

3 Consultant Average (McDaniel, GLJ and Sproule)

Summary of Price Forecasts

July 1, 2023

Year	Crude Oil Price Forecasts							Liquids Price Forecasts					Gas Price Forecasts							US/CAN Exchange Rate \$US/\$CAN		
	WTI Crude Oil	Brent Crude Oil	Edmonton Light Crude Oil	Alberta Bow River Hardisty Crude Oil	Western Canadian Select Crude Oil	Alberta Heavy Crude Oil	Sask Cromer Medium Crude Oil	Edmonton Ethane	Edmonton Propane	Edmonton Butanes	Edmonton Cond. & Natural Gasolines	U.S. Henry Hub Gas Price	Alberta AECO Spot Price	Alberta Average Plantgate	Alberta Aggregator Plantgate	Empress	Sask. Prov. Gas Plantgate	British Columbia Average Plantgate	British Columbia Station 2		Inflation %	
	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu		\$/MMBtu	%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)					(8)	(9)									
History																						
2013	97.95	108.60	93.05	76.55	75.25	65.25	88.25		38.90	69.40	104.65	3.75	3.20	3.00	3.00	3.10	3.10	2.95	3.10	0.95	0.970	
2014	93.00	99.00	93.50	80.40	79.10	71.20	87.80		45.05	69.60	102.40	4.35	4.40	4.20	4.20	4.55	4.40	4.05	4.20	1.90	0.905	
2015	48.80	52.35	57.75	46.10	44.80	39.55	51.45		6.60	36.50	60.30	2.60	2.80	2.60	2.60	3.00	2.70	2.00	2.10	1.10	0.785	
2016	43.30	43.55	53.90	40.45	39.15	33.35	49.10		13.15	34.35	56.15	2.50	2.10	1.90	1.90	2.30	2.20	1.55	1.65	1.45	0.755	
2017	50.90	54.25	62.85	52.00	50.70	45.20	59.85		28.90	44.60	66.85	3.00	2.40	2.20	2.20	2.85	2.40	1.80	1.95	1.60	0.770	
2018	64.95	71.05	69.65	51.25	49.95	40.00	70.20		27.55	32.80	79.20	3.05	1.55	1.35	1.35	3.00	1.60	1.20	1.40	2.25	0.770	
2019	57.00	64.35	69.00	60.00	58.70	54.80	68.00		17.40	23.55	70.30	2.55	1.60	1.40	1.40	2.75	1.75	1.00	1.15	2.00	0.755	
2020	39.25	41.75	45.00	36.50	35.40	30.70	43.75		16.40	22.15	49.15	2.05	2.25	2.05	2.05	2.30	2.45	2.05	2.20	0.75	0.745	
2021	68.00	70.70	80.35	69.40	68.85	63.15	77.75		43.10	51.15	85.50	3.90	3.55	3.35	3.35	3.90	3.95	3.30	3.45	3.40	0.800	
2022	94.80	100.80	120.75	99.25	99.10	90.95	114.30		50.30	61.15	123.00	6.40	5.55	5.35	5.35	6.70	5.85	5.00	5.15	6.75	0.770	
