

**ICDEP** Income and Small Cap Weekly

Analysis of Oil & Gas Stocks April 29, 2011

#### **Birchcliff Energy Ltd. (BIR.TO)** Independent Engineer Confirms Natural Gas Upside

Symbol	BIREF	Ebitda Next Twelve Months ending 3/31/12 (US\$mm)	182
Rating	Buy	North American Natural Gas/Ebitda (%)	48
Price (US\$/sh)	13.52	Natural Gas and Oil Production/Ebitda (%)	100
Pricing Date	4/28/11	Adjusted Reserves/Production NTM	20.2
Shares (mm)	126	EV/Ebitda	11.4
Market Capitalization (US\$mm)	1,700	PV/Ebitda	13.1
Debt (US\$mm)	370	Probable Reserves (%)	43
Enterprise Value (EV) (US\$mm)	2,080	Natural Gas and Oil Ebitda (US\$/mcfe)	20.96
Present Value (PV) (US\$mm)	2,390	Present Value Proven and Probable Reserves(US\$/boe)	14.84
Net Present Value (US\$/share)	16	Oil and Gas Ebitda Margin (%)	64
Debt/Present Value	0.16	Earnings Next Twelve Months (US\$/sh)	0.29
McDep Ratio - EV/PV	0.87	Price/Earnings Next Twelve Months	47
Dividend Yield (%/year)	0.0	Indicated Annual Dividend (US\$/sh)	0.00
Note: Estimated cash flow and	earnings tied	to one-year futures prices for oil and natural gas.	
Reported results may vary	widely from	n estimates. Estimated present value per share revised only infreque	ntly.
Estimated present value p	resumes a loi	ng-term price for oil of US\$100 a barrel and natural gas, \$8 a millio	n btu.
For historical analysis of	Birchcliff se	e www.mcdep.com/5bir.htm	

#### **Summary and Recommendation**

Canadian small cap producer **Birchcliff Energy Ltd.** (BIR.TO) released on April 26 a third party estimate of reserves and resources that ratified the company's high growth strategy for developing its Montney/Doig lands in northwest Alberta. The Qualified Reserves Evaluator (QRE) AJM Petroleum Consultants (AJM) prepared a "McKelvey" Chart to present the results by a useful breakdown with economic meaning (see chart on page 2). (Vincent McKelvey headed the U.S. Geological Survey about 40 years ago.) The analysis builds from the proven and probable reserves of 1.0 trillion cubic feet equivalent (tcfe) already reported as commercial. Those are the basis for our estimate of Net Present Value (NPV) of US\$16 a share, which also includes value for natural gas and oil outside the Montney/Doig (see Birchcliff tables on pages 3-4 and weekly industry rankings on pages 5-8). Another 2.5 tcfe are practically the equivalent of commercial except that it may be more than several years before they can be developed at the company's current rate of expansion. Those "contingent " resources can be regarded as support for extending current growth for a long time or as an opportunity for a larger company to enhance its growth by acquiring Birchcliff and accelerating the drilling. Another 14.5 tcfe of prospective recoverable resource has been quite firmly identified by geological analysis including data from wells drilled through the Montney and Doig layers. But, no well has been drilled and tested yet in the Montney formation within 4 miles of land overlying prospective resources. Finally, some of the 19 tcfe considered unrecoverable may ultimately yield more natural gas as well. The AJM analysis can be useful to track Birchcliff's progress as it continually converts proven reserves to production, probable to proven, contingent to probable and prospective to contingent on the way to realizing the unusual upside in Birchcliff stock.

Kurt H. Wulff, CFA



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	5	Summary of Birchcliff Reserves a	nd Resources	on Birchcliff	Lands <sup>(1)</sup>
				Bcfe	
R	esot	urce Class	Low Estimate Case	Best Estimate Case	High Estimate Case
		Cumulative Production <sup>(2)</sup>	33.9	33.9	33.9
		Remaining Reserves <sup>(2)</sup>	521.7 <sup>(6)</sup>	951.6 <sup>(5)</sup>	N/A
		Surface Loss/Shrinkage	26.5	46.9	N/A
		Total Commercial	582.0	1,032.5	N/A
		Contingent Resources	2,164.1	2,521.2	3,520.6 <sup>(4)</sup>
		Unrecoverable <sup>(3)</sup>	3,498.0	3,419.7	3,435.4
		Total Sub-Commercial	5,662.1	5,940.9	6,956.0
	То	otal Discovered PIIP	6,244.2	6,973.3	7,988.4
		Prospective Resources	11,128.0	14,529.2	19,479.8
		Unrecoverable <sup>(3)</sup>	15,037.0	15,623.7	15,599.7
	То	otal Undiscovered PIIP	26,165.0	30,152.8	35,079.5
To	otal	Petroleum Initially In Place (PIIP)	32,409.2	37,126.2	43,068.0

