

**2014**

# **CAPITALIZATION RATE STUDY FOR CENTRALLY ASSESSED PROPERTIES**

**FOR: JANUARY 1, 2014**



## **UTAH STATE TAX COMMISSION**

**PROPERTY TAX DIVISION  
NATURAL RESOURCES SECTION  
210 NORTH 1950 WEST, THIRD FLOOR  
SALT LAKE CITY, UTAH 84134**

**(801) 297-3600**

**[www.propertytax.utah.gov](http://www.propertytax.utah.gov)**



UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
SUMMARY OF EQUITY RATES AND CAPITAL STRUCTURE

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Industry	Page	Debt Rate	Debt/Equity	Equity Yield Rate	WACC
COAL MINING	3	8.39%	45% / 55%	14.51%	11.76%
PRECIOUS METALS	6	8.20%	15% / 85%	10.75%	10.37%
NON-PRECIOUS METALS	9	5.38%	15% / 85%	13.88%	12.61%
NON-METALS	12	7.85%	15% / 85%	12.45%	11.76%
OIL & GAS	15	7.85%	30% / 70%	13.25%	11.64%
OIL & GAS GATHERING/WD	18	5.38%	35% / 65%	12.08%	9.73%
SAND AND GRAVEL	21	7.85%	20% / 80%	11.58%	10.83%
URANIUM MINING	24	8.39%	5% / 95%	14.93%	14.60%



**UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
KEY RATES AND FIGURES**

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**CORPORATE BONDS**

Aaa	4.62%
Aa	4.68%
A	4.85%
Baa	5.38%
Ba1	6.89%
Ba2	7.85%
Ba3	8.20%
B1	8.20%
B2	8.39%
B3	9.88%
Caa1	11.25%
Caa2	11.25%
Caa3	13.24%
Ca	15.08%
C	18.83%

**PUBLIC UTILITY BONDS**

Aaa	N/A
Aa	4.59%
A	4.81%
Baa	5.25%

**PREFERRED STOCKS**

Aaa	4.62%
Aa	4.68%
A	4.85%
Baa	5.38%

**MISCELLANEOUS RATES**

Risk-Free Rate	3.72%
Market Risk Premium	6.96%
Default Income Tax Rate	38.50%
ValueLine GDP Price Deflator Forecast	1.80%

**INFLATION FACTORS**

Year	4th Quarter GDP Implicit Price Deflator	Annual Percent Change	Conversion Factor
2003	87.378	N/A	1.226
2004	90.078	3.09%	1.189
2005	93.121	3.38%	1.150
2006	95.583	2.64%	1.121
2007	97.959	2.49%	1.094
2008	99.808	1.89%	1.073
2009	100.164	0.36%	1.069
2010	101.936	1.77%	1.051
2011	103.783	1.81%	1.032
2012	105.667	1.82%	1.014
2013	107.121	1.38%	1.000

2014 - 2004 Average Change: 2.06%

**Source:**

U.S. Department of Commerce: Bureau of Economic Analysis  
Gross Domestic Product: Implicit Price Deflator

**Website:**

<http://alfred.stlouisfed.org/series?seid=GDPDEF>

**MISCELLANEOUS INFORMATION**

NOMINAL RATE (NR) = Includes both the real rate and the impact of inflation (IR).

REAL RATE =  $[(1+NR)/(1+IR)] - 1$

Coal Example =  $[(1+0.1176)/(1+0.0206)] - 1 = 0.0950$

INDUSTRY	NOMINAL	REAL
Coal	11.76%	9.50%
Precious Metals	10.37%	8.14%
Non-Precious Metals	12.61%	10.33%
Non-Metals	11.76%	9.50%
Oil & Gas	11.64%	9.38%
Oil & Gas Gathering/WD	9.73%	7.51%
Sand & Gravel	10.83%	8.59%
Uranium	14.60%	12.28%

(tax-adjusted)	NOMINAL	REAL
Coal	16.71%	14.35%
Precious Metals	16.03%	13.68%
Non-Precious Metals	19.92%	17.50%
Non-Metals	18.32%	15.93%
Oil & Gas	17.38%	15.01%
Oil & Gas Gathering/WD	14.59%	12.27%
Sand & Gravel	16.57%	14.21%
Uranium	23.39%	20.90%



**UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
COAL MINING -- EQUITY RATE MODELS**

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**RECONCILIATION**

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				<b>15.00%</b>
CAPM: Total NYSE				N/A
CAPM: Supply Side				<b>13.63%</b>
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				<b>11.24%</b>
DGM: Earnings & Dividend				<b>10.08%</b>
DGM: Plowback Ratio				<b>7.06%</b>
<b>Reconciled Equity Rate</b>				<b>14.51%</b>
Reconciled Equity Rate	14.51%	55.00%	7.98%	
Debt Rate (Corporate B2)	8.39%	45.00%	3.78%	
<b>Weighted Average Cost of Capital</b>				<b>11.76%</b>
Reconciled Equity Rate	14.51%			
Tax-Adjusted (38.25%)	23.50%	55.00%	12.92%	
Industry Debt Rate	8.39%	45.00%	3.78%	
<b>Tax-Adjusted Weighted Average Cost of Capital</b>				<b>16.71%</b>

**GUIDELINE COMPANY INFORMATION SUMMARY**

Company Name	Tax Rate	Relative Financial Strength	Beta
Alliance Resource	NMF	0.89 (B++)	1.05
Alpha Natural Res.	NMF	1.22 (C++)	2.05
Arch Coal	NMF	1.33 (C+)	1.80
CONSOL Energy	NMF	0.89 (B++)	1.60
Peabody Energy	NMF	1.00 (B+)	1.70
Rhino Resource Partners LP	NMF	1.11 (B)	1.15
Walter Energy	NMF	1.11 (B)	2.00
<b>Selected</b>	<b>38.25%</b>	<b>1.08</b>	<b>1.62</b>

**CAPM: RULE 62 COMPLIANT**

Item	Rate
Market Risk Premium	6.96%
x Industry Beta	1.62
Industry Risk Premium	11.28%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>15.00%</b>

**CAPM: FULL NYSE**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.62
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**CAPM: SUPPLY SIDE**

Item	Rate
Market Risk Premium	6.12%
x Industry Beta	1.62
Industry Risk Premium	9.91%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>13.63%</b>

**CAPM: DECILES 1 & 2**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.62
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**DIVISION'S RISK PREMIUM**

Item	Rate
Market Risk Premium	6.96%
x Industry Financial Strength	1.08
Industry Risk Premium	7.52%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>11.24%</b>



**UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
COAL MINING -- DIVIDEND GROWTH MODELS**

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**DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH**

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Alliance Resource	\$76.30	\$4.84	2.50%	6.50%	4.50%	10.84%
Alpha Natural Res.	\$7.04	-	-	-	-	-
Arch Coal	\$4.41	\$0.12	-	-12.00%	-12.00%	-
CONSOL Energy	\$37.81	\$0.50	9.00%	12.00%	10.50%	11.82%
Peabody Energy	\$18.78	\$0.34	9.00%	2.50%	5.75%	7.56%
Rhino Resource Partners LP	\$11.96	\$1.78	-	-	-	-
Walter Energy	\$15.98	\$0.04	-19.00%	-14.00%	-16.50%	-

**Indicated Rate**

**10.08%**

**DIVIDEND GROWTH MODEL: PLOWBACK RATIO**

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Alliance Resource	\$76.30	\$4.84	-	-	-	-
Alpha Natural Res.	\$7.04	-	3.00%	1.00%	0.03%	-
Arch Coal	\$4.41	\$0.12	1.50%	73.30%	1.10%	3.82%
CONSOL Energy	\$37.81	\$0.50	9.40%	70.90%	6.66%	7.99%
Peabody Energy	\$18.78	\$0.34	7.50%	85.90%	6.44%	8.25%
Rhino Resource Partners LP	\$11.96	\$1.78	-	-	-	-
Walter Energy	\$15.98	\$0.04	9.00%	88.00%	7.92%	8.17%

**Indicated Rate**

**7.06%**

**COMMENTS ABOUT THE COAL MINING INDUSTRY**

America West Resources was removed because there equity reporting was no longer representative to the industry.



**UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
COAL MINING -- CAPITAL STRUCTURE**

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**CALCULATION OF CAPITAL STRUCTURE**

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Alliance Resource	868.0	25.0	1.44%	408.1	-	-	-	76.30	36.9	2,815.5
Alpha Natural Res.	3,373.8	230.0	3.41%	2,863.6	-	-	-	7.04	220.6	1,553.0
Arch Coal	5,097.4	350.0	3.43%	4,350.5	-	-	-	4.41	213.8	942.9
CONSOL Energy	3,276.5	216.0	3.30%	2,710.2	-	-	-	37.81	228.1	8,624.5
Peabody Energy	6,007.5	395.0	3.29%	4,959.1	-	-	-	18.78	268.6	5,044.3
Rhino Resource Partners LP	154.0	8.0	2.60%	106.7	-	-	-	11.96	26.1	312.2
Walter Energy	2,782.6	74.0	1.33%	1,249.3	-	-	-	15.98	62.5	998.8
<b>Total</b>				<b>16,647.5</b>			-			<b>20,291.2</b>

**CAPITAL STRUCTURE**

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Alliance Resource	12.66%	87.34%
Alpha Natural Res.	64.84%	35.16%
Arch Coal	82.19%	17.81%
CONSOL Energy	23.91%	76.09%
Peabody Energy	49.57%	50.43%
Rhino Resource Partners LP	25.47%	74.53%
Walter Energy	55.57%	44.43%
<b>Mean</b>	<b>44.89%</b>	<b>55.11%</b>
<b>Weighted Mean</b>	<b>45.07%</b>	<b>54.93%</b>

**REMARKS**

\* Implied Coupon Rate is a semi-annual rate.

\*\* Market Value of Debt: 8.39% (Corporate B2)

\*\*\* Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: 5.38% (Baa)



**UTAH STATE TAX COMMISSION**  
**PROPERTY TAX DIVISION**  
**PRECIOUS METALS -- EQUITY RATE MODELS**

**RECONCILIATION**

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				<b>10.75%</b>
CAPM: Total NYSE				N/A
CAPM: Supply Side				<b>9.90%</b>
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				<b>10.68%</b>
DGM: Earnings & Dividend				<b>11.69%</b>
DGM: Plowback Ratio				<b>0.00%</b>
<b>Reconciled Equity Rate</b>				<b>10.75%</b>
Reconciled Equity Rate	10.75%	85.00%	9.14%	
Debt Rate (Corporate Ba3)	8.20%	15.00%	1.23%	
<b>Weighted Average Cost of Capital</b>				<b>10.37%</b>
Reconciled Equity Rate	10.75%			
Tax-Adjusted (38.25%)	17.41%	85.00%	14.80%	
Industry Debt Rate	8.20%	15.00%	1.23%	
<b>Tax-Adjusted Weighted Average Cost of Capital</b>				<b>16.03%</b>

**GUIDELINE COMPANY INFORMATION SUMMARY**

Company Name	Tax Rate	Relative Financial Strength	Beta
Agnico Eagle Mines	27.08%	1.00 (B+)	0.85
Allied Nevada Gold Corp	25.60%	1.11 (B)	0.90
AuRico Gold Inc	NMF		1.00
Barrick Gold	32.93%	0.89 (B++)	0.80
Brigus Gold Corp	NMF		1.30
Coeur Mining Inc.	58.63%	1.11 (B)	1.45
Goldcorp Inc.	23.44%	0.89 (B++)	0.85
Hecla Mining	37.26%	1.11 (B)	1.40
Kinross Gold	23.92%	1.00 (B+)	0.95
Kirkland Lake Gold Inc	NMF		1.00
Newmont Mining	27.91%	0.89 (B++)	0.75
Richmont Mines	23.81%		0.85
<b>Selected</b>	<b>38.25%</b>	<b>1.00</b>	<b>1.01</b>

**CAPM: RULE 62 COMPLIANT**

Item	Rate
Market Risk Premium	6.96%
x Industry Beta	1.01
Industry Risk Premium	7.03%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>10.75%</b>

**CAPM: FULL NYSE**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.01
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**CAPM: SUPPLY SIDE**

Item	Rate
Market Risk Premium	6.12%
x Industry Beta	1.01
Industry Risk Premium	6.18%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>9.90%</b>

**CAPM: DECILES 1 & 2**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.01
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**DIVISION'S RISK PREMIUM**

Item	Rate
Market Risk Premium	6.96%
x Industry Financial Strength	1.00
Industry Risk Premium	6.96%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>10.68%</b>



**UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
PRECIOUS METALS -- DIVIDEND GROWTH MODELS**

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**DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH**

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Agnico Eagle Mines	\$27.11	\$0.88	-7.00%	4.00%	-1.50%	-
Allied Nevada Gold Corp	\$3.93	-	-	-	-	-
AuRico Gold Inc	\$3.77	-	-	-	-	-
Barrick Gold	\$18.15	\$0.20	-10.00%	-16.00%	-13.00%	-
Brigus Gold Corp	\$0.83	-	-	-	-	-
Coeur Mining Inc.	\$11.26	-	-	-	-	-
Goldcorp Inc.	\$22.29	\$0.60	5.50%	12.50%	9.00%	11.69%
Hecla Mining	\$3.15	-	1.00%	-	1.00%	-
Kinross Gold	\$4.51	-	-	4.50%	4.50%	-
Kirkland Lake Gold Inc	\$2.79	-	-	-	-	-
Newmont Mining	\$23.92	\$0.80	-11.00%	-7.50%	-9.25%	-
Richmont Mines	\$1.26	-	-	-	-	-

**Indicated Rate**

**11.69%**

**DIVIDEND GROWTH MODEL: PLOWBACK RATIO**

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Agnico Eagle Mines	\$27.11	\$0.88	-	-	-	-
Allied Nevada Gold Corp	\$3.93	-	-	-	-	-
AuRico Gold Inc	\$3.77	-	-	-	-	-
Barrick Gold	\$18.15	\$0.20	-	-	-	-
Brigus Gold Corp	\$0.83	-	-	-	-	-
Coeur Mining Inc.	\$11.26	-	-	-	-	-
Goldcorp Inc.	\$22.29	\$0.60	-	-	-	-
Hecla Mining	\$3.15	-	-	-	-	-
Kinross Gold	\$4.51	-	-	-	-	-
Kirkland Lake Gold Inc	\$2.79	-	-	-	-	-
Newmont Mining	\$23.92	\$0.80	-	-	-	-
Richmont Mines	\$1.26	-	-	-	-	-

