



|                           |     |           |           |         |        |  |  |  |  |  |  |
|---------------------------|-----|-----------|-----------|---------|--------|--|--|--|--|--|--|
| Potassium                 | %   | 4.35      | N/A       |         |        |  |  |  |  |  |  |
| <b>Environmental data</b> |     |           |           |         |        |  |  |  |  |  |  |
| <b>GR</b>                 |     |           |           |         |        |  |  |  |  |  |  |
| Mud weight                | ppg | 11.1      | 9.5       |         |        |  |  |  |  |  |  |
| Bit size                  | in  | 12.25     | 8.5       |         |        |  |  |  |  |  |  |
| <b>Resistivity</b>        |     |           |           |         |        |  |  |  |  |  |  |
| <b>Neutron porosity</b>   |     |           |           |         |        |  |  |  |  |  |  |
| Hole Size                 | in  | 12.25     | 8.5       |         |        |  |  |  |  |  |  |
| Mud weight                | ppg | 11.1      | 9.5       |         |        |  |  |  |  |  |  |
| Temperature               | °C  | 80.0      | 65.0      |         |        |  |  |  |  |  |  |
| Mud salinity              | ppk | N/A       | 130.7     |         |        |  |  |  |  |  |  |
| Formation salinity        | N/A | N/A       | N/A       |         |        |  |  |  |  |  |  |
| Recording rate 1          | SEC | RES/GR 6  | RES/GR 2  |         |        |  |  |  |  |  |  |
| Recording rate 2          | SEC | N/A       | DEN/POR 4 |         |        |  |  |  |  |  |  |
| Filtering GR              |     | 3 points  | 3 points  |         |        |  |  |  |  |  |  |
| Filtering density         |     | N/A       | 3 points  |         |        |  |  |  |  |  |  |
| Filtering Neutron         |     | N/A       | 3 points  |         |        |  |  |  |  |  |  |
| Company representative    |     | C.Roots   | N.Peri    |         |        |  |  |  |  |  |  |
| Anadrill personnel        |     | J.Oldrige | U.Hassan  | A.Kohli | Z.Rudd |  |  |  |  |  |  |

|  |  |                               |
|--|--|-------------------------------|
| <p style="text-align: center;"><b>DISCLAIMER</b></p> <p>THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.</p> |  |                               |
| <b>OTHER SERVICES FOR RUN5</b><br>Directional Survey.<br>APWD.<br>Ultrasonic Caliper.  | <b>OTHER SERVICES FOR RUN6</b><br>Directional Survey.<br>APWD<br>Ultrasonic Caliper.   | <b>OTHER SERVICES FOR RUN</b> |
| <b>REMARKS: RUN NUMBER 5</b><br>Depth is referenced to Driller's Pipe Tally.<br><br>ARC Gamma Ray is corrected for mud weight, bit size, Potassium and tool collar size.<br><br>ARC Resistivities are borehole compensated and Environmentally corrected for bit size, mud resistivity.  | <b>REMARKS: RUN NUMBER 6</b><br>Depth is referenced to Driller's Pipe Tally.<br><br>EcoScope Gamma Ray is corrected for mud weight, bit size and potassium content.<br><br>EcoScope Resistivities are borehole compensated and Environmentally corrected.<br><br>EcoScope Thermal Neutron Porosity (TNPH) is corrected for effects of borehole size, temperature, mud salinity and mud hydrogen index ( a factor of mud weight, mud pressure, and mud temperature).<br><br>Neutron Porosity is calculated using a limestone matrix density of 2.71 g/cm3.<br><br>Geolograph cable broke at 2165m<br>Relogged from 2165-2180m due to broken Geolograph Cable. | <b>REMARKS: RUN NUMBER</b>    |

Run Objectives:  
Drill to 1944m TD.

Run Objectives:  
Drill to 2517m.

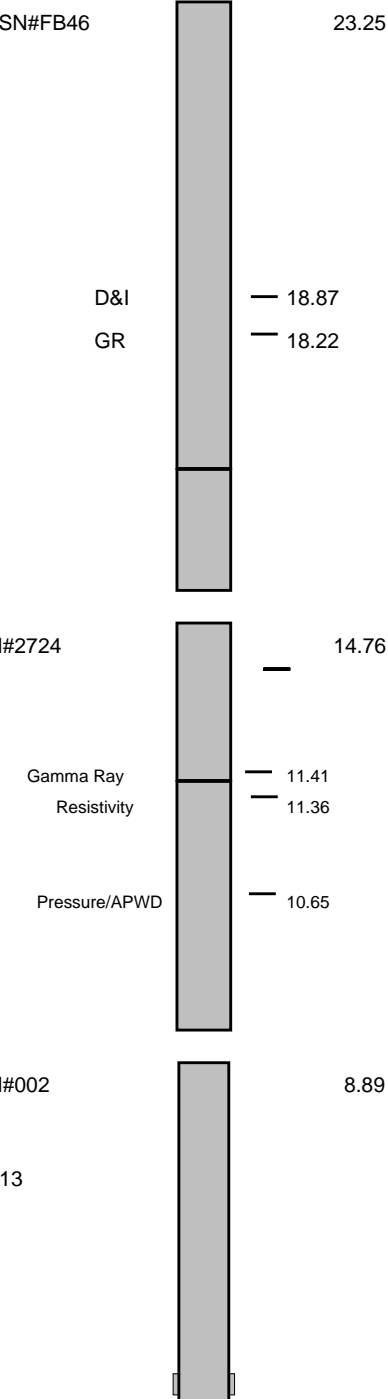
EQUIPMENT DESCRIPTION

RUN5

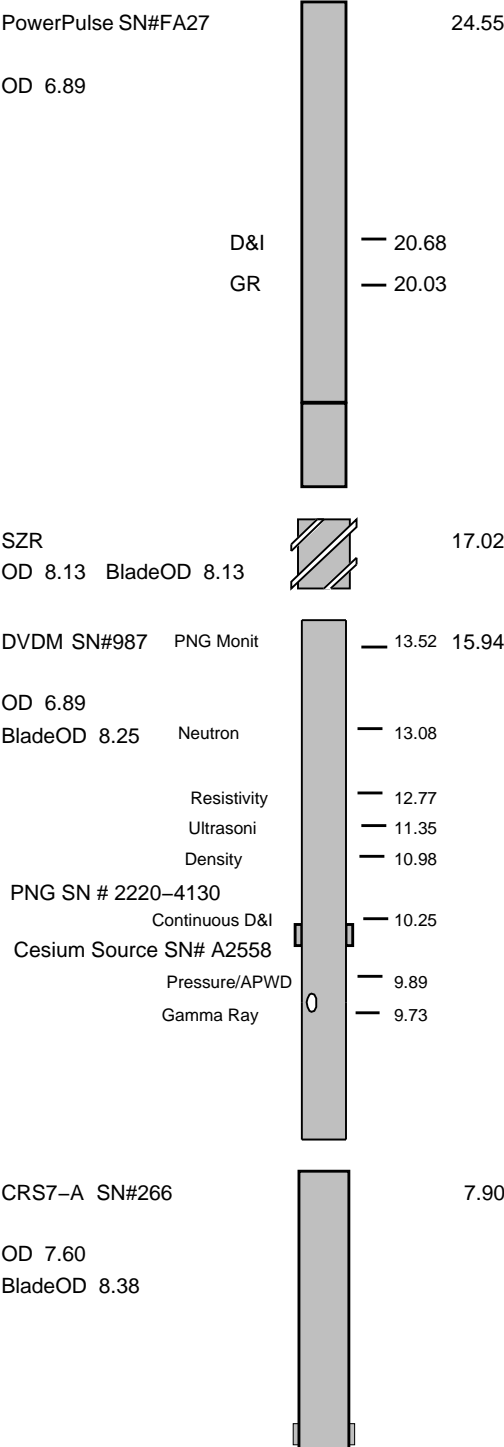
RUN6

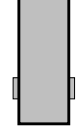
RUN

DOWNHOLE EQUIPMENT



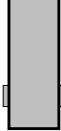
DOWNHOLE EQUIPMENT





BIT-PDC SN#215850  
OD 12.25

Maximum string diameter 12.25 in.  
All lengths in Meters



BIT-PDC SN # JX0574  
OD 8.50

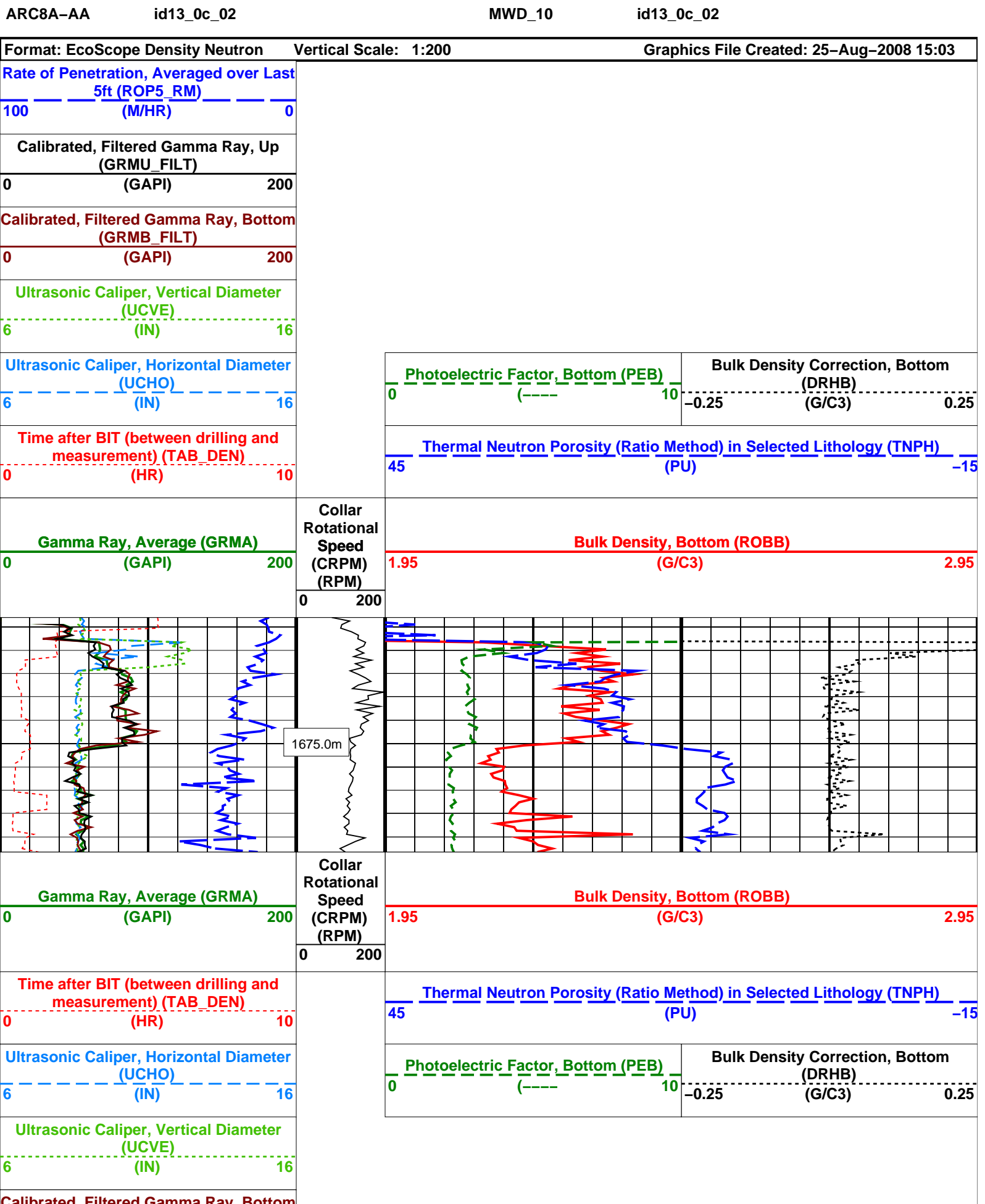
Maximum string diameter 8.50 in.  
All lengths in Meters

