Platts

S&P Global Commodity Insights

North American Crude and Products Scan

Volume 10 / Issue 144 / August 1, 2023

US Gulf Coast waterborne

			Change		RVP	Ivial
Gasoline (¢/gal) (PGA page 330) Inl 87	PGACU00	293.00-293.10	293.050 -4.250	PGACURV	9.0	
nl 89					9.0	Plat
1189 1193	PGAAZ00 PGAIX00	307.60-307.70 329.50-329.60	307.650 -3.650 329.550 -2.750	PGAAZRV PGAIXRV	9.0	
30B 87*	AAWES00	273.75-273.85	273.800 -4.250	AAWESRV	10.0	
	AAWES00	2/3./0-2/3.00	2/3.000 -4.200	AAWESKV	10.0	
RVP after 10% ethanol blend						m
iddle Distillates (¢/gal) (PGA page						
et Kero 54	PJABM00	292.04-292.14	292.090 +1.290			
et Kero 55	PJABN00	293.04-293.14	293.090 +1.290			V V
et Kero ULS LSD	AAVTK00	303.04-303.14	303.090 +1.290 298.390 +3.890			M
_SD asoil No.2	AATGZ00 POAEE00	298.34-298.44 273.29-273.39	298.390 +3.890 273.340 +4.290			
		2/3.29-2/3.39	273.340 +4.290			strer
eavy Ends (\$/barrel) (PGA page 51		400 75 400 77	400 700 .0 (00			has s
lurry	PPAPW00	109.75-109.77	109.760 +3.400			
esid 1% SGC HSFO	PUAAI00	88.83-88.85 82.50-82.52	88.840 +4.400 82.510 +3.400			those
MG 380	PUAFZ00 PUBDM00	82.50-82.52	82.510 +3.400			PI
iviu 500	PUDDM00	02.00-02.02	02.010 T0.400			
IS Blendstocks (¢/gal) (P	GF page 760))				cent to ca
SGC FOB Cargo			Change			
aphtha	AAXJP00	157.20-157.30	157.250 -2.500			hear
aphtha (\$/mt)	AAXJU00	594.36-594.46	594.410 -9.450			for N
aphtha USGC vs Naphtha MOPJ (\$/	(mt) ANAPD00		-47.750 +0.250			
apan Cargo Financial Naphtha at I	Houston close	e (\$/mt)				diffe
OPJ strip	ANAPE00		642.250 -9.500			conti
aphtha C+F BalMo	ANABM00		649.000 +57.750			
aphtha C+F Mo01	ANAPA00		645.000 -11.500			earlie
aphtha C+F Mo02	ANAPB00		642.250 -10.500			2023
aphtha C+F Mo03	ANAPC00		640.000 -10.500			
SGC Cargo						prem
enzene	PHAAE00	329.95-330.05	330.000 0.000			mont
	FHAAE00	020.00-000.00	0.000 0.000			mon
SGC DAP Parcel (¢/gal)						throu
				vs Mt Belv	vieu Enterprise natural gaso	a lin a
ight Straight Run Naphtha	AAXQK00		157.250 -2.500	AAXQN00	5.250 0.000	The The
ght Straight Run Naphtha (\$/mt)	AAXQM00		630.570 -10.030			sour
SGC Barge (¢/gal)					NYMEX	outp
aphtha		100.05 100.05	100 000 15 750	AREFD00 -		1 mill
aphtha	AALPG00	182.25-182.35 185.25-185.35	182.300 +5.750 185.300 +5.750			
eavy Naphtha ITBE	AALPI00 PHAKY00	305.58-305.68	305.630 -2.250	AREFC00 - 2	102.000 +0.000	wide
/lene	PHAK Y00 PHBHN00	423.95-424.05	424.000 0.000			Addi
bluene	PHAAR00	420.95-421.05	421.000 0.000			Auui
Juono	FRARUU	420.30-421.00	₩21.000 0.000			Russ
AP USGC barge (¢/gal)						
						vs USGC water 87 unleaded
lkylate	AAXBA00		348.800 -2.250	AREFA00	61.500 0.000	AAFIE00 55.750
			040 550 0.050		70 750 0 000	

210.550

383.300

-2.250

-2.250

AREFB00

AREFE00

-76.750

96.000

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Market Commentary

Platts US Pipeline Crude Daily Commentary

- Mars, sour grades strengthen on day as sours market remains tight
- WTI MEH/Midland spread narrows to just 10 cents/b Medium sour crude grades on the US Gulf Coast strengthened on August 1 as tight global sours supply has supported differentials for higher sulfur grades like those produced in the US Gulf of Mexico

Platts assessed medium sour crude Mars 25 cents/b stronger on the day at an 80 cents/b premium to cash WTI, the value at which the grade was last heard to trade. After seeing front-month differentials for Mars crude at over three-year highs in early July, differentials, though down from the recent peak have continued to remain relatively strong compared to earlier in the year. Through start of the second half of 2023, front-month Mars crude has averaged a \$1.28/b premium to cash WTI, compared to an average frontmonth differential of a \$1.06/b differential averaged through the first half of 2023.

The strong differentials come as global supply of sour crudes have seen tightness as OPEC+ has cut output quotas, while Saudi Arabia instituted a further 1 million b/d output cut for July and August and are widely expected to continue the cuts into September. Additional supply tightness has come from lower Russian exports, 470,000 b/d of shutter Northern Iraqi

vs USGC pipeline

AAXBD00

AAXBE00

AAXBF00

+2.000

+2.000

AA.IMI IQQ

AAJMV00

-82.500

90.250

87 unleaded

61.990

76.260

96.490

+1.020

+1.020

+1.020

AAXBROO

AAXBC00

Raffinate

Reformate

crude exports among other factors. On the demand side, the US Department of Energy is poised to purchase 6 million barrels of US sour crude for October and November deliveries to the strategic petroleum reserve.

Thunder Horse crude, the most premium of the Gulf of Mexico sour grades, was assessed 30 cents/b stronger at a \$2.40/b premium to cash WTI, the value at which the grade was last heard to trade.

While sour grades moved stronger on the day, sweet grades were assessed little changed. Light Louisiana Sweet crude was assessed unchanged on the day at a \$2.25/b premium to cash WTI, after the indications heard for the grade failed to test the previous assessment.

West Texas Intermediate crude at the Magellan East Houston terminal, meanwhile, was assessed 5 cents/b weaker on the day at a \$1.30/b premium to cash WTI, the value at which the grade was last heard to trade.

But while WTI MEH moved 5 cents/b weaker on the day, WTI crude in Midland, Texas, was assessed unchanged at a \$1.20/b premium to cash WTI following the last heard trade for the grade prior to the 1:30 pm CT assessment deadline.

Platts is a part of S&P Global Commodity Insights.

Platts US Gulf Coast Export Crude Daily Commentary

- WTI FOB weakens against ICE Brent, WTI MEH
- Brent-WTI swaps spread hits narrowest since May 3 Platts assessed September-loading West Texas Intermediate FOB values broadly weaker against both ICE November Brent and WTI crude at the Magellan East Houston terminal on Aug. 1, amid a narrower Brent-WTI swaps spread.