**Indicated Rate**

**0.00%**

**COMMENTS ABOUT THE PRECIOUS METALS INDUSTRY**



**UTAH STATE TAX COMMISSION**  
**PROPERTY TAX DIVISION**  
**PRECIOUS METALS -- CAPITAL STRUCTURE**

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**CALCULATION OF CAPITAL STRUCTURE**

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Agnico Eagle Mines	812.2	52.7	3.24%	676.7	-	-	-	27.11	172.3	4,671.1
Allied Nevada Gold Corp	505.7	-	-	505.7	-	-	-	3.93	89.7	352.5
AuRico Gold Inc	222.3	-	-	222.3	-	-	-	3.77	282.3	1,064.3
Barrick Gold	13,941.0	600.0	2.15%	8,644.7	-	-	-	18.15	1,001.1	18,170.0
Brigus Gold Corp	-	0.0	-	-	-	-	-	0.83	231.4	192.1
Coeur Mining Inc.	61.4	-	-	61.4	-	-	-	11.26	90.3	1,016.8
Goldcorp Inc.	771.0	33.0	2.14%	476.3	-	-	-	22.29	811.5	18,088.3
Hecla Mining	14.8	-	-	14.8	-	0.6	11.2	3.15	285.2	898.4
Kinross Gold	2,629.5	29.0	0.55%	809.8	-	-	-	4.51	1,140.1	5,141.9
Kirkland Lake Gold Inc	-	0.0	-	-	-	-	-	2.79	70.2	195.9
Newmont Mining	6,124.0	270.0	2.20%	3,860.2	-	-	-	23.92	496.7	11,881.1
Richmont Mines	-	0.0	-	-	-	-	-	1.26	33.1	41.7
<b>Total</b>				<b>15,271.9</b>			<b>11.2</b>			<b>61,714.1</b>

**CAPITAL STRUCTURE**

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Agnico Eagle Mines	12.65%	87.35%
Allied Nevada Gold Corp	58.93%	41.07%
AuRico Gold Inc	17.28%	82.72%
Barrick Gold	32.24%	67.76%
Brigus Gold Corp	-	100.00%
Coeur Mining Inc.	5.69%	94.31%
Goldcorp Inc.	2.57%	97.43%
Hecla Mining	2.81%	97.19%
Kinross Gold	13.61%	86.39%
Kirkland Lake Gold Inc	-	100.00%
Newmont Mining	24.52%	75.48%
Richmont Mines	-	100.00%
<b>Mean</b>	<b>14.19%</b>	<b>85.81%</b>
<b>Weighted Mean</b>	<b>19.85%</b>	<b>80.15%</b>

**REMARKS**

\* Implied Coupon Rate is a semi-annual rate.

\*\* Market Value of Debt: 8.20% (Corporate Ba3)

\*\*\* Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: 5.38% (Baa)



**UTAH STATE TAX COMMISSION**  
**PROPERTY TAX DIVISION**  
**NON-PRECIOUS METALS -- EQUITY RATE MODELS**

**RECONCILIATION**

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				14.37%
CAPM: Total NYSE				N/A
CAPM: Supply Side				13.08%
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				10.26%
DGM: Earnings & Dividend				11.16%
DGM: Plowback Ratio				0.00%
<b>Reconciled Equity Rate</b>				<b>13.88%</b>
Reconciled Equity Rate	13.88%	85.00%	11.80%	
Debt Rate (Corporate Baa)	5.38%	15.00%	0.81%	
<b>Weighted Average Cost of Capital</b>				<b>12.61%</b>
Reconciled Equity Rate	13.88%			
Tax-Adjusted (38.25%)	22.48%	85.00%	19.11%	
Industry Debt Rate	5.38%	15.00%	0.81%	
<b>Tax-Adjusted Weighted Average Cost of Capital</b>				<b>19.92%</b>

**GUIDELINE COMPANY INFORMATION SUMMARY**

Company Name	Tax Rate	Relative Financial Strength	Beta
BHP Billiton Ltd. ADR	38.03%	0.78 (A)	1.40
Freep't-McMoRan C&G	27.52%	0.78 (A)	1.50
Inmet Mining Corp.	28.46%		1.50
Lundin Mining Corp	NMF		1.90
Revett Minerals Inc	30.57%	1.22 (C++)	1.25
Rio Tinto plc	25.00%	0.78 (A)	1.65
Southern Copper	32.86%	0.78 (A)	1.40
Teck Resources Ltd. 'B'	41.41%	0.89 (B++)	1.75
Thompson Creek Metals Company	NMF	1.33 (C+)	1.45
<b>Selected</b>	<b>38.25%</b>	<b>0.94</b>	<b>1.53</b>

**CAPM: RULE 62 COMPLIANT**

Item	Rate
Market Risk Premium	6.96%
x Industry Beta	1.53
Industry Risk Premium	10.65%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>14.37%</b>

**CAPM: FULL NYSE**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.53
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**CAPM: SUPPLY SIDE**

Item	Rate
Market Risk Premium	6.12%
x Industry Beta	1.53
Industry Risk Premium	9.36%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>13.08%</b>

**CAPM: DECILES 1 & 2**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.53
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**DIVISION'S RISK PREMIUM**

Item	Rate
Market Risk Premium	6.96%
x Industry Financial Strength	0.94
Industry Risk Premium	6.54%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>10.26%</b>



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PROPERTY TAX DIVISION  
NON-PRECIOUS METALS -- DIVIDEND GROWTH MODELS**

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**DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH**

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
BHP Billiton Ltd. ADR	\$67.52	\$2.40	2.50%	10.00%	6.25%	9.80%
Freep't-McMoRan C&G	\$37.32	\$1.36	7.50%	11.00%	9.25%	12.89%
Inmet Mining Corp.	\$67.59	-	-	-	-	-
Lundin Mining Corp	\$4.37	-	-	-	-	-
Revett Minerals Inc	\$0.71	-	-	-	-	-
Rio Tinto plc	\$55.11	\$1.86	4.00%	14.00%	9.00%	12.38%
Southern Copper	\$28.56	\$0.75	10.00%	-4.50%	2.75%	5.38%
Teck Resources Ltd. 'B'	\$26.89	\$0.90	8.00%	16.00%	12.00%	15.35%
Thompson Creek Metals Company	\$2.36	-	-	-	-	-
<b>Indicated Rate</b>						<b>11.16%</b>

**DIVIDEND GROWTH MODEL: PLOWBACK RATIO**

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
BHP Billiton Ltd. ADR	\$67.52	\$2.40	-	-	-	-
Freep't-McMoRan C&G	\$37.32	\$1.36	-	-	-	-
Inmet Mining Corp.	\$67.59	-	-	-	-	-
Lundin Mining Corp	\$4.37	-	-	-	-	-
Revett Minerals Inc	\$0.71	-	-	-	-	-
Rio Tinto plc	\$55.11	\$1.86	-	-	-	-
Southern Copper	\$28.56	\$0.75	-	-	-	-
Teck Resources Ltd. 'B'	\$26.89	\$0.90	-	-	-	-
Thompson Creek Metals Company	\$2.36	-	-	-	-	-
<b>Indicated Rate</b>						<b>0.00%</b>

