

CRUDE OIL MARKETWIRE

Volume 39 / Issue 152 / August 3, 2018

KEY BENCHMARKS (\$/barrel)

		Mid	Change
(PGA page 2210)			
Dubai (Oct)	PCAA00	71.89-71.91	71.900 +0.700
Dubai (Nov)	PCAAU0	71.68-71.70	71.690 +0.770
Dubai (Dec)	PCAAV0	71.45-71.47	71.460 +0.730
MEC (Oct)	AAWSA0	71.89-71.91	71.900 +0.700
MEC (Nov)	AAWSB0	71.68-71.70	71.690 +0.770
MEC (Dec)	AAWSC0	71.45-71.47	71.460 +0.730
Brent/Dubai (Oct)	AAJMS0	1.37/1.38	1.375 +0.045
(PGA page 1212)			
Brent (Dated)	PCAA50	72.43-72.45	72.440 -0.735
Dated North Sea Light	AAOFD0	72.43-72.45	72.440 -0.735
Dated Brent (CIF)	PCAKM0		73.280 -0.310
Brent (Oct)	PCAAQ0	73.41-73.43	73.420 +0.195
Brent (Nov)	PCAA00	73.71-73.73	73.720 +0.235
Brent (Dec)	PCARR0		73.840 +0.255
Sulfur de-escalator	AAUXL0		0.20
Oseberg QP (Aug)	AAXDW0		0.6721
Oseberg QP (Sep)	AAIDX0		0.5620
Ekofisk QP (Aug)	AAXDY0		0.2969
Ekofisk QP (Sep)	AAXDZ0		0.2370
(PGA page 210)			
WTI (Sep)	PCACG0	68.48-68.50	68.490 -0.470
WTI (Oct)	PCACH0	67.34-67.36	67.350 -0.310
WTI (Nov)	AAGIT0	66.92-66.94	66.930 -0.250
Light Houston Sweet	AAXEW0		70.890 -0.470
Light Houston Sweet M2	AAVRY0		71.050 -0.310
LOOP Sour (Sep)	AALSM01		68.190 -0.470
LOOP Sour (Oct)	AALSM02		68.200 -0.060
LOOP Sour (Nov)	AALSM03		68.280 0.000
Bakken	AAAPP0		64.520 -0.690
Eagle Ford Marker	AAAYJ0		71.000 -0.350
ACM* (Sep)	AAQH00	67.63-67.65	67.640 -0.520
ACM* (Oct)	AAQH00	67.64-67.66	67.650 -0.110
ACM* (Nov)	AAQH00	67.72-67.74	67.730 -0.050

*Americas Crude Marker.

FORWARD DATED BRENT (\$/barrel) [\(PGA page 1250\)](#)

		Mid	Change
North Sea Dated strip	AAKWH0	72.59-72.60	72.595 -0.010
Mediterranean Dated strip	AALDF0	72.60-72.62	72.610 -0.015
33-63 Day Dated strip	AALEJ0	72.83-72.84	72.835 +0.110
BTC Dated strip	AAUFI0	72.61-72.63	72.620 -0.040
15-45 Day Dated strip	AALGM0	72.65-72.67	72.660 -0.090
30-60 Day Dated strip	AAXRK0	72.80-72.81	72.805 +0.095
North Sea CIF Dtd strip	AAHXE0		72.610 -0.020

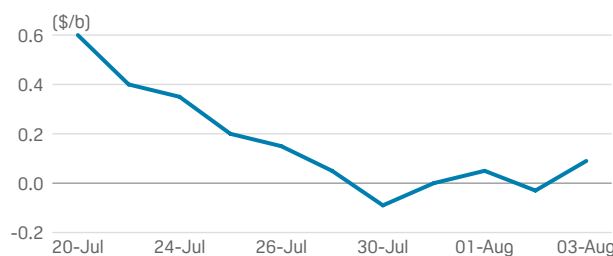
BRENT/WTI SPREADS AND EFPS [\(PGA page 218\)](#)

		Mid	Change
Brent/WTI 1st	AALAU0	5.97/5.99	5.980 +0.185
Brent/WTI 2nd	AALAV0	6.70/6.72	6.710 +0.215
Brent/WTI 3rd	AALAY0		7.180 +0.215
Brent EFP (Oct)	AAGVX0	0.11/0.13	0.120 +0.075
Brent EFP (Nov)	AAGVY0	0.12/0.14	0.130 +0.075
Brent EFP (Dec)	AAMVY0		0.140 +0.075
WTI EFP (Sep)	AAGVT0	-0.01/0.01	0.000 0.000
WTI EFP (Oct)	AAGVU0	-0.01/0.01	0.000 0.000
WTI EFP (Nov)	AAGVW0	-0.01/0.01	0.000 0.000

MIDDLE EAST (\$/barrel)

		Mid	Change
(PGA page 2210)			
Oman (Oct)	PCABS0	71.99-72.01	72.000 +0.750
Oman (Nov)	AAHZF0	71.74-71.76	71.750 +0.800
Oman (Dec)	AAHZH0	71.49-71.51	71.500 +0.750
Upper Zakum (Oct)	AAOUQ0	71.88-71.92	71.900 +0.700
Murban	AAKNL0	74.28-74.32	74.300 +0.700
Al Shaheen	AAPEV0	71.88-71.92	71.900 +0.700
Spread vs OSP			
Murban	AAKUB0	-0.30--0.20	-0.250 0.000
Spread vs Dubai			
Murban	AARBZ0		2.840 -0.030
Al Shaheen	AAPEW0	0.39-0.49	0.440 -0.030
Quality Premiums			
Murban QP (Oct)	AAISV0		1.4885
(PGA page 2658)			
Dubai Swap (Sep)	AAHBM0	71.67-71.71	71.690 +0.770
Dubai Swap (Oct)	AAHBN0	71.44-71.48	71.460 +0.730
Dubai Swap (Nov)	AAHBO0	71.23-71.27	71.250 +0.660

URALS MEDITERRANEAN vs. URALS ROTTERDAM



Source: S&P Global Platts

MARKET COMMENTARY

Middle East Sour

Market analysis: [\(PGA page 2298\)](#) Fresh OSPs breathed new life into the Middle Eastern sour crude market Friday. Saudi Aramco released their official selling prices for crude oil loading in September late Thursday, with light crude grades to Asia seeing significant cuts. Aramco dropped the OSPs by 40-70 cents/b for all its crude grades, according to a company notice seen by S&P Global Platts. The company cut its OSP for Arab Super Light by 65 cents/b from August to a premium of \$4.55/b to the average of Oman/Dubai in September. This is the lowest the OSP for the grade has been since December 2017, when it was also set at that level. Similarly, Saudi Aramco dropped the OSP in September for Arab Extra Light by 70 cents/b from August to a premium of \$1.80/b to the average of Oman/Dubai, matching the lows seen in November 2017. The Arab Light and Arab Medium OSPs in September saw a drop of 70 cents/b and 40 cents/b,

[\(continued on page 3\)](#)

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ASIA PACIFIC AND MIDDLE EAST CRUDE ASSESSMENTS (\$/barrel)

API Gravity						(Asia MOC)		(Asia MOC)			(Asia close)			(London close)		
Code	API Gravity	Code	Mid	Change		Code	Mid	Change	Code	Mid	Change	Code	Mid	Change		
Condensate						Diff to Dubai			Diff to Asian Dated Brent			Diff to Asian Dated Brent				
NW Shelf	61.9	PCAGX00	72.06-72.10	72.080	+0.710	ADFCB00	3.40/3.50	3.450	-0.050	AAPAI00	-0.65	-0.050	AAPAH00	72.150	+0.050	
DFC	56.82	ADFCA00	74.89-74.93	74.910	+0.680	AARB00	2.15/2.25	2.200	-0.050	ADFCC00	2.020	-0.050	ADFCD00	75.060	+0.120	
Qatar LSC	56.9	AARB00	73.64-73.68	73.660	+0.680	AARAX00	1.75/1.85	1.800	-0.050	AARBC00	0.770	-0.050	AARBA00	73.810	+0.120	
South Pars	57.4	AARAV00	73.24-73.28	73.260	+0.680					AARAW00	0.370	-0.050	AARAU00	73.410	+0.120	
						Diff to ICP			Diff to Asian Dated Brent			Diff to Asian Dated Brent				
Senipah	54.4	AAEOE00	72.57-72.61	72.590	+0.710	AAEOK00	1.50/1.60	1.550	0.000	AAPBE00	-0.140	-0.050	AAPBD00	72.660	+0.050	
Light crude						Diff to ICP			Diff to Asian Dated Brent			Diff to Asian Dated Brent				
Cossack	47.7	PCAGZ00	73.51-73.55	73.530	+0.760					AAPAC00	0.800	0.000	AAPAB00	73.600	+0.100	
Gippsland	48.7	PCACP00	71.56-71.60	71.580	+0.760	PCAFM00	0.80/0.90	0.850	0.000	AAPAU00	-1.150	0.000	AAPAT00	71.650	+0.100	
Tapis	45.2	PCACB00	74.61-74.65	74.630	+0.760					AAOZV00	1.900	0.000	AAOZV00	74.700	+0.100	
Belida	45.1	PCAF00	69.56-69.60	69.580	+0.880	PCABF00	2.20/2.30	2.250	0.000	AAPBQ00	-3.150	+0.120	AAPBP00	69.650	+0.220	
Kutubu	44.3	PCAFJ00	73.21-73.25	73.230	+0.760	PCAAK00	0.15/0.25	0.200	0.000	AAPAE00	0.500	0.000	AAPAD00	73.300	+0.100	
Handil Mix	43.9	PCABE00	72.41-72.45	72.430	+0.880	PCACR00	0.25/0.35	0.300	0.000	AAPBI00	-0.300	+0.120	AAPBH00	72.500	+0.220	
Attaka	42.3	PCAAJ00	69.36-69.40	69.380	+0.880	PCAQ00		2.300	0.000	AAPBC00	-3.350	+0.120	AAPBB00	69.450	+0.220	
Ardjuna	38.0	PCACQ00	67.36-67.40	67.380	+0.880					AAPBG00	-5.350	+0.120	AAPBF00	67.450	+0.220	
Banyu Urip	32.0	PCAFQ00		75.530	+0.760					AAPBU00	2.800	0.000	AAPBR00	75.600	+0.100	
						Diff to Dubai			Diff to Asian Dated Brent			Diff to Asian Dated Brent				
Sakhalin Blend	45.5	AARB00	73.69-73.73	73.710	+0.730	AARC00	2.20/2.30	2.250	0.000	AARDN00	0.820	0.000	AAREN00	73.860	+0.170	
ESPO M1	34.8	AARWF00	73.72-73.76	73.740	+0.770	AASEU00	2.00/2.10	2.050	0.000							
ESPO M2	34.8	AAWFE00	73.54-73.58	73.560	+0.730	AAWFG00	2.05/2.15	2.100	0.000							
						Diff to Oman/Dubai			Diff to Asian Dated Brent			Diff to Asian Dated Brent				
Sokol	39.7	AASCJ00	74.59-74.63	74.610	+0.750	AASCK00	3.05/3.15	3.100	0.000	AAPAO00	1.720	+0.020	AAPAN00	74.760	+0.190	
Kikeh	34.9	AAUHH00	76.41-76.45	76.430	+0.760					AAOZY00	3.700	0.000	AAOZY00	76.500	+0.100	
Miri Light	32.3	PCABQ00	76.46-76.50	76.480	+0.760					AAPAS00	3.750	0.000	AAPAR00	76.550	+0.100	
Labuan	32.0	PCABL00	76.46-76.50	76.480	+0.760					AAPAQ00	3.750	0.000	AAPAP00	76.550	+0.100	
Kimanis	38.6	AASCL00		76.180	+0.760					AASCM00	3.450	0.000	AASCN00	76.250	+0.100	
Medium crude						Diff to ICP			Diff to Asian Dated Brent			Diff to Asian Dated Brent				
Su Tu Den	36.8	AARAR00	74.96-75.00	74.980	+0.660	PCABP00	1.85/1.95	1.900	-0.050	AARAS00	2.250	-0.100	AARAQ00	75.050	0.000	
Bach Ho	40.7	PCAHY00	75.56-75.60	75.580	+0.660	AAPEX00	2.45/2.55	2.500	-0.100	AAPAK00	2.850	-0.100	AAPAJ00	75.650	0.000	
Nanhai	40.0	PCAFR00	68.86-68.90	68.880	+0.760	PCAFF00	0.20/0.30	0.250	-0.050	AAPAG00	-3.850	0.000	AAPAF00	68.950	+0.100	
						Diff to ICP			Diff to Asian Dated Brent			Diff to Asian Dated Brent				
Minas	35.3	PCABO00	67.91-67.95	67.930	+0.780	PCAAZ00	0.20/0.30	0.250	-0.050	AAPBA00	-4.800	+0.020	AAPAZ00	68.000	+0.120	
Nile Blend	33.9	AAPLC00	68.51-68.55	68.530	+0.730					AAPAM00	-4.200	-0.030	AAPAL00	68.600	+0.070	
Widuri	33.2	PCAFE00	65.91-65.95	65.930	+0.780					AAPB00	-6.800	+0.020	AAPBN00	66.000	+0.120	
Daqing	32.2	PCAAZ00	65.06-65.10	65.080	+0.680					AAPAW00	-7.650	-0.080	AAPAV00	65.150	+0.020	
Cinta	31.1	PCAAAX00	65.81-65.85	65.830	+0.780					AAPBK00	-6.900	+0.020	AAPBJ00	65.900	+0.120	
Heavy crude						Diff to ICP			Diff to Asian Dated Brent			Diff to Asian Dated Brent				
Dar Blend	25.0	AARAB00	65.46-65.50	65.480	+0.660	PCABB00	2.30/2.40	2.350	-0.050	AARAC00	-7.250	-0.100	AARAA00	65.550	0.000	
Shengli	24.2	PCABY00	64.86-64.90	64.880	+0.680					AAPAY00	-7.850	-0.080	AAPAX00	64.950	+0.020	
Duri	20.8	PCABA00	65.46-65.50	65.480	+0.780					AAPBM00	-7.250	+0.020	AAPBL00	65.550	+0.120	
Enfield	22.0	AARAE00		75.030	+0.660					AARAF00	2.300	-0.100	AARAD00	75.100	0.000	
Vincent	18.3	AARAK00		72.930	+0.660					AARAL00	0.200	-0.100	AARAJ00	73.000	0.000	

