

Reclamation Bonding For The Coal Mining Industry

Issues Affecting Reclamation Bond Capacity
In The Surety Industry

Surface Mined Land Reclamation Technology Transfer Seminar

December 6-7, 2004

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$$S_t \exp\left((r - \frac{1}{2}\sigma^2)\Delta t + \sigma \sqrt{\Delta t} z_t\right) \propto K = \frac{1}{n} \sum_{i=1}^n h_i(t)$$

RESUMÉ

- Quanta Surety
 - » Vice President, Regional Underwriting Officer
 - » National Practice Leader – Mining Industry
- 13+ years of underwriting responsibility for reclamation bond programs for coal mining companies.
- Actively involved in underwriting mining operations in all major mine regions in the U.S. as well as several areas outside the U.S.
- Actively involved with the task force sponsored by the NMA and IMCC evaluating how to increase Surety capacity for the mining sector.

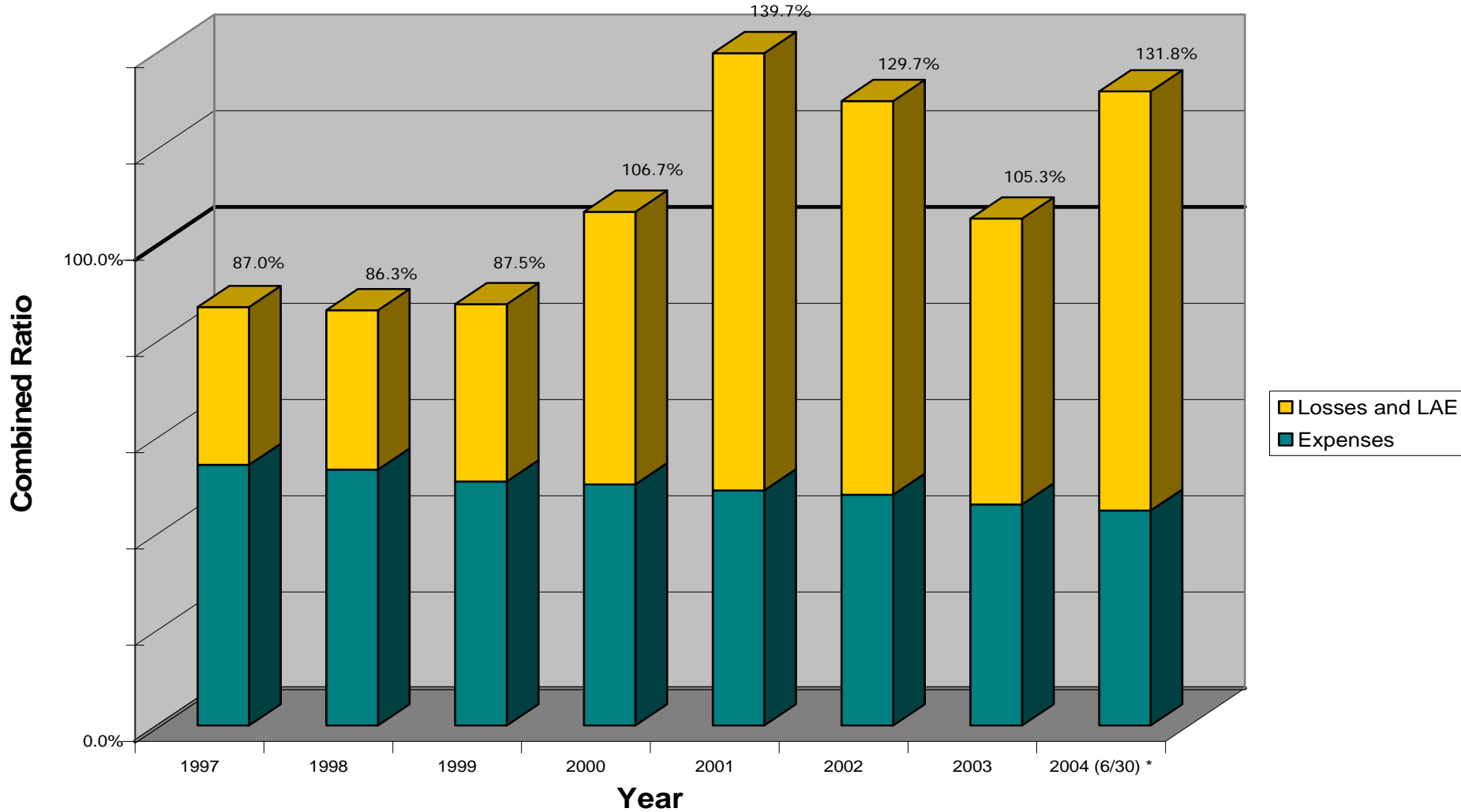
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Outline

