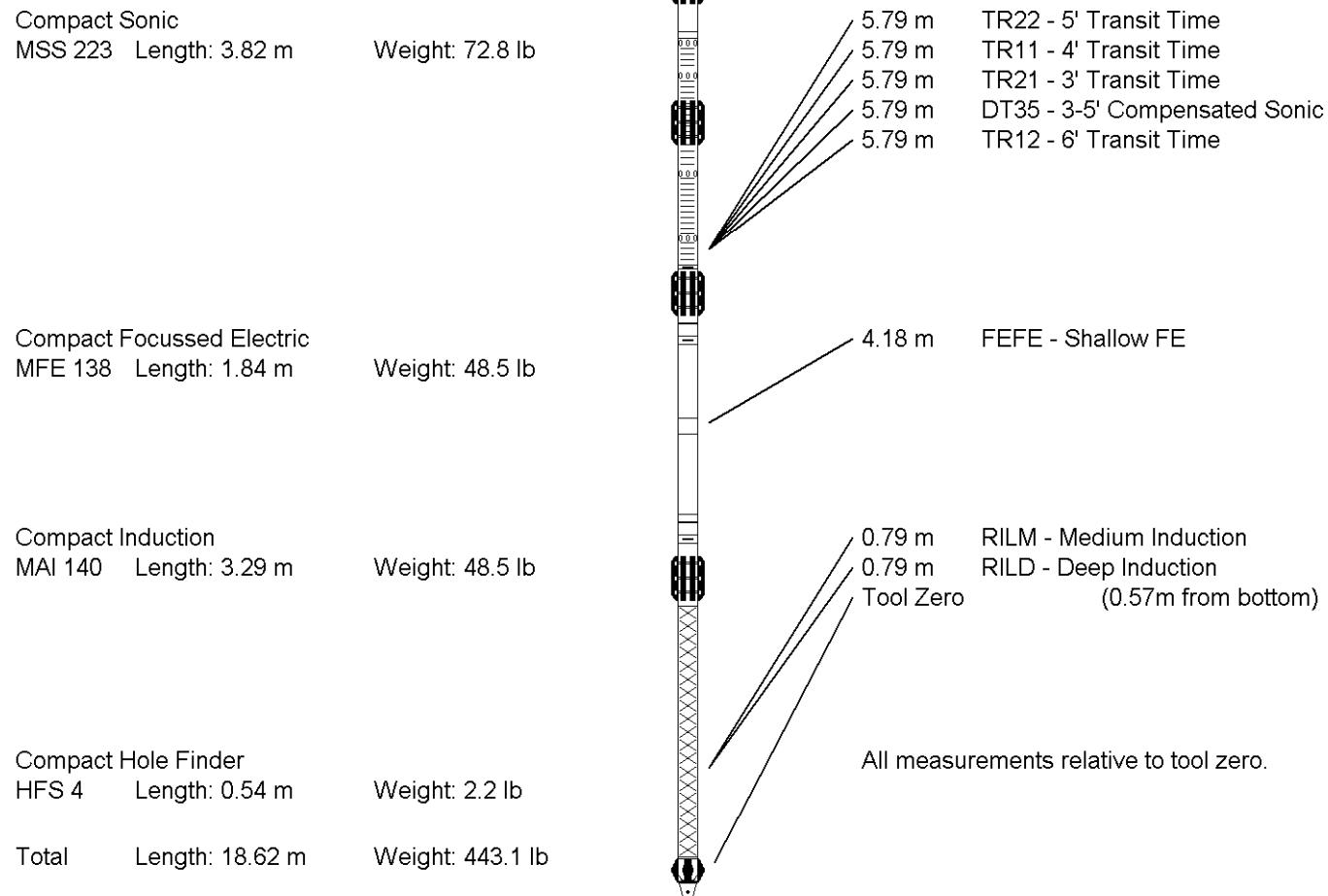
Compact Density/Caliper

MPD 66 Length: 2.92 m Weight: 90.4 lb

SKJ-D.A Compact Knuckle Joint

SKJ 192 Length: 0.66 m Weight: 24.3 lb





| | | | | |
|-------------------------|-------------|---------------|--------|--------|
| COMPANY | ORIGIN CSG | | | |
| WELL | MEELEEBEE 2 | | | |
| FIELD | MEELEEBEE | | | |
| PROVINCE/COUNTY | QUEENSLAND | | | |
| COUNTRY/STATE | AUSTRALIA | | | |
| Elevation Kelly Bushing | metres | First Reading | 383.80 | metres |
| Elevation Drill Floor | 304.35 | Depth Driller | 384.35 | metres |
| Elevation Ground Level | 300.00 | Depth Logger | 384.30 | metres |



Weatherford®

ARRAY INDUCTION
COMPENSATED SONIC
1:500



Printed with PreView™

Weatherford®

MEELEEBEE_2_MAI_MSS_500



HOLE VOLUME

1:500

| | |
|------------------------|--|
| COMPANY | ORIGIN CSG |
| WELL | MEELEEBEE 2 |
| FIELD | MEELEEBEE |
| PROVINCE/COUNTY | QUEENSLAND |
| COUNTRY/STATE | AUSTRALIA |
| LOCATION | ATP 606P |
| Latitude | 26° 12' 2.63" S |
| Longitude | 149° 14' 29.9" E |
| | Other Services COMPACT MICRO IMAGER |
| Date | 15-FEB-2009 |
| Run Number | 1 |
| Depth Driller | 384.35 |
| Depth Logger | 384.30 |
| First Reading | 383.80 |
| Last Reading | 2.00 |
| Casing Driller | 75.08 |
| Casing Logger | 74.70 |
| Bit Size | 6.25 |
| Hole Fluid Type | FRESH |
| Density / Viscosity | 1.03 g/c3 |
| PH / Fluid Loss | 32.00 sec/qt |
| Sample Source | FLOWLINE |
| Rm @ Measured Temp | 7.457 @ 25.0 ohmm-m |
| Rmf @ Measured Temp | |
| Rmc @ Measured Temp | |
| Source Rmf / Rmc | |
| Rm @ BHT | 5.86 @ 37.0 ohmm-m |
| Time Since Circulation | 4.5 HOURS |
| Max Recorded Temp | 37.00 deg C |
| Equipment Name | MAI_MSS_MPД |
| Equipment / Base | 11563 ROMA |
| Recorded By | B. MILLSOM |
| Witnessed By | S. VICKERS |
| Stop Circulation | 19:00/15 JAN . |

