Write functions in Excel VBA to calculate the enthalpies for the following compounds:
O_2, N_2, CO_2, $H_2O(l)$, $H_2O(v)$, CH_4, and wood
Use the heats of formation method with reference states of elements at 25°C for the chemicals, and use wood at 25°C for its reference state. Use the thermodynamic properties in the heat capacity tables. Try to find estimates for the heat capacity of oven-dry wood from other resources. It will be about 1/3 of that for water.

Set up the following stream table in Excel, and use your functions to calculate the enthalpy flows of Stream 1 and Stream 2.

Stream Conditions		**Stream 1**	**Stream 2**
Temperature	°F	75.00	200.00
Vapor Fraction		1.00	0.00
Mass Flow	LB/HR	122,500	70,000
Enthalpy Flow	MMBTU/HR		
Component Mass Flow			
METHANE	LB/HR	3,100	0
CO2	LB/HR	400	0
NITROGEN	LB/HR	90,000	0
OXYGEN	LB/HR	27,000	0
WATER	LB/HR	2,000	40,000
WOOD	LB/HR	0	30,000

Submit your Excel Sheet. Be sure to save it as a name.xlsm file type.