

3 Consultant Average (McDaniel, GLJ and Sproule)

Summary of Price Forecasts

July 1, 2022

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																					
2012	94.20	111.65	86.10	74.35	73.10	63.65	82.10		28.60	69.55	100.80	2.75	2.45	2.25	2.25	2.30	2.30	2.25	2.40	1.55	1.000
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 (6 mos)	101.05	105.55	126.30	111.20	111.00	104.65	120.45		56.00	69.05	129.60	5.95	5.45	5.25	5.25	6.20	6.00	5.25	5.40	6.35	0.785
Forecast																					
2022 (6 mos)	103.17	107.50	129.42	114.36	111.97	106.10	126.03	20.40	53.08	66.42	128.73	6.38	6.19	5.99	5.99	6.73	6.59	5.76	6.04	0.0	0.782
2023	89.75	93.02	109.39	96.55	95.75	88.33	106.48	15.71	46.76	60.51	112.33	4.95	4.76	4.56	4.56	5.23	5.02	4.38	4.66	2.7	0.790
2024	82.05	85.26	97.96	86.48	85.73	78.84	95.37	13.95	42.72	55.81	102.59	4.44	4.27	4.06	4.06	4.64	4.53	3.92	4.20	2.3	0.793
2025	77.14	80.29	91.65	80.42	79.72	73.19	89.23	12.72	39.75	52.38	96.36	4.16	3.88	3.67	3.67	4.26	4.15	3.55	3.83	2.0	0.793
2026	78.69	81.90	93.48	82.03	81.32	74.66	91.01	12.98	40.55	53.43	98.29	4.24	3.96	3.74	3.74	4.34	4.23	3.62	3.90	2.0	0.793
2027	80.26	83.53	95.35	83.66	82.94	76.16	92.83	13.24	41.36	54.50	100.26	4.33	4.04	3.82	3.82	4.43	4.32	3.69	3.98	2.0	0.793
2028	81.87	85.21	97.26	85.34	84.60	77.69	94.69	13.52	42.19	55.59	102.26	4.41	4.12	3.89	3.89	4.52	4.41	3.77	4.06	2.0	0.793
2029	83.51	86.91	99.20	87.04	86.29	79.25	96.59	13.79	43.04	56.71	104.31	4.50	4.20	3.97	3.97	4.61	4.49	3.85	4.14	2.0	0.793
2030	85.18	88.65	101.19	88.78	88.02	80.84	98.52	14.08	43.90	57.84	106.40	4.59	4.29	4.05	4.05	4.70	4.58	3.93	4.23	2.0	0.793
2031	86.88	90.42	103.21	90.55	89.78	82.46	100.49	14.36	44.77	58.99	108.52	4.68	4.37	4.13	4.13	4.79	4.67	4.01	4.31	2.0	0.793
2032	88.62	92.23	105.27	92.36	91.58	84.11	102.50	14.65	45.67	60.17	110.69	4.78	4.46	4.21	4.21	4.89	4.77	4.09	4.40	2.0	0.793
2033	90.39	94.08	107.38	94.21	93.41	85.79	104.55	14.94	46.58	61.38	112.91	4.87	4.55	4.30	4.30	4.99	4.86	4.18	4.49	2.0	0.793
2034	92.20	95.96	109.53	96.09	95.28	87.51	106.64	15.24	47.51	62.60	115.17	4.97	4.64	4.38	4.38	5.09	4.96	4.26	4.58	2.0	0.793
2035	94.04	97.88	111.72	98.02	97.18	89.26	108.77	15.55	48.46	63.86	117.47	5.07	4.73	4.47	4.47	5.19	5.06	4.34	4.67	2.0	0.793
2036	95.92	99.83	113.95	99.98	99.13	91.04	110.94	15.86	49.43	65.13	119.82	5.17	4.83	4.56	4.56	5.29	5.16	4.43	4.76	2.0	0.793
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	0.793

(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. 2021 historical prices: 7A \$3.55/MMBTU, 5A \$3.60/MMBTU

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

3 Consultant Average (McDaniel, GLJ and Sproule)

Summary of Price Forecasts (Real Prices - 2022 \$)