| Variable Name  | Variable Description                                    | Run Name & Value |              |              |
|----------------|---|------------------|--------------|--------------|
|                | Run Number  |                  | 5            | 6            |
|                | General Information                                     |                  |              |              |
| BHT_RM         | Bottom Hole Temperature (RM)                            | DEGC             | 80.000       | 65.000       |
| BSAL_RM        | Mud Salinity (RM)                                       | PPK              | NA           | 130.746      |
| BS_RM          | Bit Size (RM)   | IN               | 12.250       | 8.500        |
| COEF_M         | User Defined FEXP in Clean Sand                         | ----             | 1.650        | 1.650        |
| C_WS           | Overpressure correction to Sw and M                     | ----             | 1.000        | 1.000        |
| FEXP           | Formation Factor Exponent(RM)                           | ----             | 2.000        | 2.000        |
| FNUM           | Formation Factor Enumerator(RM)                         | ----             | 1.000        | 1.000        |
| FPHI_RM        | Formation Factor Porosity Source (RM)                   | ----             | XPLOT        | XPLOT        |
| MST_RM         | Mud Sample temperature (RM)                             | DEGC             | 22.100       | 18.700       |
| MW_RM          | Mud Weight (RM)   | LB/G             | 11.100       | 9.500        |
| OBMF_RM        | Oil Based Mud (RM)                                      | ----             | NO           | NO           |
| RHOF_RM        | Mud Filtrate Density (RM)                               | G/C3             | 1.000        | 1.000        |
| RHOM_RM        | Matrix density (RM)                                     | G/C3             | 2.710        | 2.710        |
| RMS_RM         | Resistivity of Mud Sample (RM)                          | OHMM             | 0.128        | 0.073        |
| RWA_COMP_M     | Rwa computation model                                   |                  |              |              |
| RWA_DEN_AD     | Rwa Density Input ADN                                   |                  |              |              |
| RWA_DEN_CD     | Rwa Density Input CDN                                   |                  |              |              |
| RWA_DEN_IN     | Rwa Density Input                                       |                  |              |              |
| RWA_FORM_M     | Rwa computation formation model                         |                  |              |              |
| RWA_RES_IN     | Rwa computation resistivity input                       |                  |              |              |
| RWS_RM         | Resistivity of Connate Water (RM)                       | OHMM             | 1.000        | 1.000        |
| SHT_RM         | Ground Level Temperature (Mud-Line When Offshore ) (RM) | DEGC             | 10.000       | 10.000       |
| TD_RM          | Total Measured Depth (RM)                               | M                | 1944.500     | 2517.100     |
| TWS_RM         | Temperature of Connate Water (RM)                       | DEGC             | 23.889       | 23.889       |
| VF_ILLI        | Fraction of illite in shales                            | ----             | 0.500        | 0.500        |
| VF_KAOL        | Fraction of kaolinite in shales                         | ----             | 0.500        | 0.500        |
| VF_MONT        | Fraction of montmorillonite in shales                   | ----             | 0.000        | 0.000        |
| XPDM_RM        | Cross plot density porosity multiplier                  | ----             | 0.675        | 0.675        |
| XPNM_RM        | Cross plot neutron porosity multiplier                  | ----             | 0.325        | 0.325        |
|                | ARC   |                  |              |              |
| A12A           | ARC Air Cal Attenuation From T1 at 2 MHz                | DB               | 8.267        | 8.169        |
| A14A           | ARC Air Cal Attenuation From T1 at 400 KHz              | DB               | 8.197        | 8.157        |
| A22A           | ARC Air Cal Attenuation From T2 at 2 MHz                | DB               | 6.374        | 6.249        |
| A24A           | ARC Air Cal Attenuation From T2 at 400 KHz              | DB               | 6.450        | 6.267        |
| A32A           | ARC Air Cal Attenuation From T3 at 2 MHz                | DB               | 4.991        | 4.775        |
| A34A           | ARC Air Cal Attenuation From T3 at 400 KHz              | DB               | 4.915        | 4.757        |
| A42A           | ARC Air Cal Attenuation From T4 at 2 MHz                | DB               | 4.337        | 4.656        |
| A44A           | ARC Air Cal Attenuation From T4 at 400 KHz              | DB               | 4.410        | 4.669        |
| A52A           | ARC Air Cal Attenuation From T5 at 2 MHz                | DB               | 3.582        | 3.332        |
| A54A           | ARC Air Cal Attenuation From T5 at 400 KHz              | DB               | 3.513        | 3.317        |
| ABNT           | Abnormal Transmitter Indicator                          | ----             | No_Tx_Failed | No_Tx_Failed |
| ADHS           | ARC Down Hole Software Version                          |                  | V9.3B13      | ----         |
| AM2A           | ARC Air Cal Amplitude Offset at 2 MHz                   | ----             | -50000.000   | -50000.000   |
| ANISO_COMPUTE  | Anisotropy Computation Option                           | ----             | YES          | YES          |
| APICG          | ARC5 Gamma Ray Gain Factor                              | ----             | 1.078        |              |
| APIG           | ARC Gamma Ray API Gain Factor                           | ----             | -1.000       |              |
| ARC_DATA_FIX   | ARC: Create A Corrected ARC Time Data File              | ----             | NO           |              |
| ARC_DATA_LTB   | ARC: Create An ARC LTB Data File                        | ----             | NO           |              |
| ATMP_ARC       | ARC Select Temperature Channel                          | ----             | Annulus_Temp | Annulus_Temp |
| ATRN           | ARC Tool Run Number                                     | ----             | 5            | ----         |
| ATSN           | ARC Tool Serial Number                                  | ----             | 2724         | ----         |
| AZMF           | Formation DIP Azimuth                                   | DEG              | 0.000        | 0.000        |
| BH_COMPUTE     | Borehole Inversion Computation Option                   | ----             | YES          | YES          |
| CALG           | ARC Gamma Ray Cal Gain Factor                           | ----             | 1.078        |              |
| CALI_SLCT_ARC  | ARC Caliper Selection                                   | ----             | BITSIZE      |              |
| CDPTH_ARC      | Process Start Depth                                     | M                | 30.480       | 30.480       |
| DIELEC_COMPUTE | Dielectric Computation Option                           | ----             | YES          | YES          |
| DIPF           | Formation DIP Angle                                     | DEG              | 0.000        | 0.000        |
| ERRCT          | Percentage Error Cutoff                                 | ----             | 4.500        | 4.500        |
| GRSH           | GR Shale (Invasion Computation Cutoff)                  | GAPI             | 1000.000     | 1000.000     |
| HIGH_BLEND     | High Resistivity Threshold for Blending                 | OHMM             | 2.000        | 2.000        |
| INCLIN_B0      | ARC Bias Constant (mg)                                  | ----             | 0.000        | 0.000        |
| INCLIN_B1      | ARC Bias First-order Coefficient (mg/degC)              | ----             | 0.000        | 0.000        |
| INCLIN_B2      | ARC Bias Secod-order Coeeficient (mg/degC)              | ----             | 0.000        | 0.000        |
| INCLIN_B3      | ARC Bias Third-order Coefficient (mg/degC)              | ----             | 0.000        | 0.000        |
| INCLIN_C0      | ARC Current Scale Factor Constant (mA/g)                | ----             | 1.000        | 1.000        |

