

Schlumberger

Company: **Santos Ltd**

12.25 in. Section

Netherby-1

Field: Otway

Rig: Ocean Patriot

State:

Victoria

VISION Service
1:500 Measured Depth
Recorded Mode Log

| | | | | |
|--------------------|----------------------|------|-------------------------------------|--|
| Rig: | Ocean Patriot | | | |
| Field: | Otway | | | |
| Location: | Otway Basin | | | |
| Well: | Netherby-1 | | | |
| Company: | Santos Ltd | | | |
| Location | | | | |
| Total depth: | 1875.0 m | | K.B. Top Drive | |
| Spud date: | 15-July-08 | | G.L. -66.1 m | |
| Runs: | 2 | To 4 | D.F. 20.8 m | |
| Permanent datum: | Mean Sea Level | | Elev.: 0.0 m | |
| Log measured from: | Drill Floor | | 20.8 m above Perm. datum | |
| Depth reference: | Driller's Depth | | | |
| Job Number: | X = E 642,694.06 m | | Longitude Latitude | |
| 08ASQ0003 | Y = N 5,717,438.49 m | | E 142° 38' 25.745"S 38° 40' 48.578" | |

| | | | | |
|---------------|------------------------|-----------|-------------|-----------------|
| Depth logged: | 1750.0 m To 1852.4 m | Mag decl: | 10.777 deg. | Other services: |
| Date logged: | 21-Jul-08 To 31-Jul-08 | Mag dip: | -69.86 deg. | See Remarks |

| Bore hole record | | | Casing record | | | |
|------------------|---------|----------|---------------------------|-------------|---------|----------|
| Hole size | from | to | Size | Density | from | to |
| 36.0 in. | 88.0 m | 130.9 m | 30.0 in. | 310.0 lbm/m | 88.0 m | 130.9 m |
| 17.5 in. | 130.9 m | 647.5 m | 13.375 in. | 223.0 lbm/m | 88.0 m | 642.0 m |
| 12.25 in. | 647.5 m | 1875.0 m | | | | |
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| | | | | | | |
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| | | | | | | |
| Mud record | | | Borehole deviation record | | | |
| Type | from | to | M/in | Max | from | to |
| Sea Water | 88.0 m | 969.0 m | 0.34 deg. | 0.94 deg. | 130.9 m | 647.5 m |
| KCl/HPA/Glycol | 969.0 m | 1875.0 m | 0.52 deg. | 35.39 deg. | 647.5 m | 1875.0 m |
| | | | | | | |

| Surface equipment | Software record |
|-------------------|-----------------|
|-------------------|-----------------|

| | | | | |
|------|------------|-----------|------------|--|
| Unit | A3518-1/06 | IDEAL wis | ID13_OC_08 | |
|------|------------|-----------|------------|--|

| Depth system | Geolograph+GTE+CLT | SPM | HSPM13_0c_03 |
|--------------|--------------------|-----|--------------|
| | | | |

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|--|-----|-------------|--|
| | | | |
| | LWD | See Remarks | |

| | | | |
|--|-----|-------------|--|
| | MWD | See Remarks | |
| | | | |

Bit Run Summary

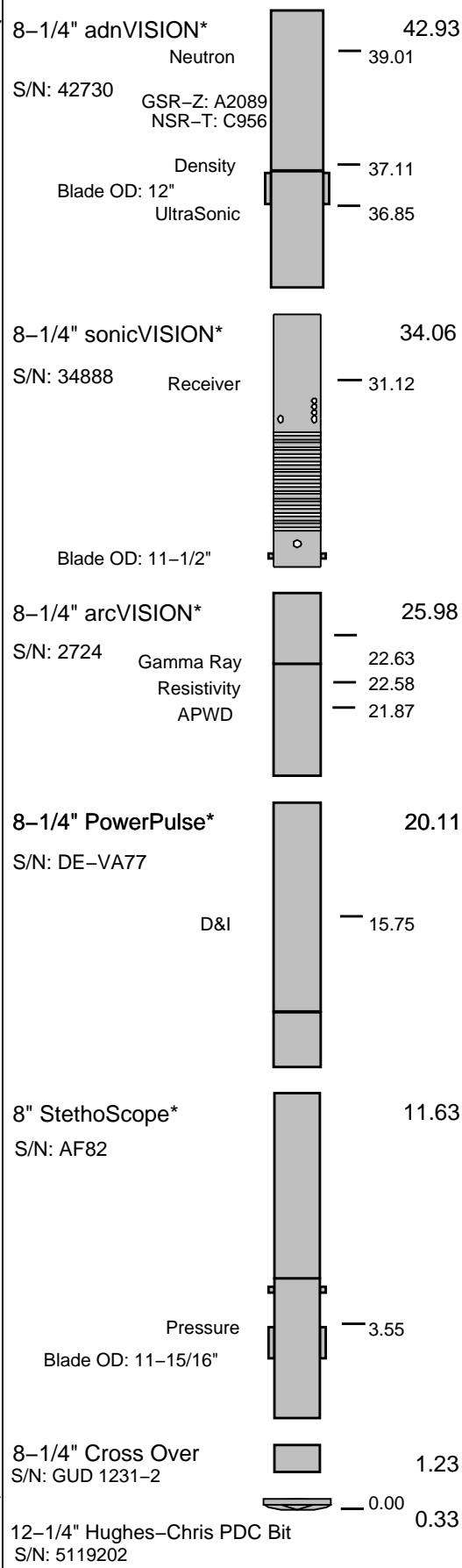
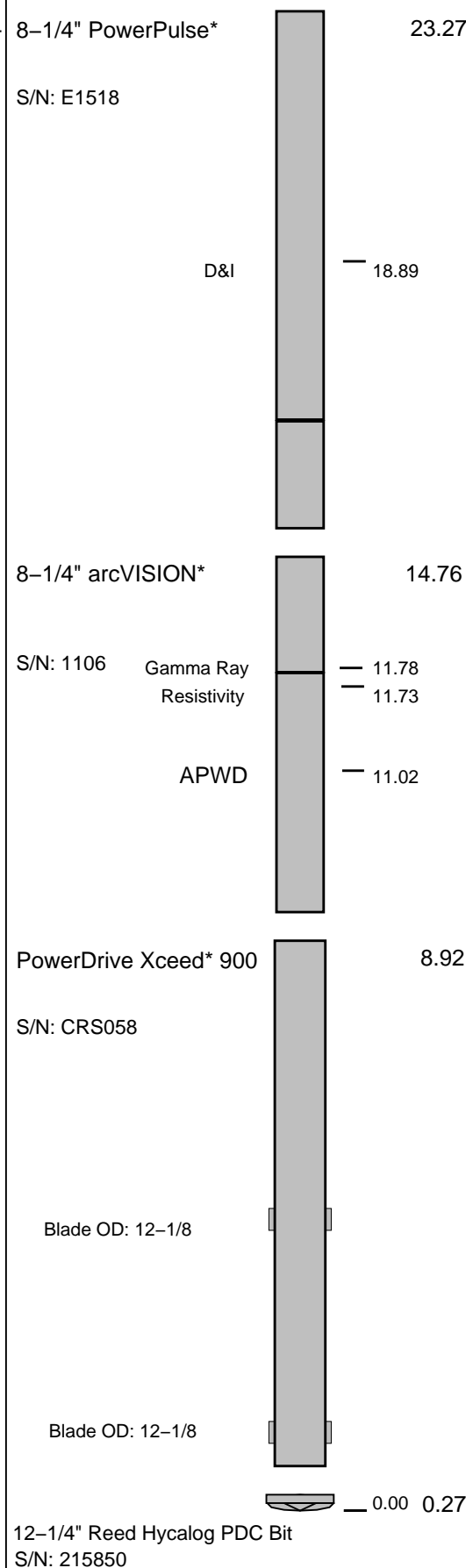
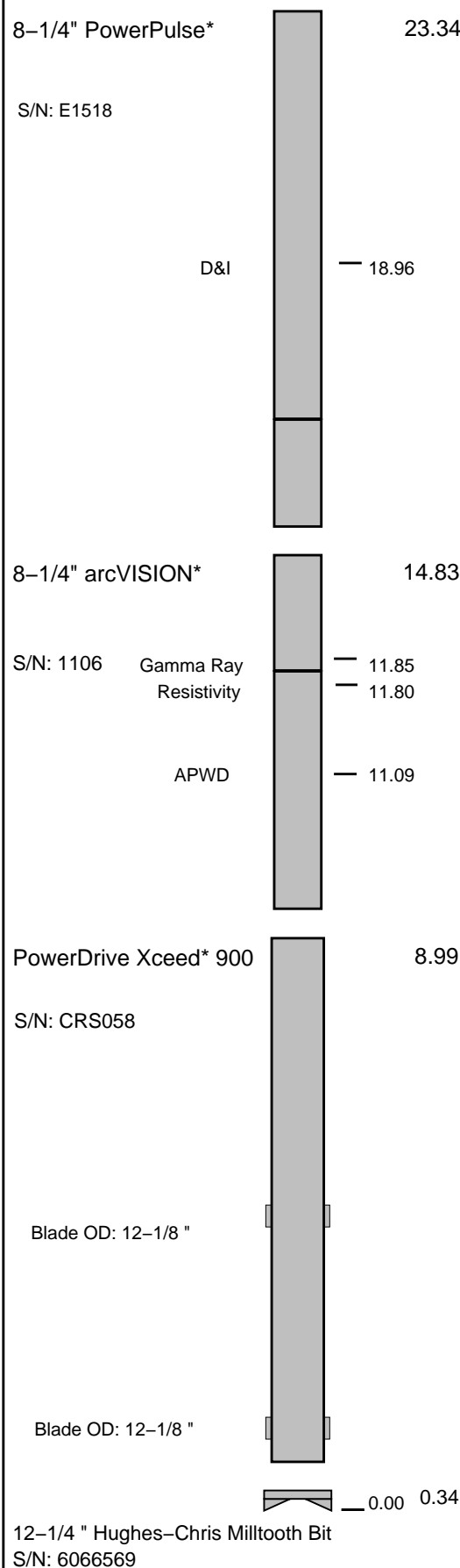
| Run number | | 2 | 3 | 4 | | | | | | |
|------------------------|----------|------------|------------|-------------|--|--|--|--|--|--|
| Bit size | in | 12.25 | 12.25 | 12.25 | | | | | | |
| Bit start depth | m | 647.5 | 1421.0 | 1870.0 | | | | | | |
| Bit end depth | m | 1421.0 | 1870.0 | 1875.0 | | | | | | |
| Top interval logged | m | 642.0 | 1409.9 | 1750.0 | | | | | | |
| Bottom interval logged | m | 1409.9 | 1859.0 | 1838.0 | | | | | | |
| Begin log: time | | 06:00 | 21:45 | 12:00 | | | | | | |
| Begin log: date | | 21-Jul-08 | 23-Jul-08 | 30-Jul-08 | | | | | | |
| End log: time | | 16:05 | 23:10 | 23:00 | | | | | | |
| End log: date | | 23-Jul-08 | 24-Jul-08 | 31-Jul-08 | | | | | | |
| Mud data | | | | | | | | | | |
| Depth | m | 1421.0 | 1870.0 | 1875 | | | | | | |
| Type | | KCl/Glycol | KCl/Glycol | KCl/Glycol | | | | | | |
| Mud weight | ppg | 9.4 | 11.0 | 11.0 | | | | | | |
| Solids | % | 8.20 | 10.75 | 10.75 | | | | | | |
| Chlorides | mg/L | 47000 | 48000 | 45000 | | | | | | |
| Rm | ohm.m@°C | 0.098@19.5 | 0.110@21.6 | 0.1285@15.4 | | | | | | |
| Rmf | ohm.m@°C | 0.095@20.0 | 0.087@21.7 | 0.1054@15.2 | | | | | | |
| Rmc | ohm.m@°C | 0.100@20.1 | 0.129@21.6 | 0.1490@15.6 | | | | | | |

