Sound Velocity Worksheet

revised November 26, 2003

Your Name: _____ **Signature:** _____

Lab partner(s): _____

Course & Section: _____ **Station #** _____ **Date:** _____

Distance *d* with uncertainty and units: ***d*** **=** _____ **±** _____ _____

What is the uncertainty in your measurements of time? _____

Trial	Time	Velocity
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Mean velocity = _____ Standard dev. = _____ St. dev. of mean = _____

Calculated uncertainty in velocity for one typical run. δ_v =_____
Show your work on the back of this page.

How does this uncertainty compare to your results for Standard Deviation and St. Dev of the mean for your multiple trials? Do your results make sense?

B = _____ ± _____ Show your work on the back of this page.
Attach a printout of one of your *Logger Pro* plots.

GRADE:_____ (out of 15 points)

GRADED BY _____ (TA's initials)

Show your work for the calculation of the uncertainty in velocity for one typical run and for your calculation of the bulk modulus of air and its uncertainty: