

**Table 1**  
 GLJ Petroleum Consultants  
**Crude Oil and Natural Gas Liquids**  
**Price Forecast**  
 Effective October 1, 2019

Year	Inflation %	CAD/USD Exchange Rate USD/CAD	NYMEX WTI Near Month Contract Crude Oil at Cushing, OK		Brent Blend Crude Oil	MSW, Light Crude Oil (40 API, 0.3%S) at Edmonton	Bow River Crude Oil Stream Quality at Hardisty	WCS Crude Oil Stream Quality at Hardisty	Heavy Crude Oil Proxy (12 API) at Hardisty	Light Sour 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 2019 \$	Then Current USD/bbl	Then Current USD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Then Current CAD/bbl	Spec Ethane CAD/bbl	Edmonton Propane CAD/bbl	Edmonton Butane CAD/bbl	Edmonton C5+ Stream Quality CAD/bbl
			USD/bbl	USD/bbl	USD/bbl	CAD/bbl	CAD/bbl	CAD/bbl	CAD/bbl	CAD/bbl	CAD/bbl	CAD/bbl	CAD/bbl	CAD/bbl	CAD/bbl	CAD/bbl
2009	0.4	0.8798	72.29	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	92.71	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	108.97	95.12	110.86	95.53	78.59	77.14	67.64	92.35	88.33	N/A	53.66	74.42	104.17	
2012	1.5	1.0009	104.86	94.21	111.71	86.60	74.42	73.13	63.64	84.51	81.37	N/A	29.04	66.70	100.84	
2013	0.9	0.9711	107.42	97.96	108.77	93.47	76.33	75.01	65.11	92.30	88.13	N/A	38.88	68.81	104.70	
2014	1.9	0.9055	101.01	93.00	99.71	94.58	81.08	81.03	73.73	92.68	89.67	N/A	45.53	69.20	102.44	
2015	1.1	0.7831	51.98	48.78	53.60	57.20	45.50	44.82	39.25	55.49	51.87	N/A	6.49	36.75	60.42	
2016	1.4	0.7551	45.71	43.38	45.05	53.08	39.83	38.96	32.78	51.46	48.84	N/A	13.40	34.49	56.25	
2017	1.6	0.7712	52.93	50.94	54.80	62.84	50.91	50.53	44.63	62.09	59.96	N/A	28.57	44.46	66.86	
2018	2.3	0.7719	66.21	64.73	71.55	69.22	49.03	49.52	39.80	72.94	69.60	N/A	26.79	32.96	78.60	
2019 Q1	1.6	0.7524	54.85	54.85	63.80	66.40	58.31	56.55	52.33	67.64	65.09	N/A	16.03	6.00	67.28	
2019 Q2	2.1	0.7477	59.79	59.79	68.44	73.81	65.70	65.70	62.00	74.18	73.50	N/A	12.61	26.10	74.71	
2019 Q3 (est)	2.0	0.758	56.22	56.22	61.68	68.01	58.32	58.10	53.98	68.27	66.87	N/A	12.02	29.78	68.50	
2019 Q4	0.0	0.760	58.00	58.00	63.50	68.42	59.61	59.21	53.34	67.74	65.68	5.76	16.42	27.37	71.38	
2019 Full Year	1.4	0.755	57.22	57.22	64.36	69.16	60.49	59.89	55.41	69.46	67.79	N/A	14.27	22.31	70.47	
2020	2.0	0.770	60.78	62.00	68.00	71.43	60.14	59.74	53.68	70.71	67.86	5.81	21.43	35.71	76.62	
2021	2.0	0.790	62.48	65.00	71.00	74.05	62.43	62.03	55.71	73.31	70.35	6.68	25.92	44.43	79.75	
2022	2.0	0.800	63.61	67.50	73.50	76.88	64.77	64.38	57.75	76.11	73.03	7.54	30.75	49.97	83.13	
2023	2.0	0.800	64.67	70.00	75.00	80.63	67.90	67.50	60.69	79.82	76.59	8.06	36.28	52.41	86.88	
2024	2.0	0.800	65.67	72.50	76.50	83.75	71.02	70.63	63.81	82.91	79.56	8.72	37.69	54.44	90.00	
2025	2.0	0.800	66.60	75.00	79.00	86.88	74.15	73.75	66.94	86.01	82.53	8.95	39.09	56.47	93.13	
2026	2.0	0.800	67.00	76.96	80.96	89.33	76.60	76.20	69.39	88.43	84.86	9.15	40.20	58.06	95.58	
2027	2.0	0.800	67.00	78.50	82.50	91.25	78.52	78.13	71.31	90.34	86.69	9.35	41.06	59.31	97.50	
2028	2.0	0.800	67.00	80.07	84.07	93.21	80.49	80.09	73.27	92.28	88.55	9.52	41.95	60.59	99.46	
2029+	2.0	0.800	67.00	+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.