- Overview of Surety Industry Results
- Factors Impacting Surety Industry Results
- Surety Industry Response
- Comparison Of Overall Surety Results To Reclamation Results
- Why Has Surety Capacity Left The Reclamation Bonding Market
- How Do Surety Companies Evaluate Mining Companies And Reclamation Bond Risk
- Making Yourself 'Bondable'

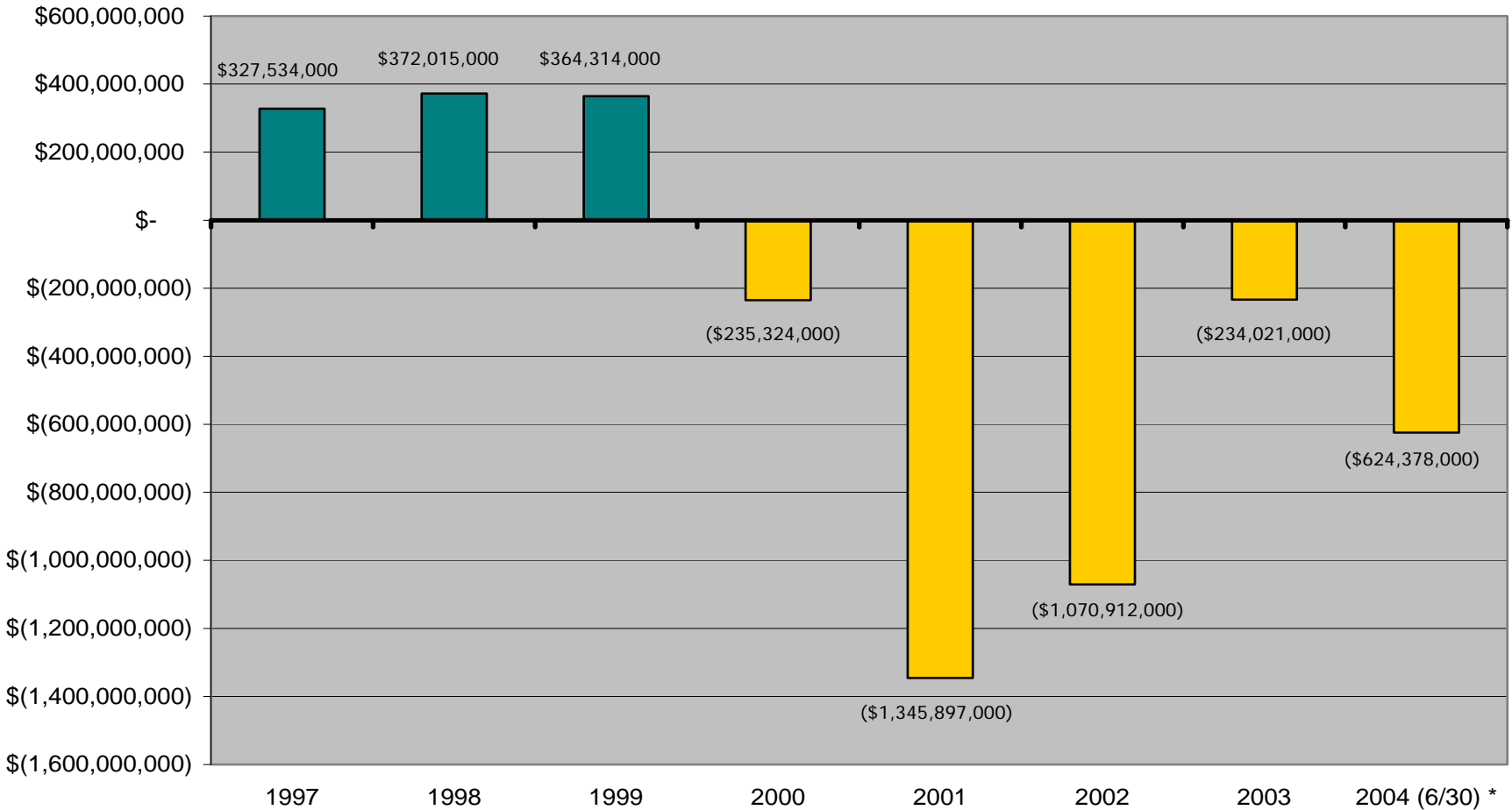
$$S_i \exp\left(\left(r - \frac{1}{2}\sigma^2\right)\Delta t + \sigma \epsilon_i\right) \sqrt{V^2 \Delta t} \propto K = \frac{1}{r} \sum_{i=1}^n \ln\left(\frac{S_i}{K}\right)$$