Notes:

(2) Sales gas and related natural gas liquids.

- (3) Unrecoverable includes surface loss/shrinkage on volumes of Contingent Resources and Prospective Resources. The unrecoverable portion of Undiscovered PIIP is those quantities determined not to be recoverable by future development projects. A portion of these resources may become recoverable in the future as commercial circumstances change or technological developments occur, but the remaining portion may never be recovered due to physical and/or chemical constraints of the reservoir rock and the fluid within it.
- (4) This volume combines possible reserves and Contingent Resources. Possible reserves were not estimated in the AJM Reserve Report and accordingly, the high estimate of Contingent Resources have been reduced to reflect only the separate estimate of proved plus probable reserves from the AJM Reserve Report but have not been reduced to reflect an estimate of possible reserves. The possible reserves combined within the high estimate of Contingent Resources are not subject to the contingencies applicable to Contingent Resources.

(5) The best estimate reflects the estimate of proved plus probable reserves contained in the AJM Reserve Report.

(6) The low estimate reflects the estimate of proved reserves contained in the AJM Reserve Report.

#### Please see disclosures on the final page.

All volumes at December 31, 2010. All Reserves and Resources are Gross volumes which are equal to Birchcliff's working interest share before deduction of royalties and without including any royalties held by Birchcliff.



Birc	chcliff Energy Ltd.			
Natural	Gas and Oil Reserves			
	Natural Gas	<i>Oil</i> ( <i>mmb</i> ) 42 27 14 1.6 25.8 16.9	Tota	l
	<u>(bcf)</u>	<u>(mmb)</u>	<u>(bcf)</u>	<u>(mmb)</u>
<u>Reserves (bcf or mmb)</u>				
Proven and Probable (P1+P2)	958	42	1208	201
Proven (P1)	521	27	685	114
Probable (P2)	437	14	523	87
Production, Next Twelve Months	32	1.6	42	7
<u>Reserve Life Index (years)</u>				
R/P (P1+P2)	29.9	25.8	28.9	28.9
R/P (P1)	16.3	16.9	16.4	16.4
R/P (P2)	13.6	8.9	12.5	12.5
R/P (P1+.3P2)	20.3	19.6	20.2	20.2

Bircho	cliff Energy	v Ltd.			
Functional Casl	h Flow and	Present Valu	10		
	NTM	Adjusted	PV/	Present	
	<u>Ebitda</u>	<u>R/P</u>	<u>Ebitda</u>	<u>Value</u>	
North American Natural Gas	88	20.3	15.8	1,390	58%
Oil	94	19.6	10.6	1,000	42%
	182	20.2	13.1	2,390	100%
Debt					370
Net Present Value (US\$mm)					2,020
Shares					126
Net Present Value - Standard Estimate (US\$/sh)					16
NPV Approximation by Cash Flow Multiple Dependent	ding on Rese	erve Life (US	\$/sh)		14