July 1, 2022

Year	Crude Oil Price Forecasts							Liquids Price Forecasts				Gas Price Forecasts									
	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 %	US/CAN Exchange Rate
	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/bbl	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	%	\$/US\$/CAN
	(1)	(2)	(3)	(4)	(5)	(6)	(7)					(8)	(9)								
History																					
2012	94.20	111.65	86.10	74.35	73.10	63.65	82.10		28.60	69.55	100.80	2.75	2.45	2.25	2.25	2.30	2.30	2.25	2.40	1.55	1.000
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 (6 mos)	101.05	105.55	126.30	111.20	111.00	104.65	120.45		56.00	69.05	129.60	5.95	5.45	5.25	5.25	6.20	6.00	5.25	5.40	6.35	0.785
Forecast																					
2022 (6 mos)	103.17	107.50	129.42	114.36	111.97	106.10	126.03	20.40	53.08	66.42	128.73	6.38	6.19	5.99	5.99	6.73	6.59	5.76	6.04	0.0	0.782
2023	87.42	90.60	106.55	94.04	93.26	86.03	103.71	15.30	45.54	58.94	109.41	4.82	4.64	4.44	4.44	5.09	4.89	4.26	4.54	2.7	0.790
2024	78.10	81.15	93.24	82.31	81.60	75.04	90.77	13.28	40.66	53.12	97.64	4.23	4.06	3.86	3.86	4.41	4.31	3.73	4.00	2.3	0.793
2025	71.99	74.92	85.52	75.04	74.39	68.29	83.26	11.87	37.10	48.88	89.92	3.88	3.62	3.42	3.42	3.97	3.87	3.31	3.57	2.0	0.793
2026	71.99	74.92	85.52	75.04	74.39	68.30	83.27	11.88	37.10	48.88	89.92	3.88	3.62	3.42	3.42	3.97	3.87	3.31	3.57	2.0	0.793
2027	71.99	74.92	85.52	75.04	74.39	68.31	83.26	11.88	37.10	48.88	89.92	3.88	3.62	3.42	3.42	3.97	3.87	3.31	3.57	2.0	0.793
2028	71.99	74.92	85.52	75.04	74.39	68.31	83.26	11.89	37.10	48.88	89.92	3.88	3.62	3.42	3.42	3.97	3.87	3.32	3.57	2.0	0.793
2029	71.99	74.93	85.52	75.04	74.39	68.32	83.27	11.89	37.10	48.89	89.93	3.88	3.62	3.42	3.42	3.97	3.87	3.32	3.57	2.0	0.793
2030	71.99	74.92	85.52	75.04	74.39	68.32	83.27	11.90	37.10	48.88	89.92	3.88	3.62	3.42	3.42	3.97	3.87	3.32	3.57	2.0	0.793
2031	71.99	74.93	85.52	75.03	74.39	68.33	83.26	11.90	37.10	48.88	89.92	3.88	3.62	3.42	3.42	3.97	3.87	3.33	3.57	2.0	0.793
2032	71.99	74.93	85.52	75.03	74.39	68.33	83.26	11.90	37.10	48.88	89.92	3.88	3.62	3.42	3.42	3.97	3.87	3.33	3.57	2.0	0.793
2033	71.99	74.93	85.52	75.03	74.39	68.33	83.26	11.90	37.10	48.88	89.92	3.88	3.62	3.42	3.42	3.97	3.87	3.33	3.57	2.0	0.793
2034	71.99	74.93	85.52	75.03	74.39	68.33	83.26	11.90	37.10	48.88	89.92	3.88	3.62	3.42	3.42	3.97	3.87	3.33	3.57	2.0	0.793
2035	71.99	74.93	85.52	75.03	74.39	68.33	83.26	11.90	37.10	48.88	89.92	3.88	3.62	3.42	3.42	3.97	3.87	3.33	3.57	2.0	0.793
2036	71.99	74.93	85.52	75.03	74.39	68.33	83.26	11.90	37.10	48.88	89.92	3.88	3.62	3.42	3.42	3.97	3.87	3.33	3.57	2.0	0.793

(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. 2021 historical prices: 7A \$3.55/MMBTU, 5A \$3.60/MMBTU

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