Platts assessed September-loading WTI FOB crude 4 cents/b weaker against ICE November Brent at a \$1.34/b discount. Compared to WTI MEH, against which WTI FOB values are often calculated, September-

2

US Feedstocks (PGF page 764)

US Gulf Coast (¢/gal)			C	Change
VGO 0.5% vs 70/30 midpoint	PKAA000	-57.40/-57.30	-57.350	+0.460
VGO 2.0% vs 70/30 midpoint	PKAAS00	-59.79/-59.69	-59.740	+0.450
US Atlantic Coast (¢/gal)				
VGO 0.5% vs 70/30 midpoint	AAJMW00	-59.19/-59.09	-59.140	+0.450
VGO 2.0% vs 70/30 midpoint	PKAAT00	-61.57/-61.47	-61.520	+0.450
US Gulf Coast (\$/barrel)				
VGO 0.5%	AAYMW00		96.51	-0.52
VGO 2.0%	AUVG000		95.51	-0.52
VGO 0.5% vs WTI M1	AAJNY00		15.140	-0.090
VGO 2.0% vs WTI M1	AAWLV00		14.140	-0.090
VGO 0.5% vs Brent M1	AVGUA00		11.600	0.000
VGO 2.0% vs Brent M1	AVGUB00		10.600	0.000
LS straight Run	AALGK00		93.510	-0.520
LS straight Run vs WTI M1	AALFS00	12.09/12.19	12.140	-0.090
LS straight Run vs WTI M2	AALFT00	12.54/12.64	12.590	-0.120
LS straight Run vs Brent M1	AVGUC00		8.600	0.000
US Atlantic Coast (\$/barrel)				
VGO 0.5%	AUVGA00		95.76	-0.52
VGO 2.0%	AUVGC00		94.76	-0.52
VGO 0.5% vs Brent M1	AVGSA00		10.850	0.000
VGO 2.0% vs Brent M1	AVGSB00		9.850	0.000
LS straight Run	AALGR00		92.760	-0.650
LS straight Run vs WTI M1	AALFU00	11.34/11.44	11.390	-0.090
LS straight Run vs WTI M2	AALFV00	11.79/11.89	11.840	-0.120
LS straight Run vs Brent M1	AVGSC00		7.850	0.000

US crudes at 16:30 London MOC close

(\$/barrel) (PGA page 124	+O)			Change
WTI M1 (Sep)	AAQAR00	81.24-81.26	81.250	-0.420
WTI M2 (Oct)	AAQAT00	80.72-80.74	80.730	-0.410
WTI M3 (Nov)	AAQAV00	80.24-80.26	80.250	-0.450
LLS M1 (Sep)	AAQBB00	83.49-83.51	83.500	-0.420
LLS M2 (Oct)	AAQBD00	82.87-82.89	82.880	-0.260
Mars M1 (Sep)	AAQAX00	81.79-81.81	81.800	-0.520
Mars M2 (Oct)	AAQAZ00	80.97-80.99	80.980	-0.210
WTI EFP* M1 (Sep)	AAQAS00	0.05/0.07	0.060	-0.020
WTI EFP* M2 (Oct)	AAQAU00	-0.01/0.01	0.000	0.000
WTI EFP* M3 (Nov)	AAQAW00	-0.01/0.01	0.000	0.000
LLS M1 v WTI M1	AAQBC00	2.24/2.26	2.250	0.000
LLS M2 v WTI M2	AAQBE00	2.14/2.16	2.150	+0.150
Mars M1 v WTI M1	AAQAY00	0.54/0.56	0.550	-0.100
Mars M2 v WTI M2	AAQBA00	0.24/0.26	0.250	+0.200
*FFP vs NYMEX light swe	eet crude fu	itures		

European feedstocks and blendstocks

•								
CIF Northwest Europe cargo (\$/mt) (PGF page 1760)								
VGO 0.5-0.6%	AAHMZ00	633.50-634.50	634.000	-3.500				
VGO 2%	AAHND00	620.75-621.75	621.250	-3.500				
FOB Northwest Europe cargo (\$/mt)								
VGO 0.5-0.6%	AAHMX00	612.50-613.50	613.000	-3.750				
VGO 2%	AAHNB00	600.00-601.00	600.500	-3.500				
Straight Run 0.5-0.7%	PKABA00	576.25-577.25	576.750	+4.750				
FOB Black Sea cargo (\$/	mt)							
VGO 0.8%	ABBAD00		619.250	-3.750				
VGO 2%	ABBAC00		610.750	-3.750				
CIF Mediterranean cargo	o (\$/mt)							
Straight Run 0.5-0.7%	AAJNT00		585.000	+1.000				
VGO 0.8%	ABBAB00		635.750	-3.500				
VGO 2%	ABBAA00		627.000	-3.750				
FOB Rotterdam barge (\$	/mt)							
MTBE*	PHALA00	1252.75-1253.25	1253.000	+12.750				
VGO 0.5-0.6%	AAHNF00	608.00-609.00	608.500	-3.750				
VGO 2%	AAHNI00	595.50-596.50	596.000	-3.500				
*FOB Amsterdam-Rotterdam-Antwerp.								

Blend value

(¢/gal) (PGF page 760)			Change
MTBE	AATAR00	130.03	+5.510
Alkylate	AASFE00	47.05	+1.220
Raffinate	AATAS00	-150.00	-6.780
Reformate	AASFG00	117.09	+3.170
Xylene	AASFH00	129.26	+3.670
Toluene	AASFI00	126.88	+3.670

US Gulf Coast FOB cargo

Middle Distillates (¢/g	al) (PGA page 156)	Change
Export ULSD	AAXRV00	279.750 +3.520
Export ULSD (\$/mt)	AAXRW00	875.340 +11.020

US Gulf Coast Benchmarks

US Gulf Coast (¢/gal) (PGF page 752)

oo aan ooaor (ii gal) (i ar pago i oz)			
No. 2 Waterborne	POAEE00	273.340	
Gasoline Waterborne	PGACU00	293.050	
70-30 Midpoint*	AAJNW00	287.137	
US Gulf Coast Barge (¢/gal)			
Naphtha vs USGC unleaded gasoline	AASGZ00	-110.750	
Heavy naphtha vs USGC unleaded gasoline	AASHD00	-107.750	
US Gulf Coast (\$/barrel)			
WTI Cushing M2 (Oct)	PCACH00	80.920	
Naphtha vs WTI	AAJND00	-4.354	
No. 2 vs. USGC HSF0	AAJNZ00	32.293	
Straight run vs. USGC VGO	AAJNE00	-3.451	
HS VGO vs Maya**	AASHB00	15.455	
Naphtha vs Maya	AASHA00	-0.174	
3-2-1 settlement (Sep –Sep)	AAJNX00	41.400	
3-2-1 2:30pm ET	AAUHD00	41.470	

* ¢/gal prices converted to barrels before comparison. ** Differential reached by taking VGO differential to 70-30 midpoint, calculating outright price, converting it to barrels, and comparing to WTI or Maya.

