



**PRODUCT PRICE AND MARKET FORECASTS  
FOR THE CANADIAN OIL AND GAS INDUSTRY**

**April 1, 2014**

Prepared by  
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**April 1, 2014**

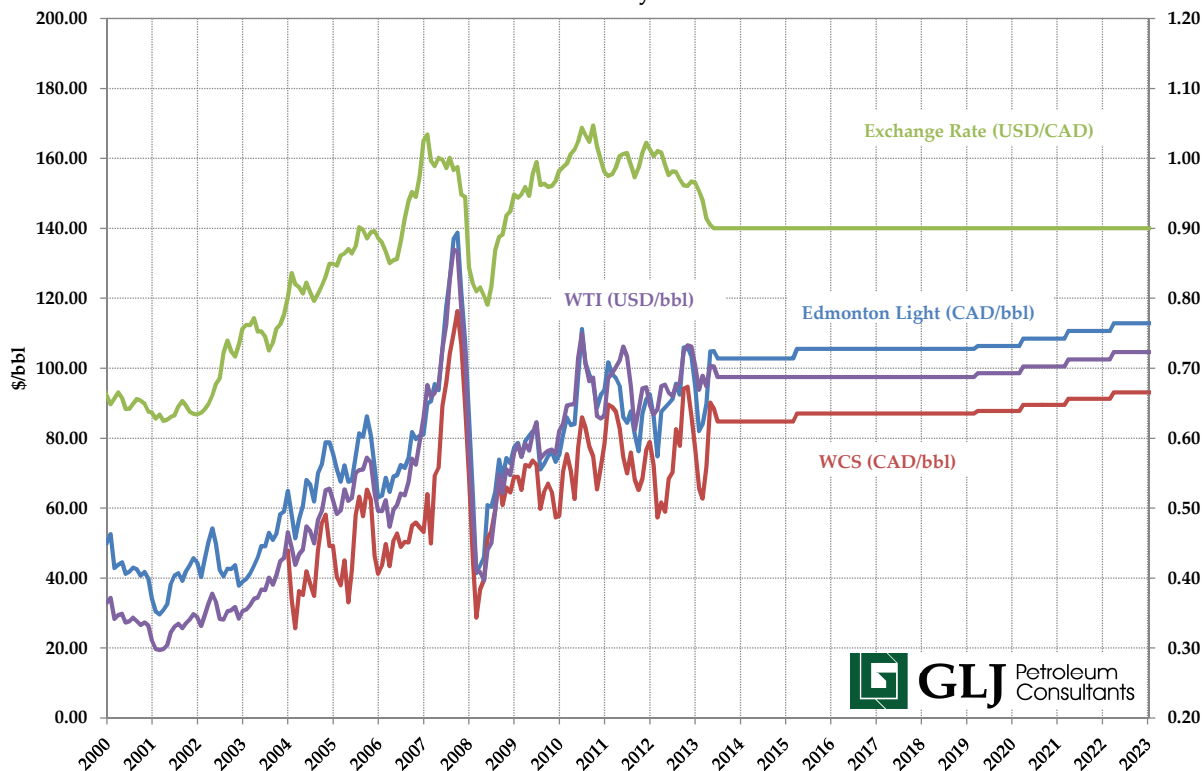
GLJ Petroleum Consultants has prepared the enclosed price and market forecasts after a comprehensive review of information available through to March 2014. Information sources include numerous government agencies, industry publications, Canadian oil refiners and natural gas marketers. The accuracy of all factual data, from all sources has been accepted as represented without detailed investigation by GLJ Petroleum Consultants. The forecasts presented herein are based on an informed interpretation of currently available data. While they are considered reasonable at this time, users of these forecasts should understand the inherent high uncertainty in forecasting any commodity or market. These forecasts will be revised periodically as market, economic and political conditions change. These future revisions may be significant.