|                 |  |      |            |            |
|-----------------|--|------|------------|------------|
| INCLIN_C1       | ARC Scale First-order Coefficient (mA/g/degC)                | ---- | 0.000      | 0.000      |
| INCLIN_C2       | ARC Scale Second-order Coefficient (mA/g/degC)               | ---- | 0.000      | 0.000      |
| INCLIN_C3       | ARC Scale Third-order Coefficient (mA/g/degC)                | ---- | 0.000      | 0.000      |
| INVAS_COMPUTE   | Invasion Computation Option                                  | ---- | YES        | YES        |
| JSD_ARC         | ARC Acquisition start date                                   | ---- | 1-Aug-08   | ----       |
| KPER            | Potassium Concentration (RM)                                 | ---- | 4.356      |            |
| LOW_BLEND       | Low Resistivity Threshold for Blending                       | OHMM | 1.000      | 1.000      |
| MSWS            | ARC Wizard Model Switch Window                               | M    | 1.524      | 1.524      |
| MULTIEFFECT_COM | Multi Effect Option  | ---- | YES        | YES        |
| P11AC_RM        | ARC: Air Calibration For Phase T1 to R1                      | DEG  | -999.250   | -999.250   |
| P12A            | ARC Air Cal Phase-Shift From T1 at 2 MHz                     | DEG  | -1.295     | -1.296     |
| P14A            | ARC Air Cal Phase-Shift From T1 at 400 KHz                   | DEG  | 1.663      | 2.074      |
| P22A            | ARC Air Cal Phase-Shift From T2 at 2 MHz                     | DEG  | 1.364      | 1.203      |
| P24A            | ARC Air Cal Phase-Shift From T2 at 400 KHz                   | DEG  | -1.688     | -1.994     |
| P32A            | ARC Air Cal Phase-Shift From T3 at 2 MHz                     | DEG  | -1.375     | -1.336     |
| P34A            | ARC Air Cal Phase-Shift From T3 at 400 KHz                   | DEG  | 1.672      | 2.082      |
| P42A            | ARC Air Cal Phase-Shift From T4 at 2 MHz                     | DEG  | 1.321      | 1.213      |
| P44A            | ARC Air Cal Phase-Shift From T4 at 400 KHz                   | DEG  | -1.701     | -1.913     |
| P52A            | ARC Air Cal Phase-Shift From T5 at 2 MHz                     | DEG  | -1.400     | -1.294     |
| P54A            | ARC Air Cal Phase-Shift From T5 at 400 KHz                   | DEG  | 1.648      | 1.915      |
| POFFSET_ARC     | ARC: Pressure Offset   | PSI  | 0.000      |            |
| PRTD            | Preferred Resistivity Log for Rt Display while Multi-Effects | ---- | P34B       | P34B       |
| PSOF_ADJ_T1     | ARC: User Input Phase offset                                 | DEG  | 0.000      | 0.000      |
| RESTIK          | ARC resistivity tick source                                  | ---- | Phase      | Phase      |
| RSD             | LWD run start date dd-mmm-yy                                 | OHMM | 0.128      | 0.073      |
| RWA_COMP_MOD    | Rwa computation model  | ---- | BASIC      | BASIC      |
| RWA_DEN_ADN     | Rwa Density Input  | ---- | RHOB       | RHOB       |
| RWA_DEN_CDN     | Rwa Density Input  | ---- | RHOB       | RHOB       |
| RWA_DEN_INPUT   | Rwa Density Input  | ---- | RHOB       | RHOB       |
| RWA_FORM_MOD    | Rwa computation formation model                              | ---- | CLASTIC    | CLASTIC    |
| RWA_RES_INPUT   | Rwa computation resistivity input                            | ---- | RT         | RT         |
| SHIG            | ARC High Shock Risk Level                                    | CPS  | 0.500      |            |
| SMED            | ARC Medium Shock Risk Level                                  | CPS  | 0.330      |            |
| SMIN            | ARC Minimum Shock Risk Level                                 | CPS  | 0.160      |            |
| SUPD            | ARC Real Time Shock Update Rate                              | S    | 30.000     |            |
| TCODE_ARC       | ARC Tool File Code   | S    | 30.000     |            |
| TSIZ_ARC        | ARC Tool Size  | IN   | 8.250      | 6.900      |
| UNIFORM_COMPUTE | Uniform Rock Option  | ---- | YES        | YES        |
| VERS_ARC        | ARC Down hole software version Number                        | ---- | 9.300      | 2.200      |
| WRK             | to Report Potassium Concentration (RM)                       | ---- | K_by_Wgt_% | K_by_Wgt_% |

|                 |  |                 |                 |               |
|-----------------|--|-----------------|-----------------|---------------|
| -----           | DVD  |                 |                 |               |
| -----           | Parameters-----  | Parameters----- | Parameters----- | -----Sigma    |
| -----           | Parameters-----  | Parameters----- | Parameters----- | -----Sigma    |
| ALPHA_DEN_OPT   | Density Enhanced Vertical Resolution Processing Switch | ----            |                 | NO            |
| CHI_RM          | Caliper High Limit from BS (RM)                        | IN              |                 | 10.000        |
| CLO_RM          | Caliper Low Limit from BS (RM)                         | IN              |                 | -5.000        |
| DTMUD           | Delta-T for Mud (RM)                                   | US/F            |                 | 190.000       |
| DTMUD_DH        | Delta-T for Mud Downhole (RT)                          | US/F            |                 | 190.000       |
| DVDMHDS         | DVDM Down Hole Software Version                        | US/F            |                 | 190.000       |
| DVDM_DATA_LTB   | DVDM: Create An DVDM LTB Data File                     | ----            |                 | NO            |
| DVD_DATA_FIX    | DVDM: Create A Corrected DVDM Time Data File           | ----            |                 | NO            |
| DYN_IMAGE_OPT   | Generate Dynamic Normalized Image?                     | ----            |                 | YES           |
| EDPTH           | Wizard Process Stop Depth                              | ----            |                 | 50000         |
| EN_WIZARD       | Enable ARC Wizard Processing                           | ----            |                 | NO            |
| EVRL            | EVR Process averaging number of samples (RM)           | ----            |                 | 49            |
| FWVN            | Firmware Version Number                                | ----            |                 | 2.200         |
| GCSE            | Generalized Caliper Selection                          | ----            |                 | BS            |
| GR_CF           | Gamma Ray Correction Factor                            | ----            |                 | 1.800         |
| GR_O2COR_OPT    | Enable Gamma Ray Oxygen Activation Correction          | ----            |                 | YES           |
| IDQT            | Image Derived Quality Threshold                        | ----            |                 | 1.000         |
| IMAGE_MAX_DCRA  | Image Density Caliper Right Scale                      | IN              |                 | 8.000         |
| IMAGE_MAX_IDDQ  | Image Density Quality Right Scale                      | ----            |                 | 1.000         |
| IMAGE_MAX_SPEF  | Image PEF(Segment) Right Scale                         | ----            |                 | 6.000         |
| IMAGE_MAX_SRHOB | Image RHOB(Segment) Right Scale                        | G/C3            |                 | 2.650         |
| IMAGE_MIN_DCRA  | Image Density Caliper Left Scale                       | IN              |                 | 2.000         |
| IMAGE_MIN_IDDQ  | Image Density Quality Left Scale                       | ----            |                 | 0.000         |
| IMAGE_MIN_SPEF  | Image PEF(Segment) Left Scale                          | ----            |                 | 2.000         |
| IMAGE_MIN_SRHOB | Image RHOB(Segment) Left Scale                         | G/C3            |                 | 2.050         |
| JSD             | Acquisition start date                                 | ----            |                 | 9-Aug-08      |
| MATR            | Rock Matrix for Neutron Porosity Corrections           | ----            |                 | LIMESTONE     |
| NEU_DCOR_OPT    | Density Correction Source for Neutron Processing       | ----            |                 | Bottom        |
| NEU_FTUBE_OPT   | Far Thermal Tube Selection                             | ----            |                 | Both          |
| NEU_PRESOR_OPT  | Pressure Correction Source for Neutron Processing      | ----            |                 | Annulus_Press |
| NEU_TEMPOR_OPT  | Temperature Correction Source for Neutron Processing   | ----            |                 | Tool_Temp     |
| NTIK_SEL        | Neutron Tick Channel Name                              | ----            |                 | FAZ1          |
| OACF            | Oxygen Activation Correction Factor (RM)               | ----            |                 | 8.000         |
| PMUD            | Potassium Concentration in Mud                         | ----            |                 | 0.000         |
| RUN_DURATION_OP | Run Duration Type ?                                    | ----            |                 | Normal        |
| SDPTH           | Wizard Process Start Depth                             | ----            |                 | 100           |
| SIG_PCOR_OPT    | Porosity Correction Source for Sigma Processing        | ----            |                 | Best          |
| SPEC_CSG_DEPTH  | Casing Depth for Spectroscopy Processing               | M               |                 | 30.480        |
| SPL_CLAY_MODEL  | SpectroLith Clay Model                                 | ----            |                 | SUBARKOSE     |
| SPL_MG_OPT      | Magnesium Flag Switch ?                                | ----            |                 | OFF           |
| SPL_SULFUR_MIN  | SpectroLith Sulfur Mineral Option                      | ----            |                 | PYRITE        |
| STAB_SIZE       | Stabilizer Size  | IN              |                 | 8.250         |
| STOH            | Top of Hole Sector                                     | ----            |                 | SECTOR_0      |
| TRNO            | Tool Run Number  | ----            |                 | 6             |
| TSNO            | Tool Serial Number                                     | ----            |                 | 987           |
| WPPV            | Water Phase as Percent of Total Volume in OBM          | ----            |                 | 100.000       |
| WPSL            | Salinity of the Water Phase Emulsified within the OBM  | PPK             |                 | 130.746       |
| WSDI            | Window Size of Dynamic Normalization Image             | M               |                 | 4.572         |

# EcoScope Density Neutron RM 200TVD Inc < 90 Deg, 1930–2115m MD



|  |        |     |
|--|--------|-----|
| Calibrated, Filtered Gamma Ray, Bottom<br>(GRMB_FILT)    |        |     |
| 0  | (GAPI) | 200 |
| Calibrated, Filtered Gamma Ray, Up<br>(GRMU_FILT)        |        |     |
| 0  | (GAPI) | 200 |
| Rate of Penetration, Averaged over Last<br>5ft (ROP5_RM) |        |     |
| 100  | (M/HR) | 0   |

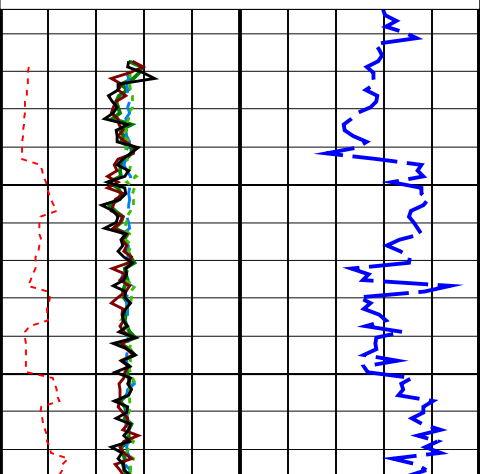
|                           |            |        |            |
|---------------------------|------------|--------|------------|
| IDEAL Version: ID13_0C_08 |            |        |            |
| IDF                       |            |        |            |
| ARC8A-AA                  | id13_0c_02 | MWD_10 | id13_0c_02 |

|  |            |        |            |
|--|------------|--------|------------|
| EcoScope Density Neutron RM 200TVD Inc > 90 Deg, 2115–2517m MD |            |        |            |
| IDF  |            |        |            |
| ARC8A-AA   | id13_0c_02 | MWD_10 | id13_0c_02 |

