K-Factor Deviation Report

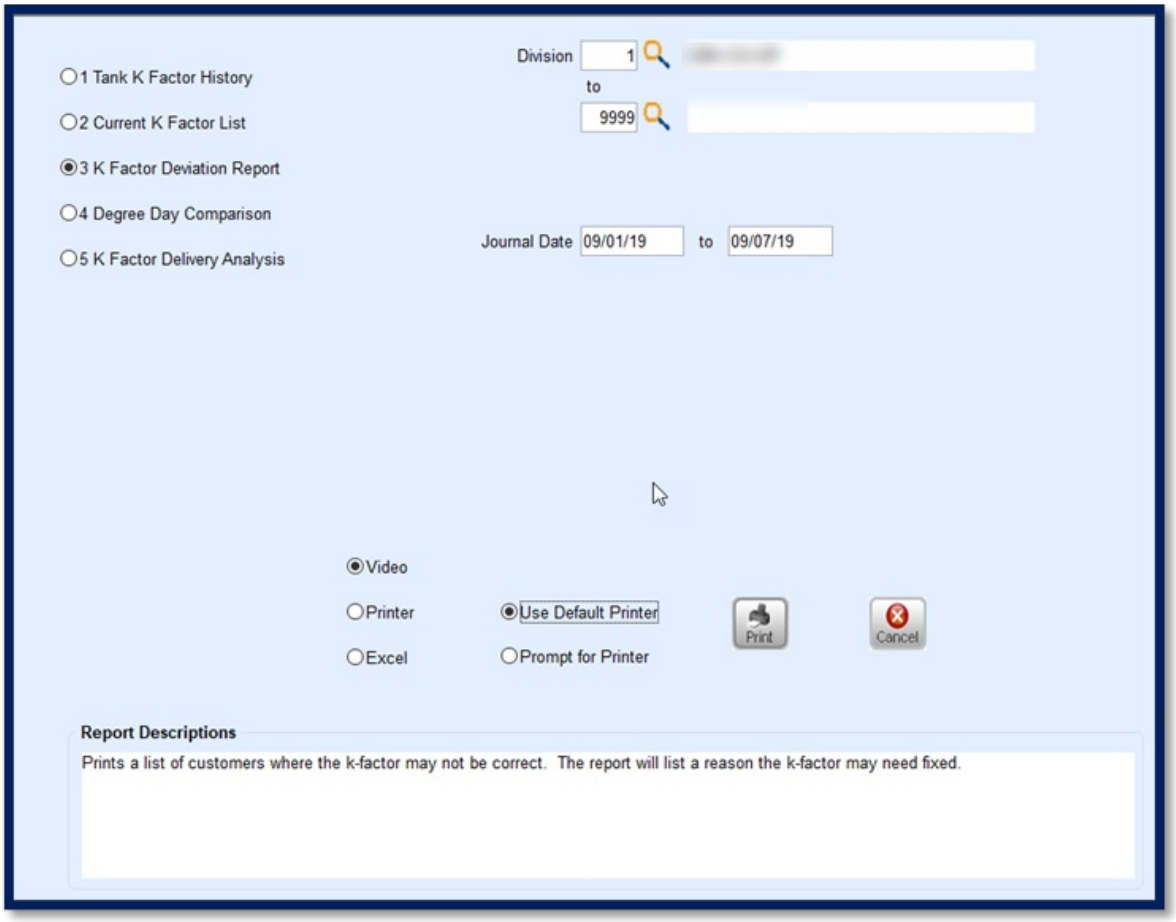
Last Modified on 02/04/2025 2:33 pm EST

What is a K-Factor Deviation?

As deliveries are made to Auto-Fill tanks, a new K-Factor is calculated for the tank based on current and prior deliveries. When a K-Factor wants to adjust by a value greater than what's allowed in the Division table, a record is written to the Deviation file. A report generates at the end of each sales journal.

Generating the Report

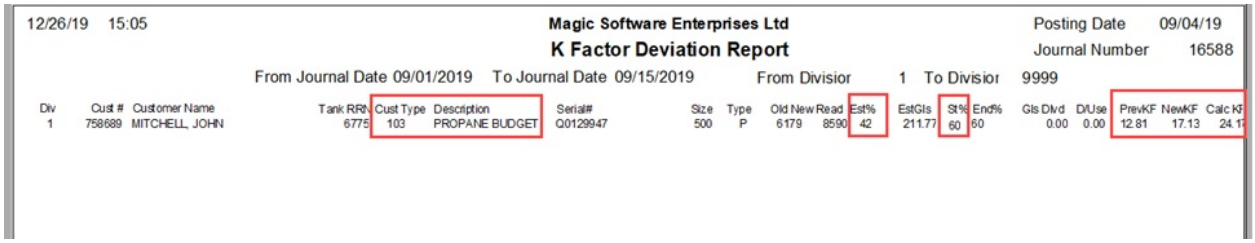
All journal reports can be printed at once by using a date range. To print the report, navigate to *Main Menu / Reports Menu / K-Factor Reports / K-Factor Deviation Report*. Enter the *Journal Date* range to review and select an output type of *Video*, *Printer*, or *Excel*. Select **Print**.



Viewing the Report

A page for each journal will be listed along with the customer account, tank, and deviation information.