# MCDEP Income and Small Cap Weekly

				nergy Ltd					
	Next Tw	elve Montl			nancial E	stimates			
			(Canadian	Dollars)					<b>N7</b> /
									Next
	01	0.1	015	025	015	0.45	¥7	015	Twelve
	Q1	Q4	QIE	Q2E	Q3E	Q4E	Year	QIE	Months
	3/31/10	12/31/10	3/31/11	6/30/11	9/30/11	12/31/11	2011E	3/31/12	3/31/12
Volume (before royalty)							0.5		
Natural Gas (mmcfd)	43	74	80	80	90	90	85	90	88
Oil (mbd)	3.3	4.0	4.2	4.2	4.5	4.5	4.4	4.5	4.4
Total (mmboe)	0.94	1.51	1.58	1.60	1.79	1.79	6.8	1.77	7.0
Total (mboed)	10.4	16.4	17.5	17.5	19.5	19.5	18.5	19.5	19.0
Price									
Henry Hub (US\$/mmbtu)	5.32	3.80	4.11	4.42	4.59	4.83	4.49	4.55	4.60
Currency (US\$/C\$)	0.96	0.99	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Henry Hub (C\$/mmbtu)	5.53	3.85	3.93	4.22	4.38	4.61	4.29	4.35	4.39
Differential (C\$/mmbtu)	0.19	(0.09)	(0.10)	(0.10)	(0.11)	(0.11)	(0.12)	(0.11)	(0.11
Company (C\$/mcf)	5.34	3.94	4.02	4.33	4.49	4.73	4.41	4.45	4.50
WTI Cushing (US\$/bbl)	78.67	85.10	93.67	103.94	105.25	105.79	91.92	104.82	104.95
WTI Cushing (C\$/bbl)	81.82	86.13	89.53	99.34	100.59	101.11	87.86	100.18	100.30
Differential (C\$/bbl)	2.48	5.03	5.23	4.70	4.76	4.78	(5.07)	4.74	4.72
Company (C\$/bbl)	79.34	81.10	84.29	94.64	95.83	96.32	92.93	95.44	95.58
Total (\$/bbl)	47.12	37.83	38.55	42.41	42.84	44.05	42.06	42.58	42.98
Revenue (\$mm)									
Natural Gas	20	27	29	31	37	39	137	36	144
Oil	24	30	32	36	40	40	148	39	155
Royalties	(5)	(5)	(5)	(6)	(7)	(7)	(26)	(7)	(27
Total	39	52	55	62	70	72	259	69	272
Expense	13	19	20	22	25	26	93	25	98
Ebitda (\$mm)	26	33	35	39	45	46	166	44	174
Deprec., Deplet., & Amort.	16	22	22	22	22	22	86	22	86
Other non-cash	3	4	4	4	4	4	17	4	17
Interest	3	4	4	4	4	4	17	4	17
Ebt	5	3	5	9	15	16	46	14	54
Income tax	2	2	2	3	5	6	16	5	19
Net Income (\$mm)	3	1	4	6	10	10	30	9	35
Per share (\$)	0.02	0.01	0.03	0.05	0.08	0.08	0.23	0.07	0.28
Shares (millions)	127	126	126	126	126	126	126	126	126
Ebitda margin (after royalty)	67%	64%	64%	64%	64%	64%	64%	64%	64%
Tax rate	44%	60%	35%	35%	35%	35%	35%	35%	35%