Surety Industry Combined Ratio 1997 - 2004



* 2004 data is through June 30 and includes assumptions for LAE and Underwriting Expenses

Surety Industry Pre-Tax Underwriting Profit (Loss) 1997 - 2004



Total Underwriting Loss Since 1997: \$2,446,668,500

** 2004 data is through June 30 and includes assumptions for LAE and Underwriting Expenses*

What Happened?

- Isolated Industry Issues
 - Healthcare
 - Discount Retail
 - Technology
 - Energy: Traders, Merchant Power
 - Coal Mining
- Asbestos
- Inadequate risk assessment, collateral and pricing
- Risk aggregation to individual credits
- Lack of awareness of capital requirements

$$S_t \exp\left((r - \frac{1}{2}\sigma^2)\Delta t + \sigma \sqrt{\Delta t} z_t\right) \propto K = \frac{1}{r} \sum h(t)$$

Industry Response

Reinsurance Underwriters

- CAPACITY

- A number of surety reinsurers exited the business over the last several years.
- Remaining markets generally are taking more substantial positions on fewer primary companies.

- TERMS

- **MORE EXPENSIVE.**
- Higher attachment points/ greater “risk sharing”.
- Commitments from primary sureties as to maximum program offerings.

- EXCLUSIONS

- Increased exclusion list by type of obligation.
- Exclusions to reduce aggregation risk with individual accounts.

$$S_i \exp\left(\left(r - \frac{1}{2}\sigma^2\right)\Delta t + \sigma \epsilon_i\right) \sqrt{V_{21}} \propto K = \frac{1}{n} \sum_{i=1}^n V_{11}$$

Industry Response

Primary Underwriters

- Voluntary changes (driven by Surety Management)
 - Heightened focus on managing portfolio of risks.
 - Exiting unprofitable or “high risk” sectors within the Surety industry (AIG, CNA).
- Involuntary changes (driven by P&C Management and/or Reinsurers)
 - Exiting surety business outright (Lyndon/Cumberland Surety, Fireman’s Fund, Lincoln General)
 - Heightened focus on managing portfolio of risks.
 - Exiting unprofitable or “high risk” sectors due to lack of reinsurance support.
- Insolvency
 - Amwest, Atlantic Mutual, Frontier, Kemper, Van American
- Consolidation ¹
 - 1995 – Top 10 Sureties accounted for 52.3% of direct written premium. Largest Surety accounted for 6.6% of total market share.
 - 2003 – Top 10 Sureties accounted for 65.9% of direct written premium. Largest Surety ² accounted for 26.1% of total market share.

¹ Source: The Surety Association of America

² Includes the direct written premium from the recently merged Travelers and St. Paul surety operations.