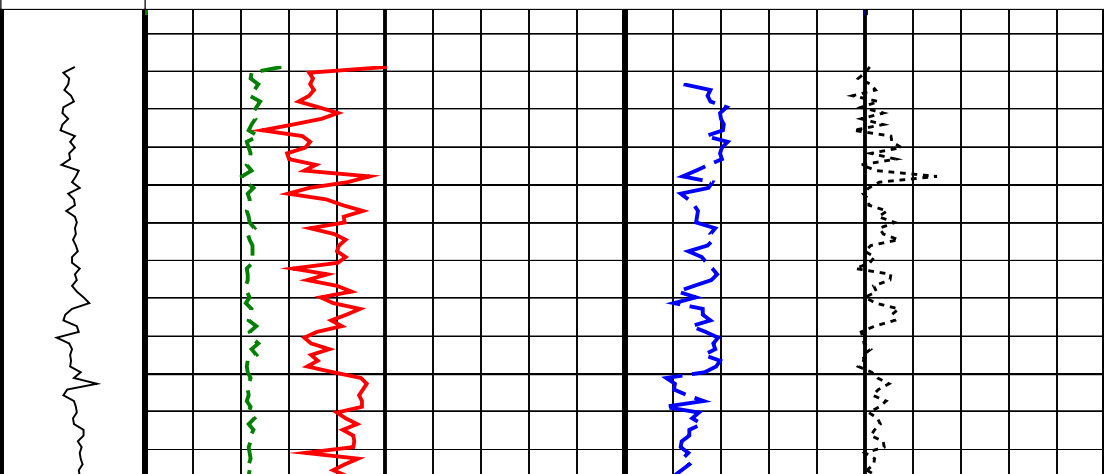
|                                  |                       |  |
|----------------------------------|-----------------------|--|
| Format: EcoScope Density Neutron | Vertical Scale: 1:200 | Graphics File Created: 25–Aug–2008 15:13 |
|----------------------------------|-----------------------|--|

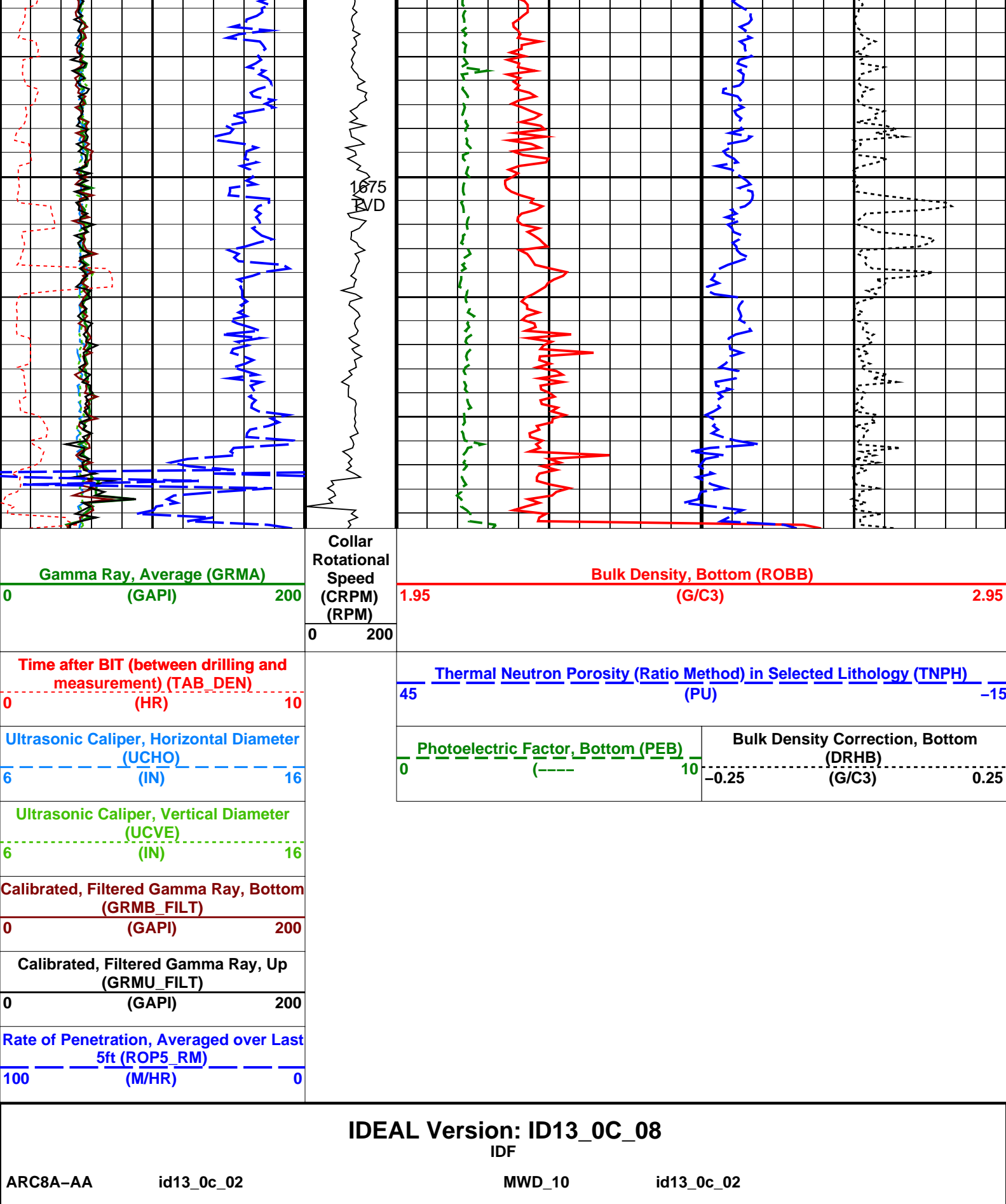
|  |        |     |
|--|--------|-----|
| Rate of Penetration, Averaged over Last<br>5ft (ROP5_RM)       |        |     |
| 100  | (M/HR) | 0   |
| Calibrated, Filtered Gamma Ray, Up<br>(GRMU_FILT)              |        |     |
| 0  | (GAPI) | 200 |
| Calibrated, Filtered Gamma Ray, Bottom<br>(GRMB_FILT)          |        |     |
| 0  | (GAPI) | 200 |
| Ultrasonic Caliper, Vertical Diameter<br>(UCVE)                |        |     |
| 6  | (IN)   | 16  |
| Ultrasonic Caliper, Horizontal Diameter<br>(UCHO)              |        |     |
| 6  | (IN)   | 16  |
| Time after BIT (between drilling and<br>measurement) (TAB_DEN) |        |     |
| 0  | (HR)   | 10  |

|                           |        |     |
|---------------------------|--------|-----|
| Gamma Ray, Average (GRMA) |        |     |
| 0                         | (GAPI) | 200 |
| 0                         |        | 200 |



|  |       |   |      |
|--|-------|---|------|
| Photoelectric Factor, Bottom (PEB)                                   |       | Bulk Density Correction, Bottom<br>(DRHB) |      |
| 0  | (---- | 10  | 0.25 |
| Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) |       |   |      |
| 45   | (PU)  | -15                                       |      |
| Collar Rotational Speed (CRPM) (RPM)                                 |       | Bulk Density, Bottom (ROBB)               |      |
| 1.95   |       | (G/C3)                                    |      |
| 2.95   |       |   |      |















8.25-in. Array Resistivity Compensated / Equipment Identification

Master: 17-Jul-2008 15:03

## 8.25-in. Array Resistivity Compensated Calibration











Resistivity: Air

| Phase  | Phase-Shift T1  | Value  | Phase  | Phase-Shift T2  | Value  | Phase  | Phase-Shift T3  | Value  |
|--------|---|--------|--------|---|--------|--------|---|--------|
| Master |  | -1.295 | Master |  | 1.364  | Master |  | -1.375 |
|        | -3.900<br>(Minimum)      0.1000<br>(Nominal)      4.100<br>(Maximum)              |        |        | -3.900<br>(Minimum)      0.1000<br>(Nominal)      4.100<br>(Maximum)              |        |        | -3.900<br>(Minimum)      0.1000<br>(Nominal)      4.100<br>(Maximum)                |        |
| Phase  | Phase-Shift T4  | Value  | Phase  | Phase-Shift T5  | Value  | Phase  | Phase-Shift T1 at 400KHz  | Value  |
| Master |  | 1.321  | Master |  | -1.400 | Master |  | 1.663  |
|        | -3.900<br>(Minimum)      0.1000<br>(Nominal)      4.100<br>(Maximum)              |        |        | -3.900<br>(Minimum)      0.1000<br>(Nominal)      4.100<br>(Maximum)              |        |        | -3.900<br>(Minimum)      0.1000<br>(Nominal)      4.100<br>(Maximum)                |        |
| Phase  | Phase-Shift T2 at 400KHz  | Value  | Phase  | Phase-Shift T3 at 400KHz  | Value  | Phase  | Phase-Shift T4 at 400KHz  | Value  |
| Master |  | -1.688 | Master |  | 1.672  | Master |  | -1.701 |
|        | -3.900<br>(Minimum)      0.1000<br>(Nominal)      4.100<br>(Maximum)              |        |        | -3.900<br>(Minimum)      0.1000<br>(Nominal)      4.100<br>(Maximum)              |        |        | -3.900<br>(Minimum)      0.1000<br>(Nominal)      4.100<br>(Maximum)                |        |
| Phase  | Phase-Shift T5 at 400KHz  | Value  |        |   |        |        |   |        |
| Master |  | 1.648  |        |   |        |        |   |        |
|        | -3.900<br>(Minimum)      0.1000<br>(Nominal)      4.100<br>(Maximum)              |        |        |   |        |        |   |        |

