

Crude Oil Marketwire

Volume 44 / Issue 134 / July 11, 2023

Key benchmarks (\$/barrel)

(PGA page 2210) Dubai (Sep)	30
Dubai (Sep) PCAAT00 78.79-78.81 78.800 +0.55	30
Dubai (Oct) PCAAU00 77.99-78.01 78.000 +0.55	20
Dubai (Nov) PCAAV00 77.30-77.32 77.310 +0.5	50
MEC (Sep) AAWSA00 78.79-78.81 78.800 +0.50	30
MEC (Oct) AAWSB00 77.99-78.01 78.000 +0.5	20
MEC (Nov) AAWSC00 77.30-77.32 77.310 +0.5	50
Brent/Dubai (Sep) AAJMS00 -0.33/-0.31 -0.320 -0.04	40
(PGA page 1212)	
Brent (Dated) PCAAS00 79.52-79.54 79.530 +0.74	40
Dated North Sea Light AA0FD00 79.52-79.54 79.530 +0.74	40
Dated Brent (CIF) PCAKM00 80.595 +0.79	50
Brent (Sep) PCAAQ00 79.14-79.16 79.150 +0.50	30
Brent (Oct) PCAAR00 78.82-78.84 78.830 +0.55	90
Brent (Nov) PCARR00 78.420 +0.55	90
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 76.970 +1.6	20
WTI FOB USGC Decades Avg ADECA00 76.960 +1.6	20
WTI (Aug) PCACG00 74.82-74.84 74.830 +1.7	30
WTI (Sep) PCACH00 74.70-74.72 74.710 +1.7	30
WTI (Oct) AAGIT00 74.43-74.45 74.440 +1.7	40
Light Houston Sweet AAXEW00 76.580 +1.6	30
Light Houston Sweet M2 AAYRY00 76.410 +1.7	
LOOP Sour (Aug) AALSM01 76.480 +1.50	
LOOP Sour (Sep) AALSM02 75.660 +1.5	
LOOP Sour (Oct) AALSM03 74.790 +1.3	
Bakken AAXPP00 76.130 +1.7	
Eagle Ford Marker AAYAJ00 75.380 +2.4)0
ACM* (Aug) AAQHN00 76.12-76.14 76.130 +1.6	
ACM* (Sep) AAQH000 75.30-75.32 75.310 +1.50	
ACM* (Oct) AAQHP00 74.43-74.45 74.440 +1.39	30

^{*}Americas Crude Marker.

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

			Mid	Change
North Sea Dated strip	AAKWH00	79.31-79.32	79.315	+0.600
Mediterranean Dated strip	AALDF00	79.31-79.33	79.320	+0.590
33-63 Day Dated strip	AALEJ00	78.89-78.91	78.900	+0.730
BTC Dated strip	AAUFI00	79.27-79.28	79.275	+0.600
15-45 Day Dated strip	AALGM00	79.16-79.18	79.170	+0.625
30-60 Day Dated strip	AAXRK00	78.93-78.95	78.940	+0.730
North Sea CIF Dtd strip	AAHXE00		79.300	+0.600
23-63 Day Dated Strip	ADBRA00		78.970	+0.730

Brent/WTI spreads and EFPs (PGA page 218)

			Mid	Change
Brent/WTI 1st	AALAU00	4.66/4.68	4.670	-0.200
Brent/WTI 2nd	AALAV00	4.62/4.64	4.630	-0.200
Brent/WTI 3rd	AALAY00		4.560	-0.210
Brent EFP (Sep)	AAGVX00	-0.01/0.01	0.000	-0.140
Brent EFP (Oct)	AAGVY00	0.00/0.02	0.010	-0.150
Brent EFP (Nov)	AAMVY00		0.010	-0.150
WTI EFP (Aug)	AAGVT00	-0.01/0.01	0.000	-0.080
WTI EFP (Sep)	AAGVU00	-0.01/0.01	0.000	0.000
WTI EFP (Oct)	AAGVV00	-0.01/0.01	0.000	0.000

Middle East (\$/barrel)

		Mid	Change
PCABS00	78.79-78.81	78.800	+0.530
AAHZF00	77.99-78.01	78.000	+0.520
AAHZH00	77.30-77.32	77.310	+0.550
AAOUQ00	78.78-78.82	78.800	+0.530
AAKNL00	78.88-78.92	78.900	+0.410
MBNSA00		78.100	+0.400
MBNSB00		77.410	+0.430
AAPEV00	78.82-78.86	78.840	+0.530
5	Spread vs Dubai		
DBDDC00		1.490	-0.020
DBDOC00		1.490	-0.020
AARBZ00		1.590	-0.140
AAPEW00	1.48-1.58	1.530	-0.020
DBDUZ00		1.490	-0.020
Q	uality Premiums		
AASVA00		0.0000	
AAHBM00	77.98-78.02	78.000	+0.520
AAHBN00	77.29-77.33	77.310	+0.550
AAHBO00	76.71–76.75	76.730	+0.580
	AAHZF00 AAHZH00 AAOUQ00 AAONL00 MBNSA00 MBNSB00 AAPEV00 BBDC00 DBDC00 AARBZ00 AAPEW00 DBDUZ00 Q AASVA00 AASVA00 AAHBM00 AAHBM00	AAHZF00 77.99-78.01 AAHZH00 77.30-77.32 AAOUQ00 78.78-78.82 AAKNL00 78.88-78.92 MBNSB00 AAPEV00 78.82-78.86 Spread vs Dubai DBDDC00 DBDDC00 AARB200 AAPEW00 1.48-1.58 DBDU200 Quality Premiums AASVA00 AAHBM00 77.98-78.02 AAHBN00 77.29-77.33	PCABS06 78.79-78.81 78.80 AAHZF06 77.99-78.01 78.00 AAHZH06 77.30-77.32 77.310 AAOUQ06 78.78-78.82 78.90 MBNSA06 78.100 78.100 MBNSB06 77.410 74.40 AAPEV00 78.82-78.86 78.40 DBDDC00 1.490 1.490 DBDDC00 1.490 1.590 AAPEW00 1.48-1.58 1.530 DBDU200 1.490 0.0000 AASVA00 0.0000 0.0000 AABBM00 77.98-78.02 78.000 AAHBM00 77.29-77.33 77.310

Brent/WTI cash spread (2nd month)



Market Commentary

Platts Middle East Sour Crude Daily **Market Analysis**

- Iraq's SOMO raises OSPs to Asia
- QatarEnergy issues Sep-loading tender
- Three Sep-loading Dubai crude cargoes available

The Middle East sour crude complex saw a fresh tender emerging from Qatar and the issuance of official selling price differentials from Iraq July 11.

Iraq's SOMO raised the official selling price differential for its August-loading Basrah Medium crude into Asia by 50 cents/b to a premium of 40 cents/b to the average of Platts Oman/Dubai assessments.

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

			(Asia MOC)				(Asia MOC)				(<u>Asia close)</u>			(London close	e)
	API Gravity	Code		Mid	Change	Code		Mid	Change	Code	Mid	Change	Code	Mid	Change
Condensate											GA page 2212)	•		(PGA page 2213)	
001100110010						-	Diff to Dubai				Asian Dated		_ 	(i ar i pago LL io)	
NW Shelf	61.9	PCAGX00	64.92-64.96	64.940	+0.800		DITI to Dubai			AAPAI00	-12.950	+0.200	AAPAH00	65.710	+0.930
Ichthys FC	48.9	ICFCA00	04.92-04.90	72.190						ICFCB00	-5.700	+0.100	AAPARUU	00.710	TU.930
DFC	56.82	ADFCA00	71.19-71.23	71.210		ADFCB00	-6.15/-6.05	-6.100	+0.200	ADFCC00	-6.680	+0.150	ADFCD00	71.980	+0.880
Qatar LSC	56.9	AARBB00	70.59-70.63	70.610		AARBD00	-6.75/-6.65	-6.700	+0.200	AARBC00	-7.280	+0.150	AARBA00	71.380	+0.880
South Pars	57.4	AARAV00	66.34-66.38	66.360	+0.750	AARAX00	-11.00/-10.90	-10.950	+0.200	AARAW00	-11.530	+0.150	AARAU00	67.130	+0.880
Journal at 5	37.4	AARAVOO	00.54-00.56	00.300	+0.730	AARAAUU		-10.550	+0.200	AARAWUU	-11.000	+0.100	AARAUUU	07.130	+0.000
0 : 1	E//		00 07 00 04	00.000	. 0.000		Diff to ICP	0.400	. 0 4 00		45.000	. 0. 000		00.000	. 0 000
Senipah	54.4	AAE0E00	62.87-62.91	62.890	+0.800	AAEOK00	-8.15/-8.05	-8.100	+0.100	AAPBE00	-15.000	+0.200	AAPBD00	63.660	+0.930
Light crude										(F	PGA page 2214))	((PGA page 2215)	
							Diff to ICP			Diff to	Asian Dated	Brent			
Cossack	47.7	PCAGZ00	71.97-72.01	71.990	+0.700					AAPAC00	-5.900	+0.100	AAPAB00	72.760	+0.830
Tapis	45.2	PCACB00	81.62-81.66	81.640	+0.650					AAOZW00	3.750	+0.050	AAOZV00	82.410	+0.780
Belida	45.1	PCAFL00	66.57-66.61	66.590	+0.700	PCAFM00	-4.75/-4.65	-4.700	+0.050	AAPBQ00	-11.300	+0.100	AAPBP00	67.360	+0.830
Kutubu	44.3	PCAFJ00	70.32-70.36	70.340	+0.700					AAPAE00	-7.550	+0.100	AAPAD00	71.110	+0.830
Attaka	42.3	PCAAJ00	66.47-66.51	66.490	+0.700	PCAAK00	-5.65/-5.55	-5.600	+0.050	AAPBC00	-11.400	+0.100	AAPBB00	67.260	+0.830
Ardjuna	38	PCACQ00	72.02-72.06	72.040	+0.650	PCACR00	-1.70/-1.60	-1.650	+0.050	AAPBG00	-5.850	+0.050	AAPBF00	72.810	+0.780
Banyu Urip	32	PCAFQ00		82.140	+0.650	PCAQQ00		2.350	+0.050	AAPBU00	4.250	+0.050	AAPBR00	82.910	+0.780
							Diff to Dubai								
Sakhalin Blend	45.5	AARBN00	65.29-65.33	65.310		AARCN00	-12.05/-11.95	-12.000	+0.500	AARDN00	-12.580	+0.450	AAREN00	66.080	+1.180
ESP0 M1	34.8	AARWF00	69.99-70.03	70.010		AASEU00	-7.35/-7.25	-7.300	0.000						
ESP0 M2	34.8	AAWFE00	69.31-69.35	69.330	+0.580	AAWFG00	-7.45/-7.35	-7.400	0.000						
Sokol	39.7	AASCJ00	69.29-69.33	69.310		AASCK00	-8.05/-7.95	-8.000	+0.500	AAPA000	-8.580	+0.450	AAPAN00	70.080	+1.180
Kikeh	34.9	AAWUH00	84.37-84.41	84.390	+0.650					AAOZY00	6.500	+0.050	AAOZX00	85.160	+0.780
Miri Light	32.3	PCABQ00	84.07-84.11	84.090	+0.650					AAPAS00	6.200	+0.050	AAPAR00	84.860	+0.780
Labuan	32	PCABL00	85.82-85.86	85.840						AAPAQ00	7.950	+0.050	AAPAP00	86.610	+0.780
Kimanis	38.6	AASCL00		85.540	+0.650					AASCM00	7.650	+0.050	AASCN00	86.310	+0.780
Medium crude										(F	GA page 2216)		(PGA page 2217)	
										Diff to	Asian Dated	Brent	_		
Su Tu Den	36.8	AARAR00	83.32-83.36	83.340	+0.650					AARAS00	5.450	+0.050	AARAQ00	84.110	+0.780
Bach Ho	40.7	PCAHY00	84.37-84.41	84.390	+0.650					AAPAK00	6.500	+0.050	AAPAJ00	85.160	+0.780
Nanhai	40	PCAFR00	73.37-73.41	73.390						AAPAG00	-4.500	+0.050	AAPAF00	74.160	+0.780
Nile Blend	33.9	AAPLC00	75.72-75.76	75.740	+0.600					AAPAM00	-2.150	0.000	AAPAL00	76.510	+0.730
Daqing	32.2	PCAAZ00	74.77-74.81	74.790	+0.600					AAPAW00	-3.100	0.000	AAPAV00	75.560	+0.730
Heavy crude										(F	GA page 2218)		(PGA page 2219)	
							Diff to ICP				Asian Dated		_		
Dar Blend	25	AARAB00	76.12-76.16	76.140	+0.500		5111 10 101			AARAC00	-1.750	-0.100	AARAA00	76.910	+0.630
Shengli	24.2	PCABY00	77.67-77.71	77.690	+0.500					AAPAY00	-0.200	-0.100	AAPAX00	78.460	+0.630
Duri	20.8	PCABA00	81.02-81.06	81.040	+0.500	PCABB00	2.60/2.70	2.650	-0.050	AAPBM00	3.150	-0.100	AAPBL00	81.810	+0.630
Vincent	18.3	AARAK00	11102 01100	82.740		. 0.15500	2.00, 2., 0	2.000	0.000	AARAL00	4.850	-0.100	AARAJ00	83.510	+0.630

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

		Diff to	o Dubai	Diff to A	Asian Dated Brent	
US Delivered - Asia Spot Crudes						
WTI Midland (DES Singapore) wtmsa00	80.130 +0.380	WTMSD00	3.400 -0.200	WTMSB00	2.650 -0.230	
WTI Midland (DES Yeosu) WTMYA00	80.630 +0.380	WTMYD00	3.900 -0.200	WTMYB00	3.150 -0.230	
Brazil Delivered-Asia Spot Crudes						
Tupi (DES Qingdao) LUQDA00	81.130 +0.630	LUQDD00	4.400 +0.050	LUQDB00	3.650 +0.020	

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

			Mid	Change		<u>Spread vs Dubai</u> Mid	Cha	nge	Spread vs OSP	Mid	Change
Umm Lulu	AUFAA00		79.050	+0.410	DBDUL00	1.74	0 -0.1	40			
Das Blend	AAXOF00	78.18-78.22	78.200	+0.410	DBDDS00	0.89	0 -0.1	40			
Qatar Land	AAKNP00	77.48-77.52	77.500	+0.400	QALDA00	0.19	0 -0.1	50 AAKUJ00	0.00/0.10	0.050	-0.050
Qatar Marine	AAKNR00	77.73-77.77	77.750	+0.550	QAMDA00	0.44	0.0	OO AAKUH00	0.10/0.20	0.150	0.000
Banoco Arab Medium	AAKNT00	78.43-78.47	78.450	+0.550				AAKUD00	-1.20/-1.10	-1.150	0.000
Basrah Medium M1	BSMAM01	-	78.400	+0.500				BSMBM01		0.000	-0.550
Basrah Medium M2	BSMAM02	-	77.500	+0.550				BSMBM02		0.000	-0.300
Basrah Heavy M1	AALZC00	-	75.400	+0.600				AALZJ00		0.050	-0.500
Basrah Heavy M2	AALZD00	-	74.450	+0.600				AALZK00		0.000	-0.300

The OSP differential for its Asia-bound Basrah Heavy crude for August loading was raised by 60 cents/b to a discount of \$2.65/b to the same average.

Some market participants were surprised by the sharp increase in OSP differentials.

"The SOMO OSP that just came out is really expensive," said a Singapore-based trader.

"SOMO OSPs is quite strong, I was not expecting this kind of firming up but the OPEC+ producers have been trying to tighten the market since the last two months, so prices should firm up unless macroeconomic fundamentals indicate otherwise," said another Asia-based crude trader.

QatarEnergy has issued a tender offering five September-loading 500,000-barrel Al-Shaheen cargoes, and 500,000-1 million barrels of both Qatar Land and Qatar Marine crudes, closing July 12 with next-day validity.

"Usually trading activity picks up after the Qatar tender has closed," the Asia-based trader said.

The volumes offered are higher compared with the prior August-loading tender, in which the company had sold three cargoes of Al-Shaheen crude at premiums of 80 cents/b to \$1.10/b to Platts frontmonth Dubai crude assessments on an FOB basis. In the previous month, QatarEnergy had also sold a total 1.5 million barrels of Qatar Land at a premium of 10-40 cents/b, and a total 1 million barrels of Qatar Marine at a premium of around 20 cents/b over the

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

	(Asia close))	(London	ı close)
		Mid Change		Mid Change
Minas	PCAB000	73.330 +0.305	AAPAZ00	74.100 +0.435
Cinta	PCAAX00	63.425 +0.315	AAPBJ00	64.195 +0.445
Widuri	PCAFE00	61.280 +0.135	AAPBN00	62.050 +0.265
Cambay	AMPPA00	77.515 +0.785		
Ravva	AMPPB00	82.570 +0.790		
Rajasthan	AMPPC00	76.925 +0.100		

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

16:30 Singapore		Interim Asian Close	Diff to Dated Brent		Final London Close	
Asian Dated Brent (ADB)	AAXPG00	78.700				
ADB Strip Asia	AARBV00	77.890		AARBX00	78.660	
ADB Strip Middle East	AARBW00	77.890		AARBY00	78.660	
ADB Strip M3	ADBS003	77.480				

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

same benchmark.

Meanwhile, three Dubai crude cargoes for loading in September were heard available in the market, according to a trade source. Offer levels and further details of the cargoes were not immediately available.

Platts Mideast Sour Crude Daily Rationales & Exclusions

Dubai Mo01 < PCAAT00> assessment rationale: The September cash Dubai assessment on July 11 took into consideration bids and offers for cash Dubai partials at \$78.80/b that traded at the end of the Platts Markets on Close assessment process.

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

Oman Blend Mo01 < PCABS00 > assessment rationale: The September cash Oman assessment on July 11 took into consideration values heard in the broader market.

Platts Oil Mideast Sour Crude Convergences

None reported

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Platts Middle East Sour Crude Bids, Offers, Trades

Bids:

PLATTS DUBAI: SEP23: MITSUI BIDS 25KB

AT \$78.55

PLATTS DUBAI: SEP23: VITOL BIDS 25KB AT \$78.55 PLATTS DUBAI: SEP23: GUNVOR NO LONGER BIDS

AFTER TRADE

PLATTS DUBAI: SEP23: EQUINOR NO LONGER BIDS AFTER TRADE

Offers:

PLATTS DUBAI: SEP23: RELIANCE OFFERS 25KB AT \$78.81 AND TRADES DURING EXTENSION

PLATTS DUBAI: SEP23: BP OFFERS 25KB AT \$78.82 AND WITHDRAWS DURING EXTENSION

PLATTS DUBAI: SEP23: EXXONMOBIL OFFERS 25KB AT \$78.82

PLATTS DUBAI: SEP23: GLENCORE OFFERS 25KB AT \$78.83

PLATTS DUBAI: SEP23: VITOL OFFERS 25KB

AT \$78.85

PLATTS DUBAI: SEP23: UNIPEC OFFERS 25KB AT \$78.85

PLATTS DUBAI: SEP23: MITSUI OFFERS 25KB AT \$78.85

PLATTS DUBAI: SEP23: GUNVOR OFFERS 25KB AT \$78.95

PLATTS DUBAI: SEP23: TRAFIGURA NO LONGER OFFERS AFTER TRADE

PLATTS DUBAI: SEP23: PHILLIPS 66 NO LONGER OFFERS AFTER TRADE

Trades:

PLATTS DUBAI: SEP23: PETROCHINA SELLS TO GUNVOR* 25KB AT \$78.79 (08:29:16)

PLATTS DUBAI: SEP23: EQUINOR BUYS FROM TRAFIGURA* 25KB AT \$78.80 (08:29:17)

PLATTS DUBAI: SEP23: PETROCHINA SELLS TO EQUINOR* 25KB AT \$78.80 (08:29:27)

PLATTS DUBAI: SEP23: PETROCHINA SELLS TO

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

			Mid	Change	<u>Spread</u>	vs fwd Dated Brent	Mid	Change
Dated Brent Diff					AAXEZ00	0.21/0.22	0.215	+0.140
BNB	AAVJA00	79.62-79.63	79.625	+0.655	AAVJB00	0.30/0.32	0.310	+0.055
Forties	PCADJ00	79.54-79.55	79.545	+0.605	AAGWZ00	0.22/0.24	0.230	+0.005
Oseberg	PCAEU00	81.12-81.14	81.130	+0.655	AAGXF00	1.81/1.82	1.815	+0.055
Ekofisk	PCADI00	80.95-80.97	80.960	+0.670	AAGXB00	1.64/1.65	1.645	+0.070
Troll	AAWEX00	81.90-81.92	81.910	+0.655	AAWEY00	2.59/2.60	2.595	+0.055
FOB N Sea WTI Midland	ALNDA00		79.550	+0.760	ALNDB00		0.235	+0.160
Statfjord	PCAEE00	81.11-81.12	81.115	+0.650	AAGXD00	1.79/1.81	1.800	+0.050
Flotta Gold	PCACZ00	80.11-80.12		+0.650	AAGXH00	0.79/0.81		+0.050
Duc	AAWEZ00	80.36-80.37		+0.650	AAWFL00	1.04/1.06	1.050	
Grane Blend	PCALA00		81.065	+0.650	PCALB00		1.750	+0.050
Johan Sverdrup	AJSVA00			+0.650	AJSVB00		1.635	+0.050
Statfjord (CIF)	AASAS00	82.19-82.21	82.200	+0.650	AASAT00	2.89/2.91	2.900	+0.050
Gullfaks (CIF)	AASAU00	82.49-82.51	82.500	+0.650	AASAV00	3.19/3.21	3.200	+0.050
Alvheim (CIF)	ALVHA00		82.700	+0.650	ALVHB00		3.400	+0.050
Asgard (CIF)	ASGCA00		80.650	+0.650	ASGCB00		1.350	+0.050
North Sea basket	AAGIZ00	80.31-80.32	80.315	+0.645				
North Sea Dated Strip	AAKWH00	79.31–79.32		+0.600				
European Sour Crude Index	CSBEA00		80.943	+0.650	CSBEB00		1.628	+0.050
					Spread v	s fwd CIF Dated Brent		
Dated Brent (CIF)	AAVJG00		80.595	+0.750	AAVJF00		1.295	+0.150
BNB (CIF)	PCAKP00		81.670	+0.655	AAVJC00		2.370	+0.055
Forties (CIF)	PCAKR00		80.965	+0.605	AAHXC00		1.665	+0.005
Oseberg (CIF)	PCAKT00		82.410	+0.645	AAHXD00		3.110	+0.045
Ekofisk (CIF)	PCAKV00		82.100	+0.670	AAHXB00		2.800	+0.070
Troll (CIF)	AAXJ000		83.195	+0.645	AAXJN00		3.895	0.045
WTI Midland (CIF)	WMCRD00		80.595	+0.750	WMCRB00		1.295	+0.150
North Sea CIF Dated Strip	AAHXE00		79.300	+0.600				

Freight Adjustment Factors

(\$/barrel)		Change	
Sullom Voe-Rotterdam	FSVRM00	1.6706 -0.0059	
Hound Point-Rotterdam	FHPRM00	1.1604 -0.0040	
Sture-Rotterdam	FSTRM00	1.0554 -0.0036	
Teesside-Rotterdam	FTSRM00	0.9346 -0.0031	
Mongstad-Rotterdam	FMGRM00	1.0626 -0.0036	
North Sea-Rotterdam	FSFRM00	1.0579 -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	80.495	+0.885	AWTID00	1.525	+0.155
WTI Midland (DAP Augusta)	AWTIA00	81.145	+0.885	AWTIB00	2.175	+0.155
Eagle Ford 45 (DAP Rotterdam)	AEFAC00	79.595	+0.885	AEFAD00	0.625	+0.155
Eagle Ford 45 (DAP Augusta)	AEFAA00	80.245	+0.885	AEFAB00	1.275	+0.155

GUNVOR* 25KB AT \$78.82 (08:29:31)

PLATTS DUBAI: SEP23: EQUINOR BUYS FROM TRAFIGURA* 25KB AT \$78.83 (08:29:37)

PLATTS DUBAI: SEP23: VITOL SELLS TO GUNVOR* 25KB AT \$78.82 (08:29:38)

PLATTS DUBAI: SEP23: RELIANCE SELLS TO GUNVOR* 25KB AT \$78.82 (08:29:46)

PLATTS DUBAI: SEP23: GUNVOR BUYS FROM EXXONMOBIL* 25KB AT \$78.82 (08:29:49)

PLATTS DUBAI: SEP23: PETROCHINA SELLS TO EQUINOR* 25KB AT \$78.80 (08:29:50)

PLATTS DUBAI: SEP23: EQUINOR BUYS FROM PHILLIPS 66* 25KB AT \$78.80 (08:29:54)

PLATTS DUBAI: SEP23: GUNVOR BUYS FROM TRAFIGURA* 25KB AT \$78.80 (08:29:59)

PLATTS DUBAI: SEP23: EQUINOR BUYS FROM RELIANCE* 25KB AT \$78.81 (08:30:01)

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.

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

Week		Week Date		Brent CFD*	Mid	Change		Dated Brent swap	Mid	Change
CFD Week 1	(Oct)	Jul 10-14	PCAKA00	0.54/0.56	0.550	+0.070	AAJNV00	79.37/79.39	79.380	+0.660
CFD Week 2	(Oct)	Jul 17-21	PCAKC00	0.63/0.65	0.640	+0.060	AAJOS00	79.46/79.48	79.470	+0.650
CFD Week 3	(Oct)	Jul 24-28	PCAKE00	0.63/0.65	0.640	+0.050	AAJOU00	79.46/79.48	79.470	+0.640
CFD Week 4	(Oct)	Jul 31-04	PCAKG00	0.42/0.44	0.430	-0.020	AAJOW00	79.25/79.27	79.260	+0.570
CFD Week 5	(Oct)	Aug 07-11	AAGLU00	0.31/0.33	0.320	+0.040	AAJPC00	79.14/79.16	79.150	+0.630
CFD Week 6	(Oct)	Aug 14-18	AAGLV00	0.23/0.25	0.240	+0.080	AAJPE00	79.06/79.08	79.070	+0.670
CFD Week 7	(Oct)	Aug 21-25	AALCZ00	0.16/0.18	0.170	+0.110	AALAW00	78.99/79.01	79.000	+0.700
CFD Week 8	(Oct)	Aug 28-01	AALDA00	0.10/0.12	0.110	+0.150	AALAX00	78.93/78.95	78.940	+0.740

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	
BDLBM00	79.480	+0.740	ABWFZ00	0.350	+0.020	
BDLM001	79.070	+0.750	AAEAA00	0.270	+0.010	
BDLM002	78.660	+0.730	AAEAB00	0.270	-0.010	
BDLM003	78.240	+0.750	AAEAC00	0.260	-0.020	
BDLM004	77.840	+0.780	AAEAD00	0.270	-0.010	
	BDLM001 BDLM002 BDLM003	BDLBM00 79.480 BDLM001 79.070 BDLM002 78.660 BDLM003 78.240	BDLBM00 79.480 +0.740 BDLM001 79.070 +0.750 BDLM002 78.660 +0.730 BDLM003 78.240 +0.750	BDLBM00 79.480 +0.740 ABWFZ00 BDLM001 79.070 +0.750 AAEAA00 BDLM002 78.660 +0.730 AAEAB00 BDLM003 78.240 +0.750 AAEAC00	BDLBM00 79.480 +0.740 ABWFZ00 0.350 BDLM001 79.070 +0.750 AAEAA00 0.270 BDLM002 78.660 +0.730 AAEAB00 0.270 BDLM003 78.240 +0.750 AAEAC00 0.260	BDLBM00 79.480 +0.740 ABWFZ00 0.350 +0.020 BDLM001 79.070 +0.750 AAEAA00 0.270 +0.010 BDLM002 78.660 +0.730 AAEAB00 0.270 -0.010 BDLM003 78.240 +0.750 AAEAC00 0.260 -0.020

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

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

		Cash BFOE	Change			Inter-Month Spread
10:30 London Time						
BFOE M1 (Sep)	PBCAAM1	77.820	-0.130			
BFOE M2 (Oct)	PBCAAM2	77.570	-0.070	Sep/Oct	PBAM1M2	0.250
BFOE M3 (Nov)	PBCAAM3	77.190	-0.030	Oct/Nov	PBAM2M3	0.380
12:30 London Time						
BFOE M1 (Sep)	PBCABM1	78.100	+0.060			
BFOE M2 (Oct)	PBCABM2	77.840	+0.120	Sep/Oct	PBBM1M2	0.260
BFOE M3 (Nov)	PBCABM3	77.460	+0.180	Oct/Nov	PBBM2M3	0.380
14:30 London Time						
BFOE M1 (Sep)	PBCACM1	78.330	+0.360			
BFOE M2 (Oct)	PBCACM2	78.060	+0.400	Sep/Oct	PBCM1M2	0.270
BFOE M3 (Nov)	PBCACM3	77.670	+0.440	Oct/Nov	PBCM2M3	0.390
16:30 London Time						
BFOE M1 (Sep)	PCAAQ00	79.150	+0.580			
BFOE M2 (Oct)	PCAAR00	78.830	+0.590			
BFOE M3 (Nov)	PCARR00	78.420	+0.590			
19:30 London Time						
BFOE M1 (Sep)	PBCADM1	NA	_			
BFOE M2 (Oct)	PBCADM2	NA	_	Sep/Oct	PBDM1M2	NA
BF0E M3 (Nov)	PBCADM3	NA	_	Oct/Nov	PBDM2M3	NA

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>

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 11, 2023 Dubai derivatives assessment process.

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

	Mid	Change		Spread vs fwd Dated Brent	Mid	Change
62.54-62.57	62.555	+0.590	AAGXJ	00 -16.77/-16.76	-16.765	0.000
62.96-62.99	62.975	+0.590	AAGXX	00 -16.35/-16.34	-16.345	0.000
60.30-60.34	60.320	+0.590	AAHPH6	oo -19.01/-18.99	-19.000	0.000
59.40-59.44	59.420	+0.590	AAOTI	00 -19.91/-19.89	-19.900	0.000
60.30-60.34	60.320	+0.590	AAHPI0	00 -19.01/-18.99	-19.000	0.000
60.30-60.34	60.320	+0.590	AAWVI0	00 -19.01/-18.99	-19.000	0.000
63.17-63.20	63.185	+0.740				
70.82-70.84	70.830	+0.690	AARWE6	00 -7.84/-7.82	-7.830	-0.040
	81.120	+0.840	KBCOB	00	1.800	+0.250
	71.370	+0.750	DWCUB	00	-7.700	0.000
	18.145	+0.250				
Number of days						
6						
	62.96-62.99 60.30-60.34 59.40-59.44 60.30-60.34 63.17-63.20 70.82-70.84 Number of days	62.54-62.57 62.555 62.96-62.99 62.975 60.30-60.34 60.320 59.40-59.44 59.420 60.30-60.34 60.320 63.17-63.20 63.185 70.82-70.84 70.830 81.120 71.370 18.145	62.54-62.57 62.555 +0.590 62.96-62.99 62.975 +0.590 60.30-60.34 60.320 +0.590 59.40-59.44 59.420 +0.590 60.30-60.34 60.320 +0.590 60.30-60.34 60.320 +0.590 63.17-63.20 63.185 +0.740 70.82-70.84 70.830 +0.690 81.120 +0.840 71.370 +0.750 18.145 +0.250 Number of days	62.54-62.57 62.555 +0.590 AAGXVE 62.96-62.99 62.975 +0.590 AAGXXE 60.30-60.34 60.320 +0.590 AAHPHE 59.40-59.44 59.420 +0.590 AAHPLE 60.30-60.34 60.320 +0.590 AAHPLE 60.30-60.34 60.320 +0.590 AAHPLE 63.17-63.20 63.185 +0.740 70.82-70.84 70.830 +0.690 AARWEE 81.120 +0.840 KBCOBE 71.370 +0.750 DWCUBE 18.145 +0.250	62.54-62.57 62.555 +0.590 AAGXJ00 -16.77/-16.76 62.96-62.99 62.975 +0.590 AAGXX00 -16.35/-16.34 60.30-60.34 60.320 +0.590 AAHPH00 -19.01/-18.99 59.40-59.44 59.420 +0.590 AAOTI00 -19.91/-19.89 60.30-60.34 60.320 +0.590 AAHPI00 -19.01/-18.99 60.30-60.34 60.320 +0.590 AAHVI00 -19.01/-18.99 63.17-63.20 63.185 +0.740 70.82-70.84 70.830 +0.690 AARWE00 -7.84/-7.82 81.120 +0.840 KBC0B00 71.370 +0.750 DWCUB00 18.145 +0.250	62.54-62.57 62.555 +0.590 AAGXJØØ -16.77/-16.76 -16.765 62.96-62.99 62.975 +0.590 AAGXXØØ -16.35/-16.34 -16.345 60.30-60.34 60.320 +0.590 AAHPHØØ -19.01/-18.99 -19.000 59.40-59.44 59.420 +0.590 AAHPIØØ -19.91/-18.99 -19.000 60.30-60.34 60.320 +0.590 AAHPIØØ -19.01/-18.99 -19.000 63.17-63.20 63.185 +0.740 -19.01/-18.99 -19.000 70.82-70.84 70.830 +0.690 AARWEØØ -7.84/-7.82 -7.830 81.120 +0.840 KBCOBØØ 1.800 71.370 +0.750 DWCUBØØ -7.700 Number of days

Urals Med/NWE CFD assessments (\$/barrel)

		<u>Urals CFD</u>	Mid	Change
Mediterranean (PPE page 1617)				
Urals Med CFD (Aug)	AAMDU00	-16.32/-16.30	-16.310	0.000
Urals Med CFD (Sep)	AAMEA00	-16.32/-16.30	-16.310	0.000
Urals Med CFD (Oct)	UMCM003	-16.32/-16.30	-16.310	0.000
Northwest Europe (PPE page 1617)				
Urals NWE CFD (Aug)	UNCM001	-16.74/-16.72	-16.730	0.000
Urals NWE CFD (Sep)	UNCM002	-16.74/-16.72	-16.730	0.000
Urals NWE CFD (Oct)	UNCM003	-16.74/-16.72	-16.730	0.000
Mediterranean (PPE page 1617)				
CPC Blend CFD (Aug)	AAOFX00		-1.900	-0.100
CPC Blend CFD (Sep)	AAOFY00		-1.750	+0.150
CPC Blend CFD (Oct)	AAOFZ00		-1.650	+0.100

Mediterranean spot crude assessments (\$/barrel)

			Mid	Change	Spre	ead vs fwd Dated Brent	Mid	Change
Azeri and BTC (PGA page 1222)								
Azeri Lt CIF	AAGZX00	83.26-83.29	83.275	+0.600	AAHPM00	3.99/4.01	4.000	0.000
Azeri Lt FOB Ceyhan Suez	AAUFM00	82.26-82.29	82.275	+0.600	AAUFN00	2.99/3.01	3.000	0.000
Azeri Lt FOB Ceyhan Afra	AAUFK00	81.83-81.86	81.845	+0.630	AAUFL00	2.56/2.58	2.570	+0.030
Azeri Lt FOB Supsa	AATHM00	80.87-80.89	80.880	+0.600	AATHN00	1.60/1.61	1.605	0.000
BTC FOB Ceyhan	AAUFH00	82.05-82.07	82.060	+0.615	AAUFJ00	2.78/2.79	2.785	+0.015
Black Sea (PGA page 1220)								
Siberian Light CIF	AAGZW00	64.96-64.99	64.975	+0.590	AAHPK00	-14.35/-14.34	-14.345	0.000
CPC Blend CIF	AAGZU00	77.46-77.49	77.475	+0.600	AAHPL00	-1.81/-1.79	-1.800	0.000
CPC Blend FOB Suez	AALVX00	75.06-75.09	75.075	+0.600	AALVZ00	-4.21/-4.19	-4.200	0.000
CPC Blend FOB Afra	AAOFV00	74.19-74.21	74.200	+0.600	AAOFW00	-5.08/-5.07	-5.075	0.000
Additional War Risk Premium	AWARA00		1.000					
Middle East & North Africa (PGA pag	ge 1234)							
Suez Blend	PCACA00	77.80-77.84	77.820	+0.690	AAGYD00	-1.51/-1.49	-1.500	+0.100
Es Sider	PCAC000	79.36-79.39	79.375	+0.600	AAGYH00	0.09/0.11	0.100	0.000
Kirkuk	AAEJD00	77.00-77.04	77.020	+0.840	AAGYF00	-2.31/-2.29	-2.300	+0.250
Iranian Light FOB Kharg Island (Med) AILKA00		79.570	+0.570	AILKB00		0.250	-0.020
Iranian Heavy FOB Kharg Island (Med	d) AIHKA00		77.870	+0.570	AIHKB00		-1.450	-0.020
Saharan Blend	AAGZY00	79.76-79.79	79.775	+0.450	AAHPN00	0.49/0.51	0.500	-0.150

Platts Asia Pacific Sweet Crude Daily Market Analysis

- September loading program for Australia's Ichthys Field Condensate
- Weak light distillate cracks weigh on sentiment

The Asia-Pacific regional crude market saw the emergence of the September-loading program for Australia's Ichthys Field Condensate on July 11, market sources said.

One cargo of Australia's Ichthys Field Condensate was heard offered in the spot market by Japan's Inpex for September 14-18 loading, while France's Total Energies will be offering one cargo for Sept. 26-30 loading, sources said.

In the prior August-loading cycle, France's TotalEnergies' cargo for mid-August loading was heard sold to Japan's Taiyo Oil at discounts around \$5/b, FOB, while Japan's Inpex was heard to have sold its end-August loading cargo at discounts around \$5.50/b, FOB, sources said.

Market sentiment for September-loading light sweet crudes and condensates were tepid on the back of weaker downstream crack spreads, traders said.

"Not seeing any big improvements for naphtha/petrochemicals," a regional crude oil trader said.

Platts-assessed second-month gasoline and naphtha swap crack versus Dubai crude swaps weakened in July, averaging \$7.65/b and minus \$17.48/b month-to-date as of the July 7 Asian close, compared with an average of \$10.14/b and minus \$16.67/b, respectively, in June, S&P Global data showed.

In the light sweet condensates market, sources said that despite a shorter program for Australia's North West Shelf condensate for the September-loading cycle, demand remained lackluster.

Previously, Indonesia's Pertamina issued a tender on behalf of TPPI seeking condensates for September delivery, but sources said the company failed to award the tender.

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

			Mid	Change	<u>Sprea</u>	d vs fwd Dated Brent	Mid	Change
WAF Index	AWAFA00		80.590	+0.930	AWAFB00		1.650	+0.200
Nigeria Spot Crude Assess	sments							
Bonny Light	PCAIC00	80.37-80.41	80.390	+0.930	AAGXL00	1.44/1.46	1.450	+0.200
Qua Iboe	PCAID00	80.42-80.46	80.440	+0.930	AAGXN00	1.49/1.51	1.500	+0.200
Forcados	PCABC00	80.57-80.61	80.590	+0.930	AAGXP00	1.64/1.66	1.650	+0.200
Agbami	AAQZB00	77.57-77.61	77.590	+0.930	AAQZC00	-1.36/-1.34	-1.350	+0.200
Escravos	AAEIZ00	81.02-81.06	81.040	+0.930	AAGXR00	2.09/2.11	2.100	+0.200
Brass River	AAEJB00	79.27-79.31	79.290	+0.930	AAGXV00	0.34/0.36	0.350	+0.200
Akpo	PCNGA00	77.57-77.61	77.590	+0.930	PCNGB00	-1.36/-1.34	-1.350	+0.200
Bonga	PCNGC00	80.92-80.96	80.940	+0.930	PCNGD00	1.99/2.01	2.000	+0.200
Usan	AAXUQ00		76.440	+0.930	AAXUR00		-2.500	+0.200
Erha	AAXU000		80.940	+0.930	AAXUP00		2.000	+0.200
Egina	AFONA00		82.690	+0.930	AFONB00		3.750	+0.200
Angola spot crude assessi	ments (\$/barrel) (PGA	page 1232)						
Cabinda	PCAFD00	80.67-80.71	80.690	+0.930	AAGXT00	1.74/1.76	1.750	+0.200
Nemba	AAQYZ00	78.42-78.46	78.440	+0.730	AAQZA00	-0.51/-0.49	-0.500	0.000
Dalia	AAQYX00	78.92-78.96	78.940	+0.730	AAQYY00	-0.01/0.01	0.000	0.000
Girassol	AASNL00	81.32-81.36	81.340	+0.730	AASJD00	2.39/2.41	2.400	0.000
Hungo	AASLJ00	78.62-78.66	78.640	+0.880	AASJF00	-0.31/-0.29	-0.300	+0.150
Kissanje	AASLK00	79.17-79.21	79.190	+0.730	AASJE00	0.24/0.26	0.250	0.000
Pazflor	PCNGG00	78.92-78.96	78.940	+0.730	PCNGH00	-0.01/0.01	0.000	0.000
Plutonio	PCNGI00	77.92-77.96	77.940	+0.730	PCNGJ00	-1.01/-0.99	-1.000	0.000
Ghana spot crude assessn	nents (PGA page 1230)							
Jubilee	AAXUS00		79.890	+0.930	AAXUT00		0.950	+0.200
Republic of Congo spot cr	ude assessments							
Djeno	PCNGE00	77.72–77.76	77.740	+0.930	PCNGF00	-1.21/-1.19	-1.200	+0.200
Chad spot crude assessm	ents							
Doba	AAXUU00		77.090	+0.730	AAXUV00		-1.850	0.000

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

		MIId	Change	Spread vs two Dated Brent	IVIIa	Change
Abo Blend	AAXTL00	80.045	+0.845	ABOOM00	1.105	+0.115
Aje	APIRP00	80.330	+0.925	APIRA00	1.390	+0.195
Amenam Blend	AAXTI00	79.250	+0.905	AMENA00	0.310	+0.175
Antan Blend	APIRQ00	82.065	+0.820	APIRB00	3.125	+0.090
Asaramatoru	AAXTV00	79.965	+0.990	ASARA00	1.025	+0.260
CJ Blend	APIRR00	81.170	+0.915	APIRC00	2.230	+0.185
EA Blend	AAXTJ00	81.235	+0.825	AEABL00	2.295	+0.095
Ebok	APIRS00	76.150	+0.720	APIRD00	-2.790	-0.010
Eremor	APIRT00	78.225	+0.655	APIRE00	-0.715	-0.075
Ima	APIRU00	81.730	+1.230	APIRF00	2.790	+0.500
Jones Creek Blend	APIRV00	78.925	+0.795	APIRG00	-0.015	+0.065
Okono Blend	APIRW00	81.025	+0.865	APIRH00	2.085	+0.135
Okoro	APIRX00	79.765	+0.955	APIRI00	0.825	+0.225
Okwori	APIRY00	81.360	+0.925	APIRJ00	2.420	+0.195
Otakikpo	APIRZ00	79.555	+1.005	APIRK00	0.615	+0.275
Oyo	APRIA00	79.650	+0.970	APIRL00	0.710	+0.240
Pennington	APRIB00	78.655	+0.930	APIRM00	-0.285	+0.200
Rabi Light	ARABA00	78.130	+0.815	ARABB00	-0.810	+0.085
Sankofa	APRIC00	76.300	+0.985	APIRN00	-2.640	+0.255

Carond va fued Dated Pront Mid Change

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 11 took into consideration latest trade indications heard in the broader market.

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

Platts Asia Light Sweet Crude Bids, Offers, Trades

Bids: No bids Offers: No offers Trades: No trades

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

Platts North Sea Crude Daily Market Analysis

- OPEC+ output relatively steady in June: Platts survey
- Weaker Midland volumes ease pressure on North Sea

Strength gathered through North Sea crudes June 11, assisted by weaker volumes of WTI Midland arriving in Europe, though sweet sour relationships remained mostly constant.

Traders observed thinning volumes of the grade arriving in Europe lending support to North Sea crudes and the Dated Brent benchmark overall. Midland has increasingly been funneled east relieving pressures on July and August loadings of North Sea crudes, according to one North Sea trader.

A pickup in Indian and Chinese demand in adjacent markets such as West Africa had also thinned out

West Africa market parity prices (continued)

		Mid Change	Spread vs fwd Dated Brent	Mid Change
TEN	AAXTW00	78.065 +0.955	ATENM00	-0.875 +0.225
Ukpokiti	APRID00	80.750 +0.890	APIRO00	1.810 +0.160
Yoho Light	AAXTK00	81.345 +0.950	AYOHO00	2.405 +0.220
Zafiro	AAXTU00	82.320 +0.745	AZAFB00	3.380 +0.015

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

Mid Change

				Sprea	d to NYMEX WTI CMA	Mid	Change
ANS/Long Beach	PCAAD00	81.03-81.07	81.050 +1.640	AAGWX00	6.72/6.74	6.730	-0.090
				Sprea	ad to ICE BRENT CMA		
ANS/Long Beach				AANSA00		2.405	+0.004

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

			Mid Change
Mars (Aug)	AAMBR00	76.57-76.59	76.580 +1.560
Mars (Sep)	AAMBU00	75.75-75.77	75.760 +1.510
Mars (Oct)	AAMBX00	74.88-74.90	74.890 +1.340
Mars/WTI (Aug)	AAGWH00	1.74/1.76	1.750 -0.200
Mars/WTI (Sep)	AAKTH00	1.04/1.06	1.050 -0.250
Mars/WTI (Oct)	AAMBO00	0.44/0.46	0.450 -0.400
LOOP/WTI (Aug)	AALOM01		1.650 -0.200
LOOP/WTI (Sep)	AALOM02		0.950 -0.250
LOOP/WTI (Oct)	AALOM03		0.350 -0.400
LOOP/Mars (Aug)	AALPM01		-0.100 0.000
LOOP/Mars (Sep)	AALPM02		-0.100 0.000
LOOP/Mars (Oct)	AALPM03		-0.100 0.000
WTI-Delta	AAEJK00	0.19/0.21	0.200 0.000
P-Plus WTI	PCACI00	3.57/3.59	3.580 0.000
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	<u>Sp</u>	read vs 1st line WTI	Mid	Change
WTI (Midland)	PCACJ00	76.37-76.39	76.380 +1.660	AAGVZ00	1.54/1.56	1.550	-0.100
WTS (1st month)	PCACK00	76.12-76.14	76.130 +2.410	AAGWB00	1.29/1.31	1.300	+0.650
WTI MEH	AAYRG00		76.580 +1.660	AAYRH00		1.750	-0.100
Bonito	PCAIE00	76.42-76.44	76.430 +1.560	AAGWF00	1.59/1.61	1.600	-0.200
SGC	AASOI00	76.27-76.29	76.280 +1.760	AASOJ00	1.44/1.46	1.450	0.000
Poseidon	AABHK00	76.12-76.14	76.130 +1.560	AAGWL00	1.29/1.31	1.300	-0.200
LLS (1st month)	PCABN00	77.52-77.54	77.530 +1.560	AAGWN00	2.69/2.71	2.700	-0.200
HLS (1st month)	PCABD00	77.07-77.09	77.080 +1.510	AAGWP00	2.24/2.26	2.250	-0.250
Wyoming Sweet	PCACM00	74.32-74.34	74.330 +1.760	AAGWR00	-0.51/-0.49	-0.500	0.000
Thunder Horse	AAWZK00	77.97-77.99	77.980 +1.560	AAWZL00	3.14/3.16	3.150	-0.200

some of the supplies aimed at European buyers, reducing sell-side competition and pressure on differentials.

"Support has emerged this month, so we see the Dated [Brent] price rising, and I think it will remain strong this month," a trader said. Still, elevated tightness in the sour complex had held the sweet-sour relationship mostly steady, they added. "The contradiction between sweet and sour is structural and difficult to change — sour is too tight and light is too much."

In OPEC+ news, OPEC and its allies kept their crude oil output almost unchanged in June, with deep production cuts in force and additional curbs by Saudi Arabia and Russia scheduled in the weeks ahead.

OPEC+ production edged up 10,000 b/d to 41.34 million b/d, according to the latest Platts survey from S&P Global Commodity Insights.

This followed a sizable 670,000 b/d drop in May to a 19-month low, with seven countries joining Russia in introducing voluntary reductions. These cuts will remain in force until the end of 2023.

The group is crimping production in a bid to tighten the market and shore up oil prices, which continue to be weighed down by weak global economic indicators.

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

Dated Brent < PCAAS00 > assessment rationale:

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

Brent was assessed in a 0.5 cent/day contango structure July 21-Aug. 8 using an outstanding bid Aug. 8. Aug. 8-11 was assessed in a flat structure.

Forties was assessed in a 0.5 cent/day contango structure July 21-27 using an outstanding offer July 27. July 27-Aug. 8 was assessed in a 1.67 cents/day contango structure using an outstanding bid Aug. 8. Aug. 8-11 was assessed in a flat structure.

US spot crude assessments (continued)

						Spread vs 2nd lin	<u>e WTI</u>	
WTI MEH (2nd month)	AAXXE00		76.410	+1.710	AAYYA00		1.700	-0.050
WTI Midland (2nd month)	AAYZA00		76.210	+1.710	AAXXF00		1.500	-0.050
WTS (2nd month)	AAURG00	75.75-75.77	75.760	+2.710	AAURH00	1.04/1.06	1.050	+0.950
LLS (2nd month)	AAURC00	77.30-77.32	77.310	+1.710	AAURD00	2.59/2.61	2.600	-0.050
HLS (2nd month)	AAURE00	76.85-76.87	76.860	+1.660	AAURF00	2.14/2.16	2.150	-0.100
					<u>S</u>	pread vs NYMEX W	/TI CMA	
WCS ex-Cushing	AAWTY00	71.42-71.44	71.430	+1.760	AAWTZ00	-3.21/-3.19	-3.200	0.000
WCS ex-Nederland	AAYAY00		72.430	+1.610	AAYAX00		-2.200	-0.150
Bakken Williston	AAXPP00		76.130	+1.760	AASRX00		1.500	0.000
Bakken Guernsey	AASRR00	74.32-74.34	74.330	+1.760	AASRV00	-0.31/-0.29	-0.300	0.000
Bakken Clearbrook	AASRU00	77.87-77.89	77.880	+1.760	AASRW00	3.24/3.26	3.250	0.000
Bakken USGC Pipe	ABAKA00		76.830	+1.660	ABAKB00		2.200	-0.100
		FOB USGC			FOB US	SGC Spread vs NYN	MEX WTI Strip	
Platts AGS	AGSAA00		76.970	+1.620	AGSAC00		2.310	-0.150
Bakken	ABAKC00		76.970	+1.620	ABAKD00		2.310	-0.150
Eagle Ford Crude	AAYAT00		76.070	+1.620	AAYAU00		1.410	-0.150
Eagle Ford Condensate	AAYAR00		74.570	+1.620	AAYAS00		-0.090	-0.150
WTI	AAYBA00		76.970	+1.620	AAYAZ00		2.310	-0.150
					WTI FO	B USGC vs WTI ME	H (by decade)	
WTI FOB USGC First Decade	ADECB00		76.980	+1.610	ADECD00		0.400	-0.050
WTI FOB USGC Second Decade	ADECE00		76.980	+1.660	ADECG00		0.400	0.000
WTI FOB USGC Third Decade	ADECH00		76.930	+1.610	ADECJ00		0.350	-0.050
WTI FOB USGC Decades Average	ADECA00		76.960	+1.620				
	FOB USGO	Spread vs Dated Br	ent Strip		WTI FOB US	GC vs Dated Brent	Basis (by dec	<u>ade)</u>
Platts AGS	AGSAB00		-2.480	0.000	ADECC00		-2.380	-0.060
Bakken	ABAKE00		-2.480	0.000	ADECF00		-2.380	-0.010
Eagle Ford Crude	AEFCA00		-3.380	0.000	ADECI00		-2.430	-0.060
Eagle Ford Condensate	AEFCB00		-4.880	0.000				
WTI	AWTUA00		-2.480	0.000				
	Global	Benchmarks at US (<u>Close</u>		WTI FOB U	SGC vs ICE Brent E	Basis (by deca	<u>de)</u>
Americas Dated Brent	AAQBF00	79.800-79.820	79.810	+1.730	ADECK00		-2.110	-0.050
					ADECL00		-2.110	0.000
					ADECM00		-2.160	-0.050

Oseberg was assessed higher in a 1 cent/day contango structure July 21-Aug. 11 reflecting the upward move in the Ekofisk differential and structure demonstrated for other grades in the Dated Brent basket in the absence of indications testing the July 10 assessment.

Troll was assessed higher in a 1 cent/day contango structure July 21-Aug. 11 reflecting the upward move in the Ekofisk differential and structure demonstrated for other grades in the Dated Brent basket in the absence of indications testing the July 10 assessment.

Ekofisk was assessed in a 3 cent/day contango

structure July 21-31 using an outstanding bid July 31. July 31-Aug. 8 was assessed in a 2.5 cents/day contango structure using an outstanding bid Aug. 8. Aug. 8-11 was assessed in a flat structure.

Careed up 2nd line WITI

FOB WTI Midland was assessed higher reflecting a higher CIF Rotterdam assessment and a lower freight adjustment factor on the day. CIF WTI Midland was assessed in a 3 cents/day contango structure July 23-26 using an outstanding bid July 26-30. July 30-Aug. 2 was assessed in a 3.33 cents/day contango structure using an outstanding bid Aug. 2-4. Aug. 4-9 was assessed in a flat structure using an outstanding offer

Aug. 5 and an outstanding bid Aug. 6-9. Aug. 9-11 was assessed in a flat structure.

WTI Midland was the most competitive grade in the Dated Brent assessment July 21-22 and Aug. 5-11. Oseberg was the most competitive grade July 23-24 and July 29-31. Forties was the most competitive grade July 25-28 and Aug. 1-4.

BFOE (PCAAQ00-PCAAR00,PCARR00> assessment rationale:

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

CFD (PCAKA00-AALDA00) assessment rationale:

July 17-21 was assessed using an outstanding bid. July 24-28 was assessed using a traded bid. July 31-Aug. 4 was assessed using multiple traded bids and offers. Aug. 7-11 was assessed using an Aug. 7-11 versus July 31-Aug. 4 CFD roll heard during the day. Aug. 14-18 was assessed using an Aug. 14-18 versus Aug. 7-11 CFD roll heard during the day.

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

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

Exclusions: None

Platts is part of S&P Global Commodity Insights

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

Bids:

North Sea

Platts NSEA WTI Midland CIF bss Rotterdam TOTSA bids Jul 25-Jul 31 100% Dtd . . \$1.20 for 700000-700000 Platts NSEA WTI Midland CIF bss Rotterdam TOTSA bids Aug 1-Aug 5 100% Dtd . . \$1.30 for 700000-700000

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

					Spread to		
			Mid Change	NYMI	EX light sweet crude	Mid	Change
WTI (Aug)	AAQAR00	74.57-74.59	74.580 +0.800	AAQAS00	-0.01/0.01	0.000	0.000
WTI (Sep)	AAQAT00	74.47-74.49	74.480 +0.780	AAQAU00	-0.01/0.01	0.000	0.000
WTI (Oct)	AAQAV00	74.19-74.21	74.200 +0.790	AAQAW00	-0.01/0.01	0.000	0.000
					Spread to		
				sam	ne-month cash WTI	Mid	Change
WTI MEH (Aug)	AAYRZ00		76.330 +0.700	AAYTA00		1.750	-0.100
WTI MEH (Sep)	AAXYD00		76.180 +0.680	AAYWA00		1.700	-0.100
LLS (Aug)	AAQBB00	77.27-77.29	77.280 +0.600	AAQBC00	2.69/2.71	2.700	-0.200
LLS (Sep)	AAQBD00	77.07-77.09	77.080 +0.730	AAQBE00	2.59/2.61	2.600	-0.050
MARS (Aug)	AAQAX00	76.32-76.34	76.330 +0.600	AAQAY00	1.74/1.76	1.750	-0.200
MARS (Sep)	AAQAZ00	75.52-75.54	75.530 +0.530	AAQBA00	1.04/1.06	1.050	-0.250

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

			Mid	Change
Americas Dated Brent	AAQBF00	79.80-79.82	79.810	+1.730

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	75.530 +0.750
LOOP Sour (Sep)	AAZDB00	74.820 +0.920
LLS (Aug)	AAZDC00	76.580 +0.450
LLS (Sep)	AAZDD00	76.270 +0.520
Southern Green Canyon	AAZDE00	75.130 +0.450
WTI MEH (Aug)	AAZDF00	75.530 +0.450
WTI MEH (Sep)	AAZDG00	75.370 +0.420

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

		Mid Change
Dubai CFR North Asia	PCAQA00	80.630 +0.490
Oman CFR North Asia	PCAQJ00	80.620 +0.490
Upper Zakum CFR North Asia	PCAQB00	80.600 +0.500
Qatar Marine CFR North Asia	PCAQC00	79.560 +0.520
Murban CFR North Asia	PCAQE00	80.630 +0.380
Basrah Medium CFR North Asia	BASNA00	79.350 +0.510
ESPO CFR North Asia	PCAQD00	72.580 +0.550
Forties CFR North Asia	PCAQF00	82.320 +0.420
Dalia CFR North Asia	PCAQG00	80.980 +0.320
WTI MEH CFR North Asia	PCAQH00	80.610 +0.330
LOOP Sour CFR North Asia	PCAQI00	79.480 +0.570

Platts NSEA WTI Midland CIF bss Rotterdam TOTSA bids Aug 6-Aug 10 100% Dtd.. \$1.30 for 700000-700000 Platts NSEA WTI Midland CIF bss Rotterdam TOTSA bids Aug 11-Aug 15 100% Dtd.. \$1.30 for 700000-700000

Platts NSEA WTI Midland CIF bss Rotterdam TRAFI bids Aug 5-Aug 10 100% Dtd.. \$1.30 for 700000-700000 Platts NSEA Brent/Ninian FOB bss Sullom Voe TOTSA bids Aug 7-Aug 9 100% Dtd.. \$0.30 for 700000-700000

Platts NSEA Brent/Ninian FOB bss Sullom Voe TRAFI bids Aug 7-Aug 9 100% Dtd . . \$0.25 for 700000-700000

Platts NSEA Forties FOB bss Hound Point TOTSA bids Aug 7-Aug 9 100% Dtd.. \$0.30 for 700000-700000 Platts NSEA Forties FOB bss Hound Point TRAFI bids Aug 7-Aug 9 100% Dtd.. \$0.25 for 700000-700000 Platts NSEA Forties FOB bss Hound Point MERCURIASA bids Jul 26-Jul 28 100% Dtd.. \$0.00 for 700000-700000

Platts NSEA Ekofisk FOB bss Teesside MERCURIASA bids Jul 30-Aug 13 100% Dtd..\$1.60 for 700000-700000

Platts NSEA Ekofisk FOB bss Teesside TOTSA bids Aug 7-Aug 9 100% Dtd . . \$1.80 for 700000-700000 CASH BFOE: None

BRENT CFDS: PLATTS BRENT DIFF: JUL17-JUL21 (SEP): PETROCHINA BIDS 100KB AT \$0.31

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

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

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

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): DARE BIDS 100KB AT \$0.25

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): FREEPOINT BIDS 100KB AT \$0.25

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): DV TRADING BIDS 100KB AT \$0.20

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

			Mid Change	Spread vs fwd Dated Brent	Mid Change
Hebron	AHEBA00		79.950 +0.780	AHEBC00	1.050 +0.050
Terra Nova	AAJUH00	79.38-79.42	79.400 +0.780	AAJUJ00 0.49/0.51	0.500 +0.050
Hibernia	AAJKK00	80.18-80.22	80.200 +0.780	AAJKM00 1.29/1.31	1.300 +0.050
White Rose	AAVJX00	80.43-80.47	80.450 +0.780	AAVJY00 1.54/1.56	1.550 +0.050

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

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

			Mid	Change		Spread vs Canada basis	Mid	Change
Lloyd Blend	AALRK00	63.82-63.84	63.830	+1.760	AALRP00	a -10.81/-10.79	-10.800	0.000
Mixed Sweet	AALRR00	73.87-73.89	73.880	+2.210	AALRV0	0 -0.76/-0.74	-0.750	+0.450
Light Sour Blend	AALRX00	72.67-72.69	72.680	+1.960	AALSD00	a -1.96/-1.94	-1.950	+0.200
Midale	AAUCC00	70.57-70.59	70.580	+1.960	AAUCE00	-4.06/-4.04	-4.050	+0.200
Condensates	AALSF00	68.97-68.99	68.980	+1.760	AALSJ00	-5.66/-5.64	-5.650	0.000
Syncrude Sweet Prem.	AASOK00	78.37-78.39	78.380	+2.260	AASOMØ	3.74/3.76	3.750	+0.500
WCS Hardisty	AAPPN00	63.12-63.14	63.130	+1.760	AAPPP00	o -11.51/-11.49	-11.500	0.000
Cold Lake Hardisty	AASZX00	62.97-62.99	62.980	+1.760	AASZZ00	-11.66/-11.64	-11.650	0.000
WTI CMA (1st mo)	AAVSN00		74.630	+1.760				

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

			Diff to Diff to Futures		Diff to		5 Futures	Diff to Dated		
			Mid	Change	WT	l strip	Bre	nt strip	Bren	nt strip
Escalante	PCAGC00	77.03-77.07	77.050	+1.645	PCAG000	2.475	AAXBS00	-1.900	AAXAX00	-2.170
Medanito	AMTOA00		74.050	+1.645	AMTOC00	-0.525	AMTOB00	-4.900	AMTOD00	-5.170
Santa Barbara	AAITD00	77.45-77.50	77.475	+1.585	AAITJ00	2.900	AAXBU00	-1.475	AAXAZ00	-1.745
Loreto	PCAGH00	69.20-69.25	69.225	+1.735	PCAGQ00	-5.350	AAXBV00	-9.725	AAXBG00	-9.995
Oriente	PCADE00	70.10-70.15	70.125	+1.735	PCAGU00	-4.450	AAXBW00	-8.825	AAXBH00	-9.095
Napo	AAMCA00	68.10-68.15	68.125	+1.735	AAMCD00	-6.450	AAXBX00	-10.825	AAXBI00	-11.095
Tupi	ATUPA00		79.900	+1.645	ATUPC00	5.325	ATUPB00	0.950	ATUPD00	0.680
Marlim	AAITF00	75.28-75.32	75.300	+1.645	AAITL00	0.725	AAXBY00	-3.650	AAXBJ00	-3.920
Castilla Blend	AAVEQ00	72.43-72.47	72.450	+1.645	AAVEQ01	-2.125	AAXBZ00	-6.500	AAXBK00	-6.770
Vasconia	PCAGI00	74.93-74.97	74.950	+1.645	PCAGR00	0.375	AAXCB00	-4.000	AAXBN00	-4.270
Mesa 30	AAITB00	76.53-76.57	76.550	+1.545	AAITH00	1.975	AAXCC00	-2.400	AAXB000	-2.670
Liza	ALIZA00		79.550	+1.645	ALIZD00	4.975	ALIZC00	0.600	ALIZB00	0.330
Latin America WTI strip	AAXBP00		74.575							
Latin America Futures Brent strip	AAXBQ00		78.950							
Latin America Dated Brent strip	AAXBR00		79.220							

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

		Mid	Change
Maya	AAYMP00	71.928	8 +1.650
Merey 16	AMERA00	70.857	7 +1.633

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

Mid Change

European crude oil benchmark	s		
Dated Brent	AAPYR00	72.350-72.370	72.359 +0.621
Dated Brent (CIF)	PCAKN00		73.328 +0.629
Urals (Mediterranean)	AAPYS00	57.280-57.310	57.297 +0.496
US crude oil benchmarks			
WTI (Aug)	AAPYT00	67.850-67.860	67.856 +0.679
WTI MEH (Aug)	AAYSA00		69.448 +0.587
Mars (Aug)	AAPYU00	69.440-69.460	69.448 +0.496

Euro/US\$ forex rate: 1.0991. Platts Euro denominated crude oil assessments are based on market values and a Euro/US\$ forex rate at 4:30 PM local London time.

PLATTS BRENT DIFF: JUL24-JUL28 (SEP):

EXXONMOBIL BIDS 100KB AT \$0.31

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

PLATTS BRENT DIFF: JUL24-JUL28 (SEP):

MERCURIA BIDS 100KB AT \$0.30

PLATTS BRENT DIFF: JUL24-JUL28 (SEP):

PETROCHINA BIDS 100KB AT \$0.30

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): PETRACO BIDS 100KB AT \$0.28

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

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DV TRADING BIDS 100KB AT \$0.20

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

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): MERCURIA BIDS 100KB AT \$0.30

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): DV TRADING BIDS 100KB AT \$0.26

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): MCE BIDS 100KB AT \$0.26

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): ONYX BIDS 100KB AT \$0.25

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): FREEPOINT BIDS 100KB AT \$0.20

PLATTS BRENT DIFF: AUG7-AUG11 (OCT): DARE BIDS 100KB AT \$0.15

PLATTS BRENT DIFF: AUG14-AUG18 (OCT):

MERCURIA BIDS 100KB AT \$0.20

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): DV TRADING BIDS 100KB AT \$0.15

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): ONYX BIDS 100KB AT \$0.10

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): MCE BIDS 100KB AT \$0.00

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): DARE BIDS 100KB AT \$0.00

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

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

			Mid	Change	
Russian crude oil benchmarks					
Urals FOB Novorossiysk	AAUJP00	5448.110-5451.720	5449.912	+41.360	_
Urals FOB Baltic	AAUJQ00	5448.110-5451.720	5449.912	+41.360	
Urals FOB Novorossiysk 80kt	AAUJR00	5366.790-5370.400	5368.597	+41.540	
Urals CIF Mediterranean	AAUJS00	5688.440-5691.150	5689.791	+40.829	
Urals CIF Rotterdam	AAUJT00	5650.490-5653.200	5651.844	+40.913	

US\$/Ruble forex rate: 90.3500. 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)

			iviid	Change	
Lloyd Blend	AALRM00	532.024-532.191	532.108	+13.641	
Mixed Sweet	AALRT00	615.805-615.971	615.888	+17.233	
Light Sour Blend	AALRZ00	605.801-605.968	605.884	+15.164	
Midale	AAUCD00	588.295-588.461	588.378	+15.200	
Condensates	AALSH00	574.957-575.123	575.040	+13.556	
Syncrude Sweet	AASOL00	653.318-653.485	653.401	+17.576	
WCS Hardisty	AAPP000	526.189-526.356	526.272	+13.652	
Cold Lake Hardisty	AASZY00	524.939-525.105	525.022	+13.655	

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

		Mid	Change
July 11, 2023	AAFCW00	1.0991	+0.001

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

			Mid	Change
Brent (Sep)	PCAJG00	78.46-78.50	78.480	+0.490
Brent (Oct)	PCAJI00	78.17-78.21	78.190	+0.550
Brent (Nov)	PCAJ000		77.770	+0.560
WTI (Aug)	AAFFU00	73.66-73.70	73.680	+0.450
WTI (Sep)	AAFFW00	73.60-73.64	73.620	+0.470
WTI (Oct)	AAFFY00	73.32-73.36	73.340	+0.500

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

			IVIIU	Change
Oman/Dubai Swap (Aug)	AAIHJ00	-0.02/0.02	0.000	0.000
Oman/Dubai Swap (Sep)	AAIHL00	-0.02/0.02	0.000	0.000
Oman/Dubai Swap (Oct)	AAIHN00	-0.02/0.02	0.000	0.000
Oman Swap (Aug)	AAHZP00	77.98-78.02	78.000	+0.520
Oman Swap (Sep)	AAHZR00	77.29-77.33	77.310	+0.550
Oman Swap (Oct)	AAHZT00	76.71-76.75	76.730	+0.580

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

		Mid	Change
July 10, 2023	AAEUQ00	79.090	+0.660

PLATTS BRENT DIFF: JUL31-AUG4 (OCT):
FREEPOINT BIDS 100KB AT \$0.40
PLATTS BRENT DIFF: JUL31-AUG4 (OCT): DV
TRADING BIDS 100KB AT \$0.40
Offers:

NORTH SEA: Platts NSEA WTI Midland CIF bss Rotterdam EQUINOR offers Aug 2-Aug 6 100% Dtd.. \$1.45 for 700000-700000

Platts NSEA WTI Midland CIF bss Rotterdam GUNVORSA offers Jul 23-Jul 27 100% Dtd . . \$1.35 for 700000-700000

Platts NSEA WTI Midland CIF bss Rotterdam BP offers Aug 2-Aug 6 100% Dtd . . \$1.40 for 700000-700000

Platts NSEA Forties FOB bss Hound Point VITOL-VITOLBRK offers Jul 26-Jul 28 100% Dtd . . \$0.20 for 700000-700000

CASH BFOE: PLATTS CASH BFOE: SEP23: GUNVOR OFFERS 100KB AT \$79.16

PLATTS CASH BFOE: SEP23: PETROINEOS OFFERS 100KB AT \$79.22

BRENT CFDS: PLATTS BRENT DIFF: JUL17-JUL21 (SEP): DV TRADING OFFERS 100KB AT \$0.38

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): DARE OFFERS 100KB AT \$0.50

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): ONYX OFFERS 100KB AT \$0.85

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DV TRADING OFFERS 100KB AT \$0.35

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DARE OFFERS 100KB AT \$0.35

PLATTS BRENT DIFF: JUL24-JUL28 (SEP):

PETROCHINA OFFERS 100KB AT \$0.40

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

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

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

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

Futures Settlements

	S	ettlement	Change	Low	High	Volume*	Open interest	I	PNT****
NYMEX Light Swee	et crude (\$/barr	el) (PGA page	705)						
Aug 23	NMCL001	74.83	+1.84	72.98	74.96	292906	262839		
Sep 23	NMCL002	74.71	+1.76	72.94	74.82	167170	325858		
Oct 23	NMCL003	74.44	+1.74	72.74	74.54	66261	179541		
Nov 23	NMCL004	74.11	+1.72	72.43	74.20	31091	75116		
Total	NMCL000					742547		XNCLP00	14556
CE Brent (\$/barre	l) (PGA page 704)							
Sep 23	ICLL001	79.40	+1.71	77.63	79.50	372894	472344		
Oct 23	ICLL002	79.07	+1.67	77.37	79.17	211605	393155		
Nov 23	ICLL003	78.65	+1.64	77.00	78.74	114050	216588		
Dec 23	ICLL004	78.23	+1.62	76.62	78.31	147623	289884		
otal	ICLL000					1066535		XILLP00	14592
CE WTI (\$/barrel)	(PGA page 704)								
Aug 23	ICIC001	74.83	+1.84	72.98	74.95	42581	68836		
Sep 23	ICIC002	74.71	+1.76	72.94	74.81	52613	93819		
Oct 23	ICIC003	74.44	+1.74	72.72	74.50	30886	62998		
Nov 23	ICIC004	74.11	+1.72	72.50	74.15	17617	28355		
otal	ICIC000					175317		XIICP00	2574
CE BWAVE (\$/barı	rel) (PGA page 70)4)							
BWAVE data refer t	o previous day.								
Sep 23	XIBW001	78.07							
Oct 23	XIBW002	77.71							
OME Oman crude	(\$/barrel)** (PG	A pages 702 &	2710)						
Sep 23	XDOA001	78.80	+0.51			2345			
Sep 23	DMOQ001	79.84	+1.66	78.58	79.84	2405	5352		
Oct 23	DMOQ002	79.51	+1.62	79.51	79.51	842	15		
Nov 23	DMOQ003	79.01	+1.62	79.01	79.01	842	10		
Dec 23	DMOQ004	78.58	+1.62	78.58	78.58	0	0		
Total Volume	DMOQ000					4291		XDOQP00	142
FAD Murban crud	e (\$/barrel) (PG/	A page 703)							
Sep 23	AMIFA00	78.900							
Murban vs Dubai*	** AMIFB00	1.590							
NYMEX ULSD (\$/ga	al) (PGA page 705	5)							
Aug 23	NMHO001	2.5837	+0.0305	2.5455	2.5962	30864	66544		
Sep 23	NMH0002	2.5747	+0.0346	2.5345	2.5849	27469	57639		
Oct 23	NMH0003	2.5672	+0.0367	2.5247	2.5758	16867	37779		
Nov 23	NMH0004	2.5562	+0.0372	2.5151	2.5632	7872	28950		
Total	NMHO000					109830		XNHOP00	1900
NYMEX RBOB unle	eaded gasoline ((\$/gal) (PGA p	age 705)						
Aug 23	NMRB001	2.6227	+0.0531	2.5726	2.6279	35537	85038		
Sep 23	NMRB002	2.5478	+0.0538	2.4975	2.5520	41610	85834		
Oct 23	NMRB003	2.3235	+0.0519	2.2771	2.3267	20455	55301		
Nov 23	NMRB004	2.2576	+0.0498	2.2128	2.2595	8799	30492		
otal Volume	NMRB000					127860		XNRBP00	5760
NYMEX Natural Ga	as (\$/MMBtu) (P	GA page 705)							
Aug 23	NMNG001	2.731	+0.062	2.630	2.748	118954	157574		
Sep 23	NMNG002	2.692	+0.051	2.606	2.716	66935	291317		
Oct 23	NMNG003	2.778	+0.049	2.697	2.800	33872	103227		
Nov 23	NMNG004	3.194	+0.045	3.117	3.205	21383	87315		
Total Volume	NMNG000					297312		XNNGP00	3688

OFFERS 100KB AT \$0.60

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

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): MCE OFFERS 100KB AT \$0.33

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): DARE OFFERS 100KB AT \$0.45

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

PLATTS BRENT DIFF: AUG14-AUG18 (OCT): ONYX OFFERS 100KB AT \$0.55

PLATTS BRENT DIFF: JUL31-AUG4 (OCT):

PETROCHINA OFFERS 100KB AT \$0.45

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): EQUINOR OFFERS 100KB AT \$0.46

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): PETRACO OFFERS 100KB AT \$0.49

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): OMV OFFERS 100KB AT \$0.53

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): DV TRADING OFFERS 100KB AT \$0.60

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): DARE OFFERS 100KB AT \$0.60

Futures Settlements (continued)

		Settlement	Change	Low	High	Volume*	Open interest	PNT****	
ICE low sulfur gas	soil (\$/mt) (PGA	page 704)							
Jul 23	ICL0001	761.25	+6.25	745.00	765.50	30951	16664		
Aug 23	ICL0002	749.00	+6.25	733.25	751.25	93378	141638		
Sep 23	ICL0003	744.50	+6.25	729.75	746.75	57467	96571		
Oct 23	ICL0004	742.75	+6.75	728.00	744.75	24226	92034		
Total Volume	ICL0000					268456		XILOP00	3115
CE Midland WTI	American Gulf (Coast (\$/barre	l) (PGA page 70-	4)					
Aug 23	IHOU001	76.57	+1.70	74.94	76.65	1667	10121		
Sep 23	IHOU002	76.39	+1.69	74.76	76.43	2483	4823		
Oct 23	IHOU003	76.08	+1.67	74.48	76.12	945	4341		
Nov 23	IHOU004	75.74	+1.65	75.74	75.74	367	4074		

^{*}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)

	Singap	ore*	Lond	on*	Houston*		
ICE Brent							
Sep	XILLA01	78.34	AAYES00	79.15	AAQBG00	79.43	
Oct	XILLA02	78.03	AAYET00	78.82	AAQBH00	79.09	
Nov			AAXZY00	78.41	AAXZZ00	78.67	
Dec			AAYAM00	78.00	AAYAL00	78.24	
Oman							
Sep	XD0A001	78.80					
Volume	XDOAV01	2345					

	Houston*		
AASCR00 74.58	NYCRM01 74.86		
AASCS00 74.48	NYCRM02 74.73		
	NYCRM03 74.46		
	NYCRM04 74.14		
	781001100 7 1100		

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

Platts

S&P Global Commodity Insights

Crude Oil Marketwire

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

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Reported spot cash transactions (PGA page 3)

Trans. Date	Cargo / Spread Dates	Cargo Range CFD W	/	CFD Roll Week	Crude Grade(s)	Reported Status	Outright / Diff. Price (\$/barrel)	Basis	Barrels	Seller	Buyer
Platts Amer	icas										
07/10/2023	August				Bakken Clearbrook	Heard	3.25	NYMEX WTI CMA			
07/10/2023	August				Bakken Patoka	Heard	2.45	NYMEX WTI CMA			
07/10/2023					Bakken Williston (DAPL)	Heard	1.45	NYMEX WTI CMA			
07/10/2023	August				C5 Fort Saskatchewan	Heard	-5.65	NYMEX WTI CMA			
07/10/2023	August				SGC (Southern Green Canyon)	Heard	1.50	Cash WTI			
07/10/2023					SGC (Southern Green Canyon)	Heard	1.50	Cash WTI			
07/10/2023	August				WTI MEH	Heard	1.85	Cash WTI			
07/10/2023	August				WTI Midland	Heard	1.65	Cash WTI			
Platts Asia											
7/10/2023	September				Dubai Partial	Done	78.29		25000	Reliance	Gunvor
7/10/2023	September				Dubai Partial	Done	78.27		25000	BP	Gunvor
7/10/2023	September				Dubai Partial	Done	78.25		25000	Trafigura	Equinor
7/10/2023	September				Dubai Partial	Done	78.2		25000	Petrochina	Equinor
7/10/2023	September				Dubai Partial	Done	78.29		25000	Trafigura	Gunvor
7/10/2023	September				Dubai Partial	Done	78.29		25000	Petrochina	Gunvor
7/10/2023	September				Dubai Partial	Done	78.3		25000	Trafigura	Equinor
7/10/2023	September				Dubai Partial	Done	78.25		25000	Petrochina	Gunvor
Platts EME	A										
07/10/2023	July/August	31	4		Brent CFD	Done	0.45	Cash BFOE Oct	100000	Petraco	Dare Global
07/10/2023	July/August	31	4		Brent CFD	Done	0.45	Cash BFOE Oct	100000	BP	Dare Global
07/10/2023	July/August	31	4		Brent CFD	Done	0.45	Cash BF0E Oct	100000	BP	Unipec
07/10/2023	July	17	21		Brent CFD	Done	0.25	Cash BFOE Sep	100000	Equinor	Unipec
07/10/2023	July/August	31	4		Brent CFD	Done	0.45	Cash BF0E Oct	100000	PetroChina	Dare Global
07/10/2023	July	24	28		Brent CFD	Done	0.25	Cash BFOE Sep	100000	DV Trading	ExxonMobil
7/10/2023	July/August	31	4		Brent CFD	Done	0.45	Cash BFOE Oct	100000	BP	Dare Global
07/10/2023	July	17	21		Brent CFD	Done	0.25	Cash BFOE Sep	100000	Equinor	Dare Global
07/10/2023	July	17	21		Brent CFD	Done	0.25	Cash BFOE Sep	100000	Equinor	PetroChina
07/10/2023	July	17	21		Brent CFD	Done	0.25	Cash BFOE Sep	100000	Equinor	Trafigura
07/10/2023	July	24	28		Brent CFD	Done	0.25	Cash BF0E Sep	100000	DV Trading	PetroChina
07/10/2023	July/August	31	4		Brent CFD	Done	0.45	Cash BF0E Oct	100000	BP	Dare Global
07/10/2023	July/August	31	4		Brent CFD	Done	0.45	Cash BF0E Oct	100000	Petraco	Dare Global
07/10/2023	September				Cash BFOE	Done	78.51		100000	Petrolneos	Gunvor
07/10/2023	September				Cash BFOE	Done	78.57		100000	Mercuria	Gunvor
07/10/2023	September				Cash BFOE	Done	78.52		100000	Mercuria	Gunvor
07/10/2023	September				Cash BFOE	Done	78.57		100000	Petrolneos	Gunvor
07/10/2023	September				Cash BFOE	Done	78.52		100000	Mercuria	Gunvor
07/10/2023	September				Cash BF0E	Done	78.57		100000	Petrolneos	Gunvor

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

Trades:

NORTH SEA: None

CASH BFOE: PLATTS CASH BFOE: SEP23: PETROINEOS SELLS TO MERCURIA* 100KB AT \$79.12 (15:29:57)

BRENT CFDS: PLATTS BRENT DIFF: JUL17-JUL21 (SEP): BP SELLS TO FREEPOINT* 100KB AT \$0.31 (15:28:46)

PLATTS BRENT DIFF: JUL17-JUL21 (SEP): BP SELLS TO PETROCHINA* 100KB AT \$0.31 (15:29:03)

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DV TRADING SELLS TO TRAFIGURA* 100KB AT \$0.30 (15:29:00)

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): DV TRADING SELLS TO EXXONMOBIL* 100KB AT \$0.30 (15:29:05)

PLATTS BRENT DIFF: JUL24-JUL28 (SEP): GLENCORE SELLS TO FREEPOINT* 100KB AT \$0.32 (15:29:58)

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): BP SELLS TO DV TRADING* 100KB AT \$0.47 (15:27:08)

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): BP SELLS TO ONYX* 100KB AT \$0.46 (15:27:46)

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): GLENCORE SELLS TO TRAFIGURA* 100KB AT \$0.45 (15:28:49)

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): GLENCORE SELLS TO DV TRADING* 100KB AT \$0.45 (15:28:51)

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): EQUINOR SELLS TO DARE* 100KB AT \$0.43 (15:29:39)

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): BP SELLS TO DARE* 100KB AT \$0.43 (15:29:49)

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): EQUINOR SELLS TO DARE* 100KB AT \$0.43 (15:29:52)

PLATTS BRENT DIFF: JUL31-AUG4 (OCT): DARE BUYS FROM BP* 100KB AT \$0.43 (15:29:55)

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 Dtd Strip <AJSVB00>

Platts WTI Midland Crude DAP Europe Assessment Rationale & Exclusions

WTI Crude DAP Europe <AWTICOO> assessment rationale: WTI DAP Rotterdam was assessed 15 cents/b higher between July 31 and Aug. 8, with a 0.5 cent/day contango structure rolled over back-end dates reflecting strength seen in delivered European sweet markets. There were no bids, offers or trades in the Platts Market on Close assessment process.

WTI Crude DAP Augusta AWTIA00 assessment rationale: WTI DAP Augusta was assessed higher owing to the increase in the DAP Rotterdam differential. There were no bids, offers or trades in the MOC.

Exclusions: None

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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 <AWTICOO> WTI Midland DAP basis Rotterdam vs Fwd Dated Brent <AWTIDOO> WTI Midland DAP basis Augusta <AWTIAOO> WTI Midland DAP basis Augusta vs Fwd Dated Brent <AWTIBOO>

Platts Mediterranean & Black Sea Sweet Crude Daily Commentary

- Azerbaijani June oil production down 0.3% from May, 3.5% on year
- Spain's Cepsa Q2 crude throughput declines 6% on year

Azerbaijan's oil production in June averaged 610,000 b/d, of which 500,000 b/d was crude oil and 110,000 b/d condensate, Azerbaijan's energy ministry announced July 11.

Overall June production was down marginally on the 612,000 b/d reported in May and 3.5% lower from June 2022, the data showed.

As a member of the OPEC+ group, Azerbaijan has obligations to limit its production, with a quota of 684,000 b/d until the end of 2023. However, the quotas apply only to crude oil, meaning recent production has been well below that level.

Platts assessed Azerbaijan's flagship crude blend, Azeri Light, at a \$4/b premium to North Sea benchmark Dated Brent on July 10. This is the highest value for the sweet grade since Jan. 23.

Azeri Light crude output from the BP-operated Azeri Chirag Deepwater Gunashli (ACG) complex has been declining since 2010, when it peaked at 835,000 b/d, while production of condensate from the BP-operated Shah Deniz gas field has been increasing steadily as gas production is ramped up to meet increased export commitments to Europe.

BP confirmed last month that its Azeri Chirag East platform currently being installed at the ACG field will begin producing up to 100,000 b/d of crude, plus associated gas, from early 2024.

In downstream news, Cepsa's 240,000 b/d San Roque and 220,000 b/d Huelva refineries reduced crude throughput 6% year on year in the second quarter to 5.1 million mt (about 409,000 b/d), it said in a note published on its website July 10. The volume was

up 9% from Q1 2023.

Refinery utilization was 91% in the quarter, down from 96% in the year-ago quarter but up from 84% in Q1.

Cepsa previously said it would carry out individual unit and distillation unit shutdowns in Q1 and Q3 2023 at both Huelva and Algeciras with a limited impact on base oil production.

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Platts NWE and Med Urals Sour Crude Daily Market Analysis

Russian seaborne crude exports fall 39%

Weekly Urals shipments to India plummet 50% Russian seaborne crude exports dropped further in the week ended July 7, according to S&P Global Commodities at Sea, the lowest volume of the year so far.

Total exports of all Russian crude grades fell to 2.477 million b/d, down a 39% or 1.584 million b/d week on week.

Reduced loadings of Urals exacerbated the drop in total Russian crude exports. Exports of Urals cargoes slid 638,000 b/d week on week to 1.541 million b/d, the lowest figure seen since the week ended March 17.

The lower volume of exports comes as Russia publicized voluntary export cuts. Last week, Russian Deputy Prime Minister Alexander Novak said Russia would voluntarily reduce its oil supply in August by 500,000 b/d by cutting its exports to global markets "by that quantity."

The 500,000 b/d export reduction is in addition to Russia's pledge to reduce production by 500,000 b/d beginning in March. June marked the first month that exports have dropped since Russia's initial commitment to trim production.

Traders have also told S&P Global Commodity Insights that higher domestic run rates in Russia have also left less crude supply available for export. Shipments to top Urals buyer India dropped 50%, or 852,600 b/d, week on week to 847,400 b/d. This is lowest volume of Urals sent to India since December. But despite the monthly reduction, Urals exports to India are still 217,100 b/d higher year on year, highlighting the flourishing partnership between Russia and India since Western markets shunned Russian oil.

Urals shipments to China also dropped, with weekly exports settling at 146,300 b/d, the lowest since the week ended March 31.

Urals' DAP West Coast India discount to Forward Dated Brent continues to shrink, reflecting increased demand. The differential settled at \$7.70/b on July 7 from \$9.60/b June 30, according to S&P Global data.

S&P Global began monitoring the differential on Jan. 18 when it settled at \$19/b. An assessment for Russian Urals DAP India versus Dubai will launch Aug. 1.

Commodities at Sea data also showed that Kalamata, Greece, supplanted Yosu, South Korea, as the primary transshipment hub in June for the first time since February. More than 4 million barrels were rerouted in Greek waters compared with 3.62 million barrels near Yosu.

Transshipments near Ceuta, Spain, have halted since April following increased scrutiny from Spanish authorities.

Platts EMEA Urals and Med Brent Crude Daily Rationales & Exclusions

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

differentials steady.

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

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

Urals CIF Rdam <PCAFW00> assessment rationale: Urals CIF Rotterdam was assessed unchanged. There were no bids or offers in the MOC. The Urals CIF Rotterdam differential was assessed as a net forward to the Urals FOB Baltic assessment. The FOB differentials were assessed unchanged as shrinking Urals supplies stemming from OPEC+ output cuts and strong Indian and Chinese demand offsetting an embargoed European market held differentials steady.

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

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

Exclusions: None

Platts is part of S&P Global Commodity Insights

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

Bids: None Offers: None Trades: None

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

Platts West African Crude Daily Commentary

- Nigerian offers begin to soften as trading remains sluggish
- Frequent WAF buyer Pertamina seeks crude for Sept delivery

In the West African crude market July 11, traders said high offered levels, stunting trading activity, had started to soften though not to levels that would catalyze further movements in the immediate term.

While the WAF market has seen FOB differentials move up on increased demand for sweet crudes in Europe and Asia, trading has slowed with market participants noting that few stems had moved in recent days.

"There's been a lot of hype [in West Africa], but nothing is moving today with crazy high offers," one trader said. "People are switching to other markets it seems."

As a result, sellers have started to soften their offers for West African crude in an attempt to keep barrels moving at more elevated levels than those through much of 2023.

Nigerian grade Qua Iboe, heard recently offered at around a \$3/b premium to Dated Brent, was now seeing offers at around a \$2.60/b premium to the benchmark, the trader said.

On July 10, a second WAF trader said that for barrels to start moving again, offers would only need to come off by between 20-30 cents/b, adding: "Freight and structure are good, and margins remain pretty decent."

Indonesia's Pertamina has invited offers for crude scheduled for delivery in September. A wide variety of WAF crude grades were included on the tender, due to close July 12, with cargo sizes varying between 600,000 and 950,000 barrels.

The company awarded two cargoes of WAF crude in their previous tender which closed July 3, one each of Nigerian Okwuibome and Angolan Cabinda, according to market sources.

In other news, a Cameroon-bound vessel carrying crude oil stolen from wells in the western part of the Niger Delta region had been seized, state-owned Nigerian National Petroleum Company said late July 10.

NNPC said its private security firm, Messrs. Tantita Security Services, had intercepted the vessel, owned by a Nigeria-registered maritime company and capable of carrying 800,000 liters (about 5,000 barrels) of crude, three days earlier.

"Preliminary investigations revealed that the crude oil cargo on board was illegally sourced from a well jacket offshore Ondo State, Nigeria. There was no valid documentation for the vessel or the crude oil cargo on board at the time of the arrest," the NNPC said.

The company added that government agencies had decided to destroy the vessel to send "a strong warning and deterrent" to other oil thieves.

Platts West African Crude Daily Rationale & Exclusions

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

Qua Iboe FOB Nigeria < PCAID00>

Bonny Light FOB Nigeria London < PCAICOO>

Forcados FOB Nigeria < PCABCOO>

Bonga FOB Nigeria <PCNGC00>

Exclusions: None

Platts is part of S&P Global Commodity Insights

Platts West African Crude Bids, Offers, Trades

Bids: None Offers: None Trades: None

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

Platts US Pipeline Crude Daily Commentary

- Most USGC grades move weaker on day, including Mars crude
- OPEC+ group see's output shortfall of 1.1 million b/d in June to quotas: survey

Most crude grades on the US Gulf Coast were assessed weaker on July 11, however, differentials for sour grades remain elevated amid a tight global sours market, rising Middle East official selling prices and upcoming Department of Energy strategic petroleum reserve buybacks.

Platts assessed medium sour crude Mars 20 cents/b weaker on July 11 at a \$1.75/b premium to cash WTI, the value at which the grade was last heard to trade. While down on the day, values for the grade remain well supported relative to earlier in 2023 amid general tightness in the global sour crude market as well as upcoming DOE SPR repurchases. Saudi Arabia announced last week that they would extend their voluntary 1 million b/d production cuts through August

while Russia said they would decrease crude exports by 500,000 b/d. This is on top of 3.66 million b/d of collective OPEC+ quota reductions implemented since October 2022 and are in place through 2023. Not only has OPEC+ kept production quotas lower in 2023, but according to the most recent Platts survey of OPEC+ production figures, the producer alliance had an output shortfall of 1.1 million b/d in June.

Furthermore, the DOE recently issues a solicitation for the purchase of 6 million barrels of US sour crude for delivery in October and November as part of the wider SPR refilling plan that also includes 140 million barrels of cancelled Congressionally mandated sales that were to occur from fiscal years 2024 through 2027. These factors, as well as higher OSPs from countries like Saudi Arabia and Iraq have provided support to sour grades.

Meanwhile, West Texas Intermediate crude at the Magellan East Houston terminal was assessed 10 cents/b weaker on July 11 at a \$1.75/b premium to cash WTI, the value at which the grade was last heard to trade.

Louisiana Sweet grades too moved weaker on July 11, with Light Louisiana Sweet crude assessed 20 cents/b down at a \$2.70/b premium to cash WTI, while Heavy Louisiana Sweet crude was assessed 25 cents/b weaker at a \$2.25/b premium, following the last heard trades for the grades at their respective levels.

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

Platts US Gulf Coast Export Crude Daily Commentary

- August-loading WTI FOB values assessed mostly weaker vs WTI MEH
- EIA sees US crude output at 12.56 million b/d in 2023, 12.85 million b/d in 2024

West Texas Intermediate crude cargoes loading in the month of August on an FOB basis were assessed slightly weaker July 11 against WTI crude at the Magellan East Houston terminal, as sources noted some softening in WTI FOB premiums to WTI MEH. August-loading WTI FOB cargoes in the US Gulf Coast were assessed at a 38 cents/b premium to WTI MEH on July 11, down 4 cents/b from the day prior. This comes as cargoes loading in the first decade of August, or the first ten days of the month, were assessed 5 cents/b weaker at a 40 cents/b premium to WTI MEH. Cargoes loading in the second decade of August were assessed unchanged at a 40 cents/b premium WTI MEH, and cargoes loading in the third decade of August were assessed 5 cents/b weaker at a 35 cents/b premium to WTI MEH.

Values for August-loading WTI FOB cargoes also edged weaker against October ICE Brent futures and forward Dated Brent.

Export economics for WTI crude into Europe have been supported through the start of July. The arbitrage incentive for WTI MEH crude into Rotterdam against local Forties has averaged \$1.18/b through the first 10 days of July, compared to an incentive of just 39 cents/b in June, data from S&P Global Commodity Insights showed.

US crude exports should find added benefit through 2023 and 2024 with rising crude oil production in the US. In the Short Term Energy Outlook released July 11, the US Energy Information Administration forecast US crude oil output to average 12.56 million b/d in 2023 before climbing to 12.85 million b/d in 2024.

Though 2023 is expected to see positive year-onyear output growth, the latest EIA forecast for supply growth in 2023 compared to 2022 is down around 50,000 b/d from the previous report.

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

Platts Canadian Pipeline Crude Daily Commentary

- Sweeter Canadian grades climb
- Asian oil demand sees support Syncrude Sweet Premium and Mixed Sweet both narrowed their discounts to the WTI CMA July 11 as global oil demand received support from Asia.

Platts assessed Syncrude Sweet Premium at Edmonton, Alberta, 50 cents/b stronger over the previous day at WTI CMA plus \$3.75/b, after it was heard to trade there. Mixed Sweet at Edmonton was assessed 45 cents/b stronger on the day at WTI CMA minus 75 cents/b, after it was heard to trade there.

Heavy Canadian crude at the US Gulf Coast weakened by 15 cents/b day on day, with Platts assessing it at WTI CMA minus \$2.20/b, based on market indications. Western Canadian Select at Hardisty, Alberta, held steady over the previous day, with Platts assessing it at WTI CMA minus \$11.50/b, based on market indications.

In other market news, the People's Bank of China has put forward a set of support policies for its real estate and construction sector. Because this sector is a large consumer of oil products, the bank's extension of credit is expected to encourage more construction, and, therefore, more oil demand.

Additional oil demand has also been coming from India, as the most recent provisional data from the Petroleum Planning and Analysis Cell of the oil ministry showed the country's demand has risen 5.7% over the previous year to 5.1 million b/d during the first half of 2023.

Platts is part of S&P Global Commodity Insights.

Platts Latin American Crude Daily Commentary

- Latin crude values gain on Chinese stimulus optimism
- Venezuelan production as part of Chevron joint venture to increase

Latin American crude differentials ended mostly unchanged July 11, while outright values gained as traders turned their focus to the prospect of a Chinese economic stimulus.

With NYMEX front-month crude settling up \$1.84/b

to \$74.83/b and ICE front-month Brent settling at \$79.40/b, up \$1.71, outright Latin crude values gained across the board. Analysts cited news of the People's Bank of China extending support policies for the country's property sector as one factor leading to optimism that China's demand for transportation fuels will continue to recover.

Platts assessed Brazil's Tupi, which is primarily exported to China, at a premium of 68 cents/b to Dated Brent, unchanged day on day. The outright price for Tupi gained \$1.65/b to \$79.90/b.

In other regional news, planned production at joint ventures between Venezuela's state PDVSA and the US' Chevron has grown to 131,000 b/d in July, up 29.7% from 101,000 b/d in January, according to an internal technical report reviewed by S&P Global Commodity Insights.

Chevron and PDVSA have four joint ventures in Venezuela: Petroboscan, Petroindependiente, Petropiar and Petroindependencia.

Platts is part of S&P Global Commodity Insights.

Subscriber Notes

Platts extends feedback period on proposal to amend Canadian Condensate methodology

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

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

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

Platts understands that there are many streams of

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

Please send all questions and comments to oilgroup@spglobal.com and pricegroup@spglobal.com by July 21.

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

Platts 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 BF0E 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 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-plattsto-exclude-russian-origin-cargoes-from-cpc-blendassessments-amend-fob-netback-calculations

Please send all feedback, comments or questions to europe_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 europe_crude@spglobal.com and pricegroup@spglobal.com.

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

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

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

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

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

Please send all feedback, comments or questions to europe_crude@spglobal.com and pricegroup@spglobal.com.

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

Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts reminds subscribers of Middle East crude cargo nomination procedures, laycans

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

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

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

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

This is to avoid slippage risk — the risk that endmonth 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 <u>Asia_crude@platts.com</u> and <u>pricegroup@platts.com</u>.

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 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 Bundua
- -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 <u>Platts_Carbon@spglobal.com</u> 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 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/methodologyspecifications/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.

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 europe_crude@spglobal.com and pricegroup@spglobal.com.

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

Platts will consider all comments received and will make comments not marked as confidential available to the public upon request.

Platts launches WTI Midland FOB USGC assessments by monthly decade basis

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

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

TIMING AND BASIS

The prices reflect values for cargoes loaded within three segments of each calendar month: first decade: 1-10 of a month; second decade: 11-20 of a month; and third decade: 21-end of the month. The assessment month aligns with the US Gulf Coast pipeline schedule and rolls to the new months assessment the first business day following the 25th of each month. For

example, from Jan. 26 to Feb. 25 the prompt month for US domestic pipeline barrels is March. During this time Platts would be publishing values for the first, second and third decades of March loadings, and they would be published against the March WTI MEH pipeline assessment and the March Dated Brent basis. On Feb. 26, the prompt month for US domestic pipeline barrels shifts to April, and Platts assessments would roll to publishing first, second and third decades for April loadings against the April WTI MEH pipeline assessment and the April Dated Brent basis. The Dated Brent basis is formed using the relevant underlying prompt-month ICE Brent futures settle at the US close with the relevant Platts assessment of the Brent DFL financial differential at the time of loading. Dated Brent-related differentials reflect values relative to the value of Dated Brent that prevails at the time of loading. For example, on Feb. 1 Platts would be publishing the first, second and third decade assessments for March. The prompt ICE Brent futures contract for March loadings would be May, so the Dated Brent basis would be formed using the May ICE Brent settle with the March DFL differential. The ICE Brent basis reflects the value of the relevant contract month price of ICE Brent futures settles at the US close.

Specifications

The new assessments of WTI FOB values by domestic pipeline trade-month decades reflects the established specifications from the Platts WTI Midland FOB USGC assessment. The assessments, therefore, reflect the value for an Aframax cargo of Platts WTI Midland-spec crude on an FOB basis loading from locations along the US Gulf Coast, including Corpus Christi, Texas City, Houston, Beaumont, Nederland, and Port Arthur. The most competitive location, on a cargosize normalized adjusted basis, will inform the value for the WTI FOB USGC assessment. The assessments reflect a typical volume of 700,000 barrels. Bids, offers,

and trades that are smaller or larger than the cargo-size typical may be normalized to reflect the freight economics of the typical cargo size using that day's US to UK Aframax freight assessment (Platts symbol: TDUCF00). The assessments reflect WTI Midland crude supplied directly from the Permian Basin on one or more of the following designated pipelines: BridgeTex, Longhorn, Midland-to-Echo I/ II, Cactus I/II/III, EPIC, Gray Oak, Permian Express, and Wink-to-Webster.

Crude reflected in this assessment must meet Platts' comprehensive, globally-accepted WTI

Midland specifications, which can be found here: https://www.spglobal.com/commodityinsights/en/our-methodology/subscriber-notes/080320-platts-to-implement-comprehensive-platts-wti-midland-specifications.

Additionally, the assessments reflect value loading from terminals that have been approved by Platts for loading WTI Midland crude oil into its Dated Brent and Cash BFOE Market on Close assessment process. Loadings from non-approved terminals may be considered in the assessment, but normalized if

appropriate.

Platts will continue to assess WTI Midland FOB USGC loading 15-to-45-days forward on an FOB basis. Please send any feedback or questions to americas_crude@spglobal.com and pricegroup@spglobal.com. For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Commodity Insights Analytics US Yields & Netbacks Effective July 11, 2023 (\$/barrel)

US Gulf Coast (PGA page 0833)

	Crack	Yield	Freig	ght	Crack Ne	etback	Crude	Price	Crack Margin		
Agbami	AGGCY00	93.31	AGGFA00	2.82	AGGCN00	90.48	AAQZB00	77.59	AGGCM00	12.08	
Arab Berri	BEGCY00	92.85	TDDAC00	1.32	BEGCN00	91.53	AAXCT00	85.88	BEGCM00	5.65	
Arab Heavy	AHGCY00	84.97	TDDAJ00	1.39	AHGCN00	83.59	AAXDI00	83.98	AHGCM00	-0.39	
Arab Light	LIGCY00	90.39	TDDAR00	1.35	LIGCN00	89.04	AAXCU00	83.73	LIGCM00	5.31	
Arab Medium	MEGCY00	86.63	TDDAZ00	1.35	MEGCN00	85.28	AAXDN00	84.43	MEGCM00	0.85	
Bakken	BKGCY00	93.16	TDDRP00	7.78	BKGCN00	85.38	AAXPP00	76.13	BKGCM00	9.25	
Basrah Medium	BLGCY00	84.76	TDDBS00	2.40	BLGCN00	82.36	BSMAM01	78.40	BLGCM00	6.24	
Bonny Light	YLGCY00	95.55	TDDBX00	3.08	YLGCN00	92.47	PCAIC00	80.39	YLGCM00	11.26	
Brent	BRGCY00	92.62	TDDCB00	2.74	BRGCN00	89.88	AAVJA00	79.63	BRGCM00	9.44	
Cabinda	CBGCY00	90.97	TDDCF00	3.33	CBGCN00	87.65	PCAFD00	80.69	CBGCM00	6.14	
Eagle Ford	EAGCY00	93.82					AAYAT00	76.07	EAGCM00	17.75	
Escalante	ECGCY00	86.51	TDDCV00	4.53	ECGCN00	81.99	PCAGC00	77.05	ECGCM00	4.40	
Forties	FTGCY00	92.25	FTGFA00	2.58	FTGCN00	89.68	PCADJ00	79.55	FTGCM00	9.31	
Isthmus	ISGCY00	91.11	TDDDJ00	1.26	ISGCN00	89.85	PDAT009	72.12	ISGCM00	17.73	
LLS	LLGCY00	94.99	TDDQW00	0.55	LLGCN00	94.44	PCABN00	77.53	LLGCM00	16.91	
Marlim	MLGCY00	88.70	TDDGK00	3.50	MLGCN00	85.20	AAITF00	75.30	MLGCM00	9.36	
Mars	MRGCY00	88.32	TDDQY00	0.55	MRGCN00	87.77	AAMBR00	76.58	MRGCM00	11.19	
Maya	MYGCY00	76.91	TDDDP00	1.31	MYGCN00	75.60	PDATS09	68.92	MYGCM00	6.68	
Mesa	MSGCY00	88.88	TDDDV00	2.14	MSGCN00	86.74	AAITB00	76.55	MSGCM00	10.19	
Olmeca	OLGCY00	93.30	TDDDY00	1.27	OLGCN00	92.03	PDATT09	72.37	OLGCM00	19.66	
Poseidon	PDGCY00	89.06	PDGFA00	0.00	PDGCN00	89.06	AABHK00	76.13	PDGCM00	12.93	
Saharan Blend	SHGCY00	93.55	TDDRD00	1.95	SHGCN00	91.60	AAGZY00	79.78	SHGCM00	11.01	
Syncrude	SYGCY00	95.55	SYGFA00	8.52	SYGCN00	87.03	AASOK00	78.38	SYGCM00	8.65	
Urals	URGCY00	89.80	TDDFM00	2.91	URGCN00	86.89	AAWVH00	60.32	URGCM00	25.75	

US Gulf Coast (PGA page 0841)

	Coke '	Yield	Freig	ght	Coke Ne	tback	Crude	Price	Coke Margin	
Arab Heavy	AHGOY00	89.40	TDDAJ00	1.39	AHGON00	88.02	AAXDI00	83.98	AHGOM00	4.04
Arab Light	LIGOY00	92.48	TDDAR00	1.35	LIGON00	91.13	AAXCU00	83.73	LIGOM00	7.40
Arab Medium	MEGOY00	88.92	TDDAZ00	1.35	MEGON00	87.57	AAXDN00	84.43	MEGOM00	3.14
Basrah Heavy	BHGOY00	86.02	BHGFA00	2.51	BHGON00	83.52	AALZC00	75.40	BHGOM00	11.85
Basrah Medium	BLGOY00	88.34	TDDBS00	2.40	BLGON00	85.94	BSMAM01	78.40	BLGOM00	9.82
Cabinda	CBGOY00	91.45	TDDCF00	3.33	CBGON00	88.13	PCAFD00	80.69	CBGOM00	6.62
Castilla Blend	CSG0Y00	85.67	CSGFA00	2.26	CSGON00	83.41	AAVEQ00	72.45	CSGOM00	10.96
LLS	LLG0Y00	95.13	TDDQW00	0.55	LLGON00	94.58	PCABN00	77.53	LLGOM00	17.05
Marlim	MLGOY00	89.77	TDDGK00	3.50	MLGON00	86.26	AAITF00	75.30	MLGOM00	10.42
Mars	MRGOY00	90.91	TDDQY00	0.55	MRGON00	90.36	AAMBR00	76.58	MRGOM00	13.78
Maya	MYGOY00	86.57	TDDDP00	1.31	MYGON00	85.26	PDATS09	68.92	MYGOM00	16.34
Napo	NPGOY00	83.97	NPGFA00	3.70	NPGON00	80.27	AAMCA00	68.13	NPGOM00	11.19
Oriente	ORGOY00	89.25	ORGFA00	3.50	ORGON00	85.75	PCADE00	70.13	ORGOM00	14.73
Urals	URGOY00	91.54	TDDFM00	2.91	URGON00	88.63	AAWVH00	60.32	URGOM00	27.49
Vasconia	VCG0Y00	92.58	VCGFA00	2.20	VCGON00	90.38	PCAGI00	74.95	VCGOM00	15.43
WCS ex-Hardisty	WHGOY00	87.59	TDDRS00	8.50	WHGON00	79.09	AAPPN00	63.13	WHGOM00	15.96
WCS ex-Nederland	WNGOY00	87.59	WCGFA00	0.00	WNGON00	87.59	AAYAY00	72.43	WNGOM00	15.16
WTS	WSG0Y00	93.43	TDDRJ00	6.89	WSGON00	86.54	PCACK00	76.13	WSGOM00	10.41

WSGCY00 90.79 TDDRJ00 6.89 WSGCN00 83.90 PCACK00 76.13 WSGCM00 7.77

AAYRG00 76.58 WTGCM00 16.42

WTGCY00 93.00

WTI

WTS

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

US Midwest (PGA page 0823)

	Crack	Crack Yield		ght	Crack Netback		Crude	Crude Price		largin
Bakken	BKTCY00	85.61	TDDR000	1.68	BKTCN00	83.93	AASRU00	77.88	BKTCM00	6.05
Syncrude	SYTCY00	85.09	TDDFP00	8.20	SYTCN00	76.89	AASOK00	78.38	SYTCM00	-1.49
WTI	WTTCY00	85.85	TDDRG00	2.39	WTTCN00	83.46	PCACG00	74.83	WTTCM00	8.63
WTS	WSTCY00	85.60	TDDRI00	3.08	WSTCN00	82.52	PCACK00	76.13	WSTCM00	6.39

	Coke Y	Coke Yield		Freight		Coke Netback		Crude Price		Coke Margin	
WCS	WCTOY00	80.67	TDDRL00	8.56	WCTON00	72.11	AAPPN00	63.13	WCTOM00	8.98	
WTS	WSTOY00	85.77	TDDRI00	3.08	WSTON00	82.69	PCACK00	76.13	WSTOM00	6.56	

US West Coast (PGA page 0843)

	Crack Yield	Freight	Crack Netback	Crude Price	Crack Margin
ANS	ANWCY00 108.32			PCAAD00 81.05	ANWCM00 27.27
Bakken	BKWCY00 113.86	TDDRT00 11.74	BKWCN00 102.12	AAXPP00 76.13	BKWCM00 25.99

US West Coast (PGA page 0841)

US Midwest (PGA page 0821)

	Coke Yield	Freight	Coke Netback	Crude Price	Coke Margin
ANS	ANWOY00 109.73			PCAAD00 81.05	ANWOM00 28.68
Arab Light	LIWOY00 111.67	TDDAT00 1.35	LIWON00 110.32	AAXCU00 83.73	LIWOM00 26.59
Arab Medium	MEWOY00 106.92	TDDBB00 1.35	MEWON00 105.56	AAXDN00 84.43	MEWOM00 21.13
Basrah Heavy	вниоу00 106.88	BHWFA00 2.69	BHWON00 104.19	AALZC00 75.40	вншомою 33.06
Basrah Medium	BLW0Y00 108.36	TDDBW00 2.57	BLWON00 105.78	BSMAM01 78.40	BLWOM00 30.20
Castilla Blend	CSWOY00 110.55	CSWFA00 5.39	CSWON00 105.17	AAVEQ00 72.45	CSWOM00 31.76
Maya	MYWOY00 106.10	MYWFA00 3.16	MYWON00 102.94	AAUPK00 69.52	MYWOM00 33.42
Napo	NPW0Y00 105.02	NPWFA00 4.56	NPWON00 100.46	AAMCA00 68.13	NPWOM00 31.38
Oriente	ORWOY00 109.31	TDDEC00 4.31	ORWON00 105.01	PCADE00 70.13	ORWOM00 33.98
Vasconia	VCW0Y00 117.33	VCWFA00 5.20	VCWON00 112.13	PCAGI00 74.95	VCWOM00 36.26

US Atlantic Coast (PGA page 0811)

	Crack Yield		Freight		Crack Ne	tback	Crude	Price	Crack M	largin
Agbami	AGACY00	97.69	AGAFA00	2.53	AGACN00	95.16	AAQZB00	77.59	AGACM00	16.75
Arab Light	LIACY00	92.38	TDDAU00	1.35	LIACN00	91.03	AAXCU00	83.73	LIACM00	7.30
Bakken	BKACY00	98.68	TDDRN00	7.20	BKACN00	91.48	AAXPP00	76.13	BKACM00	15.35
Bonny Light	YLACY00	98.18	TDDBZ00	2.77	YLACN00	95.41	PCAIC00	80.39	YLACM00	14.20
Brent	BRACY00	95.53	TDDCC00	2.51	BRACN00	93.02	AAVJA00	79.63	BRACM00	13.11
Cabinda	CBACY00	94.60	TDDCH00	3.02	CBACN00	91.59	PCAFD00	80.69	CBACM00	10.08
CPC Blend	CPACY00	97.98	CPAFA00	3.19	CPACN00	94.79	AALVX00	75.08	CPACM00	19.43
Forties	FTACY00	98.09	FTAFA00	2.41	FTACN00	95.67	PCADJ00	79.55	FTACM00	15.85
Saharan Blend	SHACY00	98.77	SHAFA00	1.64	SHACN00	97.13	AAGZY00	79.78	SHACM00	16.54
Urals	URACY00	91.79	URAFA00	2.24	URACN00	89.54	AAWVH00	60.32	URACM00	28.41

Commodity Insights Analytics European Yields & Netbacks Effective July 11, 2023 (\$/barrel)

Northwest Europe (PGA page 1811)

PGA page 181	1)								
Crack	Yield	Freig	ght	Crack Ne	tback	Crude I	Price	Crack M	largin
AGNCY00	94.64	AGNFA00	2.30	AGNCN00	92.34	AAQZB00	77.59	AGNCM00	14.75
BENCY00	94.04	BENFA00	1.32	BENCN00	92.72	AAXDU00	83.00	BENCM00	9.72
AHNCY00	85.67	TDDAN00	1.39	AHNCN00	84.28	AAXDH00	79.50	AHNCM00	4.78
LINCY00	91.49	TDDAV00	1.35	LINCN00	90.14	AAXDK00	82.40	LINCM00	7.74
MENCY00	87.76	TDDBD00	1.37	MENCN00	86.39	AAXDM00	81.90	MENCM00	4.49
ZLNCY00	95.38	TDDBI00	2.16	ZLNCN00	93.23	AATHM00	80.88	ZLNCM00	11.17
BLNCY00	86.43	TDDBU00	2.18	BLNCN00	84.25	BSMAM01	78.40	BLNCM00	8.42
YLNCY00	96.25	YLNFA00	2.52	YLNCN00	93.74	PCAIC00	80.39	YLNCM00	13.35
BRNCY00	93.70	TDDCD00	2.13	BRNCN00	91.57	AAVJA00	79.63	BRNCM00	11.94
CBNCY00	91.22	TDDQR00	2.76	CBNCN00	88.46	PCAFD00	80.69	CBNCM00	7.77
CPNCY00	94.49	CPNFA00	2.84	CPNCN00	91.65	AALVX00	75.08	CPNCM00	16.57
DBNCY00	91.09	DBNFA00	2.14	DBNCN00	88.95	PCAAT00	78.80	DBNCM00	8.67
EANCY00	94.28	EANFA00	4.36	EANCN00	89.92	AAYAT00	76.07	EANCM00	14.13
EKNCY00	94.31	TDDCT00	1.42	EKNCN00	92.90	PCADI00	80.96	EKNCM00	11.94
FTNCY00	93.88	TDDEZ00	1.64	FTNCN00	92.24	PCADJ00	79.55	FTNCM00	12.69
BHNCY00	90.37	TDDDG00	2.26	BHNCN00	88.12	AIHKA00	77.87	BHNCM00	9.59
JSNCY00	92.26	JSNFA00	1.74	JSNCN00	90.52	AJSVA00	80.95	JSNCM00	9.57
KRNCY00	90.73	TDDGH00	2.77	KRNCN00	87.95	AAEJD00	77.02	KRNCM00	8.72
LLNCY00	97.11	LLNFA00	4.55	LLNCN00	92.56	AAQBB00	77.28	LLNCM00	15.31
MYNCY00	80.69	MYNFA00	4.69	MYNCN00	76.00	AAYXE00	68.25	MYNCM00	7.75
OMNCY00	90.53	OMNFA00	2.11	OMNCN00	88.43	PCABS00	78.80	OMNCM00	8.16
SHNCY00	96.04	TDDGI00	1.78	SHNCN00	94.26	AAGZY00	79.78	SHNCM00	14.48
URNCY00	92.40					PCAFW00	62.56	URNCM00	29.84
	Crack AGNCY00 BENCY00 AHNCY00 LINCY00 MENCY00 ZLNCY00 BLNCY00 CRNCY00 CRNCY00 CRNCY00 EANCY00 EANCY00 EXNCY00 EXNCY00 EXNCY00 CPNCY00 CPNCY00 CPNCY00 CPNCY00 CPNCY00 CPNCY00 CPNCY00 CPNCY00 CNCY00 CNCY00 SHNCY00 SHNCY00 SHNCY00	BENCY00 94.04 AHNCY00 85.67 LINCY00 91.49 MENCY00 95.38 BLNCY00 96.25 BRNCY00 93.70 CBNCY00 91.22 CPNCY00 94.49 DBNCY00 94.28 EKNCY00 94.31 FTNCY00 93.88 BHNCY00 90.37 JSNCY00 92.26 KRNCY00 97.11 MYNCY00 80.69 OMNCY00 90.53 SHNCY00 96.04	Crack Yield AGNCY00 94.64 AGNFA00 BENCY00 94.04 BENFA00 AHNCY00 85.67 TDDAN00 LINCY00 91.49 TDDAV00 MENCY00 95.38 TDDB100 BLNCY00 96.25 YLNFA00 BRNCY00 93.70 TDDCD00 CBNCY00 91.22 TDDQR00 CPNCY00 94.49 CPNFA00 DBNCY00 91.09 DBNFA00 EANCY00 94.28 EANFA00 EKNCY00 94.31 TDDCT00 FTNCY00 94.31 TDDCT00 FTNCY00 93.88 TDDEZ00 BHNCY00 90.37 TDDDG00 KRNCY00 90.37 TDDDG00 KRNCY00 90.37 TDDDG00 KRNCY00 97.11 LLNFA00 MYNCY00 80.69 MYNFA00 OMNCY00 90.53 OMNFA00 SHNCY00 96.04 TDDG100	Crack Yield Freight AGNCY00 94.64 AGNFA00 2.30 BENCY00 94.04 BENFA00 1.32 AHNCY00 85.67 TDDAN00 1.35 LINCY00 91.49 TDDAN00 1.35 MENCY00 87.76 TDDBD00 1.37 ZLNCY00 95.38 TDDBD00 2.18 YLNCY00 96.25 YLNFA00 2.52 BRNCY00 93.70 TDDC00 2.13 CBNCY00 91.22 TDDQR00 2.76 CPNCY00 94.49 CPNFA00 2.84 DBNCY00 91.09 DBNFA00 2.14 EANCY00 94.28 EANFA00 4.36 EKNCY00 94.31 TDDCT00 1.42 FTNCY00 93.88 TDDEZ00 1.64 BHNCY00 90.37 TDDG00 2.26 JSNCY00 92.26 JSNFA00 1.74 KRNCY00 90.73 TDDGH00 2.77 LLNCY00	Crack Yield Freight Crack Ne AGNCY00 94.64 AGNFA00 2.30 AGNCN00 BENCY00 94.04 BENFA00 1.32 BENCN00 AHNCY00 85.67 TDDAN00 1.39 AHNCN00 LINCY00 91.49 TDDAV00 1.35 LINCN00 MENCY00 87.76 TDDBD00 1.37 MENCN00 ZLNCY00 95.38 TDDB100 2.16 ZLNCN00 BLNCY00 86.43 TDDB100 2.18 BLNCN00 YLNCY00 96.25 YLNFA00 2.52 YLNCN00 BRNCY00 93.70 TDDCD00 2.13 BRNCN00 CBNCY00 91.22 TDDQR00 2.76 CBNCN00 CPNCY00 94.49 CPNFA00 2.84 CPNCN00 DBNCY00 91.09 DBNFA00 2.14 DBNCN00 EANCY00 94.28 EANFA00 4.36 EANCN00 EKNCY00 94.31 TDDCT00 1.42 EKNCN00 <td>Crack Yield Freight Crack Netback AGNCY00 94.64 AGNFA00 2.30 AGNCN00 92.34 BENCY00 94.04 BENFA00 1.32 BENCN00 92.72 AHNCY00 85.67 TDDAN00 1.35 LINCN00 90.14 MENCY00 87.76 TDDBD00 1.37 MENCN00 86.39 ZLNCY00 95.38 TDDB100 2.16 ZLNCN00 93.23 BLNCY00 86.43 TDDB100 2.18 BLNCN00 84.25 YLNCY00 93.70 TDDCD00 2.13 BRNCN00 91.57 CBNCY00 91.22 TDDQR00 2.76 CBNCN00 91.57 CBNCY00 91.22 TDDQR00 2.76 CBNCN00 91.65 DBNCY00 91.22 TDDQR00 2.76 CBNCN00 88.46 CPNCY00 94.49 CPNFA00 2.84 CPNCN00 91.65 DBNCY00 91.09 DBNFA00 2.14 DBNCN00 88.95 <</td> <td>Crack Yield Freight Crack Netback Crude AAQCY00 ABNCY00 94.64 AGNFA00 2.30 AGNCN00 92.34 AAQZB00 BENCY00 94.04 BENFA00 1.32 BENCN00 92.72 AAXDU00 AHNCY00 85.67 TDDAN00 1.39 AHNCN00 84.28 AAXDH00 LINCY00 91.49 TDDAV00 1.35 LINCN00 90.14 AAXDK00 MENCY00 87.76 TDDBD00 1.37 MENCN00 86.39 AAXDM00 ZLNCY00 95.38 TDDB100 2.16 ZLNCN00 93.23 AATHM00 BLNCY00 96.43 TDDB100 2.16 ZLNCN00 93.74 PCAIC00 BRNCY00 96.25 YLNFA00 2.52 YLNCN00 93.74 PCAIC00 BRNCY00 91.22 TDDQR00 2.13 BRNCN00 91.57 AAVJA00 CBNCY00 91.22 TDDQR00 2.76 CBNCN00 91.65 AALVX00 DBNCY00</td> <td>Crack Yield Freight Crack Netback Crude Price AGNCY00 94.64 AGNFA00 2.30 AGNCN00 92.34 AAQZB00 77.59 BENCY00 94.04 BENFA00 1.32 BENCN00 92.72 AAXDU00 83.00 AHNCY00 85.67 TDDAN00 1.39 AHNCN00 84.28 AAXDH00 79.50 LINCY00 91.49 TDDAV00 1.35 LINCN00 90.14 AAXDK00 82.40 MENCY00 87.76 TDDBD00 1.37 MENCN00 86.39 AAXDM00 81.90 ZLNCY00 95.38 TDDB100 2.16 ZLNCN00 93.23 AATHM00 80.89 BLNCY00 96.25 YLNFA00 2.52 YLNCN00 93.74 PCAIC00 80.39 BRNCY00 91.22 TDDQR00 2.13 BRNCN00 91.57 AAVJA00 79.63 CBNCY00 91.22 TDDQR00 2.76 CBNCN00 88.46 PCAFD00 80.69 <td< td=""><td>Crack Yield Freight Crack Netback Crude Price Crack Network AGNCY00 94.64 AGNFA00 2.30 AGNCN00 92.34 AAQZB00 77.59 AGNCM00 BENCY00 94.04 BENFA00 1.32 BENCN00 92.72 AAXDU00 83.00 BENCM00 AHNCY00 85.67 TDDAN00 1.39 AHNCN00 84.28 AAXDH00 79.50 AHNCM00 LINCY00 91.49 TDDAV00 1.35 LINCN00 90.14 AAXDK00 82.40 LINCM00 MENCY00 87.76 TDDBD00 1.37 MENCN00 86.39 AAXDM00 81.90 MENCM00 ZLNCY00 95.38 TDDB100 2.16 ZLNCN00 93.23 AATHM00 80.88 ZLNCM00 BLNCY00 96.25 YLNFA00 2.52 YLNCN00 93.74 PCAIC00 80.39 YLNCM00 BRNCY00 91.22 TDDQR00 2.76 CBNCN00 91.57 AAVJA00 79.63 BRNCM00</td></td<></td>	Crack Yield Freight Crack Netback AGNCY00 94.64 AGNFA00 2.30 AGNCN00 92.34 BENCY00 94.04 BENFA00 1.32 BENCN00 92.72 AHNCY00 85.67 TDDAN00 1.35 LINCN00 90.14 MENCY00 87.76 TDDBD00 1.37 MENCN00 86.39 ZLNCY00 95.38 TDDB100 2.16 ZLNCN00 93.23 BLNCY00 86.43 TDDB100 2.18 BLNCN00 84.25 YLNCY00 93.70 TDDCD00 2.13 BRNCN00 91.57 CBNCY00 91.22 TDDQR00 2.76 CBNCN00 91.57 CBNCY00 91.22 TDDQR00 2.76 CBNCN00 91.65 DBNCY00 91.22 TDDQR00 2.76 CBNCN00 88.46 CPNCY00 94.49 CPNFA00 2.84 CPNCN00 91.65 DBNCY00 91.09 DBNFA00 2.14 DBNCN00 88.95 <	Crack Yield Freight Crack Netback Crude AAQCY00 ABNCY00 94.64 AGNFA00 2.30 AGNCN00 92.34 AAQZB00 BENCY00 94.04 BENFA00 1.32 BENCN00 92.72 AAXDU00 AHNCY00 85.67 TDDAN00 1.39 AHNCN00 84.28 AAXDH00 LINCY00 91.49 TDDAV00 1.35 LINCN00 90.14 AAXDK00 MENCY00 87.76 TDDBD00 1.37 MENCN00 86.39 AAXDM00 ZLNCY00 95.38 TDDB100 2.16 ZLNCN00 93.23 AATHM00 BLNCY00 96.43 TDDB100 2.16 ZLNCN00 93.74 PCAIC00 BRNCY00 96.25 YLNFA00 2.52 YLNCN00 93.74 PCAIC00 BRNCY00 91.22 TDDQR00 2.13 BRNCN00 91.57 AAVJA00 CBNCY00 91.22 TDDQR00 2.76 CBNCN00 91.65 AALVX00 DBNCY00	Crack Yield Freight Crack Netback Crude Price AGNCY00 94.64 AGNFA00 2.30 AGNCN00 92.34 AAQZB00 77.59 BENCY00 94.04 BENFA00 1.32 BENCN00 92.72 AAXDU00 83.00 AHNCY00 85.67 TDDAN00 1.39 AHNCN00 84.28 AAXDH00 79.50 LINCY00 91.49 TDDAV00 1.35 LINCN00 90.14 AAXDK00 82.40 MENCY00 87.76 TDDBD00 1.37 MENCN00 86.39 AAXDM00 81.90 ZLNCY00 95.38 TDDB100 2.16 ZLNCN00 93.23 AATHM00 80.89 BLNCY00 96.25 YLNFA00 2.52 YLNCN00 93.74 PCAIC00 80.39 BRNCY00 91.22 TDDQR00 2.13 BRNCN00 91.57 AAVJA00 79.63 CBNCY00 91.22 TDDQR00 2.76 CBNCN00 88.46 PCAFD00 80.69 <td< td=""><td>Crack Yield Freight Crack Netback Crude Price Crack Network AGNCY00 94.64 AGNFA00 2.30 AGNCN00 92.34 AAQZB00 77.59 AGNCM00 BENCY00 94.04 BENFA00 1.32 BENCN00 92.72 AAXDU00 83.00 BENCM00 AHNCY00 85.67 TDDAN00 1.39 AHNCN00 84.28 AAXDH00 79.50 AHNCM00 LINCY00 91.49 TDDAV00 1.35 LINCN00 90.14 AAXDK00 82.40 LINCM00 MENCY00 87.76 TDDBD00 1.37 MENCN00 86.39 AAXDM00 81.90 MENCM00 ZLNCY00 95.38 TDDB100 2.16 ZLNCN00 93.23 AATHM00 80.88 ZLNCM00 BLNCY00 96.25 YLNFA00 2.52 YLNCN00 93.74 PCAIC00 80.39 YLNCM00 BRNCY00 91.22 TDDQR00 2.76 CBNCN00 91.57 AAVJA00 79.63 BRNCM00</td></td<>	Crack Yield Freight Crack Netback Crude Price Crack Network AGNCY00 94.64 AGNFA00 2.30 AGNCN00 92.34 AAQZB00 77.59 AGNCM00 BENCY00 94.04 BENFA00 1.32 BENCN00 92.72 AAXDU00 83.00 BENCM00 AHNCY00 85.67 TDDAN00 1.39 AHNCN00 84.28 AAXDH00 79.50 AHNCM00 LINCY00 91.49 TDDAV00 1.35 LINCN00 90.14 AAXDK00 82.40 LINCM00 MENCY00 87.76 TDDBD00 1.37 MENCN00 86.39 AAXDM00 81.90 MENCM00 ZLNCY00 95.38 TDDB100 2.16 ZLNCN00 93.23 AATHM00 80.88 ZLNCM00 BLNCY00 96.25 YLNFA00 2.52 YLNCN00 93.74 PCAIC00 80.39 YLNCM00 BRNCY00 91.22 TDDQR00 2.76 CBNCN00 91.57 AAVJA00 79.63 BRNCM00

Mediterranean (PGA page 1821)

	Crack	Yield	Freig	ght	Crack Ne	etback	Crude	Price	Crack N	largin
Agbami	AGMCY00	94.11	AGMFA00	2.24	AGMCN00	91.87	AAQZB00	77.59	AGMCM00	14.28
Arab Heavy	AHMCY00	87.30	TDDAI00	1.39	AHMCN00	85.91	AAXDH00	79.50	AHMCM00	7.16
Arab Light	LIMCY00	91.86	TDDAQ00	1.35	LIMCN00	90.51	AAXDK00	82.40	LIMCM00	8.56
Arab Medium	MEMCY00	88.60	TDDAY00	1.37	MEMCN00	87.23	AAXDM00	81.90	MEMCM00	5.58
Azeri Light*	ZLMCY00	95.21					AAGZX00	83.28	ZLMCM00	11.93
Basrah Medium	BLMCY00	87.51	TDDBR00	1.66	BLMCN00	85.84	BSMAM01	78.40	BLMCM00	10.01
Bonny Light	YLMCY00	95.95	YLMFA00	2.45	YLMCN00	93.49	PCAIC00	80.39	YLMCM00	13.10
Cabinda	CBMCY00	91.28	CBMFA00	2.69	CBMCN00	88.59	PCAFD00	80.69	CBMCM00	7.90
CPC Blend*	CPMCY00	93.80					AAGZU00	77.48	CPMCM00	16.32
Eagle Ford	EAMCY00	94.02	TNEIF00	4.76	EAMCN00	89.26	AAYAT00	76.07	EAMCM00	13.47
Forties	FTMCY00	93.65	FTMFA00	2.51	FTMCN00	91.14	PCADJ00	79.55	FTMCM00	11.59
Iran Heavy	BHMCY00	91.03	TDDDF00	1.63	BHMCN00	89.40	AIHKA00	77.87	ВНМСМ00	10.87
Johan Sverdrup	JSMCY00	92.50	JSMFA00	2.68	JSMCN00	89.82	AJSVA00	80.95	JSMCM00	8.87
Kirkuk	KRMCY00	91.09	TDDFF00	1.66	KRMCN00	89.43	AAEJD00	77.02	KRMCM00	10.20
LLS	LLMCY00	96.69	LLMFA00	5.00	LLMCN00	91.69	AAQBB00	77.28	LLMCM00	14.44
Oman	OMMCY00	91.36	OMMFA00	1.49	OMMCN00	89.87	PCABS00	78.80	OMMCM00	9.61
Saharan Blend	SHMCY00	94.97	TDDFG00	1.40	SHMCN00	93.57	AAGZY00	79.78	SHMCM00	13.80
Urals*	URMCY00	91.98					PCACE00	62.98	URMCM00	29.00

Platts Analytics Asian Yields & Netbacks Effective July 11, 2023 (\$/barrel)

WTNCY00 94.55 WTNFA00 4.43 WTNCN00 90.12 AAYRZ00 76.33 WTNCM00 13.82

Singapore (F	'GA pag	(e 2811)
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WTI MEH

	Crack	Yield	Freig	ght	Crack Ne	tback	Crude	Price	Crack N	1argin
Agbami	AGSCY00	85.13	AGSFA00	2.00	AGSCN00	83.13	AAQZB00	77.59	AGSCM00	6.35
Arab Berri	BESCY00	84.52	BESFA00	1.31	BESCN00	83.21	AAXDV00	81.35	BESCM00	1.86
Arab Heavy	AHSCY00	78.93	TDDA000	1.35	AHSCN00	77.57	AAXDG00	79.60	AHSCM00	-2.03
Arab Light	LISCY00	83.34	TDDAW00	1.34	LISCN00	82.00	AAXDJ00	81.80	LISCM00	0.20
Arab Medium	MESCY00	79.56	TDDBE00	1.35	MESCN00	78.21	AAXDL00	81.25	MESCM00	-3.04
Basrah Medium	BHSCY00	80.17	BHSFA00	1.35	BHSCN00	78.83	BSMAM01	78.40	BHSCM00	0.13
Bonny Light	YLSCY00	87.65	YLSFA00	2.15	YLSCN00	85.50	PCAIC00	80.39	YLSCM00	5.92
Cabinda	CBSCY00	85.50	TDDQS00	2.08	CBSCN00	83.42	PCAFD00	80.69	CBSCM00	3.54
Castilla	CSSCY00	74.88	CSSFA00	3.95	CSSCN00	70.94	AAVEQ00	72.45	CSSCM00	-0.42
Dalia	DLSCY00	87.60	DLSFA00	2.15	DLSCN00	85.44	AAQYX00	78.94	DLSCM00	7.31
Dubai	DBSCY00	83.43	TDDCQ00	1.27	DBSCN00	82.15	PCAAT00	78.80	DBSCM00	3.35
Duri	DRSCY00	85.11	TDDCR00	1.22	DRSCN00	83.89	PCABA00	81.04	DRSCM00	2.85
Eagle Ford	EASCY00	85.04	EASFA00	3.42	EASCN00	81.62	AAYAT00	76.07	EASCM00	6.64
ESP0	ESSCY00	85.39	ESSFA00	1.10	ESSCN00	84.29	AARWF00	70.01	ESSCM00	14.28

Singapore (PGA page 2811)

	Crack	Yield	Freig	ght	Crack Ne	tback	Crude	Price	Crack N	1argin
Forties	FTSCY00	83.80	TNEFD00	3.28	FTSCN00	80.52	PCADJ00	79.55	FTSCM00	1.79
Kimanis	KISCY00	93.42	KISFA00	1.11	KISCN00	92.30	AASCL00	85.54	KISCM00	6.76
LLS	LLSCY00	87.14	LLSFA00	3.57	LLSCN00	83.58	AAZDC00	76.58	LLSCM00	7.14
Mars	MRSCY00	82.19	MRSFA00	3.69	MRSCN00	78.50	AAMBR00	76.58	MRSCM00	3.01
Maya	MYSCY00	78.17	MYSFA00	3.87	MYSCN00	74.30	AAYXG00	71.25	MYSCM00	3.05
Minas	MNSCY00	86.29	TDDDX00	1.11	MNSCN00	85.17	PCAB000	73.33	MNSCM00	11.84
Oman	OMSCY00	81.07	TDDEB00	1.21	OMSCN00	79.86	PCABS00	78.80	OMSCM00	1.06
Qua lboe	QBSCY00	88.25	QBSFA00	2.15	QBSCN00	86.10	PCAID00	80.44	QBSCM00	6.47
Saharan Blend	SHSCY00	82.83	SHSFA00	2.36	SHSCN00	80.47	AAGZY00	79.78	SHSCM00	0.90
Tapis	TPSCY00	85.97	TDDE000	1.10	TPSCN00	84.87	PCACB00	81.64	TPSCM00	3.23
Tupi*	LUSCY00	85.36					LUQDA00	81.13	LUSCM00	4.76
Urals	URSCY00	83.32	URSFA00	2.42	URSCN00	80.90	AAGZS00	60.32	URSCM00	21.39
WTI MEH	WTSCY00	84.85	WTSFA00	3.48	WTSCN00	81.37	AAZDF00	75.53	WTSCM00	5.88

^{*}Indicates the crude price is a CIF value

^{*}Indicates the crude price is a CIF value



Crude Carbon Intensity

A daily supplement to Crude Oil Marketwire

Platts crude carbon intensity assessments - grades, July 11, 2023 (PGA/PCR page 4206)

	Daily Carbon Inter	nsity Premium	Mo	onthly Carbor	n Intensity*				
	Symbol	\$/b	Symbol	Date	kg CO2 eq/b				
North America (PGA/PCR pa	orth America (PGA/PCR page 4206)								
WTI Midland	WXTIC00	0.53	WXTIC40	May-23	37.85				
Europe (PGA/PCR page 4206)								
Brent	BXREC00	0.82	BXREC40	May-23	58.42				
Ekofisk	EXKOC00	0.33	EXK0C40	May-23	23.19				
Forties	FXORC00	0.33	FXORC40	May-23	23.21				
Oseberg	OXSEC00	1.25	OXSEC40	May-23	88.50				
Troll	TXROC00	3.81	TXROC40	May-23	269.85				

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

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

Platts crude carbon intensity assessments - fields, July 11, 2023 (PGA page 4200)

	Daily Carbon Inte	ensity Premium	Me	onthly Carbo	on Intensity*	Daily Transport Carbon	Intensity Pre	mium	Monthly	Transport Carbo	n Intensity**
	Symbol	\$/boe	Symbol	Date	kg CO2 eq/boe	Route	Symbol	\$/b	Symbol	Date	kg CO2 eq/b
Asia Pacific & Middle Eas	t Fields (PGA/PCR page 4	4201)									
China											
Bozhong	BOZHC00	0.44	BOZHC40	May-23	30.93	Bohai Pengbo-Singapore	BOZHC10	0.06	BOZHC50	May-23	4.24
India											
Bombay High	MUMBC00	0.37	MUMBC40	May-23	26.03	Bombay High-Qingdao	MUMBC10	0.10	MUMBC50	May-23	6.80
Iran											
Marun	MARUC00	0.51	MARUC40	May-23	36.10	Kharg Island-Qingdao	MARUC10	0.13	MARUC50	May-23	8.96
Iraq											
Kirkuk	KIRKC00	0.72	KIRKC40	May-23	50.90	Ceyhan-R'dam	KIRKC10	0.06	KIRKC50	May-23	4.55
Rumaila	RUMAC00	0.30	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	1.61	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	0.13	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

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

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	· ·	•	,		0 1		,	•	,		0 1
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 pa				., .						.,	
Angola	-0										
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				,		0				,	
Agbami	AGBAC00	0.37	AGBAC40	May-23	26.03	Agbami-Paradip	AGBAC10	0.15	AGBAC50	May-23	10.25
Bonga	BONGC00	0.17	BONGC40	May-23	12.35	Bonga-R'dam	BONGC10	0.09	BONGC50	May-23	6.20
		0.17	20110010	may 20	12.00	Donga rraam	50110010	0.00	50.10000	ay 20	0.2
Europe Fields (PGA/PCR	page 4202)										
Azerbaijan	.===	0.00		M 00	10.00	0 - 1 0 1		0.00		M 00	4.04
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	1.07	BRAGC40	May-23	76.15	Sture - Brofjorden	BRAGC10	0.01	BRAGC50	May-23	0.48
Edvard-Grieg	EDVAC00	0.06	EDVAC40	May-23	4.29	Edvard Grieg-Sarroch	EDVAC10	0.04	EDVAC50	May-23	2.97
Ekofisk	EKFSC00	0.39	EKFSC40	May-23	27.32	Teesside-R'dam	EKFSC10	0.01	EKFSC50	May-23	0.36
Embla	EMBLC00	0.08	EMBLC40	May-23	5.34	Teesside-R'dam	EMBLC10	0.01	EMBLC50	May-23	0.36
Fram	FRAMC00	0.35	FRAMC40	May-23	25.01	Mongstad-R'dam	FORTD10	0.01	FORTD50	May-23	0.84
Goliat	GOLIC00	0.03	GOLIC40	May-23	2.14	Goliat-R'dam	GOLIC10	0.02	GOLIC50	May-23	1.73
Grane	GRANC00	0.06	GRANC40	May-23	4.43	Sture-Immingham	GRANC10	0.01	GRANC50	May-23	0.63
Gullfaks	GULLC00	0.21	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	0.03	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	3.19	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	0.66	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	0.8
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	0.15	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	0.50
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		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	0.3
Judy	JUDYC00	0.37	JUDYC40	May-23	26.40	Teesside-R'dam	JUDYC10	0.01	JUDYC50	May-23	0.38
Kraken	KRAKC00	0.26	KRAKC40	May-23	18.55	Kraken-R'dam	KRAKC10	0.01	KRAKC50	May-23	0.80
Magnus	MAGNC00	0.17	MAGNC40	May-23	12.08	Sullom Voe-R'dam	MAGNC10	0.01	MAGNC50	May-23	0.8
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	1.99	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 4	4204)										
Bakken-Canada	BAKKC00	0.51	BAKKC40	May-23	35.88	Canada-USMW	BAKKC10	0.06	BAKKC50	May-23	3.91
Cold Lake	CDLKC00	1.17	CDLKC40	May-23	82.95	W Canada-USMW	CDLKC10	0.07	CDLKC50	May-23	4.86
CVE Christina Lake	CVECC00	0.62	CVECC40	May-23	44.29	Canada-USMW	CVECC10	0.07	CVECC50	May-23	4.86
Foster Creek	FOSTC00	0.83	F0STC40	May-23	58.69	Canada-USGC	FOSTC10	0.08	FOSTC50	May-23	5.69
Hebron	HEBRC00	0.14	HEBRC40	May-23	9.68	Hebron-Canada	HEBRC10	0.13	HEBRC50	May-23	8.89
Hibernia	HIBEC00	0.38	HIBEC40	May-23	27.16	Hibernia-Canada	HIBEC10	0.14	HIBEC50	May-23	9.82
Jackfish	JACKC00	0.95	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	0.08	MEGCC50	May-23	5.99
Montney Shale	MONTC00	0.39	MONTC40	May-23	27.58	Montney-Canada	MONTC10	0.01	MONTC50	May-23	0.8
Surmont	SURMC00	0.90	SURMC40	May-23	63.92	Canada-USGC	SURMC10	0.08	SURMC50	May-23	5.54
United States (PGA/PCR	page 4205)										
Bakken	BAKNC00	0.28	BAKNC40	May-23	19.50	Beaumont-R'dam	BAKNC10	0.09	BAKNC50	May-23	6.46
Denver-Julesburg	DENVC00	0.40	DENVC40	May-23	28.37	Denver-USGC	DENVC10	0.04	DENVC50	May-23	2.47
Eagle Ford	EGFDC00	0.24	EGFDC40	May-23	16.89	Houston-Qingdao	EGFDC10	0.18	EGFDC50	May-23	12.8
Mars-Ursa	MRURC00	0.19	MRURC40	May-23	13.72	Mars-Qingdao	MRURC10	0.20	MRURC50	May-23	14.04
Permian Delaware	PRDLC00	0.24	PRDLC40	May-23	17.21	Corpus Christi-R'dam	PRDLC10	0.09	PRDLC50	May-23	6.5
Permian Midland	PRMDC00	0.27	PRMDC40	May-23	18.96	Corpus Christi-R'dam	PRMDC10	0.09	PRMDC50	May-23	6.70
Prudhoe-Bay	PRUDC00	0.45	PRUDC40	May-23	32.03	Alaska-USWC	PRUDC10	0.04	PRUDC50	May-23	2.86
San-Joaquin	SANMC00	2.48	SANMC40	May-23	175.84	San Joaquin-SoCal	SANAC10	0.01	SANAC50	May-23	0.7
SCOOP-STACK	SC00C00	0.46	SC00C40	May-23	32.36	Oklahoma-USGC	SC00C10	0.01	SC00C50	May-23	1.01
Tahiti	TAHIC00	0.23	TAHIC40	May-23	16.53	Tahiti-Yeosu	TAHIC10	0.19	TAHIC50	May-23	13.15

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

	Daily Carbon Intensity Premium		Mo	onthly Carbo	on 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 (PG/	A/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	0.06	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	3.81	ORINC40	May-23	270.03	Jose-Sikka	ORINC10	0.20	ORINC50	May-23	14.29

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

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

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



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