BOREHOLE RECORD

Last Edited: 16-FEB-2009 00:57

| Bit Size inches | Depth From metres | Depth To metres |
|--------------------|----------------------|--------------------|
| 6.250 | 75.08 | 384.75 |

CASING RECORD

| Type | Size inches | Depth From metres | Shoe Depth metres | Weight pounds/ft |
|---------|----------------|----------------------|----------------------|---------------------|
| SURFACE | 9.625 | 0.00 | 75.08 | 36.00 |

REMARKS

RUN NUMBER 1 IS THE PRIMARY DEPTH REFERENCE LOG. ALL OTHER RUNS ARE CORRELATED BACK TO THIS LOG.

SOFTWARE ISSUE: VERSION 8.05.0177 - SEP 11, 2008.

CUSTOMER SCALES AND INTERVALS LOGGED.

RUN 1 - HFS, MAI, MFE, MSS, SKJ, MPD, MDN, MCG, SHA TOOLS RAN IN COMBINATION.

RUN 2 - MIE, MIM, MCG, SHA TOOLS RAN IN COMBINATION.

HARDWARE:

RUN 1

- MAI: 2 x 1.0" STANDOFFS.
- MSS: 3 x 1.0" STANDOFFS.
- MDN: 1 x DUAL BOWSPRING.

RUN 2

- MIE: 1 x 1.5" STANDOFF.

- MIM: 1 x NON MAGNETIC CENTRALISER.

DUAL BOWSPRING ON MDN TOOL USED TO SIDEWALL THE MPD.

MPD CORRECTED FOR CALIPER AND MUD WEIGHT.

SERVICE REPORT NUMBER: 6179.

RIG: ENSIGN48.

TOTAL HOLE VOLUME (HVOL) FROM T.D. TO SURFACE CASING = 6.1 CUBIC METERS.

TOTAL ANNULAR VOLUME (AVOL) WITH 7" PRODUCTION CASING = 0.1 CUBIC METERS.

SONIC CASING SIGNAL OBSERVED AT 42 METERS.

TIME ON BOTTOM: 23:20 - 15 FEB 2009.

LOGGING UNIT J-FACTOR FOR V11563: 0.5129.

LOGGING CREW: ENGINEER - B. MILLSOM, TRAINEE ENGINEER - V. VO, OPERATOR 1 - L. ABLE, OPERATOR 2 - T. WILSON.

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions in our price schedule.

MAIN LOG 1:500

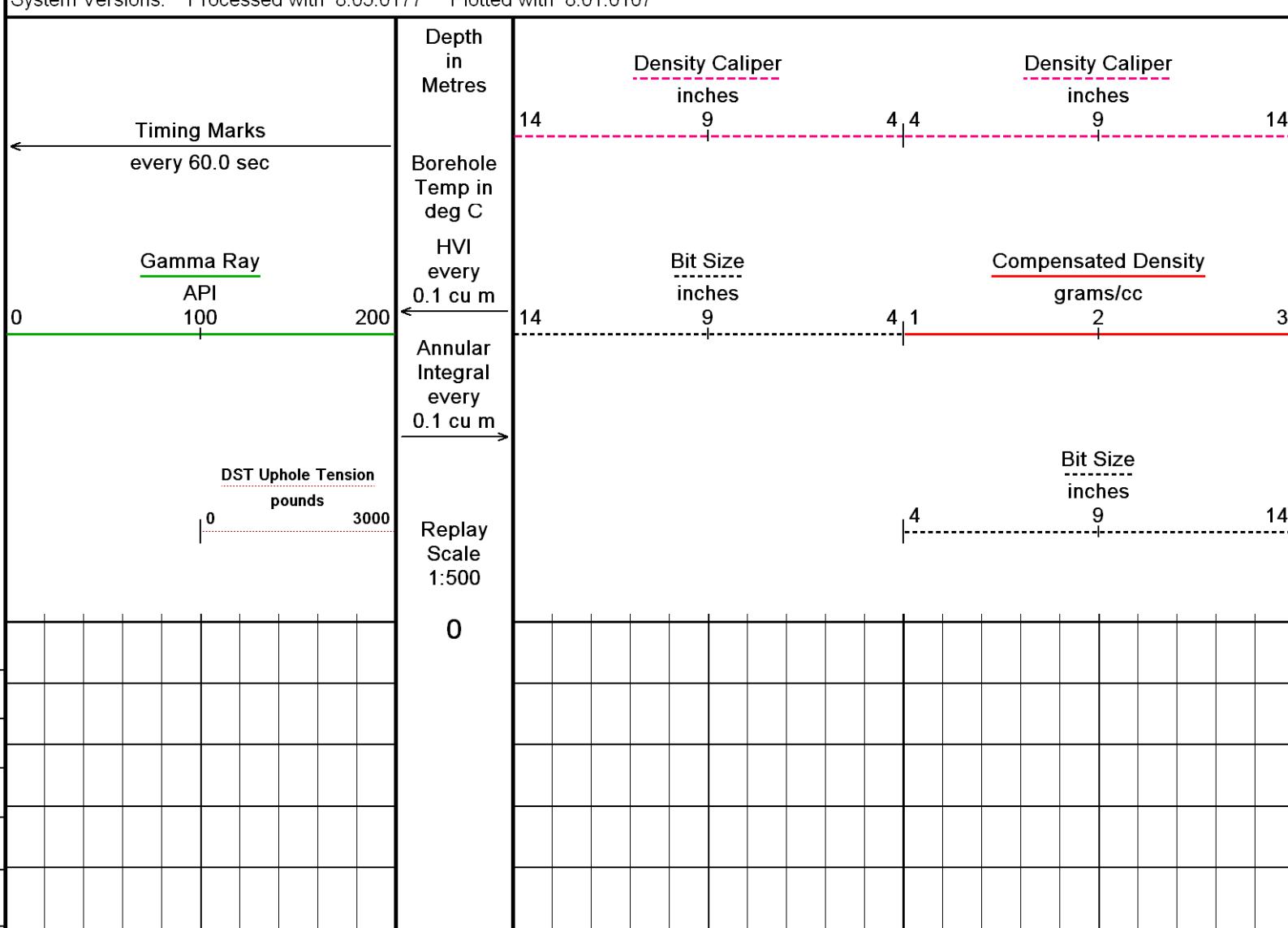
Depth Based Data - Maximum Sampling Increment 10.0cm

