

**KTMR-18 RECOVERY OF ASPHALT FROM SOLUTION BY ABSON METHOD**  
**(Kansas Central Lab Test KT-MR-18)**

**a. SCOPE**

KT-MR-18 is identical to AASHTO R 59, Recovery of Asphalt from Solution by Abson Method, except remove the following from section 8.4 “but no longer than 30 minutes.” and replace sections 9.1, 9.2 and 9.3 with the following:

**b. REFERENCED DOCUMENTS**

**b.1.** AASHTO R 59; Recovery of Asphalt from Solution by Abson Method

**c. PROCEDURE**

**c.1.** The entire procedure, from start of the extraction to final recovery, must be completed within eight hours.

**c.2.** Centrifuge the solution from the prior extraction for a minimum of 30 minutes at 770 times gravity. Use 250-ml wide mouth bottles.

**c.3.** Perform the test procedure as follows:

**c.3.a** Assemble the apparatus as shown in Figure 1.

**c.3.b.** Transfer the solution from the wide mouth bottles into two 500-ml flasks through the attached 125-ml separatory funnels.

**c.3.c.** Introduce carbon dioxide at a slow rate (approximately 100 ml/min.) to provide agitation and prevent foaming.

**c.3.d.** Concentrate the solution to approximately 600-ml by a primary distillation operation. (300 ml in each flask).

**c.3.e.** Using the separatory funnel, transfer the residue from one of the primary distillation flasks into the other 500 ml flask. Use several washes of solvent to completely transfer all the residue.

**c.3.f.** Continue the distillation until the temperature reaches 157 - 160°C (315 - 320°F). At that point, increase the carbon dioxide gas flow to approximately 900 ml/min. Maintain this gas flow rate for the duration of the procedure.

**c.3.g.** When the temperature of the residue in the flask reaches 160 - 166°C (320 - 330°F), maintain this temperature for 10 minutes. The setting of the variable transformer for obtaining this

temperature can be established by a few trial runs; generally a higher setting can be used for the main distillation, reducing the setting when most of the solvent has been vaporized.

**c.3.h.** If after 10 minutes dripping of condensed solvent from the delivery tube is still occurring, maintain the gas flow and temperature until 5 minutes after the dripping ceases in order to flush solvent vapors from the flask. In no case shall the time of flow of carbon dioxide gas be less than 15 minutes.

**c.3.i.** At the end of this period, discontinue gas, flow and heat.

**c.3.j.** Continue with section **9.4** of AASHTO R 59.

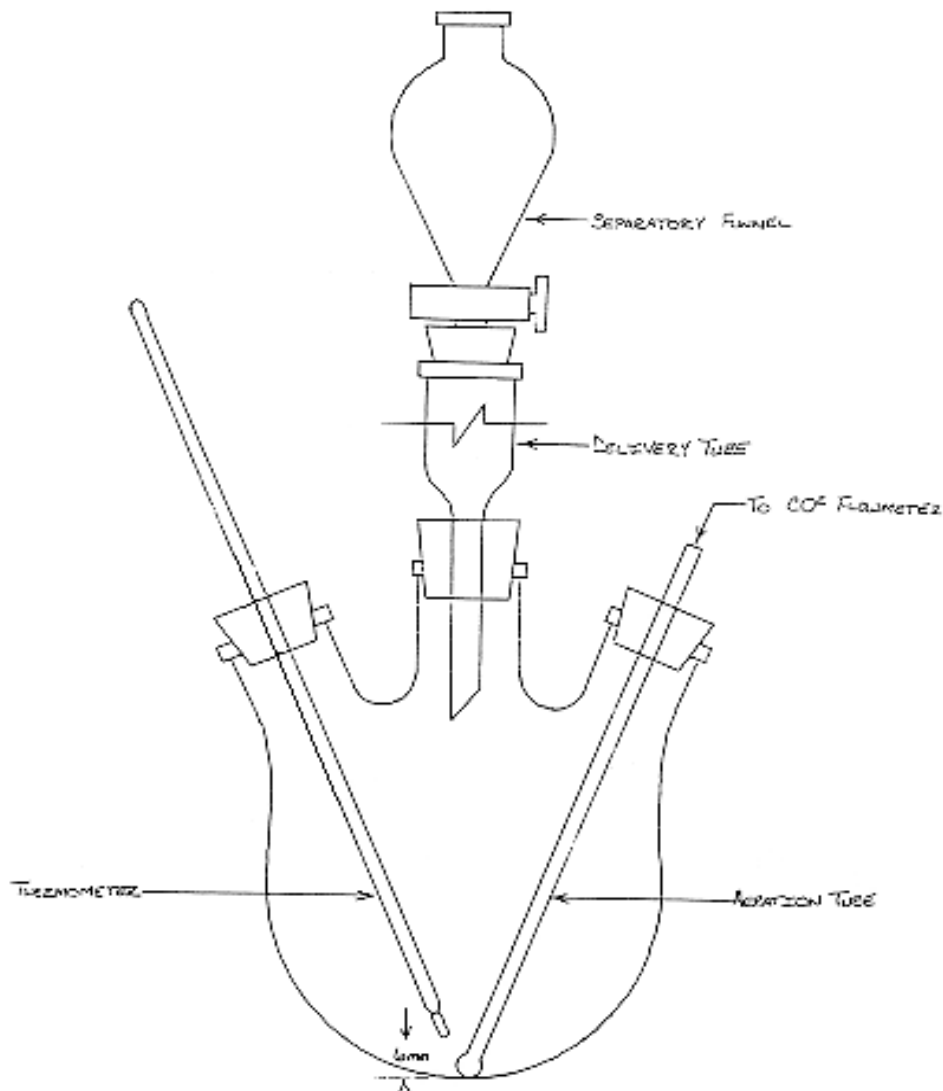


Figure 1