

Crude Oil Marketwire

Volume 44 / Issue 133 / July 10, 2023

Key benchmarks (\$/barrel)

			Mid	Change
(PGA page 2210)				
Dubai (Sep)	PCAT00	78.26-78.28	78.270	+0.420
Dubai (Oct)	PCAU00	77.47-77.49	77.480	+0.680
Dubai (Nov)	PCAAV00	76.75-76.77	76.760	+0.720
MEC (Sep)	AAWSA00	78.26-78.28	78.270	+0.420
MEC (Oct)	AAWSB00	77.47-77.49	77.480	+0.680
MEC (Nov)	AAWSC00	76.75-76.77	76.760	+0.720
Brent/Dubai (Sep)	AAJMS00	-0.29/-0.27	-0.280	+0.670
(PGA page 1212)				
Brent (Dated)	PCAS00	78.78-78.80	78.790	+0.850
Dated North Sea Light	AAOFD00	78.78-78.80	78.790	+0.850
Dated Brent (CIF)	PCAKM00		79.845	+0.840
Brent (Sep)	PCAAQ00	78.56-78.58	78.570	+0.830
Brent (Oct)	PCAR00	78.23-78.25	78.240	+0.840
Brent (Nov)	PCARR00		77.830	+0.830
Sulfur de-escalator	AAUXL00		0.20	
Oseberg QP (Jul)	AAXDW00		1.6079	
Oseberg QP (Aug)	AAXDX00		1.3083	
Ekofisk QP (Jul)	AAXDY00		1.2021	
Ekofisk QP (Aug)	AAXDZ00		1.0796	
Troll QP (Jul)	ATFNB00		2.3165	
Troll QP (Aug)	ATFNA00		1.8663	
(PGA page 210)				
Platts AGS	AGSAA00		75.350	-0.770
WTI FOB USGC Decades Avg	ADECA00		75.340	-0.790
WTI (Aug)	PCACG00	73.06-73.08	73.070	-0.790
WTI (Sep)	PCACH00	72.94-72.96	72.950	-0.820
WTI (Oct)	AAGIT00	72.69-72.71	72.700	-0.740
Light Houston Sweet	AAXEW00		74.920	-0.790
Light Houston Sweet M2	AAYRY00		74.700	-0.870
LOOP Sour (Aug)	AALSM01		74.920	-0.490
LOOP Sour (Sep)	AALSM02		74.150	-0.370
LOOP Sour (Oct)	AALSM03		73.450	-0.290
Bakken	AAXPP00		74.370	-0.800
Eagle Ford Marker	AAYA00		72.980	-0.680
ACM* (Aug)	AAQH00	74.51-74.53	74.520	-0.690
ACM* (Sep)	AAQH00	73.74-73.76	73.750	-0.570
ACM* (Oct)	AAQHP00	73.04-73.06	73.050	-0.490

*Americas Crude Marker.

Forward Dated Brent (\$/barrel) (PGA page 1250)

			Mid	Change
North Sea Dated strip	AAKWH00	78.71-78.72	78.715	+0.790
Mediterranean Dated strip	AALDF00	78.72-78.74	78.730	+0.775
33-63 Day Dated strip	AALEJ00	78.16-78.18	78.170	+0.830
BTC Dated strip	AAUF100	78.67-78.68	78.675	+0.770
15-45 Day Dated strip	AALGM00	78.54-78.55	78.545	+0.770
30-60 Day Dated strip	AAXRK00	78.20-78.22	78.210	+0.830
North Sea CIF Dtd strip	AAHXE00		78.700	+0.790
23-63 Day Dated Strip	ADBRA00		78.240	+0.825

Brent/WTI spreads and EFPs (PGA page 218)

			Mid	Change
Brent/WTI 1st	AALAU00	4.86/4.88	4.870	-0.070
Brent/WTI 2nd	AALAV00	4.82/4.84	4.830	-0.040
Brent/WTI 3rd	AALAY00		4.770	-0.010
Brent EFP (Sep)	AAGVX00	0.13/0.15	0.140	-0.030
Brent EFP (Oct)	AAGVY00	0.15/0.17	0.160	-0.020
Brent EFP (Nov)	AAMVY00		0.160	-0.020
WTI EFP (Aug)	AAGVT00	0.07/0.09	0.080	+0.080
WTI EFP (Sep)	AAGVU00	-0.01/0.01	0.000	0.000
WTI EFP (Oct)	AAGVV00	-0.01/0.01	0.000	0.000

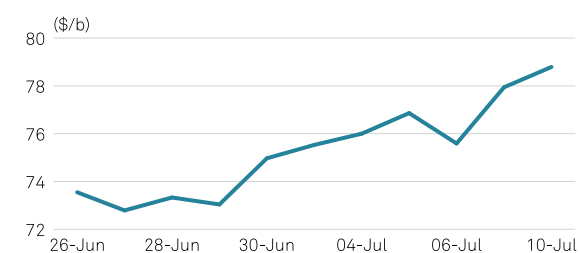
Middle East (\$/barrel)

			Mid	Change
(PGA page 2210)				
Oman (Sep)	PCABS00	78.26-78.28	78.270	+0.420
Oman (Oct)	AAHZF00	77.47-77.49	77.480	+0.680
Oman (Nov)	AAHZH00	76.75-76.77	76.760	+0.720
Upper Zakum (Sep)	AAOUQ00	78.25-78.29	78.270	+0.420
Murban (Sep)	AAKNL00	78.47-78.51	78.490	+0.500
Murban (Oct)	MBNSA00		77.700	+0.760
Murban (Nov)	MBNSB00		76.980	+0.800
Al Shaheen	AAPEV00	78.29-78.33	78.310	+0.420
Spread vs Dubai				
Dubai	DBDDC00		1.510	-0.300
Oman	DBDOC00		1.510	-0.300
Murban	AARBZ00		1.730	-0.220
Al Shaheen	AAPEW00	1.50-1.60	1.550	-0.300
Upper Zakum	DBDUZ00		1.510	-0.300
Quality Premiums				
Murban QP	AASVA00		0.0000	

(PGA page 2658)

Dubai Swap (Aug)	AAHBM00	77.46-77.50	77.480	+0.680
Dubai Swap (Sep)	AAHBN00	76.74-76.78	76.760	+0.720
Dubai Swap (Oct)	AAHBO00	76.13-76.17	76.150	+0.760

Dated Brent



Source: S&P Global Commodity Insights

Market Commentary

Platts Middle East Sour Crude Daily Market Analysis

- Narrower EFS sees light sour crude demand displaced by arbitrage cargoes
- Qatar issues Aug OSP differentials

Middle East sour crude market participants awaited the issuance of term allocations and tenders, while Qatar Energy issued its August official selling price differentials July 10.

The Middle East has not issued term allocations or tenders for September-loading barrels so far, with market participants waiting for fundamentals to pan

(continued on page 3)

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Asia Pacific and Middle East crude assessments (\$/barrel)

(Asia MOC)				
API Gravity	Code		Mid	Change
Condensate				
NW Shelf	61.9	PCAGX00	64.12–64.16	64.140 +1.170
Ichthys FC	48.9	ICFCA00		71.490 +1.120
DFC	56.82	ADFCAB00	70.44–70.48	70.460 +0.820
Qatar LSC	56.9	AARBB00	69.84–69.88	69.860 +0.820
South Pars	57.4	AARAV00	65.59–65.63	65.610 +0.820
Senipah	54.4	AAEOE00	62.07–62.11	62.090 +1.170
Light crude				
Cossack	47.7	PCAGZ00	71.27–71.31	71.290 +1.120
Tapis	45.2	PCACB00	80.97–81.01	80.990 +1.170
Belida	45.1	PCAFU00	65.87–65.91	65.890 +1.120
Kutubu	44.3	PCAFJ00	69.62–69.66	69.640 +1.120
Attaka	42.3	PCAAJ00	65.77–65.81	65.790 +1.120
Ardjuna	38	PCACQ00	71.37–71.41	71.390 +1.170
Banyu Urip	32	PCAFQ00		81.490 +1.170
Sakhalin Blend	45.5	AARBN00	64.24–64.28	64.260 +1.220
ESPO M1	34.8	AARWF00	69.44–69.48	69.460 +0.670
ESPO M2	34.8	AAWFE00	68.73–68.77	68.750 +0.710
Sokol	39.7	AASCJ00	68.24–68.28	68.260 +1.220
Kikeh	34.9	AAWUH00	83.72–83.76	83.740 +1.170
Miri Light	32.3	PCABQ00	83.42–83.46	83.440 +1.170
Labuan	32	PCABL00	85.17–85.21	85.190 +1.170
Kimanis	38.6	AASCL00		84.890 +1.170
Medium crude				
Su Tu Den	36.8	AARAR00	82.67–82.71	82.690 +1.170
Bach Ho	40.7	PCAHY00	83.72–83.76	83.740 +1.170
Nanhai	40	PCAFR00	72.72–72.76	72.740 +1.170
Nile Blend	33.9	AAPLC00	75.12–75.16	75.140 +1.170
Daqing	32.2	PCAAZ00	74.17–74.21	74.190 +1.170
Heavy crude				
Dar Blend	25	AARAB00	75.62–75.66	75.640 +1.070
Shengli	24.2	PCABY00	77.17–77.21	77.190 +1.070
Duri	20.8	PCABA00	80.52–80.56	80.540 +1.070
Vincent	18.3	AARAK00		82.240 +1.070

(Asia MOC)			
Code		Mid	Change
Diff to Dubai			
ADFCB00	-6.35/-6.25	-6.300	+0.100
AARB00	-6.95/-6.85	-6.900	+0.100
AARAX00	-11.20/-11.10	-11.150	+0.100
Diff to ICP			
AAE0K00	-8.25/-8.15	-8.200	+0.050
Diff to ICP			
PCAFM00	-4.80/-4.70	-4.750	+0.050
PCAAK00	-5.70/-5.60	-5.650	+0.050
PCACR00	-1.75/-1.65	-1.700	+0.050
PCAQQ00		2.300	+0.050
Diff to Dubai			
AARCN00	-12.55/-12.45	-12.500	+0.500
AASEU00	-7.35/-7.25	-7.300	-0.050
AAWFG00	-7.45/-7.35	-7.400	-0.050
AASCK00	-8.55/-8.45	-8.500	+0.500
Diff to ICP			
PCABB00	2.65/2.75	2.700	0.000

(Asia close)		
Code	Mid	Change
(PGA page 2212)		
Diff to Asian Dated Brent		
AAPAI00	-13.150	+0.100
ICFCB00	-5.800	+0.050
ADFC00	-6.830	-0.250
AARBC00	-7.430	-0.250
AARAW00	-11.680	-0.250
AAPBE00	-15.200	+0.100
(PGA page 2214)		
Diff to Asian Dated Brent		
AAPAC00	-6.000	+0.050
AAOZW00	3.700	+0.100
AAPBQ00	-11.400	+0.050
AAPAE00	-7.650	+0.050
AAPBC00	-11.500	+0.050
AAPBG00	-5.900	+0.100
AAPBU00	4.200	+0.100
AARDN00	-13.030	+0.150
(PGA page 2216)		
Diff to Asian Dated Brent		
AARAS00	5.400	+0.100
AAPAK00	6.450	+0.100
AAPAG00	-4.550	+0.100
AAPAM00	-2.150	+0.100
AAPAW00	-3.100	+0.100
(PGA page 2218)		
Diff to Asian Dated Brent		
AARAC00	-1.650	0.000
AAPAY00	-0.100	0.000
AAPBM00	3.250	0.000
AARAL00	4.950	0.000

(London close)		
Code	Mid	Change
(PGA page 2213)		
AAPAH00	64.780	+0.580
ADFC00	71.100	+0.620
AARBA00	70.500	+0.620
AARAU00	66.250	+0.620
AAPBD00	62.730	+0.580
(PGA page 2215)		
AAPAB00	71.930	+0.530
AAOZV00	81.630	+0.580
AAPBP00	66.530	+0.530
AAPAD00	70.280	+0.530
AAPBB00	66.430	+0.530
AAPBF00	72.030	+0.580
AAPBR00	82.130	+0.580
AAREN00	64.900	+1.020
AAPAN00	68.900	+1.020
AAOZX00	84.380	+0.580
AAPAR00	84.080	+0.580
AAPAP00	85.830	+0.580
AASCN00	85.530	+0.580
(PGA page 2217)		
AARAQ00	83.330	+0.580
AAPAJ00	84.380	+0.580
AAPAF00	73.380	+0.580
AAPAL00	75.780	+0.580
AAPAV00	74.830	+0.580
(PGA page 2219)		
AARAA00	76.280	+0.480
AAPAX00	77.830	+0.480
AAPBL00	81.180	+0.480
AARAJ00	82.880	+0.480

Delivered - Asia spot crude assessments (\$/barrel) (PGA page 2238)

US Delivered - Asia Spot Crudes			
WTI Midland (DES Singapore)	WTMSA00	79.750	+1.060
WTI Midland (DES Yeosu)	WTMYA00	80.250	+1.060
Brazil Delivered-Asia Spot Crudes			
Tupi (DES Qingdao)	LUQDA00	80.500	+1.060

Diff to Dubai		
WTMSD00	3.600	+0.300
WTMYD00	4.100	+0.300
LUQDD00	4.350	+0.300

Diff to Asian Dated Brent		
WTMSB00	2.880	+0.030
WTMYB00	3.380	+0.030
LUQDB00	3.630	+0.030

Middle East spot assessments (\$/barrel) (PGA page 2220)

			Mid	Change		Spread vs Dubai	Mid	Change		Spread vs OSP	Mid	Change
Umm Lulu	AUFAA00		78.640	+0.500	DBDUL00		1.880	-0.220				
Das Blend	AAXOF00	77.77-77.81	77.790	+0.500	DBDS00		1.030	-0.220				
Qatar Land	AAKNP00	77.08-77.12	77.100	+0.500	QALDA00		0.340	-0.220	AAKUJ00	0.05/0.15	0.100	-0.200
Qatar Marine	AAKNR00	77.18-77.22	77.200	+0.450	QAMDA00		0.440	-0.270	AAKUJ00	0.10/0.20	0.150	-0.150
Banoco Arab Medium	AAKNT00	77.88-77.92	77.900	+0.400					AAKUD00	-1.20/-1.10	-1.150	-0.200
Basrah Medium M1	BSMAM01	-	77.900	+0.350					BSMBM01		0.550	-0.150
Basrah Medium M2	BSMAM02	-	76.950	+0.450					BSMBM02		0.300	-0.100
Basrah Heavy M1	AALZC00	-	74.800	+0.350					AALZJ00		0.550	-0.150
Basrah Heavy M2	AALZD00	-	73.850	+0.450					AALZK00		0.300	-0.100

out in the aftermath of OPEC+ supply cuts.

“There have been no allocations or tenders out so far, it has been very quiet on the physical front ... people are holding back and waiting for things to firm out,” said a Singapore-based trader.

The Russian Energy Ministry said July 7 that a 500,000 b/d crude supply cut due to come into force in August was in addition to previously announced cuts.

“With Saudi Arabia cutting 1 million b/d and Russia cutting 500,000 b/d, it’s going to make supply tighter, which is also reflected in the Dated Brent market,” the trader said.

The Brent-Dubai exchange of futures for swaps averaged 93 cents/b over July 1-10, narrowing from an average of \$1.08/b in June, S&P Global Commodity Insights data showed.

A narrower EFS kept inflows of arbitrage cargoes open, while displacing demand for light sour Middle Eastern crude barrels, according to the trader.

“It looks like quite a bit of US crude is coming over, so there are pockets of demand being filled right now,” the trader said.

QatarEnergy raised the August OSP differential for its Land crude grade by 30 cents/b from July to a premium of 20 cents/b against the average of Platts Dubai crude assessments in the month of loading, according to a notice on its website July 10.

The August OSP differential for Qatar Marine was set at a premium of 10 cents/b against the average

Asian market parity prices (\$/barrel) (PGA page 2280)

					(London close)		
			Mid	Change		Mid	Change
Minas	PCAB000		73.025	+0.795	AAPAZ00	73.665	+0.205
Cinta	PCAX000		63.110	+0.685	AAPBJ00	63.750	+0.095
Widuri	PCAFE00		61.145	+0.670	AAPBN00	61.785	+0.080
Cambay	AMPPA00		76.730	+1.210			
Ravva	AMPPB00		81.780	+1.140			
Rajasthan	AMPPC00		76.825	+1.040			

Asian Crude Indices (\$/barrel) (PGA page 2206)

16:30 Singapore		Interim Asian Close		Diff to Dated Brent		Final London Close
Asian Dated Brent (ADB)	AAXPG00	78.190				
ADB Strip Asia	AARBV00	77.290		AARBX00	77.930	
ADB Strip Middle East	AARBW00	77.290		AARBY00	77.930	
ADB Strip M3	ADBS003	76.870				

For definitions see <http://www.platts.com/IM.Platts.Content/MethodologyReferences/MethodologySpecs/Crude-oil-methodology.pdf>

of Platts Dubai crude assessments in the month of loading, unchanged from July.

Platts is part of S&P Global.

Platts Mideast Sour Crude Daily Rationales & Exclusions

Dubai Mo01 <PCAAT00> assessment rationale: The September cash Dubai assessment on July 10 took into consideration trades for cash Dubai partials, including bids at \$78.29/b and subsequently an offer at \$78.27/b that traded, as well as an offer at \$78.28/b standing at the end of the Platts Markets on Close assessment process.

Oman Blend Mo01 <PCABS00> assessment

rationale: The September cash Oman assessment on July 10 took into consideration values heard in the broader market.

Exclusions: No market data was excluded from the Middle East sour crude Market on Close assessment process.