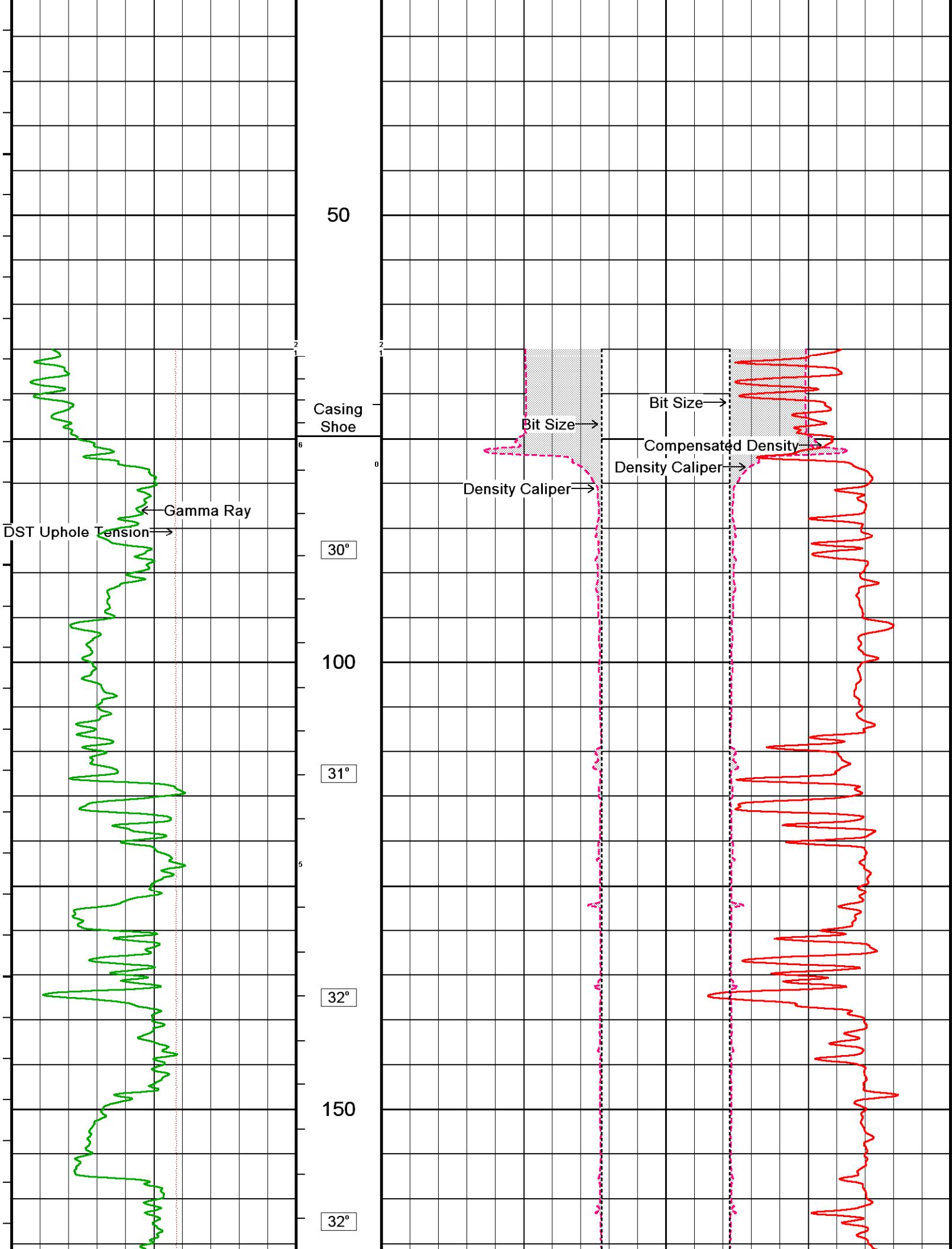
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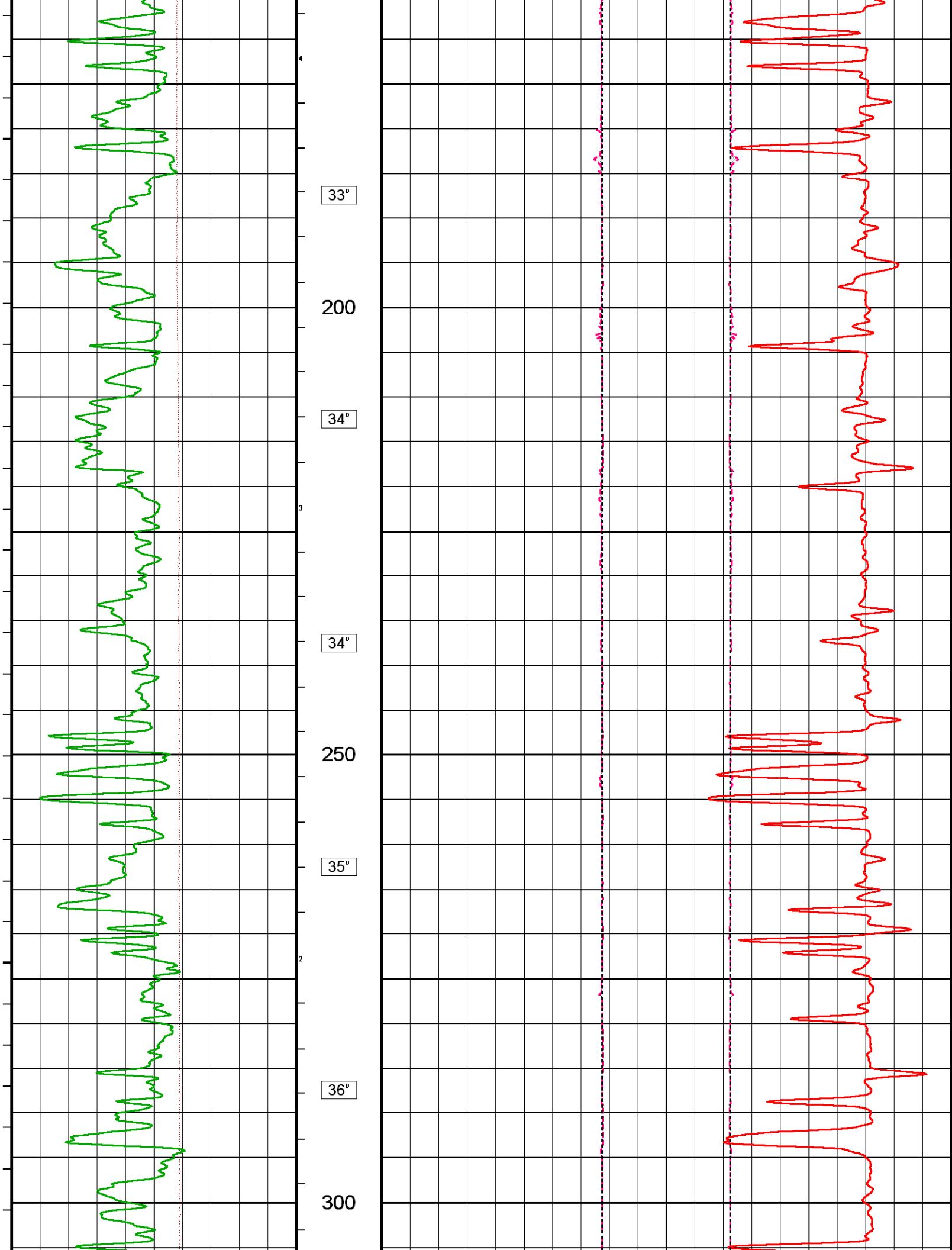
