



Table 1
GLJ Ltd.
Domestic Crude Oil and Natural Gas Liquids
Price Forecast
Effective October 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 (12 API) Proxy 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 \$	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	111.26	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	107.11	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	60.54	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	41.11	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	3.4	0.7979	70.31	67.92	70.78	79.71	69.24	68.74	61.43	80.10	77.58	N/A	43.25	51.66	85.47	
2022 Q1	5.8	0.7897	94.29	94.29	97.38	117.50	101.46	103.21	87.54	114.40	109.36	N/A	57.84	72.18	121.63	
2022 Q2	7.5	0.7835	108.41	108.41	111.79	136.15	119.28	118.78	110.08	136.80	131.93	N/A	53.69	67.70	140.20	
2022 Q3 (e)	7.8	0.7589	91.29	91.29	96.95	116.91	96.30	95.86	89.35	116.42	113.92	N/A	48.54	50.72	112.47	
2022 Q4	0.0	0.7300	80.00	80.00	86.00	106.85	85.33	84.93	77.36	107.92	104.18	17.98	45.41	60.90	106.85	
2022	5.3	0.7655	93.50	93.50	98.03	119.35	100.59	100.70	91.08	118.88	114.85	N/A	51.37	62.88	120.29	
2023	0.0	0.7350	75.00	75.00	80.00	97.96	80.67	80.27	74.37	98.94	95.51	16.27	44.08	55.84	96.60	
2024	2.0	0.7450	74.51	76.00	80.50	96.64	83.62	83.22	77.79	97.61	94.23	14.56	43.49	57.99	97.99	
2025	2.0	0.7550	74.01	77.00	81.50	96.58	83.47	83.07	76.80	97.55	94.17	14.07	43.46	57.95	100.66	
2026	2.0	0.7650	73.03	77.50	82.00	95.87	82.67	82.27	75.17	96.83	93.47	14.19	43.14	57.52	102.61	
2027	2.0	0.7750	72.00	77.94	82.53	95.09	81.81	81.41	74.26	96.04	92.71	14.28	42.79	57.05	101.88	
2028	2.0	0.7750	72.00	79.49	84.18	96.98	84.71	84.31	77.43	97.95	94.56	14.59	43.64	58.19	103.91	
2029	2.0	0.7750	72.00	81.08	85.85	98.92	86.76	86.36	79.47	99.91	96.45	14.90	44.51	59.35	105.99	
2030	2.0	0.7750	72.00	82.71	87.58	100.91	88.60	88.20	81.22	101.92	98.39	15.22	45.41	60.55	108.12	
2031	2.0	0.7750	72.00	84.36	89.32	102.92	90.35	89.95	82.86	103.95	100.35	15.53	46.32	61.75	110.27	
2032	2.0	0.7750	72.00	+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 October 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		Empress CAD/MMBtu	Plant Gate SaskEnergy Spot CAD/MMBtu		Westcoast Station 2 CAD/MMBtu	Spot Plant Gate 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	2.98	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	3.34	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	3.85	3.71	3.65	3.37	3.27	3.93	3.94	3.70	3.35	3.05	3.94	3.63
2022 Q1	4.57	4.57	4.79	4.47	4.36	4.99	5.00	4.77	4.77	4.41	4.41	4.45
2022 Q2	7.49	7.49	7.20	6.85	6.23	7.71	6.94	7.61	6.91	6.57	6.90	7.26
2022 Q3 (e)	7.54	7.54	4.41	4.11	5.27	6.56	5.72	6.90	3.91	3.58	6.53	7.17
2022 Q4	6.80	6.80	5.50	5.17	5.17	6.00	5.67	5.32	5.25	4.85	6.55	6.75
2022	6.60	6.60	5.47	5.15	5.26	6.31	5.83	6.15	5.21	4.85	6.10	6.41
2023	5.40	5.40	5.00	4.68	4.68	5.25	5.18	4.82	4.90	4.53	5.30	5.35
2024	4.16	4.24	4.50	4.18	4.18	4.55	4.43	4.32	4.45	4.09	4.14	4.19
2025	4.00	4.16	4.35	4.04	4.04	4.40	4.29	4.17	4.35	4.00	4.06	4.11
2026	4.00	4.25	4.39	4.08	4.08	4.44	4.33	4.21	4.39	4.03	4.15	4.20
2027	4.00	4.33	4.41	4.10	4.10	4.46	4.35	4.23	4.41	4.06	4.23	4.28
2028	4.00	4.42	4.51	4.19	4.19	4.56	4.44	4.33	4.51	4.15	4.32	4.37
2029	4.00	4.51	4.60	4.28	4.28	4.65	4.53	4.42	4.60	4.24	4.41	4.46
2030	4.00	4.60	4.69	4.37	4.37	4.74	4.62	4.51	4.69	4.33	4.50	4.55
2031	4.00	4.69	4.78	4.46	4.46	4.83	4.71	4.60	4.78	4.42	4.59	4.64
2032	4.00	+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 October 1, 2022