Platts Oil Mideast Sour Crude Convergences

None reported

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Platts Middle East Sour Crude Bids, Offers, Trades

Bids:

PLATTS DUBAI: SEP23: VITOL BIDS 25KB AT \$78.00

PLATTS DUBAI: SEP23: MITSUI BIDS 25KB AT \$77.95

PLATTS DUBAI: SEP23: PETROCHINA BIDS 25KB

AT \$77.95

PLATTS DUBAI: SEP23: GUNVOR NO LONGER BIDS

AFTER TRADE

PLATTS DUBAI: SEP23: EQUINOR NO LONGER BIDS

AFTER TRADE

Offers:

PLATTS DUBAI: SEP23: RELIANCE OFFERS 25KB AT \$78.28 AND WITHDRAWS DURING EXTENSION

PLATTS DUBAI: SEP23: TRAFIGURA OFFERS 25KB AT \$78.29 AND WITHDRAWS DURING EXTENSION

PLATTS DUBAI: SEP23: PETROCHINA OFFERS 25KB AT \$78.30

PLATTS DUBAI: SEP23: VITOL OFFERS 25KB

AT \$78.30

PLATTS DUBAI: SEP23: GLENCORE OFFERS 25KB AT \$78.30

PLATTS DUBAI: SEP23: EXXONMOBIL OFFERS 25KB AT \$78.34

PLATTS DUBAI: SEP23: UNIPEC OFFERS 25KB AT \$78.35

PLATTS DUBAI: SEP23: MITSUI OFFERS 25KB AT \$78.40

PLATTS DUBAI: SEP23: GUNVOR OFFERS 25KB AT \$78.45

PLATTS DUBAI: SEP23: BP NO LONGER OFFERS AFTER TRADE

Trades:

PLATTS DUBAI: SEP23: PETROCHINA SELLS TO EQUINOR* 25KB AT \$78.20 (08:28:38)

PLATTS DUBAI: SEP23: PETROCHINA SELLS TO GUNVOR* 25KB AT \$78.25 (08:29:23)

PLATTS DUBAI: SEP23: EQUINOR BUYS FROM TRAFIGURA* 25KB AT \$78.30 (08:29:29)

North Sea spot crude assessments (\$/barrel) (PGA page 1212)

			Mid	Change	Spread vs fwd Dated Brent		Mid	Change
Dated Brent Diff					AAXEZ00	0.07/0.08	0.075	+0.060
BNB	AAVJA00	78.96–78.98	78.970	+0.870	AAVJB00	0.25/0.26	0.255	+0.080
Forties	PCADJ00	78.93–78.95	78.940	+0.810	AAGWZ00	0.22/0.23	0.225	+0.020
Oseberg	PCAEU00	80.47–80.48	80.475	+0.790	AAGXF00	1.75/1.77	1.760	0.000
Ekofisk	PCADI00	80.28–80.30	80.290	+0.840	AAGXB00	1.57/1.58	1.575	+0.050
Troll	AAWEX00	81.25–81.26	81.255	+0.790	AAWEY00	2.53/2.55	2.540	0.000
FOB N Sea WTI Midland	ALNDA00		78.790	+0.840	ALNDB00		0.075	+0.050
Statfjord	PCAE00	80.46–80.47	80.465	+0.790	AAGXD00	1.74/1.76	1.750	0.000
Flotta Gold	PCACZ00	79.46–79.47	79.465	+0.790	AAGXH00	0.74/0.76	0.750	0.000
Duc	AAWEZ00	79.71–79.72	79.715	+0.790	AAWFL00	0.99/1.01	1.000	0.000
Grane Blend	PCALA00		80.415	+0.790	PCALB00		1.700	0.000
Johan Sverdrup	AJSVA00		80.300	+0.790	AJSVB00		1.585	0.000
Statfjord (CIF)	AASAS00	81.54–81.56	81.550	+0.790	AASAT00	2.84/2.86	2.850	0.000
Gullfaks (CIF)	AASAU00	81.84–81.86	81.850	+0.790	AASAV00	3.14/3.16	3.150	0.000
Alvheim (CIF)	ALVHA00		82.050	+0.790	ALVHB00		3.350	0.000
Asgard (CIF)	ASGCA00		80.000	+0.790	ASGCB00		1.300	0.000
North Sea basket	AAGIZ00	79.66–79.68	79.670	+0.830				
North Sea Dated Strip	AAKWH00	78.71–78.72	78.715	+0.790				
European Sour Crude Index	CSBEA00		80.293	+0.790	CSBEB00		1.578	0.000
Spread vs fwd CIF Dated Brent								
Dated Brent (CIF)	AAVJG00		79.845	+0.840	AAVJF00		1.145	+0.050
BNB (CIF)	PCAKP00		81.015	+0.830	AAVJC00		2.315	+0.040
Forties (CIF)	PCAKR00		80.360	+0.780	AAHXC00		1.660	-0.010
Oseberg (CIF)	PCAKT00		81.765	+0.770	AAHXD00		3.065	-0.020
Ekofisk (CIF)	PCAKV00		81.430	+0.820	AAHXB00		2.730	+0.030
Troll (CIF)	AAXJO00		82.550	+0.765	AAXJN00		3.850	-0.025
WTI Midland (CIF)	WMCRD00		79.845	+0.840	WMCRB00		1.145	+0.050
North Sea CIF Dated Strip	AAHXE00		78.700	+0.790				

Freight Adjustment Factors

(\$/barrel)		Change
Sullom Voe–Rotterdam	FSVRM00	1.6765 -0.0029
Hound Point–Rotterdam	FHPRM00	1.1644 -0.0020
Sture–Rotterdam	FSTRM00	1.0590 -0.0018
Teesside–Rotterdam	FTSRM00	0.9377 -0.0015
Mongstad–Rotterdam	FMGRM00	1.0662 -0.0018
North Sea–Rotterdam	FSFRM00	1.0615 -0.0018
(%)		
FAF Weighting	FAFWA00	0.80

European US Spot Crude Assessments (\$/barrel) (PGA page 1238)

		Mid	Change	Spread vs fwd Dated Brent		Mid	Change
WTI Midland (DAP Rotterdam)	AWTIC00	79.610	+0.840	AWTID00		1.370	+0.015
WTI Midland (DAP Augusta)	AWTIA00	80.260	+0.840	AWTIB00		2.020	+0.015
Eagle Ford 45 (DAP Rotterdam)	AEFAC00	78.710	+0.840	AEFAD00		0.470	+0.015
Eagle Ford 45 (DAP Augusta)	AEFAA00	79.360	+0.840	AEFAB00		1.120	+0.015

PLATTS DUBAI: SEP23: RELIANCE SELLS TO GUNVOR* 25KB AT \$78.29 (08:29:40)

PLATTS DUBAI: SEP23: TRAFIGURA SELLS TO GUNVOR* 25KB AT \$78.29 (08:29:45)

PLATTS DUBAI: SEP23: PETROCHINA SELLS TO GUNVOR* 25KB AT \$78.29 (08:29:51)

PLATTS DUBAI: SEP23: GUNVOR BUYS FROM BP* 25KB AT \$78.27 (08:29:56)

PLATTS DUBAI: SEP23: TRAFIGURA SELLS TO EQUINOR* 25KB AT \$78.25 (08:29:58)

This assessment commentary applies to the following market data codes: Dubai M1 <PCAAT00>, Oman M1 <PCABS00>

Platts Dubai Derivatives Bids Summary

BIDS ON CLOSE

NO BIDS REPORTED
WITHDRAWALS

NO WITHDRAWALS REPORTED

Platts' End-of-Day assessments for Dubai derivatives prices can be found on PPA2606.

Platts Oil Paper Bids, Offers and Trade Page Index found on <PGA4000>

Platts 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.

Platts Dubai Derivatives Offers Summary

OFFERS ON CLOSE

NO OFFERS REPORTED
WITHDRAWALS

NO WITHDRAWALS REPORTED

Platts' End-of-Day assessments for Dubai

Dated Brent/BFOE swaps (\$/barrel) (PGA page 1214)

Week	Week Date			Brent CFD*	Mid	Change	Dated Brent swap		Mid	Change
CFD Week 1	(Oct)	Jul 10-14	PCAKA00	0.47/0.49	0.480	-0.150	AAJNV00	78.71/78.73	78.720	+0.690
CFD Week 2	(Oct)	Jul 17-21	PCAKC00	0.57/0.59	0.580	-0.100	AAJOS00	78.81/78.83	78.820	+0.740
CFD Week 3	(Oct)	Jul 24-28	PCAKE00	0.58/0.60	0.590	-0.010	AAJOU00	78.82/78.84	78.830	+0.830
CFD Week 4	(Oct)	Jul 31-04	PCAKG00	0.44/0.46	0.450	0.000	AAJOW00	78.68/78.70	78.690	+0.840
CFD Week 5	(Oct)	Aug 07-11	AAGLU00	0.27/0.29	0.280	-0.020	AAJPC00	78.51/78.53	78.520	+0.820
CFD Week 6	(Oct)	Aug 14-18	AAGLV00	0.15/0.17	0.160	-0.020	AAJPE00	78.39/78.41	78.400	+0.820
CFD Week 7	(Oct)	Aug 21-25	AALCZ00	0.05/0.07	0.060	-0.030	AALAW00	78.29/78.31	78.300	+0.810
CFD Week 8	(Oct)	Aug 28-01	AALDA00	-0.05/-0.03	-0.040	-0.050	AALAX00	78.19/78.21	78.200	+0.790

Brent Swaps Weeks 1 to 8 are differentials to Brent Mo02 (Oct) PCAAR00 found on page 1.

Dated Brent/Brent Frontline Swaps (DFL) (\$/barrel) (PPE page 1614)

		Swaps	Change		DFL	Change
Balance month* (Jul 23)	BDLBM00	78.740	+0.840	ABWFZ00	0.330	-0.020
Month 1 (Aug 23)	BDLM001	78.320	+0.870	AAEAA00	0.260	+0.010
Month 2 (Sep 23)	BDLM002	77.930	+0.870	AAEAB00	0.280	+0.020
Month 3 (Oct 23)	BDLM003	77.490	+0.830	AAEAC00	0.280	+0.020
Month 4 (Nov 23)	BDLM004	77.060	+0.810	AAEAD00	0.280	+0.040

*Balance month swaps are assessed from the 1st through the 20th of the month.

Cash BFOE intraday assessments (\$/barrel) (PGA page 1216)

		Cash BFOE	Change		Inter-Month Spread
10:30 London Time					
BFOE M1 (Sep)	PBCAAM1	77.950	+1.190		
BFOE M2 (Oct)	PBCAAM2	77.640	+1.160	Sep/Oct	PBAM1M2 0.310
BFOE M3 (Nov)	PBCAAM3	77.220	+1.130	Oct/Nov	PBAM2M3 0.420
12:30 London Time					
BFOE M1 (Sep)	PBCABM1	78.040	+1.200		
BFOE M2 (Oct)	PBCABM2	77.720	+1.170	Sep/Oct	PBBM1M2 0.320
BFOE M3 (Nov)	PBCABM3	77.280	+1.110	Oct/Nov	PBBM2M3 0.440
14:30 London Time					
BFOE M1 (Sep)	PBCACM1	77.970	+1.670		
BFOE M2 (Oct)	PBCACM2	77.660	+1.640	Sep/Oct	PBCM1M2 0.310
BFOE M3 (Nov)	PBCACM3	77.230	+1.590	Oct/Nov	PBCM2M3 0.430
16:30 London Time					
BFOE M1 (Sep)	PCAAQ00	78.570	+0.830		
BFOE M2 (Oct)	PCAAR00	78.240	+0.840		
BFOE M3 (Nov)	PCARR00	77.830	+0.830		
19:30 London Time					
BFOE M1 (Sep)	PBCADM1	NA	-		
BFOE M2 (Oct)	PBCADM2	NA	-	Sep/Oct	PBDM1M2 NA
BFOE M3 (Nov)	PBCADM3	NA	-	Oct/Nov	PBDM2M3 NA

derivatives prices can be found on PPA2606.

Platts Oil Paper Bids, Offers and Trade Page Index found on <PGA4000>

Platts 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.

Platts Dubai Derivatives Trades Summary

TRADES SUMMARY

NO TRADES REPORTED

Platts' End-of-Day assessments for Dubai derivatives prices can be found on PPA2606.

Platts Oil Paper Bids, Offers and Trade Page Index found on <PGA4000>

Platts 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.

Platts Dubai Derivatives Exclusions

Exclusions: No market data was excluded from the July 10, 2023 Dubai derivatives assessment process.

Platts Asia Pacific Sweet Crude Daily Market Analysis

- Sep loading program for Australia's NWS condensate
- Bunga Kekwa crude tender results

The Asia-Pacific regional crude market saw the emergence of the September-loading program for Australia's North West Shelf condensate and Papua New Guinea's Kutubu light crude, sources said.

Australia's Woodside Energy was scheduled to load one 650,000-barrel cargo of North West Shelf

Urals/ESPO spot assessments (\$/barrel) (PGA page 1220)

			Mid	Change	Spread vs fwd Dated Brent	Mid	Change
Urals (Rotterdam)	PCAFW00	61.95-61.98	61.965	+0.740	AAGXJ00	-16.77/-16.76	-16.765 -0.035
Urals (Mediterranean)	PCACE00	62.37-62.40	62.385	+0.740	AAGXX00	-16.35/-16.34	-16.345 -0.035
Urals FOB Novo Suez	AAGZS00	59.71-59.75	59.730	+0.775	AAHPH00	-19.01/-18.99	-19.000 0.000
Urals FOB Novo Afra	AAOTH00	58.81-58.85	58.830	+0.775	AAOTI00	-19.91/-19.89	-19.900 0.000
Urals (Ex-Baltic)	AAGZT00	59.71-59.75	59.730	+0.775	AAHPI00	-19.01/-18.99	-19.000 0.000
Urals (Primorsk)	AAWVH00	59.71-59.75	59.730	+0.775	AAWVI00	-19.01/-18.99	-19.000 0.000
Urals RCMB (Recombined)	AALIN00	62.43-62.46	62.445	+0.815			
ESPO (FOB Kozmino)	AARWD00	70.13-70.15	70.140	+0.690	AARWE00	-7.80/-7.78	-7.790 -0.180
KEBCO	KBCOA00		80.280	+1.025	KBCOB00		1.550 +0.250
Urals (DAP India)	DWCUA00		70.620	+0.870	DWCUB00		-7.700 0.000
KEBCO/Russian Urals	AKEBA00		17.895	+0.285			

Number of days

Observed Delivery Factor	AODFA00	6
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Urals Med/NWE CFD assessments (\$/barrel)

			Urals CFD	Mid	Change
Mediterranean (PPE page 1617)					
Urals Med CFD (Jul)	AAMDU00	-16.32/-16.30	-16.310	0.000	
Urals Med CFD (Aug)	AAMEA00	-16.32/-16.30	-16.310	0.000	
Urals Med CFD (Sep)	UMCM003	-16.32/-16.30	-16.310	0.000	
Northwest Europe (PPE page 1617)					
Urals NWE CFD (Jul)	UNCM001	-16.74/-16.72	-16.730	0.000	
Urals NWE CFD (Aug)	UNCM002	-16.74/-16.72	-16.730	0.000	
Urals NWE CFD (Sep)	UNCM003	-16.74/-16.72	-16.730	0.000	
Mediterranean (PPE page 1617)					
CPC Blend CFD (Jul)	AAOFX00		-1.800	0.000	
CPC Blend CFD (Aug)	AAOFY00		-1.900	0.000	
CPC Blend CFD (Sep)	AAOFZ00		-1.750	0.000	

Mediterranean spot crude assessments (\$/barrel)

			Mid	Change	Spread vs fwd Dated Brent	Mid	Change
Azeri and BTC (PGA page 1222)							
Azeri Lt CIF	AAGZX00	82.66-82.69	82.675	+0.920	AAHPM00	3.99/4.01	4.000 +0.150
Azeri Lt FOB Ceyhan Suez	AAUFM00	81.66-81.69	81.675	+0.950	AAUFN00	2.99/3.01	3.000 +0.180
Azeri Lt FOB Ceyhan Afra	AAUFK00	81.20-81.23	81.215	+0.920	AAUFL00	2.53/2.55	2.540 +0.150
Azeri Lt FOB Supsa	AATHM00	80.27-80.29	80.280	+0.955	AATHN00	1.60/1.61	1.605 +0.185
BTC FOB Ceyhan	AAUFH00	81.43-81.46	81.445	+0.935	AAUFJ00	2.76/2.78	2.770 +0.165
Black Sea (PGA page 1220)							
Siberian Light CIF	AAGZW00	64.37-64.40	64.385	+0.740	AAHPK00	-14.35/-14.34	-14.345 -0.035
CPC Blend CIF	AAGZU00	76.86-76.89	76.875	+0.920	AAHPL00	-1.81/-1.79	-1.800 +0.150
CPC Blend FOB Suez	AALVX00	74.46-74.49	74.475	+1.075	AALVZ00	-4.21/-4.19	-4.200 +0.305
CPC Blend FOB Afra	AAOFV00	73.59-73.61	73.600	+0.950	AAOFW00	-5.08/-5.07	-5.075 +0.180
Additional War Risk Premium	AWARA00		1.000	0.000			
Middle East & North Africa (PGA page 1234)							
Suez Blend	PCACA00	77.11-77.15	77.130	+1.025	AAGYD00	-1.61/-1.59	-1.600 +0.250
Es Sider	PCACO00	78.76-78.79	78.775	+0.770	AAGYH00	0.09/0.11	0.100 0.000
Kirkuk	AAEJD00	76.16-76.20	76.180	+1.025	AAGYF00	-2.56/-2.54	-2.550 +0.250
Iranian Light FOB Kharg Island (Med)	ATLKA00		79.000	+0.795	ATLKB00		0.270 +0.020
Iranian Heavy FOB Kharg Island (Med)	ATHKA00		77.300	+0.795	ATHKB00		-1.430 +0.020
Saharan Blend	AAGZY00	79.31-79.34	79.325	+0.770	AAHPN00	0.64/0.66	0.650 0.000

condensate over Sept 21-25.

“[Premiums could be] a bit stronger than last month given fewer cargoes,” a regional crude oil trader said.

In comparison, there were three cargoes scheduled for loading in August.

Still, weak underlying product cracks could dampen sentiment for lighter grades.

Platts assessed second-month gasoline and naphtha swap crack versus Dubai crude swaps averaging \$7.66/b and minus \$17.64/b month-to-date in July as at the Asian close July 7, compared with an average of \$10.14/b and minus \$16.67/b, respectively, in June, S&P Global Commodity Insights data showed.

Meanwhile, Australia's Santos was heard to hold one 650,000-barrel cargo of Papua New Guinea's Kutubu light crude for Sept. 5-9 loading, sources said.

PV Oil was heard to have sold August-loading Bunga Kekwa crude via tender at premiums in and around low-\$5s/b to Platts Dated Brent crude assessments, FOB, to Thailand's PTT, sources said.

Platts Asia Light Sweet Crude Daily Rationale & Exclusions

ESPO FOB Kozmino Mo01 Spore vs Dubai Mo01

<AASEU00> assessment rationale: The ESPO

M1 September assessment on July 10 took into consideration latest trade indications heard in the broader market.

Exclusions: No market data was excluded from the Asia Pacific Crude Market on Close assessment process.