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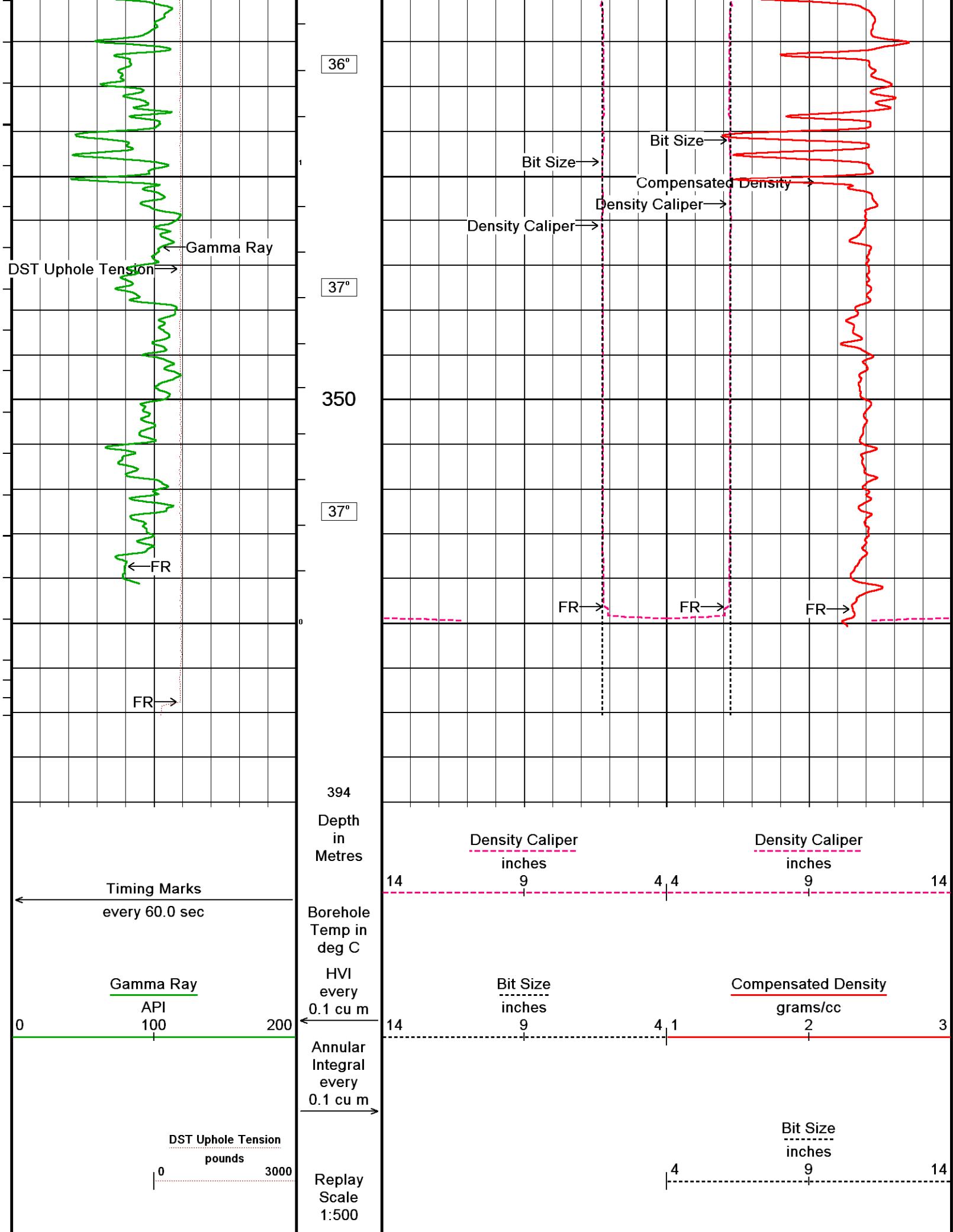
Recorded on 15-FEB-2009 23:21

