Marathon Petroleum Corporation Market Data - Current Quarter

Price information through 8/31/2017

2017	1 LLS Prompt Price (a)	2 Chicago 6-3-2-1 Crack (b)	3 USGC 6-3-2-1 Crack (b)	4 Blended 6-3-2-1 Crack (c)	5 RIN/CBOB Crack Adjustment (d)	6 WTI Prompt Price (a)	7 (1) - (6) LLS Prompt vs. WTI Prompt	8 LLS Delivered Diff. (e)	9 (6) + (8) LLS Delivered Cost (g)	10 (1) - (9) LLS Prompt vs. LLS Delivered	11 Sour Delivered Diff. (f)	12 (6) + (11) Sour Delivered Cost (g)	13 (1) - (12) LLS Prompt Sweet/Sour Diff.	14 Market Structure (h)
Jul	49.01	11.09	11.08	11.08	(4.04)	46.68	2.34	2.05	48.73	0.28	(2.80)	43.88	5.13	(0.30)
Aug	51.08	13.27	13.36	13.32	(4.28)	48.06	3.02	2.29	50.35	0.73	(1.99)	46.07	5.01	(0.27)
Sept								2.94						(0.20)
3rd Qtr	50.12	12.25	12.30	12.28	(4.17)	47.41	2.70	2.42	49.59	0.52	(2.36)	45.05	5.07	(0.26)

	Hypothetical Gross Margin Indicator Calculation Based on Guidance										Provided Outlook			
	(A) Crude Throughput (mmbbls) (K) x Days in Qtr	(B) Non-Crude Throughput (mmbbls) (L) x Days in Qtr	(C) Total Throughput (mmbbls) (A) + (B)	(D) LLS 6-3-2-1 Crack Spread ($MM) (C) x Col 4	(E) RIN/CBOB Crack Adjustment ($MM) (C) x Col 5	(F) Sweet/Sour Differential ($MM) (A) x Col 13 x (M)	(G) LLS Prompt vs WTI Prompt ($MM) (A) x Col 7 x (N)	(H) LLS Prompt vs Delivered ($MM) (A) x Col 10 x [1-(M)-(N)]	(I) Market Structure ($MM) (A) x Col 14 x 65%	(J) Gross Margin Indicator ($MM) Sum of (D) thru (I)	(K) Crude Throughput (MBPD)	(L) Other Charge/ Feedstocks (MBPD)	(M) Sour Crude Oil Throughput Percentage	(N) WTI- Priced Crude Oil Throughput Percentage
3Q17 Est.	163	14	177	2,175	(738)	447	106	19	28	2,036	1,775	150	54%	24%

(a) Prompt Price represents calendar workday average of prices quoted that month for crude delivered in immediately following month(s).

(b) Crack Spread Calculation: Chicago = ((Chicago 87 Octane Gasoline x 3 + Chicago Ultra Low Sulfur Distillate x 2+ USGC 3% Residual Fuel Oil)/6) - LLS Prompt Price
USGC = ((U.S. Gulf Coast (USGC) 87 Octane Gasoline x 3 + USGC Ultra Low Sulfur Distillate x 2+ USGC 3% Residual Fuel Oil)/6) - LLS Prompt Price

(c) Blended Chicago/USGC crack spread is 40%/60% based on MPC's refining capacity by PADD.

(d) Represents the market cost of Renewable Identification Numbers (RINs)(credits needed to meet an EPA-specific Renewable Volume Obligation) for attributable products and the difference between 87 Octane Gasoline and 84 Octane CBOB Gasoline.

(e) Represents differential (versus Prompt WTI) for the trade month period beginning with the 26th calendar day two months prior to the prompt month through the 25th day one month prior to the prompt month (see next page for Prompt LLS versus LLS Delivered Cost calculation).

(f) Delivered differentials per footnote (e), with the exception of the Maya delivered differential which is calculated on a prompt calendar month basis. MPC's typical sour crude oil basket consists of the following crudes: Arab Light, Kuwait, Maya, Western Canadian Select, Mars.

(g) Delivered Cost is based on WTI Prompt Price plus each respective grade's delivered differential and does NOT include market structure or other expenses such as transportation, demurrage, etc. Market structure effects are calculated as a separate adjustment (see column 14 and (I) above).

(h) Delivered month market structure (roll). Negative values represent contango and positive values represent backwardation. For 2017 approximately 65% of MPC's crude oil acquisition volume uses market structure in its acquisition price formula.