**Table 2**  
 GLJ Petroleum Consultants  
**Natural Gas**  
**Price Forecast**  
 Effective October 1, 2019

Year	NYMEX Henry Hub		Midwest Price at	AECO/NIT	Dawn Price at	Alberta Plant Gate			Saskatchewan Plant Gate			British Columbia	
	Near Month Contract		Chicago	Spot	Ontario	Spot						Westcoast	Spot
	Constant	Then	Then	Then	Then	Constant	Then	ARP	SaskEnergy	Spot	Sumas Spot	Station 2	Plant Gate
	2019 \$	Current	Current	Current	Current	2019 \$	Current		CAD/MMBtu	CAD/MMBtu	USD/MMBtu	CAD/MMBtu	CAD/MMBtu
	USD/MMBtu	USD/MMBtu	USD/MMBtu	CAD/MMBtu	USD/MMBtu	CAD/MMBtu	CAD/MMBtu	CAD/MMBtu	CAD/MMBtu	CAD/MMBtu	USD/MMBtu	CAD/MMBtu	CAD/MMBtu
2009	4.88	4.16	4.05	3.99	4.27	4.44	3.79	3.85	3.87	3.83	3.80	3.90	3.70
2010	5.12	4.40	4.53	4.01	4.76	4.41	3.78	3.77	3.96	3.85	4.12	3.78	3.63
2011	4.62	4.03	4.21	3.62	4.39	3.92	3.42	3.46	3.57	3.58	3.90	3.33	3.18
2012	3.14	2.83	2.92	2.40	3.04	2.46	2.21	2.25	2.31	2.26	2.70	2.30	2.12
2013	4.08	3.73	3.81	3.18	4.07	3.24	2.96	2.98	3.09	3.10	3.71	3.14	2.94
2014	4.64	4.28	5.36	4.50	5.98	4.62	4.26	4.22	4.39	4.42	4.37	4.29	4.07
2015	2.80	2.63	2.85	2.70	2.99	2.63	2.47	2.56	2.71	2.61	2.31	1.80	1.59
2016	2.69	2.55	2.48	2.18	2.56	2.05	1.94	1.93	2.18	2.09	2.18	1.77	1.60
2017	3.14	3.02	3.04	2.19	3.05	2.01	1.93	2.22	2.41	2.29	2.62	1.56	1.34
2018	3.14	3.07	3.01	1.54	3.09	1.35	1.33	1.36	1.68	2.71	3.60	1.24	1.03
2019 Q1	2.87	2.87	3.04	2.56	2.90	2.32	2.32	1.98	2.25	2.70	12.45	1.31	0.99
2019 Q2	2.51	2.51	2.32	1.20	2.35	0.98	0.98	0.94	1.44	2.02	1.98	0.58	0.33
2019 Q3 (est)	2.32	2.32	2.18	0.93	2.24	0.72	0.72	0.89	1.33	1.81	2.08	0.64	0.39
<b>2019 Q4</b>	<b>2.75</b>	<b>2.75</b>	<b>2.65</b>	<b>1.88</b>	<b>2.78</b>	<b>1.65</b>	<b>1.65</b>	<b>1.65</b>	<b>1.75</b>	<b>2.08</b>	<b>2.35</b>	<b>1.63</b>	<b>1.32</b>
2019 Full Year	2.61	2.61	2.55	1.64	2.57	1.42	1.42	1.37	1.69	2.15	4.71	1.04	0.76
2020	2.75	2.80	2.70	1.90	2.83	1.64	1.67	1.67	1.77	1.90	2.35	1.70	1.41
2021	2.84	2.95	2.85	2.15	2.98	1.85	1.92	1.92	2.02	2.05	2.50	2.00	1.71
2022	2.92	3.10	3.00	2.40	3.13	2.04	2.17	2.17	2.27	2.30	2.65	2.25	1.96
2023	2.96	3.20	3.10	2.55	3.23	2.14	2.31	2.31	2.41	2.45	2.75	2.45	2.16
2024	2.99	3.30	3.20	2.75	3.33	2.27	2.51	2.51	2.61	2.65	2.85	2.65	2.35
2025	3.00	3.38	3.28	2.81	3.41	2.28	2.57	2.57	2.67	2.71	2.93	2.71	2.42
2026	3.00	3.45	3.35	2.87	3.48	2.29	2.63	2.63	2.73	2.77	3.00	2.87	2.58
2027	3.00	3.52	3.42	2.93	3.55	2.29	2.69	2.69	2.79	2.83	3.07	2.93	2.64
2028	3.00	3.58	3.48	2.98	3.61	2.29	2.74	2.74	2.84	2.88	3.13	2.98	2.69
2029+	3.00	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	2.29	+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 gathering and processing charges are deducted.