System Versions: Processed with 8.05.0177 Plotted with 8.01.0107











MAIN LOG 1:500



BEFORE SURVEY CALIBRATION

C:\DOCUME~1\WFT_2\LOCALS~1\Temp\Weatherford PreView\0\MEELEEBEE_2_MAINLOG.dta

General Constants All 000

Last Edited on 15-FEB-2009,23:05

General Parameters

| | | |
|-----------------------------|----------|------------|
| Mud Resistivity | 7.457 | ohm-metres |
| Mud Resistivity Temperature | 25.000 | degrees C |
| Water Level | 0.000 | metres |
| Density/Neutron Processing | Wet Hole | |

Hole/Annular Volume and Differential Caliper Parameters

| | |
|----------------------------------|-----------------|
| HVOL Caliper 1 | Density Caliper |
| HVOL Caliper 2 | None |
| Annular Volume Diameter | 7.000 |
| Caliper for Differential Caliper | Density Caliper |

Rwa Parameters

| | |
|------------------|------------------------|
| Porosity used | Limestone Density Por. |
| Resistivity used | Deep Induction |
| RWA Constant A | 0.610 |
| RWA Constant M | 2.150 |

Down-hole Tension Calibration SMS 000

Field Calibration on 10-FEB-2009 11:26

| Reading No | Measured | Calibrated (lbs) |
|------------|----------|------------------|
| 1 | 14319.40 | 0.00 |
| 2 | 15406.44 | 795.90 |

High Resolution Temperature Calibration MCG 253

Field Calibration on 15-FEB-2009,19:52

| | Measured | Calibrated(Deg C) |
|-------|----------|-------------------|
| Lower | 0.00 | 0.00 |
| Upper | 100.00 | 100.00 |

High Resolution Temperature Constants MCG 253

Last Edited on 15-FEB-2009,19:52

| | |
|-------------------|----|
| Pre-filter Length | 11 |
|-------------------|----|

SP Calibration MCG 253

Field Calibration on 15-FEB-2009 20:21

| | Measured | Calibrated (mV) |
|-------------|----------|-----------------|
| Reference 1 | 88.7 | 86.1 |
| Reference 2 | -83.9 | -86.2 |

Gamma Calibration MCG 253

Field Calibration on 15-FEB-2009 20:26

| | Measured | Calibrated (API) |
|--------------------|----------|------------------|
| Background | 63 | 46 |
| Calibrator (Gross) | 1085 | 795 |
| Calibrator (Net) | 1022 | 749 |

Gamma Constants MCG 253

Last Edited on 15-FEB-2009,20:27

| | | |
|-------------------------------|-----------------|-------|
| Gamma Calibrator Number | GRC030 | |
| Mud Density | 1.03 | gm/cc |
| Caliper Source for Processing | Density Caliper | |
| Tool Position | Eccentred | |
| Concentration of KCl | 0.00 | kppm |

Neutron Calibration MDN 099

Base Calibration on 4-FEB-2009 15:15

Field Check on 5-FEB-2009 15:23

Base Calibration

| | Measured | Calibrated (cps) |
|------|----------|------------------|
| Near | 3244 | Far |
| 3244 | 100 | 3714 |
| | | 110 |

| | | |
|--------------------------|------------------|--------|
| Ratio | 32.521 | 33.764 |
| Field Calibrator at Base | Calibrated (cps) | |
| | 1656 | 2420 |
| Ratio | | 0.684 |
| Field Check | Calibrated (cps) | |
| | 1624 | 2354 |
| Ratio | | 0.690 |