Platts Asia Light Sweet Crude Bids, Offers, Trades

Bids: No bids

Offers: No offers

Trades: No trades

This assessment commentary applies to the following market data code: ESPO M1 vs Dubai M2 <AASEU00>

West African spot crude assessments (\$/barrel) (PGA page 1230)

			Mid	Change	Spread vs fwd Dated Brent		Mid	Change
WAF Index	AWAFA00		79.660	+1.030	AWAFB00		1.450	+0.200
Nigeria Spot Crude Assessments								
Bonny Light	PCAIC00	79.44–79.48	79.460	+1.030	AAGXL00	1.24/1.26	1.250	+0.200
Qua Iboe	PCAI00	79.49–79.53	79.510	+1.030	AAGXN00	1.29/1.31	1.300	+0.200
Forcados	PCABC00	79.64–79.68	79.660	+1.030	AAGXP00	1.44/1.46	1.450	+0.200
Agbami	AAQZB00	76.64–76.68	76.660	+1.030	AAQZC00	-1.56/-1.54	-1.550	+0.200
Escravos	AAEIZ00	80.09–80.13	80.110	+1.030	AAGXR00	1.89/1.91	1.900	+0.200
Brass River	AAEJB00	78.34–78.38	78.360	+1.030	AAGXV00	0.14/0.16	0.150	+0.200
Akpo	PCNGA00	76.64–76.68	76.660	+1.030	PCNGB00	-1.56/-1.54	-1.550	+0.200
Bonga	PCNGC00	79.99–80.03	80.010	+1.030	PCNGD00	1.79/1.81	1.800	+0.200
Usan	AAXUQ00		75.510	+1.030	AAXUR00		-2.700	+0.200
Erha	AAXUO00		80.010	+1.030	AAXUP00		1.800	+0.200
Egina	AFONA00		81.760	+1.030	AFONB00		3.550	+0.200
Angola spot crude assessments (\$/barrel) (PGA page 1232)								
Cabinda	PCAFD00	79.74–79.78	79.760	+1.030	AAGXT00	1.54/1.56	1.550	+0.200
Nemba	AAQYZ00	77.69–77.73	77.710	+0.880	AAQZA00	-0.51/-0.49	-0.500	+0.050
Dalia	AAQYX00	78.19–78.23	78.210	+0.830	AAQYY00	-0.01/0.01	0.000	0.000
Girassol	AASNL00	80.59–80.63	80.610	+0.830	AASJD00	2.39/2.41	2.400	0.000
Hungo	AASLJ00	77.74–77.78	77.760	+0.980	AASJF00	-0.46/-0.44	-0.450	+0.150
Kissanje	AASLK00	78.44–78.48	78.460	+0.930	AASJE00	0.24/0.26	0.250	+0.100
Pazflor	PCNGG00	78.19–78.23	78.210	+0.830	PCNGH00	-0.01/0.01	0.000	0.000
Plutonio	PCNGI00	77.19–77.23	77.210	+0.930	PCNGJ00	-1.01/-0.99	-1.000	+0.100
Ghana spot crude assessments (PGA page 1230)								
Jubilee	AAXUS00		78.960	+1.030	AAXUT00		0.750	+0.200
Republic of Congo spot crude assessments								
Djeno	PCNGE00	76.79–76.83	76.810	+1.030	PCNGF00	-1.41/-1.39	-1.400	+0.200
Chad spot crude assessments								
Doba	AAXUU00		76.360	+1.030	AAXUV00		-1.850	+0.200

West Africa market parity prices (\$/barrel) (PGA page 1270)

		Mid	Change	Spread vs fwd Dated Brent	Mid	Change
Abo Blend	AAXTL00	79.200	+1.020	ABOOM00	0.990	+0.190
Aje	APIRP00	79.405	+0.945	APIRA00	1.195	+0.115
Amenam Blend	AAXTI00	78.345	+0.985	AMENA00	0.135	+0.155
Antan Blend	APIRQ00	81.245	+0.865	APIRB00	3.035	+0.035
Asaramatoru	AAXTV00	78.975	+0.970	ASARA00	0.765	+0.140
CJ Blend	APIRR00	80.255	+0.995	APIRC00	2.045	+0.165
EA Blend	AAXTJ00	80.410	+1.065	AEABL00	2.200	+0.235
Ebok	APIRS00	75.430	+0.740	APIRD00	-2.780	-0.090
Eremor	APIRT00	77.570	+0.565	APIRE00	-0.640	-0.265
Ima	APIRU00	80.500	+0.845	APIRF00	2.290	+0.015
Jones Creek Blend	APIRV00	78.130	+0.870	APIRG00	-0.080	+0.040
Okono Blend	APIRW00	80.160	+1.020	APIRH00	1.950	+0.190
Okoro	APIRX00	78.810	+0.960	APIRI00	0.600	+0.130
Okwori	APIRY00	80.435	+0.995	APIRJ00	2.225	+0.165
Otakikpo	APIRZ00	78.550	+0.925	APIRK00	0.340	+0.095
Oyo	APRIA00	78.680	+1.090	APIRL00	0.470	+0.260
Pennington	APRIB00	77.725	+0.980	APIRM00	-0.485	+0.150
Rabi Light	ARABA00	77.315	+0.795	ARABB00	-0.895	-0.035
Sankofa	APRIC00	75.315	+0.905	APIRN00	-2.895	+0.075

Platts North Sea Crude Daily Market Analysis

- Outlook brightens for light sweet crudes
- Norway's DNO flags Troll area oil and gas find

A rally in North Sea crudes gathered pace July 10 with demand rising in Northwestern Europe and the broader sweet complex.

Weaker volumes of WTI Midland destined for Europe, a tightening picture in some refined products and a recovery in differentials across competing West African and Mediterranean streams have combined to brighten the outlook for light sweet grades in the North Sea.

For slightly sourer grades earlier demand from some Far Eastern buyers also helped to keep length in check coming into July-loading trade. Several Forties cargoes expected to load onto a VLCC mid-month, according to traders and ship tracking data.

Indeed, greater support was revealed for Brent Blend in the Platts Market on Close assessment process with a bid from Trafigura at 25 cents/b for a cargo loading Aug. 7-9 left outstanding at the close.

On the sour side, Europe continues to draw on grades from the Persian Gulf to supplement a tight supply picture in Europe. At least 3 million barrels of Oman, Upper Zakum and Murban are so far expected to arrive in Europe through July, Kpler ship tracking data showed — on track to be the highest volumes in a year.

In upstream news, Norwegian independent DNO on July 10 announced a gas and condensate discovery near the Troll/Gjoa hub estimated at 120 million-230 million barrels of oil equivalent, saying the mid-point would make the “Carmen” find the largest offshore Norway in a decade.

The find in Production License 1148 is based on drilling of an exploration well and extended side-track well, DNO said.

The wells “have established a deeper hydrocarbon-

West Africa market parity prices (continued)

		Mid	Change	Spread vs fwd Dated Brent	Mid	Change
TEN	AAXTW00	77.110	+0.890	ATENM00	-1.100	+0.060
Ukpokiti	APRID00	79.860	+1.000	APIRO00	1.650	+0.170
Yoho Light	AAXTK00	80.395	+0.975	AYOH000	2.185	+0.145
Zafiro	AAXTU00	81.575	+0.915	AZAFB00	3.365	+0.085

US West Coast Crude Assessments (\$/barrel) (PGA page 214)

			Mid	Change	Spread to NYMEX WTI CMA	Mid	Change
ANS/Long Beach	PCAAD00	79.39–79.43	79.410	-0.650	AAGWX00 6.81/6.83	6.820	+0.060
ANS/Long Beach					Spread to ICE BRENT CMA		
					AANSA00	2.401	-0.003

US spot crude assessments (\$/barrel) (PGA pages 210 & 214)

			Mid	Change
Mars (Aug)	AAMBR00	75.01–75.03	75.020	-0.490
Mars (Sep)	AAMBU00	74.24–74.26	74.250	-0.370
Mars (Oct)	AAMBX00	73.54–73.56	73.550	-0.290
Mars/WTI (Aug)	AAGWH00	1.94/1.96	1.950	+0.300
Mars/WTI (Sep)	AAKTH00	1.29/1.31	1.300	+0.450
Mars/WTI (Oct)	AAMBO00	0.84/0.86	0.850	+0.450
LOOP/WTI (Aug)	AALOM01		1.850	+0.300
LOOP/WTI (Sep)	AALOM02		1.200	+0.450
LOOP/WTI (Oct)	AALOM03		0.750	+0.450
LOOP/Mars (Aug)	AALPM01		-0.100	0.000
LOOP/Mars (Sep)	AALPM02		-0.100	0.000
LOOP/Mars (Oct)	AALPM03		-0.100	0.000
WTI-Delta	AAEJK00	0.19/0.21	0.200	+0.010
P-Plus WTI	PCACI00	3.57/3.59	3.580	+0.010
P-5 WTI*	AAFEN00		NA	NANA

*P-5 WTI 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.

			Mid	Change	Spread vs 1st line WTI	Mid	Change
WTI (Midland)	PCACJ00	74.71–74.73	74.720	-0.790	AAGVZ00 1.64/1.66	1.650	0.000
WTS (1st month)	PCACK00	73.71–73.73	73.720	-0.790	AAGWB00 0.64/0.66	0.650	0.000
WTI MEH	AAYRG00		74.920	-0.790	AAYRH00	1.850	0.000
Bonito	PCAIE00	74.86–74.88	74.870	-0.490	AAGWF00 1.79/1.81	1.800	+0.300
SGC	AASOI00	74.51–74.53	74.520	-0.790	AASOJ00 1.44/1.46	1.450	0.000
Poseidon	AABHK00	74.56–74.58	74.570	-0.640	AAGWL00 1.49/1.51	1.500	+0.150
LLS (1st month)	PCABN00	75.96–75.98	75.970	-0.790	AAGWN00 2.89/2.91	2.900	0.000
HLS (1st month)	PCABD00	75.56–75.58	75.570	-0.790	AAGWP00 2.49/2.51	2.500	0.000
Wyoming Sweet	PCACM00	72.56–72.58	72.570	-0.790	AAGWR00 -0.51/-0.49	-0.500	0.000
Thunder Horse	AAWZK00	76.41–76.43	76.420	-0.490	AAWZL00 3.34/3.36	3.350	+0.300

water contact, tripling the mid-point of DNO's pre-drill expected range. Carmen is...located close to existing infrastructure with clear routes toward commercialization," the company said.

Platts North Sea Dated Brent, BFOE, CFD Assessment Rationales & Exclusions

Dated Brent <PCAAS00> assessment rationale:

Of the six grades in the Dated Brent basket Brent Blend, Forties and WTI Midland were seen in the Platts Market on Close assessment process. Brent was assessed in a 0.5 cent/day contango structure July 20 to Aug. 8 using an outstanding bid Aug. 8. Aug. 8-10 was assessed in a flat structure. Forties, Oseberg, Ekofisk and Troll were assessed unchanged July 20 to Aug. 9 with flat structures rolled over back-end dates amid steady fundamentals and in the absence of indications testing the July 7 assessments. FOB WTI Midland was assessed higher reflecting a higher CIF Rotterdam assessment and a lower freight adjustment factor on the day. CIF WTI Midland was assessed unchanged July 22 to Aug. 9 with a flat structure rolled over back-end dates amid steady fundamentals and in the absence of indications testing the July 7 assessment. WTI Midland was the most competitive grade in the Dated Brent assessment July 20 to Aug. 10.

BFOE (PCAAQ00-PCAR00,PCARR00) assessment rationale:

September Cash BFOE was assessed using a traded bid and offer. October Cash BFOE was assessed using a September/October EFP roll heard during the day. November Cash BFOE was assessed using an October/November EFP roll heard during the day.

CFD (PCAKA00-AALDA00) assessment rationale:

July 10-14 was assessed using a July 10-14 versus July 17-21 CFD roll heard during the day. July 17-21 was assessed using multiple traded bids. July 24-28 was assessed using an outstanding bid. July 31 to Aug. 4 was assessed using multiple traded bids. Aug. 7-11 was assessed using an outstanding bid.

US spot crude assessments (continued)

				<u>Spread vs 2nd line WTI</u>			
WTI MEH (2nd month)	AAXXE00	74.700	-0.870	AAYYA00	1.750	-0.050	
WTI Midland (2nd month)	AAYZA00	74.500	-0.870	AAXXF00	1.550	-0.050	
WTS (2nd month)	AAURG00	73.04-73.06	-0.820	AAURH00	0.09/0.11	0.100	0.000
LLS (2nd month)	AAURC00	75.59-75.61	-0.770	AAURD00	2.64/2.66	2.650	+0.050
HLS (2nd month)	AAURE00	75.19-75.21	-0.770	AAURF00	2.24/2.26	2.250	+0.050
				<u>Spread vs NYMEX WTI CMA</u>			
WCS ex-Cushing	AAWTY00	69.66-69.68	-0.800	AAWTZ00	-3.21/-3.19	-3.200	0.000
WCS ex-Nederland	AAYAY00		-0.800	AAYAX00		-2.050	0.000
Bakken Williston	AAXPP00		-0.800	AASRX00		1.500	0.000
Bakken Guernsey	AASRR00	72.56-72.58	-0.800	AASRV00	-0.31/-0.29	-0.300	0.000
Bakken Clearbrook	AASRU00	76.11-76.13	-0.800	AASRW00	3.24/3.26	3.250	0.000
Bakken USGC Pipe	ABAKA00		-0.800	ABAKB00		2.300	0.000
<u>FOB USGC</u>				<u>FOB USGC Spread vs NYMEX WTI Strip</u>			
Platts AGS	AGSAA00		-0.770	AGSAC00		2.460	+0.060
Bakken	ABAKC00		-0.770	ABAKD00		2.460	+0.060
Eagle Ford Crude	AAYAT00		-0.770	AAYAU00		1.560	+0.060
Eagle Ford Condensate	AAYAR00		-0.770	AAYAS00		0.060	+0.060
WTI	AAYBA00		-0.770	AAYAZ00		2.460	+0.060
				<u>WTI FOB USGC vs WTI MEH (by decade)</u>			
WTI FOB USGC First Decade	ADECB00	75.370	-0.790	ADECD00		0.450	0.000
WTI FOB USGC Second Decade	ADECE00	75.320	-0.790	ADECG00		0.400	0.000
WTI FOB USGC Third Decade	ADECH00	75.320	-0.790	ADECJ00		0.400	0.000
WTI FOB USGC Decades Average	ADECA00	75.340	-0.790				
<u>FOB USGC Spread vs Dated Brent Strip</u>				<u>WTI FOB USGC vs Dated Brent Basis (by decade)</u>			
Platts AGS	AGSAB00	-2.480	+0.130	ADECC00	-2.320	-0.080	
Bakken	ABAKE00	-2.480	+0.130	ADECF00	-2.370	-0.080	
Eagle Ford Crude	AEFCA00	-3.380	+0.130	ADECI00	-2.370	-0.080	
Eagle Ford Condensate	AEFCB00	-4.880	+0.130				
WTI	AWTUA00	-2.480	+0.130				
<u>Global Benchmarks at US Close</u>				<u>WTI FOB USGC vs ICE Brent Basis (by decade)</u>			
Americas Dated Brent	AAQBF00	78.070-78.090	-0.820	ADECK00	-2.060	-0.070	
				ADECL00	-2.110	-0.070	
				ADECM00	-2.110	-0.070	

Johan Sverdrup FOB North Sea (AJSVA00, AJSVB00) assessment rationale:

Johan Sverdrup was assessed unchanged across the 10-day to month-ahead assessment period reflecting steady sour market fundamentals on the day and in the absence of indications testing the July 7 assessment.

Exclusions: PLATTS BRENT DIFF: JUL24-JUL28 (SEP): EXXONMOBIL BIDS 100KB AT \$0.25

Platts is part of S&P Global Commodity Insights

Platts North Sea Dated Brent, BFOE, CFD Bids, Offers, Trades

Bids:

North Sea

TRAFI Bids Forties, FOB Hound Point, Aug. 07 - Aug. 09, at Dtd 0.15;

TRAFI Bids BNB, FOB Sullom Voe, Aug. 07 - Aug. 09, at Dtd 0.25;

TRAFI Bids WTI Midland, CIF Rotterdam, Aug. 05 - Aug. 10, at Dtd 1.20;

Cash BFOE

None

BFOE CFD

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): GUNVOR

BIDS 100KB AT \$0.20

PLATTS BRENT DIFF: JUL17-JUL21 (SEP):

TRAFIGURA BIDS 100KB AT \$0.20

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): DV

TRADING BIDS 100KB AT \$0.19

PLATTS BRENT DIFF: JUL24-JUL28 (SEP):

TRAFIGURA BIDS 100KB AT \$0.25

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): UNIEPEC

BIDS 100KB AT \$0.25

PLATTS BRENT DIFF: JUL24-JUL28 (SEP):

CHEVRON BIDS 100KB AT \$0.21

PLATTS BRENT DIFF: JUL24-JUL28 (SEP):

PETRACO BIDS 100KB AT \$0.20

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DV

TRADING BIDS 100KB AT \$0.20

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DARE

BIDS 100KB AT \$0.20

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): DV

TRADING BIDS 100KB AT \$0.27

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): DARE

BIDS 100KB AT \$0.15

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): MCE

BIDS 100KB AT \$0.15

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): DV

TRADING BIDS 100KB AT \$0.15

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): MCE

BIDS 100KB AT \$0.10

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): DARE

BIDS 100KB AT \$0.00

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): DARE

BIDS 100KB AT \$0.41

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): DV

TRADING BIDS 100KB AT \$0.40

PLATTS BRENT DIFF: JUL31-AUG4 (OCT):

TRAFIGURA BIDS 100KB AT \$0.40

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): UNIEPEC

US domestic crude assessments London close (\$/barrel) (PGA page 1240)

					Spread to			
			Mid	Change	NYMEX light sweet crude		Mid	Change
WTI (Aug)	AAQAR00	73.77-73.79	73.780	+0.970	AAQAS00	-0.01/0.01	0.000	0.000
WTI (Sep)	AAQAT00	73.69-73.71	73.700	+0.900	AAQAU00	-0.01/0.01	0.000	0.000
WTI (Oct)	AAQAV00	73.40-73.42	73.410	+0.880	AAQAW00	-0.01/0.01	0.000	0.000
					Spread to			
					same-month cash WTI		Mid	Change
WTI MEH (Aug)	AAYRZ00		75.630	+0.920	AAYTA00		1.850	-0.050
WTI MEH (Sep)	AAXYD00		75.500	+0.850	AAYWA00		1.800	-0.050
LLS (Aug)	AAQBB00	76.67-76.69	76.680	+0.970	AAQBC00	2.89/2.91	2.900	0.000
LLS (Sep)	AAQBD00	76.34-76.36	76.350	+0.950	AAQBE00	2.64/2.66	2.650	+0.050
MARS (Aug)	AAQAX00	75.72-75.74	75.730	+1.270	AAQAY00	1.94/1.96	1.950	+0.300
MARS (Sep)	AAQAZ00	74.99-75.01	75.000	+1.350	AAQBA00	1.29/1.31	1.300	+0.450

Americas close (\$/barrel) (PGA page 210)

			Mid	Change
Americas Dated Brent	AAQBF00	78.07-78.09	78.080	-0.820

Americas Dated Brent reflects market value for Dated Brent at 2:30pm Eastern Time.