| | | | | | | | | | | |
|---------------------------|-----|-------------|----------|----------|-----------|------------|--|--|--|--|
| Potassium | % | 4.723 | 4.513 | 4.356 | | | | | | |
| Environmental data | | | | | | | | | | |
| GR | | | | | | | | | | |
| Mud weight | ppg | 9.4 | 11.0 | 11.0 | | | | | | |
| Bit size | in | 12.25 | 12.25 | 12.25 | | | | | | |
| Resistivity | | | | | | | | | | |
| Neutron porosity | | | | | | | | | | |
| Hole Size | in | 12.25 | 12.25 | 12.25 | | | | | | |
| Mud weight | ppg | 9.4 | 11.0 | 11.0 | | | | | | |
| Temperature | °C | 56 | 77 | 77 | | | | | | |
| Mud salinity | ppk | n/a | n/a | 72.75 | | | | | | |
| Formation salinity | n/a | n/a | n/a | n/a | | | | | | |
| Recording rate 1 | SEC | 6 | 6 | 6 (ARC) | | | | | | |
| Recording rate 2 | SEC | n/a | n/a | 5 (SADN) | | | | | | |
| Filtering GR | | 3 Points | 3 Points | 3 Points | | | | | | |
| Filtering density | | n/a | n/a | 3 Points | | | | | | |
| Filtering Neutron | | n/a | n/a | 3 Points | | | | | | |
| Company representative | | C. Roots | N. Peri | | | | | | | |
| Anadrill personnel | | J. Oldridge | Z. Rudd | A. Kohli | A. Stroud | A. Partono | | | | |

| | | |
|--|--|--|
| <p style="text-align: center;">DISCLAIMER</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> | | |
| OTHER SERVICES FOR RUN2 Directional Drilling Direction Surveys Shock & Vibrations APWD | OTHER SERVICES FOR RUN3 Directional Drilling Direction Surveys Shock & Vibrations APWD | OTHER SERVICES FOR RUN4 Directional Drilling Direction Surveys Shock & Vibrations APWD |
| REMARKS: RUN NUMBER 2 Depth is referenced to Driller's Depth Gamma Ray is corrected for mud weight, bit size, tool collar size and potassium content in mud. Resistivity is borehole compensated and environmentally corrected for bit size, mud resistivity and temperature. POOH to change bit | REMARKS: RUN NUMBER 3 Depth is referenced to Driller's Depth Gamma Ray is corrected for mud weight, bit size, tool collar size and potassium content in mud. Resistivity is borehole compensated and environmentally corrected for bit size, mud resistivity and temperature. POOH at Well TD | REMARKS: RUN NUMBER 4 Depth is referenced to Driller's Depth Gamma Ray is corrected for mud weight, bit size, tool collar size and potassium content in mud. Resistivity is borehole compensated and environmentally corrected for bit size, mud resistivity and temperature. Thermal neutron porosity (TNPH) is corrected for bit size, temperature, mud salinity and mud hydrogen index (a factor of mud weight, mud pressure, and mud temperature). Neutron porosity is calculated using a limestone matrix density of 2.71 gg/cm3. Reamed down from 1750–1870m to relog. Drilled from 1870–1875m . POOH at completion of logging. |

| EQUIPMENT DESCRIPTION | | |
|------------------------------|--------------------|--------------------|
| RUN2 | RUN3 | RUN4 |
| DOWNHOLE EQUIPMENT | DOWNHOLE EQUIPMENT | DOWNHOLE EQUIPMENT |

