

Crude Oil Marketwire

Volume 44 / Issue 129 / July 4, 2023

Key benchmarks (\$/barrel)

			Mid	Change
(PGA page 2210)				
Dubai (Sep)	PCAT00	75.19–75.20	75.195	-0.005
Dubai (Oct)	PCAU00	74.68–74.70	74.690	-0.020
Dubai (Nov)	PCAAV00	74.12–74.14	74.130	-0.020
MEC (Sep)	AAWSA00	75.19–75.20	75.195	-0.005
MEC (Oct)	AAWSB00	74.68–74.70	74.690	-0.020
MEC (Nov)	AAWSC00	74.12–74.14	74.130	-0.020
Brent/Dubai (Sep)	AAJMS00	0.11/0.12	0.115	+0.195
(PGA page 1212)				
Brent (Dated)	PCAS00	75.99–76.00	75.995	+0.465
Dated North Sea Light	AAOFD00	75.99–76.00	75.995	+0.465
Dated Brent (CIF)	PCAKM00		77.065	+0.450
Brent (Sep)	PCAAQ00	76.07–76.09	76.080	+0.220
Brent (Oct)	PCAR00	75.85–75.87	75.860	+0.150
Brent (Nov)	PCARR00		75.580	+0.100
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		NA	NANA
WTI (Aug)	PCACG00	NA–NA	NA	NANA
WTI (Sep)	PCACH00	NA–NA	NA	NANA
WTI (Oct)	AAGIT00	NA–NA	NA	NANA
Light Houston Sweet	AAXEW00		NA	NANA
Light Houston Sweet M2	AAYRY00		NA	NANA
LOOP Sour (Aug)	AALSM01		NA	NANA
LOOP Sour (Sep)	AALSM02		NA	NANA
LOOP Sour (Oct)	AALSM03		NA	NANA
Bakken	AAXPP00		NA	NANA
Eagle Ford Marker	AAYAJO0		NA	NANA
ACM* (Aug)	AAQH00	NA–NA	NA	NANA
ACM* (Sep)	AAQH00	NA–NA	NA	NANA
ACM* (Oct)	AAQHP00	NA–NA	NA	NANA

*Americas Crude Marker.

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

			Mid	Change
North Sea Dated strip	AAKWH00	76.10–76.12	76.110	+0.390
Mediterranean Dated strip	AALDF00	76.11–76.12	76.115	+0.385
33-63 Day Dated strip	AALEJ00	75.87–75.89	75.880	+0.390
BTC Dated strip	AAUFI00	76.08–76.10	76.090	+0.365
15-45 Day Dated strip	AALGM00	76.02–76.03	76.025	+0.315
30-60 Day Dated strip	AAXRK00	75.90–75.92	75.910	+0.405
North Sea CIF Dtd strip	AAHXE00		76.105	+0.380
23-63 Day Dated Strip	ADBRA00		75.925	+0.420

Brent/WTI spreads and EFPs (PGA page 218)

			Mid	Change
Brent/WTI 1st	AALAU00	4.82/4.84	4.830	+0.030
Brent/WTI 2nd	AALAV00	4.73/4.75	4.740	-0.030
Brent/WTI 3rd	AALAY00		4.680	-0.030
Brent EFP (Sep)	AAGVX00	0.01/0.03	0.020	-0.150
Brent EFP (Oct)	AAGVY00	0.01/0.03	0.020	-0.150
Brent EFP (Nov)	AAMVY00		0.020	-0.150
WTI EFP (Aug)	AAGVT00	NA/NA	NA	NANA
WTI EFP (Sep)	AAGVU00	NA/NA	NA	NANA
WTI EFP (Oct)	AAGVV00	NA/NA	NA	NANA

Middle East (\$/barrel)

			Mid	Change
(PGA page 2210)				
Oman (Sep)	PCABS00	75.27–75.29	75.280	-0.020
Oman (Oct)	AAHZF00	74.76–74.78	74.770	-0.040
Oman (Nov)	AAHZH00	74.20–74.22	74.210	-0.040
Upper Zakum (Sep)	AAOUQ00	75.19–75.20	75.195	-0.005
Murban (Sep)	AAKNL00	75.71–75.75	75.730	+0.080
Murban (Oct)	MBNSA00		75.220	+0.060
Murban (Nov)	MBNSB00		74.660	+0.060
Al Shaheen	AAPEV00	75.21–75.25	75.230	-0.020

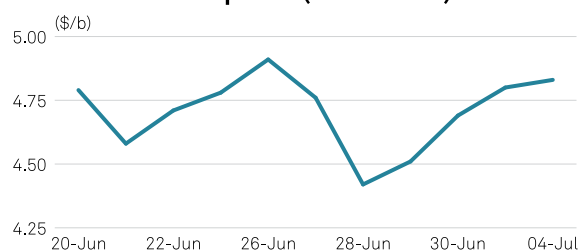
Spread vs Dubai

Dubai	DBDDC00		1.065	+0.015
Oman	DBDOC00		1.150	0.000
Murban	AARBZ00		1.600	+0.100
Al Shaheen	AAPEW00	1.05–1.15	1.100	0.000
Upper Zakum	DBDUZ00		1.065	+0.015

Quality Premiums

Murban QP	AASVA00		0.0000	
(PGA page 2658)				
Dubai Swap (Aug)	AAHBM00	74.67–74.71	74.690	-0.020
Dubai Swap (Sep)	AAHBN00	74.11–74.15	74.130	-0.020
Dubai Swap (Oct)	AAHBO00	73.64–73.68	73.660	-0.040

Brent/WTI cash spread (2nd month)



Source: S&P Global Commodity Insights

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Market Commentary

Platts Middle East Sour Crude Daily Market Analysis

- Production, export cuts to impact Asia refinery margins
- Russia's ESPO Blend offered lower

Russia's export cuts and Saudi Arabia's additional voluntary production cuts until at least August are expected to impact refinery margins in Asia, according to a trade source July 4. "The cuts will definitely deteriorate refinery margins ... maybe some refineries will cut run rates but it's still too early to say, we'll have to look at the OSPs," the source said.

(continued on page 3)

Contents

Platts Oil Mideast Sour Crude Convergences	3
Platts Middle East Sour Crude Bids, Offers, Trades	3
Platts Dubai Derivatives Bids Summary	5
Platts Dubai Derivatives Offers Summary	5
Platts Dubai Derivatives Trades Summary	6
Platts Dubai Derivatives Exclusions	6
Platts Asia Pacific Sweet Crude Daily Market Analysis	6
Platts Asia Light Sweet Crude Bids, Offers, Trades	8
Platts North Sea Crude Daily Market Analysis	8
Platts North Sea Dated Brent, BFOE, CFD Bids, Offers, Trades	10
Platts WTI Midland Crude DAP Europe Bids, Offers, Trades	15
Platts Mediterranean & Black Sea Sweet Crude Daily Commentary	15
Platts NWE and Med Urals Sour Crude Daily Market Analysis	16

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

(Asia MOC)				
API Gravity	Code		Mid	Change
Condensate				
NW Shelf	61.9	PCAGX00	61.45–61.49	61.470 +0.030
Ichthys FC	48.9	ICFCA00		68.920 -0.020
DFC	56.82	ADFC00	67.71–67.75	67.730 -0.120
Qatar LSC	56.9	AARB00	67.11–67.15	67.130 -0.120
South Pars	57.4	AARAV00	62.86–62.90	62.880 -0.120
Senipah	54.4	AAEOE00	59.40–59.44	59.420 +0.030
Light crude				
Cossack	47.7	PCAGZ00	68.70–68.74	68.720 -0.020
Tapir	45.2	PCACB00	78.25–78.29	78.270 -0.020
Belida	45.1	PCAF00	63.30–63.34	63.320 -0.020
Kutubu	44.3	PCAFJ00	67.05–67.09	67.070 -0.020
Attaka	42.3	PCAAJ00	63.20–63.24	63.220 -0.020
Ardjuna	38	PCACQ00	68.65–68.69	68.670 -0.070
Banyu Urip	32	PCAFQ00		78.770 -0.070
Sakhalin Blend	45.5	AARBN00	59.61–59.65	59.630 +0.480
ESPO M1	34.8	AARWF00	66.41–66.45	66.430 -0.020
ESPO M2	34.8	AAWFE00	65.84–65.88	65.860 -0.040
Sokol	39.7	AASCJ00	63.61–63.65	63.630 +0.480
Kikeh	34.9	AAWUH00	81.00–81.04	81.020 -0.070
Miri Light	32.3	PCABQ00	80.70–80.74	80.720 -0.070
Labuan	32	PCABL00	82.45–82.49	82.470 -0.070
Kimanis	38.6	AASCL00		82.170 -0.070
Medium crude				
Su Tu Den	36.8	AARAR00	79.95–79.99	79.970 +0.330
Bach Ho	40.7	PCAHY00	81.00–81.04	81.020 -0.070
Nanhai	40	PCAFR00	70.00–70.04	70.020 -0.070
Nile Blend	33.9	AAPLC00	72.45–72.49	72.470 -0.020
Daqing	32.2	PCAAZ00	71.50–71.54	71.520 -0.020
Heavy crude				
Dar Blend	25	AARAB00	73.15–73.19	73.170 -0.020
Shengli	24.2	PCABY00	74.70–74.74	74.720 -0.020
Duri	20.8	PCABA00	78.05–78.09	78.070 -0.020
Vincent	18.3	AARAK00		79.770 -0.020

(Asia MOC)			
Code		Mid	Change
Diff to Dubai			
ADFCB00	-6.45/-6.35	-6.400	-0.100
AARB00	-7.05/-6.95	-7.000	-0.100
AARAX00	-11.30/-11.20	-11.250	-0.100
Diff to ICP			
AAE0K00	-8.30/-8.20	-8.250	0.000
Diff to ICP			
PCAFM00	-4.80/-4.70	-4.750	-0.050
PCAAK00	-5.70/-5.60	-5.650	-0.050
PCACR00	-1.80/-1.70	-1.750	-0.050
PCAQQ00		2.250	-0.050
Diff to Dubai			
AARCN00	-14.55/-14.45	-14.500	+0.500
AASEU00	-7.75/-7.65	-7.700	0.000
AAWFG00	-7.85/-7.75	-7.800	0.000
AASCK00	-10.55/-10.45	-10.500	+0.500
Diff to ICP			
PCABB00	2.70/2.80	2.750	-0.050

(Asia close)		
Code	Mid	Change
(PGA page 2212)		
Diff to Asian Dated Brent		
AAPAI00	-13.250	0.000
ICFCB00	-5.800	-0.050
ADFC00	-6.990	-0.150
AARBC00	-7.590	-0.150
AARAW00	-11.840	-0.150
AAPBE00	-15.300	0.000
(PGA page 2214)		
Diff to Asian Dated Brent		
AAPAC00	-6.000	-0.050
AAOZW00	3.550	-0.050
AAPBQ00	-11.400	-0.050
AAPAE00	-7.650	-0.050
AAPBC00	-11.500	-0.050
AAPBG00	-6.050	-0.100
AAPBU00	4.050	-0.100
AARDN00	-15.090	+0.450
(PGA page 2216)		
Diff to Asian Dated Brent		
AARAS00	5.250	+0.300
AAPAK00	6.300	-0.100
AAPAG00	-4.700	-0.100
AAPAM00	-2.250	-0.050
AAPAW00	-3.200	-0.050
(PGA page 2218)		
Diff to Asian Dated Brent		
AARAC00	-1.550	-0.050
AAPAY00	0.000	-0.050
AAPBM00	3.350	-0.050
AARAL00	5.050	-0.050

(London close)		
Code	Mid	Change
(PGA page 2213)		
AAPAH00	62.690	+0.410
ADFC00	68.660	+0.160
AARBA00	68.060	+0.160
AARAU00	63.810	+0.160
AAPBD00	60.640	+0.410
(PGA page 2215)		
AAPAB00	69.940	+0.360
AAOZV00	79.490	+0.360
AAPBP00	64.540	+0.360
AAPAD00	68.290	+0.360
AAPBB00	64.440	+0.360
AAPBF00	69.890	+0.310
AAPBR00	79.990	+0.310
AAREN00	60.560	+0.760
(PGA page 2217)		
AAPAN00	64.560	+0.760
AAOZX00	82.240	+0.310
AAPAR00	81.940	+0.310
AAPAP00	83.690	+0.310
AASCN00	83.390	+0.310
(PGA page 2219)		
AARAQ00	81.190	+0.710
AAPAJ00	82.240	+0.310
AAPAF00	71.240	+0.310
AAPAL00	73.690	+0.360
AAPAV00	72.740	+0.360
AARAA00	74.390	+0.360
AAPAX00	75.940	+0.360
AAPBL00	79.290	+0.360
AARAJ00	80.990	+0.360

