

REFLEX - Core Orientation QA & Data handling Best Practice

Core Orientation Method Comparison - Quick Lookup Chart

*Please note: The Table Below is based on orientating core every core run, as per manufacturers recommended operating procedures, in good ground conditions, to a maximum borehole depth of 1,200 meters (3,937Fft), at a borehole dip angle range of between -60° to -90° below horizontal and at an average coring penetration rate of 12.5cm (5 inches) per minute.

CORE ORIENTATION SYSTEM TYPE	Maximum Independent Orientations per Core Run	ACCURACY	RELIABILITY Orientated Core Runs DEPENDING ON GROUND CONDITION	AUDIT-ABILITY QA/QC Capable	METHOD, MODE & APPLICATION	CORING PRODUCTIVITY LOST TIME	OPERATIONAL ATTITUDE & MAGNETIC AFFECT	COST BENEFIT
SPEAR/CHISEL SYSTEM	1	POOR Tolerance 10° to 40°	POOR 30% to 70%	NONE	CONTACT GRAVITY Wire-line Below Horizontal Only	POTENTIAL LOST TIME 3m intervals 54% 6m intervals 27% 30m intervals 6%	LIMITED ATTITUDE (40° range) -35° TO -75° BELOW HORIZONTAL Non-Vertical NO MAGNETIC AFFECT	POOR
PIN-IMPRESION SYSTEM	1	POOR Tolerance 10° to 20°	Ave. to Good 70% to 90%	NONE	CONTACT MECHANICAL GRAVITY Wire-line Below Horizontal Only	POTENTIAL LOST TIME 3m intervals 54% 6m intervals 27% 30m intervals 6%	LIMITED ATTITUDE (30° range) -40° TO -70° BELOW HORIZONTAL Non-Vertical NO MAGNETIC AFFECT	POOR
CLAY-IMPRESION SYSTEM	1	POOR Tolerance 10° to 30°	Ave. to Good 70% to 90%	MEDIUM	CONTACT MECHANICAL GRAVITY Wire-line Below Horizontal Only	POTENTIAL LOST TIME 3m intervals 54% 6m intervals 27% 30m intervals 6%	LIMITED ATTITUDE (30° range) -40° TO -70° BELOW HORIZONTAL Non-Vertical NO MAGNETIC AFFECT	POOR
REFLEX ECONO EZ-MARK SYSTEM	3	HIGH Tolerance 1° to 5°	Ave. to Good 70% to 90%	VERY HIGH INCLUDES AUDIT-ABLE ORI-BLOCK	CONTACT MECHANICAL GRAVITY Wire-line & Conventional Above & Below Horizontal	POTENTIAL LOST TIME 3m intervals 26% EVERY SECOND CORE RUN 3% 30m intervals 2%	LIMITED ATTITUDE (170° range) +85° to -85° Non-Vertical ± 5° NO MAGNETIC AFFECT	MEDIUM TO HIGH AUDIT-ABLE ORIENTATION DATA EVERY SECOND CORE RUN
REFLEX ACT III SYSTEM	1	HIGH Tolerance 1° to 5°	Good to High 80% to 90%	MEDIUM TO HIGH	NON-CONTACT DIGITAL GRAVITY Wire-line & Conventional Above & Below Horizontal	POTENTIAL LOST TIME 3m intervals 5% 6m intervals 4% 30m intervals 3%	LIMITED ATTITUDE (170° range) +85° to -85° Non-Vertical ± 5° NO MAGNETIC AFFECT	HIGH
REFLEX EZ-ORI SYSTEM	3	HIGH Tolerance 1° to 5°	Good to High 80% to 90%	HIGH	NON-CONTACT MECHANICAL GRAVITY Wire-line & Conventional Above & Below Horizontal	POTENTIAL LOST TIME 3m intervals 5% 6m intervals 4% 30m intervals 3%	LIMITED ATTITUDE (170° range) +85° to -85° Non-Vertical ± 5° NO MAGNETIC AFFECT	HIGH
REFLEX EZ-MARK ORI-BLOCK SYSTEM	3	HIGH Tolerance 1° to 5°	Good to High 80% to 90%	VERY HIGH INCLUDES AUDIT-ABLE ORI-BLOCK	CONTACT MECHANICAL GRAVITY Wire-line & Conventional Above & Below Horizontal	POTENTIAL LOST TIME 3m intervals 4% 6m intervals 3% 30m intervals 3%	LIMITED ATTITUDE (170° range) +85° to -85° Non-Vertical ± 5° NO MAGNETIC AFFECT	HIGH AUDIT-ABLE ORIENTATION DATA EVERY CORE RUN
REFLEX COMBO-KIT	4 to 6	HIGH Tolerance 1° to 5°	Excellent 80% to 100%	EXCELLENT INCLUDES AUDIT-ABLE ORI-BLOCK + DATA VERIFICATION VIA TWO INDEPENDENT ORIENTATION SYSTEMS	CONTACT/NON- CONTACT COMBINED MECHANICAL DIGITAL GRAVITY Wire-line & Conventional Above & Below Horizontal	POTENTIAL LOST TIME 3m intervals 9% 6m intervals 6% 30m intervals 5%	LIMITED ATTITUDE (170° range) +85° to -85° Non-Vertical ± 5° NO MAGNETIC AFFECT	EXCELLENT 6 METER (20FT) DOUBLE AUDIT-ABLE ORIENTATED CORE RUNS CAN INCREASE PRODUCTIVITY UP TO 35%+ WHEN COMPARED TO TRADITIONAL 3 METER CORE RUNS
REFLEX EZ-TRAC VERTI-ORI SYSTEM	1	HIGH Tolerance 1° to 5°	Ave. to Good 70% to 90%	VERY HIGH INCLUDES AUDIT-ABLE ORI-BLOCK	CONTACT DIGITAL MAGNETIC Wire-line Only Above & Below Horizontal	POTENTIAL LOST TIME 3m intervals 52% 6m intervals 24% 30m intervals 9%	ALL ATTITUDE (180° range) +90° to -90° Vertical AFFECTED BY MAGNETISM	HIGH TO EXCELLENT DATA QUALITY CAN REDUCE DRILLED HOLE REQUIREMENT UP TO 67%
REFLEX EZ-GYRO VERTI-ORI SYSTEM	1	HIGH Tolerance 1° to 5°	Ave. to Good 70% to 90%	VERY HIGH INCLUDES AUDIT-ABLE ORI-BLOCK	CONTACT GYROSCOPIC TRUE NORTH Wire-line Only Above & Below Horizontal	POTENTIAL LOST TIME 3m intervals 68% 6m intervals 36% 30m intervals 20%	LIMITED ATTITUDE (100° range) +40° to +90° -40° to -90° Non-Vertical ± 40° NO MAGNETIC AFFECT	HIGH TO EXCELLENT DATA QUALITY CAN REDUCE DRILLED HOLE REQUIREMENT UP TO 67%