QUANTO USER GUIDE

Result limits & flags

RecPct / DevPct / RecFlag, MinCurveR2, response and qualifier limits.

Limits tell Quanto when a result or curve point is outside what you accept. After Analyze, flags show up on results and in Method Validation.

Recovery on known doses

When a bottle has a **known dose** (Calibration, QC, and any other bottle you treat as known):

Field	Formula / meaning
RecPct	`100 × calculated concentration / dose`
DevPct	`RecPct − 100`
RecFlag	Pass/fail against the recovery limits you set

There is no separate Spike sample type in the bottle list — put the known amount on **Dose** (for standard addition, use the **spike increment**). See Set up an analysis and CalGroup & standard addition.

ISTD and ESTD curves both produce concentrations that feed RecPct the same way once a dose is present.

Curve and response limits

Limit	Typical use
MinCurveR2	Minimum acceptable coefficient of determination for the fit
MinRsp / MaxRsp	Response (area or height) window for a peak
MinQValue	Minimum qualifier / confirmation value
Qualifier counts	How many qualifiers must pass
MinCoElution	Minimum co-elution / overlap score when the method uses it
AboveCurveMaximum	Flag when the result sits above the top calibrator
PassFailFlag	Overall pass/fail roll-up for the result

Set these on the method / Quant tables before Analyze. Names match the columns you see in Quanto; leave a limit empty when you do not want that check.

Concentration limits

Set **TooLow**, **Low**, and **High** on Quant, Limit-group limits, or the Requested matrix. Headers are **TooLow** and **Low**; tooltips say TooLow is usually LOD or Trace, and Low is usually LOQ.

FastPositive, carry-over, and concentration flags use **Low** (and **TooLow** where the detection-vs-quant band matters). There is no separate reporting-limit (RL) field.

Unknown-sample results can show a **text form** of final concentration (Results grid **FConc text**, Key Review SuperCell, reports via `Result.FinalConcentrationText`):

Situation	Display
Method **No-peak text** is set (Properties → Results), there is no usable peak, and there is no FConc override	That text (example: `n.d.`)
Method **TooHigh prefix** is set and the result is TooHigh / at or above High	Prefix + formatted High (example: `> 10`)
Method **Below-Low prefix** is set and reported concentration is below Low	Prefix + formatted Low (example: `< 1`)
Otherwise (empty option, or none of the cases above)	The usual numeric final concentration

Numeric **FConc** / `Result.FinalConcentration` in reports and Key Review sums is the **effective** reported value: a finite Results **FConc** override when the analyst typed one, otherwise Native × Dilution. This is not the five-level **ConcentrationFlag** (TooLow / Low / None / High / TooHigh).

User override of final concentration

Results **FConc** is editable. Type a number to store `Result.ManualFinalConcentration` (batch TSV on the result row). Clear the cell — or Key Review context menu **Clear FConc override** — to restore computed Native × Dilution. Analyze refreshes the computed value and does **not** clear the override.

When an override is set:

- Reports (`Result.FinalConcentration` / `FinalConcentrationText`), Key Review SuperCell text, Amount / group **numeric** sums, and the Concentration flow **FinalConc** card use the override.
- **FConc text** skips no-peak text (the analyst supplied a number); TooHigh / below-Low prefixes can still apply.
- Sample-key auto ranking still uses **computed** Native × Dilution so an override does not change which SuperCell is auto-picked.
- The Results FConc cell is tinted; Key Review flags include **Override**; the flow FinalConc caption reads **Manual override**.

Where flags appear

- **Results** grid — per sample / Quant
- **Method Validation** pane — method-wide scan
- **Reports** — include flag / RecPct columns with Q. functions when your workbook needs them (Report formulas)

Practical tips

1. Start with recovery limits on QC (and maybe Calibration) before tightening R^2 and response windows.
2. After clearing a bad cal point (**Use** off), Analyze again so RecPct and curve flags refresh.
3. Blank offset and blank concentration change concentration — re-check RecPct afterward (Blank offset, Blank concentration).
4. For ISTD work, also watch ISTD response limits so a dead ISTD does not silently pass targets (ISTD).

Related

- Method design
- Method Validation
- ESTD / ISTD