**COMMENTS ABOUT THE NON-PRECIOUS METALS INDUSTRY**



**UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
NON-PRECIOUS METALS -- CAPITAL STRUCTURE**

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**CALCULATION OF CAPITAL STRUCTURE**

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
BHP Billiton Ltd. ADR	35,165.0	1,500.0	2.13%	30,400.1	-	-	-	67.52	2,661.3	179,691.0
Freep't-McMoRan C&G	21,123.0	1,250.0	2.96%	22,504.1	-	-	-	37.32	949.0	35,416.7
Inmet Mining Corp.	0.0	-	-	0.0	-	-	-	67.59	69.4	4,690.7
Lundin Mining Corp	0.0	-	-	0.0	-	-	-	4.37	584.0	2,552.1
Revett Minerals Inc	1.5	-	-	1.5	-	-	-	0.71	34.5	24.5
Rio Tinto plc	29,924.0	1,400.0	2.34%	27,371.7	-	-	-	55.11	1,847.0	101,788.2
Southern Copper	4,209.6	265.0	3.15%	4,678.0	-	-	-	28.56	845.6	24,150.3
Teck Resources Ltd. 'B'	7,469.0	450.0	3.01%	8,054.7	-	-	-	26.89	582.3	15,658.0
Thompson Creek Metals Company	0.0	-	-	0.0	-	-	-	2.36	168.7	398.1
<b>Total</b>				<b>93,010.1</b>			-			<b>364,369.6</b>

**CAPITAL STRUCTURE**

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
BHP Billiton Ltd. ADR	14.47%	85.53%
Freep't-McMoRan C&G	38.85%	61.15%
Inmet Mining Corp.	0.00%	100.00%
Lundin Mining Corp	0.00%	100.00%
Revett Minerals Inc	5.77%	94.23%
Rio Tinto plc	21.19%	78.81%
Southern Copper	16.23%	83.77%
Teck Resources Ltd. 'B'	33.97%	66.03%
Thompson Creek Metals Company	0.00%	100.00%
<b>Mean</b>	<b>14.50%</b>	<b>85.50%</b>
<b>Weighted Mean</b>	<b>20.34%</b>	<b>79.66%</b>

**REMARKS**

\* Implied Coupon Rate is a semi-annual rate.  
 \*\* Market Value of Debt: 5.38% (Corporate Baa)  
 \*\*\* Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.  
 + Market Value of Pref. Equity: 5.38% (Baa)



**UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
NON-METALS -- EQUITY RATE MODELS**

**RECONCILIATION**

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				12.14%
CAPM: Total NYSE				N/A
CAPM: Supply Side				11.13%
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				10.75%
DGM: Earnings & Dividend				15.16%
DGM: Plowback Ratio				0.00%
<b>Reconciled Equity Rate</b>				<b>12.45%</b>
Reconciled Equity Rate	12.45%	85.00%	10.58%	
Debt Rate (Corporate Ba2)	7.85%	15.00%	1.18%	
<b>Weighted Average Cost of Capital</b>				<b>11.76%</b>
Reconciled Equity Rate	12.45%			
Tax-Adjusted (38.25%)	20.16%	85.00%	17.14%	
Industry Debt Rate	7.85%	15.00%	1.18%	
<b>Tax-Adjusted Weighted Average Cost of Capital</b>				<b>18.32%</b>

**GUIDELINE COMPANY INFORMATION SUMMARY**

Company Name	Tax Rate	Relative Financial Strength	Beta
AMCOL Int'l	27.54%	1.00 (B+)	1.30
Compass Minerals Int'l	NMF	1.00 (B+)	0.85
Eagle Materials	31.34%	1.00 (B+)	1.15
Intrepid Potash Inc	36.14%	1.00 (B+)	1.30
Martin Marietta	NMF	0.89 (B++)	1.00
Potash Corp.	28.01%	0.67 (A+)	1.20
Texas Inds.	NMF	1.11 (B)	1.40
U S Lime & Minerals	25.69%	1.00 (B+)	0.90
USG Corp.	NMF	1.33 (C+)	1.90
Vulcan Materials	NMF	1.11 (B)	1.05
<b>Selected</b>	<b>38.25%</b>	<b>1.01</b>	<b>1.21</b>

**CAPM: RULE 62 COMPLIANT**

Item	Rate
Market Risk Premium	6.96%
x Industry Beta	1.21
Industry Risk Premium	8.42%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>12.14%</b>

**CAPM: FULL NYSE**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.21
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**CAPM: SUPPLY SIDE**

Item	Rate
Market Risk Premium	6.12%
x Industry Beta	1.21
Industry Risk Premium	7.41%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>11.13%</b>

**CAPM: DECILES 1 & 2**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.21
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**DIVISION'S RISK PREMIUM**

Item	Rate
Market Risk Premium	6.96%
x Industry Financial Strength	1.01
Industry Risk Premium	7.03%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>10.75%</b>



**UTAH STATE TAX COMMISSION**  
**PROPERTY TAX DIVISION**  
**NON-METALS -- DIVIDEND GROWTH MODELS**

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**DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH**

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
AMCOL Int'l	\$34.09	\$0.80	8.00%	3.50%	5.75%	8.10%
Compass Minerals Int'l	\$79.28	\$2.40	10.00%	9.00%	9.50%	12.53%
Eagle Materials	\$76.67	\$0.40	42.00%	7.00%	24.50%	25.02%
Intrepid Potash Inc	\$15.46	-	-10.55%	-	-10.55%	-
Martin Marietta	\$99.38	\$1.60	18.50%	2.00%	10.25%	11.86%
Potash Corp.	\$32.67	\$1.40	-1.00%	29.00%	14.00%	18.29%
Texas Inds.	\$66.95	-	-	-	-	-
U S Lime & Minerals	\$60.61	-	-	-	-	-
USG Corp.	\$29.10	-	-	-	-	-
Vulcan Materials	\$58.59	\$0.04	-	-16.50%	-16.50%	-
<b>Indicated Rate</b>						<b>15.16%</b>

**DIVIDEND GROWTH MODEL: PLOWBACK RATIO**

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
AMCOL Int'l	\$34.09	\$0.80	-	-	-	-
Compass Minerals Int'l	\$79.28	\$2.40	-	-	-	-
Eagle Materials	\$76.67	\$0.40	-	-	-	-
Intrepid Potash Inc	\$15.46	-	-	-	-	-
Martin Marietta	\$99.38	\$1.60	-	-	-	-
Potash Corp.	\$32.67	\$1.40	-	-	-	-
Texas Inds.	\$66.95	-	-	-	-	-
U S Lime & Minerals	\$60.61	-	-	-	-	-
USG Corp.	\$29.10	-	-	-	-	-
Vulcan Materials	\$58.59	\$0.04	-	-	-	-
<b>Indicated Rate</b>						<b>0.00%</b>

**COMMENTS ABOUT THE NON-METALS INDUSTRY**

[Empty box for comments about the non-metals industry]



**UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
NON-METALS -- CAPITAL STRUCTURE**

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**CALCULATION OF CAPITAL STRUCTURE**