Master: 17-Jul-2008 15:03

## 8.25-in. Array Resistivity Compensated Calibration


Resistivity: Air

| Phase  | Attenuation T1  | Value | Phase  | Attenuation T2  | Value | Phase  | Attenuation T3  | Value |
|--------|---|-------|--------|---|-------|--------|---|-------|
| Master |    | 8.267 | Master |    | 6.374 | Master |    | 4.991 |
|        | 6.500<br>(Minimum)      8.500<br>(Nominal)      10.50<br>(Maximum)                  |       |        | 4.500<br>(Minimum)      6.500<br>(Nominal)      8.500<br>(Maximum)                  |       |        | 2.500<br>(Minimum)      4.500<br>(Nominal)      6.500<br>(Maximum)                    |       |
| Phase  | Attenuation T4  | Value | Phase  | Attenuation T5  | Value | Phase  | Attenuation T1 at 400KHz  | Value |
| Master |  | 4.337 | Master |  | 3.582 | Master |  | 8.197 |
|        | 2.600<br>(Minimum)      4.600<br>(Nominal)      6.600<br>(Maximum)                  |       |        | 1.600<br>(Minimum)      3.600<br>(Nominal)      5.600<br>(Maximum)                  |       |        | 6.500<br>(Minimum)      8.500<br>(Nominal)      10.50<br>(Maximum)                    |       |
| Phase  | Attenuation T2 at 400KHz  | Value | Phase  | Attenuation T3 at 400KHz  | Value | Phase  | Attenuation T4 at 400KHz  | Value |
| Master |  | 6.450 | Master |  | 4.915 | Master |  | 4.410 |
|        | 4.500<br>(Minimum)      6.500<br>(Nominal)      8.500<br>(Maximum)                  |       |        | 2.500<br>(Minimum)      4.500<br>(Nominal)      6.500<br>(Maximum)                  |       |        | 2.600<br>(Minimum)      4.600<br>(Nominal)      6.600<br>(Maximum)                    |       |
| Phase  | Attenuation T5 at 400KHz  | Value |        |   |       |        |   |       |
| Master |  | 3.513 |        |   |       |        |   |       |
|        | 1.600<br>(Minimum)      3.600<br>(Nominal)      5.600<br>(Maximum)                  |       |        |   |       |        |   |       |

Master: 17-Jul-2008 20:12

## 8.25-in. Array Resistivity Compensated Calibration

Gamma Ray: Blanket

| Phase  | Gamma ray factor (equals Calibration Gain multiplied by API Gain Factor)            | CPS | Value |
|--------|---|-----|-------|
| Master |  |     | 7.763 |
|        | 4.960<br>(Minimum)      7.200<br>(Nominal)      9.650<br>(Maximum)                  |     |       |

## EcoScope Integrated Logging-While-Drilling Tool – 6.75 inch / Equipment Identification

Primary Equipment:

Tool Name and Serial Number

Calibration Status

Neutron Logging Source

Density Logging Source

Stabilizer Size

ECO – 675

979

PNG – C

GSR – J/Z





8.25 – in.









Master: 3-Aug-2008 15:58




## EcoScope Integrated Logging-While-Drilling Tool – 6.75 inch Calibration




SSn LSn : Water Tank




| Phase | SSn Gain ---- | Value | Phase | SSn Offset ---- | Value |
|-------|---------------|-------|-------|-----------------|-------|
|-------|---------------|-------|-------|-----------------|-------|



|        |   |                    |                    |   |                     |                |                    |
|--------|---|--------------------|--------------------|---|---------------------|----------------|--------------------|
| Master |     | 1.069              | Master             |     | 0                   |                |                    |
|        | 0.6000<br>(Minimum)   | 1.000<br>(Nominal) | 1.400<br>(Maximum) |   | -3.000<br>(Minimum) | 0<br>(Nominal) | 3.000<br>(Maximum) |
| Phase  | LSn Gain ----   |                    | Value              | Phase   | LSn Offset ----     |                | Value              |
| Master |  | 1.000              | Master             |  | 0                   |                |                    |
|        | 0.6000<br>(Minimum)   | 1.000<br>(Nominal) | 1.400<br>(Maximum) |   | -3.000<br>(Minimum) | 0<br>(Nominal) | 3.000<br>(Maximum) |




|   |   |                    |                    |        |   |                |                    |
|---|---|--------------------|--------------------|--------|---|----------------|--------------------|
| Master: 3-Aug-2008 15:58  |   |                    |                    |        |   |                |                    |
| EcoScope Integrated Logging-While-Drilling Tool – 6.75 inch Calibration |   |                    |                    |        |   |                |                    |
| Neutron: Water Tank   |   |                    |                    |        |   |                |                    |
| Phase   | Far 2 Gain ----   |                    | Value              | Phase  | Far 2 Offset ----   |                | Value              |
| Master  |  |                    | 0.9674             | Master |  |                | 1.349              |
|   | 0.7000<br>(Minimum)   | 1.000<br>(Nominal) | 1.300<br>(Maximum) |        | -3.000<br>(Minimum)   | 0<br>(Nominal) | 3.000<br>(Maximum) |
| Phase   | Far 1 Gain ----   |                    | Value              | Phase  | Far 1 Offset ----   |                | Value              |
| Master  |  |                    | 1.003              | Master |  |                | 1.235              |
|   | 0.7000<br>(Minimum)   | 1.000<br>(Nominal) | 1.300<br>(Maximum) |        | -3.000<br>(Minimum)   | 0<br>(Nominal) | 3.000<br>(Maximum) |
| Phase   | Thermal Near gain ----  |                    | Value              | Phase  | Thermal Near offset ----  |                | Value              |
| Master  |  |                    | 1.015              | Master |  |                | 108.6              |
|   | 0.7000<br>(Minimum)   | 1.000<br>(Nominal) | 1.300<br>(Maximum) |        | -500.0<br>(Minimum)   | 0<br>(Nominal) | 500.0<br>(Maximum) |
| Phase   | Epithermal Near gain ----   |                    | Value              | Phase  | Epithermal Near offset ----   |                | Value              |
| Master  |  |                    | 1.019              | Master |  |                | 91.49              |
|   | 0.7000<br>(Minimum)   | 1.000<br>(Nominal) | 1.300<br>(Maximum) |        | -300.0<br>(Minimum)   | 0<br>(Nominal) | 300.0<br>(Maximum) |

|   |   |                    |                    |        |   |                   |                   |
|---|---|--------------------|--------------------|--------|---|-------------------|-------------------|
| Master: 3-Aug-2008 18:01  |   |                    |                    |        |   |                   |                   |
| EcoScope Integrated Logging-While-Drilling Tool – 6.75 inch Calibration |   |                    |                    |        |   |                   |                   |
| Gamma Density: Magnesium Block  |   |                    |                    |        |   |                   |                   |
| Phase   | LS window 3 – Mg CPS  |                    | Value              | Phase  | SS window 1 – Mg CPS  |                   | Value             |
| Master  |    |                    | 3690               | Master |  |                   | 7502              |
|   | 2200<br>(Minimum)   | 3350<br>(Nominal)  | 4500<br>(Maximum)  |        | 4560<br>(Minimum)   | 6830<br>(Nominal) | 9100<br>(Maximum) |
| Phase   | SS window 3 – Mg CPS  |                    | Value              | Phase  | SS window 3 – Mg CPS  |                   | Value             |
| Master  |  |                    | 17740              |        |   |                   |                   |
|   | 11100<br>(Minimum)  | 16700<br>(Nominal) | 22300<br>(Maximum) |        |   |                   |                   |

|   |   |                    |                    |        |   |                   |                   |
|---|---|--------------------|--------------------|--------|---|-------------------|-------------------|
| Master: 3-Aug-2008 18:01  |   |                    |                    |        |   |                   |                   |
| EcoScope Integrated Logging-While-Drilling Tool – 6.75 inch Calibration |   |                    |                    |        |   |                   |                   |
| Gamma Density: Aluminum Block   |   |                    |                    |        |   |                   |                   |
| Phase   | LS window 3 – Al CPS  |                    | Value              | Phase  | SS window 1 – Al CPS  |                   | Value             |
| Master  |    |                    | 602.5              | Master |  |                   | 3842              |
|   | 350.0<br>(Minimum)  | 575.0<br>(Nominal) | 800.0<br>(Maximum) |        | 2300<br>(Minimum)   | 3550<br>(Nominal) | 4800<br>(Maximum) |
| Phase   | SS window 3 – Al CPS  |                    | Value              | Phase  | SS window 3 – Al CPS  |                   | Value             |
| Master  |  |                    | 12300              |        |   |                   |                   |
|   | 7600<br>(Minimum)   | 11550<br>(Nominal) | 15500<br>(Maximum) |        |   |                   |                   |

|   |   |                    |                    |        |   |                    |                    |
|---|---|--------------------|--------------------|--------|---|--------------------|--------------------|
| Master: 3-Aug-2008 18:01  |   |                    |                    |        |   |                    |                    |
| EcoScope Integrated Logging-While-Drilling Tool – 6.75 inch Calibration |   |                    |                    |        |   |                    |                    |
| Gamma Density: Background   |   |                    |                    |        |   |                    |                    |
| Phase   | LS window 3 – Background CPS  |                    | Value              | Phase  | SS window 1 – Background CPS  |                    | Value              |
| Master  |    |                    | 62.16              | Master |  |                    | 84.83              |
|   | 50.00<br>(Minimum)  | 70.00<br>(Nominal) | 90.00<br>(Maximum) |        | 50.00<br>(Minimum)  | 75.00<br>(Nominal) | 100.0<br>(Maximum) |
| Phase   | SS window 3 – Background CPS  |                    | Value              | Phase  | SS window 3 – Background CPS  |                    | Value              |
| Master  |  |                    | 402.9              |        |   |                    |                    |
|   | 270.0<br>(Minimum)  | 370.0<br>(Nominal) | 470.0<br>(Maximum) |        |   |                    |                    |

|   |   |                    |                    |        |   |                    |                    |
|---|---|--------------------|--------------------|--------|---|--------------------|--------------------|
| Master: 3-Aug-2008 18:01  |   |                    |                    |        |   |                    |                    |
| EcoScope Integrated Logging-While-Drilling Tool – 6.75 inch Calibration |   |                    |                    |        |   |                    |                    |
| Gamma Density: Water Block Check  |   |                    |                    |        |   |                    |                    |
| Phase   | Long spacing water density G/C3   |                    | Value              | Phase  | Short spacing water density G/C3  |                    | Value              |
| Master  |  |                    | 1.059              | Master |  |                    | 1.264              |
|   | 1.026<br>(Minimum)  | 1.043<br>(Nominal) | 1.059<br>(Maximum) |        | 1.221<br>(Minimum)  | 1.256<br>(Nominal) | 1.291<br>(Maximum) |

|   |   |                    |                    |        |   |                    |                    |
|---|---|--------------------|--------------------|--------|---|--------------------|--------------------|
| Master: 1-Aug-2008 12:53  |   |                    |                    |        |   |                    |                    |
| EcoScope Integrated Logging-While-Drilling Tool – 6.75 inch Calibration |   |                    |                    |        |   |                    |                    |
| Resistivity: Air  |   |                    |                    |        |   |                    |                    |
| Phase   | Phase-Shift T1  |                    | Value              | Phase  | Phase-Shift T2  |                    | Value              |
| Master  |    |                    | -1.296             | Master |  |                    | 1.203              |
|   | -1.296<br>(Minimum)   | 1.203<br>(Nominal) | 1.336<br>(Maximum) |        | -1.296<br>(Minimum)   | 1.203<br>(Nominal) | 1.336<br>(Maximum) |
| Phase   | Phase-Shift T3  |                    | Value              | Phase  | Phase-Shift T3  |                    | Value              |
| Master  |  |                    | -1.336             |        |   |                    |                    |
|   | -1.296<br>(Minimum)   | 1.203<br>(Nominal) | 1.336<br>(Maximum) |        |   |                    |                    |

