



Table 1
GLJ Ltd.
Crude Oil and Natural Gas Liquids
Price Forecast
Effective January 1, 2024

Year	United States			Europe			Canada									
	Inflation %	CAD/USD Exchange Rate	WTI Crude Oil (39.6 API, 0.24%S) Cushing, OK		Brent 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 2024 \$ 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
2014	1.90	0.906	118.89	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	1.10	0.783	61.19	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	1.40	0.755	53.86	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	1.60	0.771	62.33	50.94	54.80	62.84	50.91	50.53	44.74	62.09	59.96	N/A	28.57	44.46	66.86	
2018	2.30	0.772	77.96	64.73	71.55	69.22	49.03	49.52	39.42	72.94	69.60	N/A	26.79	32.96	78.60	
2019	1.90	0.754	67.15	57.02	64.24	69.16	59.26	58.75	54.11	69.65	67.97	N/A	16.98	24.29	70.19	
2020	0.70	0.746	45.57	39.44	43.28	45.28	36.21	35.56	30.45	45.45	44.01	N/A	16.25	22.02	49.52	
2021	3.40	0.798	77.96	67.92	70.78	79.71	69.24	68.74	62.14	80.10	77.58	N/A	43.25	51.66	85.47	
2022	6.80	0.769	104.56	94.23	98.89	119.60	97.20	97.07	89.65	118.45	114.83	N/A	50.08	61.62	121.60	
2023 (est)	3.90	0.741	80.58	77.58	82.14	99.58	85.87	80.58	72.09	97.24	94.47	N/A	29.75	45.57	103.32	
2024 Q1	0.00	0.755	71.00	71.00	75.50	83.44	70.60	70.20	63.24	84.28	81.36	5.71	29.21	45.89	90.07	
2024 Q2	0.00	0.755	72.00	72.00	76.50	90.07	75.23	74.83	68.07	90.97	87.81	5.31	31.52	49.54	94.04	
2024 Q3	0.00	0.755	73.00	73.00	77.50	91.39	75.23	74.83	67.68	92.30	89.11	5.69	31.99	50.26	95.36	
2024 Q4	0.00	0.755	74.00	74.00	78.50	92.72	76.23	75.83	68.57	93.64	90.40	7.19	32.45	50.99	96.69	
2024 Full Year	0.00	0.755	72.50	72.50	77.00	89.40	74.32	73.92	66.89	90.30	87.17	5.98	31.29	49.17	94.04	
2025	2.00	0.755	73.53	75.00	79.50	94.04	78.55	78.15	71.19	94.98	91.69	10.78	42.32	51.72	98.01	
2026	2.00	0.765	74.00	76.99	81.49	95.31	81.43	81.03	73.76	96.26	92.92	13.79	42.89	52.42	101.95	
2027	2.00	0.765	74.00	78.53	82.58	97.22	83.45	83.05	75.76	98.19	94.79	14.11	43.75	53.47	103.99	
2028	2.00	0.765	74.00	80.10	84.19	99.16	86.61	86.21	79.25	100.16	96.68	14.39	44.62	54.54	106.07	
2029	2.00	0.765	74.00	81.70	85.90	101.14	88.33	87.93	80.86	102.15	98.61	14.71	45.51	55.63	108.18	
2030	2.00	0.765	74.00	83.34	87.64	103.16	90.10	89.70	82.50	104.20	100.58	15.00	46.42	56.74	110.35	
2031	2.00	0.765	74.00	85.00	89.37	105.23	91.88	91.48	84.16	106.28	102.60	15.35	47.35	57.88	112.55	
2032	2.00	0.765	74.00	86.70	91.16	107.33	93.71	93.31	85.87	108.41	104.65	15.67	48.30	59.03	114.80	
2033	2.00	0.765	74.00	88.44	92.98	109.48	95.59	95.19	87.62	110.57	106.74	15.99	49.26	60.21	117.07	
2034+	2.00	0.765	74.00	+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.
Natural Gas and Sulphur
Price Forecast
Effective January 1, 2024