US crude assessments Singapore close (\$/barrel) (PGA page 2208)

		Mid	Change
LOOP Sour (Aug)	AAZDA00	74.780	+0.780
LOOP Sour (Sep)	AAZDB00	73.900	+0.930
LLS (Aug)	AAZDC00	76.130	+1.230
LLS (Sep)	AAZDD00	75.750	+0.930
Southern Green Canyon	AAZDE00	74.680	+0.480
WTI MEH (Aug)	AAZDF00	75.080	+1.180
WTI MEH (Sep)	AAZDG00	74.950	+1.130

CFR North Asia Assessments Singapore Close (\$/barrel) (PGA page 2202)

		Mid	Change
Dubai CFR North Asia	PCAQA00	80.140	+0.420
Oman CFR North Asia	PCAQJ00	80.130	+0.420
Upper Zakum CFR North Asia	PCAQB00	80.100	+0.420
Qatar Marine CFR North Asia	PCAQC00	79.040	+0.450
Murban CFR North Asia	PCAQE00	80.250	+0.500
Basrah Medium CFR North Asia	BASNA00	78.840	+0.450
ESPO CFR North Asia	PCAQD00	72.030	+0.670
Forties CFR North Asia	PCAQF00	81.900	+1.110
Dalia CFR North Asia	PCAQG00	80.660	+1.155
WTI MEH CFR North Asia	PCAQH00	80.280	+1.150
LOOP Sour CFR North Asia	PCAQI00	78.910	+0.730

BIDS 100KB AT \$0.40

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): MCE

BIDS 100KB AT \$0.30

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): MCE

BIDS 100KB AT \$0.30

Offers:

North Sea

BP Offers WTI Midland, CIF Rotterdam, Aug. 02 - Aug. 06, at Dtd 1.45;

Equinor Offers WTI Midland, CIF Rotterdam, Aug. 02 - Aug. 06, at Dtd 1.50;

Gunvor Offers WTI Midland, CIF Rotterdam, Jul . 24 - Jul . 28, at Dtd 1.60; 1 OCO 2

Gunvor Offers WTI Midland, CIF Rotterdam, Jul . 22 - Jul . 26, at Dtd 1.45; 2 OCO 1

Vitol offers Forties, FOB Hound Point, Jul. 26 - Jul. 28, at Dtd 0.60;

Cash BFOE

None

BFOE CFD

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): VITOL
OFFERS 100KB AT \$0.30

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): DV
TRADING OFFERS 100KB AT \$0.35

PLATTS BRENT DIFF: JUL17-JUL21 (SEP):
PETROCHINA OFFERS 100KB AT \$0.35

PLATTS BRENT DIFF: JUL17-JUL21 (SEP):
CHEVRON OFFERS 100KB AT \$0.45

PLATTS BRENT DIFF: JUL17-JUL21 (SEP):
FREEPOINT OFFERS 100KB AT \$0.45

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): DARE
OFFERS 100KB AT \$0.75

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): MCE
OFFERS 100KB AT \$0.75

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): ONYX
OFFERS 100KB AT \$0.80

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DV
TRADING OFFERS 100KB AT \$0.40

PLATTS BRENT DIFF: JUL24-JUL28 (SEP):
FREEPOINT OFFERS 100KB AT \$0.55

Canadian spot crude cargo assessments (\$/barrel) (PGA page 230)

			Mid	Change	Spread vs fwd Dated Brent	Mid	Change
Hebron	AHEBA00		79.170	+0.980	AHEBC00	1.000	+0.150
Terra Nova	AAJU00	78.60-78.64	78.620	+0.880	AAJUJ00	0.44/0.46	0.450 +0.050
Hibernia	AAJKB00	79.40-79.44	79.420	+0.830	AAJKB00	1.24/1.26	1.250 0.000
White Rose	AAVJX00	79.65-79.69	79.670	+0.880	AAVJY00	1.49/1.51	1.500 +0.050

The published spreads for Canadian cargo assessments reflect the market value at which these grades are trading versus Dated Brent around loading time. The spreads and fixed price assessments reflect a typical forward loading window of 33-63 days forward. For further explanation see www.platts.com.

Canadian spot crude assessments (\$/barrel) (PGA page 230)

			Mid	Change	Spread vs Canada basis	Mid	Change
Lloyd Blend	AALRK00	62.06-62.08	62.070	-0.800	AALRP00	-10.81/-10.79	-10.800 0.000
Mixed Sweet	AALRR00	71.66-71.68	71.670	-0.800	AALRV00	-1.21/-1.19	-1.200 0.000
Light Sour Blend	AALRX00	70.71-70.73	70.720	-0.800	AALSD00	-2.16/-2.14	-2.150 0.000
Midale	AAUCC00	68.61-68.63	68.620	-0.800	AAUCE00	-4.26/-4.24	-4.250 0.000
Condensates	AALSF00	67.21-67.23	67.220	-1.100	AALSJ00	-5.66/-5.64	-5.650 -0.300
Syncrude Sweet Prem.	AASOK00	76.11-76.13	76.120	-0.800	AASOM00	3.24/3.26	3.250 0.000
WCS Hardisty	AAPPN00	61.36-61.38	61.370	-0.800	AAPPP00	-11.51/-11.49	-11.500 0.000
Cold Lake Hardisty	AASZX00	61.21-61.23	61.220	-0.800	AASZZ00	-11.66/-11.64	-11.650 0.000
WTI CMA (1st mo)	AAVSNO0		72.870	-0.800			

Latin American assessments (\$/barrel) (PGA page 280)

			Mid	Change	Diff to WTI strip	Diff to Futures Brent strip	Diff to Dated Brent strip
Escalante	PCAGC00	75.38-75.43	75.405	-0.750	PCAGO00	2.565	AAXAX00 -2.165
Medanito	AMTOA00		72.405	-0.750	AMTOC00	-0.435	AMTOB00 -4.900
Santa Barbara	AAITD00	75.87-75.91	75.890	-0.815	AAITJ00	3.050	AAXBUB00 -1.415
Loreto	PCAGH00	67.47-67.51	67.490	+0.185	PCAGQ00	-5.350	AAXBVB00 -9.815
Oriente	PCADE00	68.37-68.41	68.390	+0.185	PCAGU00	-4.450	AAXBW00 -8.915
Napo	AAMCA00	66.37-66.41	66.390	+0.185	AAMCD00	-6.450	AAXBX00 -10.915
Tupi	ATUPA00		78.255	-0.400	ATUPC00	5.415	ATUPB00 0.950
Marlim	AAITF00	73.63-73.68	73.655	-0.150	AAITL00	0.815	AAXBY00 -3.650
Castilla Blend	AAVEQ00	70.78-70.83	70.805	-0.150	AAVEQ01	-2.035	AAXBZ00 -6.500
Vasconia	PCAGI00	73.28-73.33	73.305	-0.650	PCAGR00	0.465	AAXCB00 -4.000
Mesa 30	AAITB00	74.98-75.03	75.005	-0.550	AAITH00	2.165	AAXCC00 -2.300
Liza	ALIZA00		77.905	-0.650	ALIZD00	5.065	ALIZC00 0.600
Latin America WTI strip	AAXBPO0		72.840				ALIZB00 0.335
Latin America Futures Brent strip	AAXBQ00		77.305				
Latin America Dated Brent strip	AAXBRO0		77.570				

Latin America market parity prices (\$/barrel) (PGA page 270)

		Mid	Change
Maya	AAYMP00	70.278	-0.384
Merrey 16	AMERA00	69.224	-0.230

Platts euro-denominated assessments (€/barrel) (PGA page 1252)

			Mid	Change
European crude oil benchmarks				
Dated Brent	AAPYR00	71.730-71.750	71.738	+0.553
Dated Brent (CIF)	PCAKN00		72.699	+0.542
Urals (Mediterranean)	AAPYS00	56.790-56.820	56.801	+0.499
US crude oil benchmarks				
WTI (Aug)	AAPYT00	67.170-67.190	67.177	+0.678
WTI MEH (Aug)	AAYSA00		68.861	+0.626
Mars (Aug)	AAPYU00	68.940-68.960	68.952	+0.946

Euro/US\$ forex rate: 1.0983. Platts Euro denominated crude oil assessments are based on market values and a Euro/US\$ forex rate at 4:30 PM local London time.

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): MCE
OFFERS 100KB AT \$0.60

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DARE
OFFERS 100KB AT \$0.65

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): BP
OFFERS 100KB AT \$0.70

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): SOCAR
OFFERS 100KB AT \$0.70

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): MCE
OFFERS 100KB AT \$0.45

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): DV
TRADING OFFERS 100KB AT \$0.50

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): OMV
OFFERS 100KB AT \$0.50

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): DARE
OFFERS 100KB AT \$0.60

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): MCE
OFFERS 100KB AT \$0.35

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): DV
TRADING OFFERS 100KB AT \$0.40

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): DARE
OFFERS 100KB AT \$0.50

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): ONYX
OFFERS 100KB AT \$0.50

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): BP
OFFERS 100KB AT \$0.50

PLATTS BRENT DIFF: JUL31-AUG4 (OCT):
PETROCHINA OFFERS 100KB AT \$0.50

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): DV
TRADING OFFERS 100KB AT \$0.50

PLATTS BRENT DIFF: JUL31-AUG4 (OCT):
FREEPOINT OFFERS 100KB AT \$0.50

PLATTS BRENT DIFF: JUL31-AUG4 (OCT):
PETRACO OFFERS 100KB AT \$0.50

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): OMV
OFFERS 100KB AT \$0.50

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): DARE
OFFERS 100KB AT \$0.65

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): MCE
OFFERS 100KB AT \$0.75

Ruble-denominated Russian assessments (Rb/barrel) (PGA page 1224)

			Mid	Change
Russian crude oil benchmarks				
Urals FOB Novorossiysk	AAUJP00	5406.740–5410.360	5408.552	+18.591
Urals FOB Baltic	AAUJQ00	5406.740–5410.360	5408.552	+18.591
Urals FOB Novorossiysk 80kt	AAUJR00	5325.250–5328.870	5327.057	+19.379
Urals CIF Mediterranean	AAUJS00	5647.600–5650.320	5648.962	+13.068
Urals CIF Rotterdam	AAUJT00	5609.570–5612.290	5610.931	+13.435

US\$/Ruble forex rate: 90.5500. Platts Ruble denominated crude oil assessments are based on market values and a US\$/Ruble forex rate at 4:30 PM local London time.

Platts CAD-denominated Canada spot crude assessments (C\$/cu m) (PGA page 232)

			Mid	Change
Lloyd Blend	AALRM00	518.383–518.550	518.467	-6.194
Mixed Sweet	AALRT00	598.571–598.738	598.655	-6.120
Light Sour Blend	AALRZ00	590.636–590.803	590.720	-6.127
Midale	AAUCD00	573.095–573.262	573.178	-6.144
Condensates	AALSH00	561.401–561.568	561.484	-8.659
Syncrude Sweet	AASOL00	635.742–635.909	635.825	-6.086
WCS Hardisty	AAPPO00	512.536–512.703	512.620	-6.200
Cold Lake Hardisty	AASZY00	511.283–511.450	511.367	-6.201

Daily US\$ vs EURO exchange rate (PGA page 1151)

		Mid	Change
July 10, 2023	AAFCW00	1.0983	+0.003

Asia close Brent and WTI spot assessments (\$/barrel) (PGA page 2210)

			Mid	Change
Brent (Sep)	PCAJG00	77.97–78.01	77.990	+1.090
Brent (Oct)	PCAJI00	77.62–77.66	77.640	+1.060
Brent (Nov)	PCAJO00		77.210	+1.020
WTI (Aug)	AAFFU00	73.21–73.25	73.230	+1.180
WTI (Sep)	AAFFW00	73.13–73.17	73.150	+1.130
WTI (Oct)	AAFFY00	72.82–72.86	72.840	+1.060

Oman OSPs and derivatives (\$/barrel) (PGA pages 2658 & 2210)

			Mid	Change
Oman/Dubai Swap (Aug)	AAIHJ00	-0.02/0.02	0.000	0.000
Oman/Dubai Swap (Sep)	AAIHL00	-0.02/0.02	0.000	0.000
Oman/Dubai Swap (Oct)	AAIHN00	-0.02/0.02	0.000	0.000
Oman Swap (Aug)	AAHZP00	77.46–77.50	77.480	+0.680
Oman Swap (Sep)	AAHZR00	76.74–76.78	76.760	+0.720
Oman Swap (Oct)	AAHZT00	76.13–76.17	76.150	+0.760

Daily OPEC Basket Price (\$/barrel) (PGA page 207)

		Mid	Change
July 7, 2023	AAEUQ00	78.430	+0.870

Trades:

North Sea

None

Cash BFOE

PLATTS CASH BFOE: SEP23: MERCURIA SELLS TO GUNVOR* 100KB AT \$78.57 (15:29:42)

PLATTS CASH BFOE: SEP23: GUNVOR BUYS FROM MERCURIA* 100KB AT \$78.52 (15:29:47)

PLATTS CASH BFOE: SEP23: GUNVOR BUYS FROM PETROINEOS* 100KB AT \$78.51 (15:29:49)

PLATTS CASH BFOE: SEP23: PETROINEOS SELLS TO GUNVOR* 100KB AT \$78.57 (15:29:53)

PLATTS CASH BFOE: SEP23: GUNVOR BUYS FROM MERCURIA* 100KB AT \$78.52 (15:29:56)

PLATTS CASH BFOE: SEP23: GUNVOR BUYS FROM PETROINEOS* 100KB AT \$78.57 (15:29:59)

BFOE CFD

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): EQUINOR SELLS TO DARE* 100KB AT \$0.25 (15:29:31)

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): EQUINOR SELLS TO TRAFIGURA* 100KB AT \$0.25 (15:29:33)

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): EQUINOR SELLS TO UNIPEC* 100KB AT \$0.25 (15:29:36)

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): EQUINOR SELLS TO PETROCHINA* 100KB AT \$0.25 (15:29:39)

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DV TRADING SELLS TO PETROCHINA* 100KB AT \$0.25 (15:29:54)

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DV TRADING SELLS TO EXXONMOBIL* 100KB AT \$0.25 (15:29:56)

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): BP SELLS TO DARE* 100KB AT \$0.45 (15:25:22)

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): PETROCHINA SELLS TO DARE* 100KB AT \$0.45 (15:28:14)

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): BP SELLS TO UNIPEC* 100KB AT \$0.45 (15:28:14)

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): BP SELLS TO DARE* 100KB AT \$0.45 (15:28:19)

Futures Settlements

	Settlement	Change	Low	High	Volume*	Open interest	PNT****
NYMEX Light Sweet crude (\$/barrel) (PGA page 705)							
Aug 23	NMCL001	72.99	-0.87	72.67	74.15	276840	284207
Sep 23	NMCL002	72.95	-0.82	72.63	74.06	127814	323036
Oct 23	NMCL003	72.70	-0.74	72.39	73.74	56235	176577
Nov 23	NMCL004	72.39	-0.66	72.09	73.35	33977	77849
Total	NMCL000				687760		XNCLP00 15093
ICE Brent (\$/barrel) (PGA page 704)							
Sep 23	ICLL001	77.69	-0.78	77.36	78.77	328588	502029
Oct 23	ICLL002	77.40	-0.68	77.06	78.42	166905	378184
Nov 23	ICLL003	77.01	-0.61	76.68	77.97	95838	212584
Dec 23	ICLL004	76.61	-0.56	76.29	77.52	128076	291287
Total	ICLL000				893485		XILLP00 16783
ICE WTI (\$/barrel) (PGA page 704)							
Aug 23	ICIC001	72.99	-0.87	72.68	74.14	33045	69723
Sep 23	ICIC002	72.95	-0.82	72.66	74.03	46333	97575
Oct 23	ICIC003	72.70	-0.74	72.41	73.69	30227	59936
Nov 23	ICIC004	72.39	-0.66	72.12	73.30	13022	28244
Total	ICIC000				149023		XIICP00 6942
ICE BWAWE (\$/barrel) (PGA page 704)							
BWAWE data refer to previous day.							
Sep 23	XIBW001	77.40					
Oct 23	XIBW002	77.04					
DME Oman crude (\$/barrel)** (PGA pages 702 & 2710)							
Sep 23	XDOA001	78.29	+0.40			2535	
Sep 23	DMOQ001	78.18	-1.13	78.18	78.41	2538	4301
Oct 23	DMOQ002	77.89	-0.55	77.89	77.89	594	19
Nov 23	DMOQ003	77.39	-0.51	77.39	77.39	594	14
Dec 23	DMOQ004	76.96	-0.51	76.96	76.96	0	0
Total Volume	DMOQ000					5201	XDOQP00 0
IFAD Murban crude (\$/barrel) (PGA page 703)							
Sep 23	AMIFA00	78.460					
Murban vs Dubai***	AMIFB00	1.700					
NYMEX ULSD (\$/gal) (PGA page 705)							
Aug 23	NMHO001	2.5532	-0.0059	2.5291	2.5830	32921	69038
Sep 23	NMHO002	2.5401	-0.0019	2.5169	2.5682	28902	54597
Oct 23	NMHO003	2.5305	+0.0016	2.5068	2.5558	14236	37166
Nov 23	NMHO004	2.5190	+0.0039	2.4953	2.5412	7622	29169
Total	NMHO000					105553	XNHOP00 5870
NYMEX RBOB unleaded gasoline (\$/gal) (PGA page 705)							
Aug 23	NMRB001	2.5696	-0.0197	2.5523	2.6054	37325	89109
Sep 23	NMRB002	2.4940	-0.0149	2.4784	2.5256	36673	84056
Oct 23	NMRB003	2.2716	-0.0052	2.2540	2.2945	18766	53013
Nov 23	NMRB004	2.2078	-0.0056	2.1921	2.2292	9199	30038
Total Volume	NMRB000					116973	XNRBP00 6649
NYMEX Natural Gas (\$/MMBtu) (PGA page 705)							
Aug 23	NMNG001	2.669	+0.087	2.570	2.692	115227	166665
Sep 23	NMNG002	2.641	+0.071	2.562	2.671	59198	289722
Oct 23	NMNG003	2.729	+0.069	2.679	2.756	34223	103623
Nov 23	NMNG004	3.149	+0.076	3.087	3.155	18722	87124
Total Volume	NMNG000					268403	XNNGP00 4078

PLATTS BRENT DIFF: JUL31-AUG4 (OCT):
PETRACO SELLS TO DARE* 100KB AT \$0.45 (15:28:27)
PLATTS BRENT DIFF: JUL31-AUG4 (OCT):
PETRACO SELLS TO DARE* 100KB AT \$0.45 (15:29:04)
PLATTS BRENT DIFF: JUL31-AUG4 (OCT): BP
SELLS TO DARE* 100KB AT \$0.45 (15:29:10)

This assessment commentary applies to the following market data codes: Dated Brent <PCAAS00> CFD Week 1 <PCAKA00> CFD Week 2 <PCAKC00> Brent Mo01 <PCAAQ00> CFD Week 3 <PCAKE00> Brent Mo02 <PCAAR00> CFD Week 4 <PCAKG00> Brent Mo03 <PCARR00> CFD Week 5 <AAGLU00> CFD Week 6 <AAGLV00> CFD Week 7 <AALCZ00> CFD Week 8 <AALDA00> Johan Sverdrup FOB North Sea <AJSVA00> Johan Sverdrup FOB North Sea vs North Sea Dtd Strip <AJSVB00>

Platts WTI Midland Crude DAP Europe
Assessment Rationale & Exclusions

WTI Crude DAP Europe <AWTIC00> assessment rationale:

WTI DAP Rotterdam was assessed unchanged between July 30 and August 5, with a 0.5 cent/day

Futures Settlements (continued)

	Settlement	Change	Low	High	Volume*	Open interest	PNT****
ICE low sulfur gasoil (\$/mt) (PGA page 704)							
Jul 23	ICLO001	755.00	+11.00	741.00	757.75	27873	29949
Aug 23	ICLO002	742.75	+10.00	730.00	745.75	84128	145338
Sep 23	ICLO003	738.25	+10.00	726.00	741.25	53018	92002
Oct 23	ICLO004	736.00	+9.50	724.25	739.00	28227	92232
Total Volume	ICLO000				265245		XILOP00 1980
ICE Midland WTI American Gulf Coast (\$/barrel) (PGA page 704)							
Aug 23	IHO001	74.87	-0.86	74.67	75.94	1223	9995
Sep 23	IHO002	74.70	-0.84	74.50	75.75	3291	4987
Oct 23	IHO003	74.41	-0.73	74.37	75.38	966	4362
Nov 23	IHO004	74.09	-0.69	74.09	74.09	267	4075

*Volume, open interest and PNT reflect prior trading day. PNT reflect volume for Privately Negotiated Trades or off-exchange. **Oman settlements are Post Close settlements. ***IFAD Murban spread to 1st Line (Sep 23) Platts Dubai crude futures. ****Privately Negotiated Trade values found on PGA page 710

Futures at Platts' Market on Close (\$/barrel) (PGA page 703)

Singapore*			London*			Houston*		
ICE Brent			NYMEX WTI					
Sep	XILLA01	77.82	AAYES00	78.43	AAQBG00	77.72	M1	XNCLA01 73.23
Oct	XILLA02	77.46	AAYET00	78.08	AAQBH00	77.43	M2	XNCLA02 73.15
Nov			AAXZY00	77.67	AAXZZ00	77.03	M3	
Dec			AAYAM00	77.23	AAYAL00	76.63	M4	
Oman								
Sep	XDOA001	78.29						
Volume	XDOAV01	2535						

*Singapore and London MOC close at precisely 16:30 local time while Houston MOC closes at precisely 13:30 local time. MOC times are usually earlier on the day preceding major local holidays.