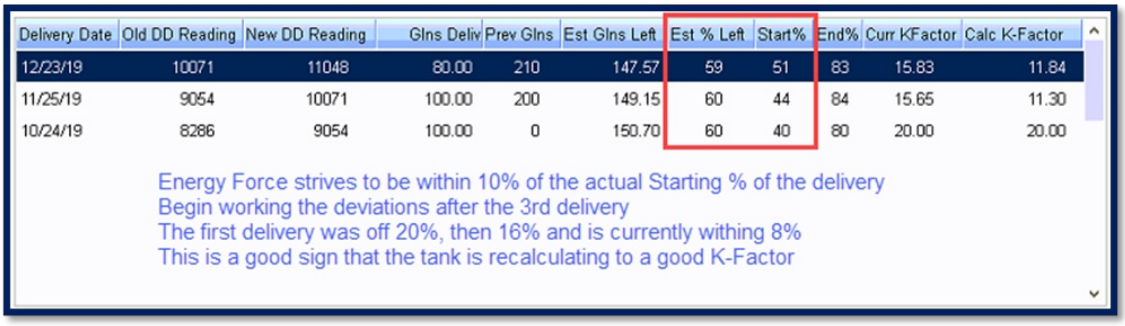
When looking at the report, it's important to pay attention to some key factors:



1. **Customer Name and Customer Type** – Review these fields as they might indicate right away that the customer should not be a K-Factor customer.
    - **Example:** Bob's Construction Company with a *Customer Type* of *Commercial* is probably not suited to be an autofill customer.
    - Rather than review the K-Factor analysis, modifying the Customer Delivery Type to *Will Call* or *Julian* is most likely the next step.
2. **Est% and St%** – This indicates how far off the tank percentage was at the time of delivery and whether to expect the K-Factor to increase or decrease.
    - Less product in the tank at delivery indicates the customer is burning propane at a much higher rate than expected and could cause a runout.
    - **Note:** Try to address this scenario first.
3. **PrevKF** – This shows what the K-Factor was before this delivery.
4. **NewKF** – This is what the system allowed the K-Factor to change to based on Division parameters.
    - When the New K-Factor is different compared to the value in the Division table, it prints on this report.
5. **Calc KF** – This is what the system wanted to change to but was not allowed due to the *Percent to Change* value in the Division table.

Work the Report

1. Begin by reviewing the report. Is the issue as simple as modifying the Delivery Type from a K-Factor tracking Delivery Type to a Julian, Will Call, or Monitor?
   If so, simply navigate to the *Tank* screen and modify the *Delivery Type*, making sure to create a Julian schedule if the Delivery Type is modified as such.
    - If modifying the Delivery Type from an Auto Fill, make sure to remove the K-Factor and Daily Use values.
    - It is always a good idea to verify with the delivery driver that the Delivery Type is being modified to an accurate status.
2. Review and address K-Factors that are trending downward, as those are the most vulnerable for future runouts if the customer is utilizing more propane than expected.
    a. Navigate to *Customer Maintenance / Tank Info* and review the tank. Ensure the Delivery Type and Tank Size are correct.
    b. Select **Tank Reading** to view readings for the tank.



Delivery Date	Old DD Reading	New DD Reading	Gls Deliv	Prev Gls	Est Gls Left	Est % Left	Start%	End%	Curr KFactor	Calc K-Factor
12/23/19	10071	11048	80.00	210	147.57	59	51	83	15.83	11.84
11/25/19	9054	10071	100.00	200	149.15	60	44	84	15.65	11.30
10/24/19	8286	9054	100.00	0	150.70	60	40	80	20.00	20.00

Energy Force strives to be within 10% of the actual Starting % of the delivery
Begin working the deviations after the 3rd delivery
The first delivery was off 20%, then 16% and is currently withing 8%
This is a good sign that the tank is recalculating to a good K-Factor

- If the tank does not have four or more tank readings, adjustments are not necessary.
- K-Factors begin adjusting with the second delivery made to the customer tank. It takes three deliveries to generate a good averaged K-Factor.
- Look for Deviations that occur on tanks starting with the fourth delivery.

3. For tanks with four or more deliveries:

Delivery Date	Old DD Reading	New DD Reading	Gls Deliv	Prev Gls	Est Gls Left	Est % Left	Start%	End%	Curr KFactor	Calc K-Factor
12/23/19	10425	11397	94.90	243	115.94	38	49	80	8.19	10.39
11/26/19	9299	10425	129.80	243	73.39	24	37	80	7.59	8.65
10/23/19	8476	9299	221.80	229	136.27	45	7	80	6.60	3.96
06/26/19	18939	19572	179.80	184	106.82	35	16	75	7.53	4.68
04/22/19	17853	18939	83.10	244	130.99	43	33	60	8.31	7.58
04/22/19	17853	18939	83.10	244	131.01	43	53	80	10.18	V 13.19
03/07/19	16724	17853	85.00	244	97.96	32	52	80	9.61	13.22
02/18/19	15453	16724	171.20	244	82.91	27	24	80	7.73	7.44

1. Review Delivery History. Does anything seem abnormal with previous deliveries in general?
2. Take a look at the previous delivery season to see if there has been a change in the number of deliveries. Are they using more or less?
3. Review all of the previous estimated and starting tank percentages. Has the tank ever been on target?
    - In the above example, it does not appear that this tank has ever been on target. It gets close, and then drops off again.
    - If no, it could be possible they are using an alternative heating method and are not suited for Auto Fill.
4. Were they once on track and now suddenly off?
5. The driver may have information needed to make an adjustment such as:
    - Do they have new appliances running off propane?
    - Review the *Appliance* tab to see if appliances exist, but without a daily use value.
6. Is a daily use value applied to the customer tank for the appliances?
    - If a daily use value is added to fix the Deviation report, do not forget to raise the K-Factor slightly to account for the adjustment.
    - The K-Factor has been trying to compensate for the lack of daily use by lowering with each delivery.
7. Have they recently added an addition to their home?
8. Are more people living in the home than before?
9. Are there alternative heat sources?

10. Review the Tickler file. Are there any notes about the tank utilizing other heat sources, the customer being out of town, tank repairs, etc.?

If none of these questions resolve the issue, reach out to the customer to see if anything has changed.