## GLJ PETROLEUM CONSULTANTS PRODUCT PRICE AND MARKET FORECASTS FOR THE CANADIAN OIL AND GAS INDUSTRY

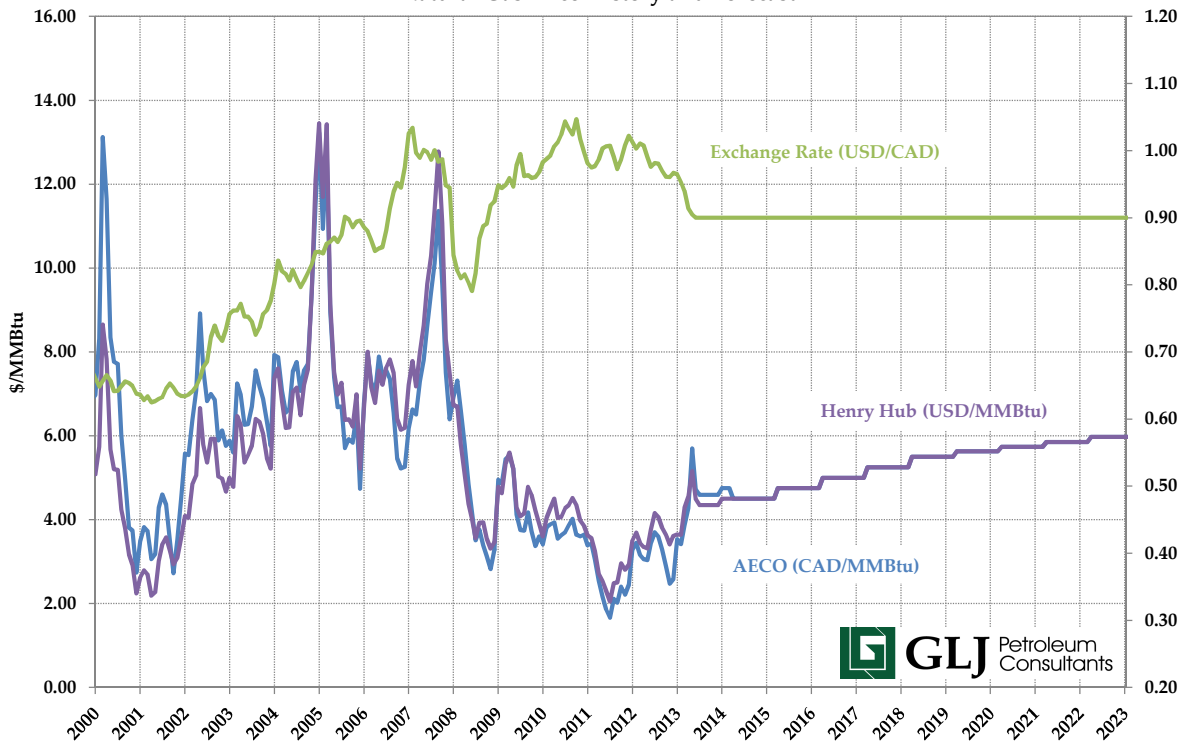
April 1, 2014

GLJ Petroleum Consultants has completed our commodity price forecasts as presented in the attachments. Revisions in the forecasts reflective of current market conditions have been incorporated. Widely followed benchmarks are presented graphically below:

**Crude Oil Price History and Forecast**



**Natural Gas Price History and Forecast**



**Table 1**  
**GLJ Petroleum Consultants Ltd.**  
**Crude Oil and Natural Gas Liquids**  
**Price Forecast**  
**Effective April 1, 2014**