respectively, to a premium of \$1.20/b to the average of Oman/Dubai assessments, and a discount of 5 cents/b to the average of Oman/Dubai. After several months of increase, the company dropped the OSP for Arab Heavy in September, down 60 cents/b from August to a discount of 85 cents/b to the average of Oman/Dubai assessments in September. Previously, August was the highest Arab Heavy OSP for Asia since Platts began recording data in 2012. Preliminary market sentiment showed signs of approval for the cuts. "Saudi cut is reasonable, within market expectations," a trader in Singapore said on Friday. "Saudi has lowered fairly [within] expectations," added a North Asian buyer. Some traders spoke about the potential impact of OSP cuts. "With Saudi OSPs [cuts], I would expect unsold ESPO to be trading down to Dubai plus \$1.50s/b to \$1.70s/b level," a third market source said. Far East Russian ESPO crude barrels have been seeing downward pressure on premiums due to a relatively expensive underlying Dubai basis as well as dwindling buying interest from China's independent refiners lately. Dubai crude and the grades linked to it are perceived as relatively expensive to Brent-linked barrels due to a narrowing Brent/Dubai Exchange of Futures for Swaps spread, traders said. The September Brent/Dubai EFS value as of 4:30 pm Singapore time (0830 GMT) ended the month down \$2.45/b from \$3.67/b on July 2 to \$1.22/b as of July 31, Platts data showed. The first trading day of August saw October EFS pegged at \$1.99/b at the Singapore close of trading, which then quickly whittled down to \$1.62/b the same time on August 2. As of 0700 GMT Friday, the October EFS was pegged at \$1.79/b.

Dubai Mo01 assessment rationale: (PGA page 2295) The October cash Dubai assessment Friday took into consideration trades for October Dubai partials at \$71.90/b during the Platts Market on Close assessment process. The above commentary applies to the market data code: PCAAT00

Oman Blend Mo01 assessment rationale: (PGA page 2295) October cash Oman was assessed equivalent to a premium

MIDDLE EAST SPOT ASSESSMENTS (\$/barrel) (PGA page 2220)

			Mid	Change		Spread vs OSP	Mid	Change
Das Blend	AAXOF00	73.63-73.67	73.650	+0.700	AAXPF00	-0.40/-0.30	-0.350	0.000
Qatar Land	AAKNP00	73.18-73.22	73.200	+0.700	AAKUJ00	-0.35/-0.25	-0.300	0.000
Qatar Marine	AAKNR00	71.53-71.57	71.550	+0.700	AAKUH00	-0.10/0.00	-0.050	+0.050
Banoco Arab Medium	AAKNT00	71.03-71.07	71.050	+0.800	AAKUD00	-0.05/0.05	0.000	+0.300
Basrah Light M1	AALZA00	-	71.700	+0.700	AALZE00		0.050	+0.100
Basrah Light M2	AALZB00	-	71.550	+0.700	AALZF00		-0.050	+0.100
Basrah Heavy M1	AALZC00	-	68.650	+0.700	AALZJ00		0.350	+0.050
Basrah Heavy M2	AALZD00	-	68.500	+0.700	AALZK00		0.250	+0.050

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	73.225	
ADB Strip Asia	AARBV00	72.730	AARBX00 72.800
ADB Strip Middle East	AARBW00	72.890	AARBY00 73.040
Asian Crude Index (ACX)	AAXIL00	72.296	

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

APAC DEALS SUMMARY

Mideast Sour Crude convergences (PGA page 2296)

- NA

Mideast Sour Crude

Trades (PGA page 2284)

- OCT18: RGES* sold to VITOLSG 25kb \$71.90/bbl 8:29:54
- OCT18: RGES sold to VITOLSG* 25kb \$71.90/bbl 8:30:00

* Denotes market maker. All times GMT

Bids (PGA page 2282)

- OCT18: PDCL bids 25kb \$71.85/bbl
- OCT18: TOTSA bids 25kb \$71.65/bbl
- OCT18: EQUINOR bids 25kb \$71.60/bbl
- OCT18: SIETCO bids 25kb \$71.60/bbl
- OCT18: BPSG bids 25kb \$71.50/bbl
- OCT18: CHINA OIL bids 25kb \$71.40/bbl
- OCT18: UNIPECASIA bids 25kb \$71.40/bbl

Withdrawals

- OCT18: VITOLSG no longer bids 25kb \$71.90/bbl

** Denotes OCO order.

Offers (PGA page 2283)

- OCT18: EQUINOR offers 25kb \$72.00/bbl
- OCT18: UNIPECASIA offers 25kb \$72.00/bbl
- OCT18: CHINA OIL offers 25kb \$72.05/bbl

- OCT18: SIETCO offers 25kb \$72.05/bbl
- Withdrawals
- OCT18: RGES no longer offers 25kb \$71.90/bbl

** Denotes OCO order.

Mideast Sour Crude Spreads

Trades (PGA page 2284)

- No trades reported

* Denotes market maker. All times GMT

Bids (PGA page 2282)

- No bids reported
- Withdrawals
- No bids reported

** Denotes OCO order.

Offers (PGA page 2283)

- No offers reported
- Withdrawals
- No offers reported

** Denotes OCO order.

of 54 cents/b to October Dubai swaps Friday, in line with values discussed in the wider market.

The above commentary applies to the market data code: PCABS00

Mideast Sour Crude exclusions: (PGA page 2285)

Asia Pacific Sweet

Market analysis: (PGA page 2299) Activity was thin in the Asian sweet crude market Friday as traders waited for the next set of loading programs and tenders from the October cycle. Some clarity was seen on tenders that closed at the end of July. ConocoPhillips was heard to have sold via tender a Kikeh crude cargo for loading over September to an oil major at a premium of around \$3.90/b to Platts Dated Brent on an FOB basis. Exact loading dates were unclear, though traders said the cargo was a cross-month one and that the value for September-loading Malaysian crude oil basket grades should be around a premium of \$3.50-\$3.75/b to Dated Brent crude assessments on an FOB basis. Earlier trades of Malaysian basket crudes saw Labuan being traded at a premium of around \$4/b to Platts Dated Brent assessments and Miri at a premium of around \$3.50/b to Platts Dated Brent, both on an FOB basis. Premiums for MCOs have remained resilient despite what several traders have said were aggressive offers for US crudes delivered to Asia. WTI Midland for delivery to Asia have been heard offered at a premium of around \$1/b to Platts Dated Brent crude assessments on a delivered basis, with CPC Taiwan and another Southeast Asian end-user among those who have picked up cargoes recently. Elsewhere, Malaysia's Petronas was heard to have sold its Bergading condensate cargo for loading over September 21-30 to a regional end-user at a discount of around \$1.25/b to Platts Dated Brent crude assessments on an FOB basis. Sources said that a considerable surplus of condensate cargoes remained available. Apart from Australia's North West Shelf condensate and Wheatstone condensate, traders said cargoes of Equatorial Guinea's Alba and Alen condensates were still being offered to end-users in Asia, though loading

APAC DEALS SUMMARY

Asia Light Sweet Crude

Trades (PGA page 2254)

- No trades reported

* Denotes market maker. All times GMT

Bids (PGA page 2252)

- No bids reported

Withdrawals

- No bids reported

** Denotes OCO order.

Offers (PGA page 2253)

- No offers reported

Withdrawals

- No offers reported

** Denotes OCO order.

dates were unclear. Traders were also discussing the recent changes to the Indonesian Crude Price formula. The formula, which will be implemented retroactively from July for a year, has been revised to reflect Platts Dated Brent plus/minus an alpha, from Platts Dated Brent plus an alpha previously, the official said. The previous formula had given the impression that ICPs were higher than Brent, when in fact, only Banyu Urip crude was priced higher, oil and gas director general at the energy and mines ministry Djoko Siswanto said. The government has also included an additional scenario to the existing four scenarios, which have been implemented since July 2016, to determine the alpha, Siswanto said. The fifth scenario takes into account the gross product worth, or GPW, of the crude grades, or the price of the crude based on its product yields.

ESPO FOB Kozmino Mo01 Spore vs Dubai Mo01

assessment rationale: (PGA page 2292) The ESPO M1 assessment Friday took into consideration latest trades heard for ESPO Blend crude.

The above commentary applies to the market data code: AASEU00

Asia Pacific Sweet exclusions: (PGA page 2255)

Asia Light Sweet Crude Spreads

Trades (PGA page 2254)

- No trades reported

* Denotes market maker. All times GMT

Bids (PGA page 2252)

- No bids reported

Withdrawals

- No bids reported

** Denotes OCO order.

Offers (PGA page 2253)

- No offers reported

Withdrawals

- No offers reported

** Denotes OCO order.

North Sea

Market analysis: (PGA page 1299) New signs of an arbitrage east emerged in the North Sea crude market Friday, with a VLCC reportedly booked for a late August voyage east. Shipbrokers linked Totsa with the Athenian Freedom VLCC for an August 23-26 voyage from the North Sea to South Korea at a \$4.2 million lump sum. Total could not be reached for comment. In the derivatives market, Brent Contracts for Difference flattened over late August-early September dates. In the brokered market Friday afternoon, August 20-24 to September 3-7 CFDs traded at parity, compared with a 15 cents/b contango Thursday afternoon, while the rest of the curve remained in a contango. Market participants said North Sea's sweet grades were trading at a slow pace, while distillates rich grades were heard to be faring better, in light of healthy distillates cracks. "Sweet seems very slow to move so far," a source said. Another source reported healthy and steady appetite for Norway's Grane crude. "Urals is not plentiful, Iranian sanctions kicking in and the fuel oil and distillates cracks being excellent means that Grane has value," the trader said, reporting abundant supplies of light crude, together with

rising imports of US crude and a meager gasoline crack relative to distillates. “It looks like a decent amount of US crude will arrive in September,” the first trader said. “The uncertainty of [what] China [is] taking means homes need to be found elsewhere.” While agreeing on the upward trend amid US crude exports to Europe, sources’ estimates appeared to somewhat diverge. A source pegged September arrivals around one Aframax per day. “June exports were by far the highest, although most is destined for Asia.” Meanwhile, an estimated 6.4 million barrels of Ekofisk crude loaded out of the UK’s Tees terminal over the course of July, according to S&P Global Platts trade flow software cFlow. All barrels leaving Tees in July remained in Europe, with increased volumes heading to the Mediterranean on the back of Libyan export outages. Force majeure on Libyan exports in June saw Mediterranean refiners seek alternative sources of supplies from the North Sea. Two Aframax left Tees for Italy and Spain respectively early July, while a third Aframax followed mid-July and was taken into an Italian short. Only one Aframax — amounting to 9% of total July loadings — was absorbed into the UK, compared with 30-50% of volumes in previous months. However, a large portion of the July program is yet to discharge, according to cFlow. Indeed, an estimated 53% of July Ekofisk loadings remained on vessels anchored off UK coasts Friday.

Dated Brent assessment rationale: (PGA page 1297) Of the five BFOE grades, Forties was seen in the Platts Market on Close assessment process Friday. Forties was assessed lower. August 13-16 was assessed in a flat structure, with August 16 assessed below an outstanding offer. August 26 was assessed below an outstanding offer. A contango structure was interpolated between August 16-26 and extended over the back end of the assessment. Brent Blend, Ekofisk, Oseberg and Troll were assessed lower in sympathy with lower value demonstrated in the Forties window. Forties was the most competitive grade across the assessment period.