All prices and differentials listed are in Dollars per Barrel

Data Sources: NYMEX, Argus, and MPC Estimate

Marathon Petroleum Corporation Market Data - Historical

Price information through 8/31/2017

	1	2	3	4	5	6	7 (1) - (6)	8	9 (6) + (8)	10 (1) - (9)	11	12 (6) + (11)	13 (1) - (12)	14
2017	LLS Prompt Price (a)	Chicago 6-3-2-1 Crack (b)	USGC 6-3-2-1 Crack (b)	Blended 6-3-2-1 Crack (c)	RIN/CBOB Crack Adjustment (d)	WTI Prompt Price (a)	LLS Prompt vs. WTI Prompt	LLS Delivered Diff. (e)	LLS Delivered Cost (g)	LLS Prompt vs. LLS Delivered	Sour Delivered Diff. (f)	Sour Delivered Cost (g)	LLS Prompt Sweet/Sour Diff.	Market Structure (h)
Jan	54.06	6.79	9.07	8.16	(3.53)	52.61	1.45	1.51	54.12	(0.06)	(5.60)	47.01	7.05	(1.29)
Feb	55.14	4.85	7.56	6.47	(2.67)	53.46	1.68	1.52	54.98	0.16	(5.52)	47.94	7.20	(1.08)
Mar	51.36	7.95	8.67	8.38	(2.75)	49.67	1.69	1.71	51.39	(0.02)	(4.66)	45.02	6.35	(0.72)
1st Qtr	53.39	6.62	8.46	7.72	(2.98)	51.78	1.61	1.59	53.37	0.02	(5.23)	46.55	6.84	(1.03)
Apr	53.14	9.49	9.92	9.75	(3.25)	51.12	2.02	1.74	52.86	0.28	(4.52)	46.59	6.55	(0.62)
May	50.58	8.82	9.08	8.98	(3.26)	48.54	2.04	2.07	50.61	(0.03)	(3.11)	45.43	5.15	(0.56)
Jun	47.21	8.66	9.04	8.88	(3.85)	45.20	2.01	2.03	47.22	(0.01)	(2.88)	42.32	4.89	(0.45)
2nd Qtr	50.17	8.96	9.32	9.18	(3.46)	48.15	2.03	1.96	50.11	0.07	(3.46)	44.69	5.48	(0.54)
Jul	49.01	11.09	11.08	11.08	(4.04)	46.68	2.34	2.05	48.73	0.28	(2.80)	43.88	5.13	(0.30)
Aug	51.08	13.27	13.36	13.32	(4.28)	48.06	3.02	2.29	50.35	0.73	(1.99)	46.07	5.01	(0.27)
Sept								2.94						(0.20)
3rd Qtr	50.12	12.25	12.30	12.28	(4.17)	47.41	2.70	2.42	49.59	0.52	(2.36)	45.05	5.07	(0.26)
YTD	**51.35**	**8.94**	**9.76**	**9.44**	**(3.46)**	**49.30**	**2.04**	**1.99**	**51.21**	**0.14**	**(3.83)**	**45.47**	**5.87**	**(0.61)**
2016	LLS Prompt Price (a)	Chicago 6-3-2-1 Crack (b)	USGC 6-3-2-1 Crack (b)	Blended 6-3-2-1 Crack (c)	RIN/CBOB Crack Adjustment (d)	WTI Prompt Price (a)	LLS Prompt vs. WTI Prompt	LLS Delivered Diff. (e)	LLS Delivered Cost (g)	LLS Prompt vs. LLS Delivered	Sour Delivered Diff. (f)	Sour Delivered Cost (g)	LLS Prompt Sweet/Sour Diff.	Market Structure (h)
1st Qtr	35.29	4.11	4.97	4.62	(3.00)	33.63	1.66	1.60	35.23	0.06	(5.11)	28.52	6.77	(1.84)
2nd Qtr	47.38	9.47	6.44	7.66	(3.30)	45.64	1.74	2.04	47.68	(0.30)	(5.17)	40.47	6.91	(1.49)
3rd Qtr	46.52	8.70	7.66	8.08	(3.78)	44.94	1.58	1.73	46.67	(0.15)	(4.70)	40.24	6.28	(0.86)
4th Qtr	50.59	6.32	8.10	7.39	(3.91)	49.29	1.30	1.42	50.71	(0.12)	(4.93)	44.36	6.24	(0.78)
YTD	**45.01**	**7.19**	**6.80**	**6.96**	**(3.50)**	**43.47**	**1.55**	**1.70**	**45.17**	**(0.15)**	**(4.98)**	**38.49**	**6.52**	**(1.24)**
2015	LLS Prompt Price (a)	Chicago 6-3-2-1 Crack (b)	USGC 6-3-2-1 Crack (b)	Blended 6-3-2-1 Crack (c)	RIN/CBOB Crack Adjustment (d)	WTI Prompt Price (a)	LLS Prompt vs. WTI Prompt	LLS Delivered Diff. (e)	LLS Delivered Cost (g)	LLS Prompt vs. LLS Delivered	Sour Delivered Diff. (f)	Sour Delivered Cost (g)	LLS Prompt Sweet/Sour Diff.	Market Structure (h)
1st Qtr	52.80	8.97	10.13	9.69	(2.63)	48.57	4.23	2.65	51.22	1.58	(2.85)	45.72	7.08	(0.68)
2nd Qtr	62.94	10.56	10.05	10.24	(2.55)	57.95	4.99	6.27	64.22	(1.28)	0.07	58.02	4.92	(1.90)
3rd Qtr	50.22	14.49	10.77	12.18	(2.41)	46.50	3.72	3.89	50.39	(0.17)	(2.16)	44.34	5.88	(0.58)
4th Qtr	43.46	8.54	5.49	6.65	(1.99)	42.16	1.30	2.11	44.27	(0.81)	(5.11)	37.05	6.41	(0.94)
YTD	**52.35**	**10.67**	**9.11**	**9.70**	**(2.39)**	**48.76**	**3.59**	**3.74**	**52.50**	**(0.15)**	**(2.51)**	**46.25**	**6.10**	**(1.02)**