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

US Delivered - Asia Spot Crudes		
WTI Midland (DES Singapore)	WTMSA00	77.110 +0.010
WTI Midland (DES Yeosu)	WTMYA00	77.610 +0.010
Brazil Delivered-Asia Spot Crudes		
Tupi (DES Qingdao)	LUQDA00	77.710 +0.060

Diff to Dubai		
WTMSD00	3.450	+0.050
WTMYD00	3.950	+0.050
LUQDD00	4.050	+0.100

Diff to Asian Dated Brent		
WTMSB00	2.660	+0.080
WTMYB00	3.160	+0.080
LUQDB00	3.260	+0.130

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

			Mid	Change		Spread vs Dubai	Mid	Change		Spread vs OSP	Mid	Change
Umm Lulu	AUFAA00		75.880	+0.080	DBDUL00		1.750	+0.100				
Das Blend	AAXOF00	75.01-75.05	75.030	+0.080	DBDDS00		0.900	+0.100				
Qatar Land	AAKNP00	74.33-74.37	74.350	+0.100	QALDA00		0.220	+0.120	AAKUJ00	0.10/0.20	0.150	0.000
Qatar Marine	AAKNR00	74.13-74.17	74.150	0.000	QAMDA00		0.020	+0.020	AAKUJ00		0.150	0.000
Banoco Arab Medium	AAKNT00	74.88-74.92	74.900	0.000					AAKUJ00	-0.05/0.05	0.000	0.000
Basrah Medium M1	BSMAM01	-	74.750	0.000					AAKUJ00	-1.20/-1.10	-1.150	0.000
Basrah Medium M2	BSMAM02	-	73.950	0.000					BSMBM01		0.450	0.000
Basrah Heavy M1	AALZC00	-	71.650	0.000					BSMBM02		0.200	0.000
Basrah Heavy M2	AALZD00	-	70.850	0.000					AALZJ00		0.450	0.000
									AALZK00		0.200	0.000

The official selling prices and term allocations from the Middle East are expected to come out later in the week.

Offer levels of Far East Russian ESPO Blend cargoes for August delivery were heard at discounts of around \$4.20/b to ICE October Brent futures on a delivered basis to Shandong, dipping from earlier heard discounts narrower than \$4/b on a DES basis.

The grade had traded at discounts of \$4.10-\$4.30/b in the prior week, market sources said.

September-delivery cargoes of ESPO Blend are yet to be offered, according to an Asia-based trader.

"If Dubai is still strong, September-arrival ESPO may continue keeping in relatively high levels," the trader added.

Five to seven spot cargoes of August-loading ESPO Blend were estimated flowing into India, but trade details were unclear, market sources said.

The impact of Russia's crude export cuts of 500,000 b/d in August is unlikely to impact trading volumes of ESPO, but it will be more keenly felt for Russia's Urals crude, according to another crude trader.

Other traders had estimated August ESPO volumes at 31-35 cargoes.

Platts Mideast Sour Crude Daily Rationales & Exclusions

Dubai Mo01 <PCAAT00> assessment rationale: The September cash Dubai assessment on July 4 took into

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

					(London close)		
			Mid	Change		Mid	Change
Minas	PCAB000		70.535	+0.050	AAPAZ00	71.755	+0.430
Cinta	PCAAX00		60.715	+0.065	AAPBJ00	61.935	+0.445
Widuri	PCAFE00		58.935	+0.085	AAPBN00	60.155	+0.465
Cambay	AMPPA00		73.620	+0.115			
Ravva	AMPPB00		78.250	-0.010			
Rajasthan	AMPPC00		75.105	-0.010			

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	74.980		
ADB Strip Asia	AARBV00	74.720	AARBX00	75.940
ADB Strip Middle East	AARBW00	74.720	AARBY00	75.650
ADB Strip M3	ADBS003	74.450		

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

consideration bids and offer for cash Dubai partials that traded at \$75.19-\$75.20/b toward the end of the Platts Market on Close assessment process, as well as a bid and offers standing at \$75.19/b and \$75.20/b, respectively, at the end of the Platts MOC process.

Oman Blend Mo01 <PCABS00> assessment

rationale: The September cash Oman assessment on July 4 took into consideration values heard in the broader market.

Exclusions: No market data was excluded from the Middle East sour crude MOC process.

Platts is part of S&P Global Commodity Insights.

Platts Oil Mideast Sour Crude Convergences

None reported

Platts Middle East Sour Crude Bids, Offers, Trades

Bids:

PLATTS DUBAI: SEP23: GUNVOR BIDS 25KB AT \$75.19 AND WITHDRAWS DURING EXTENSION

PLATTS DUBAI: SEP23: VITOL BIDS 25KB AT \$75.15
PLATTS DUBAI: SEP23: MITSUI BIDS 25KB
AT \$75.05
PLATTS DUBAI: SEP23: PETROCHINA BIDS 25KB
AT \$75.05
PLATTS DUBAI: SEP23: GLENCORE BIDS 25KB
AT \$75.05
PLATTS DUBAI: SEP23: EQUINOR NO LONGER BIDS
AFTER TRADE
PLATTS DUBAI: SEP23: BP NO LONGER BIDS
AFTER TRADE
Offers:
PLATTS DUBAI: SEP23: RELIANCE OFFERS 25KB
AT \$75.20
PLATTS DUBAI: SEP23: PETROCHINA OFFERS 25KB
AT \$75.20
PLATTS DUBAI: SEP23: TRAFIGURA OFFERS 25KB
AT \$75.20
PLATTS DUBAI: SEP23: EXXONMOBIL OFFERS 25KB
AT \$75.20
PLATTS DUBAI: SEP23: PHILLIPS 66 OFFERS 25KB
AT \$75.25
PLATTS DUBAI: SEP23: UNIPEC OFFERS 25KB
AT \$75.25
PLATTS DUBAI: SEP23: GLENCORE OFFERS 25KB
AT \$75.25
PLATTS DUBAI: SEP23: VITOL OFFERS 25KB
AT \$75.35
PLATTS DUBAI: SEP23: GUNVOR OFFERS 25KB
AT \$75.50
PLATTS DUBAI: SEP23: BP NO LONGER OFFERS
AFTER TRADE
Trades:
PLATTS DUBAI: SEP23: TRAFIGURA SELLS TO
EQUINOR* 25KB AT \$75.25 (08:26:35)
PLATTS DUBAI: SEP23: PETROCHINA SELLS TO
GUNVOR* 25KB AT \$75.15 (08:27:39)
PLATTS DUBAI: SEP23: PETROCHINA SELLS TO
GUNVOR* 25KB AT \$75.15 (08:29:19)

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

			Mid	Change	Spread vs fwd Dated Brent		Mid	Change
Dated Brent Diff					AAXEZ00	-0.12/-0.11	-0.115	+0.075
BNB	AAVJA00	76.27-76.29	76.280	+0.390	AAVJB00	0.16/0.18	0.170	0.000
Forties	PCADJ00	76.28-76.29	76.285	+0.405	AAGWZ00	0.17/0.18	0.175	+0.015
Oseberg	PCAEU00	77.81-77.82	77.815	+0.395	AAGXF00	1.70/1.71	1.705	+0.005
Ekofisk	PCADI00	77.48-77.49	77.485	+0.400	AAGXB00	1.37/1.38	1.375	+0.010
Troll	AAWEX00	78.59-78.60	78.595	+0.395	AAWEY00	2.48/2.49	2.485	+0.005
FOB N Sea WTI Midland	ALNDA00		75.995	+0.465	ALNDB00		-0.115	+0.075
Statfjord	PCAE00	77.80-77.82	77.810	+0.390	AAGXD00	1.69/1.71	1.700	0.000
Flotta Gold	PCACZ00	76.80-76.82	76.810	+0.440	AAGXH00	0.69/0.71	0.700	+0.050
Duc	AAWEZ00	77.05-77.07	77.060	+0.390	AAWFL00	0.94/0.96	0.950	0.000
Grane Blend	PCALA00		77.460	+0.390	PCALB00		1.350	0.000
Johan Sverdrup	AJSVA00		77.395	+0.390	AJSVB00		1.285	0.000
Statfjord (CIF)	AASAS00	78.90-78.91	78.905	+0.380	AASAT00	2.79/2.81	2.800	0.000
Gullfaks (CIF)	AASAU00	79.20-79.21	79.205	+0.380	AASAV00	3.09/3.11	3.100	0.000
Alvheim (CIF)	ALVHA00		79.405	+0.380	ALVHB00		3.300	0.000
Asgard (CIF)	ASGCA00		77.355	+0.380	ASGCB00		1.250	0.000
North Sea basket	AAGIZ00	76.96-76.97	76.965	+0.395				
North Sea Dated Strip	AAKWH00	76.10-76.12	76.110	+0.390				
European Sour Crude Index	CSBEA00		77.385	+0.392	CSBEB00		1.275	+0.002
					Spread vs fwd CIF Dated Brent			
Dated Brent (CIF)	AAVJG00		77.065	+0.450	AAVJF00		0.960	+0.070
BNB (CIF)	PCAKP00		78.335	+0.380	AAVJC00		2.230	0.000
Forties (CIF)	PCAKR00		77.715	+0.390	AAHXC00		1.610	+0.010
Oseberg (CIF)	PCAKT00		79.110	+0.380	AAHXD00		3.005	0.000
Ekofisk (CIF)	PCAKV00		78.410	+0.380	AAHXB00		2.305	0.000
Troll (CIF)	AAXJO00		79.900	+0.385	AAXJN00		3.795	0.005
WTI Midland (CIF)	WMCRD00		77.065	+0.450	WMCRB00		0.960	+0.070
North Sea CIF Dated Strip	AAHXE00		76.105	+0.380				

Freight Adjustment Factors

(\$/barrel)		Change
Sullom Voe-Rotterdam	FSVRM00	1.6883 -0.0059
Hound Point-Rotterdam	FHPRM00	1.1724 -0.0039
Sture-Rotterdam	FSTRM00	1.0662 -0.0035
Teesside-Rotterdam	FTSRM00	0.9439 -0.0032
Mongstad-Rotterdam	FMGRM00	1.0734 -0.0036
North Sea-Rotterdam	FSFRM00	1.0687 -0.0036
(%)		
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	77.115	+0.525	AWTID00		1.190	+0.105
WTI Midland (DAP Augusta)	AWTIA00	77.765	+0.525	AWTIB00		1.840	+0.105
Eagle Ford 45 (DAP Rotterdam)	AEFAC00	76.215	+0.525	AEFAD00		0.290	+0.105
Eagle Ford 45 (DAP Augusta)	AEFAA00	76.865	+0.525	AEFAB00		0.940	+0.105

PLATTS DUBAI: SEP23: EQUINOR BUYS FROM PETROCHINA* 25KB AT \$75.20 (08:29:36)

PLATTS DUBAI: SEP23: RELIANCE SELLS TO GUNVOR* 25KB AT \$75.19 (08:29:46)

PLATTS DUBAI: SEP23: BP SELLS TO GUNVOR* 25KB AT \$75.19 (08:29:50)

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 derivatives prices can be found on PPA2606.

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

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 03-07	PCAKA00	0.32/0.34	0.330	+0.450	AAJNV00	76.18/76.20	76.190 +0.600
CFD Week 2	(Oct)	Jul 10-14	PCAKC00	0.32/0.34	0.330	+0.370	AAJOS00	76.18/76.20	76.190 +0.520
CFD Week 3	(Oct)	Jul 17-21	PCAKE00	0.27/0.29	0.280	+0.290	AAJOU00	76.13/76.15	76.140 +0.440
CFD Week 4	(Oct)	Jul 24-28	PCAKG00	0.27/0.28	0.275	+0.225	AAJOW00	76.13/76.14	76.135 +0.375
CFD Week 5	(Oct)	Jul 31-04	AAGLU00	0.15/0.17	0.160	+0.140	AAJPC00	76.01/76.03	76.020 +0.290
CFD Week 6	(Oct)	Aug 07-11	AAGLV00	0.10/0.12	0.110	+0.130	AAJPE00	75.96/75.98	75.970 +0.280
CFD Week 7	(Oct)	Aug 14-18	AALCZ00	0.03/0.05	0.040	+0.090	AALAW00	75.89/75.91	75.900 +0.240
CFD Week 8	(Oct)	Aug 21-25	AALDA00	-0.04/-0.02	-0.030	+0.050	AALAX00	75.82/75.84	75.830 +0.200

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	76.160 +0.600	ABWFZ00	0.110 +0.230
Month 1 (Aug 23)	BDLM001	75.940 +0.410	AAEAA00	0.110 +0.110
Month 2 (Sep 23)	BDLM002	75.650 +0.310	AAEAB00	0.100 +0.060
Month 3 (Oct 23)	BDLM003	75.380 +0.280	AAEAC00	0.120 +0.060
Month 4 (Nov 23)	BDLM004	75.100 +0.270	AAEAD00	0.140 +0.060

*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	75.540 -0.630	
BFOE M2 (Oct)	PBCAAM2	75.340 -0.700	Sep/Oct PBAM1M2 0.200
BFOE M3 (Nov)	PBCAAM3	75.040 -0.770	Oct/Nov PBAM2M3 0.300
12:30 London Time			
BFOE M1 (Sep)	PBCABM1	75.770 -0.320	
BFOE M2 (Oct)	PBCABM2	75.550 -0.420	Sep/Oct PBBM1M2 0.220
BFOE M3 (Nov)	PBCABM3	75.270 -0.470	Oct/Nov PBBM2M3 0.280
14:30 London Time			
BFOE M1 (Sep)	PBCACM1	75.790 +0.090	
BFOE M2 (Oct)	PBCACM2	75.580 +0.030	Sep/Oct PBCM1M2 0.210
BFOE M3 (Nov)	PBCACM3	75.310 -0.010	Oct/Nov PBCM2M3 0.270
16:30 London Time			
BFOE M1 (Sep)	PCAAQ00	76.080 +0.220	
BFOE M2 (Oct)	PCAAAR00	75.860 +0.150	
BFOE M3 (Nov)	PCARR00	75.580 +0.100	
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

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 4, 2023 Dubai derivatives assessment process.