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
AMCOL Int'l	270.9	10.4	1.92%	162.2	-	-	-	34.09	32.2	1,097.7
Compass Minerals Int'l	479.5	18.0	1.88%	282.9	-	-	-	79.28	33.3	2,640.0
Eagle Materials	455.3	35.6	3.91%	453.9	-	-	-	76.67	49.5	3,795.2
Intrepid Potash Inc	150.0	-	-	150.0	-	-	-	15.46	75.3	1,164.1
Martin Marietta	1,113.4	53.3	2.39%	772.1	-	-	-	99.38	46.0	4,571.5
Potash Corp.	3,578.0	120.0	1.68%	1,968.0	-	-	-	32.67	864.9	28,256.3
Texas Inds.	659.3	60.7	4.60%	748.8	-	-	-	66.95	28.6	1,914.8
U S Lime & Minerals	22.9	-	-	22.9	-	-	-	60.61	5.6	339.4
USG Corp.	2,025.0	204.0	5.04%	2,475.7	-	-	-	29.10	107.9	3,139.9
Vulcan Materials	2,523.6	147.0	2.91%	2,012.2	-	-	-	58.59	129.9	7,610.8
<b>Total</b>				<b>9,048.7</b>			<b>-</b>			<b>54,529.7</b>

**CAPITAL STRUCTURE**

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
AMCOL Int'l	12.87%	87.13%
Compass Minerals Int'l	9.68%	90.32%
Eagle Materials	10.68%	89.32%
Intrepid Potash Inc	11.41%	88.59%
Martin Marietta	14.45%	85.55%
Potash Corp.	6.51%	93.49%
Texas Inds.	28.11%	71.89%
U S Lime & Minerals	6.32%	93.68%
USG Corp.	44.09%	55.91%
Vulcan Materials	20.91%	79.09%
<b>Mean</b>	<b>16.50%</b>	<b>83.50%</b>
<b>Weighted Mean</b>	<b>14.23%</b>	<b>85.77%</b>

**REMARKS**

\* Implied Coupon Rate is a semi-annual rate.

\*\* Market Value of Debt: 7.85% (Corporate Ba2)

\*\*\* Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: 5.38% (Baa)



**UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
OIL & GAS -- EQUITY RATE MODELS**

**RECONCILIATION**

Equity Models	Equity Rate
CAPM: Rule 62 Compliant . . . . .	<b>13.05%</b>
CAPM: Total NYSE . . . . .	N/A
CAPM: Supply Side . . . . .	<b>11.92%</b>
CAPM: Deciles 1 & 2 . . . . .	N/A
Division's Risk Premium . . . . .	<b>11.24%</b>
DGM: Earnings & Dividend . . . . .	<b>15.03%</b>
DGM: Plowback Ratio . . . . .	<b>0.00%</b>
<b>Reconciled Equity Rate</b>	<b>13.25%</b>
Reconciled Equity Rate	13.25%
Debt Rate (Corporate Ba2)	7.85%
<b>Weighted Average Cost of Capital</b>	<b>11.64%</b>
Reconciled Equity Rate	13.25%
Tax-Adjusted (38.25%)	21.46%
Industry Debt Rate	7.85%
<b>Tax-Adjusted Weighted Average Cost of Capital</b>	<b>17.38%</b>

**CAPM: RULE 62 COMPLIANT**

Item	Rate
Market Risk Premium	6.96%
x Industry Beta	1.34
Industry Risk Premium	9.33%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>13.05%</b>

**CAPM: FULL NYSE**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.34
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**CAPM: SUPPLY SIDE**

Item	Rate
Market Risk Premium	6.12%
x Industry Beta	1.34
Industry Risk Premium	8.20%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>11.92%</b>

**CAPM: DECILES 1 & 2**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.34
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**DIVISION'S RISK PREMIUM**

Item	Rate
Market Risk Premium	6.96%
x Industry Financial Strength	1.08
Industry Risk Premium	7.52%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>11.24%</b>

**GUIDELINE COMPANY INFORMATION SUMMARY**

Company Name	Tax Rate	Relative Financial Strength	Beta
Abraxas Petrol	NMF	1.22 (C++)	1.75
Bill Barrett Corp	73.76%	1.22 (C++)	1.35
Continental Resources	36.00%	1.00 (B+)	1.65
Double Eagle Petroleum Co.	NMF	1.33 (C+)	1.45
Encana Corp.	NMF	1.00 (B+)	1.15
Isramco Inc.	30.92%	1.22 (C++)	0.85
Kodiak Oil & Gas Corp	NMF	1.11 (B)	1.60
Legacy Reserves	NMF	1.11 (B)	1.05
Linn Energy LLC	NMF	1.00 (B+)	0.85
Pioneer Natural Res.	33.00%	0.78 (A)	1.50
QEP Resources	33.50%	0.89 (B++)	1.30
Resolute Energy Corp	39.79%	1.11 (B)	0.80
Ultra Petroleum	NMF	1.11 (B)	1.10
Warren Resources Inc	NMF	1.22 (C++)	2.15
Whiting Petroleum Corp	37.45%	1.00 (B+)	1.60
WPX Energy	NMF	1.00 (B+)	1.30
<b>Selected</b>	<b>38.25%</b>	<b>1.08</b>	<b>1.34</b>



**UTAH STATE TAX COMMISSION**  
**PROPERTY TAX DIVISION**  
**OIL & GAS -- DIVIDEND GROWTH MODELS**

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**DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH**

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Abraxas Petrol	\$3.11	-	0.00%	-	-	-
Bill Barrett Corp	\$25.46	-	15.00%	-	15.00%	-
Continental Resources	\$106.77	-	21.00%	-	21.00%	-
Double Eagle Petroleum Co.	\$2.32	-	0.00%	-	-	-
Encana Corp.	\$17.56	\$0.28	19.00%	-12.50%	3.25%	4.84%
Isramco Inc.	\$128.00	-	0.00%	-	-	-
Kodiak Oil & Gas Corp	\$10.73	-	50.00%	-	50.00%	-
Legacy Reserves	\$28.12	-	-4.75%	-	-4.75%	-
Linn Energy LLC	\$31.03	\$3.05	8.00%	6.00%	7.00%	16.83%
Pioneer Natural Res.	\$176.05	\$0.08	23.00%	21.00%	22.00%	22.05%
QEP Resources	\$30.24	\$0.12	12.00%	20.00%	16.00%	16.40%
Resolute Energy Corp	\$8.59	-	15.00%	-	15.00%	-
Ultra Petroleum	\$21.34	-	2.50%	-	2.50%	-
Warren Resources Inc	\$3.12	-	0.00%	-	-	-
Whiting Petroleum Corp	\$59.05	-	12.50%	-	12.50%	-
WPX Energy	\$19.57	-	0.00%	-	-	-
<b>Indicated Rate</b>						<b>15.03%</b>