Gross Margin Indicator Calculation Based on Actuals

	(A) Crude Throughput (mmbbls)	(B) Non-Crude Throughput (mmbbls)	(C) Total Throughput (mmbbls) (A) + (B)	(D) LLS 6-3-2-1 Crack Spread ($MM) (C) x Col 4	(E) RIN/CBOB Crack Adjustment ($MM) (C) x Col 5	(F) Sweet/Sour Differential ($MM) (A) x Col 13 x (M)	(G) LLS Prompt vs WTI Prompt ($MM) (A) x Col 7 x (N)	(H) LLS Prompt vs Delivered ($MM) (A) x Col 10 x [1-(M)-(N)]	(I) Market Structure ($MM) (A) x Col 14 x (h)	(J) Gross Margin Indicator ($MM) Sum of (D) thru (I)	(K) Reported Gross Margin* ($MM)	(L) Reported vs. Indicator Other Gross Margin ($MM) (K) - (J) (Detail Below)	(M) Sour Crude Oil Throughput Percentage	(N) WTI- Priced Crude Oil Throughput Percentage
1Q15	150	16	167	1,615	(439)	596	126	58	82	2,038	2,676	638	56%	20%
2Q15	163	15	178	1,819	(453)	438	158	(54)	255	2,163	2,622	459	55%	19%
3Q15	160	15	176	2,142	(423)	527	122	(6)	76	2,438	3,021	583	56%	20%
4Q15	151	18	169	1,124	(336)	534	40	(30)	112	1,444	2,132	688	55%	20%
1Q16	146	16	161	747	(485)	604	44	2	199	1,111	1,593	482	61%	18%
2Q16	157	15	172	1,316	(567)	665	58	(8)	177	1,641	2,188	547	61%	21%
3Q16	165	12	177	1,431	(669)	607	52	(5)	108	1,524	1,891	367	59%	20%
4Q16	154	13	167	1,230	(651)	581	36	(4)	87	1,279	1,883	604	61%	18%
1Q17	136	18	154	1,188	(458)	619	32	1	89	1,471	1,791	320	67%	15%
2Q17	170	14	184	1,690	(638)	573	70	2	62	1,759	2,084	325	62%	20%

Reported vs. Indicator Variance Explanation | Other Gross Margin

	Reported vs. Indicator ($MM)	Crude Related ($MM)	Product Related ($MM)	Volumetric Gains ($MM)
1Q15	638	(318)	813	143
2Q15	459	(384)	640	203
3Q15	583	(407)	798	192
4Q15	688	(282)	822	148
1Q16	482	(511)	864	129
2Q16	547	(336)	697	186
3Q16	367	(418)	624	161
4Q16	604	(295)	759	140
1Q17	320	(439)	538	221
2Q17	325	(503)	631	197

(a) Prompt Price represents calendar workday average of prices quoted that month for crude delivered in immediately following month(s).