			r	<b>Fable IS</b>	C-1						
McI	Dep In	co	me and	Small	Cap Ene	rgy I	Port	folio			
Debt, S	egmer	its	, Cash l	Flow, I	Income a	nd M	cDe	p Rati	D		
			Price								
Syn	bol/Rati	ng	(US\$/sh)	EV/	Enterprise	PV(	%)	EV/	Dist.	Dist.	
	$\mathbf{B} = \mathbf{I}$	Buy	28-Apr	Market	Value	Nat		Ebitda	NTM	Yield	McDep
CB	(see belo	ow)	2011	Cap	(\$mm)	Gas	Oil	NTM	(\$/un)	(%)	Ratio
Small Cap Independent Produce	•e										
Petrohawk Energy Corporation	HK	В	26.55	1.42	11,420	87	13	11.5	-	-	1.07
Denbury Resources Inc.	DNR		20.55	1.39	12,170	12	88	8.3	-	_	0.99
Berry Petroleum Company	BRY		51.40	1.48	4,010	24	76	8.7	0.30	0.6	0.95
Range Resources	RRC	В	54.92	1.40	10,440	76	24	14.9	0.16	0.3	0.93
Cimarex Energy Company	XEC	B	109.80	1.07	10,070	45	55	7.2	0.30	0.3	0.92
Peyto Exploration and Developmen			21.05	1.16	3,070	76	24	12.7	0.76	3.6	0.89
Birchcliff Energy Ltd.	BIREF		13.52	1.22	2,070	58	42	11.4	-	-	0.87
Ultra Petroleum	UPL		49.38	1.19	9,080	92	8	11.4	-	-	0.85
Whiting Petroleum Corporation	WLL	в	69.00	1.14	9,390	11	89	6.7	-	-	0.79
Total or Median	THE	D	07.00	1.17	71,700		07	11.4		-	0.92
Top Line Cash Payers											
Sabine Royalty Trust	SBR		69.09	1.00	1,010	38	62		4.64	6.7	1.17
Freehold Royalties Ltd.	FRHLF		23.60	1.06	1,470	20	80		1.76	7.5	1.07
Cross Timbers Royalty Trust	CRT		45.50	1.00	270	75	25		3.03	6.7	1.01
Permian Basin RT	PBT		22.05	1.00	1,030	31	69		1.79	8.1	1.00
Dorchester Minerals, L.P.	DMLP	В	28.65	1.00	880	61	39		1.85	6.5	0.96
Total or Median					4,700					6.7	1.01
Bottom Line Cash Payers											
Linn Energy, LLC	LINE		40.17	1.41	8,410	36	64	15.7	2.64	6.6	1.27
Vanguard Natural Resources, LLC	VNR		32.95	1.58	1,690	28	72	12.9	2.24	6.8	1.13
Legacy Reserves L.P.	LGCY		32.56	1.30	1,850	15	85	11.3	2.10	6.4	1.13
Hugoton RoyaltyTrust	HGT	В	24.01	1.00	960	89	11	15.2	1.36	5.7	1.09
Encore Energy Partners, L.P.	ENP	D	24.76	1.00	1,360	18	82	10.1	1.96	7.9	1.05
San Juan Basin Royalty Trust	SJT		25.15	1.00	1,500	100		14.2	1.50	6.0	1.00
Pengrowth Energy Corporation	PGH		14.07	1.34	5,600	28	72	8.0	0.86	6.1	1.01
Mesa RoyaltyTrust	MTR		49.22	1.00	92	75	25	11.6	3.56	7.2	0.93
Enerplus Corporation	ERF	В	31.80	1.00	6,900	34	66	7.7	2.22	7.0	0.93
Total or Median		D	51.00	1.22	28,000	54	00	11.6	2.22	6.6	1.06
Composite											
Enterprise Value Weighting					104,400	47	53				0.96
Equal Weighting						49	51				1.00
Equal Weighted Buys						70	30				0.98



# MCDEP Income and Small Cap Weekly

			le ISC-2					
McDep Inc	ome an	d Si	mall Ca	p Ener	gy Port	folio		
Net P	resent V	Valu	ie and I	McDep	Ratio			
			Price			Net		
			(\$/sh)		Market	Present	Debt/	
	Symbol/		28-Apr	Shares	Cap	Value	Present	McDep
	Ra	ting	2011	(mm)	(\$ <i>mm</i> )	(\$/un)	Value	Ratic
Small Cap Independent Producers								
Petrohawk Energy Corporation	НК	В	26.55	302.0	8,020	24.00	0.32	1.07
Denbury Resources Inc.	DNR	D	21.78	402.0	8,760	22.00	0.32	0.99
Berry Petroleum Company	BRY		51.40	52.8	2,710	55.00	0.31	0.95
Range Resources	RRC	В	54.92	158.0	8,680	60.00	0.16	0.93
Cimarex Energy Company	XEC	В	109.80	85.8	9,420	120.00	0.06	0.92
Peyto Exploration and Development Con	PEYUF		21.05	125.7	2,650	24.00	0.12	0.89
Birchcliff Energy Ltd.	BIREF	В	13.52	126.0	1,700	16.00	0.16	0.87
Whiting Petroleum Corporation	WLL	В	69.00	119.0	8,210	90.00	0.10	0.79
Ultra Petroleum	UPL		49.38	154.0	7,600	60.00	0.14	0.85
Total or Median					57,750		0.16	0.92
Top Line Cash Payers								
Sabine Royalty Trust	SBR		69.09	14.6	1,010	59.00	-	1.17
Freehold Royalties Ltd.	FRHLF		23.60	58.4	1,380	22.00	0.06	1.07
Permian Basin RT	PBT		22.05	46.6	1,030	22.00	-	1.00
Cross Timbers Royalty Trust	CRT		45.50	6.0	270	45.00	-	1.01
Dorchester Minerals, L.P.	DMLP	В	28.65	30.7	880	30.00	-	0.96
Total or Median					4,570			1.01
Bottom Line Cash Payers								
Linn Energy, LLC	LINE		40.17	148.3	5,960	28.00	0.37	1.27
Legacy Reserves L.P.	LGCY		32.56	43.0	1,400	28.00	0.27	1.12
Vanguard Natural Resources, LLC	VNR		32.95	32.4	1,070	27.00	0.41	1.13
Hugoton RoyaltyTrust	HGT	В	24.01	40.0	960	22.00	-	1.09
Encore Energy Partners, L.P.	ENP		24.76	45.0	1,110	23.00	0.19	1.06
San Juan Basin Royalty Trust	SJT		25.15	46.6	1,170	25.00	-	1.01
Pengrowth Energy Corporation	PGH		14.07	299.0	4,210	14.00	0.25	1.00
Mesa RoyaltyTrust	MTR		49.22	1.9	92	53.00	-	0.93
Enerplus Corporation	ERF	В	31.80	178.0	5,660	37.00	0.16	0.88
Total or Median					21,630			1.06
B=Buy; CB=Contrarian Buy, Stock Price								
McDep Ratio = Market $cap$ and $Debt$ to								