Platts Asia Pacific Sweet Crude Daily Market Analysis

- Steady middle distillate margins could cap upside
- Condensate could continue to trend lower

Trade activity in the Asia Pacific crude market was muted as market participants continue to await regional official selling prices and fresh programs for September loading barrels.

Sentiment was mixed for the middle distillate-rich regional grades after trading much higher in the previous trading cycle.

"[I] Think lights and mediums cargoes [were] last month priced a bit higher than the previous month, supported by middle distillate," said a Singapore-based crude oil trader.

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

			Mid	Change	Spread vs fwd Dated Brent	Mid	Change
Urals (Rotterdam)	PCAFW00	58.34-58.36	58.350	+0.685	AAGXJ00	-17.77/-17.76	-17.765 +0.300
Urals (Mediterranean)	PCACE00	58.86-58.89	58.875	+0.650	AAGXX00	-17.25/-17.23	-17.240 +0.265
Urals FOB Novo Suez	AAGZS00	56.10-56.13	56.115	+0.685	AAHPH00	-20.01/-19.99	-20.000 +0.300
Urals FOB Novo Afra	AAOTH00	55.20-55.23	55.215	+0.685	AAOTI00	-20.91/-20.89	-20.900 +0.300
Urals (Ex-Baltic)	AAGZT00	56.10-56.13	56.115	+0.685	AAHPI00	-20.01/-19.99	-20.000 +0.300
Urals (Primorsk)	AAWVH00	56.10-56.13	56.115	+0.685	AAWVI00	-20.01/-19.99	-20.000 +0.300
Urals RCMB (Recombined)	AALIN00	58.74-58.77	58.755	+0.730			
ESPO (FOB Kozmino)	AARWD00	67.27-67.29	67.280	+0.230	AARWE00	-8.38/-8.36	-8.370 -0.080
KEBCO	KBCOA00		77.215	+0.435	KBCOB00		1.100 +0.050
Urals (DAP India)	DWCUA00		67.940	+1.010	DWCUB00		-8.000 +0.600
KEBCO/Russian Urals	AKEBA00		18.340	-0.215			

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	-17.25/-17.23	-17.240	+0.265	
Urals Med CFD (Aug)	AAMEA00	-17.25/-17.23	-17.240	+0.265	
Urals Med CFD (Sep)	UMCM003	-17.25/-17.23	-17.240	+0.265	
Northwest Europe (PPE page 1617)					
Urals NWE CFD (Jul)	UNCM001	-17.77/-17.76	-17.765	+0.300	
Urals NWE CFD (Aug)	UNCM002	-17.77/-17.76	-17.765	+0.300	
Urals NWE CFD (Sep)	UNCM003	-17.77/-17.76	-17.765	+0.300	
Mediterranean (PPE page 1617)					
CPC Blend CFD (Jul)	AAOFX00		-1.800	0.000	
CPC Blend CFD (Aug)	AAOFY00		-1.850	0.000	
CPC Blend CFD (Sep)	AAOFZ00		-1.700	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	79.57-79.61	79.590	+0.415	AAHPM00	3.49/3.51	3.500 +0.050
Azeri Lt FOB Ceyhan Suez	AAUFM00	78.46-78.49	78.475	+0.445	AAUFN00	2.38/2.39	2.385 +0.080
Azeri Lt FOB Ceyhan Afra	AAUFK00	78.06-78.09	78.075	+0.500	AAUFL00	1.98/1.99	1.985 +0.135
Azeri Lt FOB Supsa	AATHM00	77.08-77.11	77.095	+0.450	AATHN00	1.00/1.01	1.005 +0.085
BTC FOB Ceyhan	AAUFH00	78.26-78.29	78.275	+0.470	AAUFJ00	2.18/2.19	2.185 +0.105
Black Sea (PGA page 1220)							
Siberian Light CIF	AAGZW00	60.86-60.89	60.875	+0.650	AAHPK00	-15.25/-15.23	-15.240 +0.265
CPC Blend CIF	AAGZU00	73.68-73.71	73.695	+0.365	AAHPL00	-2.40/-2.39	-2.395 0.000
CPC Blend FOB Suez	AALVX00	71.09-71.13	71.110	+0.400	AALVZ00	-4.99/-4.97	-4.980 +0.035
CPC Blend FOB Afra	AAOFV00	70.31-70.34	70.325	+0.395	AAOFW00	-5.77/-5.76	-5.765 +0.030
Additional War Risk Premium	AWARA00		1.000	0.000			
Middle East & North Africa (PGA page 1234)							
Suez Blend	PCACA00	74.05-74.08	74.065	+0.435	AAGYD00	-2.06/-2.04	-2.050 +0.050
Es Sider	PCACO00	76.07-76.11	76.090	+0.515	AAGYH00	-0.01/0.01	0.000 +0.150
Kirkuk	AAEJD00	73.10-73.13	73.115	+0.435	AAGYF00	-3.01/-2.99	-3.000 +0.050
Iranian Light FOB Kharg Island (Med)	ATLKA00		76.605	+0.155	ATLKB00		0.490 -0.230
Iranian Heavy FOB Kharg Island (Med)	ATHKA00		74.905	+0.155	ATHKB00		-1.210 -0.230
Saharan Blend	AAGZY00	76.57-76.61	76.590	+0.365	AAHPN00	0.49/0.51	0.500 0.000

“Last month, mid-month freight was high, and when comparing regionals and arb [barrels], regionals were OK. But I think if price were to go to higher level [for regionals], it will be difficult. Especially if middle-distillate margins are stable to coming down,” the trader added.

The second-month gasoil and jet swap crack spreads versus Dubai crude swaps were assessed at \$16.99/b and \$15.89/b, respectively, at the Platts Market on Close on July 3, the lowest in over three weeks, S&P Global Commodity Insights data showed. The cracks had averaged at \$16.95/b and \$16.21/b, respectively, in June, up from the May average of \$15.28/b and \$14.70/b.

“Margins gasoil crack, if still good [this month], it will directly impact Malaysian grades,” another trader said.

On the light sweet complex, despite slight improvements in naphtha cracks in recent days, a persistent general downtrend for the condensate by-product weighed on sentiment.

The second-month naphtha crack spreads versus Dubai crude swaps averaged at minus \$16.67/b in June, the lowest since September 2022 when it averaged \$18.95/b, S&P Global data showed.

“Condensate price is very hard to recover [this month as downstream] petrochemical demand is very weak,” said a trader.

Qatari condensates could also trade at lower levels, said another trader. It was previously heard that Qatar’s LSC for August-loading could have traded at discounts of \$7s/b against Dubai post the monthly tender last month.

“LSC [prices] cannot go up if other markets are going down,” the trader 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 4 took into

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

			Mid	Change	Spread vs fwd Dated Brent		Mid	Change
WAF Index	AWAFA00		76.285	+0.680	AWAFB00		0.375	+0.275
Nigeria Spot Crude Assessments								
Bonny Light	PCAIC00	76.04–76.08	76.060	+0.705	AAGXL00	0.14/0.16	0.150	+0.300
Qua Iboe	PCAI00	76.09–76.13	76.110	+0.705	AAGXN00	0.19/0.21	0.200	+0.300
Forcados	PCABC00	76.24–76.28	76.260	+0.705	AAGXP00	0.34/0.36	0.350	+0.300
Agbami	AAQZB00	73.24–73.28	73.260	+0.705	AAQZC00	-2.66/-2.64	-2.650	+0.300
Escravos	AAEIZ00	76.69–76.73	76.710	+0.705	AAGXR00	0.79/0.81	0.800	+0.300
Brass River	AAEJB00	74.94–74.98	74.960	+0.705	AAGXV00	-0.96/-0.94	-0.950	+0.300
Akpo	PCNGA00	73.24–73.28	73.260	+0.705	PCNGB00	-2.66/-2.64	-2.650	+0.300
Bonga	PCNGC00	76.69–76.73	76.710	+0.605	PCNGD00	0.79/0.81	0.800	+0.200
Usan	AAXUQ00		72.110	+0.705	AAXUR00		-3.800	+0.300
Erha	AAXUO00		76.710	+0.605	AAXUP00		0.800	+0.200
Egina	AFONA00		78.360	+0.705	AFONB00		2.450	+0.300
Angola spot crude assessments (\$/barrel) (PGA page 1232)								
Cabinda	PCAFD00	76.79–76.83	76.810	+0.405	AAGXT00	0.89/0.91	0.900	0.000
Nemba	AAQYZ00	74.84–74.88	74.860	+0.405	AAQZA00	-1.06/-1.04	-1.050	0.000
Dalia	AAQYX00	75.54–75.58	75.560	+0.505	AAQYY00	-0.36/-0.34	-0.350	+0.100
Girassol	AASNL00	78.24–78.28	78.260	+0.405	AASJD00	2.34/2.36	2.350	0.000
Hungo	AASLJ00	74.79–74.83	74.810	+0.405	AASJF00	-1.11/-1.09	-1.100	0.000
Kissanje	AASLK00	75.74–75.78	75.760	+0.405	AASJE00	-0.16/-0.14	-0.150	0.000
Pazflor	PCNGG00	75.54–75.58	75.560	+0.505	PCNGH00	-0.36/-0.34	-0.350	+0.100
Plutonio	PCNGI00	74.49–74.53	74.510	+0.405	PCNGJ00	-1.41/-1.39	-1.400	0.000
Ghana spot crude assessments (PGA page 1230)								
Jubilee	AAXUS00		75.860	+0.405	AAXUT00		-0.050	0.000
Republic of Congo spot crude assessments								
Djeno	PCNGE00	73.69–73.73	73.710	+0.405	PCNGF00	-2.21/-2.19	-2.200	0.000
Chad spot crude assessments								
Doba	AAXUU00		73.260	+0.405	AAXUV00		-2.650	0.000

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

		Mid	Change	Spread vs fwd Dated Brent	Mid	Change
Abo Blend	AAXTL00	75.605	+0.845	ABOOM00	-0.305	+0.440
Aje	APIRP00	76.070	+0.725	APIRA00	0.160	+0.320
Amenam Blend	AAXTI00	75.035	+0.665	AMENA00	-0.875	+0.260
Antan Blend	APIRQ00	78.215	+0.635	APIRB00	2.305	+0.230
Asaramatoru	AAXTV00	75.605	+0.655	ASARA00	-0.305	+0.250
CJ Blend	APIRR00	76.555	+0.915	APIRC00	0.645	+0.510
EA Blend	AAXTJ00	76.705	+0.850	AEABL00	0.795	+0.445
Ebok	APIRS00	73.405	+0.460	APIRD00	-2.505	+0.055
Eremor	APIRT00	76.410	+0.430	APIRE00	0.500	+0.025
Ima	APIRU00	77.775	+0.290	APIRF00	1.865	-0.115
Jones Creek Blend	APIRV00	75.860	+0.425	APIRG00	-0.050	+0.020
Okono Blend	APIRW00	76.620	+0.780	APIRH00	0.710	+0.375
Okoro	APIRX00	75.300	+0.805	APIRI00	-0.610	+0.400
Okwori	APIRY00	76.760	+0.895	APIRJ00	0.850	+0.490
Otakikpo	APIRZ00	75.280	+0.645	APIRK00	-0.630	+0.240
Oyo	APIRIA00	75.270	+0.690	APIRL00	-0.640	+0.285
Pennington	APRIB00	74.170	+0.820	APIRM00	-1.740	+0.415
Rabi Light	ARABA00	75.010	+0.400	ARABB00	-0.900	-0.005
Sankofa	APRIC00	72.525	+0.570	APIRN00	-3.385	+0.165

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: NIL

Offers: NIL

Trades: NIL

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

Platts North Sea Crude Daily Market Analysis

- Physical outlook improves for light sweet grades
- Expectations for tighter H2 market gain momentum

Emerging robustness in downstream fundamentals lent support to North Sea crude differentials June 4, according to market participants.