DOWNHOLE EQUIPMENT



| Variable Name | Variable Description | Run Name & Value | | | |
|-----------------|---|------------------|--------------|--------------|--------------|
| | Run Number | | 2 | 3 | 4 |
| | General Information | | | | |
| BHT_RM | Bottom Hole Temperature (RM) | DEGC | 56.000 | 77.000 | 63.000 |
| BSAL_RM | Mud Salinity (RM) | PPK | 0.000 | 0.000 | 72.750 |
| BS_RM | Bit Size (RM) | IN | 12.250 | 12.250 | 12.250 |
| COEF_M | User Defined FEXP in Clean Sand | ---- | 1.650 | 1.650 | 1.650 |
| C_WS | Overpressure correction to Sw and M | ---- | 1.000 | 1.000 | 1.000 |
| FEXP | Formation Factor Exponent (RM) | ---- | 2.000 | 2.000 | 2.000 |
| FNUM | Formation Factor Enumerator (RM) | ---- | 1.000 | 1.000 | 1.000 |
| FPHI_RM | Formation Factor Porosity Source (RM) | ---- | XPLOT | XPLOT | XPLOT |
| MST_RM | Mud Sample temperature (RM) | DEGC | 19.500 | 21.600 | 15.400 |
| MW_RM | Mud Weight (RM) | LB/G | 9.400 | 11.000 | 11.100 |
| OBMF_RM | Oil Based Mud (RM) | ---- | NO | NO | NO |
| RHOF_RM | Mud Filtrate Density (RM) | G/C3 | 1.000 | 1.000 | 1.000 |
| RHOM_RM | Matrix density (RM) | G/C3 | 2.710 | 2.710 | 2.710 |
| RMS_RM | Resistivity of Mud Sample (RM) | OHMM | 0.098 | 0.110 | 0.128 |
| 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 | 1.000 |
| SHT_RM | Ground Level Temperature (Mud-Line When Offshore) (RM) | DEGC | 10.000 | 10.000 | 10.000 |
| TD_RM | Total Measured Depth (RM) | M | 1421.000 | 1870.000 | 1875.000 |
| TWS_RM | Temperature of Connate Water (RM) | DEGC | 23.889 | 23.889 | 23.889 |
| VF_ILLI | Fraction of illite in shales | ---- | 0.500 | 0.500 | 0.500 |
| VF_KAOL | Fraction of kaolinite in shales | ---- | 0.500 | 0.500 | 0.500 |
| VF_MONT | Fraction of montmorillonite in shales | ---- | 0.000 | 0.000 | 0.000 |
| XPDM_RM | Cross plot density porosity multiplier | ---- | 0.675 | 0.675 | 0.675 |
| XPNM_RM | Cross plot neutron porosity multiplier | ---- | 0.325 | 0.325 | 0.325 |
| | ARC | | | | |
| A12A | ARC Air Cal Attenuation From T1 at 2 MHz | DB | 8.020 | 8.020 | 8.267 |
| A14A | ARC Air Cal Attenuation From T1 at 400 KHz | DB | 7.994 | 7.994 | 8.197 |
| A22A | ARC Air Cal Attenuation From T2 at 2 MHz | DB | 6.677 | 6.677 | 6.374 |
| A24A | ARC Air Cal Attenuation From T2 at 400 KHz | DB | 6.710 | 6.710 | 6.450 |
| A32A | ARC Air Cal Attenuation From T3 at 2 MHz | DB | 4.724 | 4.724 | 4.991 |
| A34A | ARC Air Cal Attenuation From T3 at 400 KHz | DB | 4.692 | 4.692 | 4.915 |
| A42A | ARC Air Cal Attenuation From T4 at 2 MHz | DB | 4.625 | 4.625 | 4.337 |
| A44A | ARC Air Cal Attenuation From T4 at 400 KHz | DB | 4.657 | 4.657 | 4.410 |
| A52A | ARC Air Cal Attenuation From T5 at 2 MHz | DB | 3.309 | 3.309 | 3.582 |
| A54A | ARC Air Cal Attenuation From T5 at 400 KHz | DB | 3.289 | 3.289 | 3.513 |
| ABNT | Abnormal Transmitter Indicator | ---- | No_Tx_Failed | No_Tx_Failed | No_Tx_Failed |
| ADHS | ARC Down Hole Software Version | ---- | 9.3B13 | 9.3B13 | 9.3B13 |
| AM2A | ARC Air Cal Amplitude Offset at 2 MHz | ---- | -50000.000 | -50000.000 | -50000.000 |
| ANISO_COMPUTE | Anisotropy Computation Option | ---- | YES | YES | YES |
| APICG | ARC5 Gamma Ray Gain Factor | ---- | 1.054 | 1.054 | 1.078 |
| APIG | ARC Gamma Ray API Gain Factor | ---- | -1.000 | -1.000 | -1.000 |
| ARC_DATA_FIX | ARC: Create A Corrected ARC Time Data File | ---- | NO | NO | NO |
| ARC_DATA_LTB | ARC: Create An ARC LTB Data File | ---- | NO | NO | NO |
| ATMP_ARC | ARC Select Temperature Channel | ---- | Annulus_Temp | Annulus_Temp | Annulus_Temp |
| ATRN | ARC Tool Run Number | ---- | 1 | 2 | 1 |
| ATSN | ARC Tool Serial Number | ---- | 1106 | 1106 | 2724 |
| AZMF | Formation DIP Azimuth | DEG | 0.000 | 0.000 | 0.000 |
| BH_COMPUTE | Borehole Inversion Computation Option | ---- | YES | YES | YES |
| CALG | ARC Gamma Ray Cal Gain Factor | ---- | 1.054 | 1.054 | 1.078 |
| CALI_SLCT_ARC | ARC Caliper Selection | ---- | BITSIZE | BITSIZE | BITSIZE |
| CDPTH_ARC | Process Start Depth | M | 30.480 | 30.480 | 30.480 |
| DIELEC_COMPUTE | Dielectric Computation Option | ---- | YES | YES | YES |
| DIPF | Formation DIP Angle | DEG | 0.000 | 0.000 | 0.000 |
| ERRCT | Percentage Error Cutoff | ---- | 4.500 | 4.500 | 4.500 |
| GRSH | GR Shale (Invasion Computation Cutoff) | GAPI | 1000.000 | 1000.000 | 1000.000 |
| HIGH_BLEND | High Resistivity Threshold for Blending | OHMM | 2.000 | 2.000 | 2.000 |
| INCLIN_B0 | ARC Bias Constant (mg) | ---- | 0.000 | 0.000 | 0.000 |
| INCLIN_B1 | ARC Bias First-order Coefficient (mg/degC) | ---- | 0.000 | 0.000 | 0.000 |
| INCLIN_B2 | ARC Bias Secod-order Coeeficient (mg/degC) | ---- | 0.000 | 0.000 | 0.000 |
| INCLIN_B3 | ARC Bias Third-order Coeeficient (mg/degC) | ---- | 0.000 | 0.000 | 0.000 |
| INCLIN_C0 | ARC Current Scale Factor Constant (mA/g) | ---- | 1.000 | 1.000 | 1.000 |
| INCLIN_C1 | ARC Scale First-order Coefficient (mA/g/degC) | ---- | 0.000 | 0.000 | 0.000 |
| INCLIN_C2 | ARC Scale Second-order Coeeficient (mA/g/degC) | ---- | 0.000 | 0.000 | 0.000 |
| INCLIN_C3 | ARC Scale Third-order Coeeficient (mA/g/degC) | ---- | 0.000 | 0.000 | 0.000 |
| INVAS_COMPUTE | Invasion Computation Option | ---- | YES | YES | YES |
| JSD_ARC | ARC Acquisition start date | ---- | 21-Jul-08 | 23-Jul-08 | 30-Jul-08 |
| KPER | Potassium Concentration (RM) | ---- | 4.723 | 4.513 | 4.356 |
| LOW_BLEND | Low Resistivity Threshold for Blending | OHMM | 1.000 | 1.000 | 1.000 |
| MSWS | ARC Wizard Model Switch Window | M | 1.524 | 1.524 | 1.524 |
| MULTIEFFECT_COM | Multi Effect Option | ---- | YES | YES | YES |
| P11AC_RM | ARC: Air Calibration For Phase T1 to R1 | DEG | -999.250 | -999.250 | -999.250 |
| P12A | ARC Air Cal Phase-Shift From T1 at 2 MHz | DEG | 1.960 | 1.960 | -1.295 |
| P14A | ARC Air Cal Phase-Shift From T1 at 400 KHz | DEG | 0.491 | 0.491 | 1.663 |
| P22A | ARC Air Cal Phase-Shift From T2 at 2 MHz | DEG | -1.862 | -1.862 | 1.364 |
| P24A | ARC Air Cal Phase-Shift From T2 at 400 KHz | DEG | -0.572 | -0.572 | -1.688 |
| P32A | ARC Air Cal Phase-Shift From T3 at 2 MHz | DEG | 1.851 | 1.851 | -1.375 |
| P34A | ARC Air Cal Phase-Shift From T3 at 400 KHz | DEG | 0.506 | 0.506 | 1.672 |
| P42A | ARC Air Cal Phase-Shift From T4 at 2 MHz | DEG | -1.940 | -1.940 | 1.321 |
| P44A | ARC Air Cal Phase-Shift From T4 at 400 KHz | DEG | -0.578 | -0.578 | -1.701 |
| P52A | ARC Air Cal Phase-Shift From T5 at 2 MHz | DEG | 1.831 | 1.831 | -1.400 |
| P54A | ARC Air Cal Phase-Shift From T5 at 400 KHz | DEG | 0.511 | 0.511 | 1.648 |

