

# Natural Gas Royalty Trusts

A Weekly Analysis

February 27, 2003

## Nineteen Dollar Natural Gas

### Summary and Recommendation

A sharp one-day spike in commodity price is encouraging for our continued recommendation of **San Juan Basin Royalty Trust (SJT)** as well as for other natural gas producers. The daily price of natural gas at the Henry Hub in Louisiana touched \$19 per million British Thermal Units on February 25. March futures (symbol NGH03 on the New York Mercantile Exchange) reached a dime shy of \$12. More recent \$9 March futures trigger an estimated distribution of a startling \$0.33 a unit in the month of May (see Table SJT-3). Translating one-year futures into distributions reveals an increase in estimated Next Twelve Months Distribution of 18% to \$2.31 a unit (see Table SJT-2). The distribution yield becomes 15% (see Table MEEI-1). Six-year futures declined slightly to \$4.42. As a result estimated present value declines slightly to \$17.30 a unit (see Table SJT-1). We would not be surprised if estimated NTM distributions and one-year futures fell back some, but eventually we are looking for higher six-year futures. With the sharp changes in a week we include the valuation details for **Cross Timbers Royalty Trust (CRT)** and **Hugoton Royalty Trust (HGT)**.

Kurt H. Wulff, CFA

### Natural Gas and Oil Futures

February 26, 2003

	2004	2005	2006	2007	2008	2009	Six Year
Natural Gas (\$/mmbtu)							
Year ending February	6.15	4.66	4.00	3.86	3.93	3.94	4.42
Light Sweet Crude Oil (\$/bbl)							
Year ending February	31.85	25.31	23.90	23.86	23.84	23.80	25.43
Natural Gas/Oil (6:1 = 1.0)							
Year ending February	1.16	1.10	1.00	0.97	0.99	0.99	1.04

Source: Nymex, FutureSource, wsj.com, McDep Associates

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**Table MEII-1**  
**McDep Energy Income Ideas**  
**Dividends, Debt and McDep Ratio**

	<i>Symbol/ Rating</i>		<i>Price (\$/sh) 26-Feb 2003</i>	<i>Shares (mm)</i>	<i>Market Cap (\$mm)</i>	<i>Div or Distrib. NTM (%)</i>	<i>Debt/ Present Value</i>	<i>McDep Ratio</i>
<b>High Greed Partnerships</b>								
El Paso Energy Partners	EPN	S	32.10	57.0	1,830	8.4	0.64	2.70
Kinder Morgan Energy Partners, L.P.	KMP	S	36.31	141	5,120	6.9	0.47	1.84
Enbridge Energy Partners, L.P.	EEP	S	44.70	35.0	1,560	8.1	0.64	1.72
Kinder Morgan Management, LLC	KMR	S	32.16	39.5	1,270	7.8	0.47	1.68
Plains All Amer. Pipeline	PAA		25.13	50.0	1,260	8.6	0.49	1.60
Enbridge Energy Management, L.L.C	EEQ	S	39.10	9.0	350	9.2	0.64	1.59
Penn Virginia Res. Part, L.P.	PVR		23.81	15.3	360	8.4	-	1.32
Northern Border Partners	NBP		37.74	44.0	1,660	8.5	0.62	1.32
TEPPCO Partners, L.P.	TPP		30.45	50.0	1,520	7.9	0.56	1.31
AmeriGas Partners, L.P.	APU		24.53	49.4	1,210	9.0	0.51	1.16
Alliance Res. Part, L.P.	ARLP		22.72	15.9	360	8.8	0.45	1.07
<i>Total or Median</i>					<i>16,500</i>	<i>8.4</i>	<i>0.51</i>	<i>1.59</i>
<b>U.S. Master Limiter Partnerships</b>								
Enterprise Products Part (16%)	EPD		19.42	29	550	7.1	0.63	1.68
Dorchester Minerals, L.P.	DMLP		15.00	27.0	405	10.5	-	1.29
<b>Canadian Royalty Trusts</b>								
Provident Energy Trust	PVX		7.54	63.5	480	19.1	0.24	1.39
Pengrowth Energy Trust	PGH		10.64	110.0	1,170	14.2	0.19	1.10
Enerplus Resources Fund	ERF		19.03	75.0	1,430	12.3	0.16	1.05
Canadian Oil Sands Trust (US\$)	COS_u.TO	B	23.36	57.3	1,340	5.5	0.13	0.64
<i>Total or Median</i>					<i>4,400</i>	<i>13.3</i>	<i>0.17</i>	<i>1.07</i>
<b>U.S. Natural Gas Royalty Trusts</b>								
Cross Timbers Royalty Trust	CRT		20.79	6.0	125	12.7	-	1.04
San Juan Basin Royalty Trust	SJT	B	15.12	46.6	710	15.3	-	0.87
Hugoton RoyaltyTrust (46%)	HGT		14.77	18.4	270	14.8	-	0.86
<i>Total or Median</i>					<i>1,110</i>	<i>14.8</i>	<i>-</i>	<i>0.87</i>
<b>Additional McDep Recommendations</b>								
PetroChina Company Ltd (10%)	PTR	B	20.95	176	3,700	6.1	0.17	0.75
Marathon Oil Corporation	MRO	B	22.66	310	7,000	4.1	0.37	0.73
Royal Dutch/Shell	RD	B	39.01	3,481	135,800	4.3	0.15	0.70
ChevronTexaco Corporation	CVX	B	64.08	1,062	68,100	4.4	0.17	0.70
<i>Total or Median</i>					<i>215,000</i>	<i>4.4</i>	<i>0.17</i>	<i>0.71</i>