US Crudes at 2:30 PM Eastern Time

(\$/barrel) (PGA page 210)				Change
Platts AGS	AGSAA00		83.230	-0.530
WTI FOB USGC Decades Average	ADECA00		83.130	-0.550
WTI M1 (Sep)	PCACG00	81.42-81.44	81.430	-0.450
WTI M2 (Oct)	PCACH00	80.91-80.93	80.920	-0.400
WTI M3 (Nov)	AAGIT00	80.45-80.47	80.460	-0.380
Light Houston Sweet	AAXEW00		82.730	-0.500
Light Houston Sweet M2	AAYRY00		82.170	-0.400
LOOP Sour (Sep)	AALSM01		82.130	-0.200
LOOP Sour (Oct)	AALSM02		81.070	-0.100
LOOP Sour (Nov)	AALSM03		80.510	-0.080
Americas Crude Marker M1 (Sep)	AAQHN00	81.57-81.59	81.580	-0.200
Americas Crude Marker M2 (Oct)	AAQH000	80.51-80.53	80.520	-0.100
Americas Crude Marker M3 (Nov)	AAQHP00	79.95-79.97	79.960	-0.080

3

(\$/barrel) (PGA page 210)				Change
Mars M1 (Sep)	AAMBR00	82.22-82.24	82.230	-0.200
Mars M2 (Oct)	AAMBU00	81.16-81.18	81.170	-0.100
Mars M3 (Nov)	AAMBX00	80.60-80.62	80.610	-0.080
P-5 WTI Average*	AAFEN00		77.870	-0.450
WTI EFP (Sep)	AAGVT00	0.05/0.07	0.060	-0.020
WTI EFP (Oct)	AAGVU00	-0.01/0.01	0.000	0.000
Mars/WTI M1 (Sep)	AAGWH00	0.79/0.81	0.800	+0.250
Mars/WTI M2 (Oct)	AAKTH00	0.24/0.26	0.250	+0.300
Mars/WTI M3 (Nov)	AAMB000	0.14/0.16	0.150	+0.300
WTI P-Plus	PCACI00	4.04/4.06	4.050	-0.060
WTI-Delta	AAEJK00	0.66/0.68	0.670	-0.060

*P-5 WTI Average is a crude oil postings-based index. Posted prices by the following companies are used in the index: ConocoPhillips, Plains, Energy Transfer, Shell and Valero. The index will not be calculated until all postings are submitted each day. If a posting is submitted the following day the P-5 WTI Average will update in the database.

Crudes (\$/barrel) (PGA page 214)

Ciuues (\$/ Dailel) (i UA page 214)									
WTI Midland	PCACJ00	82.62-82.64	82.630	-0.450	WTI Midland vs WTI M1	AAGVZ00	1.19/1.21	1.200	0.000
WTI Midland M2	AAYZA00		82.020	-0.400	WTI Midland M2 vs WTI M2	AAXXF00		1.100	-0.400
LLS M1	PCABN00	83.67-83.69	83.680	-0.450	LLS M1 vs WTI M1	AAGWN00	2.24/2.26	2.250	0.000
LLS M2	AAURC00	83.06-83.08	83.070	-0.250	LLS M2 vs WTI M2	AAURD00	2.14/2.16	2.150	+0.150
HLS M1	PCABD00	83.47-83.49	83.480	-0.450	HLS M1 vs WTI M1	AAGWP00	2.04/2.06	2.050	0.000
HLS M2	AAURE00	82.86-82.88	82.870	-0.250	HLS M2 vs WTI M2	AAURF00	1.94/1.96	1.950	+0.150
WTS Midland M1	PCACK00	81.52-81.54	81.530	-0.450	WTS Midland M1 vs WTI M1	AAGWB00	0.09/0.11	0.100	0.000
WTS Midland M2	AAURG00	81.26-81.28	81.270	-0.400	WTS Midland M2 vs WTI M2	AAURH00	0.34/0.36	0.350	0.000
WTI MEH	AAYRG00		82.730	-0.500	WTI MEH VS WTI M1	AAYRH00		1.300	-0.050
WTI MEH M2	AAXXE00		82.170	-0.400	WTI MEH M2 vs WTI M2	AAYYA00		1.250	0.000
Poseidon	AABHK00	81.72-81.74	81.730	-0.200	Poseidon vs WTI M1	AAGWL00	0.29/0.31	0.300	+0.250
Thunder Horse	AAWZK00	83.82-83.84	83.830	-0.150	Thunder Horse vs WTI M1	AAWZL00	2.39/2.41	2.400	+0.300
Wyoming Sweet	PCACM00	80.27-80.29	80.280	+0.150	Wyoming Sweet vs WTI M1	AAGWR00	-1.16/-1.14	-1.150	+0.600
Bonito	PCAIE00	82.07-82.09	82.080	-0.200	Bonito vs WTI M1	AAGWF00	0.64/0.66	0.650	+0.250
SGC	AASOI00	81.57-81.59	81.580	-0.200	SGC vs WTI M1	AASOJ00	0.14/0.16	0.150	+0.250
ANS (California)	PCAAD00	86.38-86.42	86.400	-0.960	ANS vs NYMEX WTI CMA	AAGWX00	6.08/6.10	6.090	-0.120
					ANS vs ICE BRENT CMA	AANSA00		2.397	-0.005
WTI CMA	AAVSN00		80.760	-0.390					
Bakken Williston	AAXPP00		81.510	-0.740	Bakken Williston vs NYMEX WTI CMA	AASRX00		0.750	-0.350
Bakken Guernsey	AASRR00	80.25-80.27	80.260	+0.110	Bakken Guernsey vs NYMEX WTI CMA	AASRV00	-0.51/-0.49	-0.500	+0.500
Bakken Clearbrook	AASRU00	82.65-82.67	82.660	-1.740	Bakken Clearbrook vs NYMEX WTI CMA	AASRW00	1.89/1.91	1.900	-1.350
Bakken USGC Pipe	ABAKA00		82.960	-0.540	Bakken USGC pipe vs NYMEX WTI CMA	ABAKB00		2.200	-0.150
Eagle Ford Marker	AAYAJ00		79.900	-0.510					
		FOB USGC					FOB USGC		
Platts AGS	AGSAA00		83.230	-0.530	Platts AGS vs NYMEX WTI strip	AGSAC00		2.230	-0.110
Bakken	ABAKC00		83.230	-0.530	Bakken vs NYMEX WTI strip	ABAKD00		2.230	-0.110
Eagle Ford Crude	AAYAT00		82.330	-0.530	Eagle Ford Crude vs NYMEX WTI strip	AAYAU00		1.330	-0.110
Eagle Ford Condensate	AAYAR00		80.830	-0.530	Eagle Ford Condensate vs NYMEX WTI strip	AAYAS00		-0.170	-0.110
WTI	AAYBA00		83.230	-0.530	WTI vs NYMEX WTI strip	AAYAZ00		2.230	-0.110
WTI FOB USGC Decades Average	ADECA00		83.130	-0.550	Platts AGS vs Dated Brent strip	AGSAB00		-1.800	-0.250
WTI FOB USGC First Decade	ADECB00		83.130	-0.550	Bakken vs Dated Brent strip	ABAKE00		-1.800	-0.250
WTI FOB USGC Second Decade	ADECE00		83.130	-0.550	Eagle Ford Crude vs Dated Brent strip	AEFCA00		-2.700	-0.250
WTI FOB USGC Third Decade	ADECH00		83.130	-0.550	Eagle Ford Condensate vs Dated Brent strip	AEFCB00		-4.200	-0.250
					WTI vs Dated Brent strip	AWTUA00		-1.800	-0.250