	United States		Europe	Latin America			Mideast Gulf and Mediterranean					Africa	Asia-Pacific		Russia / C.I.S.	
	Cushing, OK WTI 39.6 API 0.24% S	Louisiana LLS* 35.6 API 0.37% S	UK Brent 38.3 API 0.37% S	Mexico Maya 21.8 API 3.33% S	Colombia Vasconia 24.5 API 0.95% S	Oman DME 34 API 2.00% S	OPEC Basket 32.7 API 1.77% S	Abu Dhabi Murban 40.2 API 0.79% S	Iran Iran Heavy 30.2 API 1.77% S	Algeria Saharan 45.3 API 0.09% S	Iraq Basrah Light 30.5 API 2.90% S	Nigeria Bonny Light 33.4 API 0.16% S	Indonesia Minas 35.3 API 0.09% S	Malaysia Tapis 45.2 API 0.03% S	Russia ESPO** 34.8 API 0.62% S	Russia Sokol 34.8 API 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 Q4	80.00	81.50	86.00	77.40	80.00	83.00	85.00	85.60	82.25	88.00	86.20	88.00	81.00	91.00	51.00	71.00
2023	75.00	76.50	80.00	72.00	76.00	78.60	79.25	80.10	76.00	82.00	80.35	80.75	77.00	84.00	45.00	65.00
2024	76.00	77.50	80.50	72.45	76.50	79.10	79.75	80.60	76.50	82.50	80.85	81.25	77.50	84.50	45.50	65.50
2025	77.00	78.50	81.50	73.35	77.50	80.10	80.75	81.60	77.50	83.50	81.85	82.25	78.50	85.50	46.50	66.50
2026	77.50	79.00	82.00	73.80	78.00	80.60	81.25	82.10	78.00	84.00	82.35	82.75	79.00	86.00	47.00	67.00
2027	77.94	79.44	82.53	74.28	78.53	81.13	81.78	82.63	78.53	84.53	82.88	83.28	79.53	86.53	47.53	67.53
2028	79.49	80.99	84.18	75.76	80.18	82.78	83.43	84.28	80.18	86.18	84.53	84.93	81.18	88.18	49.18	69.18
2029	81.08	82.58	85.85	77.27	81.85	84.45	85.10	85.95	81.85	87.85	86.20	86.60	82.85	89.85	50.85	70.85
2030	82.71	84.21	87.58	78.82	83.58	86.18	86.83	87.68	83.58	89.58	87.93	88.33	84.58	91.58	52.58	72.58
2031	84.36	85.86	89.32	80.39	85.32	87.92	88.57	89.42	85.32	91.32	89.67	90.07	86.32	93.32	54.32	74.32
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 October 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 Q4	6.80	6.30	6.60	8.00	6.70	6.30	55.00	59.00	55.00	50.00	9.00
2023	5.40	5.15	5.20	6.60	5.25	4.90	51.00	57.50	50.50	49.00	8.64
2024	4.24	4.09	4.04	5.44	4.09	3.74	35.00	40.00	34.00	33.00	7.39
2025	4.16	4.01	3.96	5.38	4.01	3.66	25.00	25.10	24.00	27.00	5.87
2026	4.25	4.10	4.05	5.50	4.10	3.75	18.00	18.10	17.00	20.00	5.16
2027	4.33	4.18	4.13	5.60	4.18	3.83	18.00	18.10	17.00	20.00	4.85
2028	4.42	4.27	4.22	5.72	4.27	3.92	15.00	15.10	14.00	17.00	4.83
2029	4.51	4.36	4.31	5.84	4.36	4.01	13.00	13.10	12.00	15.00	5.01
2030	4.60	4.45	4.40	5.95	4.45	4.10	13.26	13.36	12.26	15.26	5.22
2031	4.69	4.54	4.49	6.04	4.54	4.19	13.53	13.63	12.53	15.53	5.43
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 October 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 Q4	17.98	45.41	60.90	106.85	18.70	36.75	44.00	62.40	22.10	36.80	44.80	64.00	57.62	67.08
2023	16.27	44.08	55.84	96.60	17.28	41.25	52.50	68.25	18.90	42.75	51.00	69.00	52.00	60.00
2024	14.56	43.49	57.99	97.99	13.57	41.80	53.20	69.16	14.84	43.32	51.68	69.92	48.30	56.35
2025	14.07	43.46	57.95	100.66	13.31	42.35	53.90	70.07	14.56	43.89	52.36	70.84	44.83	52.98
2026	14.19	43.14	57.52	102.61	13.60	42.63	54.25	70.52	14.88	44.18	52.70	71.30	45.10	53.30
2027	14.28	42.79	57.05	101.88	13.86	42.87	54.56	70.93	15.16	44.43	53.00	71.70	45.39	53.64
2028	14.59	43.64	58.19	103.91	14.14	43.72	55.64	72.34	15.47	45.31	54.05	73.13	46.30	54.72
2029	14.90	44.51	59.35	105.99	14.43	44.59	56.76	73.78	15.78	46.22	55.13	74.59	47.22	55.80
2030	15.22	45.41	60.55	108.12	14.72	45.49	57.90	75.27	16.10	47.14	56.24	76.09	48.17	56.93
2031	15.53	46.32	61.75	110.27	15.01	46.40	59.05	76.77	16.42	48.09	57.36	77.61	49.13	58.06
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 October 1, 2022

