



Solar Radiance as a Latent Heat Source in the Enhanced Evaporation Process for Leachate Volume Management

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- Leachate Management Starts in the Planning Stages of the Cell
- Best Practices Include Volume Management in the Ops Planning



- The Sun as a Latent Heat Source for Enhancing Evaporation
- Evaporators are cooling towers
- Harnessing and utilizing the heat to increase phase change efficiency



Frame are Fixed Angle facing SSW

60 Mill HDPE Gray to reflect

Full Weather Station Davis Vantage Pro II

With Solar and UV detectors

Visible intensity monitored by
Camera lighting monitor





3 years of data collection

End of June will be the end of the first years data

Equinox and Solstice data collection

Low pressure testing last 11 months





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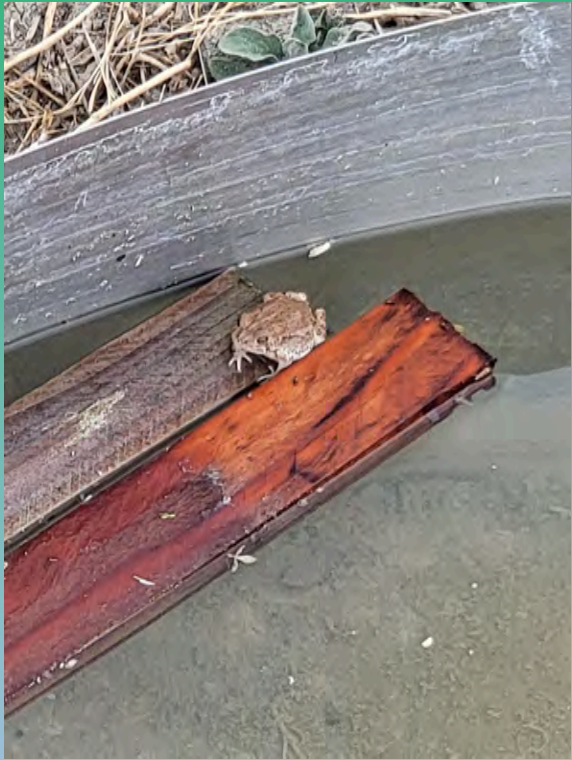
- 3.5 GPM through five panel set
- Total average Delta T of 18 degrees Fahrenheit
- 302,400 Btus per day
- 311 gallons per day raw
- 933 gallon per day induced evaporation





- Testing through solstices and equinoxes
- Impact of angle of albedo
- Experiment conclusion







- Any source of waste heat can be utilized to enhance the evaporation rates of Leachate
- Latent Heat is key and especially necessary on smaller ponds
- If your enterprise has not used its renewable tax credits this is a project that pays off well

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Thank You

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RWI Enhanced Evaporation