The above commentary applies to the market data code: PCAAS00

NORTH SEA SPOT CRUDE ASSESSMENTS (\$/barrel) (PGA page 1212)

			Mid	Change		Spread vs fwd Dated Brent	Mid	Change
Dated Brent Diff								
BNB	AAVJA00	72.86–72.88	72.870	-0.310	AAVJB00	-0.16/-0.15	0.275	-0.725
Forties	PCADJ00	72.43–72.45	72.440	-0.795	AAGWZ00	0.27/0.28	-0.155	-0.300
Oseberg	PCAEU00	73.66–73.68	73.670	-0.210	AAGXF00	-0.16/-0.15	1.075	-0.785
Ekofisk	PCADI00	73.20–73.22	73.210	-0.260	AAGXB00	1.07/1.08	0.615	-0.200
Troll	AAWEX00	73.94–73.95	73.945	-0.210	AAWY00	0.61/0.62	1.350	-0.250
Statfjord	PCAE00	72.38–72.39	72.385	-0.010	AAGXD00	1.34/1.36	-0.210	-0.200
Flotta Gold	PCACZ00	71.24–71.25	71.245	+0.140	AAGXH00	-0.22/-0.20	-0.210	0.000
Duc	AAWEZ00	73.34–73.35	73.345	-0.010	AAGX00	-1.36/-1.34	-1.350	+0.150
Grane Blend	PCALA00		71.345	-0.060	AAWFL00	0.74/0.76	0.750	0.000
Statfjord (CIF)	AASAS00	73.44–73.45	73.445	-0.010	PCALB00		-1.250	-0.050
Gullfaks (CIF)	AASAU00	74.34–74.35	74.345	-0.110	AASAT00	0.84/0.86	0.850	0.000
Alvheim (CIF)	ALVHA00		76.195	-0.010	AASAV00	1.74/1.76	1.750	-0.100
Asgard (CIF)	ASGCA00		72.445	-0.010	ALVHB00		3.600	0.000
North Sea basket	AAGIZ00	73.04–73.06	73.050	-0.390	ASGCB00		-0.150	0.000
North Sea Dated Strip	AAKWH00	72.59–72.60	72.595	-0.010				
						Spread vs fwd CIF Dated Brent		
Dated Brent (CIF)	AAVJG00		73.280	-0.310	AAVJF00		0.670	-0.290
BNB (CIF)	PCAKP00		74.050	-0.345	AAVJC00		1.440	-0.325
Forties (CIF)	PCAKR00		73.280	-0.825	AAHXC00		0.670	-0.805
Oseberg (CIF)	PCAKT00		74.510	-0.235	AAHXD00		1.900	-0.215
Ekofisk (CIF)	PCAKV00		73.920	+0.040	AAHXB00		1.310	+0.060
Troll (CIF)	AAXJ000		74.795	-0.240	AAXJN00		2.185	-0.220
North Sea CIF Dated Strip	AAHXE00		72.610	-0.020				

BFOE assessment rationale: (PGA page 1297) October Cash BFOE was assessed in line with two traded bids. November was assessed in line with two traded October/November Cash BFOE spreads. December was assessed in line with a November/December EFP roll heard during the day.

The above commentary applies to the market data codes: PCAAQ00, PCAAR00, PCARR00

CFD assessment rationale: (PGA page 1297) August 13-17 was assessed slightly above an earlier traded offer pricing against October which did not repeat. August 20-24 was assessed in line with a traded offer converted to November pricing. August 27-31 was assessed in line with an August 20-24 to August 27-31 CFD roll heard during the day. September 3-7 was assessed in line with an August 27-31 to September 3-7 CFD roll heard during the day.

The above commentary applies to the market data codes: PCAKA00, PCAKC00, PCAKE00, PCAKG00, AAGLU00, AAGLV00, AALCZ00, AALDA00

North Sea bids/offers/trades: (PGA page 1290)

- NORTH SEA: MOC DEAL SUMMARY: None
- NORTH SEA: MOC OUTSTANDING INTEREST: GUNVORSA Offer OCO 1, Forties STS Scapa Flow, 13/8 - 17/8, Vessel Rivera, Dtd \$-0.15; GUNVORSA Offer OCO 2, Forties STS Scapa Flow, 17/8 - 22/8, Vessel Rivera, Dtd \$-0.10; GUNVORSA Offer OCO 3, Forties STS Scapa Flow, 22/8 - 27/8, Vessel Rivera, Dtd \$-0.10; GUNVORSA Offer OCO 4, Forties STS Scapa Flow, 27/8 - 4/9, Vessel Rivera, Dtd \$-0.05
- NORTH SEA: MOC WITHDRAWN: None
- BFOE CFD: MOC DEAL SUMMARY: Aug13-Aug17 Oct-1 x100 Mercuria-Vitol; Aug20-Aug24 Oct-0.75 x100 Mercuria-Vitol; Aug20-Aug24 Oct-0.77 x100 BP-Gunvor
- BFOE CFD: MOC OUTSTANDING INTEREST: Aug20-Aug24 (Oct) Stasco Offer \$-0.75; Aug20-Aug24 (Oct) Mercuria Offer \$-0.70; Aug20-Aug24 (Oct) Mitsui & Co. Energy Trading Singapore Pte. Ltd. Offer \$-0.70; Aug13-Aug17 (Oct) Stasco Offer \$-0.90
- CASH BFOE: MOC DEAL SUMMARY: Oct 73.42 x100 Gunvor-Vitol; Oct 73.39 x100 Shell-Mercuria; Oct 73.39 x100 BP-Mercuria; Oct 73.42 x100 BP-Vitol

- CASH BFOE: MOC OUTSTANDING INTEREST: None
- CASH BFOE: INTERMONTH SPREAD: MOC OUTSTANDING INTEREST: BP offers Oct/Nov -0.27
- CASH BFOE: INTERMONTH SPREAD: MOC DEAL SUMMARY: Glencore-Mercuria Oct/Nov -0.29; Glencore-Mercuria Oct/Nov -0.30; Glencore-Mercuria Oct/Nov -0.30

North Sea exclusions: (PGA page 1290) ~CASH BFOE: EXCLUSIONS: Mercuria bids Oct \$73.39; Petroineos bids Oct \$73.42; Stasco-Petroineos Oct \$73.42

Mediterranean Light/Sweet (PGA page 1295)

In the Mediterranean sweet crude oil complex Friday grades such as Kazakhstan's CPC Blend continued to trade rangebound, with traders pegging value at 5-10 cents/b off levels heard at the start of the week. An August-loading Aframax of CPC Blend was heard at minus \$1.95-\$1.75/b to Dated Brent. Suezmaxes were heard to be 15 cents/b lower. BP hit an OMV bid for an August 24-28 loading CPC Blend cargo basis CIF Augusta in the Platts Market on Close assessment process at Dated Brent minus \$1.95/b. Meanwhile, the final August loading program for CPC Blend is currently scheduled to be 4,624,550 mt, down 67,000 mt from a preliminary schedule mid-July, according to a copy of the schedule seen by S&P Global Platts Friday. Average daily loadings in August are now set to come in at 1,163,596 b/d, down 16,859 b/d from the 1,180,455 b/d expected in the provisional schedule. The final July loading program for CPC Blend was 5,194,350 mt or 1,306,965 b/d, according to an earlier program. The final August program has 18 Suezmaxes scheduled, down one cargo from the preliminary program, and 25 Aframax, an increase of one. Looking at other grades in the Mediterranean light crude complex, Libya's Mellitah was heard to be in good supply. "Libya's just pumping oil at the moment," one trader said. The grade, which has an API of about 43, was being marketed near its OSP value, around minus \$1.65-\$1.70/b to Dated Brent basis FOB, putting it within range of CPC, the same trader said. Elsewhere in Libya, ships were heard to

DATED BRENT/BFOE SWAPS (\$/barrel) (PGA page 1214)

Week	Week Date	Brent CFD*	Mid	Change	Dated Brent swap	Mid	Change
CFD Week 1	(Nov) Aug 06-10	PCAKA00 -1.51/-1.49	-1.500	-0.230	AAJNV00 72.21/72.23	72.220	+0.005
CFD Week 2	(Nov) Aug 13-17	PCAKC00 -1.29/-1.27	-1.280	-0.230	AAJOS00 72.43/72.45	72.440	+0.005
CFD Week 3	(Nov) Aug 20-24	PCAKE00 -1.08/-1.06	-1.070	-0.240	AAJOU00 72.64/72.66	72.650	-0.005
CFD Week 4	(Nov) Aug 27-31	PCAKG00 -1.08/-1.06	-1.070	-0.310	AAJOW00 72.64/72.66	72.650	-0.075
CFD Week 5	(Nov) Sep 03-07	AAGLU00 -1.08/-1.06	-1.070	-0.390	AAJPC00 72.64/72.66	72.650	-0.155
CFD Week 6	(Nov) Sep 10-14	AAGLV00 -1.02/-1.00	-1.010	-0.400	AAJPE00 72.70/72.72	72.710	-0.165
CFD Week 7	(Nov) Sep 17-21	AALCZ00 -0.97/-0.95	-0.960	-0.410	AALAW00 72.75/72.77	72.760	-0.175
CFD Week 8	(Nov) Sep 24-28	AALDA00 -0.93/-0.91	-0.920	-0.410	AALAX00 72.79/72.81	72.800	-0.175

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

CASH BFOE INTRADAY ASSESSMENTS (\$/barrel) (PGA page 1216)

	Cash BFOE	Change	Inter-Month Spread
10:30 London Time			
BFOE M1 (Oct)	PBCAAM1 73.660	+1.250	
BFOE M2 (Nov)	PBCAAM2 73.890	+1.190	Oct/Nov PBAM1M2 -0.230
BFOE M3 (Dec)	PBCAAM3 73.950	+1.110	Nov/Dec PBAM2M3 -0.060
12:30 London Time			
BFOE M1 (Oct)	PBCABM1 73.720	+1.590	
BFOE M2 (Nov)	PBCABM2 73.960	+1.550	Oct/Nov PBBM1M2 -0.240
BFOE M3 (Dec)	PBCABM3 74.040	+1.490	Nov/Dec PBBM2M3 -0.080
14:30 London Time			
BFOE M1 (Oct)	PBCACM1 73.650	+1.380	
BFOE M2 (Nov)	PBCACM2 73.900	+1.360	Oct/Nov PBCM1M2 -0.250
BFOE M3 (Dec)	PBCACM3 73.990	+1.310	Nov/Dec PBCM2M3 -0.090
16:30 London Time			
BFOE M1 (Oct)	PCAAQ00 73.420	+0.195	
BFOE M2 (Nov)	PCAA000 73.720	+0.235	
BFOE M3 (Dec)	PCARR00 73.840	+0.255	
19:30 London Time			
BFOE M1 (Oct)	PBCADM1 NA	-	
BFOE M2 (Nov)	PBCADM2 NA	-	Oct/Nov PBDM1M2 NA
BFOE M3 (Dec)	PBCADM3 NA	-	Nov/Dec PBDM2M3 NA

be loading El-Sharara crude. The grade is officially still under force majeure, but unofficially vessels were said to have been successfully taken into the port Friday. The increase in Libyan output was not only putting pressure on CPC but other grades in the region like Saharan Blend, said sources, with levels heard around Dated Brent minus 50 cents/b on an FOB basis. From a refinery perspective, margins were heard to be good around Europe, but sour grades were heard to be popular among European refiners due to the strength in fuel oil markets. However, with recent weaker pricing, traders said sweet crudes were also receiving further attention from refineries.

Mediterranean Sour

Market analysis: (PGA page 1296) In European sour crudes markets Friday, the Mediterranean remained awash in both sour and sweet grades, keeping differentials subdued, said sources, while in Northwest Europe Russia's Urals prices continued to drop, sinking around 30-40 cents/b from trades seen in earlier in the week. Traders said refineries in the Mediterranean had a wide selection of crudes being offered on the sour end of the barrel, including unsold Aframax and Suezmaxes of Urals, Iraq's Basrah Light, as well as some US crudes like Mars. With refinery margins favoring sour crudes,

sellers had originally anticipated increased demand and higher values, but as a result of the more than ample availability, the market had been relatively flat and trending weaker, said sources. “We’ve had a lot of Basrah offered, Urals — some people are very long oil, I reckon,” said a refinery crude trader. Levels for Basrah Light were heard trading at a discount of 40-30 cents/b versus its August official selling prices. Sources said additional Basrah volumes were expected to be offered into the region during the month, as production volumes had grown, while similarly the Urals program loading out of Novorossiisk in August had seen higher volumes, particularly among Suezmaxes, with nine scheduled for the month. These higher exports followed the lifting of the production cap by OPEC and non-OPEC countries in June. In the Platts Market on Close assessment process, Litasco offered an 80,000 mt cargo, basis CIF Augusta, loading August 24-28 down to Dated Brent minus \$1.30/b, while Petrolneos was on the bid side, seeking an 80,000 mt cargo, basis CIF Augusta, loading August 16-20 at Dated Brent minus \$1.45/b. Both indications were left outstanding at the end of the MOC. In Northwest Europe, the market was mainly traded out to the third decade, although recent sales had dropped from highs near Dated Brent minus \$1.20/b seen earlier in the week. This came as major buyers such as Unipet and Total had stepped back in recent sessions, with Total seen offering a 100,000 mt cargo, basis CFR Rotterdam, loading August 24-28 in the MOC Friday. Gunvor bought the cargo from Total at Dated Brent minus \$1.60/b. Litasco was also offering a 100,000 mt Urals cargo, basis CFR Rotterdam, loading August 20-24, down to Dated Brent minus \$1.45/b, which was left outstanding at the end of the MOC.

Urals CIF Augusta differential assessment rationale: (PGA page 1287) Urals CIF Augusta was assessed unchanged on Friday. An outstanding bid for an 80,000 mt cargo, loading August 16-20 was seen to demonstrate value at the same levels as the previous day’s assessment. An outstanding offer for an 80,000 mt cargo, loading August 24-28, did not challenge the previous day’s assessment and was not used. The above commentary applies to the market data code: AAGXX00

RUSSIAN URALS/ESPO SPOT ASSESSMENTS (\$/barrel) (PGA page 1220)

			Mid	Change		Spread vs fwd Dated Brent	Mid	Change
Urals (Rotterdam)	PCAFW00	71.10–71.14	71.120	-0.135	AAGXJ00	-1.50/-1.48	-1.490	-0.120
Urals (Mediterranean)	PCACE00	71.19–71.23	71.210	-0.015	AAGXX00	-1.41/-1.39	-1.400	0.000
Urals (Ex-Novorossiisk)	AAGZS00	70.20–70.24	70.220	+0.015	AAHPH00	-2.40/-2.38	-2.390	+0.030
Urals (Ex-Novo) FOB 80kt	AAOTH00	69.88–69.91	69.895	-0.015	AAOTI00	-2.72/-2.71	-2.715	0.000
Urals (Ex-Baltic)	AAGZT00	70.23–70.27	70.250	-0.110	AAHPI00	-2.37/-2.35	-2.360	-0.095
Urals (Primorsk)	AAWVH00	70.20–70.24	70.220	-0.110	AAWVI00	-2.40/-2.38	-2.390	-0.095
Urals RCMB (Recombined)	AALIN00	71.02–71.06	71.040	-0.735				
ESPO (FOB Kozmino)	AARWD00	73.94–73.96	73.950	+0.330	AARWE00	1.29/1.31	1.300	+0.420

URALS MED/NWE CFD ASSESSMENTS (\$/barrel)

				Urals CFD	Mid	Change
Mediterranean (PPE page 1616)						
Urals Med CFD (Aug)				AAMDU00	-1.56/-1.54	-1.550 +0.050
Urals Med CFD (Sep)				AAMEA00	-1.56/-1.54	-1.550 -0.200
Urals Med CFD (Oct)				UMCM003	-1.46/-1.44	-1.450 -0.100
Northwest Europe (PPE page 1618)						
Urals NWE CFD (Aug)				UNCM001	-1.61/-1.59	-1.600 0.000
Urals NWE CFD (Sep)				UNCM002	-2.01/-1.99	-2.000 0.000
Urals NWE CFD (Oct)				UNCM003	-2.11/-2.09	-2.100 0.000
Mediterranean (PPE page 1617)						
CPC Blend CFD (Aug)				AAOFX00		-1.750 -0.170
CPC Blend CFD (Sep)				AAOFY00		-1.600 -0.300
CPC Blend CFD (Oct)				AAOFZ00		-1.500 -0.300

MEDITERRANEAN SPOT CRUDE ASSESSMENTS (\$/barrel)

			Mid	Change		Spread vs fwd Dated Brent	Mid	Change
Azeri and BTC (PGA page 1222)								
Azeri Lt CIF	AAGZX00	74.50–74.54	74.520	-0.040	AAHPM00	1.89/1.91	1.900	0.000
Azeri Lt FOB Ceyhan	AAUFM00	73.83–73.87	73.850	-0.020	AAUFN00	1.22/1.24	1.230	+0.020
Azeri Lt FOB Ceyhan 80KT	AAUFK00	73.57–73.61	73.590	-0.040	AAUFL00	0.96/0.98	0.970	0.000
Azeri Lt FOB 80KT	AATHM00	73.32–73.35	73.335	-0.040	AATHN00	0.71/0.72	0.715	0.000
BTC FOB Ceyhan	AAUFH00	73.70–73.74	73.720	-0.030	AAUFJ00	1.09/1.11	1.100	+0.010
Black Sea (PGA page 1220)								
Siberian Light CIF	AAGZW00	72.44–72.48	72.460	-0.065	AAHPK00	-0.16/-0.14	-0.150	-0.050
CPC Blend CIF	AAGZU00	70.69–70.73	70.710	-0.015	AAHPL00	-1.91/-1.89	-1.900	0.000
CPC Blend FOB	AALVX00	69.82–69.86	69.840	+0.010	AALVZ00	-2.78/-2.76	-2.770	+0.025
CPC FOB 80KT	AAOFV00	69.50–69.54	69.520	-0.015	AAOFW00	-3.10/-3.08	-3.090	0.000
Middle East & North Africa (PGA page 1234)								
Suez Blend	PCACA00	68.27–68.31	68.290	-0.015	AAGYD00	-4.33/-4.31	-4.320	0.000
Es Sider	PCAC000	70.54–70.58	70.560	-0.065	AAGYH00	-2.06/-2.04	-2.050	-0.050
Kirkuk	AAEJD00	68.74–68.78	68.760	-0.015	AAGYF00	-3.86/-3.84	-3.850	0.000
Iranian Light (Sidi Kerir)	PCABI00	70.95–70.99	70.970	+0.195	AAGXZ00	-1.65/-1.63	-1.640	+0.210
Iranian Heavy (Sidi Kerir)	PCABH00	68.70–68.74	68.720	+0.195	AAGYB00	-3.90/-3.88	-3.890	+0.210
Saharan Blend	AAGZY00	72.09–72.13	72.110	-0.015	AAHPN00	-0.51/-0.49	-0.500	0.000
Syrian Light FOB	AAHMM00	73.11–73.14	73.125	-0.015	AALOU00	0.51/0.52	0.515	0.000
Syrian Heavy FOB	AAHMN00	67.63–67.66	67.645	-0.015	AALOV00	-4.97/-4.96	-4.965	0.000

Urals CIF Med assessment rationale: (PGA page 1287) The Urals CIF Mediterranean assessment reflected the value of the Mediterranean Dated Brent Strip plus the Urals CIF Augusta differential assessment.

The above commentary applies to the market data code: PCACE00

Urals RCMB (Recombined) assessment rationale: (PGA page 1287) The Urals RCMB (Recombined) assessment reflected the value of the Platts Dated Brent assessment plus the Urals CIF Augusta differential assessment.

The above commentary applies to the market data code: AALIN00

Urals CIF Rdam assessment rationale: (PGA page 1287) CIF Rotterdam Urals was assessed lower on Friday. A traded offer for a 100,000 mt cargo, loading August 24-28, was seen to challenge the previous assessment. Urals was assessed on the traded offer in the middle of the laycan, August 26, and a 1.5 cents/day backwardation structure was applied across the rest of the Platts 10-25 day assessment period. Urals was also assessed below an outstanding offer for a 100,000 mt cargo, loading August 20-24.

The above commentary applies to the market data code: PCAFW00

ESPO FOB Kozmino Mo01 London assessment rationale: (PGA page 1286) The ESPO FOB Kozmino Mo01 London time outright assessment was derived using the following input: Mo02 Cash BFOE London, minus Mo02 Cash BFOE Asia, plus Mo02 Cash Dubai, plus Mo01 ESPO Asia differential. The ESPO FOB Kozmino Mo01 London time differential assessment was derived using the following input: ESPO FOB Kozmino Mo01 London time outright, minus forward Dated Brent 15-45 days ahead (the 15-45 Day Dated Strip).

The above commentary applies to the market data code: AARW000

Med Dated Brent Strip 13-28 Day assessment rationale: (PGA page 1287) 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 and BFOE CFD differentials.

The above commentary applies to the market data code: AALDF00

CPC Blend CIF Augusta assessment rationale: (PGA page 1287) CPC Blend was assessed unchanged Friday as a 90,000 mt traded bid for a cargo loading on August 24-28 was not deemed competitive versus Thursday's assessment and indications reported in the market did not challenge that assessment either.

The above commentary applies to the market data code: AAHP000

Urals and Mediterranean bids/offers/trades: (PGA page 1288)

- URALS MED MOC: DEAL SUMMARY: No deals
- URALS MED MOC: OUTSTANDING INTEREST: LITASCO OFFERS Urals Med CIF Crg Novo - bss Augusta 10-25, Aug 24-Aug 28 100% Dated Brent BL+5 \$-1.30 for 80000"payment 30 after BL , ship acceptable to buyer" PETROINEOS BIDS Urals Med CIF Crg Novo - bss Augusta 10-25, Aug 16-Aug 20 100% Dated Brent BL+5 \$-1.45 for 80000"payment 30 after, ship acceptable to buyer"
- URALS MED MOC: WITHDRAWN: None.
- URALS NWE MOC: DEAL SUMMARY: TOTAL-GUNVOR Urals NWE CFR Crg Primorsk/Ust-Luga - bss Rdam 10-25, Aug 24, 2018-Aug 28, 2018 100% Dated Brent BL+5 \$-1.60 for 100000 "payment 30 from BL"
- URALS NWE MOC: OUTSTANDING INTEREST: LITASCO OFFERS Urals NWE CFR Crg Primorsk/Ust-Luga - bss Rdam 10-25, Aug 20-Aug 24 100% Dated Brent BL+3 \$-1.45 for 100000"payment 30 days after BL, vessel acceptable to buyer"
- URALS NWE MOC: WITHDRAWN: None.
- CPC BLEND MOC: DEAL SUMMARY: BP-OMV CPC Blend CIF Crg Novorossiisk CPC Term - bss Augusta 10-25, Aug 24, 2018-Aug 28, 2018 100% Dated Brent BL+3 \$-1.95 for 90000 "vessel acceptable to buyer, payment 30 after BL"
- CPC BLEND MOC: OUTSTANDING INTEREST: None.
- CPC BLEND MOC: WITHDRAWN: None.

Urals and Mediterranean exclusions: (PGA page 1288) No market data was excluded from the August 3 assessment process.

West Africa (PGA page 1294)

West African crude markets were approaching a turning point following a recent surge in differentials, with sweet crude markets in the Atlantic Basin expected to see further US trade flow into Europe emerge as a competing factor, traders said Friday. "The Mediterranean is very long, also if more US barrels arrive, then the sky will open," a trader in Europe said. The flow of US crude is expected to rise as the US heads towards its refinery turnaround season, reducing the country's domestic requirements for crude and freeing up more barrels to be sold into export locations, including Europe. For the US, China is also no longer a desirable short given the escalation in trade tensions between the two countries, so Europe may see more barrels headed its way, according to more traders with a bearish view on the Nigerian crude market. In Angola, despite the pick-up in trading activity in the last week, there were still several CLOV cargoes heard to be available. Little was known of the progress with the new Angolan grade, Jindungo, with one West African crude trader saying it took a while for new grades to start trading after the launch, as refiners had to ensure the qualities of the grade were stable. "They need to get the junk out of it, it's a new grade. You have to get the additives out of the first batch," the WAF trader said, adding that the equity partners would most likely take the first cargoes. In the latest tender news, Indonesian Pertamina's sweet crude tender for November to December delivery closes Monday, according to market sources, including bids for several West African sweet crudes. This tender is for up to 10 million barrels of sweet crude over the course of the two months, and is for delivery into a range of ports — Cilacap, Balikpapan and Balongan.

US MOC Commentary (PGA pages 291 & 287)

Americas crude oil: WTI ROLL: September heard bid +\$0.50/b; Americas crude oil: LLS: September heard bid WTI +\$2.80/b; Americas crude oil: WTI MEH: September heard bid WTI +\$2/b; Americas crude oil: WTI MIDLAND: September heard bid WTI -\$18/b; Americas crude oil: WTI CMA: September heard bid +\$1.39/b; Americas crude oil: WTI MIDLAND: September heard bid WTI -\$17.75/b; Americas crude oil: WTI MIDLAND: September heard offer WTI -\$16.75/b; Americas crude oil: WTI MIDLAND: October heard offer WTI -\$18/b; Americas crude oil: LLS: September heard traded WTI +\$3.10/b; Americas crude oil: HLS: September heard bid WTI +\$2.40/b; Americas crude oil: WTI MIDLAND: September heard traded WTI -\$17.50/b; Americas crude oil: WTI MIDLAND: September heard traded WTI -\$17/b; Americas crude oil: WTI MEH: September heard bid WTI +\$2.35/b; Americas crude oil: WTI MEH: September heard offer WTI +\$2.60/b; Americas crude oil: WTI ROLL: September heard bid WTI +\$1/b; Americas crude oil: WTI ROLL: September heard offer +\$1.50/b.

Americas crude oil: MARS: September/October box heard bid -\$1.30/b; Americas crude oil: MARS: September/October box heard offer -\$1.10/b; Americas crude oil: MARS: September heard bid WTI -\$0.35/b; Americas crude oil: MARS: September heard offer flat to WTI; Americas crude oil: MARS: October heard bid +\$0.85/b; Americas crude oil: MARS: October heard offer WTI +\$1.30/b; Americas crude oil: POSEIDON: September heard bid Mars -\$0.95/b; Americas crude oil: POSEIDON: September heard offer Mars -\$0.80/b; Americas crude oil: WTS: September heard offer WTI -\$16.75/b; Americas crude oil: SGC: September heard offer WTI +\$0.25/b; Americas crude oil: MARS: September heard traded flat to WTI; Americas crude oil: POSEIDON: September heard traded Mars -\$0.85/b; Americas crude oil: SGC: September heard offer WTI +\$0.30/b; Americas crude oil: WTS: September heard traded WTI -\$17/b.