loading WTI FOB was assessed 5 cents/b weaker at a 40 cents/b premium. This came as a first decade September-loading WTI FOB cargo was heard offered at a \$1.30/b discount to ICE November Brent on Aug. 1. A third decade September-loading cargo was also heard offered at a 45 cents/b premium to WTI MEH Aug. 1.

The Brent-WTI swaps spread, one indicator of the competitiveness of US crude on the international market, narrowed 9 cents/b on Aug. 1 to \$3.68/b, the narrowest the swaps spread has been since May 3 when it also was at \$3.68/b. As the swap spread narrows, WTI-based crude are often viewed as becoming less competitive in relation to their Brentbased counterparts, thus applying pressure on values.

While it remains to be seen if the narrowing Brent-WTI swaps will cut into export volumes, the arbitrage incentive for WTI crude into Europe showed improvement at the end of July. The arbitrage incentive for WTI MEH crude into Rotterdam against local Forties averaged 46 cents/b over the last five days of July, compared to an average incentive of just 5 cents/b over the month of July, data from S&P Global Commodity Insights showed.

Platts is a part of S&P Global.

Platts Canadian Pipeline Crude Daily Commentary

- Canadian crude sees varied movements
- Gibson Energy to build two crude storage tanks at Edmonton

Canadian crude differential movements were a mixed bag Aug. 1 as more active physical trading for the September cycle began.

Platts assessed September Western Canadian Select at Hardisty, Alberta, 70 cents/b weaker over the previous day at WTI CMA minus \$14.55/b, after it was heard to trade there.

Heavy Canadian crude at Cushing and at the US

4

on ac		VS	WTI MEH	
ade	WTI FOB USGC First Decade	ADECD00	0.400	-0.050
ffered	WTI FOB USGC Second Decade	ADECG00	0.400	-0.050
0	WTI FOB USGC Third Decade	ADECJ00	0.400	-0.050
		vs Dat	ed Brent basis	
was	WTI FOB USGC First Decade	ADECC00	-1.580	-0.010
WTI	WTI FOB USGC Second Decade	ADECF00	-1.580	-0.010
	WTI FOB USGC Third Decade	ADECI00	-1.580	-0.010
		vs IC	E Brent basis	
of the	WTI FOB USGC First Decade	ADECK00	-1.340	-0.040
nal	WTI FOB USGC Second Decade	ADECL00	-1.340	-0.040
iui	WTLEOB USGC Third Decade	ADECM00	-1.340	-0.040

 WTI FOB USGC Third Decade
 ADECM00
 -1.340
 -0.040

 Global Benchmarks at US Close
 AAQBF00
 85.39-85.41
 85.400
 -0.250

Canadian crudes

Terra Nova

White Rose

(\$/barrel) (PGA page 214)

				Change				Change
Canada pipeline crudes	(\$/barrel) (PG	A page 230)						
						vs WTI CMA		
Lloyd Blend	AALRK00	66.900-66.920	66.910	-1.090	AALRP00	-13.860/-13.840	-13.850	-0.700
Mixed Sweet	AALRR00	78.150-78.170	78.160	-0.740	AALRV00	-2.610/-2.590	-2.600	-0.350
Light Sour Blend	AALRX00	77.950-77.970	77.960	-0.540	AALSD00	-2.810/-2.790	-2.800	-0.150
Midale	AAUCC00	75.850-75.870	75.860	-0.540	AAUCE00	-4.910/-4.890	-4.900	-0.150
Condensates	AALSF00	76.500-76.520	76.510	+0.060	AALSJ00	-4.260/-4.240	-4.250	+0.450
Syncrude Sweet Prem.	AASOKØØ	84.000-84.020	84.010	-0.140	AASOM00	3.240/3.260	3.250	+0.250
WCS Hardisty	AAPPN00	66.200-66.220	66.210	-1.090	AAPPP00	-14.560/-14.540	-14.550	-0.700
WCS ex-Cushing	AAWTY00	74.850-74.870	74.860	-0.540	AAWTZ00	-5.910/-5.890	-5.900	-0.150
WCS ex-Nederland	AAYAY00		76.010	-0.540	AAYAX00		-4.750	-0.150
Cold Lake Hardisty	AASZX00	66.050-66.070	66.060	-1.090	AASZZ00	-14.710/-14.690	-14.700	-0.700
Eastern Canada (\$/barre	el) (PGA page	230)						
					vs (Canada Dated Brent s	trip	
Hebron	AHEBA00		86.130	-0.655	AHEBC00		1.600	-0.150
Hibernia	AAJKK00	86.360-86.400	86.380	-0.655	AAJKM00	1.840/1.860	1.850	-0.150

-0.655

-0.655

85.480

86.530

Change

S&P Global Commodity Insights forex assessment

AAJUH00

AAV.IX00

85.460-85.500

86.510-86.550

CAD.USD at US close	CADUS00	0.7526
CAD.USD at London close	CADUD00	0.7522

Alaska crude production/inventories

Effective date: 30-Jul-23 (PG	Effective date: 30-Jul-23 (PGA page 258)										
		b/d	Change								
Total Alaska North Slope	TANSB00	387,773	+9,613								
Prudhoe Bay	PBBPD00	258,918	-1,403								
Kuparuk	TAKBD00	96,643	-2,572								
Lisburne	TALBD00	18,340	-284								
Alpine	TAABD00	13,872	+13,872								
		barrels	Change								
Valdez inventories	VIBPD00	2,530,050	+323,696								
	(D T	B									

Source: Alaska Department of Revenue, Tax Division

Canadian crudes

AAJUJ00

AAVJY00

Canada pipeline crudes	(C\$/cu m)	(PGA page 232)		Change
Lloyd Blend	AALRM00	559.108-559.275	559.192	-4.095
Mixed Sweet	AALRT00	653.129-653.296	653.212	-0.366
Light Sour Blend	AALRZ00	651.457-651.624	651.541	+1.276
Midale	AAUCD00	633.907-634.074	633.990	+1.121
Condensates	AALSH00	639.339-639.506	639.423	+6.140
Syncrude Sweet Prem.	AASOL00	702.019-702.187	702.103	+5.036
WCS Hardisty	AAPP000	553.258-553.425	553.342	-4.146
WCS ex-Cushing	AAWUA00	625.549-625.717	625.633	+1.047
Cold Lake Hardisty	AASZY00	552.005-552.172	552.088	-4.158