Buy/Sell rating after symbol: B - Buy, N - Neutral, S - Sell

NTM = Next Twelve Months Ended December 31, 2003

McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses

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**Table MEII-2**  
**McDep Energy Income Ideas**  
**Distribution Validity, Fees and Cash flow Multiples**

	<i>Symbol/</i>	<i>Rating</i>	<i>Price</i> <i>(\$/sh)</i> <i>26-Feb</i> <i>2003</i>	<i>Dist/</i> <i>Equity</i> <i>Ebitda</i>	<i>Mgt</i> <i>Fee</i> <i>(%)</i>	<i>Fin</i> <i>Fee</i> <i>(%)</i>	<i>EV/</i> <i>Ebitda</i> <i>NTM</i>	<i>PV/</i> <i>Ebitda</i> <i>NTM</i>
<b>High Greed Partnerships</b>								
El Paso Energy Partners	EPN	S	32.10	4.3	71	6	24.3	9.0
Kinder Morgan Energy Partners, L.P.	KMP	S	36.31	1.5	46	6	16.0	8.7
Enbridge Energy Partners, L.P.	EEP	S	44.70	2.2	21	6	15.5	9.0
Kinder Morgan Management, LLC	KMR	S	32.16	1.5	46	6	14.6	8.7
Plains All Amer. Pipeline	PAA		25.13	1.7	9	6	14.4	9.0
Enbridge Energy Management, L.L.C	EEQ	S	39.10	2.2	21	6	14.3	9.0
Northern Border Partners	NBP		37.74	1.4	8	6	11.9	9.0
TEPPCO Partners, L.P.	TPP		30.45	1.2	25	6	11.8	9.0
Penn Virginia Res. Part, L.P.	PVR		23.81	1.0	2	8	11.3	8.6
AmeriGas Partners, L.P.	APU		24.53	1.1	1	6	10.5	9.0
Alliance Res. Part, L.P.	ARLP		22.72	0.7	2	8	7.5	7.0
		<i>Median</i>					<i>14.3</i>	<i>9.0</i>
<b>U.S. Master Limiter Partnerships</b>								
Enterprise Products Part (16%)	EPD		19.42	1.8	10	6	15.2	9.0
Dorchester Minerals, L.P.	DMLP		15.00	0.9	3		8.6	6.6
<b>Canadian Royalty Trusts</b>								
Canadian Oil Sands Trust (US\$)	COS_u.TO	B	23.36	0.4			7.2	11.2
Enerplus Resources Fund	ERF		19.03	0.8	10	6	6.8	6.5
Pengrowth Energy Trust	PGH		10.64	0.9	9	6	6.4	5.9
Provident Energy Trust	PVX		7.54	1.3	20	8	6.2	4.5
		<i>Median</i>					<i>6.6</i>	<i>6.2</i>
<b>U.S. Natural Gas Royalty Trusts</b>								
Cross Timbers Royalty Trust	CRT		20.79	0.9			7.5	7.2
San Juan Basin Royalty Trust	SJT	B	15.12	0.8			5.5	6.3
Hugoton RoyaltyTrust (46%)	HGT		14.77	0.7			5.1	5.9
<b>Additional McDep Recommendations</b>								
Royal Dutch/Shell	RD	B	39.01	0.2			6.0	8.6
ChevronTexaco Corporation	CVX	B	64.08	0.2			5.7	8.2
Marathon Oil Corporation	MRO	B	22.66	0.1			4.5	6.2
PetroChina Company Ltd (10%)	PTR	B	20.95	0.2			3.8	5.1
		<i>Median</i>					<i>5.1</i>	<i>7.2</i>

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**Table CRT-1**  
**Cross Timbers Royalty Trust**  
**Present Value**

Volume Decline (%/yr):	10	Price Escalation post 2008 (%/yr):	2.8
Volume Enhancement (%/yr):	10	Discount Rate (%/yr):	5.2
		U.S. TIPS Inflation (%/yr):	2.0
		U.S. 10 Year Yield (%/yr):	3.8