Light sweet grades have started the week notably more supported in the Platts Market on Close assessment process. Traders generally didn't see a single driver of the renewed strength, but rather a general lift in downstream support and healthy refinery runs.

"The physical market seems a little better, [with] full runs etc," one trader said.

In the paper market, Dated to Frontline Swaps contracts also recorded strong gains with the balance month July contract up 28 cents/b at the London Close, while Brent contracts for difference snapped sharply into backwardation.

Nonetheless, July-loading availability in more fungible North Sea grades such as Ekofisk and

West Africa market parity prices (continued)

		Mid	Change	Spread vs fwd Dated Brent	Mid	Change
TEN	AAXTW00	74.055	+0.705	ATENM00	-1.855	+0.300
Ukpokiti	APRID00	76.370	+0.765	APIRO00	0.460	+0.360
Yoho Light	AAXTK00	76.930	+0.745	AYOH000	1.020	+0.340
Zafiro	AAXTU00	78.505	+0.640	AZAFB00	2.595	+0.235

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

		Mid	Change	Spread to NYMEX WTI CMA	Mid	Change
ANS/Long Beach	PCAAD00	NA	NANA	AAGWX00	NA/NA	NA
				Spread to ICE BRENT CMA		
ANS/Long Beach				AANSA00	NA	NANA

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

			Mid	Change
Mars (Aug)	AAMBR00	NA-NA	NA	NANA
Mars (Sep)	AAMBU00	NA-NA	NA	NANA
Mars (Oct)	AAMBX00	NA-NA	NA	NANA
Mars/WTI (Aug)	AAGWH00	NA/NA	NA	NANA
Mars/WTI (Sep)	AAKTH00	NA/NA	NA	NANA
Mars/WTI (Oct)	AAMBO00	NA/NA	NA	NANA
LOOP/WTI (Aug)	AALOM01		NA	NANA
LOOP/WTI (Sep)	AALOM02		NA	NANA
LOOP/WTI (Oct)	AALOM03		NA	NANA
LOOP/Mars (Aug)	AALPM01		NA	NANA
LOOP/Mars (Sep)	AALPM02		NA	NANA
LOOP/Mars (Oct)	AALPM03		NA	NANA
WTI-Delta	AAEJK00	NA/NA	NA	NANA
P-Plus WTI	PCACI00	NA/NA	NA	NANA
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	NA-NA	NA	NANA	AAGVZ00	NA/NA	NA
WTS (1st month)	PCACK00	NA-NA	NA	NANA	AAGWB00	NA/NA	NA
WTI MEH	AAYRG00		NA	NANA	AAYRH00		NA
Bonito	PCAIE00	NA-NA	NA	NANA	AAGWF00	NA/NA	NA
SGC	AASOI00	NA-NA	NA	NANA	AASOJ00	NA/NA	NA
Poseidon	AABHK00	NA-NA	NA	NANA	AAGWL00	NA/NA	NA
LLS (1st month)	PCABN00	NA-NA	NA	NANA	AAGWN00	NA/NA	NA
HLS (1st month)	PCABD00	NA-NA	NA	NANA	AAGWP00	NA/NA	NA
Wyoming Sweet	PCACM00	NA-NA	NA	NANA	AAGWR00	NA/NA	NA
Thunder Horse	AAWZK00	NA-NA	NA	NANA	AAWZL00	NA/NA	NA

Forties remained heightened for this period in the trading cycle, according to market participants, which may serve to cap the recent rally. WTI Midland also remained an ever-present point of discussion in relation to light sweet crudes throughout the Atlantic Basin.

“WTI has taken a chunk of the European market,” a second trader said.

More broadly, expectations for a tightening global market in the second half of the year were gaining momentum following Saudi Arabia's decision to extent it's latest voluntary output cuts through August.

“OPEC+ cuts always work and are leaning ahead of the curve more than ever. They just cut immediately, and it is a big drop,” Bjarne Schieldrop, chief commodities analyst at SEB Bank, told S&P Global Commodities Insights. “In April, Saudi Arabia [production] was at 10.5 million b/d, now they're at 9 million b/d and Russia is joining in makes these fully operational cuts.”

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

Dated Brent <PCAAS00> assessment rationale:

Of the six grades in the Dated Brent basket, Forties, Ekofisk and WTI Midland were seen in the Platts Market on Close assessment process.

Brent, Forties, Oseberg and Troll were assessed unchanged July 14-Aug. 3 with flat structures rolled over back-end dates amid steady fundamentals and in the absence of indications testing the July 3 assessments.

Ekofisk was assessed in a flat structure July 14-18 using a FOB equivalent trade July 16-18. July 18-Aug. 4 was assessed in a 3.13 cents/day contango structure using an outstanding bid July 29.

FOB WTI Midland was assessed higher reflecting a higher CIF Rotterdam WTI Midland assessment and lower freight adjustment factor on the day. CIF WTI Midland was assessed in a 3 cents/day contango

US spot crude assessments (continued)

				<u>Spread vs 2nd line WTI</u>			
WTI MEH (2nd month)	AAXXE00	NA	NANA	AAYYA00	NA	NANA	
WTI Midland (2nd month)	AAYZA00	NA	NANA	AAXXF00	NA	NANA	
WTS (2nd month)	AAURG00	NA-NA	NA	AAURH00	NA/NA	NA	NANA
LLS (2nd month)	AAURC00	NA-NA	NA	AAURD00	NA/NA	NA	NANA
HLS (2nd month)	AAURE00	NA-NA	NA	AAURF00	NA/NA	NA	NANA
				<u>Spread vs NYMEX WTI CMA</u>			
WCS ex-Cushing	AAWTY00	NA-NA	NA	AAWTZ00	NA/NA	NA	NANA
WCS ex-Nederland	AAYAY00		NA	AAYAX00		NA	NANA
Bakken Williston	AAXPP00		NA	AASRX00		NA	NANA
Bakken Guernsey	AASRR00	NA-NA	NA	AASRV00	NA/NA	NA	NANA
Bakken Clearbrook	AASRU00	NA-NA	NA	AASRW00	NA/NA	NA	NANA
Bakken USGC Pipe	ABAKA00		NA	ABAKB00		NA	NANA
<u>FOB USGC</u>				<u>FOB USGC Spread vs NYMEX WTI Strip</u>			
Platts AGS	AGSAA00		NA	AGSAC00		NA	NANA
Bakken	ABAKC00		NA	ABAKD00		NA	NANA
Eagle Ford Crude	AAYAT00		NA	AAYAU00		NA	NANA
Eagle Ford Condensate	AAYAR00		NA	AAYAS00		NA	NANA
WTI	AAYBA00		NA	AAYAZ00		NA	NANA
<u>FOB USGC Spread vs Dated Brent Strip</u>							
Platts AGS	AGSAB00		NA				
Bakken	ABAKE00		NA				
Eagle Ford Crude	AEFCA00		NA				
Eagle Ford Condensate	AEFCB00		NA				
WTI	AWTUA00		NA				
<u>Global Benchmarks at US Close</u>							
Americas Dated Brent	AAQBF00	NA-NA	NA				

structure July 16-20 using a withdrawn offer July 20. July 20-21 was assessed in a 4 cents/day contango structure using a traded bid and withdrawn offer July 21. July 21-22 was assessed in a 4 cents/day contango structure using a traded bid July 22-23. July 23-25 was assessed in an 11 cents/day contango structure using a withdrawn bid July 25. July 25-Aug. 4 was assessed in a 1.5 cents/day contango structure.

WTI Midland was the most competitive grade in the Dated Brent assessment July 14-Aug. 4.

BFOE (PCAAQ00-PCAR00,PCARR00) assessment rationale: September Cash BFOE was assessed using a traded bid. 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 an outstanding bid. July 17-21 was assessed using a July 17-21 versus July 24-28 CFD roll heard during the day. July 24-28 was assessed using an outstanding big and offer. July 31-Aug. 4 was assessed using an outstanding bid. Aug. 7-11 was assessed using an outstanding bid.

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 and in the absence of indications testing the July 3 assessment.

Exclusions: PLATTS CASH BFOE: SEP23: PETROINEOS OFFERS 100KB AT \$76.05

Platts is part of S&P Global Commodity Insights

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

Bids:

NORTH SEA: TRAFI Bids WTI Midland, CIF

Rotterdam, Aug. 02 - Aug. 06, at Dtd 1.10;

MERCURIASA Bids Ekofisk, FOB Teesside, Jul. 28 - Aug. 03, at Dtd 1.45

CASH BFOE: None

BRENT CFDS: PLATTS BRENT DIFF: JUL10-JUL14 (SEP): MERCURIA BIDS 100KB AT \$0.10

PLATTS BRENT DIFF: JUL10-JUL14 (SEP):

PETROCHINA BIDS 100KB AT \$0.05

PLATTS BRENT DIFF: JUL10-JUL14 (SEP): DV

TRADING BIDS 100KB AT \$0.05

PLATTS BRENT DIFF: JUL10-JUL14 (SEP): DARE

BIDS 100KB AT \$0.00

PLATTS BRENT DIFF: JUL10-JUL14 (SEP): MCE BIDS 100KB AT \$0.00

PLATTS BRENT DIFF: JUL10-JUL14 (SEP): UNIPEC BIDS 100KB AT \$0.00

PLATTS BRENT DIFF: JUL10-JUL14 (SEP):

FREEPOINT BIDS 100KB AT \$-0.10

PLATTS BRENT DIFF: JUL10-JUL14 (SEP): ONYX BIDS 100KB AT \$-0.15

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): MERCURIA BIDS 100KB AT \$0.04

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): DV TRADING BIDS 100KB AT \$0.00

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): ONYX BIDS 100KB AT \$0.00

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): MCE BIDS 100KB AT \$0.00

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): DARE BIDS 100KB AT \$-0.05

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): UNIPEC BIDS 100KB AT \$-0.05

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): FREEPOINT BIDS 100KB AT \$-0.10

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

			Spread to					
			Mid	Change	NYMEX light sweet crude	Mid	Change	
WTI (Aug)	AAQAR00	NA-NA	NA	NANA	AAQAS00	NA/NA	NA	NANA
WTI (Sep)	AAQAT00	NA-NA	NA	NANA	AAQAU00	NA/NA	NA	NANA
WTI (Oct)	AAQAV00	NA-NA	NA	NANA	AAQAW00	NA/NA	NA	NANA
			Spread to					
					same-month cash WTI	Mid	Change	
WTI MEH (Aug)	AAYRZ00		NA	NANA	AAYTA00	NA	NANA	
WTI MEH (Sep)	AAXYD00		NA	NANA	AAYWA00	NA	NANA	
LLS (Aug)	AAQBB00	NA-NA	NA	NANA	AAQBC00	NA/NA	NA	NANA
LLS (Sep)	AAQBD00	NA-NA	NA	NANA	AAQBE00	NA/NA	NA	NANA
MARS (Aug)	AAQAX00	NA-NA	NA	NANA	AAQAY00	NA/NA	NA	NANA
MARS (Sep)	AAQAZ00	NA-NA	NA	NANA	AAQBA00	NA/NA	NA	NANA

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

			Mid	Change
Americas Dated Brent	AAQBF00	NA-NA	NA	NANA

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	71.530	+0.120
LOOP Sour (Sep)	AAZDB00	70.850	+0.100
LLS (Aug)	AAZDC00	72.930	+0.120
LLS (Sep)	AAZDD00	72.800	+0.100
Southern Green Canyon	AAZDE00	71.730	+0.120
WTI MEH (Aug)	AAZDF00	72.030	+0.120
WTI MEH (Sep)	AAZDG00	72.100	+0.100

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

		Mid	Change
Dubai CFR North Asia	PCAQA00	77.275	+0.005
Oman CFR North Asia	PCAQJ00	77.350	-0.010
Upper Zakum CFR North Asia	PCAQB00	77.235	+0.005
Qatar Marine CFR North Asia	PCAQC00	76.200	+0.010
Murban CFR North Asia	PCAQE00	77.690	+0.090
Basrah Medium CFR North Asia	BASNA00	76.050	+0.010
ESPO CFR North Asia	PCAQD00	69.140	-0.080
Forties CFR North Asia	PCAQF00	79.050	+0.270
Dalia CFR North Asia	PCAQG00	77.765	+0.135
WTI MEH CFR North Asia	PCAQH00	77.350	+0.120
LOOP Sour CFR North Asia	PCAQI00	75.710	+0.120

PLATTS BRENT DIFF: JUL24-JUL28 (SEP):
 MERCURIA BIDS 100KB AT \$0.05
 PLATTS BRENT DIFF: JUL24-JUL28 (SEP): ONYX
 BIDS 100KB AT \$0.00
 PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DV
 TRADING BIDS 100KB AT \$-0.05
 PLATTS BRENT DIFF: JUL24-JUL28 (SEP): MCE
 BIDS 100KB AT \$-0.05
 PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DARE
 BIDS 100KB AT \$-0.05
 PLATTS BRENT DIFF: JUL24-JUL28 (SEP): UNIPPEC
 BIDS 100KB AT \$-0.05
 PLATTS BRENT DIFF: JUL24-JUL28 (SEP):
 FREEPOINT BIDS 100KB AT \$-0.10
 PLATTS BRENT DIFF: AUG7-AUG11 (OCT): DV
 TRADING BIDS 100KB AT \$0.10
 PLATTS BRENT DIFF: AUG7-AUG11 (OCT): DARE
 BIDS 100KB AT \$0.00
 PLATTS BRENT DIFF: JUL31-AUG4 (OCT): DV
 TRADING BIDS 100KB AT \$0.15
 PLATTS BRENT DIFF: JUL31-AUG4 (OCT): ONYX
 BIDS 100KB AT \$0.12
 PLATTS BRENT DIFF: JUL31-AUG4 (OCT): MCE BIDS
 100KB AT \$0.10
 PLATTS BRENT DIFF: JUL31-AUG4 (OCT):
 FREEPOINT BIDS 100KB AT \$0.10
 PLATTS BRENT DIFF: JUL31-AUG4 (OCT): UNIPPEC
 BIDS 100KB AT \$0.10
 PLATTS BRENT DIFF: JUL31-AUG4 (OCT): DARE
 BIDS 100KB AT \$0.10
 PLATTS BRENT DIFF: JUL31-AUG4 (OCT): MERCURIA
 BIDS 100KB AT \$0.10
 Offers:
 NORTH SEA: None
 CASH BFOE: None
 BRENT CFDS: PLATTS BRENT DIFF: JUL10-JUL14
 (SEP): DARE OFFERS 100KB AT \$0.16
 PLATTS BRENT DIFF: JUL10-JUL14 (SEP): MCE
 OFFERS 100KB AT \$0.25

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

			Mid	Change	Spread vs fwd Dated Brent	Mid	Change
Hebron	AHEBA00		NA	NANA	AHEBC00	NA	NANA
Terra Nova	AAJUH00	NA-NA	NA	NANA	AAJUJ00	NA/NA	NA NANA
Hibernia	AAJJK00	NA-NA	NA	NANA	AAJKM00	NA/NA	NA NANA
White Rose	AAVJX00	NA-NA	NA	NANA	AAVJY00	NA/NA	NA NANA

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	NA-NA	NA	NANA	AALRP00	NA/NA	NA NANA
Mixed Sweet	AALRR00	NA-NA	NA	NANA	AALRV00	NA/NA	NA NANA
Light Sour Blend	AALRX00	NA-NA	NA	NANA	AALSD00	NA/NA	NA NANA
Midale	AAUCC00	NA-NA	NA	NANA	AAUCE00	NA/NA	NA NANA
Condensates	AALSF00	NA-NA	NA	NANA	AALSJ00	NA/NA	NA NANA
Syncrude Sweet Prem.	AASOK00	NA-NA	NA	NANA	AASOM00	NA/NA	NA NANA
WCS Hardisty	AAPPN00	NA-NA	NA	NANA	AAPPP00	NA/NA	NA NANA
Cold Lake Hardisty	AASZX00	NA-NA	NA	NANA	AASZZ00	NA/NA	NA NANA
WTI CMA (1st mo)	AAVSN00		NA	NANA			

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	NA-NA	NA	NANA	PCAG000	NA	AAXB000
Medanito	AMTOA00		NA	NANA	AMTOC00	NA	AMTOD00
Santa Barbara	AAITD00	NA-NA	NA	NANA	AAITJ00	NA	AAXAZ00
Loreto	PCAGH00	NA-NA	NA	NANA	PCAGQ00	NA	AAXB000
Oriente	PCADE00	NA-NA	NA	NANA	PCAGU00	NA	AAXBH00
Napo	AAMCA00	NA-NA	NA	NANA	AAMCD00	NA	AAXB000
Tupi	ATUPA00		NA	NANA	ATUPC00	NA	ATUPD00
Marlim	AAITF00	NA-NA	NA	NANA	AAITL00	NA	AAXB000
Castilla Blend	AAVEQ00	NA-NA	NA	NANA	AAVEQ01	NA	AAXB000
Vasconia	PCAGI00	NA-NA	NA	NANA	PCAGR00	NA	AAXB000
Mesa 30	AAITB00	NA-NA	NA	NANA	AAITH00	NA	AAXB000
Liza	ALIZA00		NA	NANA	ALIZD00	NA	ALIZB00
Latin America WTI strip	AAXB000		NA				
Latin America Futures Brent strip	AAXBQ00		NA				
Latin America Dated Brent strip	AAXB000		NA				

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

		Mid	Change
Maya	AAYMP00	NA	NANA
Merrey 16	AMERA00	NA	NANA

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

			Mid	Change
European crude oil benchmarks				
Dated Brent	AAPYR00	69.720-69.730	69.727	+0.522
Dated Brent (CIF)	PCAKN00		70.708	+0.509
Urals (Mediterranean)	AAPYS00	54.000-54.030	54.019	+0.670
US crude oil benchmarks				
WTI (Aug)	AAPYT00	NA-NA	NA	NANA
WTI MEH (Aug)	AAYSA00		NA	NANA
Mars (Aug)	AAPYU00	NA-NA	NA	NANA

Euro/US\$ forex rate: 1.0899. 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: JUL10-JUL14 (SEP): DV
TRADING OFFERS 100KB AT \$0.40

PLATTS BRENT DIFF: JUL10-JUL14 (SEP): ONYX
OFFERS 100KB AT \$0.45

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): DV
TRADING OFFERS 100KB AT \$0.09

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): BP
OFFERS 100KB AT \$0.10

PLATTS BRENT DIFF: JUL17-JUL21 (SEP):
PETROCHINA OFFERS 100KB AT \$0.10

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): GUNVOR
OFFERS 100KB AT \$0.15

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): DARE
OFFERS 100KB AT \$0.15

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

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

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DV
TRADING OFFERS 100KB AT \$0.06

PLATTS BRENT DIFF: JUL24-JUL28 (SEP):
PETROCHINA OFFERS 100KB AT \$0.07

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): BP
OFFERS 100KB AT \$0.10

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): GUNVOR
OFFERS 100KB AT \$0.10

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DARE
OFFERS 100KB AT \$0.15

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): ONYX
OFFERS 100KB AT \$0.25

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): MCE
OFFERS 100KB AT \$0.30

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): DV
TRADING OFFERS 100KB AT \$0.25

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): DARE
OFFERS 100KB AT \$0.40

PLATTS BRENT DIFF: JUL31-AUG4 (OCT):
PETROCHINA OFFERS 100KB AT \$0.18

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): DV
TRADING OFFERS 100KB AT \$0.24

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

			Mid	Change
Russian crude oil benchmarks				
Urals FOB Novorossiysk	AAUJP00	5049.000-5051.700	5050.350	+103.500
Urals FOB Baltic	AAUJQ00	5049.000-5051.700	5050.350	+103.500
Urals FOB Novorossiysk 80kt	AAUJR00	4968.000-4970.700	4969.350	+102.820
Urals CIF Mediterranean	AAUJS00	5297.400-5300.100	5298.750	+102.460
Urals CIF Rotterdam	AAUJT00	5250.600-5252.400	5251.500	+105.187

US\$/Ruble forex rate: 90.0000. 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	NA-NA	NA	NANA
Mixed Sweet	AALRT00	NA-NA	NA	NANA
Light Sour Blend	AALRZ00	NA-NA	NA	NANA
Midale	AAUCD00	NA-NA	NA	NANA
Condensates	AALSH00	NA-NA	NA	NANA
Syncrude Sweet	AASOL00	NA-NA	NA	NANA
WCS Hardisty	AAPPO00	NA-NA	NA	NANA
Cold Lake Hardisty	AASZY00	NA-NA	NA	NANA

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

		Mid	Change
July 4, 2023	AAFCW00	1.0899	-0.002

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

			Mid	Change
Brent (Sep)	PCAJG00	75.29-75.33	75.310	+0.190
Brent (Oct)	PCAJI00	75.11-75.15	75.130	+0.110
Brent (Nov)	PCAJ000		74.850	+0.040
WTI (Aug)	AAFFU00	70.31-70.35	70.330	+0.120
WTI (Sep)	AAFFW00	70.43-70.47	70.450	+0.100
WTI (Oct)	AAFFY00	70.31-70.35	70.330	+0.060

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

			Mid	Change
Oman/Dubai Swap (Aug)	AAIHJ00	0.06/0.10	0.080	-0.020
Oman/Dubai Swap (Sep)	AAIHL00	0.06/0.10	0.080	-0.020
Oman/Dubai Swap (Oct)	AAIHN00	0.06/0.10	0.080	-0.020
Oman Swap (Aug)	AAHZP00	74.75-74.79	74.770	-0.040
Oman Swap (Sep)	AAHZR00	74.19-74.23	74.210	-0.040
Oman Swap (Oct)	AAHZT00	73.72-73.76	73.740	-0.060

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

		Mid	Change
July 3, 2023	AAEUQ00	76.120	-0.020

PLATTS BRENT DIFF: JUL31-AUG4 (OCT):

FREEPOINT OFFERS 100KB AT \$0.25

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): DARE
OFFERS 100KB AT \$0.30

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): MCE
OFFERS 100KB AT \$0.40

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): ONYX
OFFERS 100KB AT \$0.45

Trades:

NORTH SEA: VITOL*-MERCURIASA Ekofisk, CIF
Rotterdam, Jul. 16 - Jul. 20, at Dtd 2.10, [15:24:52];
GUNVORSA-MERCURIASA* WTI Midland, CIF
Rotterdam, Jul. 20 - Jul. 24, at Dtd 0.83, 1 OCO 2 and 3
[15:25:51]

CASH BFOE: PLATTS CASH BFOE: SEP23:
MERCURIA BUYS FROM CHEVRON* 100KB AT \$76.14
(15:29:29)

PLATTS CASH BFOE: SEP23: GUNVOR SELLS TO
MERCURIA* 100KB AT \$76.14 (15:29:34)

PLATTS CASH BFOE: SEP23: MERCURIA BUYS
FROM PETROINEOS* 100KB AT \$76.17 (15:29:34)

PLATTS CASH BFOE: SEP23: VITOL SELLS TO
MERCURIA* 100KB AT \$76.14 (15:29:38)

PLATTS CASH BFOE: SEP23: MERCURIA BUYS
FROM CHEVRON* 100KB AT \$76.14 (15:29:40)

PLATTS CASH BFOE: SEP23: MERCURIA BUYS
FROM PETROINEOS* 100KB AT \$76.08 (15:29:44)

PLATTS CASH BFOE: SEP23: SHELL BUYS FROM
PETROINEOS* 100KB AT \$76.05 (15:29:49)

PLATTS CASH BFOE: SEP23: VITOL SELLS TO
MERCURIA* 100KB AT \$76.08 (15:29:50)

PLATTS CASH BFOE: SEP23: HARTREE BUYS FROM
PETROINEOS* 100KB AT \$76.05 (15:29:52)

PLATTS CASH BFOE: SEP23: VITOL SELLS TO
MERCURIA* 100KB AT \$76.08 (15:29:54)

PLATTS CASH BFOE: SEP23: VITOL SELLS TO
MERCURIA* 100KB AT \$76.08 (15:29:59)

BRENT CFDS: PLATTS BRENT DIFF: JUL24-JUL28
(SEP): TOTAL BUYS FROM DV TRADING* 100KB AT
\$0.06 (15:29:41)

Futures Settlements

	Settlement	Change	Low	High	Volume*	Open interest	PNT****
NYMEX Light Sweet crude (\$/barrel) (PGA page 705)							
Aug 23	NMCL001	NA	NA	NA	284509	325984	
Sep 23	NMCL002	NA	NA	NA	98517	300820	
Oct 23	NMCL003	NA	NA	NA	43856	169327	
Nov 23	NMCL004	NA	NA	NA	22279	87324	
Total	NMCL000				597516		XNCLP00 6666
ICE Brent (\$/barrel) (PGA page 704)							
Sep 23	ICLL001	76.25	+1.60	74.74	76.29	180157	530683
Oct 23	ICLL002	76.05	+1.58	74.56	76.07	95574	344727
Nov 23	ICLL003	75.77	+1.56	74.30	75.78	51819	198821
Dec 23	ICLL004	75.48	+1.54	74.03	75.49	61779	296054
Total	ICLL000				462644		XILLP00 30142
ICE WTI (\$/barrel) (PGA page 704)							
Aug 23	ICIC001	71.44	+1.65	70.08	71.47	12347	100784
Sep 23	ICIC002	71.31	+1.40	70.06	71.31	5163	54728
Oct 23	ICIC003	71.10	+1.30	69.87	71.10	3966	29169
Nov 23	ICIC004	70.87	+1.25	69.56	70.87	3608	80241
Total	ICIC000				36305		XIICP00 9470
ICE BWAIVE (\$/barrel) (PGA page 704)							
BWAIVE data refer to previous day.							
Sep 23	XIBW001	75.56					
Oct 23	XIBW002	75.42					
DME Oman crude (\$/barrel)** (PGA pages 702 & 2710)							
Sep 23	XDOA001	75.27	-0.09			1861	
Sep 23	DMOQ001	NA	NA	NA	NA	1520	395
Oct 23	DMOQ002	NA	NA	NA	NA	783	8
Nov 23	DMOQ003	NA	NA	NA	NA	782	0
Dec 23	DMOQ004	NA	NA	NA	NA	0	0
Total Volume	DMOQ000					529	XDOQP00 1435
IFAD Murban crude (\$/barrel) (PGA page 703)							
Sep 23	AMIFA00	75.720					
Murban vs Dubai***	AMIFB00	1.590					
NYMEX ULSD (\$/gal) (PGA page 705)							
Aug 23	NMHO001	NA	NA	NA	NA	35205	74272
Sep 23	NMHO002	NA	NA	NA	NA	24380	44973
Oct 23	NMHO003	NA	NA	NA	NA	13691	37414
Nov 23	NMHO004	NA	NA	NA	NA	6640	26846
Total	NMHO000					94357	XNHOP00 4642
NYMEX RBOB unleaded gasoline (\$/gal) (PGA page 705)							
Aug 23	NMRB001	NA	NA	NA	NA	41786	97877
Sep 23	NMRB002	NA	NA	NA	NA	34904	76226
Oct 23	NMRB003	NA	NA	NA	NA	15177	48196
Nov 23	NMRB004	NA	NA	NA	NA	7229	24313
Total Volume	NMRB000					108542	XNRBP00 7281
NYMEX Natural Gas (\$/MMBtu) (PGA page 705)							
Aug 23	NMNG001	NA	NA	NA	NA	73288	168949
Sep 23	NMNG002	NA	NA	NA	NA	34600	278878
Oct 23	NMNG003	NA	NA	NA	NA	26233	112630
Nov 23	NMNG004	NA	NA	NA	NA	11677	86584
Total Volume	NMNG000					185257	XNNGP00 3262

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): BP SELLS TO MERCURIA* 100KB AT \$0.15 (15:29:15)
PLATTS BRENT DIFF: JUL31-AUG4 (OCT): BP SELLS TO DV TRADING* 100KB AT \$0.15 (15:29:16)
PLATTS BRENT DIFF: JUL31-AUG4 (OCT): PETROCHINA SELLS TO DV TRADING* 100KB AT \$0.15 (15:29:37)

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 10 cents/b higher from July 24 to Sept. 1, with a 0.5 cent/day contango structure rolled over back-end dates owing to strength seen in the European delivered sweet market.

Platts

S&P Global
Commodity Insights

Crude Oil Marketwire

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

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Futures Settlements (continued)

	Settlement	Change	Low	High	Volume*	Open interest	PNT****
ICE low sulfur gasoil (\$/mt) (PGA page 704)							
Jul 23	ICLO001	717.75	+11.25	696.75	719.25	28774	58641
Aug 23	ICLO002	708.00	+8.00	689.25	709.25	59211	139359
Sep 23	ICLO003	705.00	+6.25	688.50	706.25	30582	89916
Oct 23	ICLO004	704.00	+5.50	688.75	705.25	14834	86187
Total Volume	ICLO000				158318		XILOP00 3214
ICE Midland WTI American Gulf Coast (\$/barrel) (PGA page 704)							
Aug 23	IHO001	73.12	+1.56	71.87	73.14	247	7449
Sep 23	IHO002	73.15	+1.55	71.92	73.15	681	4847
Oct 23	IHO003	73.01	+1.56	72.15	73.01	943	4264
Nov 23	IHO004	72.82	+1.56	72.82	72.82	350	4063

*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*		Singapore*			London*		Houston*	
ICE Brent							NYMEX WTI						
Sep	XILLA01	75.14	AAYES00	76.06	AAQBG00	NA	M1	XNCLA01	70.33	AASCR00	71.14	NYCRM01	NA
Oct	XILLA02	74.96	AAYET00	75.84	AAQBH00	NA	M2	XNCLA02	70.45	AASCS00	71.25	NYCRM02	NA
Nov			AAXZY00	75.56	AAXZZ00	NA	M3					NYCRM03	NA
Dec			AAYAM00	75.27	AAYAL00	NA	M4					NYCRM04	NA
Oman							*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.						
Sep	XDOA001	75.27											
Volume	XDOAV01	1861											

*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.

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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 Asia										
7/4/2023	September			Dubai Partial	Done	75.25		25,000	Trafigura	Equinor
7/4/2023	September			Dubai Partial	Done	75.15		25,000	PetroChina	Gunvor
7/4/2023	September			Dubai Partial	Done	75.19		25,000	Reliance	Gunvor
7/4/2023	September			Dubai Partial	Done	75.15		25,000	PetroChina	Gunvor
7/4/2023	September			Dubai Partial	Done	75.19		25,000	BP	Gunvor
7/4/2023	September			Dubai Partial	Done	75.2		25,000	PetroChina	Equinor
7/4/2023	August	23	29	Su Tu Den	Heard	5.50	Dated Brent	400,000	PV Oil	End user
Platts EMEA										
07/04/2023	July/August	31	4	Brent CFD	Done	0.15	Cash BFOE Oct	100000	BP	Mercuria
07/04/2023	July/August	31	4	Brent CFD	Done	0.15	Cash BFOE Oct	100000	BP	DV Trading
07/04/2023	July	24	28	Brent CFD	Done	0.06	Cash BFOE Sep	100000	DV Trading	TotalEnergies
07/04/2023	July/August	31	4	Brent CFD	Done	0.15	Cash BFOE Oct	100000	PetroChina	DV Trading
07/04/2023	September			Cash BFOE	Done	76.08		100000	Vitol	Mercuria
07/04/2023	September			Cash BFOE	Done	76.08		100000	Petrolneos	Mercuria
07/04/2023	September			Cash BFOE	Done	76.14		100000	Gunvor	Mercuria
07/04/2023	September			Cash BFOE	Done	76.05		100000	Petrolneos	Hartree
07/04/2023	September			Cash BFOE	Done	76.14		100000	Chevron	Mercuria
07/04/2023	September			Cash BFOE	Done	76.08		100000	Vitol	Mercuria
07/04/2023	September			Cash BFOE	Done	76.17		100000	Petrolneos	Mercuria
07/04/2023	September			Cash BFOE	Done	76.05		100000	Petrolneos	Shell
07/04/2023	September			Cash BFOE	Done	76.14		100000	Vitol	Mercuria
07/04/2023	September			Cash BFOE	Done	76.14		100000	Chevron	Mercuria
07/04/2023	September			Cash BFOE	Done	76.08		100000	Vitol	Mercuria
07/04/2023	July	16	20	Ekofisk	Done	2.1	Dated Brent	700000	Vitol	Mercuria
07/04/2023	July	20	24	WTI Midland	Done	0.83	Dated Brent	700000	Gunvor	Mercuria

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.

WTI Crude DAP Augusta <AWTIA00> assessment

rationale: WTI DAP Augusta was assessed higher owing to the strengthening in the DAP Rotterdam differential. There were no bids, offers or trades in the Platts Market on Close assessment process.

Exclusions: None

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

- Kazakhstan's CPC Blend crude oil production drops following power outage
- Libya's LNA chief warns army 'on standby' until fair oil wealth distribution

Kazakhstan continued to grapple with the impact of a major power outage that hit oil-rich regions in the west of the country July 3, disrupting oil and gas production as well as refining operations but leaving oil exports unaffected.

Oil and gas output fell significantly July 3 after the emergency shutdown of a 130-MW unit at the MAEK thermal power plant, with data from the energy ministry posted on Telegram July 4 showing crude and condensate production was down 13% from the previous day to 218,900 mt, or around 1.6 million barrels, on July 3.

State energy group KazMunaiGaz also said in a statement July 3 that production was fully or partially

suspended at fields in the key oil-producing regions of Mangistau and Atyrau.

However, deliveries of CPC Blend crude from Kazakhstan to Russia's Novorossiisk port were continuing as normal, Russian pipeline operator Transneft said July 4.

The Caspian Pipeline Consortium, which ships the majority of Kazakhstan's oil exports, said July 4 that the incident continued to affect power supply to the pipeline's facilities.

Power supply outages are a growing issue for Kazakhstan's oil and gas industry, according to market participants, with KMG estimating that so far in 2023 it has lost 75,000 mt of oil production at its fields due to power cuts.

In Libya news, the head of the self-styled Libyan National Army, stationed in the country's oil-rich eastern region, warned July 3 that its forces should be on standby until a new committee starts work to equitably distribute oil wealth amid fears of a resumption of blockades on oil fields and ports.

In a speech during a military gathering, LNA chief Khalifa Haftar said the military force was responsible for protecting oil fields and ports and gave an ultimatum that a new committee, which should comprise legal and financial experts, should be formed and start work by the end of August, otherwise he would be ready to intervene.

During last year's oil blockade, state-owned National Oil Corp. declared force majeure on production and exports, with output falling to a near two-year low of 650,000 b/d in June 2022, according to a survey by Platts, against a capacity of around 1.25 million b/d.

Since the lifting of the oil blockade and force majeure in July last year, Libya's oil production has recovered, with production reaching 1.15 million b/d in May, according to the latest Platts survey.

Libya, which holds the largest crude reserves in Africa, mostly exports light sweet crude grades,

such as the country's flagship Es Sider crude, to the Mediterranean market.

Platts is part of S&P Global Commodity Insights

Platts NWE and Med Urals Sour Crude Daily Market Analysis

- Iraq sees Ukraine conflict determining oil price
- Russian Urals exports fall to 4-month low

Iraqi Deputy Prime Minister and Minister of Foreign Affairs Fuad Hussein said July 3 that the conflict in Ukraine is likely to determine oil prices in the coming months.

"The current oil price is not to do with supply and demand, it mainly has to do with the conflict in Ukraine...If there is any sign that there will be a ceasefire in Ukraine, I think the oil price will go down," Hussein said at a round-table organized by the Arab British Chamber of Commerce.

Russia's invasion of Ukraine launched in February 2022 has had a major impact on oil markets, as traditional Western buyers cut imports from Russia and the conflict threatens security of supply.

OPEC's second-biggest producer, Iraq's crude output was 4.1 million b/d in May, according to the latest survey by Platts, below its quota of 4.22 million b/d.

However, flows of Iraqi and Kurdish crude to the Turkish port of Ceyhan remained suspended as the standoff between Turkey and Iraq continues, depriving the Mediterranean basin of around 450,000 b/d of sour crude since March 25.

Meanwhile, Moscow pledged a surprise export cut of 500,000 b/d in August to help support global oil prices after it had already promised to cut its crude output by 500,000 b/d to the end of the year from March.

Market watchers did not expect Russia to follow through given a surge in export volumes in May but, according to S&P Global Commodities at Sea data,

Russian seaborne crude exports fell 10% on the month in June to their lowest levels since February. Sales to refiners in India and China slipped back from a post-war high and domestic Russian refinery rates ramped up after completion of maintenance.

Urals crude shipments averaged 2.1 million b/d in June, the lowest since February but over 20% above average pre-war levels of 1.7 million b/d.

Urals flows to India fell the most, by 200,000 b/d on the month, while crude exports to China slipped by 140,000 b/d, the data showed. Urals shipments rose to some other destinations, however, with flows to Egypt at 50,000 b/d in June and ship-to-ship transfers off Greece growing to 150,000 b/d, the highest since February.

The recent export slide also comes amid narrowing discounts for Russian Urals crude.

Urals crude delivered to India's west coast priced against Forward Dated Brent narrowed to a \$8.60/b discount July 3, the tightest spread since Platts began assessing the differential on Jan. 18. The discount for Urals FOB at the Baltic port of Primorsk to Dated Brent has also halved since the start of the year and stood at \$20.30/b on July 3.

Platts is part of S&P Global Commodity Insights

Platts EMEA Urals and Med Brent Crude Daily Rationales & Exclusions

Urals CIF Augusta differential <AAGXX00> assessment

rationale: Urals CIF Augusta was assessed 26.5 cents/b higher. There were no bids or offers in the Platts Market on Close assessment process. The Urals CIF Augusta differential was assessed using a netforward to the Urals FOB Aframax and Suezmax assessment. The FOB differentials were assessed 30 cents/b higher 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 raised differentials.

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 30 cents/b higher. 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 30 cents/b higher as shrinking Urals supplies stemming from OPEC+ output cuts and strong Indian and Chinese demand offsetting an embargoed European market raised differentials.

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 unchanged. One CPC Blend cargo was traded between Petraco and Shell during the MOC at a \$2.75/b discount to Dated Brent for July 11-15 loading. Firm CPC Blend demand in Europe is supporting differentials, with values heard from traders at a \$2-\$2.20/b discount to Dated Brent for late July-loading cargoes.

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

- Indian buying sees Nigerian differentials rise
- WAF competing well with WTI Midland into Europe

In the West African crude market July 4, healthy Indian and Indonesian demand for Nigerian crude saw values tick up for August-loading stems, market sources said.

Reduced interest in Nigerian crude grades from Asia, particularly from India as they have swallowed up cheaper barrels from Russia, has plagued the market as large volumes of Nigerian crude have had to compete in the saturated European sweet market through much of 2023.

However, demand from India has showed signs of returning in recent cycles, relieving pressure on the volumes aimed at Europe and supporting differentials as a result, traders have said.

“Demand seems to have been healthy from India and Indonesia despite the arrival of Russian barrels into the former,” one West African trader said. “The grades are showing a fair degree of [operational] stability at the moment [as well] which should give buyers more confidence.”

Nigerian crude exports to India totaled 5.8 million barrels in June, the highest monthly total

since September 2022, according to S&P Global Commodities at Sea data. It has been reported by traders that a cargo of July-loading Escravos was awarded by a recent Indian Oil Corp. tender.

The result of increased demand for Nigerian crude has seen traded values for spot cargoes rise, with the trader saying that August-loading cargoes of Qua Iboe and Egina have traded at around \$2/b and \$4/b premiums to Dated Brent, respectively.

“The market has picked up recently, Nigerian differentials are up across the board,” a second West African trader said. “There’s strength in Nigeria, freight has come off and demand is generally good.”

A common headwind for sentiment in West Africa has been the cheap arrival of US sweet crude WTI Midland into Europe, though the first trader indicated that WAF grades were currently “holding their own” versus the grade.

“Yes, WTI Midland has taken a chunk of the European market, but the [European] pull away from Urals has led to refinery slates adjusting to accommodate more WAF, in general.”

Platts West African Crude Daily Rationale & Exclusions

Of the four crudes in the Nigerian basket, Qua Iboe, Bonny Light and Forcados were assessed 30 cents/b higher while Bonga was assessed 20 cents/b higher.

Increased interest in Nigerian crudes from India, coupled with softer freight costs, have supported differentials for August-loading Nigerian spot cargoes. There were no bids, offer 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>

Subscriber Notes

Platts amends weighted average flat rate for North Sea-Rotterdam route from July 3

Following the Worldscale Association update to flat rates for the port of Hound Point, Platts, part of S&P Global Commodity Insights, has amended the \$/mt weighted average flat rate of the North Sea-Rotterdam Freight Adjustment Factor (FAF), effective July 3, 2023.

The North Sea-Rotterdam FAF is used to netback CIF Rotterdam WTI Midland values to FOB North Sea-equivalent values for Dated Brent.

As a result of the recent Hound Point update, the weighted average flat rate has been updated to \$7.00/mt from July 3, up from \$6.93/mt.

The FAF is calculated from the 10-day rolling freight average of the Dirty Cross-UK/Continent 80,000 mt freight assessment as published in Platts Dirty Tankerwire and in the Platts Pricing Database under code TDUUW00.

Please send all 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 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 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.

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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 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 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 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 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.

No Americas oil assessments July 3-4

Platts, part of S&P Global Commodity Insights, will not publish any Americas oil assessments July 3 and July 4 due to the Independence Day holiday in the US.

Normal Americas publishing schedules will resume on July 5.

For full details of Platts' publishing schedules and services affected, please refer to the Platts holiday pricing schedule.

For any questions or comments, please email:

pricegroup@spglobal.com.

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 europe_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.

Commodity Insights Analytics US Yields & Netbacks Effective July 4, 2023 (\$/barrel)

US Gulf Coast (PGA page 0833)

	Crack Yield	Freight	Crack Netback	Crude Price	Crack Margin
Agbami	AGGCY00 ---	AGGFA00 2.88	AGGCN00 ---	AAQZB00 73.26	AGGCM00 ---
Arab Berri	BEGCY00 ---	TDDAC00 ---	BEGCN00 ---	AAXCT00 ---	BEGCM00 ---
Arab Heavy	AHGCY00 ---	TDDAJ00 ---	AHGCN00 ---	AAXDI00 ---	AHGCM00 ---
Arab Light	LIGCY00 ---	TDDAR00 ---	LIGCN00 ---	AAXCU00 ---	LIGCM00 ---
Arab Medium	MEGCY00 ---	TDDAZ00 ---	MEGCN00 ---	AAXDN00 ---	MEGCM00 ---
Bakken	BKGCY00 ---	TDDRP00 ---	BKGCN00 ---	AAXPP00 ---	BKGCM00 ---
Basrah Medium	BLGCY00 ---	TDDBS00 ---	BLGCN00 ---	BSMAM01 74.75	BLGCM00 ---
Bonny Light	YLGCY00 ---	TDDBX00 3.15	YLGCN00 ---	PCaic00 76.06	YLGCM00 ---
Brent	BRGCY00 ---	TDDCB00 2.96	BRGCN00 ---	AAVJA00 76.28	BRGCM00 ---
Cabinda	CBGCY00 ---	TDDCF00 3.40	CBGCN00 ---	PCAFD00 76.81	CBGCM00 ---
Eagle Ford	EAGCY00 ---			AAyat00 ---	EAGCM00 ---
Escalante	ECGCY00 ---	TDDCV00 ---	ECGCN00 ---	PCAGC00 ---	ECGCM00 ---
Forties	FTGCY00 ---	FTGFA00 2.78	FTGCN00 ---	PCADJ00 76.29	FTGCM00 ---
Isthmus	ISGCY00 ---	TDDDJ00 ---	ISGCN00 ---	PDAT09 ---	ISGCM00 ---
LLS	LLGCY00 ---	TDDQW00 ---	LLGCN00 ---	PCABN00 ---	LLGCM00 ---
Marlim	MLGCY00 ---	TDDGK00 ---	MLGCN00 ---	AAITF00 ---	MLGCM00 ---
Mars	MRGCY00 ---	TDDQY00 ---	MRGCN00 ---	AAMBR00 ---	MRGCM00 ---
Maya	MYGCY00 ---	TDDDP00 ---	MYGCN00 ---	PDATS09 ---	MYGCM00 ---
Mesa	MSGCY00 ---	TDDDV00 ---	MSGCN00 ---	AAITB00 ---	MSGCM00 ---
Olmecca	OLGCY00 ---	TDDDY00 ---	OLGCN00 ---	PDATT09 ---	OLGCM00 ---
Poseidon	PDGCY00 ---	PDGFA00 ---	PDGCN00 ---	AABHK00 ---	PDGCM00 ---
Saharan Blend	SHGCY00 ---	TDDRD00 2.07	SHGCN00 ---	AAGZY00 76.59	SHGCM00 ---
Syncrude	SYGCY00 ---	SYGFA00 ---	SYGCN00 ---	AASOK00 ---	SYGCM00 ---
Urals	URGCY00 ---	TDDFM00 3.15	URGCN00 ---	AAWVH00 56.12	URGCM00 ---
WTI	WTGCY00 ---			AAyRG00 ---	WTGCM00 ---
WTS	WSGCY00 ---	TDDRJ00 ---	WSGCN00 ---	PCACK00 ---	WSGCM00 ---

US Gulf Coast (PGA page 0841)

	Coke Yield	Freight	Coke Netback	Crude Price	Coke Margin
Arab Heavy	AHGOY00 ---	TDDAJ00 ---	AHGON00 ---	AAXDI00 ---	AHGOM00 ---
Arab Light	LIGOY00 ---	TDDAR00 ---	LIGON00 ---	AAXCU00 ---	LIGOM00 ---
Arab Medium	MEGOY00 ---	TDDAZ00 ---	MEGON00 ---	AAXDN00 ---	MEGOM00 ---
Basrah Heavy	BHGOY00 ---	BHGFA00 ---	BHGON00 ---	AALZC00 71.65	BHGOM00 ---
Basrah Medium	BLGOY00 ---	TDDBS00 ---	BLGON00 ---	BSMAM01 74.75	BLGOM00 ---
Cabinda	CBGOY00 ---	TDDCF00 3.40	CBGON00 ---	PCAFD00 76.81	CBGOM00 ---
Castilla Blend	CSGOY00 ---	CSGFA00 ---	CSGON00 ---	AAVEQ00 ---	CSGOM00 ---
LLS	LLGOY00 ---	TDDQW00 ---	LLGON00 ---	PCABN00 ---	LLGOM00 ---
Marlim	MLGOY00 ---	TDDGK00 ---	MLGON00 ---	AAITF00 ---	MLGOM00 ---
Mars	MRGOY00 ---	TDDQY00 ---	MRGON00 ---	AAMBR00 ---	MRGOM00 ---
Maya	MYGOY00 ---	TDDDP00 ---	MYGON00 ---	PDATS09 ---	MYGOM00 ---
Napo	NPGOY00 ---	NPGFA00 ---	NPGON00 ---	AAMCA00 ---	NPGOM00 ---
Oriente	ORGOY00 ---	ORGFA00 ---	ORGON00 ---	PCADE00 ---	ORGOM00 ---
Urals	URGOY00 ---	TDDFM00 3.15	URGON00 ---	AAWVH00 56.12	URGOM00 ---
Vasconia	VCGOY00 ---	VCGFA00 ---	VCGON00 ---	PCAGI00 ---	VCGOM00 ---
WCS ex-Hardisty	WHGOY00 ---	TDDRS00 ---	WHGON00 ---	AAPPN00 ---	WHGOM00 ---
WCS ex-Nederland	WNGOY00 ---	WCGFA00 ---	WNGON00 ---	AAYAY00 ---	WNGOM00 ---
WTS	WSGOY00 ---	TDDRJ00 ---	WSGON00 ---	PCACK00 ---	WSGOM00 ---

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

US Midwest (PGA page 0823)

	Crack Yield	Freight	Crack Netback	Crude Price	Crack Margin
Bakken	BKTCY00 ---	TDDR000 ---	BKTCN00 ---	AASRU00 ---	BKTCM00 ---
Syncrude	SYTCY00 ---	TDDFP00 ---	SYTCN00 ---	AASOK00 ---	SYTCM00 ---
WTI	WTTCY00 ---	TDDRG00 ---	WTTCN00 ---	PCACG00 ---	WTTCM00 ---
WTS	WSTCY00 ---	TDDRI00 ---	WSTCN00 ---	PCACK00 ---	WSTCM00 ---

US West Coast (PGA page 0843)

	Crack Yield	Freight	Crack Netback	Crude Price	Crack Margin
ANS	ANWCY00 ---			PCAAD00 ---	ANWCM00 ---
Bakken	BKWCY00 ---	TDDRT00 ---	BKWCN00 ---	AAXPP00 ---	BKWCM00 ---

US Atlantic Coast (PGA page 0811)

	Crack Yield	Freight	Crack Netback	Crude Price	Crack Margin
Agbami	AGACY00 ---	AGAFA00 2.57	AGACN00 ---	AAQZB00 73.26	AGACM00 ---
Arab Light	LIACY00 ---	TDDAU00 ---	LIACN00 ---	AAXCU00 ---	LIACM00 ---
Bakken	BKACY00 ---	TDDRN00 ---	BKACN00 ---	AAXPP00 ---	BKACM00 ---
Bonny Light	YLACY00 ---	TDDBZ00 2.82	YLACN00 ---	PCAIC00 76.06	YLACM00 ---
Brent	BRACY00 ---	TDDCC00 2.33	BRACN00 ---	AAVJA00 76.28	BRACM00 ---
Cabinda	CBACY00 ---	TDDCH00 3.07	CBACN00 ---	PCAFD00 76.81	CBACM00 ---
CPC Blend	CPACY00 ---	CPAFA00 2.60	CPACN00 ---	AALVX00 71.11	CPACM00 ---
Forties	FTACY00 ---	FTAFA00 2.24	FTACN00 ---	PCADJ00 76.29	FTACM00 ---
Saharan Blend	SHACY00 ---	SHAFA00 1.73	SHACN00 ---	AAGZY00 76.59	SHACM00 ---
Urals	URACY00 ---	URAF00 2.42	URACN00 ---	AAWVH00 56.12	URACM00 ---