WEST AFRICAN SPOT CRUDE ASSESSMENTS (\$/barrel) (PGA page 1230)

		Mid	Change		Spread vs fwd Dated Brent	Mid	Change
Nigeria Spot Crude Assessments							
Bonny Light	PCAI00	74.24-74.27	74.255	+0.145	AAGXL00	1.44/1.46	1.450 +0.050
Qua Iboe	PCAI00	74.29-74.32	74.305	+0.095	AAGXN00	1.49/1.51	1.500 0.000
Forcados	PCABC00	74.24-74.27	74.255	+0.045	AAGXP00	1.44/1.46	1.450 -0.050
Agbami	AAQZB00	72.49-72.52	72.505	-0.005	AAQZC00	-0.31/-0.29	-0.300 -0.100
Escravos	AAEIZ00	74.29-74.32	74.305	+0.045	AAGXR00	1.49/1.51	1.500 -0.050
Brass River	AAEJB00	73.99-74.02	74.005	+0.095	AAGXV00	1.19/1.21	1.200 0.000
Akpo	PCNGA00	72.49-72.52	72.505	-0.005	PCNGB00	-0.31/-0.29	-0.300 -0.100
Bonga	PCNGC00	74.14-74.17	74.155	+0.095	PCNGD00	1.34/1.36	1.350 0.000
Usan	AA XUQ00		72.005	+0.195	AA XUR00		-0.800 +0.100
Erha	AA XU000		74.005	+0.095	AA XUP00		1.200 0.000
Angola spot crude assessments (\$/barrel) <small>(PGA page 1232)</small>							
Cabinda	PCAFD00	72.34-72.37	72.355	+0.095	AAGXT00	-0.46/-0.44	-0.450 0.000
Nemba	AAQYZ00	72.39-72.42	72.405	+0.095	AAQZA00	-0.41/-0.39	-0.400 0.000
Dalia	AAQYX00	71.89-71.92	71.905	+0.095	AAQYY00	-0.91/-0.89	-0.900 0.000
Girassol	AASNL00	72.79-72.82	72.805	+0.095	AASJD00	-0.01/0.01	0.000 0.000
Hungo	AASLJ00	71.84-71.87	71.855	+0.095	AASJF00	-0.96/-0.94	-0.950 0.000
Kissanje	AASLK00	72.34-72.37	72.355	+0.095	AASJE00	-0.46/-0.44	-0.450 0.000
Pazflor	PCNGG00	71.89-71.92	71.905	+0.095	PCNGH00	-0.91/-0.89	-0.900 0.000
Plutonio	PCNGI00	71.89-71.92	71.905	+0.095	PCNGJ00	-0.91/-0.89	-0.900 0.000
Ghana spot crude assessments <small>(PGA page 1230)</small>							
Jubilee	AA XUS00		72.805	+0.095	AA XUT00		0.000 0.000
Republic of Congo spot crude assessments							
Djeno	PCNGE00	70.69-70.72	70.705	+0.095	PCNGF00	-2.11/-2.09	-2.100 0.000
Chad spot crude assessments							
Doba	AA XU000		69.105	+0.095	AA XUV00		-3.700 0.000

WEST AFRICA MARKET PARITY PRICES (\$/barrel) (PGA page 1270)

		Mid	Change
Amenam	AAXTI00	73.560	-0.135
EA Blend	AAXTJ00	75.060	-0.040
Yoho	AAXTK00	75.180	-0.105
Asaramatoru	AAXTV00	74.660	-0.100
Abo	AAXTL00	73.865	-0.055
TEN	AAXTW00	71.920	-0.100

US Gulf Coast (PGA pages 290 & 292)

The US Gulf Coast light sweet crude market was mixed Friday, as it absorbed news that top Chinese refiner Sinopec and its trading arm Unipecc have halted buying US crude in light of trade tensions between China and the United States. "That news didn't come as a surprise. It was in effect already," said one crude trader familiar with the situation. "[I] had already assumed 330,000 b/d of US

[crude] needs to find a new home. I'm assuming half to two-thirds goes to Europe and the rest to Asia." Most people in the market expect that the barrels that were flowing from the Gulf Coast to China will be redistributed elsewhere around the globe. While outright prices dipped as NYMEX WTI fell on the day, September crude differentials moved in varied directions. Light Louisiana Sweet increased 20 cents/b and was assessed at WTI cash plus \$3.10/b, based on a trade heard done last at that price. West Texas

Intermediate crude at the Magellan East Houston was unchanged Friday as no trades were heard done. MEH remained at WTI cash plus \$2.40/b. It was heard bid at WTI plus \$2.35/b and offered at plus \$2.60/b. WTI crude in Midland was assessed 50 cents/b lower at WTI minus \$17/b, based on trade data.

The differential for US Gulf of Mexico medium sour Mars was unchanged Friday and assessed flat to WTI cash, after spending the week at or above WTI. The grade was heard traded flat to WTI. Poseidon was the only Gulf Coast sour grade that showed any movement, decreasing 5 cents/b on the day to be assessed at an 85 cents/b discount to WTI and to Mars. It was heard traded at Mars minus 85 cents. Thunder Horse was unchanged at WTI cash plus \$1.35/b. Southern Green Canyon remained at WTI plus 25 cents/b. It was heard offered at WTI plus 30 cents/b.

US Shale (PGA page 295)

Bakken Shale crude differentials across the country fell Friday, putting its US Gulf Coast FOB price at a discount to other light sweet crude grades. Near the oil fields in Williston, North Dakota, Bakken barrels for injection into the Dakota Access Pipeline was heard traded and assessed at NYMEX light sweet crude calendar-month average (WTI CMA) minus \$2.70/b, down 40 cents day on day. Bakken in the Clearbrook, Minnesota, hub fell 15 cents to be assessed at NYMEX WTI CMA minus 40 cents/b, following the steep gains in recent trading days. Barrels in the Guernsey, Wyoming, hub had a more conservative drop, inching 5 cents lower to NYMEX WTI CMA minus \$1.35/b. In Nederland, Texas, Bakken pipeline barrels were talked valued at cash WTI plus \$2/b, down 15 cents, and equivalent to NYMEX WTI CMA plus \$3.27/b. A market source said that Gulf Coast prices were lower amid a similarly weaker market for Dakota Access Pipeline. With the lower Nederland pipeline differential, Gulf Coast Bakken FOB was assessed at an outright price of \$71.24, a

US SPOT CRUDE ASSESSMENTS (\$/barrel) (PGA pages 210 & 214)

			Mid	Change
Mars (Sep)	AAMBR00	68.48-68.50	68.490	-0.470
Mars (Oct)	AAMBU00	68.49-68.51	68.500	-0.060
Mars (Nov)	AAMBX00	68.57-68.59	68.580	0.000
Mars/WTI (Sep)	AAGWH00	-0.01/0.01	0.000	0.000
Mars/WTI (Oct)	AAKTH00	1.14/1.16	1.150	+0.250
Mars/WTI (Nov)	AAMBO00	1.64/1.66	1.650	+0.250
LOOP/WTI (Sep)	AALOM01		-0.300	0.000
LOOP/WTI (Oct)	AALOM02		0.850	+0.250
LOOP/WTI (Nov)	AALOM03		1.350	+0.250
LOOP/Mars (Sep)	AALPM01		-0.300	0.000
LOOP/Mars (Oct)	AALPM02		-0.300	0.000
LOOP/Mars (Nov)	AALPM03		-0.300	0.000
WTI-Delta	AAEJK00	1.26/1.28	1.270	-0.180
P-Plus WTI	PCACI00	4.64/4.66	4.650	-0.180
P-5 WTI	AAFEN00		65.040	-0.450

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

			Mid	Change	Spread vs 1st line WTI	Mid	Change	
WTI (Midland)	PCACJ00	51.48-51.50	51.490	-0.970	AAGVZ00	-17.01/-16.99	-17.000	-0.500
WTS (1st month)	PCACK00	51.48-51.50	51.490	-0.520	AAGWB00	-17.01/-16.99	-17.000	-0.050
WTI MEH	AAARG00		70.890	-0.470	AAVRH00		2.400	0.000
Eugene	PCAF000	69.33-69.35	69.340	-0.470	AAGWD00	0.84/0.86	0.850	0.000
Bonito	PCAI000	69.33-69.35	69.340	-0.470	AAGWF00	0.84/0.86	0.850	0.000
SGC	AASOI00	68.73-68.75	68.740	-0.470	AASOJ00	0.24/0.26	0.250	0.000
Poseidon	AABHK00	67.63-67.65	67.640	-0.520	AAGWL00	-0.86/-0.84	-0.850	-0.050
LLS (1st month)	PCABN00	71.58-71.60	71.590	-0.270	AAGWN00	3.09/3.11	3.100	+0.200
HLS (1st month)	PCABD00	70.93-70.95	70.940	+0.030	AAGVP00	2.44/2.46	2.450	+0.500
Wyoming Sweet	PCACM00	65.88-65.90	65.890	-0.320	AAGWR00	-2.61/-2.59	-2.600	+0.150
Thunder Horse	AAWZK00	69.83-69.85	69.840	-0.470	AAWZL00	1.34/1.36	1.350	0.000

			Mid	Change	Spread vs 2nd line WTI	Mid	Change	
WTI MEH (2nd month)	AAXXE00		71.050	-0.310	AAYYA00		3.700	0.000
WTI Midland (2nd month)	AAYZA00		50.050	-0.810	AAAXF00		-17.300	-0.500
WTS (2nd month)	AAURG00	50.04-50.06	50.050	-0.360	AAURH00	-17.31/-17.29	-17.300	-0.050
LLS (2nd month)	AAURC00	71.79-71.81	71.800	-0.110	AAURD00	4.44/4.46	4.450	+0.200
HLS (2nd month)	AAURE00	71.14-71.16	71.150	+0.190	AAURF00	3.79/3.81	3.800	+0.500
Basrah Light	AAEJH00	72.96-72.98	72.970	-0.150	AAGWV00	5.61/5.63	5.620	+0.160

			Mid	Change	Spread vs NYMEX WTI CMA	Mid	Change	
WCS ex-Cushing	AAWTY00	62.36-62.38	62.370	-0.290	AAWTZ00	-4.86/-4.84	-4.850	0.000
WCS ex-Nederland	AAAY000		64.570	-0.290	AAAYX00		-2.650	0.000
Bakken Williston	AAAXP00		64.520	-0.690	AAAXR00		-2.700	-0.400
Bakken Guernsey	AASRR00	65.86-65.88	65.870	-0.340	AASRV00	-1.36/-1.34	-1.350	-0.050
Bakken Clearbrook	AASRU00	66.81-66.83	66.820	-0.440	AASRW00	-0.41/-0.39	-0.400	-0.150
Bakken USGC Pipe	ABAKA00		70.490	-0.620	ABAKB00		3.270	-0.330

			Mid	Change	Spread vs Eagle Ford Marker	Mid	Change	
Eagle Ford Postings Avg.	AAVAH00		63.650	-0.420	AAVAI00		-7.350	-0.070

			Mid	Change	Spread vs NYMEX WTI Strip	Mid	Change	
Bakken	ABAKC00		71.240	-0.620	ABAKD00		3.630	-0.240
Eagle Ford Crude	AAAY000		71.390	-0.470	AAAYU00		3.780	-0.090
Eagle Ford Condensate	AAAYR00		71.190	-0.470	AAAYS00		3.580	-0.090
WTI	AAVBA00		71.390	-0.470	AAAYZ00		3.780	-0.090

			Mid	Change	Spread vs NYMEX WTI CMA	Mid	Change	
Eagle Ford Crude	AAVAV00		71.390	-0.470	AAVAV00		3.780	-0.090
Eagle Ford Condensate	AAVBB00		71.190	-0.470	AAVBC00		3.580	-0.090

Global Benchmarks at US Close							
Americas Dated Brent	AAQBF00	72.370-72.390	72.380	-1.150			

premium of \$2.75/b to September cash WTI. Bakken FOB was 15 cents lower than Eagle Ford 45-API and WTI FOB, which were both assessed at \$71.39/b.

US West Coast (PGA page 294)

Alaska North Slope crude fell Friday despite a stronger Dubai-WTI swap spread. A 300,000-barrel cargo of September-delivery ANS in Southern California was heard traded at September ICE Brent calendar-month average minus 25 cents/b, equivalent to front-month NYMEX light sweet crude calendar-month average plus \$6.10/b. ANS was assessed at this trade level, 80 cents lower than Thursday's WTI CMA differential. The crude fell despite the September Dubai-WTI spread widening by 11 cents to \$4.60/b.

Canada (PGA pages 296 & 298)

Eastern Canadian crudes were assessed 5 cents/b lower across the board Friday amid growing signs of weakness in barrels sold in the Atlantic Basin. The day's decline brought Hibernia crude to a discount of 85 cents/b to the Eastern Canadian Dated Brent strip, the weakest in eight sessions. Market participants said one potentially negative factor for all crudes sold in the Atlantic Basin is the arrival of more US barrels as trade tensions rise with China. US crude exports have slowed in recent weeks, likely because the US-China trade war has reduced flows to China, the single largest buyer of US crude in May. West African crude market sources Friday also warned that reduced refinery runs would lead to higher US crude exports into Europe, competing with Nigerian light sweet crudes, which compete directly with offerings produced off the coast of Newfoundland and Labrador.

Differentials for Western Canadian crudes shipped on pipelines continued to diverge Friday, with heavy grades weakening and light grades moving in the opposite direction. Western Canadian Select at Hardisty started the

CALIFORNIA SPOT CRUDE ASSESSMENTS (\$/barrel) (PGA page 214)

Line			Mid	Change				
Line 63/Hynes	PCABM00	77.10-77.14	77.120	-0.240				
Thums/Long Beach	PCACD00	72.85-72.87	72.860	+1.170				
Kern River	PCABJ00	71.23-71.25	71.240	+1.170				
P-Plus Line 63	PCAFV00	4.39/4.41	4.400	0.000				
ANS/Long Beach	PCAAD00	73.30-73.34	73.320	-1.090	AAGWX00	6.09/6.11	6.100	-0.800

US DOMESTIC CRUDE ASSESSMENTS LONDON CLOSE (\$/barrel) (PGA page 1240)

			Mid	Change	Spread to		Mid	Change
WTI (Sep)	AAQAR00	68.68-68.70	68.690	0.000	NYMEX light sweet crude	AAQAS00	-0.01/0.01	0.000
WTI (Oct)	AAQAT00	67.43-67.45	67.440	+0.010		AAQAU00	-0.01/0.01	0.000
WTI (Nov)	AAQAV00	67.00-67.02	67.010	+0.020		AAQAW00	-0.01/0.01	0.000
					Spread to			
					same-month cash WTI			
WTI MEH (Sep)	AAYRZ00		71.090	+0.100		AAYTA00		2.400
WTI MEH (Oct)	AAXYD00		71.140	+0.110		AAYWA00		3.700
LLS (Sep)	AAQBB00	71.58-71.60	71.590	0.000		AAQBC00	2.89/2.91	2.900
LLS (Oct)	AAQBD00	71.68-71.70	71.690	+0.010		AAQBE00	4.24/4.26	4.250
MARS (Sep)	AAQAX00	68.63-68.65	68.640	-0.100		AAQAY00	-0.06/-0.04	-0.050
MARS (Oct)	AAQAZ00	68.53-68.55	68.540	+0.160		AAQBA00	1.09/1.11	1.100

AMERICAS CLOSE (\$/barrel) (PGA page 210)

			Mid	Change
Americas Dated Brent	AAQBF00	72.37-72.39	72.380	-1.150

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 (Sep)	AAZDA00		68.350	+0.870
LOOP Sour (Oct)	AAZDB00		68.000	+0.740
LLS (Sep)	AAZDC00		71.550	+0.820
LLS (Oct)	AAZDD00		71.650	+0.690
Southern Green Canyon	AAZDE00		68.900	+0.770
WTI MEH (Sep)	AAZDF00		71.050	+0.520
WTI MEH (Oct)	AAZDG00		71.100	+0.390

CFR NORTH ASIA ASSESSMENTS SINGAPORE CLOSE (\$/barrel) (PGA page 2202)

			Mid	Change
Dubai CFR North Asia	PCAQA00		73.150	+0.760
Oman CFR North Asia	PCAQJ00		73.240	+0.800
Upper Zakum CFR North Asia	PCAQB00		73.120	+0.750
Qatar Marine CFR North Asia	PCAQC00		72.780	+0.750
Murban CFR North Asia	PCAQE00		75.480	+0.760
Basrah Light CFR North Asia	PCAQK00		72.810	+0.760
ESPO CFR North Asia	PCAQD00		74.380	+0.780
Forties CFR North Asia	PCAQF00		75.265	+0.890
Dalia CFR North Asia	PCAQG00		73.930	+1.040
WTI MEH CFR North Asia	PCAQH00		75.660	+0.760
LOOP Sour CFR North Asia	PCAQI00		71.030	+1.130

day weaker, trading at NYMEX WTI CMA minus \$31/b. It fell from there, and last traded below the deadline at minus \$31.25/b, sources said, which is where it was assessed for a fresh four-year low. Sources have said refinery maintenance in the US Midwest is driving the weakness by cutting demand when inventories are already at a record and pipelines remained constrained. There are signs such as historically weak differentials are affecting producers, with Canadian Natural Resources saying Thursday it had shut in 2,900 b/d of heavy oil output in Alberta because of the steep WCS discount to WTI. A total of 7,450 b/d of output was curtailed in the second quarter, but with the price margins improving for the company in July, 4,550 b/d of output restarted, company President Tim McKay said Thursday during and earnings call. On the light side, Syncrude Sweet Premium continued rising, and was heard to trade at WTI CMA plus \$3/b, which is where it was assessed. The higher differential comes as Syncrude Canada works to restart production after it shut down last month due to a transformer outage. Mixed Sweet also gained, and was assessed up 55 cents/b on the day to WTI CMA minus \$5.30/b, after it was heard to trade there.

Latin America [\(PGA page 288\)](#)

Colombia was scheduled to load 1.5 million barrels of Vasconia crude and 1.5 million barrels of Castilla Blend out of the port of Covenas between Friday and Tuesday, a loading program showed Friday. Ecopetrol, Cepsa and Trafigura were lined up to load one Aframax-sized vessel each of medium-sour Vasconia, according to the program. Meanwhile, Ecopetrol, the only producer of Castilla Blend, was expected to load one VLCC-sized cargo and one Aframax with that grade next week. The Colombian oil producer was also scheduled to load 500,000 barrels of Brazilian Lula crude this weekend. Year to date, Colombia has also imported US crudes such as Thunder Horse, Mars and LLS; Canada's Hibernia; Russia's Varandey and others. Separately, Canada-based Parex Resources awarded 500,000 barrels of Vasconia delivery to an undisclosed

CANADIAN SPOT CRUDE CARGO ASSESSMENTS (\$/barrel) [\(PGA page 230\)](#)

			Mid	Change	Spread vs fwd Dated Brent	Mid	Change
Terra Nova	AAJU00	71.92-71.95	71.935	+0.060	AAJU00	-0.91/-0.89	-0.900 -0.050
Hibernia	AAJK00	71.97-72.00	71.985	+0.060	AAJK00	-0.86/-0.84	-0.850 -0.050
White Rose	AAVJ00	72.72-72.75	72.735	+0.060	AAVJ00	-0.11/-0.09	-0.100 -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 > Oil > Specifications > Crude oil specifications.

CANADIAN SPOT CRUDE ASSESSMENTS (\$/barrel) [\(PGA page 230\)](#)

			Mid	Change	Spread vs Canada basis	Mid	Change
Lloyd Blend	AALRK00	36.91-36.93	36.920	-0.740	AALRP00	-30.31/-30.29	-30.300 -0.450
Mixed Sweet	AALRR00	61.91-61.93	61.920	+0.260	AALRV00	-5.31/-5.29	-5.300 +0.550
Light Sour Blend	AALRX00	60.96-60.98	60.970	-0.040	AALSD00	-6.26/-6.24	-6.250 +0.250
Midale	AAUCC00	60.46-60.48	60.470	-0.040	AAUCE00	-6.76/-6.74	-6.750 +0.250
Condensates	AALSF00	66.76-66.78	66.770	-0.090	AALSJ00	-0.46/-0.44	-0.450 +0.200
Syncrude Sweet Prem.	AASOK00	70.21-70.23	70.220	+0.210	AASOM00	2.99/3.01	3.000 +0.500
WCS Hardisty	AAPPN00	35.96-35.98	35.970	-0.740	AAPP00	-31.26/-31.24	-31.250 -0.450
Cold Lake Hardisty	AASZX00	35.31-35.33	35.320	-0.740	AASZ00	-31.91/-31.89	-31.900 -0.450
WTI CMA (1st mo)	AAVSN00		67.220	-0.290			

LATIN AMERICAN ASSESSMENTS (\$/barrel) [\(PGA page 280\)](#)

			Mid	Change	Diff to WTI strip	Diff to Futures Brent strip	Diff to Dated Brent strip
Escalante	PCAGC00	69.35-69.40	69.375	-0.125	PCAGO00	2.120	AAXBS00 -4.200 AAXAX00 -3.410
Roncador	AAQTL00	68.25-68.30	68.275	-0.125	AAQTK00	1.020	AAXBT00 -5.300 AAXAY00 -4.510
Santa Barbara	AAITD00	68.58-68.63	68.605	-0.110	AAITJ00	1.350	AAXBU00 -4.970 AAXAZ00 -4.180
Loreto	PCAGH00	66.53-66.58	66.555	-0.260	PCAGQ00	-0.700	AAXBV00 -7.020 AAXBG00 -6.230
Oriente	PCADE00	67.53-67.58	67.555	-0.260	PCAGU00	0.300	AAXBW00 -6.020 AAXBH00 -5.230
Napo	AAMCA00	63.53-63.58	63.555	-0.260	AAMCD00	-3.700	AAXBX00 -10.020 AAXBI00 -9.230
Marlim	AAITF00	68.20-68.25	68.225	-0.125	AAITL00	0.970	AAXBY00 -5.350 AAXBJ00 -4.560
Castilla Blend	AAVEQ00	64.75-64.80	64.775	-0.125	AAVEQ01	-2.480	AAXBZ00 -8.800 AAXBK00 -8.010
Magdalena	AAWFR00	64.85-64.90	64.875	-0.125	AAWFS00	-2.380	AAXCA00 -8.700 AAXBL00 -7.910
Vasconia	PCAGI00	68.05-68.10	68.075	+0.175	PCAGR00	0.820	AAXCB00 -5.500 AAXBN00 -4.710
Mesa 30	AAITB00	67.70-67.75	67.725	+0.175	AAITH00	0.470	AAXCC00 -5.850 AAXB000 -5.060
Latin America WTI strip	AAXBPO0		67.255				
Latin America Futures Brent strip	AAXBQ00		73.575				
Latin America Dated Brent strip	AAXBRO0		72.785				

PLATTS EURO-DENOMINATED ASSESSMENTS (€/barrel) [\(PGA page 1252\)](#)

			Mid	Change
European crude oil benchmarks				
Dated Brent	AAPYR00	62.450-62.460	62.455	-0.545
Dated Brent (CIF)	PCAKN00		63.178	-0.180
Urals (Mediterranean)	AAPYS00	61.380-61.410	61.395	+0.075
US crude oil benchmarks				
WTI (Sept)	AAPYT00	59.210-59.230	59.220	+0.080
WTI MEH (Sept)	AAYSA00		61.290	+0.171
Mars (Sept)	AAPYU00	59.170-59.190	59.180	0.000

Euro/US\$ forex rate: 1.1599. Platts Euro denominated crude oil assessments are based on market values and a Euro/US\$ forex rate at 4:30 PM local London time.

trading company for September, market sources said. According to multiple sources, the deal was done at a \$5.50/b discount to ICE Brent. Platts assessed the differential for Vasconia at that level, up 35 cents/b to Platts Latin Brent Strip from Thursday. Meanwhile, Castilla Blend was assessed 5 cents higher at minus \$8.80/b to Platts Latin Brent Strip. A narrower spread between ICE Brent and NYMEX WTI was seen as the support for higher Colombian crude prices starting August. The spread between both crude benchmarks narrowed to \$4.76 Friday, according to S&P Global Platts data. The average spread has been \$5.42 in 2018 to date.

[NEWS \(PGA page 100\)](#)

OPEC July crude output surges 340,000 b/d from June to 32.66 mil b/d: survey

Saudi Arabia pumped close to its all-time high in July and several of its OPEC brethren posted their largest output figures in more than a year and a half, as the bloc appears to be following through on its agreement to unleash more barrels on the market. OPEC produced 32.66 million b/d in July, a 340,000 b/d rise from June, including newest member the Republic of Congo, according to the latest S&P Global Platts survey of industry officials, analysts and shipping data. Saudi Arabia, OPEC's largest member, produced 10.63 million b/d, the kingdom's highest since August 2016, when it produced its record 10.66 million b/d, according to Platts survey archives. Its Gulf allies Kuwait and the UAE pushed their output to their most since December 2016 — the last month before OPEC and 10 non-OPEC allies agreed to implement supply cuts that are now being eased — as did Iraq and Algeria, the survey found. Those gains were more than enough to offset output declines in sanctions-hit Iran, crisis-wracked Venezuela and conflict-torn Libya. OPEC on June 23 agreed with its partners to end overcompliance with their production cuts and boost output by a collective 1 million b/d to replace

RUBLE-DENOMINATED RUSSIAN ASSESSMENTS (Rb/barrel) (PGA page 1224)

			Mid	Change
Russian crude oil benchmarks				
Urals FOB Novorossiysk	AAUJP00	4438.180–4440.710	4439.445	-9.375
Urals FOB Ventspils	AAUJQ00	4440.080–4442.610	4441.345	-17.300
Urals FOB Novorossiysk 80kt	AAUJR00	4417.950–4419.850	4418.900	-11.225
Urals CIF Mediterranean	AAUJS00	4500.770–4503.300	4502.035	-11.425
Urals CIF Rotterdam	AAUJT00	4495.080–4497.610	4496.345	-19.015

US\$/Ruble forex rate: 63.2220. Platts Ruble denominated crude oil assessments are based on market values and a US\$/Ruble forex rate at 4:30 PM local London time.

PLATTS CAD-DENOMINATED CANADA SPOT CRUDE ASSESSMENTS (C\$/cu m) (PGA page 232)

			Mid	Change
Lloyd Blend	AALRM00	301.461–301.624	301.543	-6.764
Mixed Sweet	AALRT00	505.647–505.811	505.729	+0.944
Light Sour Blend	AALRZ00	497.888–498.052	497.970	-1.494
Midale	AAUCD00	493.805–493.968	493.886	-1.485
Condensates	AALSH00	545.260–545.423	545.341	-2.015
Syncrude Sweet	AASOL00	573.437–573.601	573.519	+0.376
WCS Hardisty	AAPPO00	293.702–293.865	293.783	-6.747
Cold Lake Hardisty	AASZY00	288.393–288.556	288.475	-6.734

DAILY US\$ VS EURO EXCHANGE RATE (PGA page 1151)

		Mid	Change
August 3, 2018	AAF CW00	1.1599	-0.002

ASIA CLOSE BRENT AND WTI SPOT ASSESSMENTS (\$/barrel) (PGA page 2210)

			Mid	Change
Brent (Oct)	PCAJG00	73.27–73.28	73.275	+0.745
Brent (Nov)	PCAJI00	73.51–73.52	73.515	+0.675
Brent (Dec)	PCAJ000		73.605	+0.615
WTI (Sep)	AAFFU00	68.63–68.67	68.650	+1.070
WTI (Oct)	AAFFW00	67.38–67.42	67.400	+0.940
WTI (Nov)	AAFFY00	66.92–66.96	66.940	+0.850

OMAN OSPS AND DERIVATIVES (\$/barrel) (PGA pages 2658 & 2210)

			Mid	Change
Oman/Dubai Swap (Sep)	AAIHJ00	0.08/0.12	0.100	+0.050
Oman/Dubai Swap (Oct)	AAIHL00	0.08/0.12	0.100	+0.050
Oman/Dubai Swap (Nov)	AAIHN00	0.08/0.12	0.100	+0.050
Oman cash/OSP (Oct)	PCABT00	-0.01/0.03	0.010	+0.140
Oman Swap (Sep)	AAHZP00	71.77–71.81	71.790	+0.820
Oman Swap (Oct)	AAHZR00	71.54–71.58	71.560	+0.780
Oman Swap (Nov)	AAHZT00	71.33–71.37	71.350	+0.710

DAILY OPEC BASKET PRICE (\$/barrel) (PGA page 207)

		Mid	Change
August 2, 2018	AAEUQ00	71.610	-0.490

barrels expected to be shut in by the reimplementaion of US sanctions on Iran and Venezuela's economic quagmire. OPEC's July compliance among the 12 members with specified quotas stands at 105%, down from 131% in June, according to Platts calculations. Iran, which has warned other members against encroaching on its market share, saw its production fall to 3.72 million b/d in July — lowest since January 2017 — as European buyers began winding down their purchases in advance of US sanctions snapping back in November. Venezuela, suffering from crushing debt, crumbling infrastructure, worker unrest, hyperinflation and US sanctions, continued its output slide to 1.24 million b/d, a 670,000 b/d drop in a year and the lowest in the 30-year history of the Platts OPEC survey, except a debilitating worker strike in late 2002 and early 2003. Libya's output dropped 30,000 b/d month-on-month to 670,000 b/d, its lowest since April 2017, the survey found, as it dealt with a militia blockade of its eastern ports that was resolved July 11 and a kidnapping at the Sharara field in the country's southwest. Angola's production remained steady at 1.45 million b/d in July, a 190,000 b/d year-on-year decline, according to the survey, as its mature fields continued to deplete. But the African country should see its production rebound in the coming months with the offshore Kaombo field beginning first production in late July. Major gainers besides Saudi Arabia include Nigeria, which boosted its output to 1.80 million b/d as the force majeure on key export grade Bonny Light was lifted mid-month, and the UAE and Kuwait, both of whom had signaled their intent to loosen their taps. UAE output rose to 2.97 million b/d, while Kuwait produced 2.78 million b/d in July, the survey found. Iraq also raised crude exports from its southern terminals to a record high in July, with its production coming in at 4.57 million b/d, according to the survey. Newest member Congo produced 310,000 b/d in July, a drop from 330,000 b/d in June. The Platts OPEC figures were compiled by surveying OPEC and oil industry officials, traders and analysts, as well as reviewing proprietary shipping data. On June 23, OPEC and 10 non-OPEC producers agreed to boost output by a combined 1 million b/d by reducing overcompliance with

FUTURES SETTLEMENTS

	Settlement	Change	Low	High	Volume*	Open interest	PNT***
NYMEX Light Sweet crude (\$/barrel) (PGA page 705)							
Sep 18	NMCL001	68.49	-0.47	67.87	69.24	444379	403537
Oct 18	NMCL002	67.35	-0.31	66.68	67.94	66600	262673
Nov 18	NMCL003	66.93	-0.25	66.27	67.45	21506	140608
Dec 18	NMCL004	66.59	-0.20	65.93	67.05	39525	289265
Total	NMCL000				642637		XNCLP00 7723
ICE Brent (\$/barrel) (PGA page 704)							
Oct 18	ICLL001	73.21	-0.24	72.48	73.73	251896	435142
Nov 18	ICLL002	73.53	-0.15	72.79	73.98	113915	287366
Dec 18	ICLL003	73.63	-0.11	72.91	74.04	118482	302479
Jan 19	ICLL004	73.62	-0.07	72.91	73.99	37627	134352
Total	ICLL000				487461		XILLP00 6337
ICE WTI (\$/barrel) (PGA page 704)							
Sep 18	ICIC001	68.49	-0.47	67.88	69.24	22892	76957
Oct 18	ICIC002	67.35	-0.31	66.68	67.95	40926	66587
Nov 18	ICIC003	66.93	-0.25	66.35	67.47	21601	28898
Dec 18	ICIC004	66.59	-0.20	66.00	67.07	32829	137130
Total	ICIC000				113257		XIICP00 2599
ICE BWAVE (\$/barrel) (PGA page 704)							
BWAVE data refer to previous day.							
Oct 18	XIBW001	72.76					
Nov 18	XIBW002	73.08					
DME Oman crude (\$/barrel)** (PGA pages 702 & 2710)							
Oct 18	XDOA001	72.00	+0.67			2795	
Oct 18	DMOQ001	71.88	-0.44	71.88	72.30	2789	2030
Nov 18	DMOQ002	71.83	-0.44	71.83	71.83	70	0
Dec 18	DMOQ003	71.61	-0.44	71.61	71.61	190	30
Jan 19	DMOQ004	71.46	-0.44	71.46	71.46	320	20
Total Volume	DMOQ000					4404	XDOQP00 1075
NYMEX ULSD (\$/gal) (PGA page 705)							
Sep 18	NMHO001	2.1269	-0.0049	2.1130	2.1444	45819	119535
Oct 18	NMHO002	2.1324	-0.0041	2.1184	2.1486	23787	57140
Nov 18	NMHO003	2.1363	-0.0033	2.1220	2.1517	12329	42863
Dec 18	NMHO004	2.1395	-0.0025	2.1244	2.1541	15743	58853
Total	NMHO000					108532	XNHOP00 7610
NYMEX RBOB unleaded gasoline (\$/gal) (PGA page 705)							
Sep 18	NMRB001	2.0655	-0.0026	2.0547	2.0906	68822	159292
Oct 18	NMRB002	1.9451	-0.0036	1.9304	1.9636	58984	98038
Nov 18	NMRB003	1.9172	-0.0033	1.9019	1.9335	18714	69965
Dec 18	NMRB004	1.8979	-0.0033	1.8821	1.9132	17129	50403
Total Volume	NMRB000					174679	XNRBP00 13888
NYMEX Natural Gas (\$/MMBtu) (PGA page 705)							
Sep 18	NMNG001	2.853	+0.037	2.814	2.862	123981	294075
Oct 18	NMNG002	2.862	+0.040	2.821	2.870	47802	177035
Nov 18	NMNG003	2.898	+0.041	2.858	2.906	26259	148118
Dec 18	NMNG004	2.998	+0.040	2.960	3.004	20919	98196
Total Volume	NMNG000					327419	XNNGP00 2255

production cuts but left unsettled how that will be apportioned. The estimate for Iraq includes volumes from semi-autonomous Iraqi Kurdistan. The Republic of Congo joined OPEC in June 2018, becoming the organization's 15th member. The next OPEC meeting is December 3.

Seven Saudi tankers go dark off Yemen after Houthi attack

Seven Saudi tankers appear to have shut off their transponders that make their position visible to the world after last week's Houthi attack on two VLCCs in the Red Sea, according to S&P Global Platts trade flow software cFlow. Two unnamed Saudi-owned VLCCs were attacked off the west coast of Yemen last week, prompting state-owned Saudi Aramco to halt all oil shipments through the Bab al-Mandab strait at the bottom of the Red Sea. A total of seven tankers owned by Saudi state shipping company Bahri now appear to have shut off their transponders, according to cFlow, keeping their location hidden. The VLCCs Arsan and Abqaiq have not updated their location since the mornings of July 23 and 25, respectively, when they were heading towards Bab al-Mandab. Three part-laden VLCCs, the Khuzama, the TI Hawtah and the Marjan,

FUTURES SETTLEMENTS

	Settlement	Change	Low	High	Volume*	Open interest	PNT***
ICE low sulfur gasoil (\$/mt) (PGA page 704)							
Aug 18	ICL0001	650.00	+4.25	644.00	653.00	41856	71017
Sep 18	ICL0002	652.00	+4.25	646.00	655.00	79710	203195
Oct 18	ICL0003	654.25	+4.00	648.00	657.00	46906	158656
Nov 18	ICL0004	651.75	+3.75	645.75	654.50	16590	65125
Total Volume	ICL0000					260604	XILOP00 9485

*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. ***Privately Negotiated Trade values found on PGA page 710

FUTURES AT PLATTS' MARKET ON CLOSE (\$/barrel)

 (PGA page 703)

Singapore*			London*		Houston*		Singapore*			London*		Houston*	
ICE Brent						NYMEX WTI							
Oct	XILLA01	73.23	AAYE00	73.30	AAQB00	73.24	M1	XNCLA01	68.65	AASCR00	68.69	NYCRM01	68.48
Nov	XILLA02	73.46	AAYET00	73.59	AAQBH00	73.56	M2	XNCLA02	67.40	AASCS00	67.44	NYCRM02	67.36
Dec			AAXZY00	73.70	AAXZZ00	73.67	M3					NYCRM03	66.94
Jan			AAYAM00	73.67	AAYAL00	73.66	M4					NYCRM04	66.60
Oman													
Oct	XDOA001	72.00											
Volume	XDOAV01	2795											

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

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were gathering at the southwest corner of Oman off the port of Salalah, but have not updated their location since July 30-31. Another, the Khafji, was heading past Oman towards the Red Sea when it was last heard from early on August 1. And the chemicals tanker NCC Reem was in the Gulf of Aden carrying a cargo towards the Red Sea when it last updated its location, on the morning of 1 August. The operators of the tankers may have determined that keeping their locations visible while operating near Yemen presents a security risk. The rest of the Bahri fleet operating elsewhere in the world appears to be updating its location as normal, according to cFlow. Spokesmen for Saudi Aramco and Bahri were not immediately available for comment.