PV/Volume (\$/mcf):	2.93	PV/EBITDA 2004:	7.3
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Year	Natural Gas Volume			Price (\$/mcf)	Revenue (\$mm)	Oil			Disc Factor	Present Value (\$/unit)
	Basic (bcf)	Enhanced (bcf)	Total (bcf)			Net (\$mm)	Distribution (\$mm)	(\$/unit)		
Total 2004 through 2030; years ending on 3/31										
	24	17	41	4.47	183	2	185	30.89	0.65	20.00
2004	2.6	0.0	2.6	5.65	14.7	1.2	15.8	2.64	0.98	2.57
2005	2.3	0.3	2.6	4.51	11.7	0.6	12.3	2.05	0.93	1.90
2006	2.1	0.5	2.6	3.84	10.0	0.2	10.2	1.70	0.88	1.50
2007	1.9	0.7	2.6	3.68	9.6	0.1	9.7	1.61	0.84	1.35
2008	1.7	0.9	2.6	3.72	9.7	0.1	9.7	1.62	0.80	1.29
2009	1.5	1.1	2.6	3.74	9.7	0.0	9.7	1.62	0.76	1.22
2010	1.4	1.2	2.6	3.85	10.0	0.0	9.9	1.66	0.72	1.19
2011	1.2	1.4	2.6	3.95	10.3	-0.1	10.2	1.70	0.69	1.16
2012	1.1	1.2	2.3	4.06	9.5		9.5	1.58	0.65	1.03
2013	1.0	1.1	2.1	4.18	8.8		8.8	1.46	0.62	0.91
2014	0.9	1.0	1.9	4.29	8.1		8.1	1.35	0.59	0.80
2015	0.8	0.9	1.7	4.41	7.5		7.5	1.25	0.56	0.70
2016	0.7	0.8	1.5	4.53	6.9		6.9	1.16	0.53	0.62
2017	0.7	0.7	1.4	4.66	6.4		6.4	1.07	0.51	0.54
2018	0.6	0.6	1.2	4.79	5.9		5.9	0.99	0.48	0.48
2019	0.5	0.6	1.1	4.92	5.5		5.5	0.92	0.46	0.42
2020	0.5	0.5	1.0	5.06	5.1		5.1	0.85	0.44	0.37
2021	0.4	0.5	0.9	5.20	4.7		4.7	0.78	0.41	0.32
2022	0.4	0.4	0.8	5.35	4.4		4.4	0.73	0.39	0.29
2023	0.4	0.4	0.7	5.49	4.0		4.0	0.67	0.37	0.25
2024	0.3	0.3	0.7	5.65	3.7		3.7	0.62	0.36	0.22
2025	0.3	0.3	0.6	5.80	3.4		3.4	0.57	0.34	0.19
2026	0.3	0.3	0.5	5.97	3.2		3.2	0.53	0.32	0.17
2027	0.2	0.3	0.5	6.13	2.9		2.9	0.49	0.31	0.15
2028	0.2	0.2	0.4	6.30	2.7		2.7	0.45	0.29	0.13
2029	0.2	0.2	0.4	6.48	2.5		2.5	0.42	0.28	0.12
2030	0.2	0.2	0.4	6.66	2.3		2.3	0.39	0.26	0.10

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Table CRT-2  
Cross Timbers Royalty Trust  
Distributable Income

