



Table 1
GLJ Ltd.
Domestic Crude Oil and Natural Gas Liquids
Price Forecast
Effective January 1, 2022

Year	Inflation %	CADUSD Exchange Rate USD/CAD	WTI Crude Oil (39.6 API, 0.24%S) Cushing, OK		Brent Spot Crude Oil (38.3 API, 0.37%S) UK	MSW, Light Crude Oil (40 API, 0.3%S) at Edmonton	Bow River Crude Oil (21.4 API, 2.8%S) at Hardisty	WCS Crude Oil (20.9 API, 3.5%S) at Hardisty	Heavy Crude Oil Proxy (12 API) at Hardisty	Light Sour Crude Oil (38 API, 1.1%S) at Cromer	Medium Crude Oil (29 API, 2.0%S) at Cromer	Alberta Natural Gas Liquids (Then Current Dollars) at Edmonton				
			Constant 2022 \$ USD/bbl	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	Ethane CAD/bbl	Propane CAD/bbl	Butane CAD/bbl	Condensate 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
2012	1.5	1.0009	111.25	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	114.06	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	107.10	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	55.14	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	48.58	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	56.21	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	70.26	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	1.9	0.7538	60.53	57.02	64.24	69.16	59.26	58.75	54.31	69.65	67.97	N/A	16.98	24.29	70.19	
2020	0.7	0.7463	41.10	39.44	43.28	45.28	36.21	35.56	30.37	45.45	44.01	N/A	16.25	22.02	49.52	
2021 (est)	3.4	0.7980	70.14	67.76	70.64	79.45	69.03	68.52	61.50	79.88	77.36	N/A	43.19	51.54	85.28	
2022 Q1	0.0	0.790	75.00	75.00	78.00	90.51	78.25	77.85	71.34	91.41	88.24	12.95	49.78	67.88	96.20	
2022 Q2	0.0	0.790	74.00	74.00	77.00	89.24	76.98	76.58	70.08	90.13	87.01	10.21	49.08	62.47	94.94	
2022 Q3	0.0	0.790	72.00	72.00	75.00	86.71	75.08	74.68	68.75	87.58	84.54	10.21	47.69	60.70	91.14	
2022 Q4	0.0	0.790	71.00	71.00	74.00	85.44	73.82	73.42	67.48	86.30	83.31	10.21	46.99	55.54	89.87	
2022 Full Year	0.0	0.790	73.00	73.00	76.00	87.97	76.03	75.63	69.41	88.85	85.78	10.89	48.39	61.65	93.04	
2023	3.0	0.790	67.00	69.01	72.51	81.89	71.30	70.90	65.34	82.70	79.84	9.86	32.75	49.13	86.09	
2024	2.0	0.790	64.00	67.24	71.24	79.32	68.72	68.32	62.66	80.11	77.33	10.03	31.73	47.59	83.82	
2025	2.0	0.790	64.00	68.58	72.66	80.91	70.08	69.68	63.94	81.72	78.89	10.24	32.36	48.55	85.49	
2026	2.0	0.790	64.00	69.96	74.12	82.53	71.49	71.09	65.25	83.35	80.46	10.47	33.01	49.52	87.22	
2027	2.0	0.790	64.00	71.35	75.59	84.18	72.89	72.49	66.56	85.02	82.07	10.68	33.67	50.51	88.95	
2028	2.0	0.790	64.00	72.78	77.11	85.86	74.35	73.95	67.91	86.72	83.71	10.92	34.34	51.52	90.73	
2029	2.0	0.790	64.00	74.24	78.66	87.58	75.83	75.43	69.30	88.45	85.39	11.16	35.03	52.55	92.54	
2030	2.0	0.790	64.00	75.72	80.22	89.32	76.62	76.22	69.76	90.22	87.09	11.40	35.73	53.59	94.39	
2031	2.0	0.790	64.00	77.24	81.83	91.11	78.15	77.75	71.18	92.03	88.84	11.64	36.45	54.67	96.29	
2032+	2.0	0.790	64.00	+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 Ltd.
Domestic Natural Gas
Price Forecast
Effective January 1, 2022