| | | | | | |
|-----------------|--|------|------------|------------|------------|
| POFFSET_ARC | ARC: Pressure Offset | PSI | 0.000 | 0.000 | 0.000 |
| PRTD | Preferred Resistivity Log for Rt Display while Multi-Effects | ---- | P34B | P34B | P34B |
| PSOF_ADJ_T1 | ARC: User Input Phase offset | DEG | 0.000 | 0.000 | 0.000 |
| RESTIK | ARC resistivity tick source | ---- | Phase | Phase | Phase |
| RSD | LWD run start date dd-mmm-yy | ---- | 21-Jul-08 | 23-Jul-08 | 30-Jul-08 |
| RWA_COMP_MOD | Rwa computation model | ---- | BASIC | BASIC | BASIC |
| RWA_DEN_ADN | Rwa Density Input | ---- | RHOB | RHOB | RHOB |
| RWA_DEN_CDN | Rwa Density Input | ---- | RHOB | RHOB | RHOB |
| RWA_DEN_INPUT | Rwa Density Input | ---- | RHOB | RHOB | RHOB |
| RWA_FORM_MOD | Rwa computation formation model | ---- | CLASTIC | CLASTIC | CLASTIC |
| RWA_RES_INPUT | Rwa computation resistivity input | ---- | RT | RT | RT |
| SHIG | ARC High Shock Risk Level | CPS | 0.500 | 0.500 | 0.500 |
| SMED | ARC Medium Shock Risk Level | CPS | 0.330 | 0.330 | 0.330 |
| SMIN | ARC Minimum Shock Risk Level | CPS | 0.160 | 0.160 | 0.160 |
| SUPD | ARC Real Time Shock Update Rate | S | 30.000 | 30.000 | 30.000 |
| TCODE_ARC | ARC Tool File Code | S | 30.000 | 30.000 | 30.000 |
| TSIZ_ARC | ARC Tool Size | IN | 8.250 | 8.250 | 8.250 |
| UNIFORM_COMPUTE | Uniform Rock Option | ---- | YES | YES | YES |
| VERS_ARC | ARC Down hole software version Number | ---- | 9.300 | 9.300 | 9.300 |
| WRK | to Report Potassium Concentration (RM) | ---- | K_by_Wgt_% | K_by_Wgt_% | K_by_Wgt_% |
| SAD | | | | | |
| ADN_CHASSIS_STR | Type String | | Chassis | ADN | |
| ADN_COLLAR_STR | Type String | | Collar | ADN | |
| ADN_DATA_FIX | ADN: Create A Corrected ADN Time Data File | | ---- | NO | |
| ADN_DATA_LTB | ADN: Create An ADN LTB Data File | | ---- | NO | |
| ADN_STAB_STR | ADN Stabilizer Type String | | ---- | NO | |
| ALPHA_COMPUTE_D | Perform Density Enhanced Vertical Resolution process ? | | ---- | NO | |
| ALPHA_COMPUTE_N | Perform Neutron Enhanced Vertical Resolution process ? | | ---- | NO | |
| AVE_ADN | ADN/Array Channels: perform averaging(RM) : | | ---- | YES | |
| A_DHS | ADN Down Hole Software Version String | | ---- | YES | |
| CHI_RM | Caliper High limit from BS (RM) | | IN | 3.000 | |
| CLO_RM | Caliper Low limit from BS (RM) | | IN | 0.000 | |
| DEVI | Well Section Deviation | | DEG | 21.560 | |
| DTIK_SEL | ADN: Density Tick Channel Name | | ---- | LSAZ | |
| DTMUD | Delta-T for Mud | | US/F | 189.270 | |
| DYN_IMG_COMPUTE | Generate Dynamic Normalized Image? | | ---- | NO | |
| ENVCOR | Neutron Processing: Environmental Correction? | | ---- | YES | |
| EVRL | EVR Process averaging number of samples (RM) | | ---- | 49 | |
| FAZ1_AVAIL | ADN8 Neutron Far Tube 1 Available? | | ---- | YES | |
| FAZ2_AVAIL | ADN8 Neutron Far Tube 2 Available? | | ---- | YES | |
| FAZ3_AVAIL | ADN8 Neutron Far Tube 3 Available? | | ---- | YES | |
| FCD | Future Casing (Outer) Diameter | | IN | 0.000 | |
| GCSE | Generalized Caliper Selection | | ---- | BS | |
| IDQT | Image Derived Quality Threshold | | ---- | 1.000 | |
| IHVS | Integrated Hole Volume Start Value(RM) | | F3 | 0.000 | |
| IMAGE_MAX_SOA | Image SOA (Quadrant) Right Scale | | IN | 2.500 | |
| IMAGE_MAX_SPEF | Image PEF(Segment) Right Scale | | ---- | 6.000 | |
| IMAGE_MAX_SRHOB | Image RHOB(Segment) Right Scale | | G/C3 | 2.650 | |
| IMAGE_MIN_SOA | Image SOA (Quadrant) Left Scale | | IN | 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_ADN | ADN Acquisition start date | | ---- | 30-Jul-08 | |
| LITHO_TYPE_ADN | Lithology (RM) | | ---- | LIME | |
| N1FTU_6_RM | ADN: Neutron Bank 1 Far Tubes used : | | ---- | 1-2-3 | |
| N2FTU_6_RM | ADN: Neutron Bank 2 Far Tubes used : | | ---- | 1-2-3 | |
| NNTU_8_RM | ADN: Neutron Near Tube used : | | ---- | 1-2-3 | |
| NTIK_SEL | ADN: Neutron Tick Channel Name | | ---- | FAZ1 | |
| SOCNL | Standoff Distance of the CNL Tool | | ---- | 1.000 | |
| SSIZ_ADN | ADN Stabilizer Size | | IN | 12.000 | |
| STOH | ADN Density Top of Hole Sector (Left Boundary): | | ---- | SECTOR_0 | |
| TRPM_RM | Average Tool Rotational Speed | | RPM | 20.000 | |
| USMIN_RM | ADN:Minimum Ultrasonic standoff (RM) | | IN | 0.180 | |
| USWF_RM | ADN:Process Ultrasonic Waveform? | | ---- | YES | |
| VERS_ADN | ADN Downhole Software Version | | ---- | V8.3A02 | |
| WSDI | Window Size of Dynamic Normalization Image | | M | 4.572 | |