**DIVIDEND GROWTH MODEL: PLOWBACK RATIO**

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Abraxas Petrol	\$3.11	-	-	-	-	-
Bill Barrett Corp	\$25.46	-	-	-	-	-
Continental Resources	\$106.77	-	-	-	-	-
Double Eagle Petroleum Co.	\$2.32	-	-	-	-	-
Encana Corp.	\$17.56	\$0.28	-	-	-	-
Isramco Inc.	\$128.00	-	-	-	-	-
Kodiak Oil & Gas Corp	\$10.73	-	-	-	-	-
Legacy Reserves	\$28.12	-	-	-	-	-
Linn Energy LLC	\$31.03	\$3.05	-	-	-	-
Pioneer Natural Res.	\$176.05	\$0.08	-	-	-	-
QEP Resources	\$30.24	\$0.12	-	-	-	-
Resolute Energy Corp	\$8.59	-	-	-	-	-
Ultra Petroleum	\$21.34	-	-	-	-	-
Warren Resources Inc	\$3.12	-	-	-	-	-
Whiting Petroleum Corp	\$59.05	-	-	-	-	-
WPX Energy	\$19.57	-	-	-	-	-
<b>Indicated Rate</b>						<b>0.00%</b>

**COMMENTS ABOUT THE OIL & GAS INDUSTRY**



**UTAH STATE TAX COMMISSION**  
**PROPERTY TAX DIVISION**  
**OIL & GAS -- CAPITAL STRUCTURE**

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**CALCULATION OF CAPITAL STRUCTURE**

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Abraxas Petrol	110.6	-	-	110.6	-	-	-	3.11	92.5	287.6
Bill Barrett Corp	1,259.8	100.0	3.97%	1,270.9	-	-	-	25.46	47.3	1,204.3
Continental Resources	4,442.8	289.7	3.26%	3,851.7	-	-	-	106.77	184.0	19,645.7
Double Eagle Petroleum Co.	47.8	-	-	47.8	-	3.7	68.8	2.32	11.3	26.2
Encana Corp.	7,649.0	390.0	2.55%	5,542.9	-	-	-	17.56	736.3	12,929.4
Isramco Inc.	106.0	-	-	106.0	-	-	-	128.00	2.7	345.6
Kodiak Oil & Gas Corp	2,193.1	-	-	2,193.1	-	-	-	10.73	265.3	2,846.7
Legacy Reserves	844.3	-	-	844.3	-	-	-	28.12	57.0	1,602.8
Linn Energy LLC	6,512.9	400.0	3.07%	5,399.4	-	-	-	31.03	234.5	7,276.5
Pioneer Natural Res.	2,823.4	165.0	2.92%	2,256.6	-	-	-	176.05	123.4	21,724.6
QEP Resources	2,882.3	160.0	2.78%	2,219.2	-	-	-	30.24	178.5	5,397.8
Resolute Energy Corp	686.7	-	-	686.7	-	-	-	8.59	59.8	513.7
Ultra Petroleum	1,880.0	90.0	2.39%	1,303.8	-	-	-	21.34	152.9	3,262.9
Warren Resources Inc	96.1	-	-	96.1	-	-	-	3.12	71.8	224.0
Whiting Petroleum Corp	2,904.0	-	-	2,904.0	-	-	-	59.05	117.6	6,944.3
WPX Energy	1,776.0	102.0	2.87%	1,401.5	-	-	-	19.57	199.3	3,900.3
<b>Total</b>				<b>30,234.6</b>			<b>68.8</b>			<b>88,132.4</b>

**CAPITAL STRUCTURE**

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Abraxas Petrol	27.77%	72.23%
Bill Barrett Corp	51.35%	48.65%
Continental Resources	16.39%	83.61%
Double Eagle Petroleum Co.	81.65%	18.35%
Encana Corp.	30.01%	69.99%
Isramco Inc.	23.47%	76.53%
Kodiak Oil & Gas Corp	43.52%	56.48%
Legacy Reserves	34.50%	65.50%
Linn Energy LLC	42.60%	57.40%
Pioneer Natural Res.	9.41%	90.59%
QEP Resources	29.13%	70.87%
Resolute Energy Corp	57.21%	42.79%
Ultra Petroleum	28.55%	71.45%
Warren Resources Inc	30.02%	69.98%
Whiting Petroleum Corp	29.49%	70.51%
WPX Energy	26.43%	73.57%
<b>Mean</b>	<b>35.09%</b>	<b>64.91%</b>
<b>Weighted Mean</b>	<b>25.59%</b>	<b>74.41%</b>

**REMARKS**

\* Implied Coupon Rate is a semi-annual rate.

\*\* Market Value of Debt: 7.85% (Corporate Ba2)

\*\*\* Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: 5.38% (Baa)



**UTAH STATE TAX COMMISSION**  
**PROPERTY TAX DIVISION**  
**OIL & GAS GATHERING/WD -- EQUITY RATE MODELS**

**RECONCILIATION**

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				<b>10.68%</b>
CAPM: Total NYSE				N/A
CAPM: Supply Side				<b>9.84%</b>
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				<b>10.68%</b>
DGM: Earnings & Dividend				<b>13.48%</b>
DGM: Plowback Ratio				<b>0.00%</b>
<b>Reconciled Equity Rate</b>				<b>12.08%</b>
Reconciled Equity Rate	12.08%	65.00%	7.85%	
Debt Rate (Corporate Baa)	5.38%	35.00%	1.88%	
<b>Weighted Average Cost of Capital</b>				<b>9.73%</b>
Reconciled Equity Rate	12.08%			
Tax-Adjusted (38.25%)	19.56%	65.00%	12.72%	
Industry Debt Rate	5.38%	35.00%	1.88%	
<b>Tax-Adjusted Weighted Average Cost of Capital</b>				<b>14.59%</b>

**GUIDELINE COMPANY INFORMATION SUMMARY**

Company Name	Tax Rate	Relative Financial Strength	Beta
El Paso Pipeline	NMF	1.11 (B)	0.65
Energy Transfer	NMF	0.89 (B++)	0.75
Kinder Morgan Energy	NMF	1.00 (B+)	0.75
ONEOK Inc.	38.32%	1.00 (B+)	1.05
Plains All Amer. Pipe.	NMF	1.00 (B+)	0.75
Spectra Energy	26.15%	1.11 (B)	1.00
Williams Partners L.P.	NMF	1.00 (B+)	1.05
<b>Selected</b>	<b>38.25%</b>	<b>1.00</b>	<b>1.00</b>

**CAPM: RULE 62 COMPLIANT**

Item	Rate
Market Risk Premium	6.96%
x Industry Beta	1.00
Industry Risk Premium	6.96%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>10.68%</b>

**CAPM: FULL NYSE**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.00
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**CAPM: SUPPLY SIDE**

Item	Rate
Market Risk Premium	6.12%
x Industry Beta	1.00
Industry Risk Premium	6.12%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>9.84%</b>

**CAPM: DECILES 1 & 2**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.00
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**DIVISION'S RISK PREMIUM**

Item	Rate
Market Risk Premium	6.96%
x Industry Financial Strength	1.00
Industry Risk Premium	6.96%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>10.68%</b>



**UTAH STATE TAX COMMISSION**  
**PROPERTY TAX DIVISION**  
**OIL & GAS GATHERING/WD -- DIVIDEND GROWTH MODELS**

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**DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH**

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
El Paso Pipeline	\$35.49	\$2.60	6.00%	11.00%	8.50%	15.83%
Energy Transfer	\$55.43	\$3.66	6.50%	2.00%	4.25%	10.85%
Kinder Morgan Energy	\$80.29	\$5.60	11.00%	7.00%	9.00%	15.97%
ONEOK Inc.	\$61.32	\$1.70	12.00%	12.50%	12.25%	15.02%
Plains All Amer. Pipe.	\$51.21	\$2.50	10.50%	9.00%	9.75%	14.63%
Spectra Energy	\$35.18	\$1.36	4.50%	8.00%	6.25%	10.12%
Williams Partners L.P.	\$50.34	\$3.62	2.00%	7.50%	4.75%	11.94%
<b>Indicated Rate</b>						<b>13.48%</b>