Portfolio Management Techniques

- Information-based approach
- Recent emphasis: Model each deal as a credit obligation to assess price adequacy and capital needs
- Components:
 - Credit rating – external / internal
 - Frequency and Severity Parameters by Bond Type
 - Likelihood of a claim given a financial default
 - Average payout as a percentage of limit given a claim
 - Expected duration
 - Collateral
 - Expenses
 - Required ROC

$$S_i \exp\left(\left(r - \frac{1}{2}\sigma^2\right)\Delta t + \sigma \epsilon_t\right) \sqrt{V^2 z_t} \propto K = \frac{1}{K} \sum h(t)$$

Reclamation Bond Results

U.S. Totals, 1999 – 2003
(SAA Class Codes 933 & 450)

	State	Direct Written Premium	Direct Earned Premium	Direct Losses Incurred	Loss Ratio
2003	U.S.	\$ 66,298,532	\$ 61,523,692	\$ 26,039,232	42.3%
2002	U.S.	\$ 56,308,587	\$ 47,813,223	\$ 11,354,581	23.7%
2001	U.S.	\$ 37,720,695	\$ 34,334,654	\$ 13,194,995	38.4%
2000	U.S.	\$ 29,422,915	\$ 29,190,556	\$ 11,459,795	39.3%
1999	U.S.	\$ 23,197,037	\$ 28,969,220	\$ 7,823,128	27.0%
1998	U.S.	\$ 30,956,730	\$ 31,479,679	\$ 20,299,307	64.5%
		\$ 243,904,496	\$ 233,311,024	\$ 90,171,038	38.6%

Reclamation Bond Results

Top 15 Coal Mining States
1999 – 2003 Combined

State	Direct Written Premium	Direct Earned Premium	Direct Losses Incurred	Loss Ratio
Kentucky	\$ 24,692,520	\$ 24,765,569	\$ 19,376,687	78.2%
Wyoming	\$ 19,111,375	\$ 17,665,230	\$ 8,932	0.1%
Pennsylvania	\$ 18,133,301	\$ 18,854,299	\$ 7,491,750	39.7%
West Virginia	\$ 15,097,993	\$ 14,254,994	\$ 2,314,266	16.2%
Texas	\$ 11,445,107	\$ 8,731,160	\$ 119,382	1.4%
Virginia	\$ 11,048,060	\$ 10,253,769	\$ 29,042	0.3%
Illinois	\$ 9,635,669	\$ 8,840,113	\$ 60,484	0.7%
Ohio	\$ 9,215,771	\$ 9,339,586	\$ 4,957,322	53.1%
Indiana	\$ 8,930,029	\$ 9,279,573	\$ 702,093	7.6%
Montana ¹	\$ 7,590,260	\$ 7,062,143	\$ -	0.0%
Arizona	\$ 7,323,604	\$ 5,338,962	\$ 5,424	0.1%
Colorado	\$ 7,210,394	\$ 7,014,238	\$ 1,466,726	20.9%
Utah	\$ 4,118,578	\$ 4,058,463	\$ 1,609,030	39.6%
North Dakota	\$ 2,545,015	\$ 2,225,098	\$ -	0.0%
New Mexico	\$ 2,511,217	\$ 2,881,856	\$ -	0.0%
	\$ 158,608,893	\$ 150,565,053	\$ 38,141,138	25.3%
U.S. TOTAL	\$ 212,947,766	\$ 201,831,345	\$ 69,871,731	34.6%

¹ MT loss ratio = 259.9%. \$18.4 million in losses believed to be non-coal.