Platts

S&P Global
Commodity Insights

Crude Oil Marketwire

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Reported spot cash transactions (PGA page 3)

Trans. Date	Cargo / Spread Dates	Cargo Load Range / CFD Week	CFD Roll Week	Crude Grade(s)	Reported Status	Outright / Diff. Price (\$/barrel)	Basis	Barrels	Seller	Buyer
Platts Americas										
07/10/2023	August			Bakken Clearbrook	Heard	3.25	NYMEX WTI CMA			
07/10/2023	August			Bakken Patoka	Heard	2.45	NYMEX WTI CMA			
07/10/2023	August			Bakken Williston (DAPL)	Heard	1.45	NYMEX WTI CMA			
07/10/2023	August			C5 Fort Saskatchewan	Heard	-5.65	NYMEX WTI CMA			
07/10/2023	August			SGC (Southern Green Canyon)	Heard	1.50	Cash WTI			
07/10/2023	August			SGC (Southern Green Canyon)	Heard	1.50	Cash WTI			
07/10/2023	August			WTI MEH	Heard	1.85	Cash WTI			
07/10/2023	August			WTI Midland	Heard	1.65	Cash WTI			
Platts Asia										
7/10/2023	September			Dubai Partial	Done	78.29		25000	Reliance	Gunvor
7/10/2023	September			Dubai Partial	Done	78.27		25000	BP	Gunvor
7/10/2023	September			Dubai Partial	Done	78.25		25000	Trafigura	Equinor
7/10/2023	September			Dubai Partial	Done	78.2		25000	Petrochina	Equinor
7/10/2023	September			Dubai Partial	Done	78.29		25000	Trafigura	Gunvor
7/10/2023	September			Dubai Partial	Done	78.29		25000	Petrochina	Gunvor
7/10/2023	September			Dubai Partial	Done	78.3		25000	Trafigura	Equinor
7/10/2023	September			Dubai Partial	Done	78.25		25000	Petrochina	Gunvor
Platts EMEA										
07/10/2023	July/August	31	4	Brent CFD	Done	0.45	Cash BFOE Oct	100000	Petraco	Dare Global
07/10/2023	July/August	31	4	Brent CFD	Done	0.45	Cash BFOE Oct	100000	BP	Dare Global
07/10/2023	July/August	31	4	Brent CFD	Done	0.45	Cash BFOE Oct	100000	BP	Unipet
07/10/2023	July	17	21	Brent CFD	Done	0.25	Cash BFOE Sep	100000	Equinor	Unipet
07/10/2023	July/August	31	4	Brent CFD	Done	0.45	Cash BFOE Oct	100000	PetroChina	Dare Global
07/10/2023	July	24	28	Brent CFD	Done	0.25	Cash BFOE Sep	100000	DV Trading	ExxonMobil
07/10/2023	July/August	31	4	Brent CFD	Done	0.45	Cash BFOE Oct	100000	BP	Dare Global
07/10/2023	July	17	21	Brent CFD	Done	0.25	Cash BFOE Sep	100000	Equinor	Dare Global
07/10/2023	July	17	21	Brent CFD	Done	0.25	Cash BFOE Sep	100000	Equinor	PetroChina
07/10/2023	July	17	21	Brent CFD	Done	0.25	Cash BFOE Sep	100000	Equinor	Trafigura
07/10/2023	July	24	28	Brent CFD	Done	0.25	Cash BFOE Sep	100000	DV Trading	PetroChina
07/10/2023	July/August	31	4	Brent CFD	Done	0.45	Cash BFOE Oct	100000	BP	Dare Global
07/10/2023	July/August	31	4	Brent CFD	Done	0.45	Cash BFOE Oct	100000	Petraco	Dare Global
07/10/2023	September			Cash BFOE	Done	78.51		100000	Petrolneon	Gunvor
07/10/2023	September			Cash BFOE	Done	78.57		100000	Mercuria	Gunvor
07/10/2023	September			Cash BFOE	Done	78.52		100000	Mercuria	Gunvor
07/10/2023	September			Cash BFOE	Done	78.57		100000	Petrolneon	Gunvor
07/10/2023	September			Cash BFOE	Done	78.52		100000	Mercuria	Gunvor
07/10/2023	September			Cash BFOE	Done	78.57		100000	Petrolneon	Gunvor

Please note that all deals that are stated as "Done" were reported and published through the Platts Market on Close assessment process. Deals that are stated as "Reported" were not reported through the MOC, and may reflect transactions that were reported before or after the MOC process. Platts seeks to confirm non-MOC information to the fullest extent possible prior to publication.

contango structure rolled over back-end dates in the absence of indications testing the July 7 assessment. There were no bids, offers or trades in the Platts Market on Close assessment process.

WTI Crude DAP Augusta <AWTIA00> assessment rationale:

WTI DAP Augusta was assessed unchanged owing to the steadiness of the DAP Rotterdam differential. There were no bids, offers or trades in the Platts Market on Close assessment process.

Exclusions: None

Platts is part of S&P Global Commodity Insights

Platts WTI Midland Crude DAP Europe Bids, Offers, Trades

Bids: None

Offers: None

Trades: None

This assessment commentary applies to the following market data codes: WTI Midland DAP basis Rotterdam <AWTIC00> WTI Midland DAP basis Rotterdam vs Fwd Dated Brent <AWTID00> WTI Midland DAP basis Augusta <AWTIA00> WTI Midland DAP basis Augusta vs Fwd Dated Brent <AWTIB00>

Platts Mediterranean & Black Sea Sweet Crude Daily Commentary

- Mediterranean sweet grades see improved performance in early July
- Traders cast doubt over potential for differentials to climb further

Mediterranean sweet crude differentials have climbed to multi-month highs as grades strengthen on the back of firmer European demand.

Differentials for Azeri Light, CPC Blend, Saharan Blend and Es Sider have reached between two- and nine-month highs in early July, following weakness

in the previous quarter driven by lengthy strikes in France, weak refining margins and poor demand.

Azerbaijan's flagship Azeri Light, marketed by state energy group Socar, was last assessed at a \$3.85/b premium to Dated Brent July 7, according to Platts data. This is the highest value for the sweet grade since Jan. 23.

Differentials dropped for Azeri Light in February, following loadings delays at Ceyhan as a result of the Feb. 6 earthquake and buyers turning to alternative supply options, and then again in May on the back of weakening refinery margins in Europe coupled with softening demand.

Platts assessed Kazakh CPC Blend at a \$1.95/b discount to Dated Brent on July 7, the highest since Oct. 12, 2022.

CPC Blend value fell in March as demand for the light sweet crude took a hit from French strikes against pension reform. The Kazakh grade struggled to recover in April and May due to poor refining margins, but differentials picked up throughout June and early July. Traders noted that the arbitrage to Asia was firmly closed, but European demand for CPC Blend had been healthy.

Differentials also climbed for Algeria's Saharan Blend and Libya's Es Sider crudes. Saharan Blend, marketed by Algerian state-owned energy company Sonatrach, was assessed at a 65 cents/b premium to Dated Brent July 7, the highest since March 15.

Meanwhile, Es Sider was assessed at a 10 cents/b premium to Dated Brent July 7, the highest since May 23.

But traders seemed cautious over the higher performance of the Mediterranean sweet grades, with some pointing to fluctuations in seasonal demand.

"Maybe [it's] a bit of summer fever," one trader said. "People pre-covering for the holidays over the summer."

"Seasonal factors," a second trader added. "If you track the volumes, buyers have bought more than

a single month requirement. That is causing some tightness, but I don't see much room [for differentials] to go up further."

Platts is part of S&P Global Commodity Insights

Platts NWE and Med Urals Sour Crude Daily Market Analysis

- Latest Russian crude supply cut will add to previous measures: energy ministry
- Urals FOB Primorsk climbs to \$58.995/b, highest since November 2022

The Russian Energy Ministry said July 7 that a 500,000 b/d crude supply cut due to come into force in August is in addition to previously announced cuts.

"Russia confirms that it will reduce its supply to oil markets by 500,000 b/d in August by reducing its exports," the ministry said.

On July 3 Russia said it would reduce crude oil exports by 500,000 b/d. On the same day Saudi Arabia said it would extend a 1 million b/d cut in force from July until at least the end of August.

The OPEC+ alliance has made three announcements of major production cuts since October — first a 2 million b/d collective reduction in quotas that went into force in November, then 1.66 million b/d voluntary additional cuts by several members beginning in May, and the Saudi unilateral cut from July.

Russia has previously said it was cutting 500,000 b/d of production as part of the 1.66 million b/d in voluntary cuts, in response to Western sanctions and the G7's price cap imposed over the war in Ukraine.

The OPEC+ alliance is next scheduled to convene Nov. 26 to review quotas, although ministers have said they can adjust production targets earlier if market conditions called for it.

Russia produced 9.45 million b/d in May, according to the monthly Platts survey of OPEC+ output by S&P

Global Commodity Insights, while Saudi Arabia pumped 10 million b/d.

The tightening supply across the sour crude complex has pushed Russian Urals prices ever closer to the \$60/b price cap.

Platts, part of S&P Global Commodity Insights, assessed Urals on a FOB Primorsk basis at \$58.995/b on July 7. This is the highest price for Urals since Nov. 17, 2022, when Platts assessed the grade at \$61.505/b, the last time that Urals traded above \$60/b.

Platts EMEA Urals and Med Brent Crude Daily Rationales & Exclusions

Urals CIF Augusta differential <AAGXX00> assessment rationale: Urals CIF Augusta was assessed 3.5 cents/b lower. There were no bids or offers in the Platts Market on Close assessment process. The Urals CIF Augusta differential was assessed using a net forward to the Urals FOB Aframax and Suezmax assessment. The FOB differentials were assessed unchanged as shrinking Urals supplies stemming from OPEC+ output cuts, tighter sour supply in light of suspended Iraqi crude exports and strong Turkish demand despite headwinds arising from Western sanctions held differentials steady.

Urals CIF Med <PCACE00> assessment rationale: The Urals CIF Mediterranean assessment reflected the value of the Mediterranean Dated Brent Strip (AALDF00) plus the Urals CIF Augusta differential assessment (AAGXX00).

Urals RCMB (Recombined) <AALIN00> assessment rationale: The Urals RCMB (Recombined) assessment reflected the value of the Platts Dated Brent assessment (PCAAS00) plus the Urals CIF Augusta differential assessment (AAGXX00).

Urals CIF Rdam <PCAFW00> assessment rationale: Urals CIF Rotterdam was assessed 3.5 cents/b lower. There were no bids or offers in the MOC. The Urals

CIF Rotterdam differential was assessed as a net forward to the Urals FOB Baltic assessment. The FOB differentials were assessed unchanged as shrinking Urals supplies stemming from OPEC+ output cuts and strong Indian and Chinese demand offsetting an embargoed European market held differentials steady.

Med Dated Brent Strip 13-28 Day <AALDF00> assessment rationale: The Mediterranean Dated Brent Strip reflected the value of Forward Dated Brent 13-28 days ahead of the day of publication. Forward Dated Brent is assessed as a function of Platts assessments of second-month Cash BFOE (PCAAR00) and BFOE CFD differentials (PCAKA00, PCAKC00, PCAKE00, PCAKG00, AAGLU00, AAGLV00, AALCZ00).

CPC Blend CIF Augusta vs BTC Dtd Strip <AAHPL00> assessment rationale: CPC Blend was assessed 15 cents/b higher. Firm CPC Blend demand in Europe is supporting differentials, with values heard from traders at around a \$1.80/b discount to Dated Brent for August-loading cargoes. Disruption to Kazakh oil production due to power outages does not seem to have significantly impacted CPC Blend crude supply, but planned maintenance at the Tengiz field in August had made some buyers anxious.

Exclusions: None

Platts is part of S&P Global Commodity Insights

Platts EMEA Urals & Med Brent Crude Bids, Offers, Trades

Bids: None

Offers: None

Trades: None

This assessment commentary applies to the following market data codes: Urals CIF Med <PCACE00> Urals CIF Rdam <PCAFW00> ESPO FOB Kozmino Mo01 London <AARWD00> CPC CIF Augusta Diff <AAHPL00>

Platts West African Crude Daily Commentary

■ WAF trading slows on strong offered levels

■ End-user demand uncertain for Angolan crudes
In the West African market July 10, trading activity has slowed across the complex following a period of firming differentials, according to market participants.

Traded values for West African crude grades have seen increases in recent weeks, driven by high demand for middle-distillate-rich Nigerian crudes from Europe, as well as Eastern demand for heavier Angolan barrels.

Nigeria's Bonny Light crude grade was last assessed by Platts at a \$1.05/b premium to Dated Brent on July 7, the highest assessment since March and up from a recent low of a 75 cents/b discount on May 18.

However, traders have warned that the recent resurgence in values for West African crude has led to a slow down in trading activity, with any uptick hinging on how product cracks in Europe develop in the near term.

"A lot of the offers seem really high [at the moment]," one West African trader said. "It will end up being a question of how strong European margins are from here on in."

The trader noted that an August-loading cargo of Nigerian grade Qua Iboe was recently offered in excess of a \$3/b premium to the Dated Brent benchmark. "Numbers are sky high," they added.

The Angolan market likewise received a boost to values as Chinese interest showed a significant uptick through the July trading cycle. This strength has extended into August, though traders were suggesting the peak has been reached in the near term.

"Differentials have plateaued for the time being," one Angolan trader said. "Sellers are showing very strong numbers and it feels hard for buyers to keep up currently."

Similarly, a number of Angolan cargoes have not yet reached end-users, with traders still holding onto stems that were traded at the more expensive levels.

“Cargoes that were previously traded, and have since been re-offered, are still available,” a third trader said. “Until you see the refineries buying at strong levels, it’s hard to buy into a real strengthening in the market.”

Platts is part of S&P Global Commodity Insights

Platts West African Crude Daily Rationale & Exclusions

The four crudes in the Nigerian basket were assessed 20 cents/b higher owing to previously heard indications and supportive fundamentals. There were no bids, offers or trades in the Platts Market on Close assessment process.

Qua Iboe FOB Nigeria <PCAID00>

Bonny Light FOB Nigeria London <PCAIC00>

Forcados FOB Nigeria <PCABC00>

Bonga FOB Nigeria <PCNGC00>

Exclusions: None

Platts is part of S&P Global Commodity Insights

Platts West African Crude Bids, Offers, Trades

Bids: None

Offers: None

Trades: None

This assessment commentary applies to the following market data code: WAF Index <AWAFB00> The WAF Index is calculated using the following market data codes: Qua Iboe FOB Nigeria <PCAID00> Bonny Light FOB Nigeria London <PCAIC00> Forcados FOB Nigeria <PCABC00> Bonga FOB Nigeria <PCNGC00>

Platts US Pipeline Crude Daily Commentary

- Mars crude rebounds in wake of DOE SPR repurchase plans

- Sweet grades assessed unchanged on day
After easing from a multiyear high July 7, medium sour crude Mars strengthened July 10 as ongoing tightness in the global sour market and further plans to purchase US sour crude to refill the US Strategic Petroleum Reserve supported values.

Platts assessed Mars crude up 30 cents/b on July 10 at a \$1.95/b premium to cash WTI, after the grade was last heard bid at a \$1.90/b premium to cash WTI and last heard offered at a \$2/b premium.

The uptick on Mars comes amid a general tightness in the global sour crude market as Saudi Arabia announced last week it would extend a voluntary 1 million b/d of production cuts through August, while Russia said it would decrease crude exports by 500,000 b/d. The cuts come on top of a collective 3.66 million b/d reduction of OPEC+ quotas implemented since October 2022 and in place through 2023.

Further supporting sour differentials was the announcement on the evening of July 7 by the US Department of Energy to purchase 6 million barrels of US sour crude for delivery in October and November as part of the wider effort to refill the US SPR after heavy drawdowns in 2022.

These factors as well as others supporting sour crude values, like higher Saudi Arabian and Iraqi official selling prices for crude delivered in August and elevated high-sulfur fuel oil prices, have sent differentials for US Gulf Coast sour grades like Mars to levels usually only seen during hurricane disruptions.

While other sour grades like Thunder Horse crude and Poseidon both saw stronger differentials July 10, broadly in line with the uptick on Mars, sweet grades on the US Gulf Coast were unchanged.

West Texas Intermediate crude at the Magellan East Houston terminal was assessed unchanged at

a \$1.85/b premium to cash WTI on July 10, while WTI crude in Midland, Texas, was assessed unchanged at a \$1.65/b premium to cash WTI, the values at which both grades were heard to trade last.

Light Louisiana Sweet crude was assessed unchanged at a \$2.90/b premium to cash WTI after the grade last heard bid at a \$2.60/b premium to cash WTI and last heard offered at a \$3/b premium.

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

Platts US Gulf Coast Export Crude Daily Commentary

- Platts AGS assessed stronger against forward Dated Brent

- US exports at 3.417 million b/d last week, flows to Asia dip: cFlow

Platts American GulfCoast Select was assessed stronger July 10 against both the 15- to 45-days forward NYMEX WTI and Dated Brent strips, while US crude exports over the first week of July edged lower from late June amid slowing volumes to Asia.

Platts AGS, which represents Midland-spec WTI crude for export out of the US Gulf Coast on an FOB basis, was assessed 6 cents/b stronger against the forward NYMEX WTI strip at a \$2.46/b premium, while against the forward Dated Brent strip Platts AGS was assessed 13 cents/b stronger at a \$2.48/b discount.

For WTI FOB cargoes loading in the first decade, or ten days, of August, values were assessed unchanged against WTI MEH at a 45 cents/b premium, and cargoes loading in the second and third decades of August were also assessed unchanged against WTI MEH at a 40 cents/b premium.

But while the August trade cycle has come more into focus, crude exports started the first week on July at a slower pace than late June amid declining flows to Asia.

Platts cFlow ship and commodity tracking software from S&P Global Commodity Insights estimated US

crude exports over the week ended July 7 at 3.417 million b/d, down 683,000 b/d from the week prior and down 484,000 b/d from the US Energy Information Administration's reported figure for the same period.

The lower export volumes came as flows to Asia fell 706,000 b/d from the cFlow estimate for the week prior to just 377,000 b/d. Flows to Europe though down 345,000 b/d on the week still averaged a robust 2.09 million b/d, cFlow data showed. This data is preliminary and subject to some change.

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

Platts Canadian Pipeline Crude Daily Commentary

- Western Canadian Select stays elevated
- US crude inventories expected lower

Heavy Canadian crude differentials remained strong July 10 as US crude stocks were expected to have continued to decline last week.

August Western Canadian Select at Hardisty, Alberta, held steady over the previous day, with Platts assessing it at WTI CMA minus \$11.50/b. It was later heard talked at WTI CMA minus \$11.40/b; however, because the indication came after the assessment deadline, it could not be used for the day's assessment. Likewise, while Platts assessed Mixed Sweet at Edmonton unchanged day on day at WTI CMA minus \$1.20/b, it was heard talked at WTI CMA minus \$1.10/b after the assessment deadline.

Platts assessed Condensate at Fort Saskatchewan 30 cents/b weaker on the day at WTI CMA minus \$5.65/b, after it was heard to trade there.

