

Leviathan Mine January 2017 Annual Technical Summary Meeting Lahontan Water Board

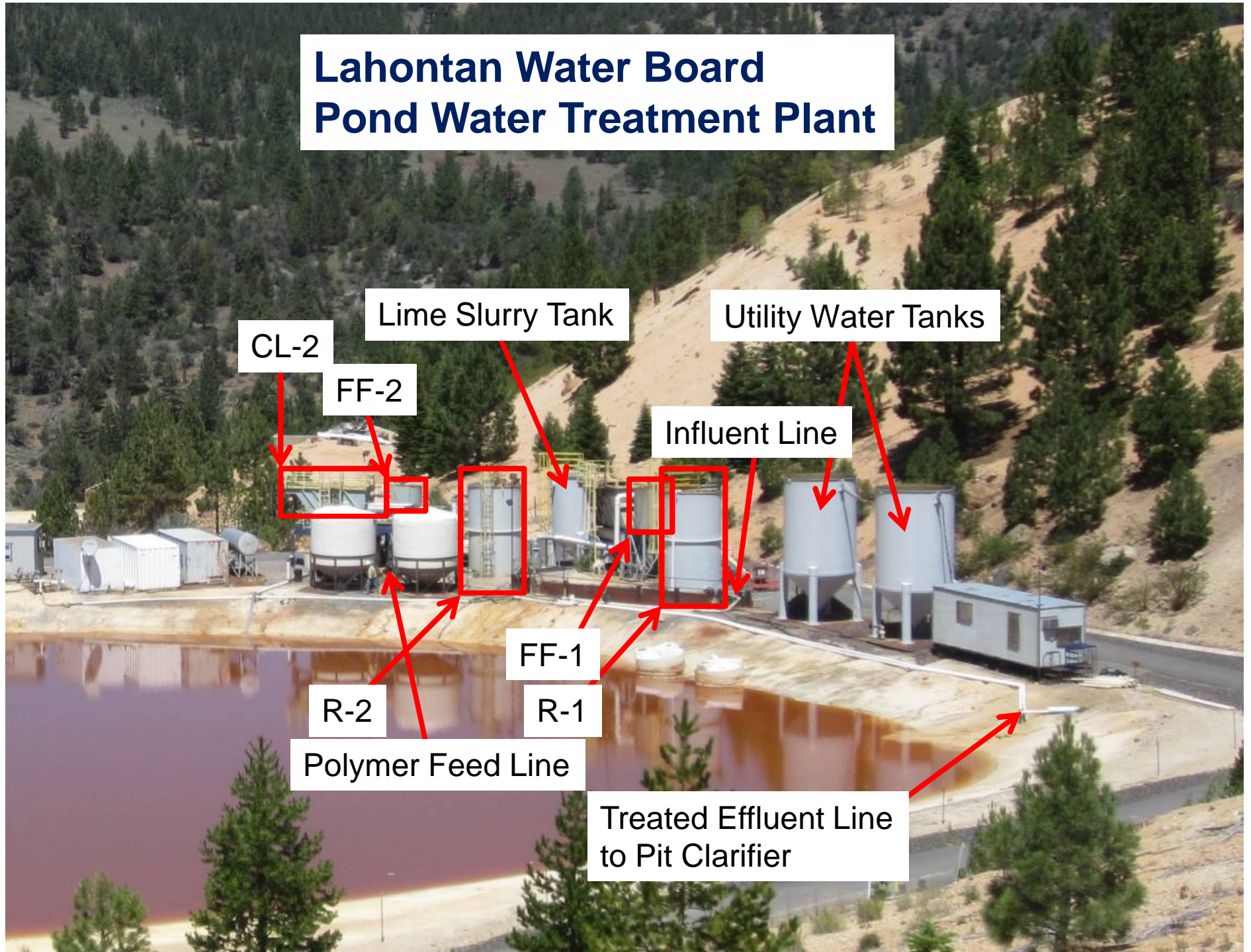




Tasks in 2016:

- Summer Pond Water Treatment
- Flow and Stage Monitoring
- Maintenance

Lahontan Water Board Pond Water Treatment Plant



2016 Pit Clarifier Sludge Removal and Disposal

- Approximately 163 tons of sludge were hauled off site for disposal in June 2016.
- Sludge generated during the treatment of 2.5 million gallons of AMD in 2015.