		Tal	ble ISC-3	3				
McDep Inco	ome an	d S	mall C	ap Enei	rgy Poi	rtfolio		
•				by EV/				
					251044			
			Price			Adjstd		
			(\$/sh)	Revenue	Dist/	Resrvs/	PV/	EV
	Symbol/		28-Apr	Royalty	Equity	Prod	Ebitda	Ebitd
	Rat	ing	2011	(%)	Ebitda	NTM	NTM	NTI
Small Cap Independent Producers		_						
Range Resources	RRC	В	54.92		_	17.4	16.0	14.9
Peyto Exploration and Development Corp		Б	21.05		0.45	17.4	14.2	14.3
Petrohawk Energy Corporation	HK	В	26.55		-	8.2	14.2	11.5
Ultra Petroleum	UPL	D	49.38		-	27.1	13.5	11.2
Birchcliff Energy Ltd.	BIREF	D	13.52		-	27.1	13.3	11.4
Berry Petroleum Company	BRY	B	51.40		-	11.9	9.1	8.2
Denbury Resources Inc.	DNR		21.78			11.9	8.3	0. 8.
Cimarex Energy Company	XEC	D			-	7.3	7.8	8.: 7.2
		B	109.80					
Whiting Petroleum Corporation Median	WLL	В	69.00		-	9.6 13.1	8.4 10.8	6.7 11.4
meutun						15.1	10.8	11.
Top Line Cash Payers								
Sabine Royalty Trust	SBR		69.09	100	1.00	7.7	12.7	14.9
Cross Timbers Royalty Trust	CRT		45.50	80	0.97	13.7	14.4	14.0
Dorchester Minerals, L.P.	DMLP	В	28.65	77	0.87	7.6	14.0	13.4
Permian Basin RT	PBT		22.05	32	0.96	13.2	11.8	11.8
Freehold Royalties Ltd.	FRHLF		23.60	71	0.80	8.1	9.9	10.0
Median						8.1	12.7	13.4
Bottom Line Cash Payers			10.1-			10.0	10.0	
Linn Energy, LLC	LINE	_	40.17		1.16	19.0	12.3	15.
Hugoton RoyaltyTrust	HGT	В	24.01		0.86	13.3	13.9	15.2
San Juan Basin Royalty Trust	SJT		25.15		0.85	9.1	14.1	14.2
Vanguard Natural Resources, LLC	VNR	_	32.95		0.95	13.1	11.4	12.9
Mesa RoyaltyTrust	MTR	_	49.22		0.84	8.8	12.4	11.0
Legacy Reserves L.P.	LGCY		32.56		0.76	13.2	10.1	11.
Encore Energy Partners, L.P.	ENP		24.76		0.81	13.0	9.5	10.
Pengrowth Energy Corporation	PGH		14.07		0.49	9.0	8.0	8.0
Enerplus Corporation	ERF	В	31.80		0.52	8.4	8.7	7.2
Median						13.0	11.4	11.
B=Buy; CB=Contrarian Buy, Stock Price	apparently	v in o	downtrend	l compared	to 200-da	v average.		
EV = Enterprise Value = Market Cap and							n	
and amortization; $NTM = Next Twelve M$							-	
Earnings; $PV = Present Value of oil and g$					Stock11			
Top Line Cash Payers defined as those ha					lumn from	n right)		