**DIVIDEND GROWTH MODEL: PLOWBACK RATIO**

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
El Paso Pipeline	\$35.49	\$2.60	-	-	-	-
Energy Transfer	\$55.43	\$3.66	-	-	-	-
Kinder Morgan Energy	\$80.29	\$5.60	-	-	-	-
ONEOK Inc.	\$61.32	\$1.70	-	-	-	-
Plains All Amer. Pipe.	\$51.21	\$2.50	-	-	-	-
Spectra Energy	\$35.18	\$1.36	-	-	-	-
Williams Partners L.P.	\$50.34	\$3.62	-	-	-	-
<b>Indicated Rate</b>						<b>0.00%</b>

**COMMENTS ABOUT THE OIL & GAS GATHERING/WD INDUSTRY**



**UTAH STATE TAX COMMISSION**  
**PROPERTY TAX DIVISION**  
**OIL & GAS GATHERING/WD -- CAPITAL STRUCTURE**

**CALCULATION OF CAPITAL STRUCTURE**

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
El Paso Pipeline	4,248.0	236.7	2.79%	4,347.2	-	-	-	35.49	209.0	7,417.4
Energy Transfer	16,646.0	835.0	2.51%	15,909.7	-	-	-	55.43	301.5	16,712.1
Kinder Morgan Energy	19,612.0	775.0	1.98%	16,205.9	-	-	-	80.29	373.2	29,964.2
ONEOK Inc.	8,330.1	300.0	1.80%	6,528.6	-	-	-	61.32	204.9	12,564.5
Plains All Amer. Pipe.	7,637.0	296.0	1.94%	6,240.3	-	-	-	51.21	335.3	17,170.7
Spectra Energy	16,821.0	650.0	1.93%	13,720.8	-	-	-	35.18	668.0	23,500.2
Williams Partners L.P.	8,434.0	440.0	2.61%	8,266.8	-	-	-	50.34	398.0	20,035.3
<b>Total</b>				<b>71,219.3</b>			<b>-</b>			<b>127,364.4</b>

**CAPITAL STRUCTURE**

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
El Paso Pipeline	36.95%	63.05%
Energy Transfer	48.77%	51.23%
Kinder Morgan Energy	35.10%	64.90%
ONEOK Inc.	34.19%	65.81%
Plains All Amer. Pipe.	26.66%	73.34%
Spectra Energy	36.86%	63.14%
Williams Partners L.P.	29.21%	70.79%
<b>Mean</b>	<b>35.39%</b>	<b>64.61%</b>
<b>Weighted Mean</b>	<b>35.86%</b>	<b>64.14%</b>

**REMARKS**

\* Implied Coupon Rate is a semi-annual rate.

\*\* Market Value of Debt: 5.38% (Corporate Baa)

\*\*\* Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: 5.38% (Baa)



**UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
SAND AND GRAVEL -- EQUITY RATE MODELS**

**RECONCILIATION**

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				<b>11.58%</b>
CAPM: Total NYSE				N/A
CAPM: Supply Side				<b>10.64%</b>
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				<b>10.82%</b>
DGM: Earnings & Dividend				<b>22.55%</b>
DGM: Plowback Ratio				<b>0.00%</b>
<b>Reconciled Equity Rate</b>				<b>11.58%</b>
Reconciled Equity Rate	11.58%	80.00%	9.26%	
Debt Rate (Corporate Ba2)	7.85%	20.00%	1.57%	
<b>Weighted Average Cost of Capital</b>				<b>10.83%</b>
Reconciled Equity Rate	11.58%			
Tax-Adjusted (38.25%)	18.75%	80.00%	15.00%	
Industry Debt Rate	7.85%	20.00%	1.57%	
<b>Tax-Adjusted Weighted Average Cost of Capital</b>				<b>16.57%</b>

**GUIDELINE COMPANY INFORMATION SUMMARY**

Company Name	Tax Rate	Relative Financial Strength	Beta
Eagle Materials	31.34%	1.00 (B+)	1.15
Granite Construction	26.05%	1.00 (B+)	1.05
Martin Marietta	NMF	0.89 (B++)	1.00
Texas Inds.	NMF	1.11 (B)	1.40
Vulcan Materials	NMF	1.11 (B)	1.05
<b>Selected</b>	<b>38.25%</b>	<b>1.02</b>	<b>1.13</b>

**CAPM: RULE 62 COMPLIANT**

Item	Rate
Market Risk Premium	6.96%
x Industry Beta	1.13
Industry Risk Premium	7.86%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>11.58%</b>

**CAPM: FULL NYSE**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.13
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**CAPM: SUPPLY SIDE**

Item	Rate
Market Risk Premium	6.12%
x Industry Beta	1.13
Industry Risk Premium	6.92%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>10.64%</b>

**CAPM: DECILES 1 & 2**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.13
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**DIVISION'S RISK PREMIUM**

Item	Rate
Market Risk Premium	6.96%
x Industry Financial Strength	1.02
Industry Risk Premium	7.10%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>10.82%</b>



**UTAH STATE TAX COMMISSION  
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SAND AND GRAVEL -- DIVIDEND GROWTH MODELS**

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**DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH**

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Eagle Materials	\$76.67	\$0.40	42.00%	7.00%	24.50%	25.02%
Granite Construction	\$34.33	\$0.52	51.00%	7.50%	29.25%	30.76%
Martin Marietta	\$99.38	\$1.60	18.50%	2.00%	10.25%	11.86%
Texas Inds.	\$66.95	-	-	-	-	-
Vulcan Materials	\$58.59	\$0.04	-	-16.50%	-16.50%	-
<b>Indicated Rate</b>						<b>22.55%</b>

**DIVIDEND GROWTH MODEL: PLOWBACK RATIO**

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Eagle Materials	\$76.67	\$0.40	-	-	-	-
Granite Construction	\$34.33	\$0.52	-	-	-	-
Martin Marietta	\$99.38	\$1.60	-	-	-	-
Texas Inds.	\$66.95	-	-	-	-	-
Vulcan Materials	\$58.59	\$0.04	-	-	-	-
<b>Indicated Rate</b>						<b>0.00%</b>

**COMMENTS ABOUT THE SAND AND GRAVEL INDUSTRY**



**UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
SAND AND GRAVEL -- CAPITAL STRUCTURE**

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**CALCULATION OF CAPITAL STRUCTURE**

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Eagle Materials	455.3	35.6	3.91%	453.9	-	-	-	76.67	49.5	3,795.2
Granite Construction	272.2	25.0	4.59%	308.6	-	-	-	34.33	38.7	1,328.6
Martin Marietta	1,113.4	53.3	2.39%	772.1	-	-	-	99.38	46.0	4,571.5
Texas Inds.	659.3	60.7	4.60%	748.8	-	-	-	66.95	28.6	1,914.8
Vulcan Materials	2,523.6	147.0	2.91%	2,012.2	-	-	-	58.59	129.9	7,610.8
<b>Total</b>				<b>4,295.6</b>			<b>-</b>			<b>19,220.9</b>

**CAPITAL STRUCTURE**

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Eagle Materials	10.68%	89.32%
Granite Construction	18.85%	81.15%
Martin Marietta	14.45%	85.55%
Texas Inds.	28.11%	71.89%
Vulcan Materials	20.91%	79.09%
<b>Mean</b>	<b>18.60%</b>	<b>81.40%</b>
<b>Weighted Mean</b>	<b>18.27%</b>	<b>81.73%</b>

**REMARKS**

\* Implied Coupon Rate is a semi-annual rate.