0.940/0.960

1.990/2.010

Change

-0.150

-0.150

0.950

2.000

Eastern Canada (PGA page 232)

Eastonn sanaaa (i si i pa	.go _o_,			
Hebron	AHEBB00		720.203	+2.159
Hibernia	AALSN00	722.127-722.461	722.294	+2.182
Terra Nova	AALSP00	714.601-714.935	714.768	+2.102
White Rose	AAVPI00	723.381-723.715	723.548	+2.195

Note: barrel to cubic meter conversion factor is 6.28976

Change

Gulf Coast also felt pressure, with Platts assessing both grades 15 cents/b weaker on the day at WTI CMA minus \$5.90/b and WTI CMA minus \$4.75/b, respectively, based on market indications.

The sweeter Canadian grades moved in opposite directions, with Platts assessing Mixed Sweet at Edmonton 35 cents/b weaker on the day at WTI CMA minus \$2.60/b, after it was heard to trade there, and Syncrude Sweet Premium at Edmonton 25 cents/b stronger on the day at WTI CMA plus \$3.25/b, based on market indications. Condensate at Fort Saskatchewan also climbed over the previous day, with Platts assessing it 45 cents/b stronger over the previous day at WTI CMA minus \$4.25/b, after it was heard to trade there.

Midstream Canadian energy company Gibson has signed an agreement with Cenovus Energy to construct two new 435,000-barrel crude oil storage tanks in Edmonton, Alberta, with the goal of shipping additional crude on the Trans Mountain Expansion pipeline, a senior Gibson official said Aug. 1. The tanks are anticipated to be put into service toward the end of 2024. The company's CEO Steve Spaulding said that Gibson will also commission another tank with a storage capacity of 435,000 barrels at Edmonton during the fourth quarter of 2023, without naming the customer.

Platts is part of S&P Global Commodity Insights.

Platts European Feedstocks Daily Commentary

- VGO supply balances tighter in Med
- Northwest European market weaker

European vacuum gasoil differentials remained flat Aug. 1 amid unchanged fundamentals, with illiquidity continuing to hover over the market.

As August approached, that leaves just one more month for the summer driving season to potentially

5

spur greater demand for VGO to be upgraded into road fuels.

So far, this seasonal upside has been slower to materialize in European VGO markets due to a mixture of longer-than-expected and unplanned refinery outages denting demand, as well as some heat-wave related issues for secondary refining units.

Traders with a view on the Mediterranean market have said they anticipate a more bullish price outlook in August to come due to the tight surrounding fundamentals, while market sources in Northwest Europe have said that any theoretical upside has yet to materialize in the region and that balances are currently well supplied and liquidity remains muted.

The ongoing vacuum distillation unit outrage at Shell's Rotterdam refining complex has resulted in reduced VGO production and supply in Northwest Europe, but sources have not observed much of an market impact from this outage.

Platts NW Europe Fuel Oil SR 0.5-0.7%S Daily Rationale & Exclusions

Straight Run 0.5-0.7%S FOB NWE cargo <PKABA00> assessment rationale:

The LSSR FOB NWE differential was assessed 40 cents/b above October Brent crude futures, as the low sulfur complex strengthened. The outright LSSR price was derived using the dollars per barrel to metric ton conversion factor of 6.77 for LSSR. No bids or offers were reported in the Platts Market on Close assessment process.

Exclusions: None

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US MTBE: Outright price moves lower with RBOB

- Differential stable on the day
- Outright falls from 3-month high

NYMEX front-month Light Sweet Crude



Futures prices

NYMEX Settlements (PGA page 701)

		¢/gal
NYMEX NY ULSD (Sep)	AAHS001	302.34
NYMEX NY ULSD (Oct)	AAHS002	298.95
NYMEX NY ULSD (Nov)	AAHS003	294.14
NYMEX RBOB (Sep)	AARS001	287.30
NYMEX RBOB (Oct)	AARS002	261.36
NYMEX RBOB (Nov)	AARS003	249.87
		\$/barrel
NYMEX Crude (Sep)	AAWS001	81.37
NYMEX Crude (Oct)	AAWS002	80.92
NYMEX Crude (Nov)	AAWS003	80.46
ICE futures assessments		
		\$/barrel
Brent (Oct)	AAQBG00	84.91
Brent (Nov)	AAQBH00	84.47
Brent (Dec)	AAXZZ00	84.02
Brent (Jan)	AAYAL00	83.54
Midland WTI Gulf Coast (Sep)	IH0U001	82.68
Midland WTI Gulf Coast (Oct)	IH0U002	82.18
Midland WTI Gulf Coast (Nov)	IHOU003	81.67
Midland WTI Gulf Coast (Dec)	IHOU004	81.19

US MTBE price moved lower Aug. 1 alongside the underlying gasoline futures contract, against a stable differential.

Platts assessed MTBE unchanged at NYMEX September RBOB plus 18.33 cents/gal. The Outright price fell 2.25 cents to 305.63 cents/gal, the first time for price to move lower on the day since July 25.

September RBOB settled 2.25 cents lower at 287.30 cents/gal.

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Platts US MTBE Daily Rationale

Platts assessed US Gulf Coast spot MTBE 2.25 cents lower on the day Aug. 1 at 305.63 cents/gal FOB USG.

The MTBE differential to forward-month September RBOB was stable at plus 18.33 cents/gal.

No bids, offers or trades were reported during the Platts Market on Close assessment process.

September RBOB settled 2.25 cents lower at 287.30 cents/gal.

Platts is part of S&P Global Commodity Insights.

Subscriber Notes

Platts launches assessment of Guyana's Unity Gold crude

Platts, a part of S&P Global Commodity Insights, has launched a daily assessment for Guyana's Unity Gold crude, effective Aug. 1, 2023

The assessment reflects the value of waterborne Unity Gold crude loading on an FOB basis from the Liza Unity Floating Production Storage and Offloading vessel offshore Guyana, 30 to 60 days forward. The typical cargo size is 1 million barrels.

The Unity Gold assessment is published as an outright price (Platts symbol: AUNIA00), as well as differentials to the Latin America Dated Brent strip, Latin America Brent Futures strip and Latin America WTI strip, which align with a 30-60 day loading window. In the absence of bids, offers, and trades for Unity Gold, Platts may assess the crude based on spreads to comparable grades and other market inputs. Platts may also use market information provided on a delivered basis to inform this FOB assessment.