Neutron Constants MDN 099

Last Edited on 15-FEB-2009, 19:49

| | | |
|---------------------------------|-----------------|-----------|
| Neutron Source Id | 16150B | |
| Neutron Jig Number | 30 | |
| Epithermal Neutron | No | |
| Caliper Source for Processing | Density Caliper | |
| Stand-off | 0.00 | inches |
| Mud Density | 1.00 | gm/cc |
| Limestone Sigma | 7.10 | cu |
| Sandstone Sigma | 4.26 | cu |
| Dolomite Sigma | 4.70 | cu |
| Formation Pressure Source | Constant Value | |
| Formation Pressure | 0.00 | kpsi |
| Temperature Source | Constant Value | |
| Temperature | 20.00 | degrees C |
| Mud Salinity | 0.00 | kppm |
| Formation Fluid Salinity Source | Constant Value | |
| Formation Fluid Salinity | 0.00 | kppm |
| Barite Mud Correction | Not Applied | |

Caliper Calibration MPD 066

Base Calibration on 5-FEB-2009 09:49
Field Calibration on 15-FEB-2009, 23:00

| Base Calibration | | Measured | Calibrator Size (in) |
|------------------|--|----------|----------------------|
| Reading No | | | |
| 1 | | 12719 | 4.01 |
| 2 | | 21344 | 5.96 |
| 3 | | 30096 | 7.98 |
| 4 | | 38288 | 9.86 |
| 5 | | 47324 | 11.88 |
| 6 | | N/A | N/A |

Field Calibration

| | Measured Caliper (in) | Actual Caliper (in) |
|--|-----------------------|---------------------|
| | 8.93 | 8.92 |

Photo Density Calibration MPD 066

Base Calibration on 5-FEB-2009 09:39
Field Check on 15-FEB-2009 20:18

| Density Calibration | | Measured | Calibrated (sdu) |
|---------------------|--|----------|------------------|
| Base Calibration | | Near | Far |
| Reference 1 | | 60133 | 31073 |
| Reference 2 | | 23822 | 2317 |
| Field Check at Base | | 841.2 | 998.0 |

Field Check

| | | |
|--|-------|-------|
| | 834.7 | 999.0 |
|--|-------|-------|

PE Calibration

| Base Calibration | | Measured | Calibrated |
|---------------------|-------|----------|------------|
| | WS | WH | Ratio |
| Background | 163 | 737 | |
| Reference 1 | 24927 | 59956 | 0.418 |
| Reference 2 | 6755 | 23708 | 0.287 |
| Field Check at Base | | 162.8 | 737.1 |
| Field Check | | 159.9 | 731.7 |

| | | | |
|--------------------------------|-----------------|-------|--|
| Density Source Id | NSD-L-270 | | |
| Nylon Calibrator Number | 605 | | |
| Aluminium/Fe Calibrator Number | 605 | | |
| Density Shoe Profile | 8 inch | | |
| Caliper Source for Processing | Density Caliper | | |
| PE Correction to Density | Not Applied | | |
| Mud Density | 1.03 | gm/cc | |
| Mud Density Z/A Correction | 1.11 | | |
| Mud Filtrate Density | 1.00 | gm/cc | |
| Dry Hole Mud Filtrate Density | 1.00 | gm/cc | |
| DNCT | 0.00 | gm/cc | |
| CRCT | 0.00 | gm/cc | |
| Density Z/A Correction | Advanced | | |
| Matrix Density (gm/cc) | Depth (m) | | |
| 2.71 | 0.00 | | |
| 0.00 | 0.00 | | |
| 0.00 | 0.00 | | |
| 0.00 | 0.00 | | |
| 0.00 | 0.00 | | |
| 0.00 | 0.00 | | |
| 0.00 | 0.00 | | |
| 0.00 | 0.00 | | |

Sonic Constants MSS 223

Last Edited on 15-FEB-2009,19:48

| | | | |
|---------------------------|------------------------|--------------|--|
| Maximum Boundary Contrast | 100.00 | micro-sec/ft | |
| Fluid Transit Time | 189.00 | micro-sec/ft | |
| Limestone Transit Time | 47.50 | micro-sec/ft | |
| Sandstone Transit Time | 55.50 | micro-sec/ft | |
| Dolomite Transit Time | 43.50 | micro-sec/ft | |
| Sonic used for Porosities | 3-5' Compensated Sonic | | |
| Correction for Sonde Skew | Applied | | |
| Cycle Stretch Algorithm | Applied | | |
| MN3FT | N/A | micro-sec | |
| MX3FT | N/A | micro-sec | |
| Hunt-Raymer Constant | 83.13 | micro-sec/ft | |

Fixed Gate Parameters

| Start Time (micro-sec) | End Time (micro-sec) | Discriminator (mV) | N/A |
|------------------------|----------------------|--------------------|-----|
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A |

Down Hole Fixed Gate Parameters

| | | | |
|-----------------------------|--------|-----------|--|
| Gate Start | N/A | micro-sec | |
| Gate Width | N/A | micro-sec | |
| Initial Discriminator Level | 0.0000 | mVolts | |

Full Waveform Parameters

| | | | |
|---------------------------------|-----|-----------|--|
| Use 3' Waveform to derive TR | N/A | | |
| Use 4' Waveform to derive TR | N/A | | |
| Use 5' Waveform to derive TR | N/A | | |
| Use 6' Waveform to derive TR | N/A | | |
| 3' Waveform Discriminator Level | N/A | mV | |
| 4' Waveform Discriminator Level | N/A | mV | |
| 5' Waveform Discriminator Level | N/A | mV | |
| 6' Waveform Discriminator Level | N/A | mV | |
| 3' Waveform Filter | N/A | | |
| 4' Waveform Filter | N/A | | |
| 5' Waveform Filter | N/A | | |
| 6' Waveform Filter | N/A | | |
| Semblance Level | N/A | | |
| Semblance Window Width | N/A | micro-sec | |
| Sonic 1 Despiker | N/A | N/A | |
| Sonic 2 Despiker | N/A | N/A | |