US Midwest (PGA page 0821)

	Coke Yield	Freight	Coke Netback	Crude Price	Coke Margin
WCS	WCTOY00 ---	TDDRL00 ---	WCTON00 ---	AAPPN00 ---	WCTOM00 ---
WTS	WSTOY00 ---	TDDRI00 ---	WSTON00 ---	PCACK00 ---	WSTOM00 ---

US West Coast (PGA page 0841)

	Coke Yield	Freight	Coke Netback	Crude Price	Coke Margin
ANS	ANWOY00 ---			PCAAD00 ---	ANWOM00 ---
Arab Light	LIWOY00 ---	TDDAT00 ---	LIWON00 ---	AAXCU00 ---	LIWOM00 ---
Arab Medium	MEWOY00 ---	TDDBB00 ---	MEWON00 ---	AAXDN00 ---	MEWOM00 ---
Basrah Heavy	BHWOY00 ---	BHWFA00 ---	BHWON00 ---	AALZC00 71.65	BHWOM00 ---
Basrah Medium	BLWOY00 ---	TDDBW00 ---	BLWON00 ---	BSMAM01 74.75	BLWOM00 ---
Castilla Blend	CSWOY00 ---	CSWFA00 ---	CSWON00 ---	AAVEQ00 ---	CSWOM00 ---
Maya	MYWOY00 ---	MYWFA00 ---	MYWON00 ---	AAUPK00 ---	MYWOM00 ---
Napo	NPWOY00 ---	NPWFA00 ---	NPWON00 ---	AAMCA00 ---	NPWOM00 ---
Oriente	ORWOY00 ---	TDDEC00 ---	ORWON00 ---	PCADE00 ---	ORWOM00 ---
Vasconia	VCWOY00 ---	VCWFA00 ---	VCWON00 ---	PCAGI00 ---	VCWOM00 ---

Commodity Insights Analytics European Yields & Netbacks Effective July 4, 2023 (\$/barrel)

Northwest Europe (PGA page 1811)

	Crack Yield	Freight	Crack Netback	Crude Price	Crack Margin
Agbami	AGNCY00 ---	AGNFA00 2.34	AGNCN00 ---	AAQZB00 73.26	AGNCM00 ---
Arab Berri	BENCY00 ---	BENFA00 1.32	BENCN00 ---	AAXDU00 79.85	BENCM00 ---
Arab Heavy	AHNCY00 ---	TDDAN00 1.39	AHNCN00 ---	AAXDH00 76.35	AHNCM00 ---
Arab Light	LINCY00 ---	TDDAV00 1.35	LINCN00 ---	AAAXDK00 79.25	LINC�00 ---
Arab Medium	MENCY00 ---	TDDBD00 1.37	MENCN00 ---	AAAXDM00 78.75	MENCM00 ---
Azeri Light	ZLNCY00 ---	TDDBI00 2.36	ZLNCN00 ---	AATHM00 77.10	ZLNCM00 ---
Basrah Medium	BLNCY00 ---	TDDBU00 2.32	BLNCN00 ---	BSMAM01 74.75	BLNCM00 ---
Bonny Light	YLNCY00 ---	YLNFA00 2.56	YLNCN00 ---	PCAIC00 76.06	YLNCM00 ---
Brent	BRNCY00 ---	TDDCD00 2.12	BRNCN00 ---	AAVJA00 76.28	BRNCM00 ---
Cabinda	CBNCY00 ---	TDDQR00 2.81	CBNCN00 ---	PCAFD00 76.81	CBNCM00 ---
CPC Blend	CPNCY00 ---	CPNFA00 3.04	CPNCN00 ---	AALVX00 71.11	CPNCM00 ---
Dubai	DBNCY00 ---	DBNFA00 2.28	DBNCN00 ---	PCAAAT00 75.20	DBNCM00 ---
Eagle Ford	EANCY00 ---	EANFA00 ---	EANCN00 ---	AAAYAT00 ---	EANCM00 ---
Ekofisk	EKNCY00 ---	TDDCT00 1.40	EKNCN00 ---	PCADI00 77.49	EKNCM00 ---
Forties	FTNCY00 ---	TDDZE00 1.63	FTNCN00 ---	PCADJ00 76.29	FTNCM00 ---
Iran Heavy	BHNCY00 ---	TDDDG00 2.41	BHNCN00 ---	AIHKA00 74.91	BHNCM00 ---
Johan Sverdrup	JSNCY00 ---	JSNFA00 1.73	JSNCN00 ---	AJSVA00 77.40	JSNCM00 ---
Kirkuk	KRNCY00 ---	TDDGH00 2.97	KRNCN00 ---	AAEJD00 73.12	KRNCM00 ---
LLS	LLNCY00 ---	LLNFA00 ---	LLNCN00 ---	AAQBB00 ---	LLNCM00 ---
Maya	MYNCY00 ---	MYNFA00 ---	MYNCN00 ---	AAAYXE00 65.10	MYNCM00 ---
Oman	OMNCY00 ---	OMNFA00 2.24	OMNCN00 ---	PCABS00 75.28	OMNCM00 ---
Saharan Blend	SHNCY00 ---	TDDGI00 1.90	SHNCN00 ---	AAGZY00 76.59	SHNCM00 ---
Urals*	URNCY00 ---			PCAFW00 58.35	URNCM00 ---
WTI MEH	WTNCY00 ---	WTNFA00 ---	WTNCN00 ---	AAAYR00 ---	WTNCM00 ---

*Indicates the crude price is a CIF value

Mediterranean (PGA page 1821)

	Crack Yield	Freight	Crack Netback	Crude Price	Crack Margin
Agbami	AGMCY00 ---	AGMFA00 2.28	AGMCN00 ---	AAQZB00 73.26	AGMCM00 ---
Arab Heavy	AHMCY00 ---	TDDAI00 1.39	AHMCN00 ---	AAAXDH00 76.35	AHMCM00 ---
Arab Light	LIMCY00 ---	TDDAQ00 1.35	LIMCN00 ---	AAAXDK00 79.25	LIMCM00 ---
Arab Medium	MEMCY00 ---	TDDAY00 1.37	MEMCN00 ---	AAAXDM00 78.75	MEMCM00 ---
Azeri Light*	ZLMCY00 ---			AAGZX00 79.59	ZLMCM00 ---
Basrah Medium	BLMCY00 ---	TDDBR00 1.77	BLMCN00 ---	BSMAM01 74.75	BLMCM00 ---
Bonny Light	YLMCY00 ---	YLMFA00 2.49	YLMCN00 ---	PCAIC00 76.06	YLMCM00 ---
Cabinda	CBMCY00 ---	CBMFA00 2.74	CBMCN00 ---	PCAFD00 76.81	CBMCM00 ---
CPC Blend*	CPMCY00 ---			AAGZU00 73.70	CPMCM00 ---
Eagle Ford	EAMCY00 ---	TNEIF00 ---	EAMCN00 ---	AAAYAT00 ---	EAMCM00 ---
Forties	FTMCY00 ---	FTMFA00 2.50	FTMCN00 ---	PCADJ00 76.29	FTMCM00 ---
Iran Heavy	BHMCY00 ---	TDDDF00 1.73	BHMCN00 ---	AIHKA00 74.91	BHMCM00 ---
Johan Sverdrup	JSMCY00 ---	JSMFA00 2.67	JSMCN00 ---	AJSVA00 77.40	JSMCM00 ---
Kirkuk	KRMCY00 ---	TDDFF00 1.72	KRMCN00 ---	AAEJD00 73.12	KRMCM00 ---
LLS	LLMCY00 ---	LLMFA00 ---	LLMCN00 ---	AAQBB00 ---	LLMCM00 ---
Oman	OMMCY00 ---	OMMFA00 1.58	OMMCN00 ---	PCABS00 75.28	OMMCM00 ---
Saharan Blend	SHMCY00 ---	TDDFG00 1.45	SHMCN00 ---	AAGZY00 76.59	SHMCM00 ---
Urals*	URMCY00 ---			PCACE00 58.88	URMCM00 ---

Platts Analytics Asian Yields & Netbacks Effective July 4, 2023 (\$/barrel)

Singapore (PGA page 2811)

	Crack Yield	Freight	Crack Netback	Crude Price	Crack Margin
Agbami	AGSCY00 79.85	AGSFA00 2.30	AGSCN00 77.55	AAQZB00 73.26	AGSCM00 5.21
Arab Berri	BESCY00 79.30	BESFA00 1.42	BESCN00 77.88	AAAXDV00 77.79	BESCM00 0.09
Arab Heavy	AHSCY00 74.16	TDDA000 1.48	AHSCN00 72.68	AAAXDG00 76.04	AHSCM00 -3.36
Arab Light	LISCY00 78.23	TDDAW00 1.45	LISCN00 76.77	AAAXDJ00 78.24	LISCM00 -1.47
Arab Medium	MESCY00 74.68	TDDBE00 1.46	MESCN00 73.22	AAAXDL00 77.69	MESCM00 -4.47
Basrah Medium	BHSCY00 75.41	BHSFA00 1.47	BHSCN00 73.95	BSMAM01 74.75	BHSCM00 -1.19
Bonny Light	YLSCY00 82.43	YLSFA00 2.48	YLSCN00 79.95	PCAIC00 76.06	YLSCM00 4.81
Cabinda	CBSCY00 81.54	TDDQS00 2.39	CBSCN00 79.14	PCAFD00 76.81	CBSCM00 3.25
Castilla	CSSCY00 71.08	CSSFA00 ---	CSSCN00 ---	AAVEQ00 ---	CSSCM00 ---
Dalia	DLSCY00 83.76	DLSFA00 2.48	DLSCN00 81.28	AAQYX00 75.56	DLSCM00 6.64
Dubai	DBSCY00 78.42	TDDCQ00 1.38	DBSCN00 77.03	PCAAAT00 75.20	DBSCM00 1.84
Duri	DRSCY00 82.62	TDDCR00 1.27	DRSCN00 81.36	PCABA00 78.07	DRSCM00 3.29
Eagle Ford	EASCY00 79.93	EASFA00 ---	EASCN00 ---	AAAYAT00 ---	EASCM00 ---
ESPO	ESSCY00 80.77	ESSFA00 1.14	ESSCN00 79.63	AARWF00 66.43	ESSCM00 13.20

*Indicates the crude price is a CIF value

Singapore (PGA page 2811)

	Crack Yield	Freight	Crack Netback	Crude Price	Crack Margin
Forties	FTSCY00 78.69	TNEFD00 3.50	FTSCN00 75.18	PCADJ00 76.29	FTSCM00 -0.18
Kimanis	KISCY00 87.92	KISFA00 1.15	KISCN00 86.77	AASCL00 82.17	KISCM00 4.60
LLS	LLSCY00 81.79	LLSFA00 ---	LLSCN00 ---	AAZDC00 72.93	LLSCM00 ---
Mars	MRSCY00 77.18	MRSFA00 ---	MRSCN00 ---	AAMBR00 ---	MRSCM00 ---
Maya	MYSCY00 73.56	MYSFA00 ---	MYSCN00 ---	AAAYXG00 ---	MYSCM00 ---
Minas	MNSCY00 82.56	TDDDX00 1.15	MNSCN00 81.40	PCABO00 70.54	MNSCM00 10.87
Oman	OMSCY00 76.14	TDDEB00 1.32	OMSCN00 74.83	PCABS00 75.28	OMSCM00 -0.45
Qua lboe	QBSCY00 82.91	QBSFA00 2.48	QBSCN00 80.43	PCAID00 76.11	QBSCM00 5.24
Saharan Blend	SHSCY00 77.65	SHSFA00 2.51	SHSCN00 75.14	AAGZY00 76.59	SHSCM00 -1.13
Tapis	TPSCY00 80.73	TDDEO00 1.13	TPSCN00 79.59	PCACB00 78.27	TPSCM00 1.32
Tupi*	LUSCY00 80.96			LUQDA00 77.71	LUSCM00 ---
Urals	URSCY00 78.23	URSFA00 2.58	URSCN00 75.65	AAGZS00 56.12	URSCM00 20.46
WTI MEH	WTSCY00 79.92	WTSFA00 ---	WTSCN00 ---	AAZDF00 72.03	WTSCM00 ---

Crude Carbon Intensity

A daily supplement to Crude Oil Marketwire

Platts crude carbon intensity assessments - grades, July 4, 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	1.26	OXSEC40	May-23	88.50
Troll	TXROC00	3.83	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 4, 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	0.07	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	1.63	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	0.36	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	0.03	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	3.22	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	0.38	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	2.01	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	1.18	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	0.39	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	0.91	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	0.20	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	0.46	PRUDC40	May-23	32.03	Alaska-USWC	PRUDC10	0.04	PRUDC50	May-23	2.86
San-Joaquin	SANMC00	2.50	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	0.24	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	3.83	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/.