According to analysts polled by S&P Global Commodity Insights, US crude stocks were likely further reduced during the week ended July 7 as refineries continued to return from maintenance season. On average, US crude inventories are expected to have dropped by 1 million barrels to 451.2 million barrels last week, analysts said.

Since halfway through March, crude inventories have seen a 29 million barrel reduction as refiners have returned from maintenance. Refinery closures in the US fell by 237,000 b/d to about 582,000 b/d during the week ended July 7, as only a few refineries were completing planned maintenance during that time.

Platts is part of S&P Global Commodity Insights.

Platts Latin American Crude Daily Commentary

- Ecuadorian crudes higher after ANS strengthens
- Brazil-China freight declines

Most Latin American crude values fell on an outright basis July 10 as concerns mounted that demand from China, the major buyer of Latin grades behind the US, may begin to wane as the economy slows.

Ecuadorian crudes proved the exception on the day, with Platts assessing both Oriente and Napo higher in order to normalize values with competing heavy grades.

Platts assessed Oriente at a discount of \$4.45/b to the Latin WTI strip, up \$1/b day on day. Sources have said that values for Oriente and Napo have strengthened since the last tender results from Petroecuador, which were for July loading, based partly on the strength of ANS crude delivered into the USWC. Platts assessed ANS at a premium of \$2.40/b to the ICE Brent CMA for September. On an outright basis, Oriente gained 19 cents/b to \$68.39/b, noteworthy a day when most outright prices fell by more than 50 cents/b.

In Brazil, falling freight costs help support the FOB assessment for Tupi, which is primarily exported to China. Platts assessed the Brazil-China VLCC route at w46.5, a decline of 7.92% day on day, and down from a June high of w78. That brought the assessment for Tupi to a premium of 69 cents/b to the Dated Brent strip, up 35 cents/b day on day.

While Tupi gained on the day, concern over Chinese demand brought the oil complex down as a whole, with analysts focusing on data that showed China's consumer price index remained unchanged year over year in June, while the country's producer price index saw the fastest rate of decline since December 2015, dropping 5.4%, according to data released by China's National Bureau of Statistics July 10.

Platts is part of S&P Global Commodity Insights.

Subscriber Notes

Platts invites feedback on Global Crude Oil Market Parity Prices methodology

As part of its commitment to open and transparent pricing and product specifications, Platts, part of S&P Global Commodity Insights, would like to invite feedback on its Global Crude Oil Market Parity Prices methodology.

Platts Market Parity Prices (MPPs) provide a calculation of the equivalent market value of a given crude based on the value of its typical refined product yield, subtracting costs for transport and the refining process, and adjusting the resulting value based on its Gross Product Worth (GPW) benchmarked to a reference basket of relevant crude grades that are actively traded in the regional spot market.

As part of this review, Platts is inviting feedback from stakeholders on possible amendments to the model, including addition of new reference grades; changes to the underlying refinery model and GPW yields used in the calculations; as well as updates to transportation and processing cost for the various grades.

More details on Platts MPP models and methodology are available at: https://www.spglobal.com/commodityinsights/PlattsContent/assets/_files/en/our-methodology/methodology-specifications/market-parity-prices.pdf

Platts reviews all methodologies annually to ensure they continue to reflect the physical markets under assessment. Platts regularly assesses the relevance of methodologies through continuous contact with the market. Feedback on methodologies is always welcomed by Platts.

Platts is committed to providing advance notice in a clear time frame that gives users sufficient opportunity to analyze and comment on the impact of such proposed changes. Time frames vary depending on Platts analysis of the overall circumstances of a particular change.

Methodology changes that materially alter an assessment and require an update to the methodology specification are preceded by extensive bilateral discussions with market stakeholders and open public forums. Routine changes or clarifications generally do not materially alter an assessment. Platts holds open public forums in which material methodology changes and feedback are presented, and at which further feedback may be given.

Please send all comments, feedback, and questions to europa_crude@spglobal.com, Asia_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 launch Russian Urals DAP India assessment as differential to Dubai

Platts, part of S&P Global Commodity Insights, will launch a differential for Russian Urals DAP India versus Dubai, Aug. 1, 2023.

The DAP (Delivered At Place) West Coast India (WCI) Russian Urals differential to M1 Dubai [PCAAT00] following market support for an assessment of Urals

DAP WCI versus Dubai.

Platts launched DAP WCI Russian Urals assessments as both an outright value and as a differential to M1 forward Dated Brent, Jan. 18, 2023.

Please send all feedback, comments or questions to europa_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 to the public 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 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.

Platts to add additional carbon intensity calculations, carbon offset premiums

Platts, part of S&P Global Commodity Insights, has decided to launch monthly carbon intensity calculations and daily carbon offset premium assessments for 13 additional crude oil fields, eight crude grades and 13 transportation routes, effective July 14, 2023.

Platts proposed to add these new assessments and calculations on June 1, which can be found here: <https://www.spglobal.com/commodityinsights/en/our-methodology/subscriber-notes/060123-platts-proposes-additional-carbon-intensity-calculations-carbon-offset-premiums>

These new values will be added to the list of Platts existing carbon intensity calculations, bringing the current total number of fields to 139, up from 126, and increasing transparency on carbon intensities in the global crude market.

The new fields will include:

- Falah
- Rashid
- Upper Zakum
- Lower Zakum
- Al-Shaheen
- Oman Basin
- Hassi Messaoud
- Khurais
- Abu Hadriya
- Umm Shaif
- Nasr
- El Bunduq
- Abu Al Bukhoosh

The new crude grades will include:

- Dubai Grade
- Oman Grade

- Al-Shaheen Grade
- Upper Zakum Grade
- Das Blend Grade
- Arab Light Grade
- Saharan Blend Grade
- Murban Grade

Platts upstream crude carbon intensity calculations measure the impact of greenhouse gas emissions in the production lifecycle from production to storage terminal. The methodology guide for Platts upstream carbon intensity, midstream carbon intensity, and carbon offset premiums is available here: Specifications Guide Carbon Intensity Assessments.

In line with the methodology for the current carbon intensity scores of the 126 crude fields that Platts publishes, the CI of these 13 new field will be calculated using Stanford's Oil Production Greenhouse Gas Emissions Estimator (OPGEE) 2.0 model, combined with proprietary research and data from S&P Global.

Platts carbon intensity premiums for both the upstream and midstream calculations reflect the cost to offset emissions from each of the crudes, in addition to a separate premium reflecting the offsetting cost for each specific transportation route. Crude streams and different transportation routes have a variety of carbon intensities depending on where the crude comes from and the distance to the refinery.

Depending on the carbon intensity of each crude and carbon intensity of the route, the calculation is a \$/b indication of how much it would cost to use carbon removal credits to offset associated GHG emissions from the production of the crude, as well as the route in question.

The 13 new routes will include:

- Falah to Kiire
- Rashid to Kiire
- Upper Zakum to Zhoushan
- Lower Zakum to Sikka
- Al-Shaheen to Singapore
- Oman Basin to Tranmere

- Hassi Messaoud to Tranmere
- Khurais to Ain Sukhna
- Abu Hadriya to Ain Sukhna
- Umm Shaif to Sikka
- Nasr to Sikka
- El Bunduq to Sikka
- Abu Al Bukhoosh to Sikka

Please send any further feedback to Platts_Carbon@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 extends feedback period on proposal to amend Canadian Condensate methodology

Platts, part of S&P Global Commodity Insights, is extending the feedback period on its proposal to amend the Canadian condensate (C5) methodology to reflect Fort Saskatchewan as the basis of the assessment.

Platts is extending the feedback period to July 21, for any potential change to be effective Aug. 28.

Platts specifically invites feedback on the most common trading basis for Canadian condensate in the Edmonton area, specifically Fort Saskatchewan, and more information about how the different streams are valued and trade in the market.

Platts understands that there are many streams of Canadian condensate trading in the Edmonton area. Platts has proposed to reflect Fort Saskatchewan based on a historical analysis of bids, offers, and trades heard in the market, as well as feedback from market participants that it is the most liquidly traded. Under this proposal, Platts may normalize bids, offers and trades from any other location or stream of condensate back to a Fort Saskatchewan basis.

Please send all questions and comments to

oilgroup@spglobal.com and pricegroup@spglobal.com by July 21.

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 clarifies CPC Blend assessment methodology

Platts, part of S&P Global Commodity Insights, clarifies the CPC Blend assessment methodology relating to emerging market practices for the AWRP cost and the title and risk transfer following Russia's invasion of Ukraine.

AWRP

Platts understands that in current market practice the Additional War Risk Premium (AWRP), an additional insurance product that emerged in the market following Russia's invasion of Ukraine, is for the seller's account.

As such, for CPC delivered Augusta bids, offers and trades in the Platts Market on Close assessment process, Platts will reflect value with the AWRP cost being paid by the seller.

TITLE AND RISK

Platts understands that some buyers of delivered CPC Blend cargoes in the wider market are requesting delayed transfer of title and risk. Platts understands buyers are requesting that the title and risk passes at the point the vessel has passed through the Dardenelles, rather than at loadport.

Platts also understands that while this may not be market practice for every trade, many sellers are willing to agree to delayed title and risk transfer.

As such, Platts will publish bids and offers requiring delayed transfer of title and risk in the MOC, but these may be subject to normalization for assessment purposes.

CERTIFICATE OF ORIGIN

Platts previously announced on Sept. 23, 2022, that

cargoes carrying a Russian certificate of origin (COO) would be excluded from CPC Blend assessments from Oct. 3, 2022. As such, bids, offers and trades reported in the MOC will need to be performed upon with cargoes carrying a Kazakh-origin COO.

The subscriber note for that change can be found here:

<https://www.spglobal.com/commodityinsights/en/our-methodology/subscriber-notes/092322-platts-to-exclude-russian-origin-cargoes-from-cpc-blend-assessments-amend-fob-netback-calculations>

Please send all feedback, comments or questions to europa_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 launch CIF Rotterdam KEBCO, FOB Ust-Luga and Novorossiisk netback assessments

Platts, part of S&P Global Commodity Insights, will launch new KEBCO (Kazakh Export Blend Crude oil) assessments, Aug. 1, 2023.

Platts received consistent market feedback in support of a KEBCO CIF Rotterdam assessment and FOB-netback values for KEBCO Ust-Luga and FOB Novorossiisk.

KEBCO FOB Ust-Luga value will be calculated as a freight netback from the KEBCO CIF Rotterdam assessment.

KEBCO FOB Novorossiisk will be calculated as a freight netback from the CIF Augusta assessment, also taking into account Turkish Strait delays and the Additional War Risk Premium (AWRP).

These assessments will be published as both differentials to the Med Dated Brent strip [AALDF00] and as outright values.

Platts launched a KEBCO CIF Augusta assessment, Nov. 1, 2022.

Please send all feedback, comments or questions to europa_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 to the public upon request.

Platts launches fallback demurrage mechanism for WTI Midland CIF Rotterdam cargoes basis USGC demurrage rates

Platts, part of S&P Global Commodity Insights, has launched a demurrage fallback mechanism for WTI Midland CIF Rotterdam cargoes traded in the Platts Market on Close assessment process that is based on US Gulf Coast (USGC) demurrage rates, effective June 23.

If no agreement can be reached between buyer and seller on demurrage costs, Platts proposes that counterparties use Platts Aframax USGC demurrage assessment (ADERD00) for the period 22-27 days prior to the delivery laycan. This time period is equivalent to what Platts understands the typical USGC Aframax fixing period to be of 5-10 days prior to USGC loading, assuming a 17-day sailing time to Rotterdam.

Platts understands that currently the standard market practice for demurrage on WTI Midland cargoes to be commensurate with Aframax demurrage rates in the US Gulf Coast.

Please send all feedback, comments or questions to europa_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 reminds subscribers of Middle East crude cargo nomination procedures, laycans

Platts, part of S&P Global Commodity Insights, would like to remind participants in the Middle East Market on Close crude oil price assessment process that for cargoes of Dubai, Oman, Upper Zakum, Al Shaheen or Murban, loading dates starting in the last three calendar days of the month should not be nominated except by mutual agreement between the buyer and the seller.

For Al-Shaheen cargoes, sellers should pass loading dates to buyers as soon as possible and at the latest before the end of the last trading day of the month of trade execution.

For other grades, buyers typically nominate loading dates in the month after trade execution.

In either case, buyers and sellers should not nominate cargoes with loading dates commencing in the last three calendar days of a month.

This is to avoid slippage risk — the risk that end-month loading dates of a cargo will spill over into the next month with different pricing implications.

For example, a cargo loading in August, which has 31 days, should have its nominated laycan end no later than on Aug. 29, e.g. an Aug. 28-29 loading cargo.

Platts reflects partial cargoes of crude oil in its physical assessments for Dubai, Oman, Upper Zakum, Al-Shaheen and Murban crudes.

Under the partials mechanism, the seller declares a full 500,000-barrel cargo of crude oil to the buyer after a total of 20 partials have been traded for the same loading month between the companies.

For Dubai partials, the seller has the option to deliver a Dubai, Oman, Upper Zakum or Al-Shaheen cargo, or a Murban cargo with a quality premium, to the buyer.

Please send all comments, feedback and

questions to Asia_crude@platts.com and pricegroup@platts.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 publishes outright value of Iraq's Basrah Medium Asia OSP to three decimal points from July 3, 2023

Platts, a part of S&P Global Commodity Insights, has started publishing the outright value of Iraq's Basrah Medium Asia crude oil official selling price to three decimal points from July 3, 2023.

Platts previously published the outright value of the grade's OSP to two decimal points. The outright value of the grade's OSPs is calculated by adding its OSP differential, as issued by Iraq's SOMO, to the corresponding monthly average of the OSP benchmark, which is Platts Dubai and Platts Oman.

Platts first announced the change in a subscriber note published May 19: <https://www.spglobal.com/commodityinsights/en/our-methodology/subscriber-notes/051923-platts-to-publish-outright-value-of-iraqs-basrah-medium-asia-osp-to-three-decimal-points-from-july-3-2023>.

From July 3, the outright OSP of Basrah Medium Asia is published to three decimal points under the existing symbol BSMAD00. The Basrah Medium Asia outright OSP is published alongside the existing OSPs of SOMO's other crude oil grades on Platts Global Alert page 1059.

Please send all comments and queries to asia_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 launches WTI Midland FOB USGC assessments by monthly decade basis

Platts, a part of S&P Global Commodity Insights, has launched assessments on a monthly-decade basis for WTI Midland crude oil cargoes loading on an FOB basis out of the US Gulf Coast, effective July 5, 2023.

The prices are published as differentials to the Platts assessment of the first month WTI at the Magellan East Houston Terminal (WTI MEH) and the relevant underlying value of Dated Brent and ICE Brent at the US close for the loading period. Platts publishes the outright values of the three decades as well as a single outright value representing the average of the three decades.

TIMING AND BASIS

The prices reflect values for cargoes loaded within three segments of each calendar month: first decade: 1-10 of a month; second decade: 11-20 of a month; and third decade: 21-end of the month. The assessment month aligns with the US Gulf Coast pipeline schedule and rolls to the new months assessment the first business day following the 25th of each month. For example, from Jan. 26 to Feb. 25 the prompt month for US domestic pipeline barrels is March. During this time Platts would be publishing values for the first, second and third decades of March loadings, and they would be published against the March WTI MEH pipeline assessment and the March Dated Brent basis. On Feb. 26, the prompt month for US domestic pipeline barrels shifts to April, and Platts assessments would roll to publishing first, second and third decades for April loadings against the April WTI MEH pipeline assessment and the April Dated Brent basis. The Dated Brent basis is formed using the relevant underlying prompt-month ICE Brent

futures settle at the US close with the relevant Platts assessment of the Brent DFL financial differential at the time of loading. Dated Brent-related differentials reflect values relative to the value of Dated Brent that prevails at the time of loading. For example, on Feb. 1 Platts would be publishing the first, second and third decade assessments for March. The prompt ICE Brent futures contract for March loadings would be May, so the Dated Brent basis would be formed using the May ICE Brent settle with the March DFL differential. The ICE Brent basis reflects the value of the relevant contract month price of ICE Brent futures settles at the US close.

Specifications

The new assessments of WTI FOB values by domestic pipeline trade-month decades reflects the established specifications from the Platts WTI Midland FOB USGC assessment. The assessments, therefore, reflect the value for an Aframax cargo of Platts WTI Midland-spec crude on an FOB basis loading from locations along the US Gulf Coast, including Corpus Christi, Texas City, Houston, Beaumont, Nederland, and Port Arthur. The most competitive location, on a cargo-size normalized adjusted basis, will inform the value for the WTI FOB USGC assessment. The assessments reflect a typical volume of 700,000 barrels. Bids, offers, and trades that are smaller or larger than the cargo-size typical may be normalized to reflect the freight economics of the typical cargo size using that day's US to UK Aframax freight assessment (Platts symbol: TDUCF00). The assessments reflect WTI Midland crude supplied directly from the Permian Basin on one or more of the following designated pipelines: BridgeTex, Longhorn, Midland-to-Echo I/ II, Cactus I/II/III, EPIC, Gray Oak, Permian Express, and Wink-to-Webster.

Crude reflected in this assessment must meet Platts' comprehensive, globally-accepted WTI Midland specifications, which can be found here: <https://www.spglobal.com/commodityinsights/en/>

our-methodology/subscriber-notes/080320-platts-to-implement-comprehensive-platts-wti-midland-specifications.

Additionally, the assessments reflect value loading from terminals that have been approved by Platts for loading WTI Midland crude oil into its Dated Brent and Cash BFOE Market on Close assessment

process. Loadings from non-approved terminals may be considered in the assessment, but normalized if appropriate.

Platts will continue to assess WTI Midland FOB USGC loading 15-to-45-days forward on an FOB basis. Please send any feedback or questions 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.