FE Calibration MFE 138

Base Calibration on 4-FEB-2009 11:52
Field Check on 15-FEB-2009 20:14

Base Calibration

| | Measured | Calibrated (ohm-m) |
|-------------|----------|--------------------|
| Reference 1 | 0.0 | 0.0 |
| Reference 2 | 959.5 | 126.8 |
| Base Check | | 281.3 |
| Field Check | | 281.7 |

FE Constants MFE 138

Last Edited on 15-FEB-2009,20:27

| | |
|----------------------------------|--------------------------|
| Caliper Source for FE correction | Density Caliper |
| Rm Source for FE correction | Temperature Corr |
| Temp. for Rm Corr. | MCG External Temperature |
| Stand-off | 1.0 inches |

High Resolution Temperature Calibration MAI 140

Field Calibration on 15-FEB-2009,19:47

| | Measured | Calibrated(Deg C) |
|-------|----------|-------------------|
| Lower | 0.00 | 0.00 |
| Upper | 10.00 | 10.00 |

High Resolution Temperature Constants MAI 140

Last Edited on 15-FEB-2009,19:47

| | |
|-------------------|----|
| Pre-filter Length | 11 |
|-------------------|----|

Induction Calibration MAI 140

Base Calibration on 4-FEB-2009,09:49
Field Check on 15-FEB-2009 20:11

Base Calibration

| Test Loop Calibration | Measured | Calibrated (mmho/m) | |
|-----------------------|----------|---------------------|-----|
| Channel | Low | High | Low |
| 1 | 17.0 | 464.1 | 9.3 |
| 2 | 6.9 | 382.1 | 7.6 |
| 3 | 4.1 | 264.5 | 5.2 |
| 4 | 2.2 | 137.4 | 2.6 |

| | | |
|-------------------|------|-------|
| Array Temperature | 22.3 | Deg C |
|-------------------|------|-------|

| Channel | Base Check (mmho/m) | Field Check (mmho/m) | |
|-------------------|---------------------|----------------------|------|
| | Low | High | Low |
| 1 | 15.1 | 3922.2 | 14.0 |
| 2 | 28.9 | 3538.1 | 28.8 |
| 3 | 26.9 | 3000.3 | 27.0 |
| 4 | 18.5 | 2015.3 | 18.6 |
| Deep | 16.6 | 1908.2 | 16.6 |
| Medium | 38.8 | 3974.4 | 39.1 |
| Shallow | 43.1 | 5306.7 | 42.9 |
| Array Temperature | 39.2 | | 24.7 |
| | | Deg C | |

Induction Constants MAI 140

Last Edited on 15-FEB-2009,19:48

| Induction Model | VECTAR |
|-----------------------------------|--------------------------|
| Caliper for Borehole Corr. | Density Caliper |
| Hole Size for Borehole Correction | N/A |
| Stand-off | 0.00 inches |
| Number of Fins on Stand-off | 6.0000 inches |
| Stand-off Fin Width | 0.5000 inches |
| Borehole Corr. Rm Source | Temperature Corr |
| Temp. for Rm Corr. | MCG External Temperature |
| Squasher Start | 0.0020 mhos/metre |

Borehole Normalisation

| | | | |
|------|--------|------|--------|
| DRM1 | 0.0000 | DRC1 | 0.0000 |
| DRM2 | 0.0000 | DRC2 | 0.0000 |
| MRM1 | 0.0000 | MRC1 | 0.0000 |
| MRM2 | 0.0000 | MRC2 | 0.0000 |
| SRM1 | 0.0000 | SRC1 | 0.0000 |
| SRM2 | 0.0000 | SRC2 | 0.0000 |

Calibration Site Corrections

| | | |
|-----------|------|-------------|
| Channel 1 | 0.00 | mmhos/metre |
| Channel 2 | 0.00 | mmhos/metre |
| Channel 3 | 0.00 | mmhos/metre |
| Channel 4 | 0.00 | mmhos/metre |

Apparent Porosity and Water Saturation Constants

| | | |
|--------------------------------------|--------|---------|
| Archie Constant (A) | 1.00 | |
| Cementation Exponent (M) | 2.00 | |
| Saturation Exponent (N) | 2.00 | |
| Saturation of Water for Apor | 100.00 | percent |
| Resistivity of Water for Apor and Sw | 0.05 | ohm-m |
| Resistivity of Mud Filtrate for Sw | 0.00 | ohm-m |

