### WITS\_WITSML Record 13 Chromatograph Gases Depth-Based Variable Mapping

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| **WITS Record ID:** 13 | **Logical Record Type:** 163 | **Auto/Manual:** Automatic |
| **Trigger:** [DEPTH] Transmit at the specified depth interval (feet or meters) based on the returns depth. | | |
| **Data Source:** Data acquired in real-time from each valid chromatograph cycle. Record transmitted and computations reset when the triggering interval occurs. Record not sent if circulation not taking place or if bottoms up has been achieved resulting in no further increase in returns depth | | |
| **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 | | |
| **Data Mnemonic Abbreviations:** Raw (Raw), Average (Avg), Max (Max), Min (Min), Mean (Men), Root-Mean-Square (Rms), Percent (Pct), Error (Err), Correlation (Cor), Probability (Prob), Variance (Var), Spread (Spd), Mean-Absolute-Deviation (Mad), Ratio (Rat), Standard Deviation (Std), Mode (Mod), Weighted Mean (Wtm), Dispersion (Dis), Product (Pro), Sum (Sum), Cumulative Sum (Csm), Corrected (Cor), Adjusted (Adj), Instantaneous (Ins), State (Sta), Observed (Obs), Expected (Exp), Observed-Cumulative (ObC), Expected-Cumulative (ExC), Total (Tot), Reported (Rep), Interpolated (Itp), Period (Per), Currency (Cur) | | |

| 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 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1301 | Well Identifier | WELLID | WID | A | 16 | Ref | ---- | ---- | Unique Well ID |
| 1302 | Sidetrack/Hole Sect No. | STKNUM | SKNO | S | 2 | Ref | ---- | ---- | Unique Wellbore ID |
| 1303 | Record Identifier | RECID | RID | S | 2 | Ref | ---- | ---- | Identification |
| 1304 | Sequence Identifier | SEQID | SQID | L | 4 | Ref | ---- | ---- | Identification |
| 1305 | Date | DATE | DATE | L | 4 | Dts | ---- | ---- | Date |
| 1306 | Time | TIME | TIME | L | 4 | Dts | ---- | ---- | Time |
| 1307 | Activity Code | ACTCOD | ACTC | S | 2 | Cod | ---- | ---- | Activity |
| 1308 | Depth Returns (meas) | DEPTRETM | DRTM | F | 4 | Obs | F | M | Depth |
| 1309 | Depth Returns (vert) | DEPTRETV | DRTV | F | 4 | Cal | F | M | Depth |
| 1310 | Methane (C1) (avg) | METHA | MTH\_Avg | L | 4 | Rtm | PPM | PPM | Gas |
| 1311 | Methane (C1) (min) | METHN | MTH\_Min | L | 4 | Rtm | PPM | PPM | Gas |
| 1312 | Methane (C1) (max) | METHX | MTH\_Max | L | 4 | Rtm | PPM | PPM | Gas |
| 1313 | Ethane (C2) (avg) | ETHA | ETH\_Avg | L | 4 | Rtm | PPM | PPM | Gas |
| 1314 | Ethane (C2) (min) | ETHN | ETH\_Min | L | 4 | Rtm | PPM | PPM | Gas |
| 1315 | Ethane (C2) (max) | ETHX | ETH\_Max | L | 4 | Rtm | PPM | PPM | Gas |