**Table 3**  
 GLJ Petroleum Consultants  
**International**  
**Price Forecast**  
 Effective October 1, 2019

Year	Inflation %	Exchange Rates			NYMEX WTI Near Month Contract Crude Oil at Cushing, OK		Light Louisiana Sweet Crude Oil		Maya Crude Oil		Brent Blend Crude Oil FOB North Sea		NYMEX Henry Hub Near Month Contract		National Balancing Point (UK)	
		CADUSD Exchange Rate	GBPUSD Exchange Rate	EURUSD Exchange Rate	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current	Then Current
		USD/CAD	USD/GBP	USD/EUR	USD/bbl	CAD/bbl	USD/bbl	CAD/bbl	USD/bbl	CAD/bbl	USD/bbl	CAD/bbl	USD/MMBtu	CAD/MMBtu	USD/MMBtu	CAD/MMBtu
2009	0.4	0.8798	1.5649	1.3930	61.78	69.57	64.31	72.52	56.46	63.55	62.50	70.47	4.16	4.75	4.95	5.68
2010	1.8	0.9711	1.5465	1.3274	79.52	81.85	82.78	85.20	70.29	72.35	80.25	82.58	4.40	4.53	6.39	6.58
2011	2.9	1.0115	1.6038	1.3920	95.12	94.02	112.33	111.03	98.60	97.52	110.86	109.57	4.03	3.98	9.35	9.25
2012	1.5	1.0009	1.5854	1.2861	94.21	94.11	111.77	111.62	99.60	99.50	111.71	111.57	2.83	2.82	9.38	9.37
2013	0.9	0.9711	1.5645	1.3285	97.96	100.95	106.19	109.32	97.26	100.13	108.77	112.04	3.73	3.84	10.50	10.82
2014	1.9	0.9055	1.6472	1.3288	93.00	102.50	94.24	103.88	85.79	94.53	99.71	109.89	4.28	4.72	8.25	9.12
2015	1.1	0.7831	1.5283	1.1097	48.78	62.12	49.43	62.97	44.02	55.99	53.60	68.23	2.63	3.36	6.52	8.31
2016	1.4	0.7551	1.3550	1.1066	43.38	57.33	45.08	59.58	36.40	48.09	45.05	59.54	2.55	3.38	4.66	6.18
2017	1.6	0.7712	1.2890	1.1297	50.94	66.09	54.06	70.09	46.95	60.85	54.80	71.06	3.02	3.92	5.88	7.61
2018	2.3	0.7719	1.3357	1.1816	64.73	83.83	71.40	92.47	62.35	80.83	71.55	92.71	3.07	3.98	7.87	10.22
2019 Q1	1.6	0.752	1.303	1.136	54.85	72.91	62.03	82.44	58.77	78.11	63.80	84.80	2.87	3.81	6.30	8.37
2019 Q2	2.1	0.748	1.285	1.124	59.79	79.98	67.04	89.68	61.89	82.78	68.44	91.55	2.51	3.35	4.06	5.43
2019 Q3 (est)	2.0	0.758	1.230	1.112	56.22	74.19	60.28	79.54	56.98	74.98	61.68	81.39	2.32	3.06	3.77	4.98
2019 Q4	0.0	0.760	1.230	1.110	58.00	76.32	62.00	81.58	55.25	72.69	63.50	83.55	2.75	3.62	5.75	7.57
2019 Full Year	1.4	0.755	1.262	1.120	57.22	75.85	62.84	83.31	58.22	77.14	64.36	85.32	2.61	3.46	4.97	6.59
2020	2.0	0.770	1.280	1.120	62.00	80.52	68.00	88.31	59.16	76.83	68.00	88.31	2.80	3.64	6.50	8.44
2021	2.0	0.790	1.300	1.135	65.00	82.28	70.00	88.61	61.77	78.19	71.00	89.87	2.95	3.73	6.75	8.54
2022	2.0	0.800	1.300	1.150	67.50	84.38	72.50	90.63	63.95	79.93	73.50	91.88	3.10	3.88	7.00	8.75
2023	2.0	0.800	1.300	1.150	70.00	87.50	75.00	93.75	65.25	81.56	75.00	93.75	3.20	4.00	7.25	9.06
2024	2.0	0.800	1.300	1.150	72.50	90.63	77.50	96.88	66.55	83.19	76.50	95.63	3.30	4.12	7.50	9.38
2025	2.0	0.800	1.300	1.150	75.00	93.75	80.00	100.00	68.73	85.91	79.00	98.75	3.38	4.23	7.75	9.69
2026	2.0	0.800	1.300	1.150	76.96	96.20	81.96	102.45	70.44	88.04	80.96	101.20	3.45	4.31	7.75	9.69
2027	2.0	0.800	1.300	1.150	78.50	98.13	83.50	104.38	71.77	89.72	82.50	103.13	3.52	4.40	7.75	9.69
2028	2.0	0.800	1.300	1.150	80.07	100.09	85.07	106.34	73.14	91.43	84.07	105.09	3.58	4.48	7.75	9.69
2029+	2.0	0.800	1.300	1.150	+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.

