COMPUTED RESULTS
NOT GUARANTEED

Company: Petroleum Development Oman LLC
Well: Marmul 276
Field: Marmul
Country: Sultanate of Oman
Date: Wednesday, November 13, 2013
Time: 14:17:16
Structure: Well 276
Slot: Well 276
Site: Marmul 276
Well: Marmul 276
Wellbore: Marmul 276
Wellpath: Marmul 276
Survey Calculation Method: Minimum Curvature
Vertical Section Azimuth: 0.000°
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB
TVD Reference Elevation: 0.000 ft above MSL
Seabed / Ground Elevation: 0.000 ft above MSL
Magnetic Declination: 0.000°
Total Field Strength: 0.000 nT
Magnetic Dip: 0.000°
Declination Date: 0.000
Magnetic Declination Model: 0.000
North Reference: True North
Grid Convention: Minimum Curvature
Total Corr Mag North->True North: 0.000°
Local Coordinates Referenced To: Well Head

Comments	MD ft	Inc deg	Azi deg	TVD ft	VSec ft	NS ft	EW ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft
Tie On	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Last Survey	2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	0.00	0.00
Projection to Bit	2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	0.00	0.00

All measurements are approximated or interpolated values and are not guaranteed and are presented in good faith but accuracy is not guaranteed. Not to be relied upon as a substitute for specific measurements. Data should not be used to conduct detailed transactions without seeking corroborative information as to its accuracy. Use of or reliance on this information is at the sole discretion of the user. Weatherford will not be responsible for any business decisions made or actions taken by user based on this information.

Comments

Annular volume calculated for 4.5" casing
Energo Rig 126
Thank you for using Phoenix Surveys!
API # 06-123-3200-00

Calculation Filter: Depth Range: 0.00 to 2900.00 ft
Measured Depth Range: 0.00 to 2900.00 ft
Depth Filter Type: Off
Depth Filter Length: 0 ft
Depth Filter Interval: 0 ft

Gravity Tool Error Model: Unknown
Magnetic Tool Error Model: Unknown
Wellbore Survey Error Model: Unknown
Survey Program: Unknown

Gravity Toolface (G) | Drag Reservoir by Friction | Gravity Tortuosity (G)
Magnetic Toolface (M) | Medium Reservoir by Friction | Magnetic Tortuosity (M)
Total Toolface (T) | Shallow Reservoir by Friction | Total Tortuosity (T)
Inclination | Drag Reservoir by Inclination
Azimuth | Medium Reservoir by Inclination
Shallow Reservoir by Inclination

Gravity Tool Error (G) | Gravity Tortuosity (G)
Magnetic Tool Error (M) | Magnetic Tortuosity (M)
Total Tool Error (T)
Inclination
Azimuth