| 1316 | Propane (C3) (avg) | PROPA | PRP\_Avg | L | 4 | Rtm | PPM | PPM | Gas |
| 1317 | Propane (C3) (min) | PROPN | PRP\_Min | L | 4 | Rtm | PPM | PPM | Gas |
| 1318 | Propane (C3) (max) | PROPX | PRP\_Max | L | 4 | Rtm | PPM | PPM | Gas |
| 1319 | Iso-Butane (IC4) (avg) | IBUTA | IBT\_Avg | L | 4 | Rtm | PPM | PPM | Gas |
| 1320 | Iso-Butane (IC4) (min) | IBUTN | IBT\_Min | L | 4 | Rtm | PPM | PPM | Gas |
| 1321 | Iso-Butane (IC4) (max) | IBUTX | IBT\_Max | L | 4 | Rtm | PPM | PPM | Gas |
| 1322 | Nor-Butane (NC4) (avg) | NBUTA | NBT\_Avg | L | 4 | Rtm | PPM | PPM | Gas |
| 1323 | Nor-Butane (NC4) (min) | NBUTN | NBT\_Min | L | 4 | Rtm | PPM | PPM | Gas |
| 1324 | Nor-Butane (NC4) (max) | NBUTX | NBT\_Max | L | 4 | Rtm | PPM | PPM | Gas |
| 1325 | Iso-Pentane (IC5) (avg) | IPENTA | IPN\_Avg | L | 4 | Rtm | PPM | PPM | Gas |
| 1326 | Iso-Pentane (IC5) (min) | IPENTN | IPNN\_Min | L | 4 | Rtm | PPM | PPM | Gas |
| 1327 | Iso-Pentane (IC5) (max) | IPENTX | IPN\_Max | L | 4 | Rtm | PPM | PPM | Gas |
| 1328 | Nor-Pentane (NC5) (avg) | NPENTA | NPN\_Avg | L | 4 | Rtm | PPM | PPM | Gas |
| 1329 | Nor-Pentane (NC5) (min) | NPENTN | NPN\_Min | L | 4 | Rtm | PPM | PPM | Gas |
| 1330 | Nor-Pentane (NC5) (max) | NPENTX | NPN\_Max | L | 4 | Rtm | PPM | PPM | Gas |
| 1331 | Neo-Pentane (EC5) (avg) | EPENTA | EPN\_Avg | L | 4 | Rtm | PPM | PPM | Gas |
| 1332 | Neo-Pentane (EC5) (min) | EPENTN | EPN\_Min | L | 4 | Rtm | PPM | PPM | Gas |
| 1333 | Neo-Pentane (EC5) (max) | EPENTX | EPN\_Max | L | 4 | Rtm | PPM | PPM | Gas |
| 1334 | Iso-Hexane (IC6) (avg) | IHEXA | IHX\_Avg | L | 4 | Rtm | PPM | PPM | Gas |
| 1335 | Iso-Hexane (IC6) (min) | IHEXN | IHX\_Min | L | 4 | Rtm | PPM | PPM | Gas |
| 1336 | Iso-Hexane (IC6) (max) | IHEXX | IHX\_Max | L | 4 | Rtm | PPM | PPM | Gas |
| 1337 | Nor-Hexane (NC6) (avg) | NHEXA | NHX\_Max | L | 4 | Rtm | PPM | PPM | Gas |
| 1338 | Nor-Hexane (NC6) (min) | NHEXN | NHX\_Min | L | 4 | Rtm | PPM | PPM | Gas |
| 1339 | Nor-Hexane (NC6) (max) | NHEXX | NHX\_Max | L | 4 | Rtm | PPM | PPM | Gas |
| 1340 | Carbon Dioxide (avg) | CO2A | CO2\_Avg | L | 4 | Rtm | PPM | PPM | Gas |
| 1341 | Carbon Dioxide (min) | CO2N | CO2\_Min | L | 4 | Rtm | PPM | PPM | Gas |
| 1342 | Carbon Dioxide (max) | CO2X | CO2\_Max | L | 4 | Rtm | PPM | PPM | Gas |
| 1343 | Acetylene | ACET | ACET\_Avg | L | 4 | Rtm | PPM | PPM | Gas |
| 1344 | < SPARE 1 > | SPARE1 | SPR1 | F | 4 |  | ---- | ---- | Spare |
| 1345 | < SPARE 2 > | SPARE2 | SPR2 | F | 4 |  | ---- | ---- | Spare |
| 1346 | < SPARE 3 > | SPARE3 | SPR3 | F | 4 |  | ---- | ---- | Spare |
| 1347 | < SPARE 4 > | SPARE4 | SPR4 | F | 4 |  | ---- | ---- | Spare |
| 1348 | < SPARE 5 > | SPARE5 | SPR5 | F | 4 |  | ---- | --- | Spare |