**Table 4**  
 GLJ Petroleum Consultants  
**US Liquids and Natural Gas**  
**Price Forecast**  
 Effective October 1, 2019

Year	US Natural Gas Liquids (Then Current Dollars)					US Natural Gas (Then Current Dollars)				
	Conway			Mont Belvieu		Rockies		Algonquin City-Gates		
	80%-20% E/P Mix USD/bbl	Propane USD/bbl	Butane USD/bbl	Condensate USD/bbl	Ethane USD/bbl	Propane USD/bbl	Butane USD/bbl	Condensate USD/bbl	Natural Gas USD/MMBtu	Natural Gas USD/MMBtu
2019 Q4	4.13	18.56	20.30	48.14	11.00	23.20	26.10	49.30	2.45	4.25
2020	5.60	24.80	31.62	55.80	10.50	31.00	34.10	57.66	2.50	4.20
2021	5.90	26.00	33.15	58.50	11.06	32.50	35.75	60.45	2.65	4.15
2022	6.20	27.00	34.43	60.75	11.63	33.75	37.13	62.77	2.80	4.10
2023	6.40	28.00	35.70	63.00	12.00	35.00	38.50	65.10	2.90	4.20
2024	6.60	29.00	36.98	65.25	12.38	36.25	39.88	67.42	3.00	4.30
2025	6.76	30.00	38.25	67.50	12.68	37.50	41.25	69.75	3.08	4.38
2026	6.90	30.78	39.25	69.26	12.94	38.48	42.33	71.57	3.15	4.45
2027	7.04	31.40	40.04	70.65	13.20	39.25	43.18	73.01	3.22	4.52
2028	7.16	32.03	40.84	72.06	13.43	40.03	44.04	74.47	3.28	4.58
2029	+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

Butane prices at Conway and Mont Belvieu represent a blended price of two thirds normal butane and one third iso-butane.

Revised 2019-10-01