|   |  |  |  |   |        |  |  |   |        |        |  |  |  |        |
|---|--|--|--|---|--------|--|--|---|--------|--------|--|--|--|--------|
| <div><div></div><div>-4.000<br/>(Minimum)</div><div>0<br/>(Nominal)</div><div>4.000<br/>(Maximum)</div></div> |  |  |  | <div><div></div><div>-4.000<br/>(Minimum)</div><div>0<br/>(Nominal)</div><div>4.000<br/>(Maximum)</div></div> |        |  |  | <div><div></div><div>-4.000<br/>(Minimum)</div><div>0<br/>(Nominal)</div><div>4.000<br/>(Maximum)</div></div> |        |        |  |  |  |        |
| Phase   | Phase-Shift T4                               |  |  | Value   | Phase  | Phase-Shift T5                               |  |   | Value  | Phase  | Phase-Shift T1 at 400KHz                     |  |  | Value  |
| Master  | <div><div></div><div></div><div></div></div> |  |  | 1.213   | Master | <div><div></div><div></div><div></div></div> |  |   | -1.294 | Master | <div><div></div><div></div><div></div></div> |  |  | 2.074  |
| <div><div></div><div>-4.000<br/>(Minimum)</div><div>0<br/>(Nominal)</div><div>4.000<br/>(Maximum)</div></div> |  |  |  | <div><div></div><div>-4.000<br/>(Minimum)</div><div>0<br/>(Nominal)</div><div>4.000<br/>(Maximum)</div></div> |        |  |  | <div><div></div><div>-4.000<br/>(Minimum)</div><div>0<br/>(Nominal)</div><div>4.000<br/>(Maximum)</div></div> |        |        |  |  |  |        |
| Phase   | Phase-Shift T2 at 400KHz                     |  |  | Value   | Phase  | Phase-Shift T3 at 400KHz                     |  |   | Value  | Phase  | Phase-Shift T4 at 400KHz                     |  |  | Value  |
| Master  | <div><div></div><div></div><div></div></div> |  |  | -1.994  | Master | <div><div></div><div></div><div></div></div> |  |   | 2.082  | Master | <div><div></div><div></div><div></div></div> |  |  | -1.913 |
| <div><div></div><div>-4.000<br/>(Minimum)</div><div>0<br/>(Nominal)</div><div>4.000<br/>(Maximum)</div></div> |  |  |  | <div><div></div><div>-4.000<br/>(Minimum)</div><div>0<br/>(Nominal)</div><div>4.000<br/>(Maximum)</div></div> |        |  |  | <div><div></div><div>-4.000<br/>(Minimum)</div><div>0<br/>(Nominal)</div><div>4.000<br/>(Maximum)</div></div> |        |        |  |  |  |        |
| Phase   | Phase-Shift T5 at 400KHz                     |  |  | Value   |        |  |  |   |        |        |  |  |  |        |
| Master  | <div><div></div><div></div><div></div></div> |  |  | 1.915   |        |  |  |   |        |        |  |  |  |        |
| <div><div></div><div>-4.000<br/>(Minimum)</div><div>0<br/>(Nominal)</div><div>4.000<br/>(Maximum)</div></div> |  |  |  |   |        |  |  |   |        |        |  |  |  |        |

|   |                          |                    |                    |       |        |                          |                    |                    |       |        |                          |                    |                    |       |
|---|--------------------------|--------------------|--------------------|-------|--------|--------------------------|--------------------|--------------------|-------|--------|--------------------------|--------------------|--------------------|-------|
| Master: 1-Aug-2008 12:53  |                          |                    |                    |       |        |                          |                    |                    |       |        |                          |                    |                    |       |
| EcoScope Integrated Logging-While-Drilling Tool – 6.75 inch Calibration |                          |                    |                    |       |        |                          |                    |                    |       |        |                          |                    |                    |       |
| Resistivity: Air  |                          |                    |                    |       |        |                          |                    |                    |       |        |                          |                    |                    |       |
| Phase   | Attenuation T1           |                    |                    | Value | Phase  | Attenuation T2           |                    |                    | Value | Phase  | Attenuation T3           |                    |                    | Value |
| Master  | <div><div></div></div>   |                    |                    | 8.169 | Master | <div><div></div></div>   |                    |                    | 6.249 | Master | <div><div></div></div>   |                    |                    | 4.775 |
|   | 7.000<br>(Minimum)       | 9.000<br>(Nominal) | 11.00<br>(Maximum) |       |        | 4.000<br>(Minimum)       | 6.000<br>(Nominal) | 8.000<br>(Maximum) |       |        | 3.500<br>(Minimum)       | 5.500<br>(Nominal) | 7.500<br>(Maximum) |       |
| Phase   | Attenuation T4           |                    |                    | Value | Phase  | Attenuation T5           |                    |                    | Value | Phase  | Attenuation T1 at 400KHz |                    |                    | Value |
| Master  | <div><div></div></div>   |                    |                    | 4.656 | Master | <div><div></div></div>   |                    |                    | 3.332 | Master | <div><div></div></div>   |                    |                    | 8.157 |
|   | 2.500<br>(Minimum)       | 4.500<br>(Nominal) | 6.500<br>(Maximum) |       |        | 2.000<br>(Minimum)       | 4.000<br>(Nominal) | 6.000<br>(Maximum) |       |        | 7.000<br>(Minimum)       | 9.000<br>(Nominal) | 11.00<br>(Maximum) |       |
| Phase   | Attenuation T2 at 400KHz |                    |                    | Value | Phase  | Attenuation T3 at 400KHz |                    |                    | Value | Phase  | Attenuation T4 at 400KHz |                    |                    | Value |
| Master  | <div><div></div></div>   |                    |                    | 6.267 | Master | <div><div></div></div>   |                    |                    | 4.757 | Master | <div><div></div></div>   |                    |                    | 4.669 |
|   | 4.000<br>(Minimum)       | 6.000<br>(Nominal) | 8.000<br>(Maximum) |       |        | 3.500<br>(Minimum)       | 5.500<br>(Nominal) | 7.500<br>(Maximum) |       |        | 2.500<br>(Minimum)       | 4.500<br>(Nominal) | 6.500<br>(Maximum) |       |
| Phase   | Attenuation T5 at 400KHz |                    |                    | Value |        |                          |                    |                    |       |        |                          |                    |                    |       |
| Master  | <div><div></div></div>   |                    |                    | 3.317 |        |                          |                    |                    |       |        |                          |                    |                    |       |
|   | 2.000<br>(Minimum)       | 4.000<br>(Nominal) | 6.000<br>(Maximum) |       |        |                          |                    |                    |       |        |                          |                    |                    |       |

# SCHLUMBERGER

## Survey report

Client..... Santos Ltd  
Field..... Otway  
  
Well..... Netherby-1 DW1  
Job number..... 08ASQ0003  
Engineer..... J. Oldridge / Z. Rudd  
  
RIG:..... Ocean Patriot  
STATE:..... Victoria

Spud date..... 02-Aug-08  
Last survey date..... 12-Aug-08  
Total accepted surveys... 86  
MD of first survey..... 0.00 m  
MD of last survey..... 2517.00 m

----- Survey calculation methods-----  
Method for positions..... Minimum curvature  
Method for DLS..... Mason & Taylor

----- Depth reference -----  
Permanent datum..... Mean Sea Level  
Depth reference..... Driller's Depth  
GL above permanent..... -66.10 m  
KB above permanent..... 20.80 m  
DF above permanent..... 20.80 m

----- Vertical section origin-----  
Latitude (+N/S-)..... 0.00 m  
Departure (+E/W-)..... 0.00 m

----- Platform reference point-----  
Latitude (+N/S-).....  
Departure (+E/W-).....  
  
Azimuth from Vsect Origin to target: 0.00 degrees

----- Geomagnetic data -----  
Magnetic model..... BGGM version 2007  
Magnetic date..... 01-Aug-2008  
Magnetic field strength... 1215.17 HCNT  
Magnetic dec (+E/W-)..... 10.78 degrees  
Magnetic dip..... -69.86 degrees

----- MWD survey Reference Criteria -----  
Reference G..... 1000.07 mGal  
Reference H..... 1215.17 HCNT  
Reference Dip..... -69.86 degrees  
Tolerance of G..... (+/-) 2.50 mGal  
Tolerance of H..... (+/-) 6.00 HCNT  
Tolerance of Dip..... (+/-) 0.45 degrees

----- Corrections -----  
Magnetic dec (+E/W-)..... 10.78 degrees  
Grid convergence (+E/W-).. -1.03 degrees  
Total az corr (+E/W-).... 11.81 degrees  
(Total az corr = magnetic dec - grid conv)  
Survey Correction Type ...  
I=Sag Corrected Inclination  
M=Schlumberger Magnetic Correction  
S=Shell Magnetic Correction  
F=Failed Axis Correction  
R=Magnetic Resonance Tool Correction  
D=Dmag Magnetic Correction