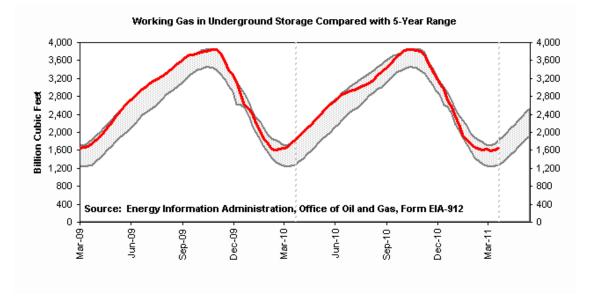
		Ta	ble ISC-4	l				
Oil and	Gas Inc	om	e and S	Small C	Cap Stoc	ks		
Rank by E					-			
	litterpri		value t		<i>y</i> uy 11,0	uge		
			Price					
			(\$/sh)		Enterpris	e Value/		
	Symbol/		28-Apr	52Wk	52Wk		200 Day	McDep
		ting	2011	High	Low	Avg.	Avg.	Ratio
Small Can Indonendant Duaduaana								
Small Cap Independent Producers	BIREF	р	12.50	0.00	1 5 5	1.00	1.25	0.07
Birchcliff Energy Ltd. Petrohawk Energy Corporation	HK	B B	13.52 26.55	0.99	1.55 1.50	1.09	1.25	0.87
Cimarex Energy Company	XEC	B	20.55	0.98		0.99	1.23	0.92
Range Resources	RRC	B	54.92	0.94	1.77	1.03	1.23	0.92
Whiting Petroleum Corporation	WLL	B	69.00	0.93	1.52	1.03	1.20	0.93
<u> </u>	BRY	D	51.40	0.92	1.75		1.20	0.79
Berry Petroleum Company						1.03		
Peyto Exploration and Development C			21.05	0.98	1.70	1.04	1.18	0.89
Denbury Resources Inc.	DNR		21.78	0.88	1.35	0.95	1.10	0.99
Ultra Petroleum	UPL		49.38	0.93	1.26	1.05	1.08	0.85
Median Top Line Cash Payers				0.94	1.55	1.03	1.20	0.92
Freehold Royalties Ltd.	FRHLF		23.60	0.97	1.57	1.03	1.20	1.07
Sabine Royalty Trust	SBR		69.09	0.97	1.57	1.03	1.20	1.07
Cross Timbers Royalty Trust	CRT		45.50	0.99	1.02	0.98	1.19	1.17
Dorchester Minerals, L.P.	DMLP	В	28.65	0.94	1.47	1.03	1.12	0.96
Permian Basin RT	PBT	D		0.93	1.21			
Median	PDI		22.05	0.95	1.54	1.03 1.03	1.05	1.00
Bottom Line Cash Payers				0.95	1.54	1.05	1.12	1.01
Hugoton RoyaltyTrust	HGT	В	24.01	0.97	1.42	1.06	1.15	1.09
Encore Energy Partners, L.P.	ENP	В	24.01					
Legacy Reserves L.P.	LGCY		24.76	1.00	2.02	1.06	1.14	1.06
			32.56	0.97	1.52	1.03	1.14	1.12
Pengrowth Energy Corporation	PGH		14.07	0.97	2.11	1.04	1.12	1.00
Vanguard Natural Resources, LLC	VNR	D	32.95	0.99	1.44	1.02	1.11	1.13
Enerplus Corporation	ERF	В	31.80	0.96	1.87	1.01	1.10	0.88
Linn Energy, LLC	LINE		40.17	1.00	1.95	1.02	1.10	1.27
Mesa RoyaltyTrust	MTR		49.22	0.91	1.21	1.03	1.04	0.93
San Juan Basin Royalty Trust	SJT		25.15	0.88	1.21	0.97	1.02	1.01
Median				0.97	1.52	1.03	1.11	1.06
CB=Contrarian Buy, Stock Price appar			1	1. 20	0.1			



### Income and Small Cap Weekly

Analysis of Oil & Gas Stocks

April 29, 2011



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