

## Note: 000098

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### Overview

Number	000098
Description	LPG Total Volume Calculation - Customer Solution Example
Version	1 from 05.01.2022
Status	Released to Customer
Language	EN
Responsible	Markus Seng
Product	BCS
Category	Consulting & Configuration

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### Symptom

QuantityWare BCS MQCI conversion groups for LPG / NGL may be configured to calculate total masses, energies and weights, as defined in ISO 6578.

You require a legacy calculation, which is based on the calculation of a total volume which is subsequently utilized to calculate a total mass and/or weight of your LPG/NGL product.

With this note, a GCD (Generic Customer Development) is made available to fulfill this requirement, such that for customer specific volume UoM (L5T and M5T) the total product volume is calculated.

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### Cause

Customer specific requirement - Legal authorities requirement

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### Solution

This solution may only be implemented with the support of a QW-Certified consultant.

Calculation Example:

Calculator Edit Goto System Help

**QCI : Calculator for additional quantities**

Material (Reuse Defaults)

Calculation parameters

Conv. Group **YTV** LPG TOV. VOL. DENSITY 15 °C GEN. CUST.  
 UoM Group YTV TOTAL VOL. LPG GEN. CUST. DEVELOPMENT

Date 08.02.2021 15:09:14

Input Qty Transactn. qty. 2061.15 M3

Add.parameters for chemicals  
 Base density  
 Therm. expan. coeff.

Result

Parameter	C...	Value	U...	Addl.qty	U...	M...
(Net) observed liq. volume		2061459.173	L	12964.243BBL		
Observed temperature		26.30	CEL	1103254.967KG		
Apply vapor corr. (tank dip)	<input checked="" type="checkbox"/>			1100937.552KGA		
Base density(vac.)		533.200000	KGV	2061150.000L		
Ratio vapor(id.gas)/liquid		251.000000		2001883.002L15		
Vapor pressure(abs.)		859.450	KPA	2069120.342L5T		

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Calculator Edit Goto System Help

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 Base density  
 Therm. expan. coeff.

Result

Parameter	C...	Value	U...	Addl.qty	U...	M...
Vapor pressure(abs.)		859.450	KPA	12964.243BBL		
Vapor temperature		31.45	CEL	1103254.967KG		
Tank Shell Temp. Corr. (CTSh)		1.000150		1100937.552KGA		
Shell Temperature		26.51	CEL	2061150.000L		
Tank capacity		4164.403	M3	2001883.002L15		
CTL observed to base (15 °C)		0.97110000	VCF	2069120.342L5T		

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With this note, QuantityWare releases a generic customer development (GCD) solution example containing:

- Five example function modules (ABAP code), which you may plug into your existing conversion group configuration
- An example UoM configuration for two total volume UoM - specific to those function modules
- Configuration steps how to integrate the customer functions into existing LPG MQCI conversion group configurations

*Certified QuantityWare BCP consultants have access to such an LPG calculation model extension example via the Support Portal.*

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## Transport Reference

No SAP-based transport

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## Validity

SAP Release	From SP	To SP	In SP Shipment
ECC600	BCS 3.0 CSP01		
S/4 HANA	BCS 3.0 CSP00		