



Member update KBI / RetrieV Technologies  
March 13, 2019





- Locations

Anaheim, California – TSDf,  
Part B Permit Cal EPA

Brea, California – xEV  
Strategies, supports HEV/EV  
battery customers.

Lancaster, Ohio – TSDf, Part B  
Permit Ohio EPA (Retriev  
Technologies)

Trail, British Columbia, Canada  
– TSDf Equivalent, Permitted by  
Ministry of Environment Canada.  
(Retriev Technologies)



- Facility Upgrades – Anaheim, California



- 4M dollar process improvement in Anaheim
- 16,000 Sq.ft. production enclosure.
- 50, 000 cf/m FEF (fugitive emissions filter)
- Minimum of 200cfm negative pressure process control in area.
- Point source controls for all aspects of the lead battery recycling process.
- KBI's ambient air samplings shows magnitude below any current regulatory limit and approximately a tenth of any future proposed limitations for lead emissions.

- Lithium Ion battery recycling is happening in North America.
- RTI recycled their first lithium ion battery in 1996. Since 2000, RTI has processed and recycling over 13 million pounds of lithium ion batteries.
- Trail, B.C. and Lancaster Ohio.
- Current R &D project nearing completion results due within the next 30 days.
- Addition to the backend of the recycling process.
  - Better separation of contained materials.
  - Increase value to customers.
  - Reintroducing materials back to supply chain.

# Looking to the Future

- Enhancing current processes in North America.
  - Higher value yield.
  - Availability of materials.
  - Adopting closed loop models for Li Ion batteries in North America.
- Extending batteries useful life through 2<sup>nd</sup> use.
  - Brea, California facility xEV Strategies facility for 2<sup>nd</sup> use exploration.
  - Focus will be on energy storage systems.
  - Assess for some automotive applications.



Thank You