Year	Inflation %	Bank of Canada Average Noon Exchange Rate USD/CAD	NYMEX WTI Near Month Futures Contract Crude Oil at Cushing Oklahoma		ICE Brent Near Month Futures Contract Crude Oil FOB North Sea		Light Sweet Crude Oil (40 API, 0.3%S) at Edmonton	Bow River Crude Oil Stream Quality at Hardisty	WCS Stream Quality at Hardisty	Heavy Crude Oil Proxy (12 API) at Hardisty	Light Crude Oil (35 API, 1.2%S) at Cromer	Medium Crude Oil (29 API, 2.0%S) at Cromer	Alberta Natural Gas Liquids (Then Current Dollars)			
			Constant 2014 \$ USD/bbl	Then Current USD/bbl	Then Current USD/bbl	Then Current USD/bbl							Spec Ethane CAD/bbl	Edmonton Propane CAD/bbl	Edmonton Butane CAD/bbl	Edmonton Pentanes Plus CAD/bbl
2000	2.7	0.6734	40.06	30.23	28.41	44.57	35.28	N/A	27.49	43.28	39.92	N/A	32.15	35.59	46.31	
2001	2.5	0.6458	33.57	26.00	24.87	39.44	27.69	N/A	16.77	35.22	31.58	N/A	31.92	31.25	42.48	
2002	2.3	0.6369	32.81	26.08	25.02	40.33	31.83	N/A	26.57	37.43	35.48	N/A	21.39	27.08	40.73	
2003	2.8	0.7158	38.23	31.07	28.47	43.66	32.11	N/A	26.26	40.09	37.55	N/A	32.14	34.36	44.23	
2004	1.8	0.7698	49.55	41.38	38.02	52.96	37.43	N/A	29.11	49.14	45.64	N/A	34.70	39.97	53.94	
2005	2.2	0.8260	66.52	56.58	55.14	69.02	44.73	43.74	34.07	62.18	56.77	N/A	43.04	51.80	69.57	
2006	2.0	0.8818	76.15	66.22	66.16	73.21	51.82	50.66	41.84	66.38	62.26	N/A	43.85	60.17	75.41	
2007	2.2	0.9352	81.60	72.39	72.71	77.06	53.64	52.38	43.42	71.13	65.71	N/A	49.56	61.78	77.38	
2008	2.4	0.9428	109.98	99.64	98.30	102.89	84.31	82.95	74.94	96.08	93.10	N/A	58.38	75.33	104.78	
2009	0.4	0.8798	66.53	61.78	62.50	66.32	60.18	58.66	54.46	63.84	62.96	N/A	38.03	48.17	68.17	
2010	1.8	0.9711	85.35	79.52	80.25	77.87	68.45	67.27	60.76	76.58	73.76	N/A	46.84	65.91	84.27	
2011	2.9	1.0115	100.32	95.12	110.86	95.53	78.58	77.14	67.64	92.35	88.33	N/A	53.66	74.42	104.17	
2012	1.5	1.0009	96.56	94.21	111.71	86.60	74.42	73.13	63.64	84.51	81.38	N/A	29.04	66.70	100.84	
2013	0.9	0.9711	98.89	97.96	108.77	93.47	76.33	75.01	65.11	92.30	88.13	N/A	38.88	68.65	104.70	
2014 Q1 (e)	1.2	0.9062	98.67	98.67	107.65	99.84	83.83	83.51	73.56	98.19	94.12	N/A	80.80	73.87	113.37	
2014 Q2	2.0	0.9000	97.50	97.50	107.50	102.78	85.82	84.79	75.31	100.72	96.61	15.19	56.53	77.08	113.06	
2014 Q3	2.0	0.9000	97.50	97.50	107.50	102.78	85.82	84.79	75.31	100.72	96.61	15.19	56.53	77.08	113.06	
2014 Q4	2.0	0.9000	97.50	97.50	107.50	102.78	85.82	84.79	75.31	100.72	96.61	15.74	56.53	77.08	113.06	
2014 Full Year	1.8	0.9016	97.79	97.79	107.54	102.04	85.32	84.47	74.87	100.09	95.99	N/A	62.60	76.28	113.14	
2014 Q2-Q4	2.0	0.9000	97.50	97.50	107.50	102.78	85.82	84.79	75.31	100.72	96.61	15.37	56.53	77.08	113.06	
2015	2.0	0.9000	95.59	97.50	107.50	102.78	85.82	84.79	75.31	100.72	96.61	14.88	56.53	80.17	113.06	
2016	2.0	0.9000	93.71	97.50	105.00	105.56	88.14	87.08	78.33	103.44	99.22	15.74	58.06	82.33	112.94	
2017	2.0	0.9000	91.88	97.50	102.50	105.56	88.14	87.08	78.33	103.44	99.22	16.60	58.06	82.33	112.94	
2018	2.0	0.9000	90.07	97.50	102.50	105.56	88.14	87.08	78.33	103.44	99.22	17.46	58.06	82.33	112.94	
2019	2.0	0.9000	88.31	97.50	102.50	105.56	88.14	87.08	78.33	103.44	99.22	18.32	58.06	82.33	112.94	
2020	2.0	0.9000	87.50	98.54	102.50	106.37	88.82	87.75	78.93	104.24	99.98	18.77	58.50	82.97	113.81	
2021	2.0	0.9000	87.50	100.51	103.38	108.49	90.59	89.50	80.53	106.32	101.98	19.15	59.67	84.62	116.08	
2022	2.0	0.9000	87.50	102.52	105.45	110.66	92.40	91.29	82.14	108.45	104.02	19.53	60.86	86.31	118.40	
2023	2.0	0.9000	87.50	104.57	107.56	112.87	94.25	93.12	83.78	110.61	106.10	19.92	62.08	88.04	120.77	
2024+	2.0	0.9000	87.50	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	

Historical futures contract price is an average of the daily settlement price of the near month contract over the calendar month.

