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**NEXT MEETING: September 28, 2016**

**"A Comparison Between the Automated Filter Press (AFP) and Counter Current Decantation (CCD) for Solution Recovery from Acid Leach Tailings"**

PRESENTER: Kent J. McGrew, P.E., Tons Per Hour, Inc.

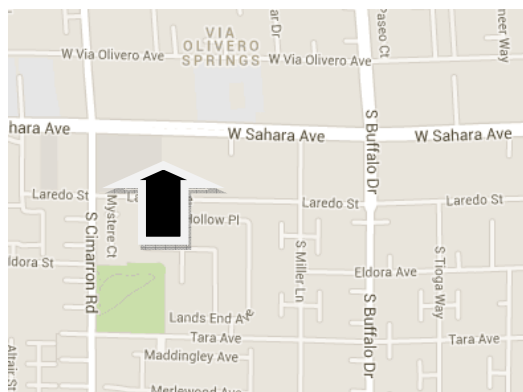
**RSVP to one of the following no later than September 23, 2016. Provide Full Name, Company/Title**

<b>James Marriott</b>	Chairman	(702) 891.0026 Ext. 109	<a href="mailto:JMarriott@ventureengr.com">JMarriott@ventureengr.com</a> ,
<b>Marianne Springer</b>	Vice Chairman	(702) 373-4872 (cell)	<a href="mailto:mspringer@carollo.com">mspringer@carollo.com</a> ,
<b>Tim Myers</b>	Treasurer	(813) 230-2557 (cell)	<a href="mailto:tmyers@hychem.com">tmyers@hychem.com</a>

**Dinner is \$30.00 for members and \$15.00 for students**

<b>Time:</b>	<b>6:00 pm</b>	Social Hour
	<b>6:45 pm</b>	Dinner
	<b>7:30 pm</b>	Presentation

**LOCATION OF MEETING : MARIE CALLENDER'S @ 8175 W. SAHARA AVE., LAS VEGAS**



**Abstract:**

Comparisons of capital and operating costs are made between two copper leaching operations: Minera Rio Tinto, a copper mine in northern Mexico using Automated Filter Press (AFP), and CS Mining, a copper leach operation in Utah using Counter Current Decantation (CCD). Our study indicates there are significant capital cost savings with the AFP installation: Cost for stainless steel tanks alone in the CCD circuit add 38% more cost compared to the AFP installation; total capital cost is 2.3 times greater for the CCD; and operating expense for the CCD circuit is approximately \$2.00 per ton of ore greater due to the additional required flocculent.

**Kent McGrew****EXPERIENCE SUMMARY**

Mr. McGrew is an expert metallurgical engineer with over 40 years of experience worldwide, serving the mining and mineral processing industry. His expertise includes metals recovery and ion exchange process development and design. He has engineered full-scale and pilot-scale recovery systems for various metals, including gold, uranium, radium, aluminum, copper, zinc, tungsten, vanadium and mercury, as well as non-metallics including ammonium nitrate and phenols. He has national and international experience in mine operations and mineral processing facilities construction and operations.

**EDUCATION**

M.S./Mineral Dressing Engineering/ Montana Tech/  
1974

B.S./ Mineral Dressing Engineering/ Montana Tech/  
1968

US Army Engineering OCS / Fort Belvoir, VA /  
Commissioned Dec, 1969 2<sup>nd</sup> Lieutenant/ US Military  
Certified Master Blaster / Engineering Staff Officer  
and Combat Engineer MOS.

**PROFESSIONAL REGISTRATIONS/  
CERTIFICATIONS**

Professional Engineer -Metallurgical Engineering/ AZ  
26146

Professional Engineer -Metallurgical Engineering/ CA -  
1742

**PROFESSIONAL AFFILIATIONS**

Society for Mining, Metallurgy, and Exploration, Inc.  
Chairman of Fourth Western Regional Conference on  
Precious Metals and the Environment, Sept. 1990  
Past Chairman of the Black Hills Section, SME  
Associate, Minerals Advisory Group, LLC

**PUBLICATIONS**

"Selenium Reduction via Conventional Water  
Treatment", Kent J. McGrew, Dr. Jack Murphy, Doug  
Williams

"Industrial Wastewater Treatment Methodology", in  
publication, Kent J. McGrew

**REPRESENTATIVE EXPERIENCE****Westmont Gold, Jefferson, South Carolina.**

Developed the process for the removal of selenium from the Brewer Pit water. Mobilized and operated pilot plant for stabilization of selenium bearing sludge from the original water treatment plant, design and procurement of a 1,000 gpm water treatment plant and consulting services for neutralization of the leach heaps. Pilot plant was later refurbished and sold to Unical for precipitation of selenocyanate from sour waters at their Rodeo, California refinery.

**Berkely Pit, Butte Montana.** Design and construction of a 1,000 gallon batch treatment plant for all of the reject waters from the Berkeley Pit New Technology Treatment Demonstration Program. Designed and constructed this plant in the Congress, Arizona facility and transported and installed as contracted. Reagent supply and instrumentation support continued throughout the life of this project.

**Newmont Gold Quarry, Carlin Nevada.** Design consulting, construction and operation of a 50 gpm co-precipitation plant using ferric hydroxide precipitation for removal of arsenic and selenium. Consulted on modifications to a plant and operated the last stages of the development work to finalize design criteria for Cominco Engineering for the construction of a 25,000 gpm treatment facility for a pit dewatering project.

**Rawlins Incinerator Plant, Dear Park, Texas.** Design and construction of a 10 gpm pilot plant for selenium and antimony removal. This project encompassed laboratory development for the process used by Rawlins and the design criteria for the pilot plant. The plant was constructed in the Congress, Arizona lab and pilot plant facility and transported, installed and operated for the client.