Action Opportunities **Worksheet**

Team: NPK Group (Methods Forum 2015, Jacksonville, FL) DRAFT

Near Term

- Have prepared an SRM for 0-0-60 or 0-0-62 (Able Labs and LQSI/SGS). About 500 to 600 lbs. Maybe Bill Hall can help with grinding. Preference over 60 vs 62? 60 is preferred. Should be available less than 1 yr. (Note: PotashCorp/Barbara offered to provide this material and cover costs – Thanks!!!)
- Dilutions. Instrument dilution option: Orange-white sample. Red-red internal standard ~ 4X dilution. Waste line is variable yellow-yellow, purple-black, just so considerably bigger. (Note: conc of IS and buffer must be reduced since pumping in more volume).
- Dilution factor for manual off-line dilution, try 5x and 10x. Sanford and James will do. Will use HNO3. May need different standards to mimic citrate-EDTA conc in dilutions. Details to be determined.
- Dennis is going to work with H2O2. Acetic acid and citrate-EDTA extract, add H2O2 various conc., see if/where baseline gets clean.
- Dion (Spectro) will work on parameters for adding O2 on-line to sample before plasma (as done with oil samples) to test reduction of Carbon impact. Barbara will send samples and standards for P and K method. O2 addition could be an add on for some PE and other ICP instruments.
- Dawne will send information to Dion with issue related to sample prep for high K samples (acid digest).

Near Term

- James send batch of liquid standards high concentrates to Scott (Simplot) to test different pump tubes with PE instrument.
- After preliminary work, James will develop SOP with help for practice samples.
- Option A is method as written (in line dilution
- Option B is O2 addition
- Option C is H2O2 addition
- Option D is off line dilution

Early June
Complete the investigatory work on options.

July
Practice samples sent out

- Brian will investigate the possible use of portable refractive index and densitometer equipment for N determination of UAN. Brian will also continue on with ISO method validation of combustion technique. Where possible, others will support Brian's efforts.

Action Priorities Worksheet

Team:

Not Capable/High Priority	Capable/High Priority
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Not Capable/Low Priority	Capable/Low Priority

Action Assignments

Team:

1 **Action Idea:**	**Champion:**	**Date Started:**	
		Target Completion:	
WHAT needs to be done?	**WHO will do it?**	**WHEN will it be done?**	✓
Prepare 0-0-60 for SRM	Able Labs, LQSI, Potash Corp, Barbara	Jan 1st, 2016	
Finish batching collaborative study samples and complete homogeneity testing	Testing (James) Data Assistance (Frank)		
Option B: Off line dilution	Sanford/James	By Early June	
Option C: H2O2 addition	Dennis	By Early June	
Option D: O2 addition	Deion (Spectro) Tim/Barbara (PotashCorp)	By Early June	
Dawn send Deion info on issues with sample prep analysis of high K samples with acid digestion	Dawn (Mosaic), Dion (Spectro)		
Evaluation of pump tubings/settings with PE instrument	Scott	By Early June	
Develop SOP for practice samples to collect data on prior to collaborative study	James with guidance	June	
Send out or ask labs to redo practice samples with improved SOP	James	July	

2 **Action Idea:**	**Champion:**	**Date Started:**	
		Target Completion:	
WHAT needs to be done?	**WHO will do it?**	**WHEN will it be done?**	✓
Pursue validation of R.I. and S.G. for UAN	Brain	Make progress in 2015	
Pursue ISO validation of N Combustion Method	Brain	Make progress in 2015	
Support Brian with evaluation of densitometer units and other assistance to the extent possible	Sanford/ Others	Dec 2015	

Action Assignments

Team:

3 **Action Idea:**	**Champion:**	**Date Started:**
		Target Completion:

WHAT needs to be done?	**WHO will do it?**	**WHEN will it be done?**	✓

4 **Action Idea:**	**Champion:**	**Date Started:**
		Target Completion:

WHAT needs to be done?	**WHO will do it?**	**WHEN will it be done?**	✓