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**Rubric: Experiment 4b:Chem 6614   
*Environmental Sleuthing***

\_\_\_2 **industry standard followed.** Subsections titled

**\_ 3 Purpose:** states actual desired goal and is done succinctly in full sentences

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\_\_\_ Instrument conditions indicated (either here or in Observations)

\_\_\_ some discussion of how to analyze is present (either here or in Calculations)

\_**\_**rationalization of selected analysis band presented (free of water or acetone interference)

\_\_\_ Solution prep for standards described

*\_\_\_*Overall, sufficient detail is provided to allow reproduction of your measurements

**\_\_/7 Observations**

**\_\_\_** raw, annotated spectra included

\_\_ main spectral band positions, shapes and intensities are tabulated and clearly labeled

\_\_\_ labeled tables of Area vs aliquot count of % acetone for unknown and known runs

\_\_\_ instrument and settings explicit (ID of IR , ATR instrument; scan #, cm-1 range scanned

**\_\_/13 Calculations**

\_\_\_ rationalization of bands observed; which are H2O and which are acetone’s and why

\_\_\_linear regression done correctly and recorded clearly : plots/equations/r2

\_\_\_\_ Calculations for Cacetone in unknown samples 1-5 clear

\_\_/**10 Results**

\_\_\_\_ identity of likely contaminant

\_\_\_\_ v/v% of samples 1-5

1. Provide a paragraph or two evaluating your results in terms

\_\_\_Whether the data supports the contaminant coming from the factory.

\_\_\_\_Where the contamination source might be and why if not from the factory.

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