Year	Inflation %	Canada CADUSD Exchange Rate CAD/USD	UK GBPUSD Exchange Rate GBP/USD	Euro EURUSD Exchange Rate EUR/USD	Norway USDNOK Exchange Rate USD/NOK	Australia AUDUSD Exchange Rate AUD/USD	China USDCNY Exchange Rate USD/CNY	Japan USDJPY Exchange Rate USD/JPY
2022 Q4	0.0	0.730	1.100	1.050	8.500	0.700	7.10	145.00
2023	0.0	0.735	1.150	1.120	8.600	0.710	7.00	145.00
2024	2.0	0.745	1.200	1.170	8.600	0.720	7.00	150.00
2025	2.0	0.755	1.240	1.170	8.600	0.740	7.00	150.00
2026	2.0	0.765	1.275	1.170	8.600	0.740	7.00	150.00
2027	2.0	0.775	1.300	1.130	8.600	0.740	7.00	150.00
2028	2.0	0.775	1.300	1.130	8.600	0.740	7.00	150.00
2029	2.0	0.775	1.300	1.130	8.600	0.740	7.00	150.00
2030	2.0	0.775	1.300	1.130	8.600	0.740	7.00	150.00
2031	2.0	0.775	1.300	1.130	8.600	0.740	7.00	150.00
2032+	2.0	0.775	1.300	1.130	8.600	0.740	7.00	150.00

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



Table 7
GLJ Ltd.
Power and Refined Products
Forecast
 Effective October 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 Q4	164.88	0.94	1.66	1.60	1.55	3.84	3.52	2.80
2023	134.89	0.85	1.52	1.47	1.42	3.60	3.30	2.63
2024	112.40	0.77	1.50	1.45	1.40	3.65	3.34	2.66
2025	100.12	0.74	1.50	1.45	1.40	3.70	3.39	2.70
2026	100.94	0.75	1.49	1.44	1.39	3.72	3.41	2.71
2027	101.52	0.75	1.47	1.43	1.38	3.74	3.43	2.73
2028	103.63	0.77	1.50	1.45	1.41	3.82	3.50	2.78
2029	105.74	0.78	1.53	1.48	1.43	3.89	3.57	2.84
2030	107.85	0.80	1.56	1.51	1.46	3.97	3.64	2.89
2031	109.96	0.81	1.60	1.54	1.49	4.05	3.71	2.95
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