### WITS\_WITSML Record 2 General Depth-Based Record Variable Mapping

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| **WITS Record ID:** 02 | **Logical Record Type:** 152 | **Auto/Manual:** Automatic |
| **Trigger:** [DEPTH] Transmit at a specified depth interval (feet or meters) | | |
| **Data Source:** Data acquired in real-time when on-bottom drilling NEW hole and computed over the trigger interval | | |
| **Data Typology:** Reference (Ref), Date\_Time\_Stamp(Dts), Real-time-Measure (Rtm), Real-time-Signal (Rts), Limit (Lim), Set-Point (Spt), Calculation (Cal), Distribution (Dis), Command (Com), Parameter (Par), Synthetic Value (Syn), Alarm (Alm), Interpreted (Int), Modeled (Mod), Observed (Obs), Code (Cod), Count (Cnt), Cumulative (Cml), Status (Sta), Expected (Exp), Estimated (Est) | | |
| **Data Field Types:** A = Alphanumeric String, L = 32 bit 2's complement signed integer, S = 16 bit 2's complement signed integer, F = 32 bit IEEE single precision floating point, E = Engineering, B = Boolean (1 if True and 0 if False), D = Date, T = Time, V = Variant, IL = Integer List, FL = Float List, EL = Engineering List, TL = Text List | | |
| **Reserved Characters:** Comma (,) - Separates Fields, Semi Colon (;) - Separates Items in a Standard Record, Colon (:) - Separates items in Date and Time Fields, Ampersand (&) - Separates items in a List | | |

| WITS  Record / Item | Description | STD WITS Long Mnemonic | Operator Mnemonic for WITSML & OSIsoft PI & ODA | Field Type | Length | Typology | Transmit Units (FPS) | Transmit Units (Metric) | Data System  Type |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0201 | Well Identifier | WELLID | WID | A | 16 | Ref | ---- | ---- | Unique Well ID |
| 0202 | Sidetrack/Hole Sect No. | STKNUM | SKNO | S | 2 | Ref | ---- | ---- | Unique Wellbore ID |
| 0203 | Record Identifier | RECID | RID | S | 2 | Ref | ---- | ---- | Date |
| 0204 | Sequence Identifier | SEQID | SQID | L | 4 | Ref | ---- | ---- | Time |
| 0205 | Date | DATE | DATE | L | 4 | Dts | ---- | ---- | Date |
| 0206 | Time | TIME | TIME | L | 4 | Dts | ---- | ---- | Time |
| 0207 | Activity Code | ACTCOD | ACTC | S | 2 | Cod | ---- | ---- | Activity |
| 0208 | Depth Hole (meas) | DEPTMEAS | DMEA | F | 4 | Obs | F | M | Depth |
| 0209 | Depth Hole (vert) | DEPTVERT | DVER | F | 4 | Cal | F | M | Rate |
| 0210 | Rate of Penetration (avg) | ROPA | ROPA | F | 4 | Obs | F/HR | M/HR | Rate |
| 0211 | Weight-on-Bit (surf,avg) | WOBA | WOBA | F | 4 | Cal | KLB | KDN | Load |
| 0212 | Hookload (avg) | HKLA | HKLA | F | 4 | Obs | KLB | KDN | Tension |
| 0213 | Standpipe Pressure (avg) | SPPA | SPPA | F | 4 | Cal | PSI | KPA | Pressure |
| 0214 | Rotary Torque (surf,avg) | TORQA | TQA | F | 4 | Cal | KFLB | KNM | Torque |
| 0215 | Rotary Speed (surf,avg) | RPMA | RPMA | F | 4 | Cal | RPM | RPM | Speed |
| 0216 | Bit Revolutions (cum) | BTREVC | BRVC | F | 4 | Cml | ---- | ---- | Cumulative |
| 0217 | Mud Density In (avg) | MDIA | MDIA | F | 4 | Cal | PPG | KGM3 | Density |
| 0218 | ECD at Total Depth | ECDTD | ECDT | F | 4 | Cal | PPG | KGM3 | Density |
| 0219 | Mud Flow In (avg) | MFIA | MFIA | F | 4 | Cal | GPM | L/M | Flow |
| 0220 | Mud Flow Out (avg) | MFOA | MFOA | S | 2 | Cal | GPM | L/M | Flow |
| 0221 | Mud Flow Out % | MFOP | MFOP | F | 4 | Cal | % | % | Flow |
| 0222 | Tank Volume (active) | TVOLACT | TVA | F | 4 | Cal | BBL | M3 | Volume |
| 0223 | Cost/Distance (inst) | CPDI | CPDI | S | 2 | Cnt | $/F | $/M | Cost |
| 0224 | Cost/Distance (cum) | CPDC | CPDC | S | 2 | Cnt | $/F | $/M | Cost |
| 0225 | Bit Drilled Time | BTDTIME | BDTI | S | 2 | Cml | HR | HR | Time |
| 0226 | Bit Drilled Distance | BTDDIST | BDDI | F | 4 | Obs | F | M | Footage |
| 0227 | Corr. Drilling Exponent | DXC | DXC | F | 4 | ? | ---- | ---- | Ref |
| 0228 | < SPARE 1 > | SPARE1 | SPR1 | S | 2 | ---- | ---- | ---- | n/a |
| 0229 | < SPARE 2 > | SPARE2 | SPR2 | F | 4 | ---- | ---- | ---- | n/a |
| 0230 | < SPARE 3 > | SPARE3 | SPR3 | F | 4 | ---- | ---- | ---- | n/a |
| 0231 | < SPARE 4 > | SPARE4 | SPR4 | F | 4 | ---- | ---- | ---- | n/a |
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