\*\* Market Value of Debt: 7.85% (Corporate Ba2)

\*\*\* Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: 5.38% (Baa)



**UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
URANIUM MINING -- EQUITY RATE MODELS**

**RECONCILIATION**

Equity Models				Equity Rate
CAPM: Rule 62 Compliant				<b>14.93%</b>
CAPM: Total NYSE				N/A
CAPM: Supply Side				<b>13.57%</b>
CAPM: Deciles 1 & 2				N/A
Division's Risk Premium				<b>11.72%</b>
DGM: Earnings & Dividend				<b>8.62%</b>
DGM: Plowback Ratio				<b>9.09%</b>
<b>Reconciled Equity Rate</b>				<b>14.93%</b>
Reconciled Equity Rate	14.93%	95.00%	14.18%	
Debt Rate (Corporate B2)	8.39%	5.00%	0.42%	
<b>Weighted Average Cost of Capital</b>				<b>14.60%</b>
Reconciled Equity Rate	14.93%			
Tax-Adjusted (38.25%)	24.18%	95.00%	22.97%	
Industry Debt Rate	8.39%	5.00%	0.42%	
<b>Tax-Adjusted Weighted Average Cost of Capital</b>				<b>23.39%</b>

**GUIDELINE COMPANY INFORMATION SUMMARY**

Company Name	Tax Rate	Relative Financial Strength	Beta
Cameco Corp.	NMF	1.00 (B+)	1.10
Cyclone Uranium Corp	NMF		1.10
Denison Mines Corp	NMF		1.55
Jet Metal Corporation	NMF		1.90
Quaterra Resources Inc	NMF		1.55
Uranerz Energy Corp	NMF	1.22 (C++)	1.90
Uranium Energy Corp	NMF		1.65
Uranium Resources Inc	NMF	1.22 (C++)	2.15
Ur-Energy Inc	NMF		1.55
<b>Selected</b>	<b>38.25%</b>	<b>1.15</b>	<b>1.61</b>

**CAPM: RULE 62 COMPLIANT**

Item	Rate
Market Risk Premium	6.96%
x Industry Beta	1.61
Industry Risk Premium	11.21%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>14.93%</b>

**CAPM: FULL NYSE**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.61
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**CAPM: SUPPLY SIDE**

Item	Rate
Market Risk Premium	6.12%
x Industry Beta	1.61
Industry Risk Premium	9.85%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>13.57%</b>

**CAPM: DECILES 1 & 2**

Item	Rate
Market Risk Premium	0.00%
x Industry Beta	1.61
Industry Risk Premium	0.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>N/A</b>

**DIVISION'S RISK PREMIUM**

Item	Rate
Market Risk Premium	6.96%
x Industry Financial Strength	1.15
Industry Risk Premium	8.00%
Add: Risk-Free Rate	3.72%
<b>Indicated Rate</b>	<b>11.72%</b>



**UTAH STATE TAX COMMISSION  
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URANIUM MINING -- DIVIDEND GROWTH MODELS**

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**DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH**

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Cameco Corp.	\$21.39	\$0.40	8.50%	5.00%	6.75%	8.62%
Cyclone Uranium Corp	\$0.02	-	0.00%	0.00%	-	-
Denison Mines Corp	\$1.25	-	0.00%	0.00%	-	-
Jet Metal Corporation	\$0.18	-	0.00%	0.00%	-	-
Quaterra Resources Inc	\$0.10	-	0.00%	0.00%	-	-
Uranerz Energy Corp	\$1.30	-	0.00%	0.00%	-	-
Uranium Energy Corp	\$1.92	-	0.00%	0.00%	-	-
Uranium Resources Inc	\$3.06	-	0.00%	0.00%	-	-
Ur-Energy Inc	\$1.41	-	0.00%	0.00%	-	-
<b>Indicated Rate</b>						<b>8.62%</b>

**DIVIDEND GROWTH MODEL: PLOWBACK RATIO**

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Cameco Corp.	\$21.39	\$0.40	9.50%	76.00%	7.22%	9.09%
Cyclone Uranium Corp	\$0.02	-	-	-	-	-
Denison Mines Corp	\$1.25	-	-	-	-	-
Jet Metal Corporation	\$0.18	-	-	-	-	-
Quaterra Resources Inc	\$0.10	-	-	-	-	-
Uranerz Energy Corp	\$1.30	-	-	-	-	-
Uranium Energy Corp	\$1.92	-	-	-	-	-
Uranium Resources Inc	\$3.06	-	-	-	-	-
Ur-Energy Inc	\$1.41	-	-	-	-	-
<b>Indicated Rate</b>						<b>9.09%</b>

**COMMENTS ABOUT THE URANIUM MINING INDUSTRY**



**UTAH STATE TAX COMMISSION  
PROPERTY TAX DIVISION  
URANIUM MINING -- CAPITAL STRUCTURE**

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**CALCULATION OF CAPITAL STRUCTURE**

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Cameco Corp.	1,311.2	65.0	2.48%	878.4	-	-	-	21.39	395.4	8,457.6
Cyclone Uranium Corp	0.5	-	-	0.5	-	-	-	0.02	141.1	2.8
Denison Mines Corp	0.2	-	-	0.2	-	-	-	1.25	384.7	480.9
Jet Metal Corporation	-	-	-	-	-	-	-	0.18	6.6	1.2
Quaterra Resources Inc	-	-	-	-	-	-	-	0.10	163.0	16.3
Uranerz Energy Corp	-	-	-	-	-	-	-	1.30	77.2	100.4
Uranium Energy Corp	6.9	-	-	6.9	-	-	-	1.92	86.0	165.1
Uranium Resources Inc	5.6	-	-	5.6	-	-	-	3.06	16.1	49.3
Ur-Energy Inc	0.3	-	-	0.3	-	-	-	1.41	121.1	170.8
<b>Total</b>				<b>891.9</b>			<b>-</b>			<b>9,444.4</b>

**CAPITAL STRUCTURE**

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Cameco Corp.	9.41%	90.59%
Cyclone Uranium Corp	15.15%	84.85%
Denison Mines Corp	0.04%	99.96%
Jet Metal Corporation	-	100.00%
Quaterra Resources Inc	-	100.00%
Uranerz Energy Corp	-	100.00%
Uranium Energy Corp	4.01%	95.99%
Uranium Resources Inc	10.20%	89.80%
Ur-Energy Inc	0.18%	99.82%
<b>Mean</b>	<b>4.33%</b>	<b>95.67%</b>
<b>Weighted Mean</b>	<b>8.63%</b>	<b>91.37%</b>

**REMARKS**

\* Implied Coupon Rate is a semi-annual rate.

\*\* Market Value of Debt: 8.39% (Corporate B2)

\*\*\* Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: 5.38% (Baa)