Revised 2014-03-31

**Table 2**  
**GLJ Petroleum Consultants Ltd.**  
**Natural Gas and Sulphur**  
**Price Forecast**  
 Effective April 1, 2014

Year	NYMEX Henry Hub		Midwest	AECO/NIT Spot	Alberta Plant Gate				Saskatchewan Plant Gate			British Columbia		Sulphur FOB Vancouver	Alberta Sulphur at Plant Gate	
	Constant	Then	Price @ Chicago		Spot		SaskEnergy	Spot	Sumas Spot	Westcoast Station 2	Spot Plant Gate					
	2014 \$	Current	Then Current		Constant	Then						ARP	Alliance			CAD/MMBtu
2000	5.71	4.32	3.96	5.80	6.51	4.93	4.50	N/A	4.79	4.99	4.15	5.06	4.88	38.14	13.59	
2001	5.21	4.03	4.45	5.65	7.86	6.07	5.41	5.31	5.72	6.15	4.57	6.32	6.29	18.29	-14.67	
2002	4.22	3.36	3.25	4.27	4.88	3.88	3.88	3.65	4.04	3.96	2.68	4.18	3.93	29.38	3.04	
2003	6.73	5.47	5.46	6.73	7.99	6.49	6.13	6.15	6.41	6.57	4.66	6.45	6.32	59.81	39.83	
2004	7.40	6.18	6.13	6.90	8.02	6.70	6.31	6.39	6.48	6.78	5.26	6.56	6.45	62.99	38.61	
2005	10.57	9.00	8.24	9.06	9.89	8.42	8.30	8.27	8.36	8.48	7.13	8.22	8.12	63.50	33.77	
2006	8.04	6.99	6.93	6.71	8.01	6.96	6.57	6.36	6.67	7.06	6.27	6.58	6.45	55.07	19.27	
2007	8.02	7.12	6.83	6.59	7.25	6.43	6.20	5.86	6.18	6.55	6.52	6.40	6.25	81.66	42.03	
2008	9.82	8.90	8.91	8.25	8.73	7.92	7.88	7.83	8.07	8.04	8.33	8.21	8.09	497.39	488.64	
2009	4.49	4.16	4.05	4.16	4.29	3.98	3.85	3.23	3.87	4.04	3.91	4.17	4.04	57.06	24.57	
2010	4.72	4.40	4.53	4.03	4.22	3.93	3.77	3.31	3.96	4.00	4.31	4.01	3.91	88.94	48.26	
2011	4.25	4.03	4.21	3.62	3.70	3.51	3.46	2.84	3.57	3.67	3.93	3.39	3.31	217.16	171.93	
2012	2.89	2.83	2.92	2.44	2.29	2.24	2.25	1.65	2.31	2.42	2.77	2.38	2.26	201.03	157.91	
2013	3.76	3.72	3.81	3.24	2.98	2.96	2.98	2.60	3.09	3.16	3.69	3.14	2.96	105.74	74.02	
2014 Q1 (e)	4.73	4.73	6.02	4.90	3.83	3.83	3.83	5.21	4.00	4.82	4.96	5.30	4.34	119.37	81.73	
2014 Q2	4.35	4.35	4.40	4.59	4.37	4.37	4.37	3.39	4.47	4.51	4.10	4.39	4.19	100.00	61.11	
2014 Q3	4.35	4.35	4.40	4.59	4.37	4.37	4.37	3.39	4.47	4.51	4.10	4.39	4.19	100.00	61.11	
2014 Q4	4.50	4.50	4.60	4.75	4.52	4.52	4.52	3.61	4.62	4.67	4.60	4.65	4.45	100.00	61.11	
2014 Full Year	4.48	4.48	4.86	4.71	4.27	4.27	4.27	3.90	4.39	4.63	4.44	4.68	4.29	104.84	66.27	
2014 Q2-Q4	4.40	4.40	4.47	4.64	4.42	4.42	4.42	3.46	4.52	4.56	4.27	4.48	4.28	100.00	61.11	
2015	4.41	4.50	4.60	4.50	4.19	4.28	4.28	3.62	4.38	4.42	4.45	4.35	4.15	100.00	61.11	
2016	4.57	4.75	4.85	4.75	4.35	4.52	4.52	3.89	4.62	4.67	4.70	4.60	4.40	125.00	88.89	
2017	4.71	5.00	5.10	5.00	4.49	4.77	4.77	4.15	4.87	4.92	4.95	4.85	4.65	127.50	91.67	
2018	4.85	5.25	5.35	5.25	4.64	5.02	5.02	4.42	5.12	5.17	5.20	5.10	4.89	130.05	94.50	
2019	4.98	5.50	5.60	5.50	4.77	5.27	5.27	4.68	5.36	5.42	5.45	5.35	5.14	132.65	97.39	
2020	5.00	5.63	5.73	5.63	4.79	5.39	5.39	4.82	5.49	5.55	5.58	5.48	5.27	135.30	100.33	
2021	5.00	5.74	5.84	5.74	4.79	5.50	5.50	4.94	5.60	5.66	5.69	5.59	5.38	138.01	103.34	
2022	5.00	5.85	5.96	5.85	4.79	5.61	5.61	5.04	5.71	5.77	5.80	5.70	5.49	140.77	105.41	
2023	5.00	5.97	6.08	5.97	4.79	5.72	5.72	5.14	5.83	5.89	5.92	5.82	5.60	143.59	107.52	
2024+	5.00	+2.0%/yr	+2.0%/yr	+2.0%/yr	4.79	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr

Unless otherwise stated, the gas price reference point is the receipt point on the applicable provincial gas transmission system known as the plant gate.

The plant gate price represents the price before raw gas gathering and processing charges are deducted.

AECO-C Spot refers to the one month price averaged for the year.

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**Table 3**  
**GLJ Petroleum Consultants Ltd.**  
**International and Frontier**  
**Price Forecast**  
 Effective April 1, 2014

Year	Inflation %	Bank of Canada Average Noon Exchange Rates			NYMEX WTI Near Month Futures Crude Oil at Cushing Oklahoma		Light Louisiana Sweet Crude Oil		Mexican Mayan Crude Oil		Brent Blend Crude Oil FOB North Sea		Henry Hub Spot		Nova Scotia Goldboro		National Balancing Point (UK)		
		USD/CAD	CAD/GBP	CAD/EUR	Current USD/bbl	Current CAD/bbl	Then Current USD/bbl	Then Current CAD/bbl	Then Current USD/bbl	Then Current CAD/bbl	Then Current USD/bbl	Then Current CAD/bbl	Then Current USD/MMBtu	Then Current CAD/MMBtu	Then Current USD/MMBtu	Then Current CAD/MMBtu	Then Current USD/MMBtu	Then Current CAD/MMBtu	
2000	2.7	0.6730	2.2500	1.3176	30.23	44.94	N/A	N/A	23.60	35.06	28.41	42.23	4.32	6.45	3.91	5.81	2.81	4.20	
2001	2.5	0.6460	2.2305	1.3340	26.00	40.19	N/A	N/A	18.04	27.89	24.87	38.46	4.03	6.21	3.26	5.06	3.19	4.94	
2002	2.3	0.6370	2.3587	1.4266	26.08	40.93	N/A	N/A	21.40	33.56	25.02	39.27	3.36	5.27	2.24	3.51	2.58	4.05	
2003	2.8	0.7160	2.2877	1.5229	31.07	43.60	N/A	N/A	25.04	35.15	28.47	39.93	5.47	7.67	4.00	5.61	3.38	4.69	
2004	1.8	0.7700	2.3837	1.5559	41.38	53.65	40.23	52.08	31.12	40.44	38.02	49.29	6.18	8.02	5.62	7.32	4.76	6.13	
2005	2.2	0.8260	2.2057	1.4523	56.58	68.42	52.81	63.85	41.66	50.36	55.14	66.69	9.00	10.83	8.19	9.87	7.51	9.02	
2006	2.0	0.8820	2.0898	1.3686	66.22	75.08	63.89	72.41	52.16	59.13	66.16	75.01	6.99	7.94	6.20	7.04	8.34	9.48	
2007	2.2	0.9350	2.1475	1.4361	72.39	76.89	75.36	80.13	59.69	63.30	72.71	77.33	7.12	7.65	6.33	6.84	6.14	6.44	
2008	2.4	0.9430	1.9605	1.5480	99.64	104.27	102.31	107.04	83.90	87.62	98.30	102.81	8.90	9.36	8.32	8.77	11.41	12.12	
2009	0.4	0.8800	1.7799	1.5850	61.78	69.57	64.31	72.52	56.46	63.55	62.50	70.47	4.16	4.75	3.35	3.87	4.95	5.68	
2010	1.8	0.9710	1.5928	1.3671	79.52	81.85	82.78	85.20	70.29	72.35	80.25	82.58	4.40	4.53	3.83	3.96	6.39	6.58	