Schlumberger Drilling & Measurements

ID13 Parameter Insert Header Software version 3.0c

VISION Service RM 500MD

IDF

ARC8A-AA id13_0c_02 MWD_10 id13_0c_02

Format: VISION Service RM Log Vertical Scale: 1:500 Graphics File Created: 22-Aug-2008 22:06

PIP SUMMARY

Density Samples 

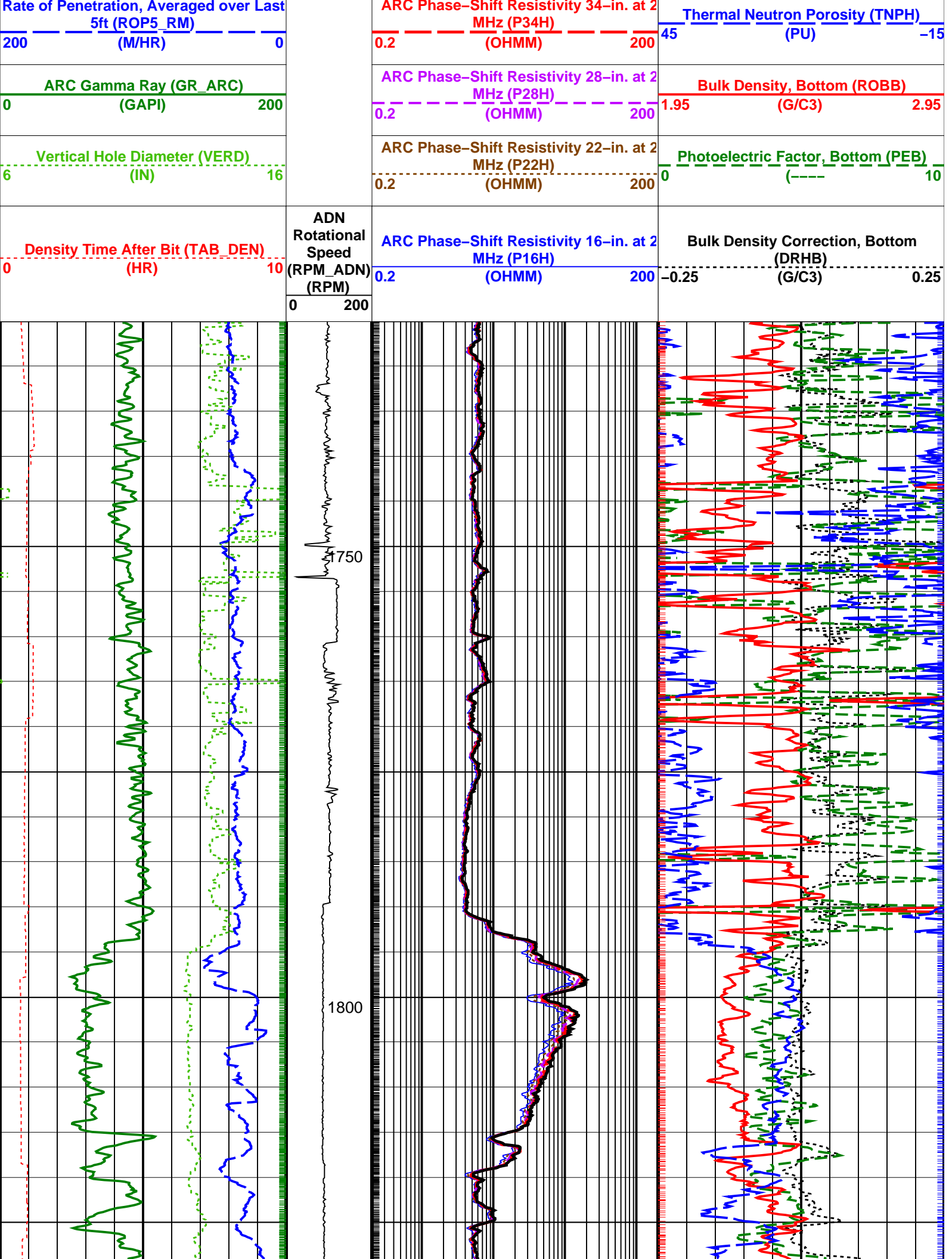
Neutron Samples 

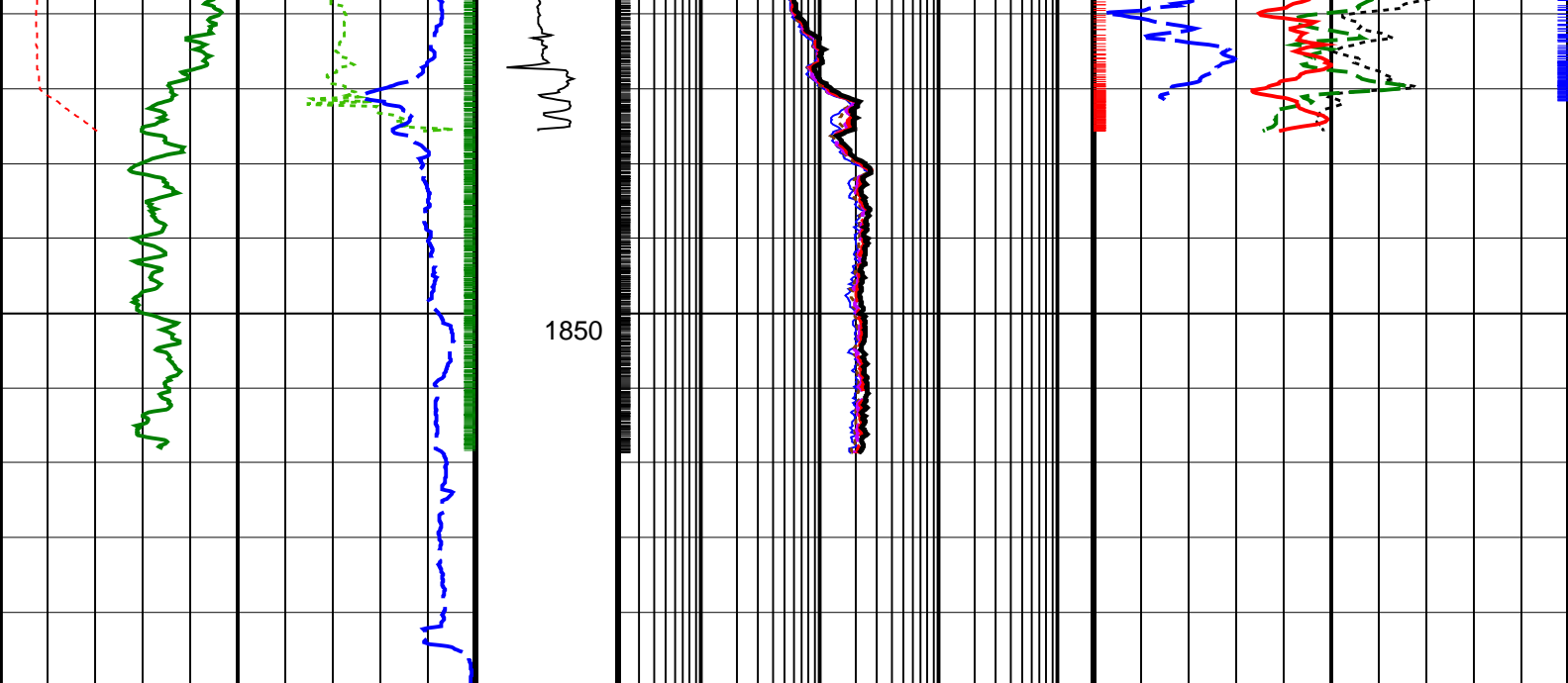
 ARC Gamma Ray Samples

 ARC Resistivity Samples

ARC Phase-Shift Resistivity 40-in. at 2
MHz (P40H)

