Table VI F2.2. Key-word-based file needed for generating ENDF File 2 output.
For each key word used, only those few characters written as capitals in the table are required; those in lowercase are optional. Key words may be given as capitals or in lower-case or in mixed case.

Card set	Key word variable	Notes
1	Z	Z for target nucleus
	A	Atomic mass number
	ZA	If different from (1000 * Z + A), then this value must be inserted directly
	AWr	Ratio of the mass of the sample nucleus to the neutron mass. AWR is the ratio of the mass of the sample to the neutron mass; the default value is AW/*aneutron*, where AW is the mass as given in the SAMMY INPut file and *aneutron* is the mass of the neutron. In general, it is recommended that the default value be used for AWR.
	Mat	ENDF MAT number (default = 9999)
	MT	ENDF reaction number, for file 3 output
	LRF	Which ENDF file 2 format and which R-matrix approximation are to be used (1=SLBW, 2=MLBW, 3=RM, 7=RML). If LRF is not specified, SAMMY will choose the appropriate value.
	LCOmp	Which ENDF file 32 format is to be used: LCOMP = 0 can be used only for LRF = 1 or 2; results are not guaranteed to be correct. Use of this format is discouraged. LCOMP = 1 can be used for LRF = 1, 2, 3, or 7, or for URR. LCOMP = 2 (“compact”) can be used for LRF = 1, 2, 3, or 7, or for URR. However, this format should be used with extreme caution as it is a relatively crude approximation. (The format for LCOMP = 1, LRF = 7, was accepted as an official ENDF format in November, 2006.)
	NDigit	Number of digits to be used for LCOMP = 2. NDigit = 2,3,4,5,6 are approved ENDF formats.
	DIAgonal	If LCOmp = 1 and DIAgonal = Yes, then only the diagonal pieces of the covariance matrix will be specified in File 32.
	NUmber	Number of energies to be included (for URR only)
	E	Energy (for URR)

Table VIF.2 (continued)

Card set	Key word variable	Notes
1 cont.	DEfault uncertainty *or* DU	Relative uncertainty for unflagged parameters. The value of the uncertainty to be printed in File 32 is this value times the value of the parameter.
	FLagged	Only resonances with flagged parameters (flag = 1) will be included in file 32. (No value needs to be given here.)
	ALl	All resonances are to be included in file 32. (No value needs to be given here.)
	(blank)	Terminate this card set with a blank line.
2	ISOtope or NUClide	(No value needs to be given here.)
3	Z	Z for target nucleus (this isotope)
	A	Atomic mass number (this isotope)
	ZA	If different from (1000 * Z + A), then this value must be inserted directly.
	AWr	Ratio of the mass of the sample nucleus (this isotope) to the neutron mass. Again, it is recommended that the default value be used rather than giving the value here explicitly.
	ABn	Abundance for this isotope
	SPin	Ground state spin for this isotope
	(blank)	Terminate this card set with a blank line.
4	L (card set is not needed for LRF = 7)	Orbital angular momentum for this ENDF spin group. On the same line, give key word "GROUP" and specify the SAMMY group numbers that contribute to this *l* for this isotope. Example: L=0, Group=1,2,3
5	Repeat card set 4 as many times as needed, ending with a blank line.	
6	Repeat from card set 2 through 5, as many times as needed. (CAUTION: The author does not guarantee that the program will work properly for more than one isotope.)	
7	SHort	For LCOMP = 1, LRF = 3, the "short-range section information" follows this line; see the ENDF-102 description of File 32 input for details. Be sure that at least two blank lines precede this line.

Table VIF.2 (continued)

Card set	Key word variable	Notes
8	N	Ordinal number for this short-range section. (This number is for your use only, so the value need not be correct.) On the same line, give key word "Spin group" and specify the ordinal numbers for the spin groups to be included in this section. Example: N=1 S=1,3,4
9	energy range	On the line immediately following card set 8, give the energy range (minimum to maximum) for resonances to be included in the short-range section. No key word is required, but an equal sign must be present. Example: Energy range = -10. 20.
10	Repeat card sets 8-9 as many times as needed. End with a blank line.	