Year	Nymex Henry Hub		Alberta				Saskatchewan			British Columbia		Huntingdon/ Sumas Spot	Dawn @ Ontario	Sulphur FOB Vancouver	Sulphur @ Alberta Plant Gate
	Constant 2024 \$	Then Current	Plant Gate		Plant Gate		Westcoast Station 2	Spot Plant Gate	USD/MMBtu	USD/MMBtu					
	USD/MMBtu	USD/MMBtu	AECO/NIT	Spot	ARP	Empress	SaskEnergy	Spot			CAD/MMBtu				
2014	5.47	4.28	4.50	4.26	4.22	4.72	4.39	4.42	4.29	4.07	4.37	5.98	145.41	108.67	
2015	3.30	2.63	2.70	2.47	2.56	2.89	2.71	2.61	1.80	1.59	2.31	2.99	139.61	126.11	
2016	3.17	2.55	2.18	1.94	1.93	2.36	2.18	2.09	1.77	1.60	2.18	2.56	82.96	59.11	
2017	3.70	3.02	2.19	1.93	2.22	2.60	2.41	2.29	1.56	1.34	2.62	3.05	105.62	60.15	
2018	3.70	3.07	1.54	1.33	1.36	3.06	1.68	2.71	1.24	1.03	3.60	3.09	133.79	87.84	
2019	2.98	2.53	1.81	1.59	1.48	2.52	1.73	2.20	1.02	0.75	4.70	2.44	84.79	36.94	
2020	2.46	2.13	2.26	2.03	2.00	2.24	2.45	2.05	2.21	1.94	2.16	1.88	57.90	2.56	
2021	4.27	3.71	3.65	3.37	3.27	3.93	3.94	3.70	3.35	3.05	3.94	3.63	176.47	68.63	
2022	7.23	6.51	5.38	5.05	5.05	6.45	5.85	6.25	4.57	4.17	8.10	6.06	262.87	118.15	
2023 (est)	2.77	2.67	2.57	2.26	2.59	2.72	3.15	2.48	2.35	2.04	4.36	2.36	93.15	21.48	
2024 Q1	2.60	2.60	1.94	1.64	1.64	1.99	1.89	1.72	1.89	1.52	2.50	2.55	100.00	57.45	
2024 Q2	2.50	2.50	1.82	1.53	1.53	1.87	1.78	1.60	1.77	1.41	2.40	2.45	100.00	57.45	
2024 Q3	2.65	2.65	1.93	1.63	1.63	1.98	1.88	1.71	1.88	1.52	2.55	2.60	100.00	57.45	
2024 Q4	3.25	3.25	2.37	2.06	2.06	2.42	2.31	2.15	2.32	1.95	3.15	3.20	100.00	57.45	
2024 Full Year	2.75	2.75	2.01	1.72	1.72	2.06	1.97	1.79	1.96	1.60	2.65	2.70	100.00	57.45	
2025	3.77	3.85	3.42	3.10	3.10	3.47	3.35	3.20	3.42	3.05	3.75	3.80	125.00	90.56	
2026	4.00	4.16	4.30	3.96	3.96	4.35	4.21	4.08	4.30	3.92	4.06	4.11	127.50	91.67	
2027	4.00	4.25	4.39	4.05	4.05	4.44	4.30	4.17	4.39	4.01	4.15	4.20	130.05	95.00	
2028	4.00	4.33	4.47	4.14	4.14	4.52	4.39	4.25	4.47	4.10	4.23	4.28	132.65	98.40	
2029	4.00	4.42	4.56	4.23	4.23	4.61	4.48	4.34	4.56	4.19	4.32	4.37	135.30	101.87	
2030	4.00	4.50	4.65	4.31	4.31	4.70	4.56	4.43	4.65	4.27	4.40	4.45	138.01	105.41	
2031	4.00	4.60	4.75	4.41	4.41	4.80	4.66	4.53	4.75	4.37	4.50	4.55	140.77	109.01	
2032	4.00	4.69	4.84	4.50	4.50	4.89	4.75	4.62	4.84	4.47	4.59	4.64	143.59	112.69	
2033	4.00	4.78	4.94	4.59	4.59	4.99	4.84	4.72	4.94	4.56	4.68	4.73	146.46	114.94	
2034+	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	+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, 2024

	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	Oman DME	OPEC Basket	Abu Dhabi Murban	Iran Iran Light	Algeria Saharan	Iraq Basrah Medium	Kuwait Export Blend	Nigeria Bonny Light	Indonesia Minas	Malaysia Tapis	Russia ESPO**	Russia Sokol
	39.6 API	35.6 API	38.3 API	21.8 API	34 API	32.7 API	40.2 API	33.6 API	45.3 API	27.9 API	31.4 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	2.00% S	1.77% S	0.79% S	1.46% S	0.09% S	3% S	2.52% 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
2024	72.50	75.46	77.00	67.76	76.23	78.54	77.77	73.92	77.00	76.23	78.54	77.00	73.92	80.85	72.38	71.61
2025	75.00	77.91	79.50	71.55	78.71	79.50	79.50	76.32	78.71	77.11	81.09	79.50	76.32	83.48	72.35	75.52
2026	76.99	79.86	81.49	73.34	80.68	81.49	81.49	78.23	80.68	79.05	83.12	81.49	78.23	85.56	77.42	81.49
2027	78.53	80.93	82.58	74.32	81.75	82.58	82.58	79.28	81.75	80.10	84.23	82.58	79.28	86.71	82.58	83.41
2028	80.10	82.51	84.19	75.77	83.35	84.19	84.19	80.82	83.35	81.66	85.87	84.19	80.82	88.40	84.19	85.03
2029	81.70	84.18	85.90	77.31	85.04	85.90	85.90	82.46	85.04	83.32	87.62	85.90	82.46	90.19	85.90	86.76
2030	83.34	85.89	87.64	78.88	86.76	87.64	87.64	84.13	86.76	85.01	89.39	87.64	84.13	92.02	87.64	88.52
2031	85.00	87.58	89.37	80.43	88.48	89.37	89.37	85.80	88.48	86.69	91.16	89.37	85.80	93.84	89.37	90.26
2032	86.70	89.34	91.16	82.04	90.25	91.16	91.16	87.51	90.25	88.43	92.98	91.16	87.51	95.72	91.16	92.07
2033	88.44	91.12	92.98	83.68	92.05	92.98	92.98	89.26	92.05	90.19	94.84	92.98	89.26	97.63	92.98	93.91
2034+	+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, 2024