	Q2	Q3	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Year	Q1E	Next	
	6/30/02	9/30/02	12/31/02	2002E	3/31/03	6/30/03	9/30/03	12/31/03	2003E	3/31/04	Twelve	
											Months	
											3/31/04	
<b>Highlights</b>												
Tax credit (\$mm)												
Per unit	0.02	0.03	0.03	0.10					-			
Distributable Income (\$mm)	1.72	2.49	2.80	8.82	2.88	4.72	4.11	3.61	15.32	3.41		15.84
Per unit	0.29	0.42	0.47	1.47	0.48	0.79	0.68	0.60	2.55	0.57		2.64
Units (millions)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0
<b>Volume</b>												
Natural Gas (bcf)	0.71	0.77	0.75	3.01	0.73	0.71	0.72	0.73	2.88	0.73		2.88
Natural Gas (mmcf)	7.8	8.4	8.2	8.2	7.9	7.9	7.9	7.9	7.9	7.9		7.9
Days	90	91	92	365	92	90	91	92	365	92		365
Oil (mb)	82	82	82	330	81	78	80	79	318	78		314
Oil (mbd)	0.93	0.89	0.89	0.90	0.88	0.87	0.87	0.86	0.87	0.85		0.86
Days	89	92	92	365	92	89	92	92	365	92		365
Total (bcf)	1.20	1.26	1.25	4.98	1.21	1.18	1.20	1.20	4.79	1.20		4.77
<b>Price</b>												
Natural Gas (HH lagged three months)												
Henry Hub (\$/mmbtu)	2.53	3.38	3.21	2.88	4.30	7.48	6.44	5.68	5.98	5.55		6.29
Differential (\$/mmbtu)	(0.04)	0.33	0.13	0.07	0.43	0.75	0.64	0.57	0.61	0.55		0.63
CRT (\$/mcf)	2.57	3.05	3.08	2.81	3.87	6.73	5.80	5.12	5.37	4.99		5.65
Oil (\$/bbl) (WTI lagged two months)												
WTI Cushing	23.80	26.49	28.96	24.70	29.55	37.15	33.76	31.29	32.94	29.27		32.87
CRT	20.50	24.79	26.96	22.37	27.55	35.15	31.76	29.29	30.90	27.27		30.86
Total (\$/mcf)	2.92	3.47	3.64	3.18	4.16	6.38	5.60	5.02	5.28	4.82		5.45
<b>Revenue (\$mm)</b>												
Natural Gas	1.82	2.33	2.32	8.46	2.81	4.78	4.17	3.72	15.48	3.63		16.30
Oil	1.69	2.03	2.21	7.37	2.24	2.73	2.53	2.31	9.81	2.13		9.70
Total	3.50	4.37	4.54	15.83	5.05	7.52	6.70	6.03	25.29	5.76		26.00
<b>Cost (\$mm)</b>												
Tax, transport & other	0.51	0.60	0.64	2.09	0.71	1.05	0.94	0.84	3.54	0.81		3.64
Production	0.72	0.79	0.79	3.05	0.79	0.79	0.79	0.79	3.16	0.79		3.16
Total	1.23	1.40	1.43	5.14	1.50	1.84	1.73	1.63	6.71	1.60		6.80
<b>Cash flow (\$mm)</b>												
Development	0.14	0.08	0.20	0.71	0.20	0.20	0.20	0.20	0.80	0.20		0.80
Excess or other	0.07		(0.48)	(0.48)					-			
<b>Net proceeds (\$mm)</b>												
	2.06	2.89	3.39	10.46	3.35	5.47	4.77	4.19	17.79	3.96		18.39
<b>Royalty income (\$mm)</b>												
Royalty/Net proceeds	88%	87%	87%	88%	87%	87%	87%	87%	87%	87%		87%
Administration	0.09	0.04	0.15	0.35	0.04	0.04	0.04	0.04	0.16	0.04		0.16
<b>Distributable income (\$mm)</b>												
	1.72	2.49	2.80	8.82	2.88	4.72	4.11	3.61	15.32	3.41		15.84
<i>Modeling ratios</i>												
Tax and other/revenue	0.15	0.14	0.14	0.13	0.14	0.14	0.14	0.14	0.14	0.14		0.14

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**Table HGT-1  
Hugoton Royalty Trust  
Present Value**

Volume Decline (%/yr):	10	Price Escalation Post 2008 (%/yr):	2.8
Volume Enhancement (%/yr):	10	Discount rate (%/yr):	5.8
Capex/Cash Flow (%):	30	U.S. TIPS Inflation (%/yr):	2.0
Variable Cost (%):	17	U.S. 10 Year Yield (%/yr):	3.8
PV/Volume (\$/mcf):	1.56	PV/EBITDA 2004:	5.9

Year	Basic (bcf)	Volume Enhanced (bcf)	Total (bcf)	Price (\$/mcf)	Revenue (\$mm)	Fixed Cost (\$mm)	Var Cost (\$mm)	Cap Ex (\$mm)	Distribution (\$mm)	(\$/unit)	Disc Factor	Present Value (\$/unit)
Total 2004 through 2030; years ending on 3/31												
	262	176	438	4.24	1856	224	316	191	1125	28.13	0.61	17.10
2004	28.0	0.0	28.0	5.36	150.2	8.3	25.5	29.2	87.2	2.18	0.97	2.12
2005	25.2	2.8	28.0	4.27	119.5	8.3	20.3	27.3	63.6	1.59	0.92	1.46
2006	22.6	5.3	28.0	3.64	101.8	8.3	17.3	22.9	53.3	1.33	0.87	1.16
2007	20.4	7.6	27.9	3.49	97.4	8.3	16.6	21.8	50.8	1.27	0.82	1.04
2008	18.3	9.6	27.9	3.53	98.4	8.3	16.7	22.0	51.4	1.28	0.78	1.00
2009	16.4	11.4	27.9	3.55	98.8	8.3	16.8	22.1	51.6	1.29	0.73	0.95
2010	14.8	13.1	27.8	3.64	101.5	8.3	17.2	22.8	53.1	1.33	0.69	0.92
2011	13.3	14.5	27.8	3.75	104.2	8.3	17.7	23.5	54.7	1.37	0.66	0.90
2012	12.0	13.1	25.0	3.85	96.3	8.3	16.4		71.6	1.79	0.62	1.11
2013	10.7	11.7	22.5	3.96	88.9	8.3	15.1		65.5	1.64	0.59	0.96
2014	9.7	10.6	20.2	4.07	82.2	8.3	14.0		59.9	1.50	0.55	0.83
2015	8.7	9.5	18.2	4.18	75.9	8.3	12.9		54.7	1.37	0.52	0.72
2016	7.8	8.5	16.3	4.30	70.2	8.3	11.9		49.9	1.25	0.50	0.62
2017	7.0	7.7	14.7	4.42	64.8	8.3	11.0		45.5	1.14	0.47	0.53
2018	6.3	6.9	13.2	4.54	59.9	8.3	10.2		41.4	1.04	0.44	0.46
2019	5.7	6.2	11.9	4.66	55.4	8.3	9.4		37.6	0.94	0.42	0.39
2020	5.1	5.6	10.7	4.79	51.1	8.3	8.7		34.1	0.85	0.40	0.34
2021	4.6	5.0	9.6	4.93	47.3	8.3	8.0		30.9	0.77	0.37	0.29
2022	4.1	4.5	8.6	5.06	43.7	8.3	7.4		27.9	0.70	0.35	0.25
2023	3.7	4.0	7.8	5.20	40.3	8.3	6.9		25.2	0.63	0.33	0.21
2024	3.3	3.6	7.0	5.35	37.3	8.3	6.3		22.6	0.57	0.32	0.18
2025	3.0	3.3	6.3	5.50	34.4	8.3	5.9		20.3	0.51	0.30	0.15
2026	2.7	2.9	5.6	5.65	31.8	8.3	5.4		18.1	0.45	0.28	0.13
2027	2.4	2.6	5.1	5.81	29.4	8.3	5.0		16.1	0.40	0.27	0.11
2028	2.2	2.4	4.6	5.97	27.2	8.3	4.6		14.3	0.36	0.25	0.09
2029	2.0	2.1	4.1	6.14	25.1	8.3	4.3		12.5	0.31	0.24	0.07
2030	1.8	1.9	3.7	6.31	23.2	8.3	3.9		11.0	0.27	0.23	0.06