Commodity Insights Analytics US Yields & Netbacks Effective July 10, 2023 (\$/barrel)

US Gulf Coast (PGA page 0833)

	Crack Yield		Freight		Crack Netback		Crude Price		Crack Margin	
Agbami	AGGCY00	91.82	AGGFA00	2.68	AGGCN00	89.15	AAQZB00	76.66	AGGCM00	12.66
Arab Berri	BEGCY00	91.49	TDDAC00	1.32	BEGCN00	90.17	AAXT00	84.32	BEGCM00	5.85
Arab Heavy	AHGCY00	83.82	TDDAJ00	1.39	AHGCN00	82.44	AAXDI00	82.42	AHGCM00	0.02
Arab Light	LIGCY00	89.04	TDDAR00	1.35	LIGCN00	87.69	AAXCU00	82.17	LIGCM00	5.52
Arab Medium	MEGCY00	85.40	TDDAZ00	1.35	MEGCN00	84.05	AAXDN00	82.87	MEGCM00	1.18
Bakken	BKGCY00	91.67	TDDRP00	7.78	BKGCN00	83.89	AAXPP00	74.37	BKGCM00	9.52
Basrah Medium	BLGCY00	83.63	TDDBS00	2.46	BLGCN00	81.17	BSMAM01	77.90	BLGCM00	6.61
Bonny Light	YLGCY00	94.05	TDDBX00	2.92	YLGCN00	91.13	PCATIC00	79.46	YLGCM00	11.84
Brent	BRGCY00	91.17	TDDCB00	2.73	BRGCN00	88.44	AAVJA00	78.97	BRGCM00	9.64
Cabinda	CBGCY00	89.44	TDDCF00	3.15	CBGCN00	86.28	PCAFD00	79.76	CBGCM00	6.69
Eagle Ford	EAGCY00	92.33					AAAT00	74.45	EAGCM00	17.88
Escalante	ECGCY00	84.97	TDDCV00	4.41	ECGCN00	80.56	PCAGC00	75.41	ECGCM00	4.61
Forties	FTGCY00	90.81	FTGFA00	2.57	FTGCN00	88.23	PCADJ00	78.94	FTGCM00	9.46
Isthmus	ISGCY00	89.70	TDDDJ00	1.25	ISGCN00	88.45	PDAT009	70.44	ISGCM00	18.01
LLS	LLGCY00	93.55	TDDQW00	0.55	LLGCN00	93.00	PCABN00	75.97	LLGCM00	17.03
Marlim	MLGCY00	87.24	TDDGK00	3.42	MLGCN00	83.82	AAITF00	73.66	MLGCM00	9.63
Mars	MRGCY00	87.01	TDDQY00	0.55	MRGCN00	86.46	AAMBR00	75.02	MRGCM00	11.44
Maya	MYGCY00	75.96	TDDDP00	1.31	MYGCN00	74.65	PDATS09	67.24	MYGCM00	7.41
Mesa	MSGCY00	87.45	TDDDV00	2.13	MSGCN00	85.32	AAITB00	75.01	MSGCM00	10.32
Olmecca	OLGCY00	91.80	TDDDY00	1.26	OLGCN00	90.54	PDATT09	70.69	OLGCM00	19.85
Poseidon	PDGCY00	87.69	PDGFA00	0.00	PDGCN00	87.69	AABHK00	74.57	PDGCM00	13.12
Saharan Blend	SHGCY00	92.07	TDDRD00	1.95	SHGCN00	90.12	AAGZY00	79.33	SHGCM00	10.97
Syncrude	SYGCY00	93.98	SYGFA00	8.52	SYGCN00	85.46	AASOK00	76.12	SYGCM00	9.34
Urals	URGCY00	88.42	TDDFM00	2.91	URGCN00	85.51	AAWVH00	59.73	URGCM00	25.95
WTI	WTGCY00	91.51					AAARG00	74.92	WTGCM00	16.59
WTS	WSGCY00	89.43	TDDRJ00	6.89	WSGCN00	82.54	PCACK00	73.72	WSGCM00	8.82

US Gulf Coast (PGA page 0841)

	Coke Yield		Freight		Coke Netback		Crude Price		Coke Margin	
Arab Heavy	AHGOY00	87.97	TDDAJ00	1.39	AHGN00	86.58	AAXDI00	82.42	AHGOM00	4.16
Arab Light	LIGOY00	91.01	TDDAR00	1.35	LIGN00	89.66	AAXCU00	82.17	LIGOM00	7.49
Arab Medium	MEGOY00	87.49	TDDAZ00	1.35	MEGN00	86.14	AAXDN00	82.87	MEGOM00	3.27
Basrah Heavy	BHGOY00	84.68	BHGFA00	2.57	BHGN00	82.11	AALZC00	74.80	BHGOM00	12.01
Basrah Medium	BLGOY00	86.98	TDDBS00	2.46	BLGN00	84.52	BSMAM01	77.90	BLGOM00	9.96
Cabinda	CBGOY00	89.97	TDDCF00	3.15	CBGN00	86.82	PCAFD00	79.76	CBGOM00	7.23
Castilla Blend	CSGOY00	84.30	CSGFA00	2.26	CSGN00	82.04	AAVEQ00	70.81	CSGOM00	11.24
LLS	LLGOY00	93.68	TDDQW00	0.55	LLGN00	93.13	PCABN00	75.97	LLGOM00	17.16
Marlim	MLGOY00	88.36	TDDGK00	3.42	MLGN00	84.94	AAITF00	73.66	MLGOM00	10.75
Mars	MRGOY00	89.45	TDDQY00	0.55	MRGN00	88.90	AAMBR00	75.02	MRGOM00	13.88
Maya	MYGOY00	85.19	TDDDP00	1.31	MYGN00	83.89	PDATS09	67.24	MYGOM00	16.65
Napo	NPGOY00	82.63	NPGFA00	3.69	NPGN00	78.94	AAMCA00	66.39	NPGOM00	11.60
Oriente	ORGOY00	87.85	ORGFA00	3.49	ORGN00	84.36	PCADE00	68.39	ORGOM00	15.07
Urals	URGOY00	90.10	TDDFM00	2.91	URGN00	87.19	AAWVH00	59.73	URGOM00	27.63
Vasconia	VCGOY00	91.09	VCGFA00	2.19	VCGN00	88.90	PCAGI00	73.31	VCGOM00	15.60
WCS ex-Hardisty	WHGOY00	86.18	TDDRS00	8.50	WHGN00	77.68	AAPPN00	61.37	WHGOM00	16.31
WCS ex-Nederland	WNGOY00	86.18	WCGFA00	0.00	WNGN00	86.18	AAYAY00	70.82	WNGOM00	15.36
WTS	WSGOY00	91.97	TDDRJ00	6.89	WSGN00	85.08	PCACK00	73.72	WSGOM00	11.36

Commodity Insights Analytics US Yields & Netback (\$/barrel) (continued)

US Midwest (PGA page 0823)									
	Crack Yield		Freight		Crack Netback		Crude Price		Crack Margin
Bakken	BKTCY00	85.47	TDDR000	1.68	BKTCN00	83.79	AASRU00	76.12	BKTCM00 7.67
Syncrude	SYTCY00	85.50	TDDFP00	8.20	SYTCN00	77.30	AASOK00	76.12	SYTCM00 1.18
WTI	WTTCY00	85.60	TDDRG00	2.39	WTTCN00	83.21	PCACG00	73.07	WTTCM00 10.14
WTS	WSTCY00	85.12	TDDRI00	3.08	WSTCN00	82.04	PCACK00	73.72	WSTCM00 8.32

US West Coast (PGA page 0843)									
	Crack Yield		Freight		Crack Netback		Crude Price		Crack Margin
ANS	ANWCY00	106.81					PCAAD00	79.41	ANWCM00 27.40
Bakken	BKWCY00	112.34	TDDRT00	11.74	BKWCN00	100.60	AAXPP00	74.37	BKWCM00 26.23

US Atlantic Coast (PGA page 0811)									
	Crack Yield		Freight		Crack Netback		Crude Price		Crack Margin
Agbami	AGACY00	96.15	AGAFA00	2.41	AGACN00	93.74	AAQZB00	76.66	AGACM00 17.26
Arab Light	LIACY00	91.15	TDDAU00	1.35	LIACN00	89.80	AAXCU00	82.17	LIACM00 7.63
Bakken	BKACY00	97.16	TDDRN00	7.20	BKACN00	89.96	AAXPP00	74.37	BKACM00 15.59
Bonny Light	YLACY00	96.68	TDDBZ00	2.63	YLACN00	94.05	PCAIC00	79.46	YLACM00 14.76
Brent	BRACY00	94.05	TDDCC00	2.51	BRACN00	91.54	AAVJA00	78.97	BRACM00 13.28
Cabinda	CBACY00	93.04	TDDCH00	2.87	CBACN00	90.18	PCAFD00	79.76	CBACM00 10.59
CPC Blend	CPACY00	96.52	CPAFA00	3.33	CPACN00	93.18	AALVX00	74.48	CPACM00 19.42
Forties	FTACY00	96.60	FTAFA00	2.41	FTACN00	94.19	PCADJ00	78.94	FTACM00 15.96
Saharan Blend	SHACY00	97.27	SHAFA00	1.64	SHACN00	95.63	AAGZY00	79.33	SHACM00 16.48
Urals	URACY00	90.44	URAFa00	2.24	URACN00	88.20	AAWVH00	59.73	URACM00 28.64

US Midwest (PGA page 0821)									
	Coke Yield		Freight		Coke Netback		Crude Price		Coke Margin
WCS	WCTOY00	80.56	TDDRL00	8.56	WCTON00	72.00	AAPPN00	61.37	WCTOM00 10.63
WTS	WSTOY00	85.71	TDDRI00	3.08	WSTON00	82.63	PCACK00	73.72	WSTOM00 8.91

US West Coast (PGA page 0841)									
	Coke Yield		Freight		Coke Netback		Crude Price		Coke Margin
ANS	ANWOY00	108.22					PCAAD00	79.41	ANWOM00 28.81
Arab Light	LIWOY00	110.22	TDDAT00	1.35	LIWON00	108.87	AAXCU00	82.17	LIWOM00 26.70
Arab Medium	MEWOY00	105.56	TDDBB00	1.35	MEWON00	104.21	AAXDN00	82.87	MEWOM00 21.34
Basrah Heavy	BHWOY00	105.56	BHWFA00	2.74	BHWON00	102.83	AALZC00	74.80	BHWOM00 33.26
Basrah Medium	BLWOY00	106.96	TDDBW00	2.62	BLWON00	104.34	BSMAM01	77.90	BLWOM00 30.32
Castilla Blend	CSWOY00	109.27	CSWFA00	5.38	CSWON00	103.89	AAVEQ00	70.81	CSWOM00 32.13
Maya	MYWOY00	104.83	MYWFA00	3.15	MYWON00	101.67	AAUPK00	67.84	MYWOM00 33.83
Napo	NPWOY00	103.81	NPWFA00	4.56	NPWON00	99.26	AAMCA00	66.39	NPWOM00 31.91
Oriente	ORWOY00	107.95	TDDEC00	4.30	ORWON00	103.65	PCADE00	68.39	ORWOM00 34.37
Vasconia	VCWOY00	116.06	VCWFA00	5.19	VCWON00	110.87	PCAGI00	73.31	VCWOM00 36.64

Commodity Insights Analytics European Yields & Netbacks Effective July 10, 2023 (\$/barrel)

Northwest Europe (PGA page 1811)

	Crack Yield		Freight		Crack Netback		Crude Price		Crack Margin	
Agbami	AGNCY00	93.58	AGNFA00	2.19	AGNCN00	91.39	AAQZB00	76.66	AGNCM00	14.73
Arab Berri	BENCY00	92.96	BENFA00	1.32	BENCN00	91.64	AAXDUB00	81.29	BENCM00	10.35
Arab Heavy	AHNCY00	84.65	TDDAN00	1.39	AHNCN00	83.26	AAXDH00	77.79	AHNCM00	5.47
Arab Light	LINCY00	90.42	TDDAV00	1.35	LINCN00	89.07	AAAXDK00	80.69	LINCM00	8.38
Arab Medium	MENCY00	86.75	TDDBD00	1.37	MENCN00	85.39	AAAXDM00	80.19	MENCM00	5.20
Azeri Light	ZLNCY00	94.28	TDDBI00	2.15	ZLNCN00	92.13	AATHM00	80.28	ZLNCM00	10.68
Basrah Medium	BLNCY00	85.45	TDDBU00	2.18	BLNCN00	83.27	BSMAM01	77.90	BLNCM00	8.18
Bonny Light	YLNCY00	95.12	YLNFA00	2.39	YLNCN00	92.72	PCAIC00	79.46	YLNCM00	13.26
Brent	BRNCY00	92.60	TDDCD00	2.13	BRNCN00	90.47	AAVJA00	78.97	BRNCM00	11.50
Cabinda	CBNCY00	90.08	TDDQR00	2.62	CBNCN00	87.46	PCAFD00	79.76	CBNCM00	7.70
CPC Blend	CPNCY00	93.43	CPNFA00	2.89	CPNCN00	90.54	AALVX00	74.48	CPNCM00	16.06
Dubai	DBNCY00	90.08	DBNFA00	2.14	DBNCN00	87.94	PCAAAT00	78.27	DBNCM00	8.39
Eagle Ford	EANCY00	93.17	EANFA00	4.35	EANCN00	88.82	AAAYAT00	74.45	EANCM00	13.66
Ekofisk	EKNCY00	93.20	TDDCT00	1.41	EKNCN00	91.78	PCADI00	80.29	EKNCM00	11.49
Forties	FTNCY00	92.75	TDDZE00	1.64	FTNCN00	91.11	PCADJ00	78.94	FTNCM00	12.17
Iran Heavy	BHNCY00	89.33	TDDDG00	2.25	BHNCN00	87.08	AIHKA00	77.30	BHNCM00	9.12
Johan Sverdrup	JSNCY00	91.31	JSNFA00	1.74	JSNCN00	89.57	AJSVA00	80.30	JSNCM00	9.27
Kirkuk	KRNCY00	89.66	TDDGH00	2.82	KRNCN00	86.83	AAEJD00	76.18	KRNCM00	8.34
LLS	LLNCY00	96.10	LLNFA00	4.54	LLNCN00	91.56	AAQBB00	76.68	LLNCM00	14.88
Maya	MYNCY00	79.73	MYNFA00	4.68	MYNCN00	75.05	AAAYXE00	66.54	MYNCM00	8.51
Oman	OMNCY00	89.47	OMNFA00	2.10	OMNCN00	87.37	PCABS00	78.27	OMNCM00	7.84
Saharan Blend	SHNCY00	94.96	TDDGI00	1.81	SHNCN00	93.15	AAGZY00	79.33	SHNCM00	13.82
Urals*	URNCY00	91.41					PCAFW00	61.97	URNCM00	29.44
WTI MEH	WTNCY00	93.52	WTNFA00	4.42	WTNCN00	89.09	AAAYRZ00	75.63	WTNCM00	13.46

*Indicates the crude price is a CIF value

Mediterranean (PGA page 1821)

	Crack Yield		Freight		Crack Netback		Crude Price		Crack Margin	
Agbami	AGMCY00	93.18	AGMFA00	2.13	AGMCN00	91.05	AAQZB00	76.66	AGMCM00	14.39
Arab Heavy	AHMCY00	86.36	TDDAI00	1.39	AHMCN00	84.97	AAAXDH00	77.79	AHMCN00	7.93
Arab Light	LIMCY00	90.81	TDDAQ00	1.35	LIMCN00	89.46	AAAXDK00	80.69	LIMCM00	9.22
Arab Medium	MEMCY00	87.66	TDDAY00	1.37	MEMCN00	86.30	AAAXDM00	80.19	MEMCM00	6.36
Azeri Light*	ZLMCY00	94.08					AAGZX00	82.68	ZLMCM00	11.41
Basrah Medium	BLMCY00	86.60	TDDBR00	1.66	BLMCN00	84.94	BSMAM01	77.90	BLMCM00	9.85
Bonny Light	YLMCY00	94.78	YLMFA00	2.33	YLMCN00	92.45	PCAIC00	79.46	YLMCM00	12.99
Cabinda	CBMCY00	90.16	CBMFA00	2.55	CBMCN00	87.61	PCAFD00	79.76	CBMCM00	7.85
CPC Blend*	CPMCY00	92.80					AAGZU00	76.88	CPMCM00	15.92
Eagle Ford	EAMCY00	93.01	TNEIF00	4.75	EAMCN00	88.25	AAAYAT00	74.45	EAMCM00	13.09
Forties	FTMCY00	92.55	FTMFA00	2.51	FTMCN00	90.04	PCADJ00	78.94	FTMCM00	11.10
Iran Heavy	BHMCY00	90.05	TDDDF00	1.63	BHMCN00	88.42	AIHKA00	77.30	BHMCN00	10.45
Johan Sverdrup	JSMCY00	91.54	JSMFA00	2.68	JSMCN00	88.86	AJSVA00	80.30	JSMCM00	8.56
Kirkuk	KRMCY00	90.04	TDDFF00	1.68	KRMCN00	88.36	AAEJD00	76.18	KRMCN00	9.87
LLS	LLMCY00	95.67	LLMFA00	5.00	LLMCN00	90.67	AAQBB00	76.68	LLMCM00	13.99
Oman	OMMCY00	90.36	OMMFA00	1.49	OMMCN00	88.87	PCABS00	78.27	OMMCM00	9.34
Saharan Blend	SHMCY00	93.98	TDDFG00	1.42	SHMCN00	92.56	AAGZY00	79.33	SHMCM00	13.23
Urals*	URMCY00	91.04					PCACE00	62.39	URMCM00	28.66

Platts Analytics Asian Yields & Netbacks Effective July 10, 2023 (\$/barrel)

Singapore (PGA page 2811)

	Crack Yield		Freight		Crack Netback		Crude Price		Crack Margin	
Agbami	AGSCY00	84.02	AGSFA00	2.07	AGSCN00	81.95	AAQZB00	76.66	AGSCM00	5.90
Arab Berri	BESCY00	83.44	BESFA00	1.33	BESCN00	82.12	AAAXDV00	80.82	BESCM00	1.30
Arab Heavy	AHSCY00	77.83	TDDA000	1.37	AHSCN00	76.45	AAAXDG00	79.07	AHSCM00	-2.62
Arab Light	LISCY00	82.26	TDDAW00	1.35	LISCN00	80.90	AAAXDJ00	81.27	LISCM00	-0.37
Arab Medium	MESCY00	78.49	TDDBE00	1.36	MESCN00	77.12	AAAXDL00	80.72	MESCM00	-3.60
Basrah Medium	BHSCY00	79.02	BHSFA00	1.36	BHSCN00	77.66	BSMAM01	77.90	BHSCM00	-0.51
Bonny Light	YLSCY00	86.56	YLSFA00	2.23	YLSCN00	84.33	PCAIC00	79.46	YLSCM00	5.48
Cabinda	CBSCY00	84.84	TDDQS00	2.15	CBSCN00	82.69	PCAFD00	79.76	CBSCM00	3.54
Castilla	CSSCY00	73.62	CSSFA00	3.97	CSSCN00	69.65	AAVEQ00	70.81	CSSCM00	-1.26
Dalia	DLSCY00	86.90	DLSFA00	2.22	DLSCN00	84.68	AAQYX00	78.21	DLSCM00	7.08
Dubai	DBSCY00	82.29	TDDCQ00	1.29	DBSCN00	81.00	PCAAAT00	78.27	DBSCM00	2.73
Duri	DRSCY00	84.65	TDDCR00	1.23	DRSCN00	83.42	PCABA00	80.54	DRSCM00	2.88
Eagle Ford	EASCY00	83.87	EASFA00	3.44	EASCN00	80.43	AAAYAT00	74.45	EASCM00	5.88
ESPO	ESSCY00	84.47	ESSFA00	1.11	ESSCN00	83.37	AARWF00	69.46	ESSCM00	13.91

*Indicates the crude price is a CIF value

Singapore (PGA page 2811)

	Crack Yield		Freight		Crack Netback		Crude Price		Crack Margin	
Forties	FTSCY00	82.63	TNEFD00	3.27	FTSCN00	79.35	PCADJ00	78.94	FTSCM00	1.02
Kimanis	KISCY00	92.32	KISFA00	1.12	KISCN00	91.20	AASCL00	84.89	KISCM00	6.31
LLS	LLSCY00	86.09	LLSFA00	3.58	LLSCN00	82.51	AAZDC00	76.13	LLSCM00	6.44
Mars	MRSCY00	81.11	MRSFA00	3.71	MRSCN00	77.40	AAMBR00	75.02	MRSCM00	2.28
Maya	MYSCY00	76.95	MYSFA00	3.89	MYSCN00	73.06	AAAYXG00	70.72	MYSCM00	2.34
Minas	MNSCY00	85.73	TDDDX00	1.12	MNSCN00	84.60	PCABO00	73.03	MNSCM00	11.58
Oman	OMSCY00	79.91	TDDEB00	1.23	OMSCN00	78.68	PCABS00	78.27	OMSCM00	0.41
Qua lboe	QBSCY00	87.14	QBSFA00	2.23	QBSCN00	84.91	PCAID00	79.51	QBSCM00	6.01
Saharan Blend	SHSCY00	81.70	SHSFA00	2.36	SHSCN00	79.34	AAGZY00	79.33	SHSCM00	0.02
Tapis	TPSCY00	84.81	TDDEO00	1.10	TPSCN00	83.70	PCACB00	80.99	TPSCM00	2.71
Tupi*	LUSCY00	84.59					LUQDA00	80.50	LUSCM00	4.53
Urals	URSCY00	82.24	URSFA00	2.42	URSCN00	79.82	AAGZS00	59.73	URSCM00	20.70
WTI MEH	WTSCY00	83.78	WTSFA00	3.49	WTSCN00	80.29	AAZDF00	75.08	WTSCM00	5.27

Crude Carbon Intensity

A daily supplement to Crude Oil Marketwire

Platts crude carbon intensity assessments - grades, July 10, 2023 (PGA/PCR page 4206)

	Daily Carbon Intensity Premium		Monthly Carbon Intensity*		
	Symbol	\$/b	Symbol	Date	kg CO2 eq/b
North America (PGA/PCR page 4206)					
WTI Midland	WXTIC00	0.54	WXTIC40	May-23	37.85
Europe (PGA/PCR page 4206)					
Brent	BXREC00	0.83	BXREC40	May-23	58.42
Ekofisk	EXKOC00	0.33	EXKOC40	May-23	23.19
Forties	FXORC00	0.33	FXORC40	May-23	23.21
Oseberg	OXSEC00	1.25	OXSEC40	May-23	88.50
Troll	TXROC00	3.82	TXROC40	May-23	269.85

Upstream CI values are modelled on a marginal basis and are published monthly. CI Premiums are assessed daily.