2011	2.9	1.0120	1.5859	1.3761	95.12	94.02	112.33	111.03	98.60	97.52	110.86	109.57	4.03	3.98	3.62	3.58	9.35	9.25	
2012	1.5	1.0010	1.5841	1.2850	94.21	94.11	111.77	111.62	99.60	99.50	111.71	111.57	2.83	2.82	2.72	2.72	9.38	9.37	
2013	0.9	0.9710	1.6120	1.3688	97.96	100.95	106.19	109.32	97.27	100.14	108.77	112.04	3.72	3.84	5.78	5.94	10.50	10.82	
2014 Q1 (e)	1.2	0.9060	1.8262	1.5123	98.67	108.90	105.43	116.36	89.82	99.14	107.65	118.80	4.73	5.22	19.39	21.37	10.15	11.20	
2014 Q2	2.0	0.9000	1.8000	1.5000	97.50	108.33	104.28	115.86	93.53	103.92	107.50	119.44	4.35	4.83	3.60	3.99	10.24	11.38	
2014 Q3	2.0	0.9000	1.8000	1.5000	97.50	108.33	104.28	115.86	93.53	103.92	107.50	119.44	4.35	4.83	3.60	3.99	10.24	11.38	
2014 Q4	2.0	0.9000	1.8000	1.5000	97.50	108.33	104.28	115.86	93.53	103.92	107.50	119.44	4.50	5.00	6.70	7.44	10.24	11.38	
2014 Full Year	1.8	0.9020	1.8066	1.5031	97.79	108.48	104.56	115.99	92.60	102.72	107.54	119.28	4.48	4.97	8.32	9.20	10.22	11.33	
2014 Q2-Q4	2.0	0.9000	1.8000	1.5000	97.50	108.33	104.28	115.86	93.53	103.92	107.50	119.44	4.40	4.89	4.63	5.14	10.24	11.38	
2015	2.0	0.9000	1.8000	1.5000	97.50	108.33	104.28	115.86	93.53	103.92	107.50	119.44	4.50	5.00	6.21	6.90	10.75	11.94	
2016	2.0	0.9000	1.8000	1.5000	97.50	108.33	101.85	113.17	91.35	101.50	105.00	116.67	4.75	5.28	5.96	6.62	10.50	11.67	
2017	2.0	0.9000	1.8000	1.5000	97.50	108.33	100.45	111.61	89.18	99.08	102.50	113.89	5.00	5.56	5.71	6.35	10.25	11.39	
2018	2.0	0.9000	1.8000	1.5000	97.50	108.33	100.45	111.61	89.18	99.08	102.50	113.89	5.25	5.83	5.22	5.80	10.25	11.39	
2019	2.0	0.9000	1.8000	1.5000	97.50	108.33	100.45	111.61	89.18	99.08	102.50	113.89	5.50	6.11	5.47	6.07	10.25	11.39	
2020	2.0	0.9000	1.8000	1.5000	98.54	109.49	100.45	111.61	89.18	99.08	102.50	113.89	5.63	6.26	5.59	6.22	10.25	11.39	
2021	2.0	0.9000	1.8000	1.5000	100.51	111.68	101.31	112.57	89.94	99.93	103.38	114.87	5.74	6.38	5.70	6.34	10.34	11.49	
2022	2.0	0.9000	1.8000	1.5000	102.52	113.91	103.34	114.82	91.74	101.93	105.45	117.16	5.85	6.51	5.82	6.46	10.54	11.72	
2023	2.0	0.9000	1.8000	1.5000	104.57	116.19	105.41	117.12	93.57	103.97	107.56	119.51	5.97	6.64	5.93	6.59	10.76	11.95	
2024+	2.0	0.9000	1.8000	1.5000	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr

Historical futures contract price is an average of the daily settlement price of the near month contract over the calendar month.

Revised 2014-03-31