Reclamation Bond Results

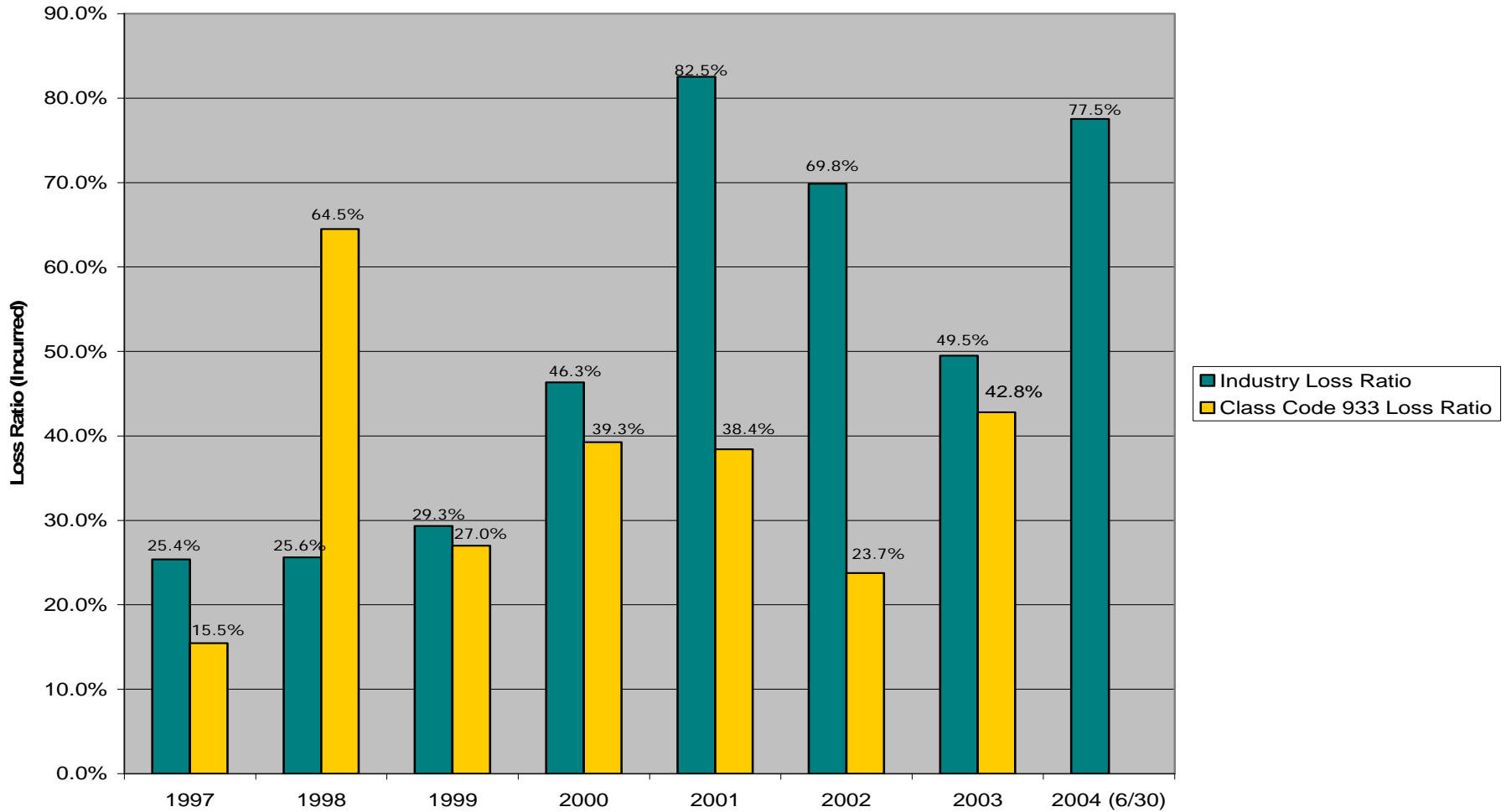
Indiana
1999 - 2003

	State	Direct Written Premium	Direct Earned Premium	Direct Losses Incurred	Loss Ratio
2003	Indiana	\$ 2,341,376	\$ 2,255,745	\$ 255,194	11.3%
2002	Indiana	\$ 2,207,713	\$ 2,135,603	\$ 28,747	1.3%
2001	Indiana	\$ 1,873,206	\$ 1,758,469	\$ 27,207	1.5%
2000	Indiana	\$ 1,522,946	\$ 1,385,674	\$ 22,444	1.6%
1999	Indiana	\$ 984,788	\$ 1,744,082	\$ 368,501	21.1%
		\$ 8,930,029	\$ 9,279,573	\$ 702,093	7.6%

Loss Ratio Comparison

Industry vs. Reclamation

1997 - 2004



* Loss ratio excludes LAE

* 2003 Class Code 933 Loss Ratio data is preliminary

Source: The Surety Association of America

QUANTA

Issues Affecting Reclamation Bond Capacity For Coal Mining Companies

- Most surety companies do not have the expertise to evaluate mining companies and therefore are not comfortable assessing reclamation bond risk.
- Mining industry is capital intensive, generally resulting in significant balance sheet leverage and material capital maintenance expenditures.
- Surety insolvencies, mergers and strategic retrenchments have reduced the number of companies entertaining reclamation bond submissions. Remaining markets have industry aggregation issues.