## SCHLUMBERGER Survey Report

| Seq<br># | Measured<br>depth<br>(m) | Incl<br>angle<br>(deg) | Azimuth<br>angle<br>(deg) | Course<br>length<br>(m) | TVD<br>depth<br>(m) | Vertical<br>section<br>(m) | Displ<br>+N/S-<br>(m) | Displ<br>+E/W-<br>(m) | Total<br>displ<br>(m) | At<br>Azim<br>(deg) | DLS<br>(deg/<br>100f) | Srvy<br>tool<br>type | Tool<br>Corr<br>(deg) |
|----------|--------------------------|------------------------|---------------------------|-------------------------|---------------------|----------------------------|-----------------------|-----------------------|-----------------------|---------------------|-----------------------|----------------------|-----------------------|
| 1        | 0.00                     | 0.00                   | 0.00                      | 0.00                    | 0.00                | 0.00                       | 0.00                  | 0.00                  | 0.00                  | 0.00                | 0.00                  | TIP                  | None                  |
| 2        | 87.00                    | 0.00                   | 0.00                      | 87.00                   | 87.00               | 0.00                       | 0.00                  | 0.00                  | 0.00                  | 0.00                | 0.00                  | MWD_M                | None                  |
| 3        | 110.29                   | 0.34                   | 228.85                    | 23.29                   | 110.29              | -0.05                      | -0.05                 | -0.05                 | 0.07                  | 228.85              | 0.44                  | MWD_M                | None                  |
| 4        | 139.31                   | 0.48                   | 70.38                     | 29.02                   | 139.31              | -0.06                      | -0.06                 | -0.00                 | 0.06                  | 182.21              | 0.85                  | MWD_M                | None                  |
| 5        | 168.50                   | 0.56                   | 302.02                    | 29.19                   | 168.50              | 0.06                       | 0.06                  | -0.01                 | 0.06                  | 351.63              | 0.98                  | MWD_M                | None                  |
| 6        | 196.58                   | 0.62                   | 250.43                    | 28.08                   | 196.58              | 0.08                       | 0.08                  | -0.27                 | 0.28                  | 286.10              | 0.56                  | MWD_M                | None                  |
| 7        | 224.66                   | 0.70                   | 303.64                    | 28.08                   | 224.66              | 0.12                       | 0.12                  | -0.55                 | 0.57                  | 282.37              | 0.65                  | MWD_M                | None                  |
| 8        | 252.74                   | 0.64                   | 294.72                    | 28.08                   | 252.73              | 0.28                       | 0.28                  | -0.84                 | 0.88                  | 288.58              | 0.13                  | MWD_M                | None                  |
| 9        | 280.80                   | 0.72                   | 298.73                    | 28.06                   | 280.79              | 0.43                       | 0.43                  | -1.14                 | 1.22                  | 290.84              | 0.10                  | MWD_M                | None                  |
| 10       | 309.51                   | 0.65                   | 287.17                    | 28.71                   | 309.50              | 0.57                       | 0.57                  | -1.45                 | 1.56                  | 291.36              | 0.16                  | MWD_M                | None                  |
| 11       | 337.98                   | 0.69                   | 292.15                    | 28.47                   | 337.97              | 0.68                       | 0.68                  | -1.76                 | 1.89                  | 291.08              | 0.08                  | MWD_M                | None                  |
| 12       | 366.89                   | 0.70                   | 359.25                    | 28.91                   | 366.88              | 0.92                       | 0.92                  | -1.93                 | 2.14                  | 295.57              | 0.81                  | MWD_M                | None                  |
| 13       | 395.80                   | 0.92                   | 12.26                     | 28.91                   | 395.78              | 1.32                       | 1.32                  | -1.88                 | 2.30                  | 305.19              | 0.30                  | MWD_M                | None                  |
| 14       | 424.75                   | 0.87                   | 19.30                     | 28.95                   | 424.73              | 1.76                       | 1.76                  | -1.76                 | 2.49                  | 315.04              | 0.13                  | MWD_M                | None                  |
| 15       | 453.68                   | 0.56                   | 88.31                     | 28.93                   | 453.66              | 1.97                       | 1.97                  | -1.54                 | 2.50                  | 321.94              | 0.89                  | MWD_M                | None                  |
| 16       | 482.49                   | 0.59                   | 96.35                     | 28.81                   | 482.47              | 1.96                       | 1.96                  | -1.26                 | 2.33                  | 327.35              | 0.09                  | MWD_M                | None                  |
| 17       | 511.36                   | 0.65                   | 96.56                     | 28.87                   | 511.34              | 1.92                       | 1.92                  | -0.94                 | 2.14                  | 333.84              | 0.06                  | MWD_M                | None                  |
| 18       | 540.27                   | 0.70                   | 100.87                    | 28.91                   | 540.24              | 1.87                       | 1.87                  | -0.61                 | 1.97                  | 341.99              | 0.08                  | MWD_M                | None                  |
| 19       | 569.05                   | 0.71                   | 112.99                    | 28.78                   | 569.02              | 1.77                       | 1.77                  | -0.27                 | 1.79                  | 351.27              | 0.16                  | MWD_M                | None                  |
| 20       | 597.90                   | 0.69                   | 128.34                    | 28.85                   | 597.87              | 1.59                       | 1.59                  | 0.03                  | 1.59                  | 1.05                | 0.20                  | MWD_M                | None                  |
| 21       | 617.15                   | 0.84                   | 123.17                    | 19.25                   | 617.12              | 1.44                       | 1.44                  | 0.24                  | 1.46                  | 9.38                | 0.26                  | MWD_M                | None                  |
| 22       | 634.46                   | 0.94                   | 124.68                    | 17.31                   | 634.42              | 1.29                       | 1.29                  | 0.46                  | 1.37                  | 19.65               | 0.18                  | MWD_M                | None                  |
| 23       | 660.03                   | 0.52                   | 130.06                    | 25.57                   | 659.99              | 1.10                       | 1.10                  | 0.72                  | 1.31                  | 33.35               | 0.51                  | MWD_M                | None                  |
| 24       | 745.26                   | 2.31                   | 160.81                    | 85.23                   | 745.19              | -0.77                      | -0.77                 | 1.58                  | 1.76                  | 116.04              | 0.67                  | MWD_M                | None                  |
| 25       | 773.50                   | 4.27                   | 158.54                    | 28.24                   | 773.39              | -2.29                      | -2.29                 | 2.15                  | 3.14                  | 136.73              | 2.12                  | MWD_M                | None                  |
| 26       | 801.23                   | 5.89                   | 157.85                    | 27.73                   | 801.01              | -4.57                      | -4.57                 | 3.07                  | 5.50                  | 146.11              | 1.78                  | MWD_M                | None                  |
| 27       | 831.43                   | 7.57                   | 152.25                    | 30.20                   | 831.00              | -7.76                      | -7.76                 | 4.58                  | 9.01                  | 149.47              | 1.82                  | MWD_M                | None                  |
| 28       | 859.94                   | 9.31                   | 137.33                    | 28.51                   | 859.20              | -11.12                     | -11.12                | 7.02                  | 13.15                 | 147.75              | 2.98                  | MWD_M                | None                  |
| 29       | 889.70                   | 11.19                  | 126.87                    | 29.76                   | 888.49              | -14.63                     | -14.63                | 10.96                 | 18.28                 | 143.15              | 2.70                  | MWD_M                | None                  |
| 30       | 919.19                   | 12.15                  | 123.94                    | 29.49                   | 917.37              | -18.08                     | -18.08                | 15.82                 | 24.02                 | 138.80              | 1.17                  | MWD_M                | None                  |

[(c)2008 IDEAL ID13\_OC\_08]

## SCHLUMBERGER Survey Report

| Seq<br># | Measured<br>depth<br>(m) | Incl<br>angle<br>(deg) | Azimuth<br>angle<br>(deg) | Course<br>length<br>(m) | TVD<br>depth<br>(m) | Vertical<br>section<br>(m) | Displ<br>+N/S-<br>(m) | Displ<br>+E/W-<br>(m) | Total<br>displ<br>(m) | At<br>Azim<br>(deg) | DLS<br>(deg/<br>100f) | Srvy<br>tool<br>type | Tool<br>Corr<br>(deg) |
|----------|--------------------------|------------------------|---------------------------|-------------------------|---------------------|----------------------------|-----------------------|-----------------------|-----------------------|---------------------|-----------------------|----------------------|-----------------------|
| 31       | 948.90                   | 12.93                  | 122.08                    | 29.71                   | 946.37              | -21.59                     | -21.59                | 21.23                 | 30.28                 | 135.47              | 0.90                  | MWD_M                | None                  |
| 32       | 979.41                   | 13.44                  | 120.85                    | 30.51                   | 976.07              | -25.22                     | -25.22                | 27.17                 | 37.07                 | 132.86              | 0.58                  | MWD_M                | None                  |
| 33       | 1007.51                  | 14.16                  | 120.45                    | 28.10                   | 1003.36             | -28.63                     | -28.63                | 32.94                 | 43.64                 | 131.00              | 0.79                  | MWD_M                | None                  |
| 34       | 1036.14                  | 14.55                  | 118.54                    | 28.63                   | 1031.10             | -32.13                     | -32.13                | 39.12                 | 50.62                 | 129.40              | 0.65                  | MWD_M                | None                  |
| 35       | 1065.20                  | 14.60                  | 118.24                    | 29.06                   | 1059.22             | -35.60                     | -35.60                | 45.55                 | 57.81                 | 128.01              | 0.09                  | MWD_M                | None                  |
| 36       | 1096.08                  | 14.09                  | 118.27                    | 30.88                   | 1089.14             | -39.23                     | -39.23                | 52.29                 | 65.37                 | 126.88              | 0.50                  | MWD_M                | None                  |
| 37       | 1124.66                  | 14.01                  | 116.68                    | 28.58                   | 1116.87             | -42.43                     | -42.43                | 58.44                 | 72.22                 | 125.98              | 0.42                  | MWD_M                | None                  |
| 38       | 1153.50                  | 15.82                  | 116.95                    | 28.84                   | 1144.73             | -45.78                     | -45.78                | 65.07                 | 79.56                 | 125.13              | 1.91                  | MWD_M                | None                  |
| 39       | 1182.04                  | 19.92                  | 117.65                    | 28.54                   | 1171.89             | -49.80                     | -49.80                | 72.84                 | 88.24                 | 124.36              | 4.38                  | MWD_M                | None                  |
| 40       | 1210.10                  | 23.56                  | 117.60                    | 28.06                   | 1197.95             | -54.62                     | -54.62                | 82.05                 | 98.57                 | 123.65              | 3.95                  | MWD_M                | None                  |
| 41       | 1239.36                  | 25.76                  | 114.79                    | 29.26                   | 1224.54             | -59.99                     | -59.99                | 93.01                 | 110.68                | 122.82              | 2.60                  | MWD_M                | None                  |
| 42       | 1267.39                  | 29.36                  | 115.62                    | 28.03                   | 1249.39             | -65.52                     | -65.52                | 104.74                | 123.54                | 122.03              | 3.94                  | MWD_M                | None                  |
| 43       | 1294.27                  | 33.74                  | 116.12                    | 26.88                   | 1272.29             | -71.66                     | -71.66                | 117.39                | 137.53                | 121.40              | 4.98                  | MWD_M                | None                  |
| 44       | 1322.42                  | 33.97                  | 116.49                    | 28.15                   | 1295.67             | -78.61                     | -78.61                | 131.45                | 153.16                | 120.88              | 0.38                  | MWD_M                | None                  |
| 45       | 1350.13                  | 34.69                  | 115.42                    | 27.71                   | 1318.55             | -85.44                     | -85.44                | 145.50                | 168.73                | 120.42              | 1.03                  | MWD_M                | None                  |
| 46       | 1379.95                  | 34.59                  | 115.60                    | 29.82                   | 1343.08             | -92.74                     | -92.74                | 160.80                | 185.63                | 119.98              | 0.15                  | MWD_M                | None                  |
| 47       | 1408.27                  | 35.05                  | 116.50                    | 28.32                   | 1366.33             | -99.85                     | -99.85                | 175.32                | 201.76                | 119.66              | 0.74                  | MWD_M                | None                  |
| 48       | 1429.41                  | 34.97                  | 116.54                    | 21.14                   | 1383.65             | -105.26                    | -105.26               | 186.17                | 213.87                | 119.48              | 0.12                  | MWD                  | None                  |
| 49       | 1487.90                  | 35.17                  | 112.27                    | 58.49                   | 1431.53             | -119.14                    | -119.14               | 216.76                | 247.35                | 118.79              | 1.28                  | MWD                  | None                  |
| 50       | 1505.00                  | 35.50                  | 109.55                    | 17.10                   | 1445.48             | -122.67                    | -122.67               | 226.00                | 257.14                | 118.49              | 2.86                  | MWD_M                | None                  |
| 51       | 1517.15                  | 35.81                  | 105.68                    | 12.15                   | 1455.35             | -124.81                    | -124.81               | 232.75                | 264.10                | 118.20              | 5.71                  | MWD                  | None                  |
| 52       | 1543.44                  | 37.54                  | 107.13                    | 26.29                   | 1476.43             | -129.25                    | -129.25               | 247.81                | 279.49                | 117.54              | 2.24                  | MWD                  | None                  |
| 53       | 1569.82                  | 39.74                  | 109.42                    | 26.38                   | 1497.04             | -134.42                    | -134.42               | 263.44                | 295.75                | 117.03              | 3.03                  | MWD                  | None                  |
| 54       | 1600.60                  | 42.06                  | 111.11                    | 30.78                   | 1520.30             | -141.40                    | -141.40               | 282.34                | 315.77                | 116.60              | 2.55                  | MWD                  | None                  |
| 55       | 1629.46                  | 44.65                  | 112.85                    | 28.86                   | 1541.29             | -148.82                    | -148.82               | 300.71                | 335.52                | 116.33              | 3.01                  | MWD                  | None                  |
| 56       | 1657.18                  | 47.47                  | 114.86                    | 27.72                   | 1560.52             | -156.90                    | -156.90               | 318.96                | 355.46                | 116.19              | 3.49                  | MWD                  | None                  |
| 57       | 1686.89                  | 50.14                  | 117.99                    | 29.71                   | 1580.09             | -166.86                    | -166.86               | 338.97                | 377.81                | 116.21              | 3.65                  | MWD                  | None                  |
| 58       | 1715.23                  | 52.55                  | 119.95                    | 28.34                   | 1597.79             | -177.58                    | -177.58               | 358.32                | 399.91                | 116.36              | 3.07                  | MWD                  | None                  |
| 59       | 1744.26                  | 55.92                  | 121.19                    | 29.03                   | 1614.76             | -189.56                    | -189.56               | 378.60                | 423.41                | 116.60              | 3.69                  | MWD                  | None                  |
| 60       | 1773.52                  | 59.64                  | 122.89                    | 29.26                   | 1630.36             | -202.70                    | -202.70               | 399.57                | 448.05                | 116.90              | 4.15                  | MWD                  | None                  |