2016 Summer Pond Water Treatment Startup

- Assembly of pond water treatment plant
- Discharge of treated AMD to the Pit Clarifier began on July 5, 2016
- Discharge of treated AMD to Leviathan Creek began on July 11, 2016

2016 Summer Pond Water Treatment

- 5.7 million gallons of AMD treated and discharged
- Influent pH range 1.95 to 2.79 SU
- Influent average TDS 4,495 mg/L
- Field and lab data show USEPA discharge criteria met.

- 62.07 tons lime (dry weight)
- 4,120 gallons diesel
- 200 gallons gasoline
- 184 gallons of polymer
- 2,625 mg lime / liter AMD

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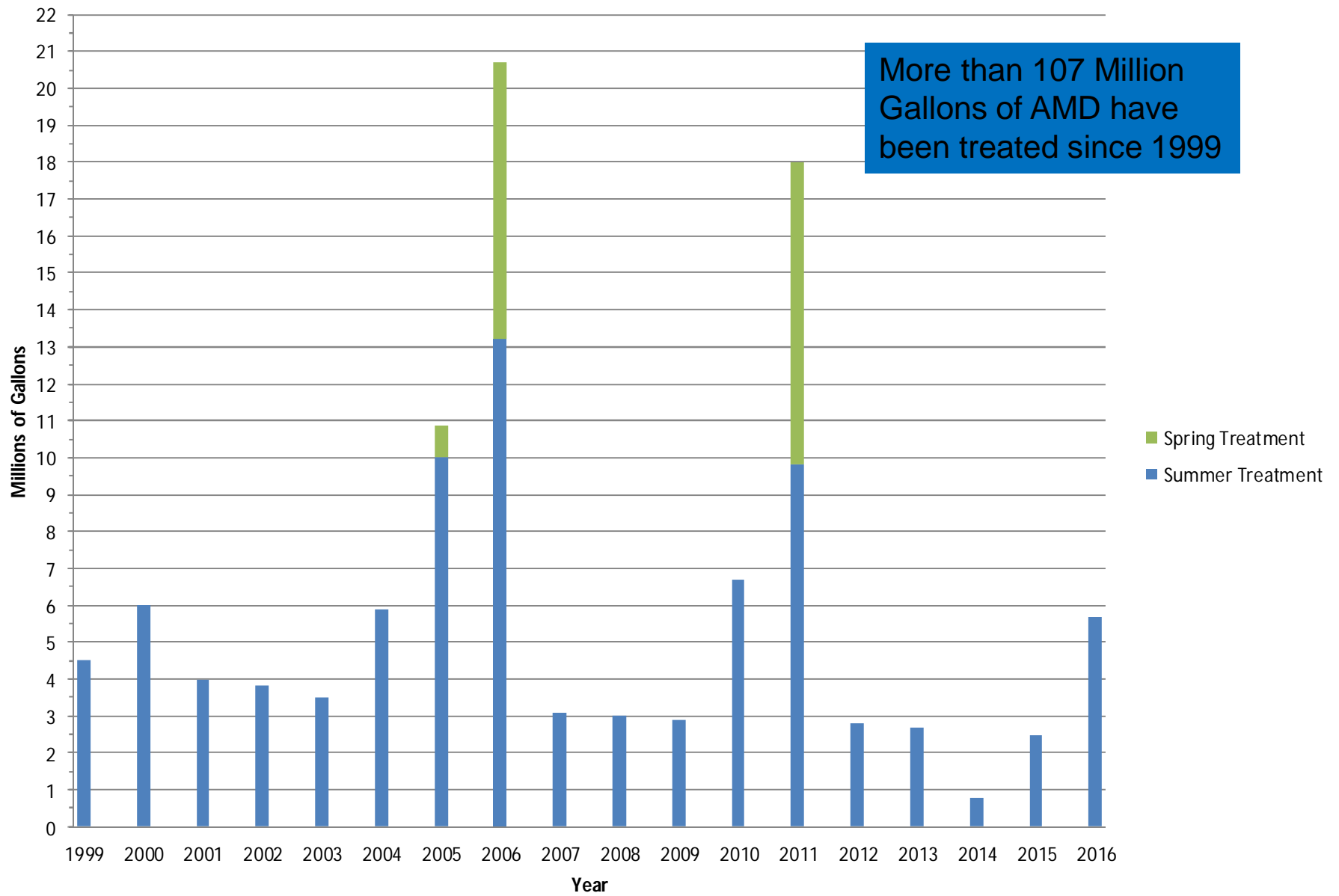