0.2 (OHMM) 200















| | | | |
|---|--|---|---|
| Density Time After Bit (TAB_DEN) (HR) 0 10 | ADN Rotational Speed (RPM_ADN) (RPM) 0 200 | ARC Phase-Shift Resistivity 16-in. at 2 MHz (P16H) 0.2 (OHMM) 200 | Bulk Density Correction, Bottom (DRHB) -0.25 (G/C3) 0.25 |
| Vertical Hole Diameter (VERD) (IN) 6 16 | | ARC Phase-Shift Resistivity 22-in. at 2 MHz (P22H) 0.2 (OHMM) 200 | Photoelectric Factor, Bottom (PEB) (-----) 0 10 |
| ARC Gamma Ray (GR_ARC) (GAPI) 0 200 | | ARC Phase-Shift Resistivity 28-in. at 2 MHz (P28H) 0.2 (OHMM) 200 | Bulk Density, Bottom (ROBB) (G/C3) 1.95 2.95 |
| Rate of Penetration, Averaged over Last 5ft (ROP5_RM) (M/HR) 200 0 | | ARC Phase-Shift Resistivity 34-in. at 2 MHz (P34H) 0.2 (OHMM) 200 | Thermal Neutron Porosity (TNPH) (PU) 45 -15 |
| | | ARC Phase-Shift Resistivity 40-in. at 2 MHz (P40H) 0.2 (OHMM) 200 | |

| | | | |
|--------------------|--|-------------------------|---|
| PIP SUMMARY | | | |
| | | Density Samples | + |
| | | Neutron Samples | + |
| | | ARC Gamma Ray Samples | + |
| | | ARC Resistivity Samples | + |

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

| | | | |
|---|-----------|------|--|
| 8.25-in. Array Resistivity Compensated / Equipment Identification | | | |
| Primary Equipment: | | | |
| Tool Name and Serial Number | ARC8 - AA | 8084 | |
| ARC825 Calibration Status | Valid | | |




| | | | |
|--|--|--|--|
| Master: 16-Jul-2008 15:02 | | | |
| 8.25-in. Array Resistivity Compensated Calibration | | | |
| Resistivity: Air | | | |

| | | | | | | | | | | | |
|--|---|--|-------|--------------------|---|--|-------|--------------------|---|--|-------|
| Master: 16-Jul-2008 15:02 | | | | | | | | | | | |
| 8.25-in. Array Resistivity Compensated Calibration | | | | | | | | | | | |
| Resistivity: Air | | | | | | | | | | | |
| Phase | Attenuation T1 | | Value | Phase | Attenuation T2 | | Value | Phase | Attenuation T3 | | Value |
| Master |  | | 8.020 | Master |  | | 6.677 | Master |  | | 4.724 |
| 6.500 (Minimum) | | | | 4.500 (Minimum) | | | | 2.500 (Minimum) | | | |
| 8.500 (Nominal) | | | | 6.500 (Nominal) | | | | 4.500 (Nominal) | | | |
| 10.50 (Maximum) | | | | 8.500 (Maximum) | | | | 6.500 (Maximum) | | | |
| Phase | Attenuation T4 | | Value | Phase | Attenuation T5 | | Value | Phase | Attenuation T1 at 400KHz | | Value |
| Master |  | | 4.625 | Master |  | | 3.309 | Master |  | | 7.994 |
| 2.600 (Minimum) | | | | 1.600 (Minimum) | | | | 6.500 (Minimum) | | | |
| 4.600 (Nominal) | | | | 3.600 (Nominal) | | | | 8.500 (Nominal) | | | |
| 6.600 (Maximum) | | | | 5.600 (Maximum) | | | | 10.50 (Maximum) | | | |
| Phase | Attenuation T2 at 400KHz | | Value | Phase | Attenuation T3 at 400KHz | | Value | Phase | Attenuation T4 at 400KHz | | Value |
| Master |  | | 6.710 | Master |  | | 4.692 | Master |  | | 4.657 |
| 4.500 (Minimum) | | | | 2.500 (Minimum) | | | | 2.600 (Minimum) | | | |
| 6.500 (Nominal) | | | | 4.500 (Nominal) | | | | 4.600 (Nominal) | | | |
| 8.500 (Maximum) | | | | 6.500 (Maximum) | | | | 6.600 (Maximum) | | | |
| Phase | Attenuation T5 at 400KHz | | Value | | | | | | | | |
| Master |  | | 3.289 | | | | | | | | |
| 1.600 (Minimum) | | | | | | | | | | | |
| 3.600 (Nominal) | | | | | | | | | | | |
| 5.600 (Maximum) | | | | | | | | | | | |

| 8.25-in. Stabilized Azimuthal Density Neutron / Equipment Identification | | |
|--|------------|---|
| Primary Equipment: | | |
| Tool Name and Serial Number | SADN - AA | |
| Collar Type and Serial Number | NDDC - CA | |
| Chassis Type and Serial Number | ADSE - GA | |
| Stabilizer Type and Serial Number | - | 1 |
| Neutron Logging Source | NSR - T | |
| Density Logging Source | GSR - Z | |
| Stabilizer Size | 12.0 - in. | |
| Calibration Status | - | |

| |
|---|
| Master: 30-May-2008 17:25 |
| 8.25-in. Stabilized Azimuthal Density Neutron Calibration |




Density: Aluminum Block

| Phase | LS window 3 – Al CPS | | Value | Phase | SS window 1 – Al CPS | | Value | Phase | SS window 3 – Al CPS | | Value |
|--------|--|--------------------|--------------------|--------|--|-------------------|-------------------|--------|--|-------------------|-------------------|
| Master |  | | 149.1 | Master |  | | 2075 | Master |  | | 2655 |
| | 10.00 (Minimum) | 110.0 (Nominal) | 200.0 (Maximum) | | 200.0 (Minimum) | 1650 (Nominal) | 3000 (Maximum) | | 200.0 (Minimum) | 1930 (Nominal) | 4000 (Maximum) |

Master: 30–May–2008 17:25

8.25–in. Stabilized Azimuthal Density Neutron Calibration



Density: Background

| Phase | LS window 3 – Background CPS | | Value | Phase | SS window 1 – Background CPS | | Value | Phase | SS window 3 – Background CPS | | Value |
|--------|---|--------------------|--------------------|--------|---|--------------------|--------------------|--------|---|--------------------|--------------------|
| Master |  | | 71.27 | Master |  | | 103.3 | Master |  | | 237.4 |
| | 17.00 (Minimum) | 90.00 (Nominal) | 170.0 (Maximum) | | 20.00 (Minimum) | 120.0 (Nominal) | 200.0 (Maximum) | | 50.00 (Minimum) | 260.0 (Nominal) | 500.0 (Maximum) |

Master: 30–May–2008 17:25

8.25–in. Stabilized Azimuthal Density Neutron Calibration



















Density: Water Block Check

| Phase | Long spacing water density G/C3 | | Value | Phase | Short spacing water density G/C3 | | Value |
|--------|---|--------------------|--------------------|--------|---|--------------------|--------------------|
| Master |  | | 1.079 | Master |  | | 1.365 |
| | 1.047 (Minimum) | 1.062 (Nominal) | 1.077 (Maximum) | | 1.336 (Minimum) | 1.393 (Nominal) | 1.450 (Maximum) |

