

## RISK FINANCING for MINE CLOSURE LIABILITIES

NOAMI Workshop  
Assessing Liabilities  
and Funding Options  
Nov 2 and 3, 2005



## Environmental Risk Financing Case Study - Iron Mountain Mine

### The Risk

- Mined since late 19<sup>th</sup> century, ceased 1963
- Federal gov't constructed dam & WTP
- Acid drainage to Sacramento River
- Largest source of toxic metals in USA
- Source of most acidic mine drainage
- EPA declared Superfund Site - 1984
- Cleanup costs could approach \$1 billion



## Case Study - Iron Mountain Mine

### The Responsible Party

- Stauffer Chemical acquired mine in late 60's
- AstraZeneca acquired Stauffer. Aventis is successor, now responsible party (PRP)
- Aventis structured "environmental risk financing"
- EPA provided Full/Final Release
- A funding source: historical insurance policies



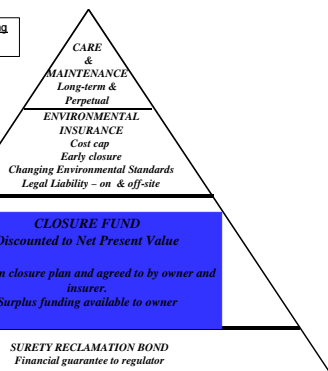
## Case Study - Iron Mountain Mine

### Risk Financing program

- Premium \$144 Million, paid at inception
- Policy offers:
  - "Cost Cap" cover in excess of \$5 M/yr estimated clean up cost (WTP)
  - "Commutation Fund" for future site costs
- Contractor to operate WTP - 30 years
- fund will grow to \$514 M after 30 years to pay for future site costs, in perpetuity



Environmental Risk Financing  
Program For Mine Closure



## Environmental Risk Financing

### Key Issues

- Agreement on Mine Closure Plan
- Qualified remediation contractor
- Highly-rated financial counterparties
- Transparent cost structure
- Profit-sharing, performance incentives
- Industry initiative, broad stakeholder support



## Benefits

- Remediation costs are capped
- Funds are guaranteed
- Enhanced financial assurance:
  - Cover for unexpected, catastrophic events
  - Cover for third-party legal liability
  - Cover for timing risk or early closure
- Risk is managed - qualified remediation firms, independent oversight, performance incentives
- Model for active mines - liabilities funded from current mine revenues



## Applications for Orphaned/Abandoned Mines

- ✓ **Transfer Site & Liabilities** to a responsible, qualified third party
  - a remediation contractor
  - a Special Purpose Entity (SPE)
  - an operator with business plan (salvage, re-start)

### **Other Applications**

- ✓ Restructurings, sale and re-start
- ✓ Replace financial guarantee to regulator
- ✓ Support fixed-price EPCM closure projects
- ✓ New projects



## Recovering Environmental Costs A Funding Source

- Historical liability policies do not contain absolute pollution exclusions
- "Occurrence" policies in effect during period of "damage" will respond
- Damage occurs when pollutant enters site
- Court precedents have favoured the policyholder
- Negotiated, compromise settlement process recommended over litigation



## Historical Liability Cover

- Covered "damages" include remediation & other response costs to prevent off-site
- "Owned property" exclusion does not apply to costs incurred to prevent off-site damages
- "Occurrence" trigger is continuous
- Pollution exclusion, except for "sudden & accidental" does not bar losses "neither expected nor intended"
- Absolute pollution exclusion in current liability policies



## Mining Insurance Assets

Many examples of successful recoveries  
Litigation sets damaging precedents for insurers most favour policyholders

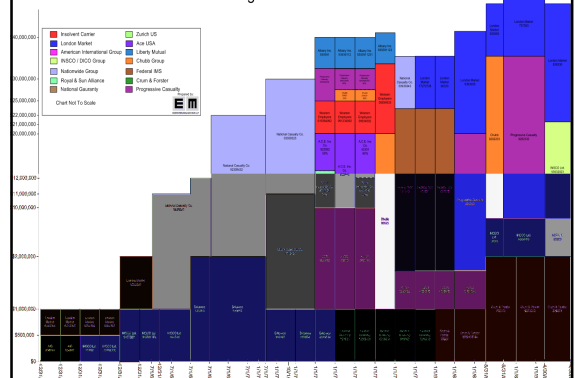
U.S. P&C industry reserves - \$31 billion

- Settlements allow insurers to release reserves
- Fully documented claims ensure reinsurance recoveries

- Insurance Asset is eroding
  - Insurer & reinsurer insolvency
  - Policy evidence
  - Proof of damages



NewCo, Inc.  
Insurance Program Overview 1959 - 1986



[Questions ?](#)

**RM Solutions, Toronto, Canada**

**[www.rmsolutions.ca](http://www.rmsolutions.ca)**

Paul Fitzgerald

Tel: 905 884-7699

Fax: 905 884-8463

Email: [paul@rmsolutions.ca](mailto:paul@rmsolutions.ca)