(b) Crack Spread Calculation: Chicago = ((Chicago 87 Octane Gasoline x 3 + Chicago Ultra Low Sulfur Distillate x 2+ USGC 3% Residual Fuel Oil)/6) - LLS Prompt Price
USGC = ((U.S. Gulf Coast (USGC) 87 Octane Gasoline x 3 + USGC Ultra Low Sulfur Distillate x 2+ USGC 3% Residual Fuel Oil)/6) - LLS Prompt Price

All prices and differentials listed are in Dollars per Barrel
Data Sources: NYMEX, Argus, and MPC Estimate

(c) Blended Chicago/USGC crack spread was 38%/62% for 2015, and is 40%/60% in 2016 based on MPC's refining capacity by PADD in each period.

(d) Represents the market cost of Renewable Identification Numbers (RINs)(credits needed to meet an EPA-specific Renewable Volume Obligation) for attributable products and the difference between 87 Octane Gasoline and 84 Octane CBOB Gasoline.

(e) Represents differential (versus Prompt WTI) for the trade month period beginning with the 26th calendar day two months prior to the prompt month through the 25th day one month prior to the prompt month (see next page for Prompt LLS versus LLS Delivered Cost calculation).

(f) Delivered differentials per footnote (e), with the exception of the Maya delivered differential which is calculated on a prompt calendar month basis. MPC's typical sour crude oil basket consists of the following crudes: Arab Light, Kuwait, Maya, Western Canadian Select, Mars.

(g) Delivered Cost is based on WTI Prompt Price plus each respective grade's delivered differential and does NOT include market structure or other expenses such as transportation, demurrage, etc. Market structure effects are calculated as a separate adjustment (see column 14 and (I) above).

(h) Delivered month market structure (roll). Negative values represent contango and positive values represent backwardation. For 2017 approximately 65% of MPC's crude oil acquisition volume uses market structure in its acquisition price formula. In 2015 and 2016 the formula factor utilized was 75%.

* R&M Reported Gross Margin excludes non-cash LCM inventory valuation benefit / (charges) of $360 MM, ($15 MM) and ($345 MM) in 2Q 2016, 1Q 2016 and 4Q 2015, respectively. Prior period information for gross margin has been recast in connection with the contribution of certain pipeline assets to MPLX on March 1, 2017.