2023 (6 mos)	75.00	79.80	97.10	74.40	74.15	64.45	87.15		30.45	45.25	102.60	2.40	3.35	3.15	3.15	3.55	3.55	2.65	2.80	4.45	0.740	
Forecast																						
2023 (6 mos)	72.67	77.00	92.89	78.41	77.72	70.04	87.99	8.81	30.06	42.60	94.78	2.93	2.77	2.57	2.57	3.15	2.81	2.19	2.47	0.0	0.750	
2024	73.63	77.72	92.40	77.39	76.70	67.99	87.44	11.49	35.36	47.80	96.08	3.71	3.58	3.38	3.38	3.89	3.63	3.07	3.36	2.3	0.758	
2025	74.75	79.00	93.58	78.05	77.36	68.56	88.53	13.40	37.53	48.43	97.34	4.10	4.13	3.92	3.92	4.44	4.15	3.63	3.92	2.0	0.760	
2026	76.25	80.71	95.04	80.85	80.14	71.42	89.90	13.62	38.09	49.17	99.73	4.19	4.19	3.98	3.98	4.51	4.22	3.68	3.98	2.0	0.763	
2027	77.77	81.95	96.94	82.59	81.88	73.03	91.70	13.89	38.85	50.15	101.72	4.27	4.27	4.06	4.06	4.60	4.30	3.76	4.06	2.0	0.763	
2028	79.33	83.58	98.88	84.74	84.01	75.15	93.54	14.17	39.63	51.15	103.76	4.36	4.36	4.14	4.14	4.69	4.39	3.84	4.14	2.0	0.763	
2029	80.92	85.26	100.85	86.47	85.73	76.69	95.41	14.46	40.42	52.18	105.83	4.44	4.45	4.22	4.22	4.78	4.48	3.92	4.22	2.0	0.763	
2030	82.53	86.97	102.87	88.19	87.44	78.24	97.31	14.76	41.23	53.22	107.95	4.53	4.54	4.31	4.31	4.88	4.57	4.00	4.31	2.0	0.763	
2031	84.18	88.71	104.93	89.96	89.19	79.81	99.26	15.06	42.05	54.28	110.11	4.62	4.63	4.39	4.39	4.97	4.66	4.09	4.39	2.0	0.763	
2032	85.87	90.48	107.03	91.75	90.97	81.41	101.25	15.37	42.89	55.37	112.31	4.71	4.72	4.48	4.48	5.08	4.76	4.17	4.48	2.0	0.763	
2033	87.59	92.29	109.17	93.59	92.79	83.04	103.27	15.67	43.75	56.48	114.55	4.81	4.82	4.57	4.57	5.18	4.86	4.26	4.57	2.0	0.763	
2034	89.34	94.14	111.35	95.46	94.65	84.70	105.34	15.99	44.63	57.61	116.85	4.90	4.91	4.66	4.66	5.28	4.95	4.34	4.66	2.0	0.763	
2035	91.12	96.02	113.58	97.37	96.54	86.39	107.45	16.31	45.52	58.76	119.18	5.00	5.01	4.76	4.76	5.39	5.05	4.43	4.76	2.0	0.763	
2036	92.95	97.94	115.85	99.32	98.47	88.12	109.59	16.63	46.43	59.94	121.57	5.10	5.11	4.85	4.85	5.49	5.15	4.52	4.85	2.0	0.763	
2037	94.81	99.90	118.17	101.30	100.44	89.88	111.79	16.97	47.36	61.14	124.00	5.21	5.21	4.95	4.95	5.60	5.26	4.61	4.95	2.0	0.763	
Thereafter	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	+2%/yr	2.0	0.763	

