

Biothermica



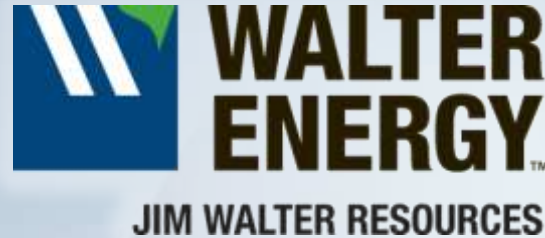
1st Coal Mine Methane Offset Project w/ CAR

Navigating the American Carbon World
Los Angeles, USA | April 13, 2011

our energy for a cleaner environment



Project Highlights



- Partnership with
- Abating ventilation air methane (VAM)
- Financed by Biothermica
- Proprietary VAMOX[®] technology
- Medium scale unit (30,000 ft³/min)
- VAM @ 0.9% methane

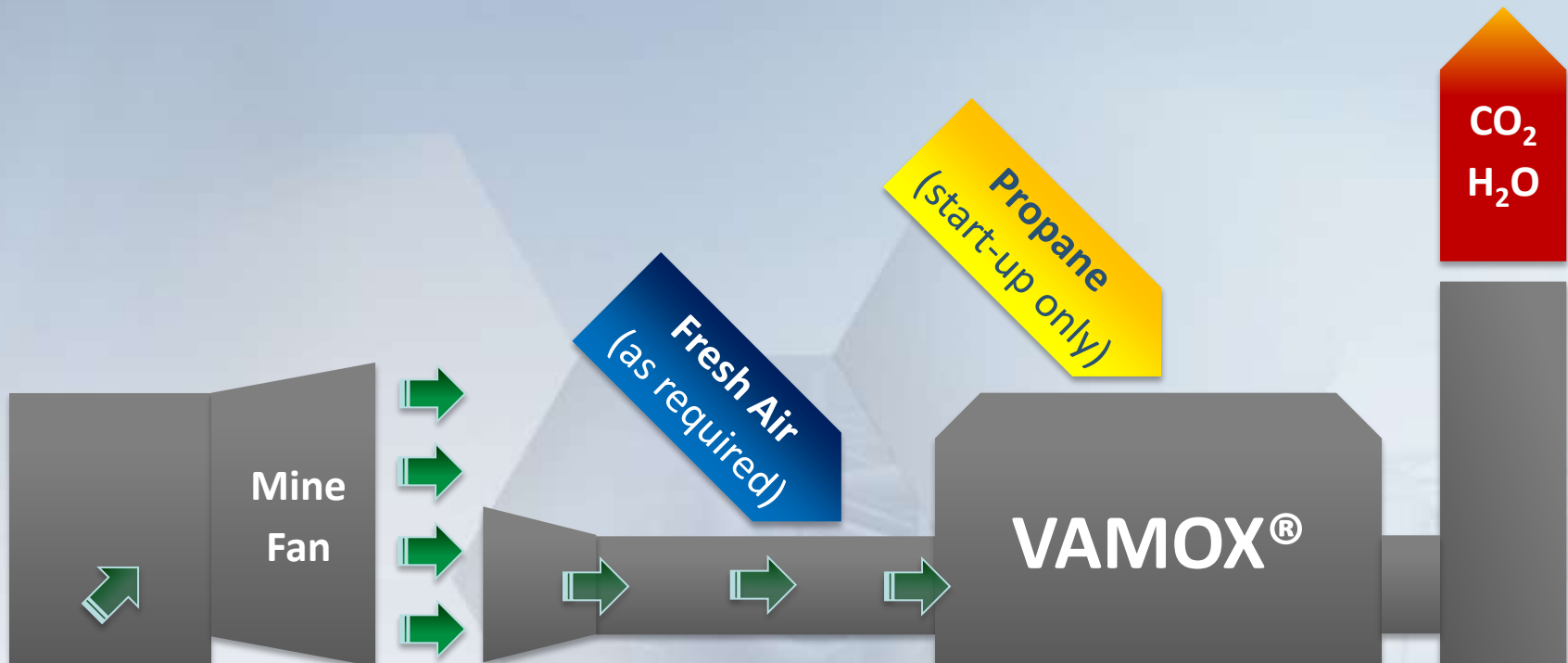


VAMOX[®] Technology

- **Regenerative thermal oxidizer**
- **Only needs 0,2% methane (up to 1,2%)**
- **96%+ destruction**
- **Independent of mine fan & operations**
- **Fully automated**
- **Potential for heat recovery**



VAMOX[®] Sits On Surface









Project Achievements


14,600 hrs
of operation

89.0%
availability

57,000 tCO₂e
avoided emissions



Moving Forward

- Expanded partnership with  **WALTER ENERGY™**
JIM WALTER RESOURCES
- Mitigate VAM from *all* suitable shafts
- Pipeline of 3 MtCO₂e/year
- 2 large scale units installed in 2011
- 1 VAMOX® ≈ 350,000 tCO₂e/year*

* with 0.9% methane

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Thank You

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