Master: 30–May–2008 17:25

8.25–in. Stabilized Azimuthal Density Neutron Calibration


Neutron: 3–Point Calibration

| Phase | Far Tube 1 Air Point Measure CPS | | Value | Phase | Far Tube 1 Rod Point Measure CPS | | Value | Phase | Far Tube 1 Water Point Measure CPS | | Value |
|--------|---|--------------------|--------------------|--------|---|--------------------|--------------------|--------|---|--------------------|--------------------|
| Master |  | | 149.1 | Master |  | | 52.08 | Master |  | | 19.43 |
| | 100.0 (Minimum) | 152.1 (Nominal) | 190.0 (Maximum) | | 35.00 (Minimum) | 55.33 (Nominal) | 69.00 (Maximum) | | 13.00 (Minimum) | 20.14 (Nominal) | 25.00 (Maximum) |
| Phase | Far Tube 2 Air Point Measure CPS | | Value | Phase | Far Tube 2 Rod Point Measure CPS | | Value | Phase | Far Tube 2 Water Point Measure CPS | | Value |
| Master |  | | 144.9 | Master |  | | 51.84 | Master |  | | 18.60 |
| | 100.0 (Minimum) | 152.1 (Nominal) | 190.0 (Maximum) | | 35.00 (Minimum) | 55.33 (Nominal) | 69.00 (Maximum) | | 13.00 (Minimum) | 20.14 (Nominal) | 25.00 (Maximum) |
| Phase | Far Tube 3 Air Point Measure CPS | | Value | Phase | Far Tube 3 Rod Point Measure CPS | | Value | Phase | Far Tube 3 Water Point Measure CPS | | Value |
| Master |  | | 145.4 | Master |  | | 51.53 | Master |  | | 18.76 |
| | 100.0 (Minimum) | 152.1 (Nominal) | 190.0 (Maximum) | | 35.00 (Minimum) | 55.33 (Nominal) | 69.00 (Maximum) | | 13.00 (Minimum) | 20.14 (Nominal) | 25.00 (Maximum) |
| Phase | Near Tube 1 Air Point Measure CPS | | Value | Phase | Near Tube 1 Rod Point Measure CPS | | Value | Phase | Near Tube 1 Water Point Measure CPS | | Value |
| Master |  | | 1523 | Master |  | | 1566 | Master |  | | 818.0 |
| | 1100 (Minimum) | 1462 (Nominal) | 2000 (Maximum) | | 1200 (Minimum) | 1519 (Nominal) | 2000 (Maximum) | | 640.0 (Minimum) | 801.5 (Nominal) | 1100 (Maximum) |
| Phase | Near Tube 2 Air Point Measure CPS | | Value | Phase | Near Tube 2 Rod Point Measure CPS | | Value | Phase | Near Tube 2 Water Point Measure CPS | | Value |
| Master |  | | 1470 | Master |  | | 1528 | Master |  | | 816.5 |
| | 1100 (Minimum) | 1462 (Nominal) | 2000 (Maximum) | | 1200 (Minimum) | 1519 (Nominal) | 2000 (Maximum) | | 640.0 (Minimum) | 801.5 (Nominal) | 1100 (Maximum) |
| Phase | Near Tube 3 Air Point Measure CPS | | Value | Phase | Near Tube 3 Rod Point Measure CPS | | Value | Phase | Near Tube 3 Water Point Measure CPS | | Value |
| Master |  | | 1487 | Master |  | | 1532 | Master |  | | 805.5 |
| | 1100 (Minimum) | 1462 (Nominal) | 2000 (Maximum) | | 1200 (Minimum) | 1519 (Nominal) | 2000 (Maximum) | | 640.0 (Minimum) | 801.5 (Nominal) | 1100 (Maximum) |

Master: 30–May–2008 17:25

8.25–in. Stabilized Azimuthal Density Neutron Calibration

Neutron: Water Block Check

| Phase | Far Neutron water porosity PU | | Value |
|--------|---|--------------------|--------------------|
| Master |  | | 81.95 |
| | 60.00 (Minimum) | 100.0 (Nominal) | 120.0 (Maximum) |

8.25–in. Array Resistivity Compensated / Equipment Identification

Primary Equipment:

Tool Name and Serial Number











ARC825 Calibration Status











ARC8 – AA

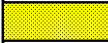
Valid

8316

| | |
|--------|-------|
| Phase | Value |
| Master | |

| | | | | | | | | | | | | | |
|--|---|--|---------------------|--------------------|---|--|---------------------|--------|---|---------------------|--------------------|--|--|
| 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 (Minimum) | | | 0.1000 (Nominal) | 4.100 (Maximum) | | | -3.900 (Minimum) | | | 0.1000 (Nominal) | 4.100 (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 (Minimum) | | | 0.1000 (Nominal) | 4.100 (Maximum) | | | -3.900 (Minimum) | | | 0.1000 (Nominal) | 4.100 (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 (Minimum) | | | 0.1000 (Nominal) | 4.100 (Maximum) | | | -3.900 (Minimum) | | | 0.1000 (Nominal) | 4.100 (Maximum) | | |
| Phase | Phase-Shift T5 at 400KHz | | Value | | | | | | | | | | |
| Master |  | | 1.648 | | | | | | | | | | |
| -3.900 (Minimum) | | | 0.1000 (Nominal) | 4.100 (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 (Minimum) | 8.500 (Nominal) | 10.50 (Maximum) | | 4.500 (Minimum) | 6.500 (Nominal) | 8.500 (Maximum) | | 2.500 (Minimum) | 4.500 (Nominal) | 6.500 (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 (Minimum) | 4.600 (Nominal) | 6.600 (Maximum) | | 1.600 (Minimum) | 3.600 (Nominal) | 5.600 (Maximum) | | 6.500 (Minimum) | 8.500 (Nominal) | 10.50 (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 (Minimum) | 6.500 (Nominal) | 8.500 (Maximum) | | 2.500 (Minimum) | 4.500 (Nominal) | 6.500 (Maximum) | | 2.600 (Minimum) | 4.600 (Nominal) | 6.600 (Maximum) |
| Phase | Attenuation T5 at 400KHz | | Value | | | | | | | | |
| Master |  | | 3.513 | | | | | | | | |
| | 1.600 (Minimum) | 3.600 (Nominal) | 5.600 (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 (Minimum) | 7.200 (Nominal) | 9.650 (Maximum) |

SCHLUMBERGER

Survey report 31-Jul-2008 05:53:28 Page 1 of 4

Client.....: Santos Ltd
Field.....: Otway

Well.....: Netherby-1 Spud date.....: 15-Jul-08
API number.....: Last survey date.....: 31-Jul-08
Engineer.....: J. Oldridge / Z. Rudd Total accepted surveys....: 63
MD of first survey.....: 0.00 m
RIG.....: Ocean Patriot MD of last survey.....: 1875.00 m
STATE.....: Victoria

----- 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.....: Top Drive
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-).....: -----
----- Geomagnetic data -----
Magnetic model.....: BGM version 2007
Magnetic date.....: 20-Jul-2008
Magnetic field strength...: 1215.19 HCNT
Magnetic dec (+E/W-).....: 10.78 degrees
Magnetic dip.....: -69.86 degrees
----- MWD survey Reference Criteria -----
Reference G.....: 1000.07 mGal
Reference H.....: 1215.19 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
Azimuth from Vsect Origin to target: 0.00 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