US Crude Postings (PGA page 250)

	Plains		Shell	Energy Trans	fer	Valero	
WTI	PSADF09 77.85* C	D1Aug23 PSADI09	78.00* 01Aug23	PSADG09 78.25*	31Jul23 PS	SACS09 77.75*	01Aug23
WTS	PSAED09 76.65 C	D1Aug23 PSAEG09	78.34 01Aug23	PSAEE09 73.25	31Jul23		
LLS	PSAM009 76.35 C	D1Aug23 PSAMQ09	76.35 01Aug23	PSAMP09 76.75	31Jul23 PS	SATF09 80.35	01Aug23
Oklahoma sweet	PSUS191 77.85 C	D1Aug23 PSANX09	77.75 01Aug23	PSANW09 78.25	31Jul23		
Kansas	PSAPL09 68.20 C)1Aug23 PSUS112	70.48 01Aug23		PS	SAPE09 76.75	01Aug23
Wyoming sweet	PSAQZ09 74.95 C)1Aug23					
Eugene Island	AALBB00 73.35 C)1Aug23					
Eagle Ford				PSUS100 78.25	31Jul23		
Eagle Ford Condensate				PSUS110 66.00	30Jun23		
Eagle Ford Light	PSUS135 77.85 C)1Aug23					

	Phillips 66	Flint Hills	
WTI	PSACP09 77.99* 01Aug23	AAUQN00 78.25	31Jul23
WTS	PSAD009 77.68 01Aug23		
LLS	PSAMC09 76.74 01Aug23		
Oklahoma sweet	PSASL09 77.79 01Aug23		
Wyoming sweet		PSUS264 78.00	31Jul23
Wyoming sour		PSUS261 69.25	31Jul23

*P-5 WTI is a crude oil postings-based index as of 5:30 p.m. local New York time. Posted prices by the following companies are used in the index: Phillips66, Plains, Energy Transfer, Shell, and Valero.

Commodity Insights Analytics Yields & Netbacks, Effective August 1, 2023 (\$/barrel)

	Yield		Freight		Netback	Spot P	rice	Margin
US Atlantic Coast Crack Yie	ld & Netback (PGA p	age 811)						
Arab Light	LIACY00	107.08	TDDAU00	1.35	LIACN00 105.73	AAXCU00 8	9.48 LIACM	20 16.25
Bakken	BKACY00	113.15	TDDRN00	7.20	BKACN00 105.95	AAXPP00 8	1.51 BKACM	00 24.44
CPC Blend	CPACY00	112.40	CPAFA00	2.61	CPACN00 109.79	AALVX00 8	1.19 CPACM	28.48
Saharan Blend	SHACY00	113.11	SHAFA00	1.62	SHACN00 111.50	AAGZY00 8	5.15 SHACM	25 .33
US Gulf Coast Crack Yield &	Netback (PGA page	e 833)						
Arab Light	LIGCY00	106.36	TDDAR00	1.35	LIGCN00 105.01	AAXCU00 8	.48 LIGCM	30 15.53
Bakken	BKGCY00	109.02	TDDRP00	7.78	BKGCN00 101.24	AAXPP00 8	1.51 вкасм	00 19.73
Eagle Ford	EAGCY00	109.71				AAYAT00 82	2.33 EAGCM	00 27.38
Isthmus	ISGCY00	107.05	TDDDJ00	1.21	ISGCN00 105.85	PDAT009 79	9.34 ISGCM	26.51
LLS	LLGCY00	111.75	TDDQW00	0.55	LLGCN00 111.20	PCABN00 83	3.68 LLGCM	27 .52
WTI	WTGCY00	108.73				AAYRG00 82	2.73 WTGCM	00 26.00
US Gulf Coast Coke Yield & I	Netback (PGA page	831)						
Arab Heavy	AHGOY00	104.91	TDDAJ00	1.39	AHGON00 103.52	AAXDI00 8	9.73 AHGOM	00 13.79
Basrah Heavy	BHGOY00	101.04	BHGFA00	2.62	BHGON00 98.42	AALZC00 82	2.45 BHGOM	00 19.99
Castilla Blend	CSGOY00	100.30	CSGFA00	1.95	CSGON00 98.36	AAVEQ00 78	3.52 CSGOM	00 19.84
Mars	MRGOY00	106.58	TDDQY00	0.55	MRGON00 106.03	AAMBR00 82	2.23 MRGOM	00 23.80
Maya	MYGOY00	101.47	TDDDP00	1.26	MYGON00 100.21	PDATS09 7	6.74 мүдом	00 23.47
WCS ex-Nederland	WNGOY00	102.71	WCGFA00	0.00	WNGON00 102.71	AAYAY00 7	6.01 WNGOM	00 26.70
US Midwest Crack Yield & N	etback (PGA page 8	23)						
Bakken	BKTCY00	106.74	TDDR000	1.68	BKTCN00 105.06	AASRU00 82	2.66 BKTCM	00 22.40
Syncrude	SYTCY00	110.45	TDDFP00	8.20	SYTCN00 102.25	AASOK00 84	4.01 SYTCM	00 18.24
WTI	WTTCY00	106.73	TDDRG00	2.39	WTTCN00 104.34	PCACG00 8	1.43 WTTCM	00 22.91
WTS	WSTCY00	104.47	TDDRI00	3.08	WSTCN00 101.39	PCACK00 8	1.53 WSTCM	00 19.86
US Midwest Coke Yield & Ne	tback (PGA page 82	21)						
WCS	WCTOY00	100.88	TDDRL00	8.56	WCTON00 92.32	AAPPN00 6	6.21 WCTOM	00 26.11
WTS	WST0Y00	107.30	TDDRI00	3.08	WSTON00 104.22	PCACK00 8	1.53 wsтом	00 22.69

Д	ssessment	Code	MAvg
ι	Inity Gold FOB Guyana	AUNIA00	AUNIA03
	Inity Gold FOB Guyana vs Latin America Brent utures Strip	AUNIB00	AUNIB03
	Inity Gold FOB Guyana vs Latin America WTI trip	AUNIC00	AUNIC03
	Inity Gold FOB Guyana vs Latin American Dated Brent Strip	AUNID00	AUNID03

Unity Gold crude has a typical API gravity of 35.3 degrees and sulfur content of 0.39%, according to publicly available assays. Unity Gold crude oil is produced by a joint venture operated by ExxonMobil affiliate Esso Exploration and Production Guyana Limited, together with Hess Guyana Exploration and CNOOC Petroleum Guyana Limited, according to ExxonMobil.

The Liza Unity FPSO, which produces Unity Gold, reached its production capacity of approximately 220,000 b/d in July 2022, according to Hess. The Unity Gold assessment will join Platts existing assessment of Liza crude (Platts symbol: ALIZA00). S&P Global Commodity Insights analysts expect Guyana crude production to rise to around 517,000 b/d in 2024 and 1.2 million b/d by 2030.

The new assessments are available on Platts Global Alert pages 280 and 281. They are published in Crude Oil Marketwire, Latin American Wire and Oilgram Price Report.

