**Tech Problem**

The Halfway Do it Mine is a 3-entry development. Air enters the mine through the # 3 entry and exits the mine through the #1 and #2 entries. You are standing in the #2 entry. You will need to determine the airflow in the #2 entry using a vane anemometer and using a smoke tube. Take a reading from the test port in the permanent stopping with man door between the #1 and #2 entries using the magnehelic gauge.

Field Set-Up

![A picture containing shoji

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**Field Set-Up Notes**

Use 10 feet widths on the field. The pipe used for height can be anything measurable. I am providing the heights and widths for each exercise (anemometer and smoke tube). They will be different.

**Anemometer**

Width 19.5 feet

Height 4.5 feet

Anemometer Reading – “See Anemometer Picture”

Anemometer Reading is 535 ft/min

Correction Factor is -6

Corrected Anemometer Reading is 529 ft/min

Area is 87.75 ft2

Airflow is 529 ft X 87.75 ft2 = 46,419.75 CFM

**Smoke Tube**

Width 19 feet

Height 5 feet

Smoke Tube – measure off 10 feet

Quadrant 1 time is 12 seconds

Quadrant 2 time is 13 seconds

Quadrant 3 time is 15 seconds

Quadrant 4 time is 10 seconds

Avg Time = 12.5 sec

Velocity = 10 ft/12.5 sec = 0.8 ft/sec = 48 ft/min

Area = 95 ft2

Air Flow = 95 ft2 X 48 ft/min = 4560 CFM

**Magnehelic**

Magnehelic Reading – “See Magnehelic Picture”

Magnehelic Reading is 0.22 in H2O

Reflected as “Positive” [should use high pressure hose]

Close-up of a ball bearing gauge

Description automatically generated with medium confidence

A close-up of a gauge

Description automatically generated with medium confidence