



Application Protocol: Mince Meat

Beef Mince

Instrument Model: NIT-38 Meat Analyser

No.: 720 **Date:** 25 February 2009 **Rev.:** 2.1

Description:

This protocol is to be used for the analysis of minced beef products. Whilst it may also be adapted for other minced products (lamb, etc) it is best suited for the use of beef.

Instrumental Parameters:

Cell Type	NIT-38 10mm Squeeze Cell
Pathlength	10mm
Integration Time	40000
No. Scans to Average	10

Constituents:	Range: MIN	Range: Max
Fat	2	20
Moisture	40	80
Protein	5	40

Sample Preparation:

The mince should already be well minced to at least a 3mm consistency and mixed so that the distribution of fat is consistent throughout the mince. Weigh 60grams of mince and pack it into the clean sample cell. Use a large flat object to level the mince in the cell. The mince should be level with the top of the cell. Close the Squeeze Cell and make sure that there are no air gaps and that the mince is evenly distributed in the cell.

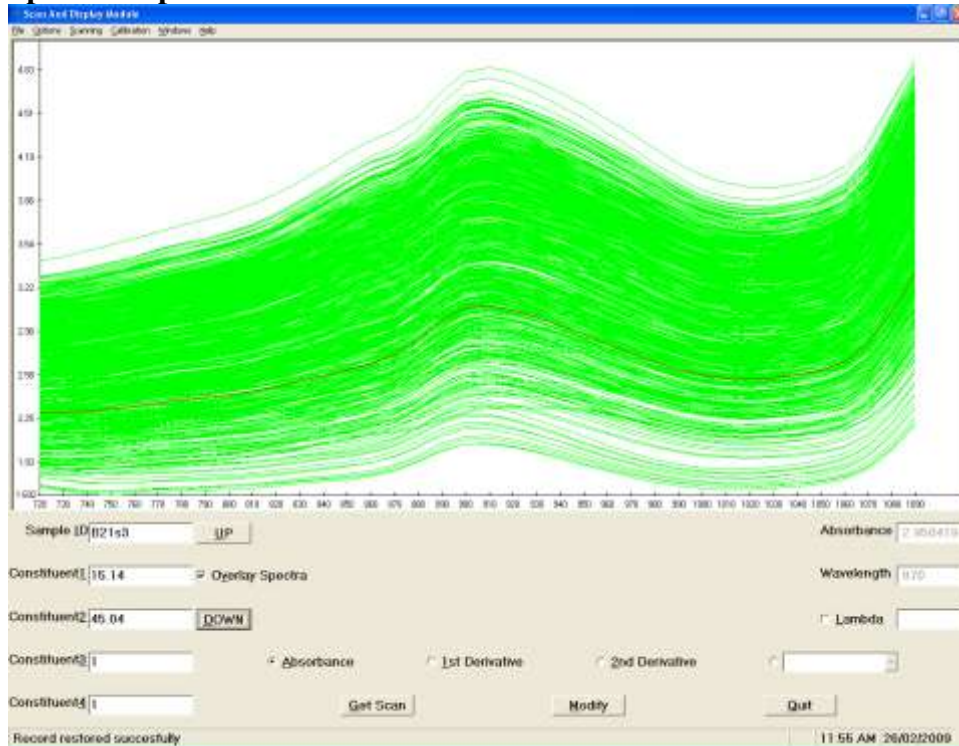
Sample Weight: 60 grams

Sample Temp: 20° C (Room Temperature)

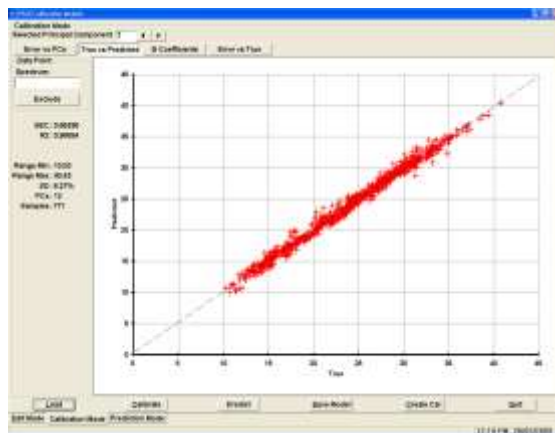
Comments:

Care must be taken to avoid any large air pockets in the mince in the cell.

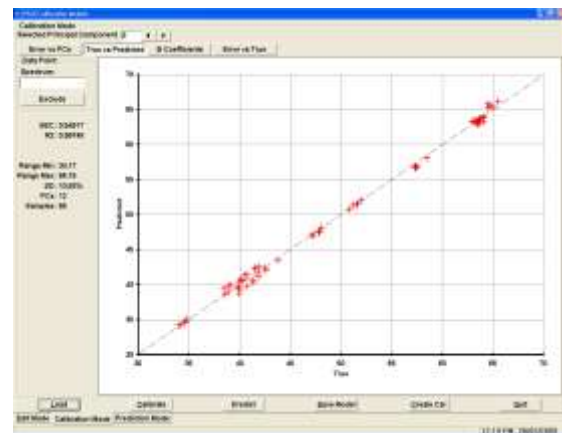
Spectral representation of beef mince:



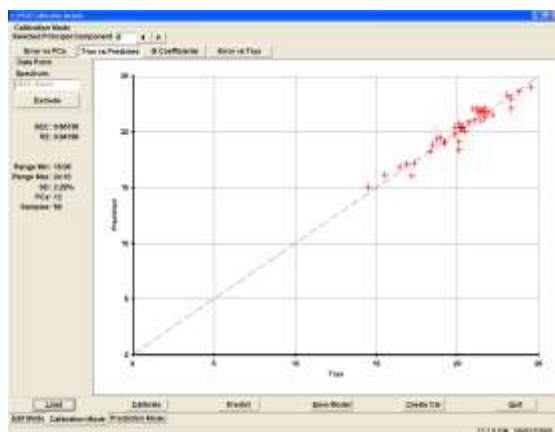
Calibration Statistics: Plots of True vs. Predicted values for each constituent.



Constituent 1: Fat



Constituent 2: Moisture



Constituent 3: Protein