Please send any comments or feedback to **americas_crude@spglobal.com** and

pricegroup@spglobal.com. For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts to include Seaway Texas City Terminal into Brent complex assessment process for June

Platts, part of S&P Global Commodity Insights, will include Seaway Texas City Terminal as a loading

7

Commodity Insights Analytics Yields & Netbacks (continued)

		Yield	F	- reight	Ν	letback	Spo	ot Price		Margin	
US West Coast Crack Yield	& Netback (PGA page	843)									
ANS	ANWCY00 1	118.74					PCAAD00	86.40	ANWCM00	32.34	_
BakKen	BKWCY00 1	125.27	TDDRT00	11.74	BKWCN00	113.53	AAXPP00	81.51	BKWCM00	32.02	
US West Coast Coke Yield &	& Netback (PGA page 8	341)									
Basrah Heavy	BHWOY00 1	117.59	BHWFA00	2.93	BHWON00	114.66	AALZC00	82.45	BHWOM00	37.13	
Oriente	ORWOY00 1	119.92	TDDEC00	4.65	ORWON00	115.27	PCADE00	76.40	ORWOM00	38.07	
Vasconia	VCWOY00	129.41	VCWFA00	5.45	VCWON00	123.96	PCAGI00	81.02	VCWOM00	42.11	

US monthly crude averages (\$/barrel) (PGA pages 212 and 216)

		Monthly avg	Change			Monthly avg	Change
WTI (Sep)	AAFCV00	73.901-73.921	+3.452				
WTI (Oct)	AAFCX00	73.831-73.851	+3.229	P-5 WTI	AAFE002	**69.896	+2.785
WTI (Nov)	AAGIU00	73.637-73.657	+3.103	Poseidon	AAFCQ00	74.864-74.884	+4.836
Mars (1st mth)	AAMBS02	75.326-75.346	+4.800	Bonito	AAFCI00	75.176-75.196	+4.800
Mars (2nd mth)	AAMBV02	74.683-74.703	+4.434				
Mars (3rd mth)	AAMBY02	74.072-74.092	+4.243				
SGC	AASOI02	74.906-74.926	+4.985				
WTI EFP (Sep)	AAGVT02	0.045	-0.001				
WTI EFP (Oct)	AAGVU02	0.000	0.000				
WTI EFP (Nov)	AAGVV02	0.000	0.000	ANS (Cal)	AAFFL02	**80.045	+3.630
WTI Midland	AAFCY00	75.321-75.341	+3.545	Thunder Horse Bld	AAWZK02	76.689-76.709	+4.376
WTS (1st mth)	AAFCS00	74.594-74.614	+3.873				
WTS (2nd mth)	AAURG03	74.238-74.258	+3.584				
LLS (1st mth)	AAFC000	76.481-76.501	+3.805				
LLS (2nd mth)	AAURC03	76.251-76.271	+3.399	Bakken Guernsey	AASRR03	73.103-73.123	+3.057
HLS (1st mth)	AAFCK00	76.121-76.141	+3.708	Bakken Clearbrook	AASRU03	76.870-76.890	+4.148
HLS (2nd mth)	AAURE03	75.891-75.911	+3.303				
Wyoming Sweet	PCACL03	73.109-73.129	+3.062				
P-Plus WTI	AAFCT00	3.500-3.520	+0.258				
WTI-Delta	AAEJK03	0.120-0.140	+0.258				

Note: The monthly averages reflect the average for Jun 26 through Jul 25. **Avgs available at the end of the calendar month. *Vs 2nd mth WTI.

US and Canadian monthly averages (\$/barrel) (PGA pages 231 and 215)

		Monthly avg	Change			Monthly avg	Change
Platts AGS	AGSAA03	78.37	+6.245	Hebron	AHEBB03	677.73	+65.936
P-5 WTI	AAFE000	71.96	+5.059	Hibernia (Cdn)	AAJKL00	81.83-81.87	+6.718
Lloyd Blend (Cdn)	AALRL00	63.49-63.51	+4.000	Terra Nova (Cdn)	AAJUI00	80.99-81.02	+6.128
Mixed Sweet (Cdn)	AALRS00	74.88-74.90	+5.919	White Rose (Cdn)	AAVJX03	82.04-82.07	+6.128
Condensate (Cdn)	AALSG00	71.17-71.19	+5.412	Light Sour Blend (Cdn)	AALRY00	73.88-73.90	+6.323
				ANS (Cal)	PCAAD03	82.32-82.36	+5.879
Cold Lake	AASZX03	62.64-62.66	+4.000	WCS	AAPPN03	62.79-62.81	+4.000
SSB	AASOK03	79.55-79.57	+5.575	Midale	AAUCC03	71.78-71.80	+6.758
Americas Dated Brent	AAQBF03	80.64/80.66	+6.052	Bakken Guernsey	AASRU13	79.32-79.34	+6.527
WCS ex-Cushing	AAWTY03	70.98-71.00	+5.301	Bakken Clearbrook	AASRR13	75.31-75.33	+5.372

Note: The monthly averages reflect the average for Jul 1 through Jul 31. Assessment specifications available at www.platts.com. *Vs 2nd mth WTI.

terminal for WTI Midland crude oil into its Dated Brent and Cash BFOE Market on Close assessment process for June deliveries.

Sellers would be able to nominate WTI Midland meeting Platts specification loaded from Seaway Texas City Terminal for inclusion into the Dated Brent/Cash BFOE assessment process starting with the June 2023 delivery period.

The terminal, in Texas City, Texas, is wholly owned

by Seaway Crude Holdings LLC, L.P., a joint venture between Enterprise Seaway L.P. and Enbridge Holdings (Seaway) L.L.C.

The terminal has two docks which can fit up to a VLCC size vessel and 4 million barrels of storage capacity for crude oil.

Platts decision to include WTI Midland into the Brent complex, and clarification of the review process by which loading terminals are included in the assessment process, can be found here.

Please send all feedback to PriceGroup@spglobal.com and Europe_Crude@spglobal.com.

For written comments, please provide a clear indication if they are not intended for publication by Platts for public viewing.

8

Commodity Insights North America refinery maintenance (PGA 0100)