Year	Henry Hub		Alberta			Saskatchewan			British Columbia		Huntingdon/ Sumas Spot	Dawn @ Ontario
	Constant 2022 \$ USD/MMBtu	Then Current USD/MMBtu	AECO/NIT Spot CAD/MMBtu	Plant Gate Spot CAD/MMBtu		ARP CAD/MMBtu	Empress CAD/MMBtu	Plant Gate SaskEnergy Spot CAD/MMBtu		Westcoast Station 2 CAD/MMBtu		
2012	3.34	2.83	2.40	2.21	2.25	2.30	2.31	2.26	2.30	2.12	2.70	3.04
2013	4.34	3.73	3.18	2.96	2.98	3.14	3.09	3.10	3.14	2.94	3.71	4.07
2014	4.93	4.28	4.50	4.26	4.22	4.72	4.39	4.42	4.29	4.07	4.37	5.98
2015	2.97	2.63	2.70	2.47	2.56	2.89	2.71	2.61	1.80	1.59	2.31	2.99
2016	2.86	2.55	2.18	1.94	1.93	2.36	2.18	2.09	1.77	1.60	2.18	2.56
2017	3.33	3.02	2.19	1.93	2.22	2.60	2.41	2.29	1.56	1.34	2.62	3.05
2018	3.33	3.07	1.54	1.33	1.36	3.06	1.68	2.71	1.24	1.03	3.60	3.09
2019	2.69	2.53	1.81	1.59	1.48	2.52	1.73	2.20	1.02	0.75	4.70	2.44
2020	2.22	2.13	2.26	2.03	2.00	2.24	2.45	2.05	2.21	1.94	2.16	1.88
2021 (est)	3.85	3.71	3.63	3.34	3.14	3.91	3.86	3.69	3.33	3.03	3.86	3.63
2022 Q1	3.80	3.80	4.00	3.72	3.72	4.05	3.82	3.82	3.95	3.66	3.70	3.75
2022 Q2	3.80	3.80	3.20	2.93	2.93	3.25	3.03	3.02	3.15	2.86	3.70	3.75
2022 Q3	3.80	3.80	3.20	2.93	2.93	3.25	3.03	3.02	3.15	2.86	3.70	3.75
2022 Q4	3.80	3.80	3.20	2.93	2.93	3.25	3.03	3.02	3.15	2.86	3.70	3.75
2022 Full Year	3.80	3.80	3.40	3.13	3.13	3.45	3.23	3.22	3.35	3.06	3.70	3.75
2023	3.40	3.50	3.10	2.83	2.83	3.15	2.93	2.92	3.10	2.81	3.40	3.45
2024	3.00	3.15	3.15	2.88	2.88	3.20	2.98	2.97	3.15	2.86	3.05	3.10
2025	3.00	3.21	3.21	2.94	2.94	3.26	3.04	3.03	3.21	2.92	3.11	3.16
2026	3.00	3.28	3.28	3.01	3.01	3.33	3.11	3.10	3.28	2.99	3.18	3.23
2027	3.00	3.34	3.34	3.07	3.07	3.39	3.17	3.16	3.34	3.05	3.24	3.29
2028	3.00	3.41	3.41	3.14	3.14	3.46	3.24	3.23	3.41	3.12	3.31	3.36
2029	3.00	3.48	3.48	3.21	3.21	3.53	3.31	3.30	3.48	3.19	3.38	3.43
2030	3.00	3.55	3.55	3.27	3.27	3.60	3.37	3.37	3.55	3.26	3.45	3.50
2031	3.00	3.62	3.62	3.34	3.34	3.67	3.44	3.44	3.62	3.33	3.52	3.57
2032+	3.00	+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

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 Ltd.
International Crude Oil
Price Forecast
Effective January 1, 2022

