

Note: 000026

Overview

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|-------------|-----------------------------|
| Number | 000026 |
| Description | Hydrometer Correction Logic |
| Version | 3 from 06.07.2017 |
| Status | Released to Customer |
| Language | EN |
| Responsible | Markus Seng |
| Product | BCS |
| Category | Consulting & Configuration |

Symptom

You utilize a SAP QCI or QuantityWare MQCI conversion group for your bulk product calculations. The conversion group is configured to apply a hydrometer correction to the test density. The hydrometer indicator is set in the reading group, which is assigned to your conversion group.

- *If the hydrometer indicator is SET, the hydrometer correction is turned OFF*

Cause

Design decision by API/ASTM development in 1980.

Solution

This is the standard behaviour of ASTM D1250-80 (API MPMS Chapter 11.1 - 1980), where the hydrometer correction is built into the VCF/CTL implementation routines.

With ASTM D1250-04 (API MPMS Chapter 11.1 - 2004), a hydrometer correction is no longer a part of that standard - however, the correction formula is still available in API MPMS Chapter 11.1 - 2004 as a

reference.

QuantityWare also delivers a hydrometer correction solution based on ASTM D1298 – 99, (API MPMS Chapter 9.1) for ASTM D1250-04 and all other supported CTPL standards. To deliver consistent behaviour with ASTM D1250-80, the logic described above is implemented:

- via function /QTYW/A4_HYDROMETER_CORRECTION for SAP QCI template conversion groups.
- and function /QTYW/MQCI_BCP_HYDRO_CORRECT for MQCI template conversion groups.

With QuantityWare BCP 3.0, BCP 10B and BCP 10A with CSP 13, a second MQCI implementation of ASTM D1298 – 99 is provided which implements the reverse logic, i.e. setting the hydrometer indicator turns the hydrometer correction on.

MQCI function /QTYW/ MQCI_BCP_HYDRO_CORRECT_X then needs to be assigned to the MQCI conversion group. This logic can be utilized for QuantityWare MQCI conversion groups. For SAP QCI conversion groups, the reversal of the standard API/ASTM hydrometer logic requires a customer specific BAdI development.

- For 20 °C or other base temperatures, ASTM D1298-99 recommends application of the formula constants utilized for the 15 °C correction.

Transport Reference

No SAP-based transport

Validity

| SAP Release | From SP | To SP | In SP Shipment |
|-------------|---------|-------|----------------|
| ECC600 | 0 | 12 | 10B |
| S/4 HANA | 0 | 0 | 0 |