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# Natural Gas Royalty Trusts

A Weekly Analysis

February 27, 2003

**Table HGT-2**  
**Hugoton Royalty Trust**  
**Distributable Income**

	Q2	Q3	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Year	Q1E	Next Twelve Months
	6/30/02	9/30/02	12/31/02	2002E	3/31/03	6/30/03	9/30/03	12/31/03	2003E	3/31/04	3/31/04
<b>Highlights</b>											
Revenue (\$mm) (80%)	16.5	19.7	19.0	73.7	27.9	46.9	35.5	33.3	143.7	34.5	150.2
Cash flow (\$mm) (80%)	10.1	13.2	12.8	48.3	20.3	37.7	27.3	25.3	110.6	26.4	116.7
Per unit	0.25	0.33	0.32	1.21	0.51	0.94	0.68	0.63	2.76	0.66	2.92
Tax credit (\$mm)	0.2	0.2	0.2	0.7							
Per unit	0.00	0.00	0.00	0.02							
Distributable Income (\$mm)	5.3	8.6	8.3	29.6	17.2	28.2	20.4	18.9	84.7	19.7	87.2
Per unit	0.13	0.22	0.21	0.74	0.43	0.70	0.51	0.47	2.12	0.49	2.18
Units (millions)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
<b>Volume</b>											
Natural Gas (bcf)	8.3	8.6	8.4	34.3	8.3	8.0	8.3	8.3	32.9	8.3	32.9
Natural Gas (mmcf/d)	93.1	93.4	91.4	94.0	90.3	90.3	90.3	90.3	90.3	90.3	90.3
Days	89	92	92	365	92	89	92	92	365	92	365
Oil (mb)	88	90	90	358	89	85	87	86	346	86	344
Oil (mbd)	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9
Days	89	92	92	365	92	89	92	92	365	92	365
Total (bcf)	8.8	9.1	8.9	36.5	8.8	8.5	8.8	8.8	35.0	8.8	35.0
<b>Price</b>											
Natural Gas (HH lagged two months)											
Henry Hub (\$/mmbtu)	2.92	3.23	3.59	3.02	4.73	8.13	5.88	5.53	6.07	5.76	6.32
Differential (\$/mmbtu)	0.67	0.64	1.06	0.58	0.84	1.22	0.88	0.83	0.96	0.86	0.96
HGT (\$/mcf)	2.25	2.60	2.52	2.44	3.89	6.91	5.00	4.70	5.11	4.89	5.36
Oil (\$/bbl) (WTI Cushing lagged two months)											
WTI Cushing	23.80	26.49	28.96	24.70	29.55	37.15	33.76	30.46	32.73	28.76	32.53
HGT	22.27	25.84	28.46	23.85	29.05	36.65	33.26	29.96	32.19	28.26	32.02
Total (\$/mcf)	2.33	2.70	2.66	2.53	3.95	6.86	5.03	4.72	5.13	4.88	5.36
<b>Revenue (\$mm)</b>											
Natural Gas	18.6	22.3	21.2	83.6	32.3	55.5	41.5	39.1	168.4	40.6	176.7
Oil	2.0	2.3	2.5	8.5	2.6	3.1	2.9	2.6	11.2	2.4	11.0
Total	20.6	24.6	23.8	92.2	34.9	58.6	44.4	41.6	179.6	43.1	187.7
<b>Cost (\$mm)</b>											
Tax, transport & other	1.9	2.2	2.4	8.2	3.5	5.9	4.4	4.2	18.0	4.3	18.8
Production	4.0	3.8	3.9	16.1	4.1	3.8	3.9	3.9	15.7	3.9	15.4
Overhead	2.0	2.1	1.5	7.6	1.9	1.9	1.9	1.9	7.7	1.9	7.7
Total	7.9	8.1	7.7	31.8	9.6	11.6	10.3	10.0	41.3	10.1	41.9
<b>Cash flow (\$mm)</b>											
Development	5.8	5.8	5.4	22.7	3.7	11.8	8.5	7.9	32.0	8.2	36.5
<b>Net proceeds (\$mm)</b>											
Net proceeds	6.9	10.7	10.7	37.6	21.6	35.3	25.6	23.7	106.3	24.7	109.4
<b>Royalty income (\$mm)</b>											
Royalty/Net proceeds	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Administration	0.2	(0.0)	0.3	0.5	0.1	0.1	0.1	0.1	0.3	0.1	0.3
<b>Distributable income (\$mm)</b>											
Distributable income	5.3	8.6	8.3	29.6	17.2	28.2	20.4	18.9	84.7	19.7	87.2
<b>Cost ratios</b>											
Tax and other/revenue	9%	9%	10%	9%	10%	10%	10%	10%	10%	10%	10%
Production cost (\$/mcf)	0.46	0.42	0.43	0.44	0.47	0.44	0.44	0.44	0.45	0.44	0.44
Overhead cost (\$/mcf)	0.23	0.23	0.17	0.21	0.22	0.23	0.22	0.22	0.22	0.22	0.22
Development/Cash flow	0.46	0.35	0.34	0.38	0.15	0.25	0.25	0.25	0.23	0.25	0.25