DOWNHOLE EQUIPMENT

C:\DOCUME~1\WFT_2\LOCALS~1\Temp\Weatherford PreView\0\MEELEEBEE_2_MAINLOG.dta

MCB-A 11B Tension Cablehead

MCB 1 Length: 0.66 m Weight: 19.8 lb

SHA-H Compact Swivel Head Adaptor

SHA 136 Length: 0.70 m Weight: 22.0 lb

Compact Gamma

MCG 253 Length: 2.65 m Weight: 63.9 lb

Compact Neutron

MDN 99 Length: 1.53 m Weight: 50.7 lb

Compact Density/Caliper

MPD 66 Length: 2.92 m Weight: 90.4 lb

SKJ-D.A Compact Knuckle Joint

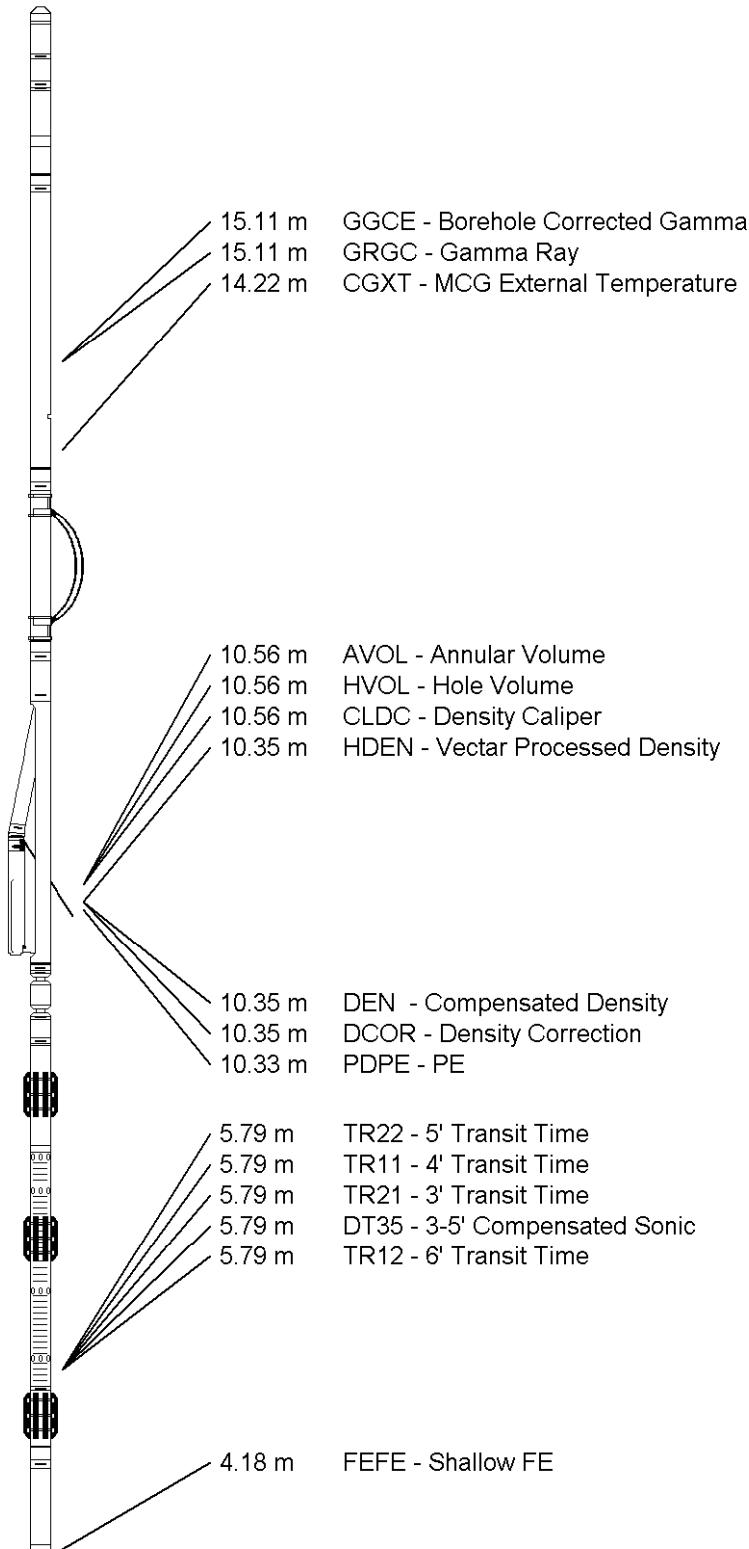
SKJ 192 Length: 0.66 m Weight: 24.3 lb

Compact Sonic

MSS 223 Length: 3.82 m Weight: 72.8 lb

Compact Focussed Electric

MFE 138 Length: 1.84 m Weight: 48.5 lb

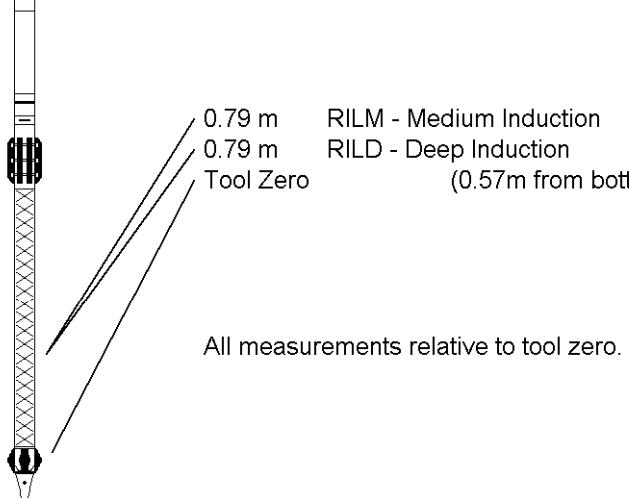


Compact Induction
MAI 140 Length: 3.29 m Weight: 48.5 lb

RILM - Medium Induction
RILD - Deep Induction
(0.57m from bottom)

Compact Hole Finder
HFS 4 Length: 0.54 m Weight: 2.2 lb

Total Length: 18.62 m Weight: 443.1 lb



All measurements relative to tool zero.

| | |
|-----------------|-------------|
| COMPANY | ORIGIN CSG |
| WELL | MEELEEBEE 2 |
| FIELD | MEELEEBEE |
| PROVINCE/COUNTY | QUEENSLAND |
| COUNTRY/STATE | AUSTRALIA |

| | | | | |
|-------------------------|--------|---------------|--------|--------|
| Elevation Kelly Bushing | metres | First Reading | 383.80 | metres |
| Elevation Drill Floor | 304.35 | Depth Driller | 384.35 | metres |
| Elevation Ground Level | 300.00 | Depth Logger | 384.30 | metres |



HOLE VOLUME

1:500

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MEELEEBEE_2_HOLE_VOLUME_500