	United States		Europe	Latin America		Mideast Gulf and Mediterranean						Africa	Asia-Pacific		Russia / C.I.S.	
	Cushing, OK WTI	Louisiana LLS*	UK Brent	Mexico Maya	Colombia Vasconia	Oman DME	OPEC Basket	Abu Dhabi Murban	Iran Iran Heavy	Algeria Saharan	Iraq Basrah Light	Nigeria Bonny Light	Indonesia Minas	Malaysia Tapis	Russia ESPO**	Russia Sokol
	39.6 API	35.6 API	38.3 API	21.8 API	24.5 API	34 API	32.7 API	40.2 API	30.2 API	45.3 API	30.5 API	33.4 API	35.3 API	45.2 API	34.8 API	34.8 API
	0.24% S	0.37% S	0.37% S	3.33% S	0.95% S	2.00% S	1.77% S	0.79% S	1.77% S	0.09% S	2.90% S	0.16% S	0.09% S	0.03% S	0.62% S	0.29% S
Year	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl	USD/bbl
2022	73.00	74.50	76.00	68.40	72.00	74.80	75.25	76.10	72.00	75.75	76.35	75.25	74.00	76.70	76.05	76.30
2023	69.01	70.51	72.51	65.26	68.51	71.31	71.76	72.61	68.51	72.26	72.86	71.76	70.51	73.21	72.56	72.81
2024	67.24	68.74	71.24	64.12	67.24	70.04	70.49	71.34	67.24	70.99	71.59	70.49	69.24	71.94	71.29	71.54
2025	68.58	70.08	72.66	65.39	68.66	71.46	71.91	72.76	68.66	72.41	73.01	71.91	70.66	73.36	72.71	72.96
2026	69.96	71.46	74.12	66.71	70.12	72.92	73.37	74.22	70.12	73.87	74.47	73.37	72.12	74.82	74.17	74.42
2027	71.35	72.85	75.59	68.04	71.59	74.39	74.84	75.69	71.59	75.34	75.94	74.84	73.59	76.29	75.64	75.89
2028	72.78	74.28	77.11	69.40	73.11	75.91	76.36	77.21	73.11	76.86	77.46	76.36	75.11	77.81	77.16	77.41
2029	74.24	75.74	78.66	70.79	74.66	77.46	77.91	78.76	74.66	78.41	79.01	77.91	76.66	79.36	78.71	78.96
2030	75.72	77.22	80.22	72.20	76.22	79.02	79.47	80.32	76.22	79.97	80.57	79.47	78.22	80.92	80.27	80.52
2031	77.24	78.74	81.83	73.65	77.83	80.63	81.08	81.93	77.83	81.58	82.18	81.08	79.83	82.53	81.88	82.13
2032+	+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	+2.0%/yr

* LLS - Light Louisiana Sweet

** ESPO - Eastern Siberian Pacific Ocean Blend

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

GLJ Forecasts a variety of other benchmarks that may not be presented and can be obtained upon request.



Table 4
 GLJ Ltd.
International Natural Gas & LNG
Price Forecast
 Effective January 1, 2022

Year	US Natural Gas						European Natural Gas			Asia-Pacific	India
	Henry Hub Natural Gas USD/MMBtu	Midwest @ Chicago USD/MMBtu	Rockies Natural Gas USD/MMBtu	Algonquin Natural Gas USD/MMBtu	Malin Natural Gas USD/MMBtu	Permian Natural Gas USD/MMBtu	NBP Natural Gas USD/MMBtu	TTF Natural Gas USD/MMBtu	Russian Natural Gas USD/MMBtu	JKM Natural Gas USD/MMBtu	India Domestic Natural Gas USD/MMBtu
2022	3.80	3.65	3.60	7.50	3.65	3.30	20.75	20.55	20.65	22.75	13.36
2023	3.50	3.35	3.30	5.70	3.35	3.00	12.00	11.90	11.95	13.50	8.60
2024	3.15	3.00	2.95	4.35	3.00	2.65	8.50	8.40	8.45	9.50	6.10
2025	3.21	3.06	3.01	4.44	3.06	2.71	8.67	8.57	8.62	9.67	5.73
2026	3.28	3.13	3.08	4.53	3.13	2.78	8.84	8.74	8.79	9.84	5.85
2027	3.34	3.19	3.14	4.61	3.19	2.84	9.02	8.92	8.97	10.02	5.96
2028	3.41	3.26	3.21	4.71	3.26	2.91	9.20	9.10	9.15	10.20	6.08
2029	3.48	3.33	3.28	4.81	3.33	2.98	9.39	9.28	9.33	10.38	6.21
2030	3.55	3.40	3.35	4.90	3.40	3.05	9.57	9.47	9.52	10.57	6.33
2031	3.62	3.47	3.42	4.97	3.47	3.12	9.76	9.66	9.71	10.76	6.46
2032+	+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

NBP - National Balancing Point LNG
 JKM - Japanese Korean Marker LNG
 TTF - Title Transfer Facility LNG
 Russian Gas - Average European import border price