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# Natural Gas Royalty Trusts

A Weekly Analysis

February 27, 2003

**Table SJT-1**  
**San Juan Basin Royalty Trust**  
**Present Value**

Volume Decline (%/yr):	11	Price Escalation Post 2008 (%/yr):	2.8
Volume Enhancement (%/yr):	10	Discount rate (%/yr):	5.8
Capex/Cash Flow (%):	25	U.S. TIPS Inflation (%/yr):	2.0
Variable Cost (%):	12	U.S. 10 Year Yield (%/yr):	3.8
PV/Volume (\$/mcf):	1.55	PV/EBITDA 2004:	6.4

Year	Basic (bcf)	Enhanced (bcf)	Total (bcf)	Price (\$/mcf)	Revenue (\$mm)	Fixed Cost (\$mm)	Var Cost (\$mm)	Cap Ex (\$mm)	Distribution (\$/unit)	Disc Factor	Present Value (\$/unit)	
Total 2004 through 2030; years ending on 3/31												
	313	208	521	3.95	2057	349	247	178	1283	27.53	0.63	<b>17.30</b>
2004	34.9	0.0	34.9	4.47	155.7	11.4	18.7	18.0	107.6	2.31	0.97	2.24
2005	31.2	3.5	34.6	4.03	139.7	13.0	16.8	27.5	82.5	1.77	0.92	1.63
2006	27.9	6.6	34.4	3.44	118.4	13.0	14.2	22.8	68.4	1.47	0.87	1.28
2007	24.9	9.3	34.2	3.29	112.7	13.0	13.5	21.6	64.7	1.39	0.82	1.14
2008	22.3	11.8	34.0	3.33	113.4	13.0	13.6	21.7	65.1	1.40	0.78	1.08
2009	19.9	13.9	33.8	3.35	113.2	13.0	13.6	21.7	65.0	1.39	0.73	1.02
2010	17.8	15.8	33.6	3.44	115.7	13.0	13.9	22.2	66.6	1.43	0.69	0.99
2011	15.9	17.5	33.4	3.54	118.2	13.0	14.2	22.8	68.3	1.46	0.66	0.96
2012	14.2	15.7	29.9	3.64	108.6	13.0	13.0		82.6	1.77	0.62	1.10
2013	12.7	14.0	26.7	3.74	99.8	13.0	12.0		74.8	1.61	0.59	0.94
2014	11.4	12.5	23.9	3.84	91.7	13.0	11.0		67.7	1.45	0.55	0.81
2015	10.2	11.2	21.3	3.95	84.3	13.0	10.1		61.1	1.31	0.52	0.69
2016	9.1	10.0	19.1	4.06	77.4	13.0	9.3		55.1	1.18	0.50	0.59
2017	8.1	8.9	17.1	4.17	71.1	13.0	8.5		49.6	1.06	0.47	0.50
2018	7.3	8.0	15.3	4.29	65.4	13.0	7.8		44.5	0.96	0.44	0.42
2019	6.5	7.1	13.6	4.41	60.1	13.0	7.2		39.9	0.86	0.42	0.36
2020	5.8	6.4	12.2	4.53	55.2	13.0	6.6		35.6	0.76	0.40	0.30
2021	5.2	5.7	10.9	4.65	50.7	13.0	6.1		31.6	0.68	0.37	0.25
2022	4.6	5.1	9.7	4.78	46.6	13.0	5.6		28.0	0.60	0.35	0.21
2023	4.1	4.6	8.7	4.92	42.8	13.0	5.1		24.7	0.53	0.33	0.18
2024	3.7	4.1	7.8	5.05	39.3	13.0	4.7		21.6	0.46	0.32	0.15
2025	3.3	3.6	7.0	5.19	36.1	13.0	4.3		18.8	0.40	0.30	0.12
2026	3.0	3.3	6.2	5.34	33.2	13.0	4.0		16.2	0.35	0.28	0.10
2027	2.6	2.9	5.6	5.49	30.5	13.0	3.7		13.9	0.30	0.27	0.08
2028	2.4	2.6	5.0	5.64	28.0	13.0	3.4		11.7	0.25	0.25	0.06
2029	2.1	2.3	4.4	5.79	25.8	13.0	3.1		9.7	0.21	0.24	0.05
2030	1.9	2.1	4.0	5.96	23.7	13.0	2.8		7.8	0.17	0.23	0.04