[(c)2008 IDEAL ID13\_OC\_08]

## SCHLUMBERGER Survey Report

| Seq<br># | Measured<br>depth<br>(m) | Incl<br>angle<br>(deg) | Azimuth<br>angle<br>(deg) | Course<br>length<br>(m) | TVD<br>depth<br>(m) | Vertical<br>section<br>(m) | Displ<br>+N/S-<br>(m) | Displ<br>+E/W-<br>(m) | Total<br>displ<br>(m) | At<br>Azim<br>(deg) | DLS<br>(deg/<br>100f) | Srvy<br>tool<br>type | Tool<br>Corr<br>(deg) |
|----------|--------------------------|------------------------|---------------------------|-------------------------|---------------------|----------------------------|-----------------------|-----------------------|-----------------------|---------------------|-----------------------|----------------------|-----------------------|
| 61       | 1804.17                  | 64.78                  | 123.05                    | 30.65                   | 1644.64             | -217.45                    | -217.45               | 422.31                | 475.01                | 117.24              | 5.11                  | MWD                  | None                  |
| 62       | 1832.79                  | 69.15                  | 123.30                    | 28.62                   | 1655.84             | -231.86                    | -231.86               | 444.35                | 501.21                | 117.56              | 4.66                  | MWD                  | None                  |
| 63       | 1860.88                  | 73.78                  | 123.07                    | 28.09                   | 1664.76             | -246.43                    | -246.43               | 466.64                | 527.71                | 117.84              | 5.03                  | MWD                  | None                  |
| 64       | 1889.08                  | 77.80                  | 122.38                    | 28.20                   | 1671.68             | -261.21                    | -261.21               | 489.63                | 554.95                | 118.08              | 4.40                  | MWD                  | None                  |
| 65       | 1919.55                  | 79.76                  | 122.50                    | 30.47                   | 1677.61             | -277.24                    | -277.24               | 514.85                | 584.75                | 118.30              | 1.96                  | MWD                  | None                  |
| 66       | 1946.54                  | 80.97                  | 122.53                    | 26.99                   | 1682.13             | -291.54                    | -291.54               | 537.29                | 611.29                | 118.49              | 1.37                  | PUP                  | None                  |
| 67       | 1973.95                  | 83.60                  | 122.37                    | 27.41                   | 1685.81             | -306.12                    | -306.12               | 560.21                | 638.39                | 118.65              | 2.93                  | PUP                  | None                  |
| 68       | 2011.18                  | 87.85                  | 121.02                    | 37.23                   | 1688.58             | -325.62                    | -325.62               | 591.79                | 675.46                | 118.82              | 3.65                  | PUP                  | None                  |

|                            |         |       |        |       |         |         |         |         |         |        |      |       |       |
|----------------------------|---------|-------|--------|-------|---------|---------|---------|---------|---------|--------|------|-------|-------|
| 69                         | 2031.41 | 89.37 | 120.87 | 20.23 | 1689.08 | -336.02 | -336.02 | 609.14  | 695.67  | 118.88 | 2.30 | PUP   | None  |
| 70                         | 2060.00 | 89.80 | 121.67 | 28.59 | 1689.28 | -350.85 | -350.85 | 633.57  | 724.23  | 118.98 | 0.97 | PUP   | None  |
| 71                         | 2089.29 | 89.46 | 120.38 | 29.29 | 1689.47 | -365.95 | -365.95 | 658.67  | 753.50  | 119.06 | 1.39 | PUP   | None  |
| 72                         | 2112.91 | 89.48 | 119.43 | 23.62 | 1689.69 | -377.73 | -377.73 | 679.14  | 777.12  | 119.08 | 1.23 | PUP   | None  |
| 73                         | 2148.38 | 93.04 | 121.22 | 35.47 | 1688.91 | -395.63 | -395.63 | 709.75  | 812.57  | 119.14 | 3.42 | PUP   | None  |
| 74                         | 2177.62 | 94.65 | 120.61 | 29.24 | 1686.95 | -410.62 | -410.62 | 734.78  | 841.73  | 119.20 | 1.79 | PUP   | None  |
| 75                         | 2204.98 | 96.37 | 120.79 | 27.37 | 1684.32 | -424.52 | -424.52 | 758.20  | 868.96  | 119.24 | 1.93 | PUP   | None  |
| 76                         | 2234.16 | 96.29 | 119.97 | 29.17 | 1681.11 | -439.19 | -439.19 | 783.21  | 897.95  | 119.28 | 0.86 | PUP   | None  |
| 77                         | 2262.48 | 94.85 | 119.65 | 28.32 | 1678.36 | -453.20 | -453.20 | 807.67  | 926.13  | 119.30 | 1.59 | PUP   | None  |
| 78                         | 2291.13 | 95.36 | 119.68 | 28.65 | 1675.81 | -467.32 | -467.32 | 832.46  | 954.67  | 119.31 | 0.54 | PUP   | None  |
| 79                         | 2321.31 | 95.04 | 119.36 | 30.18 | 1673.07 | -482.13 | -482.13 | 858.62  | 984.72  | 119.32 | 0.46 | PUP   | None  |
| 80                         | 2350.32 | 93.87 | 118.72 | 29.00 | 1670.82 | -496.16 | -496.16 | 883.90  | 1013.63 | 119.31 | 1.40 | PUP   | None  |
| 81                         | 2378.82 | 94.18 | 118.17 | 28.51 | 1668.82 | -509.71 | -509.71 | 908.90  | 1042.07 | 119.28 | 0.67 | PUP   | None  |
| 82                         | 2407.67 | 94.16 | 117.99 | 28.85 | 1666.72 | -523.25 | -523.25 | 934.29  | 1070.84 | 119.25 | 0.19 | PUP   | None  |
| 83                         | 2436.52 | 94.22 | 117.82 | 28.85 | 1664.61 | -536.72 | -536.72 | 959.72  | 1099.60 | 119.22 | 0.19 | PUP   | None  |
| 84                         | 2465.68 | 95.68 | 118.34 | 29.16 | 1662.10 | -550.39 | -550.39 | 985.35  | 1128.65 | 119.19 | 1.62 | PUP   | None  |
| 85                         | 2494.27 | 98.42 | 119.26 | 28.59 | 1658.59 | -564.06 | -564.06 | 1010.21 | 1157.02 | 119.18 | 3.08 | PUP   | None  |
| 86                         | 2517.00 | 98.30 | 119.30 | 22.73 | 1655.28 | -575.06 | -575.06 | 1029.82 | 1179.50 | 119.18 | 0.17 | Proj. | To TD |
| [(c)2008 IDEAL ID13_OC_08] |         |       |        |       |         |         |         |         |         |        |      |       |       |



Company: Santos Limited

Well: Netherby 1DW1

Field: Otway

Rig: Ocean Patriot

State: Victoria

EcoScope \* Density Neutron  
1:200 True Vertical Depth  
Recorded Mode Log