*Upstream marginal CI value is assessed from the field to the storage terminal.

Details on the Platts methodology can be found at spglobal.com/commodityinsights/.

Platts crude carbon intensity assessments - fields, July 10, 2023 (PGA page 4200)

	Daily Carbon Intensity Premium		Monthly Carbon Intensity*			Daily Transport Carbon Intensity Premium			Monthly Transport Carbon Intensity**		
	Symbol	\$/boe	Symbol	Date	kg CO2 eq/boe	Route	Symbol	\$/b	Symbol	Date	kg CO2 eq/b
Asia Pacific & Middle East Fields (PGA/PCR page 4201)											
China											
Bozhong	BOZHC00	0.44	BOZHC40	May-23	30.93	Bohai Pengbo-Singapore	BOZHC10	0.06	BOZHC50	May-23	4.24
India											
Bombay High	MUMBC00	0.37	MUMBC40	May-23	26.03	Bombay High-Qingdao	MUMBC10	0.10	MUMBC50	May-23	6.80
Iran											
Marun	MARUC00	0.51	MARUC40	May-23	36.10	Kharg Island-Qingdao	MARUC10	0.13	MARUC50	May-23	8.96
Iraq											
Kirkuk	KIRKC00	0.72	KIRKC40	May-23	50.90	Ceyhan-R'dam	KIRKC10	0.06	KIRKC50	May-23	4.55
Rumaila	RUMAC00	0.31	RUMAC40	May-23	21.56	Al Basrah-Sikka	RUMAC10	0.03	RUMAC50	May-23	2.09
West Qurna-2	WESTC00	0.37	WESTC40	May-23	26.16	Al Basrah-Sikka	WESTC10	0.03	WESTC50	May-23	2.22
Zubair	ZUBAC00	0.76	ZUBAC40	May-23	53.82	Al Basrah-Sikka	ZUBAC10	0.03	ZUBAC50	May-23	2.09
Kuwait											
Burgan	BURGC00	0.24	BURGC40	May-23	16.73	Mina-Ulsan	BURGC10	0.13	BURGC50	May-23	9.31
Qatar											
Dukhan	DUKHC00	1.62	DUKHC40	May-23	114.47	Mesaieed-Singapore	DUKHC10	0.07	DUKHC50	May-23	5.03
Saudi Arabia											
Ghawar	GHWRC00	0.25	GHWRC40	May-23	17.57	Ras Tanura-Qingdao	GHWRC10	0.12	GHWRC50	May-23	8.33
Safaniya	SAFAC00	0.22	SAFAC40	May-23	15.56	Ras Tanura-Changxing	SAFAC10	0.14	SAFAC50	May-23	9.53
Zuluf	ZULUC00	0.32	ZULUC40	May-23	22.56	Ras Tanura-Changxing	ZULUC10	0.13	ZULUC50	May-23	9.24

Platts crude carbon intensity assessments - fields (continued) (PGA page 4200)

	Daily Carbon Intensity Premium		Monthly Carbon Intensity*			Daily Transport Carbon Intensity Premium			Monthly Transport Carbon Intensity**		
	Symbol	\$/boe	Symbol	Date	kg CO2 eq/boe	Route	Symbol	\$/b	Symbol	Date	kg CO2 eq/b
UAE											
Fateh	FATEC00	0.24	FATEC40	May-23	17.12	Fateh-Kiire	FATEC10	0.12	FATEC50	May-23	8.56
Murban	MURBC00	0.28	MURBC40	May-23	19.54	Fujairah-Chiba	MURBC10	0.12	MURBC50	May-23	8.55
Africa Fields (PGA/PCR page 4202)											
Angola											
Girassol	GRSLC00	0.17	GRSLC40	May-23	11.81	Girassol-Qingdao	GRSLC10	0.19	GRSLC50	May-23	13.18
Libya											
Waha	WAHAC00	0.48	WAHAC40	May-23	34.01	Zawia-Augusta	WAHAC10	0.01	WAHAC50	May-23	0.44
Nigeria											
Agbami	AGBAC00	0.37	AGBAC40	May-23	26.03	Agbami-Paradip	AGBAC10	0.15	AGBAC50	May-23	10.25
Bonga	BONGC00	0.18	BONGC40	May-23	12.35	Bonga-R'dam	BONGC10	0.09	BONGC50	May-23	6.26
Europe Fields (PGA/PCR page 4202)											
Azerbaijan											
Azeri	AZERC00	0.26	AZERC40	May-23	18.09	Ceyhan-Sarroch	AZERC10	0.03	AZERC50	May-23	1.93
Kazakhstan											
Tengiz	TNGZC00	0.28	TNGZC40	May-23	19.48	Novo-R'dam	TNGZC10	0.07	TNGZC50	May-23	4.62
Norway											
Alvheim	ALVHC00	0.11	ALVHC40	May-23	7.80	Alvheim-Le Havre	ALVHC10	0.01	ALVHC50	May-23	0.85
Brage	BRAGC00	1.08	BRAGC40	May-23	76.15	Sture - Brofjorden	BRAGC10	0.01	BRAGC50	May-23	0.48
Edvard-Grieg	EDVAC00	0.06	EDVAC40	May-23	4.29	Edvard Grieg-Sarroch	EDVAC10	0.04	EDVAC50	May-23	2.97
Ekofisk	EKFSC00	0.39	EKFSC40	May-23	27.32	Teesside-R'dam	EKFSC10	0.01	EKFSC50	May-23	0.36
Embla	EMBLC00	0.08	EMBLC40	May-23	5.34	Teesside-R'dam	EMBLC10	0.01	EMBLC50	May-23	0.36
Fram	FRAMC00	0.35	FRAMC40	May-23	25.01	Mongstad-R'dam	FORTD10	0.01	FORTD50	May-23	0.84
Goliat	GOLIC00	0.03	GOLIC40	May-23	2.14	Goliat-R'dam	GOLIC10	0.02	GOLIC50	May-23	1.73
Grane	GRANC00	0.06	GRANC40	May-23	4.43	Sture-Immingham	GRANC10	0.01	GRANC50	May-23	0.63
Gullfaks	GULLC00	0.22	GULLC40	May-23	15.21	Gullfaks-Brofjorden	GULLC10	0.01	GULLC50	May-23	0.46
Heidrun	HEIDC00	0.17	HEIDC40	May-23	12.25	Heidrun-R'dam	HEIDC10	0.02	HEIDC50	May-23	1.22
Ivar-Aasen	IVARC00	0.04	IVARC40	May-23	2.44	Ivar Aasen-R'dam	IVARC10	0.01	IVARC50	May-23	0.80
Johan Sverdrup	JSVRC00	0.02	JSVRC40	May-23	1.58	Mongstad-R'dam	JSVRC10	0.01	JSVRC50	May-23	0.79
Oseberg	OSEBC00	0.28	OSEBC40	May-23	19.78	Sture-R'dam	OSEBC10	0.01	OSEBC50	May-23	0.69
Snorre	SNORC00	0.20	SNORC40	May-23	13.93	Snorre-Statfjord	SNORC10	0.00	SNORC50	May-23	0.14
Statfjord	STATC00	3.21	STATC40	May-23	226.52	Statfjord-R'dam	STATC10	0.01	STATC50	May-23	0.75
Troll	TROLC00	0.28	TROLC40	May-23	19.71	Mongstad-R'dam	TROLC10	0.01	TROLC50	May-23	0.79
Ula	ULACC00	0.67	ULACC40	May-23	46.97	Teesside-R'dam	ULACC10	0.01	ULACC50	May-23	0.37
Valhall	VALHC00	0.08	VALHC40	May-23	5.47	Valhall-R'dam	VALHC10	0.01	VALHC50	May-23	0.35
United Kingdom											
Alwyn North	ALWYC00	0.07	ALWYC40	May-23	4.84	Sullom Voe-R'dam	ALWYC10	0.01	ALWYC50	May-23	0.81
Arbroath	ARBRC00	0.12	ARBRC40	May-23	8.60	Houndpoint-R'dam	ARBRC10	0.01	ARBRC50	May-23	0.55
Auk	AUKCD00	0.51	AUKCC40	May-23	35.92	Teesside-R'dam	AUKCC10	0.01	AUKCC50	May-23	0.37
Brae	BRAEC00	0.16	BRAEC40	May-23	10.93	Houndpoint-R'dam	BRAEC10	0.01	BRAEC50	May-23	0.56
Bruce	BRUCC00	0.80	BRUCC40	May-23	56.56	Houndpoint-R'dam	BRUCC10	0.01	BRUCC50	May-23	0.56
Buzzard	BZRDC00	0.30	BZRDC40	May-23	20.94	Houndpoint-R'dam	BZRDC10	0.01	BZRDC50	May-23	0.53
Captain	CAPTC00	0.36	CAPTC40	May-23	25.42	Captain-Hamburg	CAPTC10	0.01	CAPTC50	May-23	0.72
Catcher	CATCC00	0.22	CATCC40	May-23	15.24	Catcher-R'dam	CATCC10	0.01	CATCC50	May-23	0.48

Platts crude carbon intensity assessments - fields (continued) (PGA page 4200)

Daily Carbon Intensity Premium			Monthly Carbon Intensity*			Daily Transport Carbon Intensity Premium			Monthly Transport Carbon Intensity**		
	Symbol	\$/boe	Symbol	Date	kg CO2 eq/boe	Route	Symbol	\$/b	Symbol	Date	kg CO2 eq/b
Clair	CLAIC00	0.14	CLAIC40	May-23	10.02	Clair-Stanlow	CLAIC10	0.01	CLAIC50	May-23	0.91
Clyde	CLYDC00	0.33	CLYDC40	May-23	23.16	Teesside-R'dam	CLYDC10	0.01	CLYDC50	May-23	0.37
Cormorant	CORMC00	0.82	CORMC40	May-23	57.96	Sullom Voe-R'dam	CORMC10	0.01	CORMC50	May-23	0.82
Everest	EVERC00	0.20	EVERC40	May-23	14.02	Houndpoint-R'dam	EVERC10	0.01	EVERC50	May-23	0.55
Forties	FORTC00	0.22	FORTC40	May-23	15.33	Houndpoint-R'dam	FORTC10	0.01	FORTC50	May-23	0.56
Gannet	GANNC00	0.24	GANNC40	May-23	17.00	Teesside-R'dam	GANNC10	0.01	GANNC50	May-23	0.38
Golden-Eagle	GOLDC00	0.31	GOLDC40	May-23	22.08	Golden Eagle-Grangemouth	GOLDC10	0.00	GOLDC50	May-23	0.14
Joanne	JOANC00	0.08	JOANC40	May-23	5.86	Teesside-R'dam	JOANC10	0.01	JOANC50	May-23	0.37
Judy	JUDYC00	0.37	JUDYC40	May-23	26.40	Teesside-R'dam	JUDYC10	0.01	JUDYC50	May-23	0.38
Kraken	KRAKC00	0.26	KRAKC40	May-23	18.55	Kraken-R'dam	KRAKC10	0.01	KRAKC50	May-23	0.80
Magnus	MAGNC00	0.17	MAGNC40	May-23	12.08	Sullom Voe-R'dam	MAGNC10	0.01	MAGNC50	May-23	0.81
Mariner	MARIC00	0.27	MARIC40	May-23	18.97	Mariner-Pascagoula	MARIC10	0.10	MARIC50	May-23	6.85
Nelson	NELSC00	0.14	NELSC40	May-23	9.58	Houndpoint-R'dam	NELSC10	0.01	NELSC50	May-23	0.55
Ninian	NINIC00	2.00	NINIC40	May-23	141.27	Sullom Voe-R'dam	NINIC10	0.01	NINIC50	May-23	0.83
Schiehallion	SCHIC00	0.25	SCHIC40	May-23	17.61	Schiellhallion-R'dam	SCHIC10	0.01	SCHIC50	May-23	0.85
Scott	SCOTC00	0.15	SCOTC40	May-23	10.67	Houndpoint-R'dam	SCOTC10	0.01	SCOTC50	May-23	0.55
Tiffany	TIFFC00	0.20	TIFFC40	May-23	14.13	Houndpoint-R'dam	TIFFC10	0.01	TIFFC50	May-23	0.55
Toni	TONIC00	0.25	TONIC40	May-23	17.43	Houndpoint-R'dam	TONIC10	0.01	TONIC50	May-23	0.55
Russia											
Samotlor	SAMOC00	0.41	SAMOC40	May-23	29.00	Primorsk-R'dam	SAMOC10	0.03	SAMOC50	May-23	1.97
North America Fields											
Canada (PGA/PCR page 4204)											
Bakken-Canada	BAKKC00	0.51	BAKKC40	May-23	35.88	Canada-USMW	BAKKC10	0.06	BAKKC50	May-23	3.91
Cold Lake	CDLKC00	1.17	CDLKC40	May-23	82.95	W Canada-USMW	CDLKC10	0.07	CDLKC50	May-23	4.86
CVE Christina Lake	CVECC00	0.63	CVECC40	May-23	44.29	Canada-USMW	CVECC10	0.07	CVECC50	May-23	4.86
Foster Creek	FOSTC00	0.83	FOSTC40	May-23	58.69	Canada-USGC	FOSTC10	0.08	FOSTC50	May-23	5.69
Hebron	HEBRC00	0.14	HEBRC40	May-23	9.68	Hebron-Canada	HEBRC10	0.13	HEBRC50	May-23	8.89
Hibernia	HIBEC00	0.38	HIBEC40	May-23	27.16	Hibernia-Canada	HIBEC10	0.14	HIBEC50	May-23	9.82
Jackfish	JACKC00	0.96	JACKC40	May-23	67.46	Canada-USMW	JACKC10	0.06	JACKC50	May-23	4.37
MEG Christina Lake	MEGCC00	0.82	MEGCC40	May-23	58.06	Canada-USGC	MEGCC10	0.09	MEGCC50	May-23	5.99
Montney Shale	MONTC00	0.39	MONTC40	May-23	27.58	Montney-Canada	MONTC10	0.01	MONTC50	May-23	0.81
Surmont	SURMC00	0.90	SURMC40	May-23	63.92	Canada-USGC	SURMC10	0.08	SURMC50	May-23	5.54
United States (PGA/PCR page 4205)											
Bakken	BAKNC00	0.28	BAKNC40	May-23	19.50	Beaumont-R'dam	BAKNC10	0.09	BAKNC50	May-23	6.46
Denver-Julesburg	DENVC00	0.40	DENVC40	May-23	28.37	Denver-USGC	DENVC10	0.04	DENVC50	May-23	2.47
Eagle Ford	EGFDC00	0.24	EGFDC40	May-23	16.89	Houston-Qingdao	EGFDC10	0.18	EGFDC50	May-23	12.85
Mars-Ursa	MRURC00	0.19	MRURC40	May-23	13.72	Mars-Qingdao	MRURC10	0.20	MRURC50	May-23	14.04
Permian Delaware	PRDLC00	0.24	PRDLC40	May-23	17.21	Corpus Christi-R'dam	PRDLC10	0.09	PRDLC50	May-23	6.51
Permian Midland	PRMDC00	0.27	PRMDC40	May-23	18.96	Corpus Christi-R'dam	PRMDC10	0.10	PRMDC50	May-23	6.70
Prudhoe-Bay	PRUDC00	0.45	PRUDC40	May-23	32.03	Alaska-USWC	PRUDC10	0.04	PRUDC50	May-23	2.86
San-Joaquin	SANMC00	2.49	SANMC40	May-23	175.84	San Joaquin-SoCal	SANAC10	0.01	SANAC50	May-23	0.77
SCOOP-STACK	SCOOC00	0.46	SCOOC40	May-23	32.36	Oklahoma-USGC	SCOOC10	0.01	SCOOC50	May-23	1.01
Tahiti	TAHIC00	0.23	TAHIC40	May-23	16.53	Tahiti-Yeosu	TAHIC10	0.19	TAHIC50	May-23	13.15

Platts crude carbon intensity assessments - fields (continued) (PGA page 4200)

	Daily Carbon Intensity Premium		Monthly Carbon Intensity*			Daily Transport Carbon Intensity Premium			Monthly Transport Carbon Intensity**		
	Symbol	\$/boe	Symbol	Date	kg CO2 eq/boe	Route	Symbol	\$/b	Symbol	Date	kg CO2 eq/b
Latin America Fields (PGA/PCR page 4203)											
Brazil											
Tupi	TUPIC00	0.17	TUPIC40	May-23	12.19	Rio-Qingdao	TUPIC10	0.22	TUPIC50	May-23	15.64
Colombia											
Cusiana	CUSIC00	0.31	CUSIC40	May-23	21.98	Tolu-Houston	CUSIC10	0.03	CUSIC50	May-23	2.28
Ecuador											
Sacha	SACHC00	0.29	SACHC40	May-23	20.36	Esmeraldas-Long Beach	SACHC10	0.07	SACHC50	May-23	4.57
Mexico											
Cantarell	CNTLC00	0.22	CNTLC40	May-23	15.49	Cantarell-Bilbao	CNTLC10	0.10	CNTLC50	May-23	7.22
Venezuela											
Orinoco Oil Belt	ORINC00	3.82	ORINC40	May-23	270.03	Jose-Sikka	ORINC10	0.20	ORINC50	May-23	14.29

Upstream CI values are modelled on a marginal basis and are published monthly. Carbon Intensity Premiums are assessed daily. Venezuela's Orinoco Belt upstream marginal carbon intensity is calculated using only the Hamaca basin.

*Upstream marginal CI number is assessed from the field to the storage terminal. **Transport CI is calculated from storage terminal to refinery gate and for shipping routes assumes an Aframax vessel.

Details on the Platts methodology can be found at spglobal.com/commodityinsights/.

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