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# Natural Gas Royalty Trusts

A Weekly Analysis

February 27, 2003

**Table SJT-2**  
**San Juan Basin Royalty Trust**  
**Distributable Income**

	Q2	Q3	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Year	Q1E	Next
	6/30/02	9/30/02	12/31/02	2002E	3/31/03	6/30/03	9/30/03	12/31/03	2003E	3/31/04	Twelve
											Months
											3/31/04
<b>Highlights</b>											
Revenue (\$mm) (75%)	18.6	20.7	20.4	78.9	30.0	48.9	36.6	34.4	149.9	35.8	155.7
Cash flow (\$mm) (75%)	14.1	16.0	15.5	59.7	24.0	41.1	29.9	28.0	123.0	29.2	128.2
Per unit	0.30	0.34	0.33	1.28	0.51	0.88	0.64	0.60	2.64	0.63	2.75
Tax credit (\$mm)	1.4	1.9	1.9	5.6					-		
Per unit	0.03	0.04	0.04	0.12					-		
Distributable Income (\$mm)	9.0	12.2	11.6	36.3	18.1	36.0	24.8	22.8	101.7	24.0	107.6
Per unit	0.19	0.26	0.25	0.78	0.39	0.77	0.53	0.49	2.18	0.52	2.31
Units (millions)	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6
<b>Volume</b>											
Natural gas (mmbtu)	12.0	11.6	12.4	48.5	12.1	11.8	12.2	12.2	48.2	12.2	48.2
Heat Content(btu/cf)	1,077	970	1,064	1,050	1,079	1,050	1,050	1,050	1,057	1,050	1,050
Natural gas (bcf)	11.1	12.0	11.6	46.2	11.2	11.2	11.6	11.6	45.6	11.6	45.9
Natural Gas (mmcf)	125.1	130.4	126.2	126.6	122.3	125.9	125.9	125.9	124.9	125.9	125.9
Days	89	92	92	365	92	89	92	92	365	92	365
Oil (mb)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Oil (mbd)	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total gas & oil (bcf)	11.3	12.1	11.7	46.8	11.4	11.3	11.7	11.7	46.1	11.7	46.5
<b>Price</b>											
Natural gas (\$/mmbtu) (Henry Hub lagged two months)											
Henry Hub (\$/mmbtu)	2.92	3.23	3.59	3.02	4.73	8.13	5.88	5.53	6.07	5.76	6.32
Differential (%)	31	28	40	30	31	33	33	33	32	33	33
Total	2.02	2.33	2.16	2.13	3.25	5.48	3.97	3.73	4.10	3.88	4.26
Natural gas (\$/mcf)	2.18	2.26	2.30	2.24	3.51	5.76	4.16	3.92	4.33	4.07	4.47
Oil (\$/bbl) (WTI Cushing lagged two months)											
WTI Cushing	23.80	26.49	28.96	24.70	29.55	37.15	33.76	30.46	32.73	28.76	32.53
SJT	19.14	21.95	24.00	20.10	24.48	30.78	27.97	25.24	27.09	23.83	26.92
Total gas & oil (\$/mcf)	2.19	2.28	2.32	2.25	3.52	5.75	4.17	3.92	4.33	4.07	4.47
<b>Revenue (\$mm)</b>											
Natural Gas	24.2	27.1	26.7	103.3	39.5	64.5	48.2	45.4	197.5	47.2	205.2
Oil	0.5	0.5	0.5	1.9	0.5	0.7	0.6	0.6	2.4	0.5	2.4
Total	24.8	27.6	27.2	105.2	40.0	65.1	48.8	45.9	199.9	47.7	207.6
<b>Cost (\$mm)</b>											
Severance tax	2.4	2.3	3.1	10.5	4.1	6.5	4.9	4.6	20.1	4.8	20.8
Operating	3.7	4.0	3.4	15.2	4.0	3.8	4.1	4.1	15.9	4.1	15.9
Total	6.0	6.3	6.5	25.6	8.1	10.3	8.9	8.6	36.0	8.8	36.7
<b>Cash flow (\$mm)</b>	18.8	21.3	20.7	79.6	31.9	54.9	39.9	37.3	163.9	38.9	170.9
Development	3.4	2.1	4.7	21.5	7.1	6.0	6.0	6.0	25.1	6.0	24.0
<b>Net proceeds (\$mm)</b>	15.4	19.2	16.1	58.2	24.8	48.9	33.9	31.3	138.8	32.9	146.9
<b>Royalty income (\$mm)</b>	11.5	14.4	12.1	43.6	18.6	36.6	25.4	23.5	104.1	24.7	110.2
Royalty/Net proceeds	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Administration	0.5	0.6	0.5	2.0	0.5	0.6	0.6	0.6	2.4	0.6	2.6
One-time	2.0	1.6		5.3					-		-
<b>Distributable income (\$mm)</b>	9.0	12.2	11.6	36.3	18.1	36.0	24.8	22.8	101.7	24.0	107.6
<b>Modeling ratios</b>											
Severance tax/revenue	9.5%	8.5%	11.5%	9.9%	10.1%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Operating cost (\$/mcf)	0.32	0.33	0.29	0.32	0.36	0.33	0.35	0.35	0.34	0.35	0.34
Development/Cash flow	18%	10%	22%	27%	22%	11%	15%	16%	15%	15%	14%