Owner	Refinery	Capacity (b/d)	Unit, Name	Unit (b/d)	Start	End	
PADD I (US ATLANTIC COAS	T)						
Monroe Energy	Trainer, PA	190000	Full plant turnaround	190000	9/5/2023	11/20/2023	
Phillips 66	Linden, NJ	258500	Planned turnaround incl FCC, CDU		1/21/2023	3/25/2023	
PADD II (US MIDWEST)							
Cenovus	Toledo, OH	150800	Closed by fire, 2 fatalities		9/23/2022	3/31/2022	
Cenovus	Lima, OH	179000	Full rates		NA	1/8/2023	
Cenovus	Superior, WI	50000	Refinery restart after fire		4/26/2018	3/31/2023	
CVR Energy	Coffeyville, KS	132000	Planned CDU turnaround	60000	9/1/2023	10/10/2023	
			Planned coker turnaround	25000	9/1/2023	10/10/2023	
ExxonMobil	Joliet, IL		Unplanned coker outage	25000	12/25/2022	1/5/2023	
HF Sinclair	Tulsa, OK		Unplanned CDU outage	76000			
Marathon	Canton, OH	100000	Planned work	100000	1/9/2023	1/30/2023	
WRB Refining	Wood River, IL	356000	Unplanned CDU at 65% rates	231400	12/27/2022	3/31/2023	
			Planned coker outage	83700	10/31/2022	1/31/2023	
PADD III (US GULF COAST)							
Chevron	Pasadena, TX	112229	Unplanned reformer outage	23000	12/23/2022	1/14/2023	
			Crude, jet expansion	125000	Q42022	NA	
Citgo	Lake Charles, LA	418000	Unplanned reformer outage	NA	1/9/2023	1/25/2023	
Delek US	El Dorado, AR	83000	CDU out due to cold	83000	12/23/2022	1/5/2023	
			FCC out due to cold	21000	12/23/2022	1/5/2023	
			Reformer out due to cold	15300	12/23/2022	1/3/2023	
Delek US	Tyler, TX	75000	Planned turnaround	75000	H12023	H12023	
ExxonMobil	Baton Rouge, LA	520000	Planned CDU turnaround	180000	1/1/2023	3/3/2023	
			Planned CDU turnaround	110000	1/1/2023	3/3/2023	
			Planned CDU turnaround	210000	1/17/2023	3/15/2023	

Platts

S&P Global Commodity Insights

North American Crude and Products Scan

Contact Client Services: ci.support@spglobal.com; Americas: +1-800-752-8878; Europe & Middle East: +44-20-7176-6111; Asia Pacific: +65-6530-6430

Trade Data: S&P Global Commodity Insights has defined standards for entities it considers to be related and verifies through a variety of inputs whether counterparties in reported trades meet these criteria.

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9

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Commodity Insights North America refinery maintenance (continued) (PGA 0100)

Owner	Refinery C	apacity (b/d)	Unit, Name	Unit (b/d)	Start	End
			Planned coker turnaround	55000	1/1/2023	3/9/2023
ExxonMobil	Beaumont, TX	369024	Planned CDU turnaround	369024	1/1/2023	2/15/2023
<u>Exiternition</u>			Planned FCC turnaround	115000	1/8/2023	3/2/2023
			Planned HCU turnaround	70000	1/1/2023	1/19/2023
			Light crude expansion	250000	Q1 2020	Q1 2023
LyondellBasell	Houston, TX	263776	CDU cut rates on cold		12/23/2022	1/14/2023
_,			Unplanned coker outage	100500	12/23/2022	1/29/2023
Marathon	Galveston Bay, TX	593000	Unplanned CDU outage		12/23/2022	1/29/2023
	, , , , , , , , , , , , , , , , , , ,		40,000 b/d expansion		12/3/2015	H12023
Motiva	Port Arthur, TX	626000	Planned coker outage	54000	3/1/2023	4/9/2023
			Unplanned FCC outage	82100	12/23/2022	1/11/2023
			Planned HCU turnaround	105000	1/1/2023	2/28/2023
			Planned HCU turnaround	105000	3/1/2023	4/9/2023
PBF Energy	Chalmette, LA	190000	DHT shut by heater fire	100000	1/21/2023	NA
1.21.211018)	ondanio cito, E t	100000	Planned FCC turnaround		1/1/2023	1/21/2023
			Planned Alky turnaround		1/1/2023	1/21/2023
Shell	Norco, LA	236721	Planned CDU turnaround		3/15/2023	4/21/2023
TotalEnergies	Port Arthur, TX	238000	Unplanned CDU outage		12/22/2022	1/11/2023
WRB Refining	Borger, TX	149000	Closure due to cold	149000	12/23/2022	1/31/2023
With Renning	Dorgen, TX	140000	Propane tank fire	N/A	1/17/2023	1/17/2023
			riopane tankine	DV/A	1/1//2020	1/1//2023
PADD IV						
HF Sinclair	Woods Cross, UT	39330	Planned turnaround		Q1 2023	Q1 2023
HF Sinclair	Sinclair, WY	75000	Planned turnaround		Q2 2023	Q2 2023
Marathon	Salt Lake City, UT	66000	Unplanned FCC outage	26000	1/6/2023	1/13/2023
Suncor	Commerce City, CO	103000	Plant shut for repairs	20000	12/24/2022	3/31/2023
PADD V	ooninieree oity, oo	100000			12/24/2022	0/01/2020
PADDV						
Chevron	El Segundo	269000	Planned FCC, gasoline units	N/A	1/15/2023	3/5/2023
	Richmond, CA	245271	Unplanned reformer outage	57800	1/19/2023	2/2/2023
Marathon	Carson, CA	363000	Unplanned CDU outage	N/A	1/5/2023	1/30/2023
PBF	Torrance, CA	160000	Planned FCC turnaround	90000	10/1/2023	11/3/2023
	, .		Planned reformer turnaround	25300	10/1/2023	11/3/2023
Phillips 66	Rodeo, CA	114200	Planned 2 CDU turnaround		1/21/2022	N/A
			Planned VDU turnaround			
			Planned coker turnaround			
			Planned reformer turnaround			
			Planned HCU turnaround			
			Planned DHT turnaround			
			Planned hydrogen turnaround			
CARIBBEAN						
Limetree Bay	St. Croix, USVI	176400	Sold to West Indies Petroleum restart	NA	1/1/2022	NA
Guaracara	Pointe-a-Pierre, Trinida	ad 160000	Quanten to bid to restart refinery	NA	5/31/2022	NA
CANADA						
Provo Donowahla Eucla	Come by Chance, NF	130000	Convert to RD. SAF	14000	Q2 2022	Q2 2022
Braya Renewable Fuels	· · · · ·					
Irving	Saint John, NB	330000	Planned work	NA	5/15/2022	6/15/2022
Imperial	Strathcona, AB	200000	Planned work		5/1/2022	5/31/2022
	Sarnia, ON	120000	Planned work		4/1/2022	4/30/2022
Parkland	Burnaby, BC	55000	Shut due to Trans Mountain flooding	NA	12/1/2021	1/1/2022
		1400	co-processing biofeedstock	NA	Q1 2022	Q1 2022

Commodity Insights North America refinery maintenance (continued) (PGA 0100)

Owner	Refinery	Capacity (b/d)	Unit, Name	Unit (b/d)	Start	End	
Suncor	Montreal, QC	137000	Planned work		5/29/2022	NA	
	Edmonton, AB	146000	Planned work		4/1/2022	NA	
			Fire		3/30/2022	NA	
	Sarnia, ON	85000	Planned work		4/10/2022	5/10/2022	
Suncor Syncrude	Fort McMurray, AB	182500	Planned coker turnaround		7/15/2022	NA	
Shell Scotford	Scotford, AB	100000	Planned work		3/1/2022	5/30/2022	
North West Redwater	Sturgeon, AB		Planned work		8/8/2022	10/8/2022	

Source: S&P Global Commodity Insights

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