Table 5
GLJ Ltd.
Natural Gas Liquids
Price Forecast
Effective January 1, 2022

Year	Canadian Natural Gas Liquids					US Natural Gas Liquids							Asia/Europe/Other	
	Edmonton					Conway			Mont Belvieu				Far East Index	
	Ethane CAD/bbl	Propane CAD/bbl	Butane CAD/bbl	Condensate CAD/bbl	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	Propane USD/bbl	Butane USD/bbl
2022	10.89	48.39	61.65	93.04	12.35	40.15	51.10	67.16	14.25	41.61	48.91	65.70	49.40	57.00
2023	9.86	32.75	49.13	86.09	11.38	37.96	48.31	63.49	13.13	39.34	46.24	62.11	47.13	54.38
2024	10.03	31.73	47.59	83.82	10.24	36.98	47.07	61.86	11.81	38.33	45.05	60.52	46.31	53.43
2025	10.24	32.36	48.55	85.49	10.44	37.72	48.01	63.09	12.05	39.09	45.95	61.72	47.23	54.50
2026	10.47	33.01	49.52	87.22	10.66	38.48	48.97	64.36	12.30	39.88	46.87	62.96	48.18	55.59
2027	10.68	33.67	50.51	88.95	10.86	39.24	49.94	65.64	12.53	40.67	47.80	64.22	49.14	56.70
2028	10.92	34.34	51.52	90.73	11.08	40.03	50.95	66.96	12.79	41.48	48.76	65.50	50.12	57.83
2029	11.16	35.03	52.55	92.54	11.31	40.83	51.97	68.30	13.05	42.32	49.74	66.82	51.13	58.99
2030	11.40	35.73	53.59	94.39	11.54	41.65	53.00	69.66	13.31	43.16	50.73	68.15	52.15	60.17
2031	11.64	36.45	54.67	96.29	11.77	42.48	54.07	71.06	13.57	44.03	51.75	69.52	53.19	61.38
2032+	+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

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

*Conway E/P mix is blended at 80%-20%



Table 6
 GLJ Ltd.
International Exchange Rates
Forecast
 Effective January 1, 2022

Year	Inflation %	Canada CADUSD Exchange Rate CAD/USD	UK GBPUSD Exchange Rate GBP/USD	Euro EURUSD Exchange Rate EUR/USD	Norway NOKUSD Exchange Rate USD/NOK	Australia AUDUSD Exchange Rate AUD/USD	China USDCNY Exchange Rate USD/CNY	Japan USDJPY Exchange Rate USD/JPY
2022	0.0	0.790	1.350	1.140	8.500	0.720	6.40	113.00
2023	3.0	0.790	1.350	1.160	8.500	0.740	6.75	110.00
2024	2.0	0.790	1.360	1.190	8.500	0.750	7.00	110.00
2025	2.0	0.790	1.360	1.190	8.500	0.750	7.00	110.00
2026	2.0	0.790	1.360	1.190	8.500	0.750	7.00	110.00
2027	2.0	0.790	1.360	1.190	8.500	0.750	7.00	110.00
2028	2.0	0.790	1.360	1.190	8.500	0.750	7.00	110.00
2029	2.0	0.790	1.360	1.190	8.500	0.750	7.00	110.00
2030	2.0	0.790	1.360	1.190	8.500	0.750	7.00	110.00
2031	2.0	0.790	1.360	1.190	8.500	0.750	7.00	110.00
2032+	2.0	0.790	1.360	1.190	8.500	0.750	7.00	110.00

GLJ Forecasts a variety of other exchange rates that can be obtained upon request.



Table 7
 GLJ Ltd.
Power and Refined Products
Forecast
 Effective January 1, 2022

Year	Electricity	Hydrogen	Canadian Fuels			US Fuels		
	Alberta AESO CAD/MWh	Alberta SMR w/o CCS & Capex CAD/kg	Diesel ULS* CAD/Ltr	Gasoline Regular CAD/Ltr	Heating Oil CAD/Ltr	Diesel ULS* USD/Gallon	Gasoline Regular USD/Gallon	Heating Oil USD/Gallon
2022	93.59	0.58	1.67	1.76	1.50	4.38	3.65	2.92
2023	93.04	0.53	1.56	1.64	1.39	4.14	3.45	2.76
2024	94.50	0.54	1.51	1.59	1.35	4.03	3.36	2.69
2025	96.39	0.55	1.54	1.62	1.38	4.11	3.43	2.74
2026	98.40	0.56	1.57	1.65	1.40	4.20	3.50	2.80
2027	100.20	0.57	1.60	1.68	1.43	4.28	3.57	2.85
2028	102.30	0.58	1.63	1.72	1.46	4.37	3.64	2.91
2029	104.40	0.59	1.66	1.75	1.49	4.45	3.71	2.97
2030	106.50	0.60	1.70	1.79	1.52	4.54	3.79	3.03
2031	108.60	0.62	1.73	1.82	1.55	4.63	3.86	3.09
2032+	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr

Canadian fuel prices are national average prices in CAD/Litre

US fuel prices are national average prices in USD/Gallon

* ULS - Ultra Low Sulphur