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# Natural Gas Royalty Trusts

A Weekly Analysis

February 27, 2003

**Table SJT-3**  
**San Juan Basin Royalty Trust**  
**Monthly Declarations**

	<i>Dec-02</i>	<i>Jan-03</i>	<i>Feb-03</i>	<i>Mar-03</i>	<i>Apr-03</i>	<i>May-03</i>	<i>Jun-03</i>
<b>Distribution</b> (\$/unit)							
Declared	0.09	0.10	0.12				
Projected				0.17	0.20	0.33	0.24
<b>Volume</b>							
Natural gas (mmbtu)	4.08	4.07	3.97	4.09	3.70	4.09	3.96
Heat Content(btu/cf)	1,043	1,092	1,097	1,050	1,050	1,050	1,050
Natural gas (bcf)	3.91	3.73	3.62	3.90	3.52	3.90	3.78
Natural Gas (mmcf)	126	124	117	126	126	126	126
Days	31	30	31	31	28	31	30
<b>Price</b>							
Natural gas industry quotes lagged two months (\$/mmbtu)							
Henry Hub Daily/Futures	4.12	4.03	4.76	5.41	7.88	9.13	7.38
San Juan Monthly Index	2.52	3.25	3.45	4.14	4.58		
SJT/Henry Hub	0.54	0.71	0.66	0.69	0.61	0.70	0.70
SJT/San Juan Index	0.89	0.88	0.91	0.91	1.05		
SJT (\$/mmbtu)	2.24	2.85	3.14	3.76	4.82	6.39	5.17
SJT (\$/mcf)	2.33	3.12	3.45	3.94	5.06	6.71	5.42
<b>Revenue</b> (\$mm)							
Natural Gas	9.1	11.6	12.5	15.4	17.8	26.2	20.5
Other	0.0	0.1	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
<b>Cost</b> (\$mm)							
Severance tax	1.5	1.2	1.3	1.6	1.8	2.6	2.1
Operating	0.5	1.5	1.3	1.3	1.3	1.3	1.3
Total	2.0	2.7	2.6	2.8	3.1	3.9	3.3
<b>Cash flow</b> (\$mm)	7.1	9.0	9.8	12.5	14.7	22.2	17.1
Development	1.6	2.7	2.4	2.0	2.0	2.0	2.0
<b>Net proceeds</b> (\$mm)	5.5	6.3	7.4	10.5	12.7	20.2	15.1
<b>Royalty income</b> (\$mm)	4.2	4.7	5.5	7.9	9.5	15.2	11.3
Royalty/Net proceeds	75%	75%	75%	75%	75%	75%	75%
One time							
<b>Distributable income</b> (\$mm)	4.2	4.7	5.5	7.9	9.5	15.2	11.3
<b>Units</b> (millions)	46.6	46.6	46.6	46.6	46.6	46.6	46.6
<b>Distribution</b> (\$/unit)	0.09	0.10	0.12	0.17	0.20	0.33	0.24
<i>Latest Twelve Month Average</i>							
Heat Content(btu/cf)	1,050	1,050	1,050				
Natural Gas (mmcf)	127	127	126				
SJT/Henry Hub	0.72	0.70	0.70				
SJT/San Juan Index	0.88	0.89	0.90				
Other revenue	(0.2)	(0.1)	(0.1)				
Operating	1.3	1.3	1.3				
Development	1.8	1.7	1.5				
Severance tax/revenue	10.1%	10.1%	10.1%				

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