Prompt LLS versus Calendar Month Average (CMA) Delivered Cost example

	1	2	3	4		5	
		Spot LLS	**Spot WTI**	**Spot LLS-WTI Differential**		**NYMEX WTI**	
1	09/26/11	106.94	80.24	26.70		80.24	1
2	09/27/11	109.58	84.45	25.13		84.45	2
3	09/28/11	106.29	81.21	25.08		81.21	3
4	09/29/11	106.14	82.14	24.00		82.14	4
5	09/30/11	103.93	79.20	24.73		79.20	5
6	10/03/11	103.49	77.61	25.88		77.61	6
7	10/04/11	102.27	75.67	26.60		75.67	7
8	10/05/11	106.06	79.68	26.38		79.68	8
9	10/06/11	108.52	82.59	25.93		82.59	9
10	10/07/11	109.31	82.98	26.33		82.98	10
11	10/10/11	111.89	85.41	26.48		85.41	11
12	10/11/11	113.59	85.81	27.78		85.81	12
13	10/12/11	114.72	85.57	29.15		85.57	13
14	10/13/11	113.06	84.23	28.83		84.23	14
15	10/14/11	115.58	86.80	28.78		86.80	15
16	10/17/11	113.58	86.38	27.20		86.38	16
17	10/18/11	113.94	88.34	25.60		88.34	17
18	10/19/11	111.66	86.11	25.55		86.11	18
19	10/20/11	113.10	85.30	27.80		85.30	19
20	10/21/11	115.51	87.23	28.28		87.40	20
21	10/24/11	115.92	91.09	24.83		91.27	21
22	10/25/11	114.88	93.00	21.88		93.17	22
23	Trade Day Average	**110.45**	**84.14**	**26.31**	**November Trade Month (Sep 26 - Oct 25)**	**84.16**	23
24	10/26/11	110.55	90.20	20.35		90.20	24
25	10/27/11	114.59	93.96	20.63		93.96	25
26	10/28/11	112.62	93.32	19.30		93.32	26
27	10/31/11	111.79	93.19	18.60		93.19	27
28	Calendar Work Day Average	111.74	86.40	**25.34**	**October Calendar Month Average**	86.43	28
29	11/01/11	110.27	92.19	18.08		92.19	29
30	11/02/11	110.54	92.51	18.03		92.51	30
31	11/03/11	111.52	94.07	17.45		94.07	31
32	11/04/11	112.56	94.26	18.30		94.26	32
33	11/07/11	115.47	95.52	19.95		95.52	33
34	11/08/11	116.58	96.80	19.78		96.80	34
35	11/09/11	114.29	95.74	18.55		95.74	35
36	11/10/11	114.78	97.78	17.00		97.78	36
37	11/11/11	115.74	98.99	16.75		98.99	37
38	11/14/11	113.52	98.14	15.38		98.14	38
39	11/15/11	113.95	99.37	14.58		99.37	39
40	11/16/11	114.84	102.59	12.25		102.59	40
41	11/17/11	110.32	98.82	11.50		98.82	41
42	11/18/11	109.91	97.41	12.50		97.41	42
43	11/21/11	108.03	96.68	11.35		96.92	43
44	11/22/11	108.51	97.71	10.80		98.01	44
45	11/23/11	107.77	95.87	11.90		96.17	45
46	11/25/11					96.77	46
47	Trade Day Average	**112.29**	**95.96**	**16.33**	**December Trade Month (Oct 26 - Nov 25)**	96.03	47
48	11/28/11	109.91	98.21	11.70		98.21	48
49	11/29/11	112.49	99.79	12.70		99.79	49
50	11/30/11	111.91	100.36	11.55		100.36	50
51	Calendar Work Day Average	**112.14**	**97.14**	**15.00**	**November Calendar Month Average**	**97.16**	51
52				LLS-WTI November Trade Month Differential		**26.31**	52
53				November Delivered LLS Value		**123.47**	53
54				November Prompt LLS Value		**112.14**	54
55				**November Prompt - November CMA Delivered** (excludes market structure adjustment)		**(11.33)**	55

Market Structure Example

	1	2	3	4	5	6
	NYMEX 1 Month Out	**NYMEX 2 Months Out**	**NYMEX 3 Months Out**			
09/21/2011	85.92000	86.18000	86.46000			
09/22/2011	80.51000	80.75000	80.99000			
09/23/2011	79.85000	80.12000	80.40000			
09/26/2011	80.24000	80.48000	80.73000			
09/27/2011	84.45000	84.68000	84.94000			
09/28/2011	81.21000	81.46000	81.73000			
09/29/2011	82.14000	82.34000	82.55000			
09/30/2011	79.20000	79.33000	79.46000			
10/03/2011	77.61000	77.83000	78.04000			
10/04/2011	75.67000	75.87000	76.07000			
10/05/2011	79.68000	79.83000	79.96000			
10/06/2011	82.59000	82.80000	82.93000			
10/07/2011	82.98000	83.17000	83.25000			
10/10/2011	85.41000	85.59000	85.67000			
10/11/2011	85.81000	86.01000	86.16000			
10/12/2011	85.57000	85.78000	85.95000			
10/13/2011	84.23000	84.45000	84.63000			
10/14/2011	86.80000	87.00000	87.10000			
10/17/2011	86.38000	86.62000	86.80000			
10/18/2011	88.34000	88.53000	88.68000			
10/19/2011	86.11000	86.29000	86.43000			
10/20/2011	85.30000	86.07000	86.21000			
Average	83.00000	83.23545	83.41545			

				Col 4 x Col 5
NYMEX Month 1 Average vs NYMEX Month 2 Average	(0.24)	66.67%	(a)	**(0.16)**
NYMEX Month 1 Average vs NYMEX Month 3 Average	(0.42)	33.33%	(b)	**(0.14)**
			November Market Structure =	**(0.30)** (c)

Note: The November NYMEX contract is prompt from September 21 through October 20.

(a) The December NYMEX contract closes on November 20. Therefore, for 14 out of 21 trade days in November, the December contract is traded as the prompt month.

(b) The January NYMEX contract begins trading on November 21. For 7 out of 21 trade days in November, the January contract is traded as the prompt month.

(c) Positive Market Structure value indicates backwardated market, while negative value indicates a contango market.