

When to Dilute

The ability to perform dilutions on the VetTest* Chemistry Analyzer allows you to quantify extremely elevated results.

The VetTest analyzer supports urine dilutions:

- When either the UPRO or UCRE test value is outside the linearity range of the VetTest analyzer
NOTE: Only the test value that is outside linearity needs to be diluted, not the entire ratio.

Urine Dilution Tips

- Perform a dilution only when a test value is accompanied by a greater than symbol (>) or dashes (---) on the patient report.
- Use the **deionized (DI) water supplied with** the Urine P:C Sample Preparation Kit.
- For best results, start with a 1:1 dilution (1 part sample to 1 part DI water).
- Do not exceed 10 parts DI water.
- Use an accurate measuring device, such as a calibrated pipette or syringe.

Preparing a 1:1 Dilution

For UPRO:

- Accurately measure the desired amount of urine to be diluted and gently transfer it to a sample cup.
- Accurately measure an equal amount of DI water and transfer it to the sample collected in step 1.
- Thoroughly mix the sample and DI water.
- Proceed to the analysis. Dilution procedures are outlined to the right.

For UCRE:

- Accurately measure the desired amount of **the sample prepared with the Urine P:C Sample Preparation Kit**.
- Accurately measure an equal amount of DI water and transfer it to the sample collected in step 1.
- Thoroughly mix the sample and DI water.
- Proceed to the analysis. Dilution procedures are outlined to the right.

Preparing Dilutions Greater than 1:1

For UPRO:

- If additional dilutions beyond 1:1 are necessary, **always begin with the original urine sample**.
- Incrementally increase the parts DI water as indicated in the dilution chart.

For UCRE:

- If additional dilutions beyond 1:1 are necessary, **always begin with the sample prepared with the Urine P:C Sample Preparation Kit**.
- Incrementally increase the parts DI water as indicated in the dilution chart.

Running a Diluted Sample on the VetTest Chemistry Analyzer

After preparing the diluted sample, follow the procedure below:

- From the VetTest main menu, select **1 – New Sample**.
- Select **7 – Dilutions**, enter the number of **diluent parts** (parts DI water) and press **E**. The species menu appears.
NOTE: If you are running the most recent patient entered into the VetTest analyzer, select **2 – Current Sample**. Then select **1 – Dilution**, enter the number of **diluent parts** and press **E**.
- Continue the normal testing sequence. Results printed out are automatically multiplied by the appropriate dilution factor (see the dilution chart).

Initiating a Diluted Sample Run on the IDEXX VetLab* Station

After preparing the diluted sample, follow the procedure below:

- On the IDEXX VetLab Station Home screen, tap **Analyze Sample**.
- Enter the patient information and tap **Next**.
- Select the instruments you are running. When the VetTest analyzer is selected, the default of 0 parts diluent fills in automatically. Tap the arrows to select the applicable **diluent parts** for your diluted sample.
- Tap **Run**.
- Continue the normal testing sequence. Results printed out are automatically multiplied by the dilution factor (see the dilution chart).

Dilution Chart

Volumes are for example only. Parts Sample + Parts DI Water = Total Parts

Parts Sample	Parts DI Water	Total Parts (Dilution Factor)
1 (10 µL)	0	1
1 (10 µL)	1 (10 µL)	2
1 (10 µL)	2 (20 µL)	3
1 (10 µL)	3 (30 µL)	4
1 (10 µL)	4 (40 µL)	5
1 (10 µL)	5 (50 µL)	6
1 (10 µL)	6 (60 µL)	7
1 (10 µL)	7 (70 µL)	8
1 (10 µL)	8 (80 µL)	9
1 (10 µL)	9 (90 µL)	10
1 (10 µL)	10 (100 µL)	11

Parts DI Water: The number entered into the VetTest analyzer when running the diluted sample

Dilution Factor: The total number of parts in the diluted sample; the VetTest analyzer automatically multiplies the result by this number to correct for the dilution

IDEXX VetTest* Chemistry Analyzer

Dilution Protocol: Plasma and Serum

When to Dilute

The ability to perform dilutions on the VetTest* Chemistry Analyzer allows you to quantify extremely elevated results.

The VetTest analyzer supports plasma and serum dilutions in two circumstances:

- When a test value is outside the linearity range of the VetTest analyzer
- When the sample contains interfering substances (e.g., medications) that cause a nonlinear or invalid result

Plasma and Serum Dilution Tips

- Perform a dilution only when a test value is accompanied by a greater than symbol (>) or dashes (---) on the patient report.
- Use normal saline (0.9%) as the diluent.
- For best results, start with a 1:1 dilution (1 part sample to 1 part saline).
- Do not exceed 10 parts saline.
- Use an accurate measuring device, such as a calibrated pipette or syringe.

Preparing a 1:1 Dilution

1. Accurately measure the desired amount of plasma or serum to be diluted and gently transfer it to a sample cup.
2. Accurately measure an equal amount of saline and transfer it to the sample collected in step 1.
3. Thoroughly mix the sample and saline.
4. Proceed to the analysis. Dilution procedures are outlined below.

Preparing Dilutions Greater than 1:1

- If additional dilutions beyond 1:1 are necessary, always begin with the original, undiluted sample.
- Incrementally increase the parts saline as indicated in the dilution chart.

Running a Diluted Sample on the VetTest Chemistry Analyzer

After preparing the diluted sample, follow the procedure below:

1. From the VetTest main menu, select **1 – New Sample**.
2. Select **7 – Dilutions**, enter the number of **diluent parts** (parts saline) and press **E**. The species menu appears.
NOTE: If you are running the most recent patient entered into the VetTest analyzer, select **2 – Current Sample**. Then select **1 – Dilution**, enter the number of **diluent parts** and press **E**.
3. Continue the normal testing sequence. Results printed out are automatically multiplied by the appropriate dilution factor (see the dilution chart).

Initiating a Diluted Sample Run on the IDEXX VetLab* Station

After preparing the diluted sample, follow the procedure below:

1. On the IDEXX VetLab Station Home screen, tap **Analyze Sample**.
2. Enter the patient information and tap **Next**.
3. Select the instruments you are running. When the VetTest analyzer is selected, the default of 0 parts diluent fills in automatically. Tap the arrows to select the applicable **diluent parts** for your diluted sample.
4. Tap **Run**.
5. Continue the normal testing sequence. Results printed out are automatically multiplied by the dilution factor (see the dilution chart).

Dilution Chart

Volumes are for example only. Parts Sample + Parts Saline = Total Parts

Parts Sample	Parts Saline	Total Parts (Dilution Factor)
1 (10 µL)	0	1
1 (10 µL)	1 (10 µL)	2
1 (10 µL)	2 (20 µL)	3
1 (10 µL)	3 (30 µL)	4
1 (10 µL)	4 (40 µL)	5
1 (10 µL)	5 (50 µL)	6
1 (10 µL)	6 (60 µL)	7
1 (10 µL)	7 (70 µL)	8
1 (10 µL)	8 (80 µL)	9
1 (10 µL)	9 (90 µL)	10
1 (10 µL)	10 (100 µL)	11

Parts Saline: The number entered into the VetTest analyzer when running the diluted sample

Dilution Factor: The total number of parts in the diluted sample; the VetTest analyzer automatically multiplies the result by this number to correct for the dilution

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