**Sludge generated is
contained in the pit clarifier**

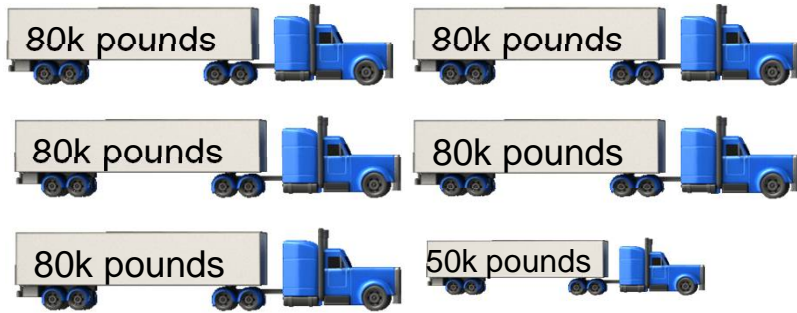
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Approximately 485 - 570 tons of sludge generated during the 2016 season will be hauled off site for disposal in 2017.

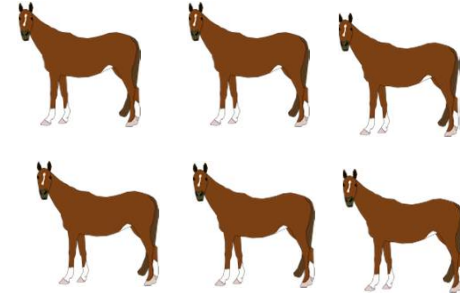
AMD Neutralized by Treatment Year



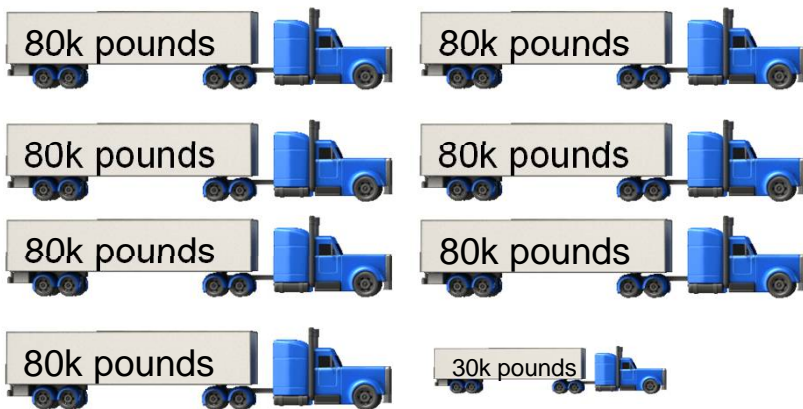
Approximation of Some of the Metals Removed By the Pond Water Treatment Plant Since 1999



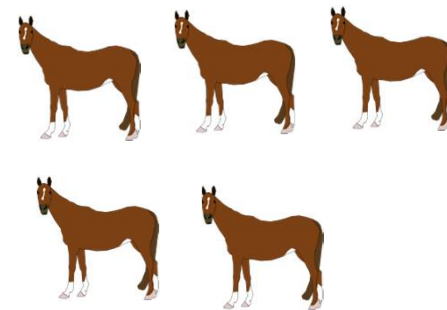
405,000 pounds of aluminum removed



6,400 pounds of nickel removed



590,000 pounds of iron removed



5,500 pounds of arsenic removed

**Maximum capacity is available
for AMD storage entering
the 2016/17 winter**



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Flow and stage monitoring



11/12/2015 14:42

- 15 locations during the 2016 water year

2016 Maintenance

- Removed accumulated sediment from storm water conveyance ditches and repaired or replaced BMPs
- Repaired perimeter fence
- Performed minor grading near Pond 2 South
- Coordinated with El Dorado County Department of Agriculture to spray invasive Tall Whitetop and Dyer's Woad
- Removed sediment from AMD distribution line and performed a remote video inspection

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Questions?



01/11/2016 09:38