(1) West Texas Intermediate at Cushing Oklahoma 40 degrees API, 0.5% sulphur

(2) North Sea Brent Blend 37 degrees API, 1.0% sulphur

(3) Edmonton Light Sweet 40 degrees API, 0.3% sulphur

(4) Bow River at Hardisty, Alberta (Heavy stream)

(5) Western Canadian Select at Hardisty, Alberta

(6) Heavy crude oil 12 degrees API at Hardisty, Alberta (after deduction of blending costs to reach pipeline quality)

(7) Midale Cromer crude oil 29 degrees API, 2.0% sulphur

(8) Historical prices based on AECO 7A (near month prices). 5A (daily price) expected to be equal to 7A over long term. 2022 historical prices: 7A \$5.56/MMBTU, 5A \$5.34/MMBTU

(9) This forecast also applies to direct sales contracts and the Alberta gas reference price used in the Crown royalty calculations

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Summary of Price Forecasts (Real Prices - 2023 \$)

July 1, 2023

Year	Crude Oil Price Forecasts							Liquids Price Forecasts					Gas Price Forecasts								US/CAN Exchange Rate	
	WTI Crude Oil	Brent Crude Oil	Edmonton Light Crude Oil	Alberta Bow River Hardisty Crude Oil	Western Canadian Select Crude Oil	Alberta Heavy Crude Oil	Sask Cromer Medium Crude Oil	Edmonton Ethane	Edmonton Propane	Edmonton Butanes	Edmonton Cond. & Natural Gasolines	U.S. Henry Hub Gas Price	Alberta AECO Spot Price	Alberta Average Plantgate	Alberta Aggregator Plantgate	Empress	Sask. Prov. Gas Plantgate	British Columbia Average Plantgate	British Columbia Station 2	Inflation %		
	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	%		\$/\$/
	(1)	(2)	(3)	(4)	(5)	(6)	(7)					(8)	(9)									
History																						
2013	97.95	108.60	93.05	76.55	75.25	65.25	88.25		38.90	69.40	104.65	3.75	3.20	3.00	3.00	3.10	3.10	2.95	3.10	0.95	0.970	
2014	93.00	99.00	93.50	80.40	79.10	71.20	87.80		45.05	69.60	102.40	4.35	4.40	4.20	4.20	4.55	4.40	4.05	4.20	1.90	0.905	
2015	48.80	52.35	57.75	46.10	44.80	39.55	51.45		6.60	36.50	60.30	2.60	2.80	2.60	2.60	3.00	2.70	2.00	2.10	1.10	0.785	
2016	43.30	43.55	53.90	40.45	39.15	33.35	49.10		13.15	34.35	56.15	2.50	2.10	1.90	1.90	2.30	2.20	1.55	1.65	1.45	0.755	
2017	50.90	54.25	62.85	52.00	50.70	45.20	59.85		28.90	44.60	66.85	3.00	2.40	2.20	2.20	2.85	2.40	1.80	1.95	1.60	0.770	
2018	64.95	71.05	69.65	51.25	49.95	40.00	70.20		27.55	32.80	79.20	3.05	1.55	1.35	1.35	3.00	1.60	1.20	1.40	2.25	0.770	
2019	57.00	64.35	69.00	60.00	58.70	54.80	68.00		17.40	23.55	70.30	2.55	1.60	1.40	1.40	2.75	1.75	1.00	1.15	2.00	0.755	
2020	39.25	41.75	45.00	36.50	35.40	30.70	43.75		16.40	22.15	49.15	2.05	2.25	2.05	2.05	2.30	2.45	2.05	2.20	0.75	0.745	
2021	68.00	70.70	80.35	69.40	68.85	63.15	77.75		43.10	51.15	85.50	3.90	3.55	3.35	3.35	3.90	3.95	3.30	3.45	3.40	0.800	
2022	94.80	100.80	120.75	99.25	99.10	90.95	114.30		50.30	61.15	123.00	6.40	5.55	5.35	5.35	6.70	5.85	5.00	5.15	6.75	0.770	
2023 (6 mos)	75.00	79.80	97.10	74.40	74.15	64.45	87.15		30.45	45.25	102.60	2.40	3.35	3.15	3.15	3.55	3.55	2.65	2.80	4.45	0.740	
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2023 (6 mos)	72.67	77.00	92.89	78.41	77.72	70.04	87.99	8.81	30.06	42.60	94.78	2.93	2.77	2.57	2.57	3.15	2.81	2.19	2.47	0.0	0.750	
2024	71.95	75.94	90.29	75.63	74.95	66.44	85.45	11.23	34.55	46.71	93.89	3.62	3.50	3.30	3.30	3.80	3.54	3.00	3.28	2.3	0.758	
2025	71.62	75.68	89.66	74.78	74.11	65.69	84.82	12.84	35.95	46.40	93.25	3.93	3.95	3.75	3.75	4.25	3.97	3.48	3.75	2.0	0.760	
2026	71.62	75.81	89.26	75.94	75.28	67.08	84.44	12.79	35.77	46.18	93.67	3.93	3.94	3.74	3.74	4.24	3.96	3.46	3.74	2.0	0.763	
2027	71.62	75.47	89.26	76.06	75.40	67.25	84.44	12.79	35.77	46.18	93.67	3.93	3.94	3.74	3.74	4.23	3.96	3.47	3.74	2.0	0.763	
2028	71.62	75.45	89.26	76.51	75.85	67.84	84.44	12.79	35.77	46.18	93.67	3.93	3.94	3.74	3.74	4.23	3.96	3.47	3.74	2.0	0.763	
2029	71.62	75.46	89.26	76.53	75.88	67.88	84.44	12.80	35.77	46.18	93.67	3.93	3.94	3.74	3.74	4.23	3.96	3.47	3.74	2.0	0.763	
2030	71.62	75.47	89.26	76.53	75.87	67.89	84.44	12.81	35.77	46.18	93.67	3.93	3.94	3.74	3.74	4.23	3.97	3.47	3.74	2.0	0.763	
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