Can't Judge a Powder – Part 2

Allendale Division B Invitational – February 25, 2023

If you have an observation corresponding to a question, only list the number of that observation

Team: _____ #: _____

1. How much of the powder sample was provided to you?

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2. What was the shape of the powder grains?

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3. Did the powder sample have an odor?

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4. Was the powder soluble in water?

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5. What type of compound was the powder, molecular or ionic?

TEAM: _____ #: _____

6. Was the aqueous solution of the powder acidic, basic, or neutral?

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7. Was the aqueous solution of the powder transparent, translucent, or opaque?

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8. Was the dissolution of the powder in water endothermic or exothermic?

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9. Was the powder soluble in either HCl or NaOH?

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10. When the powder was added directly to HCl, what was the pH of the resulting solution?

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11. By how much did the pH of the solution from question 10 change when one drop of NaOH was added to it?

TEAM: _____ #: _____

12. Did the temperature of the NaOH increase or decrease when the powder was added directly to it?

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13. Was a precipitate formed when HNO_3 was added to the aqueous solution of the powder?

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14. Did the pH of the HNO_3 increase or decrease when the powder was added directly to it?

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15. Was there evidence of any gas being produced when any one of the reagents was added to the powder?