$$S_i \exp\left(\left(r - \frac{1}{2}\sigma^2\right)\Delta t + \sigma \epsilon_i\right) \sqrt{V^2} \propto K = \frac{1}{r} \sum_{i=1}^n \frac{1}{t_i}$$

Reclamation Bond Positives

- Surety is bonding an asset of the company.
- Regulatory protections afforded through SMCRA, **if enforced**, minimize risk of default on the bond and severity of default in a claim situation.
- Actual exposure is frequently less than the penal sum of the bond.

$$S_i \exp\left(\left(r - \frac{1}{2}\sigma^2\right)\Delta t + \sigma \sqrt{\Delta t} z_t\right) \propto K = \frac{1}{r} \sum_{t=0}^T \frac{C_t}{(1+r)^t}$$

Underwriting Criteria

- Asset Quality
- Financial strength
- Operational Strength
- Indemnity and Collateral

$$S_t \exp\left((r - \frac{1}{2}\sigma^2)\Delta t + \sigma \sqrt{\Delta t} z_t\right) \propto K = \frac{1}{K} \sum_{i=1}^n h_i(t)$$

Asset Quality Evaluation

- Quantity of reserves
 - Tonnage of economically mineable reserves (surface vs. deep)
 - Strategy for future reserve acquisition
- Quality of reserves
 - BTU, sulfur content, ash content, moisture content
 - Ability to blend different reserves
 - Ability to source multiple contracts
- Competitive advantages to reserves
 - Proximity to customers, proximity to transportation routes
- Existence of perpetual water treatment issues
- Contract strategy
 - % of production contracted vs. % sold via spot market
 - Reliance on one major customer?
 - Contract duration(s)

Financial Strength Evaluation

- Balance sheet quality
 - Asset quality – liquidity, quality of receivables, intangibles
 - Liabilities – leverage, existence and amount of long-term retiree benefits
 - Equity – common vs. preferred, retained earnings
- Track record of profitability
 - Operating profits and bottom line profits
 - Ability to make money in all markets
- Operating expense structure and operating expense trends
 - Mine by mine profitability and cost control
 - Break-even analysis
- Free cash flow analysis
 - Operating cash flow – cap ex - dividends (excluding for taxes)
 - Surety view of EBITDA
- Equity position relative to bonded liability

Operational Strength Evaluation

- Strength/ depth of management
 - Senior operational and financial management
 - Mine site management
- Review continuity/business perpetuation plan
 - Buy-sell agreements
 - Key-man life insurance
 - Ownership/ “golden handcuffs” for key personnel
- Evaluate quality of reclamation
 - Mine site visits to view quality of work and to confirm contemporaneous reclamation
 - Reclamation awards received

Indemnity and Collateral

- Personal indemnity of stockholders (and spouses if appropriate) is required for all private companies
 - Surety is undertaking a non-cancellable obligation that could be in place for 10+ years. Expect owner(s) to provide their guarantee.
 - Any stockholder with 15% or greater ownership must sign.
 - The need for spousal indemnity will be evaluated in each case.
- 100% collateral will be required for any permit with AMD/perpetual water treatment issues
 - Regulatory bodies have indicated bonds will not be released.
 - Not “IF” there will be a claim, but “WHEN” there will be a claim.
- Collateral is used to mitigate some of the increased risk when operators lack in one or more critical underwriting areas
 - Discuss what your surety would need to see before they would consider unsecured capacity.
 - Formal commitments are unlikely.

SUMMARY

- Treat an underwriting meeting as an opportunity to educate your underwriter.
 - Don't assume we understand your business.
- Understand your surety's point of view
 - Sureties have very little margin for error as surety premiums contemplate a 0% loss ratio.
 - No business ever sets out with a plan to fail, but a surety underwriter must assess what could lead to business failure and structure a program that protects the surety.
- Treat your Surety like a partner
 - Discuss your view on your company's strengths **AND** weaknesses and how you plan to address those weaknesses.
 - Share business plans and financial forecasts and advise your surety as those plans are updated.
 - We prefer to hear about bad news, not read about bad news.
- Know your Surety
 - Financial strength
 - Underwriting approach to reclamation bonding