Year	US Natural Gas						European Natural Gas			Asia-Pacific
	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
2024	2.75	2.60	2.55	4.63	2.65	2.25	11.11	11.31	10.61	12.11
2025	3.85	3.70	3.65	5.73	3.75	3.35	13.00	13.70	12.50	13.50
2026	4.16	4.01	3.96	6.04	4.06	3.66	11.85	12.55	11.35	12.35
2027	4.25	4.10	4.05	6.13	4.15	3.75	10.75	11.45	10.25	11.50
2028	4.33	4.18	4.13	6.21	4.23	3.83	10.98	11.73	10.48	12.13
2029	4.42	4.27	4.22	6.30	4.32	3.92	11.20	11.96	10.70	12.36
2030	4.50	4.35	4.30	6.38	4.40	4.00	11.43	12.20	10.93	12.60
2031	4.60	4.45	4.40	6.48	4.50	4.10	11.65	12.45	11.15	12.85
2032	4.69	4.54	4.49	6.57	4.59	4.19	11.89	12.70	11.39	13.10
2033	4.78	4.63	4.58	6.66	4.68	4.28	12.12	12.95	11.62	13.36
2034+	+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, 2024

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
2024	5.98	31.29	49.17	94.04	7.56	30.45	47.13	63.80	9.63	32.63	43.50	62.35	50.05	57.75
2025	10.78	42.32	51.72	98.01	11.55	33.75	51.00	69.75	13.47	36.00	48.75	68.25	43.73	51.67
2026	13.79	42.89	52.42	101.95	12.48	42.34	52.35	71.60	14.56	43.88	50.04	70.06	44.82	52.97
2027	14.11	43.75	53.47	103.99	12.75	43.19	53.40	73.03	14.88	44.76	51.04	71.46	45.42	53.68
2028	14.39	44.62	54.54	106.07	12.99	44.06	54.47	74.49	15.16	45.66	52.07	72.89	46.30	54.72
2029	14.71	45.51	55.63	108.18	13.26	44.94	55.56	75.98	15.47	46.57	53.11	74.35	47.25	55.84
2030	15.00	46.42	56.74	110.35	13.50	45.84	56.67	77.51	15.75	47.50	54.17	75.84	48.20	56.97
2031	15.35	47.35	57.88	112.55	13.80	46.75	57.80	79.05	16.10	48.45	55.25	77.35	49.15	58.09
2032	15.67	48.30	59.03	114.80	14.07	47.69	58.96	80.63	16.41	49.42	56.36	78.90	50.14	59.25
2033	15.99	49.26	60.21	117.07	14.34	48.64	60.14	82.25	16.73	50.41	57.49	80.48	51.14	60.44
2034+	+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, 2024

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
2024	0.0	0.755	1.260	1.085	10.800	0.670	7.200	150.00
2025	2.0	0.755	1.265	1.100	10.100	0.700	7.000	150.00
2026	2.0	0.765	1.280	1.125	10.100	0.710	7.000	150.00
2027	2.0	0.765	1.300	1.150	10.100	0.710	7.000	150.00
2028	2.0	0.765	1.300	1.170	10.100	0.710	7.000	150.00
2029	2.0	0.765	1.300	1.170	10.100	0.710	7.000	150.00
2030	2.0	0.765	1.300	1.170	10.100	0.710	7.000	150.00
2031	2.0	0.765	1.300	1.170	10.100	0.710	7.000	150.00
2032	2.0	0.765	1.300	1.170	10.100	0.710	7.000	150.00
2033	2.0	0.765	1.300	1.170	10.100	0.710	7.000	150.00
2034+	2.0	0.765	1.300	1.170	10.100	0.710	7.000	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 January 1, 2024

Year	Power	Canadian Fuels			US Fuels		
	Alberta AESO CAD/MWh	Diesel ULS* CAD/Ltr	Gasoline Regular CAD/Ltr	Heating Oil CAD/Ltr	Diesel ULS* USD/Gallon	Gasoline Regular USD/Gallon	Heating Oil USD/Gallon
2024	110.00	1.39	1.34	1.30	3.48	3.19	2.54
2025	110.00	1.46	1.41	1.36	3.60	3.30	2.63
2026	110.94	1.48	1.43	1.38	3.70	3.39	2.69
2027	112.84	1.51	1.46	1.41	3.77	3.46	2.75
2028	114.89	1.54	1.49	1.44	3.84	3.52	2.80
2029	117.00	1.57	1.52	1.47	3.92	3.59	2.86
2030	119.14	1.60	1.55	1.50	4.00	3.67	2.92
2031	121.32	1.63	1.58	1.53	4.08	3.74	2.98
2032	123.55	1.66	1.61	1.55	4.16	3.81	3.03
2033	126.03	1.70	1.64	1.59	4.25	3.89	3.10
2034+	+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