[(c)2008 IDEAL ID13_OC_08]
SCHLUMBERGER Survey Report

25-Jul-2008 05:53:28 Page 2 of 4

| Seq # | Measured depth (m) | Incl angle (deg) | Azimuth angle (deg) | Course length (m) | TVD depth (m) | Vertical section (m) | Displ +N/S- (m) | Displ +E/W- (m) | Total displ (m) | At Azim (deg) | DLS (deg) | Srvy tool type |
|-------|--------------------|------------------|---------------------|-------------------|---------------|----------------------|-----------------|-----------------|-----------------|---------------|-----------|----------------|
| 1 | 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 | SB | None |
| 3 | 110.29 | 0.34 | 228.85 | 23.29 | 110.29 | -0.05 | -0.05 | -0.05 | 0.07 | 228.85 | 0.44 | EMS None |
| 4 | 139.31 | 0.48 | 70.38 | 29.02 | 139.31 | -0.06 | -0.06 | -0.00 | 0.06 | 182.21 | 0.85 | EMS None |
| 5 | 168.50 | 0.56 | 302.02 | 29.19 | 168.50 | 0.06 | 0.06 | -0.01 | 0.06 | 351.63 | 0.98 | EMS None |
| 6 | 196.58 | 0.62 | 250.43 | 28.08 | 196.58 | 0.08 | 0.08 | -0.27 | 0.28 | 286.10 | 0.56 | EMS None |
| 7 | 224.66 | 0.70 | 303.64 | 28.08 | 224.66 | 0.12 | 0.12 | -0.55 | 0.57 | 282.37 | 0.65 | EMS None |
| 8 | 252.74 | 0.64 | 294.72 | 28.08 | 252.73 | 0.28 | 0.28 | -0.84 | 0.88 | 288.58 | 0.13 | EMS None |
| 9 | 280.80 | 0.72 | 298.73 | 28.06 | 280.79 | 0.43 | 0.43 | -1.14 | 1.22 | 290.84 | 0.10 | EMS None |
| 10 | 309.51 | 0.65 | 287.17 | 28.71 | 309.50 | 0.57 | 0.57 | -1.45 | 1.56 | 291.36 | 0.16 | EMS None |
| 11 | 337.98 | 0.69 | 292.15 | 28.47 | 337.97 | 0.68 | 0.68 | -1.76 | 1.89 | 291.08 | 0.08 | EMS None |
| 12 | 366.89 | 0.70 | 359.25 | 28.91 | 366.88 | 0.92 | 0.92 | -1.93 | 2.14 | 295.57 | 0.81 | EMS None |
| 13 | 395.80 | 0.92 | 12.26 | 28.91 | 395.78 | 1.32 | 1.32 | -1.88 | 2.30 | 305.19 | 0.30 | EMS None |
| 14 | 424.75 | 0.87 | 19.30 | 28.95 | 424.73 | 1.76 | 1.76 | -1.76 | 2.49 | 315.04 | 0.13 | EMS None |
| 15 | 453.68 | 0.56 | 88.31 | 28.93 | 453.66 | 1.97 | 1.97 | -1.54 | 2.50 | 321.94 | 0.89 | EMS None |
| 16 | 482.49 | 0.59 | 96.35 | 28.81 | 482.47 | 1.96 | 1.96 | -1.26 | 2.33 | 327.35 | 0.09 | EMS None |
| 17 | 511.36 | 0.65 | 96.56 | 28.87 | 511.34 | 1.92 | 1.92 | -0.94 | 2.14 | 333.84 | 0.06 | EMS None |
| 18 | 540.27 | 0.70 | 100.87 | 28.91 | 540.24 | 1.87 | 1.87 | -0.61 | 1.97 | 341.99 | 0.08 | EMS None |
| 19 | 569.05 | 0.71 | 112.99 | 28.78 | 569.02 | 1.77 | 1.77 | -0.27 | 1.79 | 351.27 | 0.16 | EMS None |
| 20 | 597.90 | 0.69 | 128.34 | 28.85 | 597.87 | 1.59 | 1.59 | 0.03 | 1.59 | 1.05 | 0.20 | EMS None |
| 21 | 617.15 | 0.84 | 123.17 | 19.25 | 617.12 | 1.44 | 1.44 | 0.24 | 1.46 | 9.38 | 0.26 | EMS None |
| 22 | 634.46 | 0.94 | 124.68 | 17.31 | 634.42 | 1.29 | 1.29 | 0.46 | 1.37 | 19.65 | 0.18 | EMS 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 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 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 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 | 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 | 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 | 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 | 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 | None |

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| Seq # | Measured depth (m) | Incl angle (deg) | Azimuth angle (deg) | Course length (m) | TVD depth (m) | Vertical section (m) | Displ +N/S- (m) | Displ +E/W- (m) | Total displ (deg) | At Azim 100f | DLS (deg) | Srvy tool | Tool Corr |
|-------|--------------------|------------------|---------------------|-------------------|---------------|----------------------|-----------------|-----------------|-------------------|--------------|-----------|-----------|-----------|
| 31 | 948.90 | 12.93 | 122.08 | 29.71 | 946.37 | -21.59 | -21.59 | 21.23 | 30.28 | 135.47 | 0.90 | MWD | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | None |
| 44 | 1322.42 | 33.97 | 116.49 | 28.15 | 1295.67 | -78.61 | -78.61 | 131.45 | 153.16 | 120.88 | 0.33 | MWD | 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 | 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 | 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 | None |
| 48 | 1436.16 | 34.88 | 116.15 | 27.89 | 1389.19 | -106.93 | -106.93 | 189.65 | 217.72 | 119.42 | 0.29 | MWD | None |
| 49 | 1465.63 | 35.16 | 116.10 | 29.47 | 1413.32 | -114.38 | -114.38 | 204.83 | 234.60 | 119.18 | 0.29 | MWD | None |
| 50 | 1494.27 | 35.09 | 116.37 | 28.64 | 1436.75 | -121.67 | -121.67 | 219.61 | 251.06 | 118.99 | 0.18 | MWD | None |
| 51 | 1523.47 | 35.39 | 116.22 | 29.20 | 1460.60 | -129.13 | -129.13 | 234.72 | 267.89 | 118.82 | 0.33 | MWD | None |
| 52 | 1552.94 | 35.14 | 115.95 | 29.47 | 1484.66 | -136.61 | -136.61 | 250.00 | 284.89 | 118.65 | 0.30 | MWD | None |
| 53 | 1581.55 | 35.10 | 115.95 | 28.61 | 1508.06 | -143.81 | -143.81 | 264.80 | 301.33 | 118.51 | 0.04 | MWD | None |
| 54 | 1610.85 | 35.09 | 116.84 | 29.30 | 1532.03 | -151.30 | -151.30 | 279.89 | 318.17 | 118.39 | 0.53 | MWD | None |
| 55 | 1639.13 | 35.01 | 117.96 | 28.28 | 1555.18 | -158.78 | -158.78 | 294.31 | 334.40 | 118.35 | 0.70 | MWD | None |
| 56 | 1668.08 | 34.91 | 118.18 | 28.95 | 1578.91 | -166.58 | -166.58 | 308.94 | 350.99 | 118.33 | 0.17 | MWD | None |
| 57 | 1695.83 | 34.89 | 119.39 | 27.75 | 1601.67 | -174.23 | -174.23 | 322.86 | 366.87 | 118.35 | 0.76 | MWD | None |
| 58 | 1725.28 | 34.90 | 120.32 | 29.45 | 1625.82 | -182.61 | -182.61 | 337.47 | 383.71 | 118.42 | 0.55 | MWD | None |
| 59 | 1753.73 | 34.99 | 120.90 | 28.45 | 1649.15 | -190.91 | -190.91 | 351.49 | 399.99 | 118.51 | 0.37 | MWD | None |
| 60 | 1781.62 | 35.06 | 120.66 | 27.89 | 1671.98 | -199.10 | -199.10 | 365.25 | 415.99 | 118.60 | 0.17 | MWD | None |

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| Seq # | Measured depth (m) | Incl angle (deg) | Azimuth angle (deg) | Course length (m) | TVD depth (m) | Vertical section (m) | Displ +N/S- (m) | Displ +E/W- (m) | Total displ (deg) | At Azim 100f | DLS (deg) | Srvy tool | Tool Corr |
|-------|--------------------|------------------|---------------------|-------------------|---------------|----------------------|-----------------|-----------------|-------------------|--------------|-----------|------------|-----------|
| 61 | 1811.05 | 35.22 | 120.21 | 29.43 | 1696.05 | -207.68 | -207.68 | 379.85 | 432.92 | 118.67 | 0.32 | MWD | None |
| 62 | 1838.59 | 35.18 | 119.41 | 27.54 | 1718.56 | -215.57 | -215.57 | 393.63 | 448.79 | 118.71 | 0.51 | MWD | None |
| 63 | 1875.00 | 35.38 | 119.23 | 36.41 | 1748.28 | -225.87 | -225.87 | 411.96 | 469.82 | 118.74 | 0.06 | Projection | to TD |

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Company:

Santos Ltd

Well:

Netherby-1

Field:

Otway

Rig:

Ocean Patriot

State:

Victoria

VISION Service

1:500 Measured Depth

Schlumberger

12.25 in. Section

Recorded Mode Log