

## Group #3 Notes:

Michael Edwards –EMSL

Mike Wilton – WMC Genesee

Alison Pierce- Phoenix

Dan Schweigel – Hecla

Sven Lumberg - MES

Ryan Krebs - CCMC

Steve Wetzel - General Cable

## Safety:

Exposure heights, Used LED lights

Phoenix lighting ,: 41,000 lumens, 450 Watts

LED bulb Replacements

Environmental Compliance

Hot Gloves 20KV

## New Innovations and Technology:

Lighting LED Durability, 50,000 hrs of life, lenses can be replaced to change optics, field serviceable

Underground wireless, Minsite-machine health

Collision avoidance, ignition- Monitors machine Health, control of fans,

Infrared imaging system

Phoenix teeth on buckets, IS1000

Flir iphone camerap mount

Avtron - Mineview

## Future Topics:

Changing the days

Remote Blasting (underground)

Ventilation on Demand

Fan Speed when going for diesel to line power

Humidifier sensors on Draglines for commutator and fan control

Future Locations:

Hawaii, going further east to get the Midwest, Las Vegas