Buckeye starts permitting process for Corpus Christi crude loading facility

US midstream player Buckeye Partners has started the initial permitting process for its South Texas Gateway terminal at Corpus Christi to load large crude carriers, a senior company executive said Friday. Start up of the terminal is planned in late 2019 and the project will be part of a large marine facility that it is planning to build along with Phillips 66 and Andeavor, Buckeye's president of the global marine terminal, Khaled Muslih, said on an earnings webcast. "There are large-scale opportunities in Corpus [Christi] for crude exports, with the terminal being a part of the 800,000 b/d Gray Oak pipeline that will allow for barrels to flow from the Permian Basin," Muslih said. The South Texas Gateway terminal is being built as a joint venture between Buckeye (50%), Phillips 66 (25%) and Andeavor (25%). The project entails the construction of two docks capable of loading Suezmax (capacity 1 million barrels) and VLCC (up to 2 million barrels) tankers, along with 3.4 million barrels of crude and condensate storage. The terminal will be connected to the Gray Oak pipeline, for which operator Phillips 66 last week said it was increasing the initial throughput by 100,000 b/d to 800,000 b/d following strong shipper demand. The

REPORTED SPOT CASH TRANSACTIONS (PGA page 3)

Trans. Date	Cargo month	Spread month	Cargo load range/CFD week	CFD roll week	Crude grade(s)	Reported Status	Outright Price (\$/barrel)	Differential grade/month	Diff. Price (\$/barrel)	Barrels (barrel)	Seller	Buyer
PG/Asia Pacific Rim deals												
3-Aug	Oct				Dubai partial	Done	71.9			25000	Reliance	Vitol
3-Aug	Oct				Dubai partial	Done	71.9			25000	Reliance	Vitol
3-Aug	Sep				Kikeh	Heard		Dated Brent	3.9	300000	ConocoPhillips	Oil major
3-Aug	Sep		22 28		Bunga Orkid	Heard		Dated Brent	2	300000	PV Oil	Thai end-user
3-Aug	Sep		16 22		Bunga Kekwa	Heard		Dated Brent	1.75	300000	Petronas	Trading house
3-Aug	Sep		21 30		Bergading	Heard		Dated Brent	-1.25	200000	Petronas	Regional end-user
London crude window deals												
3-Aug		Aug	13 17		Brent CFD	Done		October	-1	100000	Mercuria	Vitol
3-Aug		Aug	20 24		Brent CFD	Done		October	-0.75	100000	Mercuria	Vitol
3-Aug		Aug	20 24		Brent CFD	Done		October	-0.77	100000	BP	Gunvor
3-Aug	Oct				Cash BFOE	Done	73.42			100000	Gunvor	Vitol
3-Aug	Oct				Cash BFOE	Done	73.39			100000	Shell	Mercuria
3-Aug	Oct				Cash BFOE	Done	73.39			100000	BP	Mercuria
3-Aug	Oct				Cash BFOE	Done	73.42			100000	BP	Vitol
North Sea, Mediterranean and West African deals												
3-Aug	Aug		24 28		Urals NWE	Done		Dated Brent	-1.6	723000	Total	Gunvor
3-Aug	Aug		24 28		CPC Blend	Done		Dated Brent	-1.95	702000	BP	OMV
Americas deals												
2-Aug	Sep	Sep	1 30		Bakken Guernsey	Reported		NYMEX WTI CMA	-1.35			
2-Aug	Sep	Sep	1 30		Bakken Williston (Into DAPL)	Reported		NYMEX WTI CMA	-2.5			
3-Aug	Sep	Sep	1 30		ANS	Reported		ICE Brent	-0.25	300000		
3-Aug	Sep	Sep	1 30		Bakken Clearbrook	Reported		NYMEX WTI CMA	-0.4			
3-Aug	Sep	Sep	1 30		Bakken Williston (Into DAPL)	Reported		NYMEX WTI CMA	-2.7	500		
3-Aug	Sep	Sep	1 30		C5 Ft Saskatchewan	Reported		NYMEX WTI CMA	-0.45			
3-Aug	Sep	Sep	1 30		LLS	Reported		Cash WTI	3.1			
3-Aug	Sep	Sep	1 30		Mars	Reported		Cash WTI	0			
3-Aug	Sep	Sep	1 30		Mixed Sweet	Reported		NYMEX WTI CMA	-5.6			
3-Aug	Sep	Sep	1 30		Mixed Sweet	Reported		NYMEX WTI CMA	-5.3			
3-Aug	Sep	Sep	1 30		Polvo	Reported		ICE Brent	-6.1			Trafigura
3-Aug	Sep	Sep	1 30		Poseidon	Reported		Mars	-0.85			
3-Aug	Sep	Sep	1 30		SSP	Reported		NYMEX WTI CMA	3			
3-Aug	Sep	Sep	1 5		Vasconia	Reported		ICE Brent	-5.5	500000	Parex	
3-Aug	Sep	Sep	1 30		WCS Hardisty	Reported		NYMEX WTI CMA	-31			
3-Aug	Sep	Sep	1 30		WCS Hardisty	Reported		NYMEX WTI CMA	-31.05			
3-Aug	Sep	Sep	1 30		WCS Hardisty	Reported		NYMEX WTI CMA	-31.25			
3-Aug	Sep	Sep	1 30		WCS Hardisty	Reported		NYMEX WTI CMA	-31.25			
3-Aug	Sep	Sep	1 30		WCS Hardisty	Reported		NYMEX WTI CMA	-31.25			
3-Aug	Sep	Sep	1 30		WTI Midland	Reported		Cash WTI	-17.5			
3-Aug	Sep	Sep	1 30		WTI Midland	Reported		Cash WTI	-17			
3-Aug	Sep	Sep	1 30		WTS	Reported		Cash WTI	-17			

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.

pipeline is expandable to roughly 1 million b/d subject to additional shipper commitments, Phillips 66 said at the time. To accommodate a likely increase in pipeline capacity, Buckeye is also keeping options to increase its crude and condensate storage for the South Texas Gateway terminal to 10 million barrels. “We are in talks with [potential] additional customers for use of our dock and storage facilities,” Muslih said. The South Texas Gateway terminal will be built on a 212-acre waterfront parcel at Ingleside on the Corpus Christi Ship Channel and will be Buckeye’s second crude export facility at that Texas port. The company is already the operator of its Buckeye Texas Hub terminal at Corpus from which it made a first crude shipment in April on board a Suezmax tanker. “We are now connecting that terminal to the Cactus II pipeline,” Muslih said. The Plains All American-backed Cactus II pipeline will have a capacity of 650,000 b/d and will run from the Permian to Corpus with project completion in late 2019.

Chad’s Doba crude to load four cargoes in Sep, steady from Aug, Jul: source

Chad’s Doba crude will see four cargoes of 950,000 barrels each load in September, unchanged from both July and August, according to a trader who has seen a copy of the grade’s loading schedule. Average loadings will be slightly higher month on month due to the one less day in September at 126,667 b/d. Loadings have been steady at four cargoes per month since April, with the exception of June when they totaled five after a cargo originally scheduled to load in May was deferred. Doba, a very heavy sweet crude produced in southern Chad, is pumped via the

Kome-Kribi (Doba) pipeline to the coast of Cameroon, where it loads at a terminal around 10 km offshore. The terminal is owned and operated by Cameroon Oil Transportation Co..

CHINA DATA: Independent refiners’ July crude oil imports rise 27% on month to

Crude oil imports by China’s independent refineries in eastern Shandong province, as well as Hebei Xinhai Chemical and Henan Fengli Petrochemical, rebounded by 27.3% from a 20-month low in June to around 7.36 million mt in July, or 1.74 million b/d, according to a monthly survey by S&P Global Platts. Imports were also 5.6% higher year on year. The rebound was broadly within market participants’ expectations, as imports in June were affected by restrictions on port operations because of the Shanghai Summit. Over January-July, total imports by the surveyed refineries rose marginally by 1.7% to 57.23 million mt, Platts data showed. The total crude import volume in July included parcels that arrived at and completed discharge operations at the ports in Shandong and Tianjin in the month, as well as cargoes that have arrived over the past months, but only completed offloading in July. Apart from those that have completed discharge operations, another 1.94 million mt of crude onboard 19 vessels were still waiting outside port limits as of July 31. In comparison, there is usually around 2 million mt of crude waiting to be discharged towards the end of the month. Cargoes waiting outside port limits as of July 31 included Qingyuan Petrochemical’s 258,000 mt of Cabinda crude and 130,000 mt of Plutoino crude, which had arrived at the ports in mid and end May. The 130,000 mt cargo of Plutoino crude

onboard Mercury Hope has since been discharged on August 1. Despite higher crude imports, feedstock inventories at major ports in Shandong fell 13% from the record high in June to 4.71 million mt as of July 26, data from Chinese information provider JLC showed. Major ports in Shandong refer to Qingdao, Dongjiakou, Longkou, Laizhou, Rizhao, Dongying and Yantai. Around 408,000 mt of crude was received by two trading companies — Vitol and PetroChina’s trading arms that supply to independent refineries — down from 466,000 mt imported by three trading companies in June. The number of companies taking in crude last month fell to 21, compared with 24 in June, for a total of 25 crude grades compared with 23 grades in June. In July, 19 independent refineries which hold crude quotas — including Hebei Xinhai Chemical and Henan Fengli Petrochemical — received 6.95 million mt of imported crude, compared with 5.31 million mt by 21 independent refineries in June, Platts data showed. Some of this volume received by the refineries can be resold to other independent refineries, including non-quota holders. As of end-July, crude imports by Qirun Petrochemical and Chambroad Petrochemicals have surpassed each of their import quota allocations. Qirun has imported around 2.25 million mt of crude over January-July, about 47,000 mt above its allocation. Chambroad has imported about 14,000 mt above its allocation of 3.31 million mt, and its total imports over January-July was about 107% higher year on year. In addition to those that have already run out of quotas, another two refineries are likely to run out of quotas soon, based on their current monthly imports. The two are Luqing Petrochemical and Hongrun Petrochemical, with around 416,000 mt and 405,000 mt of quotas left as of end-July, respectively.

SUBSCRIBER NOTES (PGA page 1500)**Platts removes pricing freeze in Brent CFD MOC**

S&P Global Platts has removed the two minute pricing freeze in the Brent Contract for Difference (CFD) Market on Close assessment process effective August 1, 2018. This change applies to Brent CFD price indications and Brent CFD spreads. This follows on from a decision announced May 11 and available here: <https://www.spglobal.com/platts/en/our-methodology/subscriber-notes/051118-platts-to-remove-pricing-freeze-in-brent-cfd-moc>. This change was originally proposed on March 23 in a note available here: <https://www.spglobal.com/platts/en/our-methodology/subscriber-notes/032318-platts-proposes-to-remove-pricing-freeze-in-brent-cfd-moc>. Market participants can now change their bids and offers up to the 16:30 London close. Platts reserves the right to determine whether any indication outstanding at this period has adequately tested a new market value for use in the MOC assessment process. Previously, any company bidding and offering a Brent CFD is unable to change the price of their indication after 16:28 London time, creating a two minute pricing freeze ahead of the 16:30 London close. Please send any further comments and feedback to europa_crude@spglobal.com and pricegroup@spglobal.com. For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts to change names of Med crude oil assessments

In line with changing market conditions in the Mediterranean crude markets, S&P Global Platts will amend the names of a number of different crude oil assessments to reflect trading norms from January 2, 2019. This decision follows from a proposal made on November 23 and available here: <https://www.platts.com/subscriber-notes-details/26845613>. Platts remains committed to reflecting standard cargo sizes in its assessments and is constantly reviewing the existing methodology to ensure that its assessments reflect standard traded volumes in a given market. The affected grades with planned changes are listed below:

Current Assessment Name	Proposed Assessment Name	Code
Urals (ex-Novorossiisk)	Urals FOB Novo Suez	AAGZS00
Urals (ex-Novorossiisk) vs Med	Urals FOB Novo Suez vs Med	AAHPH00
Urals (ex-Novo) FOB 80kt	Urals FOB Novo Afra	AAOTH00
Urals (ex-Novo) FOB 80 kt		

vs Med	Urals FOB Novo Afra vs Med	AAOTI00
Azeri Light FOB 80kt	Azeri Light FOB Supsa	AATHM00
Azeri Light FOB 80 kt vs BTC	Azeri Light FOB Supsa vs BTC	AATHN00
Azeri Light BTC FOB Ceyhan	Azeri Light FOB Ceyhan Suez	AAUFM00
Azeri Light BTC FOB Ceyhan vs BTC	Azeri Light FOB Ceyhan Suez vs BTC	AAUFN00
Azeri Light BTC FOB Ceyhan 80kt	Azeri Light FOB Ceyhan Afra	AAUFL00
Azeri Light BTC FOB Ceyhan 80kt vs Azeri	Light FOB Ceyhan Afra vs BTC	AAVLX00
CPC Blend FOB	CPC Blend FOB Suez	AALVZ00
CPC Blend FOB vs Med	CPC Blend FOB Suez vs Med	AAQFV00
CPC FOB 80kt	CPC Blend FOB Afra	AAQFW00
CPC FOB 80kt vs Med	CPC Blend FOB Afra vs Med	

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

Platts proposes changing flat rate baskets on some Euro Suezmax/Aframax routes

In response to changing trade flows, S&P Global Platts proposes to update the basket of flat rates used to calculate \$/mt prices on a number of Suezmax and Aframax routes West of Suez effective September 1, 2018. Platts proposes to amend the Worldscale basket for the dirty tanker route: 135kt Black Sea-Med, appearing under codes TDADQ00 (for Worldscale) and TDADL00 (\$/mt). The new basket will consist of the following rates: Novorossisk-Augusta Novorossisk-Lavera Novorossisk-Trieste: \$8.18/mt Average of the three flat rates: \$8.13/mt 140kt Black Sea-Med, appearing under codes TDAFJ00 (for Worldscale) and TDAFI00 (\$/mt). The new basket will consist of the following rates: Novorossisk-Augusta Novorossisk-Lavera Novorossisk-Trieste Average of the three flat rates: \$8.13/mt 80kt Black Sea-Med, appearing under codes TDADT00 (for Worldscale) and TDAD000 (\$/mt). The new basket will consist of the following rates: Novorossisk-Augusta Novorossisk-Lavera Supsa-Trieste Average of the three flat rates: \$7.87/mt 80kt Med-Med, appearing under codes PFAJP10 (for

Worldscale) and TDABL00 (\$/mt). The new basket will consist of the following rates: Sidi Kerir-Lavera La Skhirra-Augusta Ceyhan-Trieste Average of the three flat rates: \$5.51/mt 100kt Baltic-UKC, appearing under codes TDADP00 (for Worldscale) and TDADK00 (\$/mt). The new basket will consist of the following rates: Primorsk-Rotterdam Primorsk-Wilhelmshaven Ust Luga-Le Havre Average of the three flat rates: \$7.98/mt Please send all comments or questions by June 25, 2018, to shipping@spglobal.com and pricegroup@spglobal.com. For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available to the public upon request.

Platts to change laycan reflected in Russian ESPO crude assessments

S&P Global Platts will change the assessment laycan reflected in all assessments of Russia's East Siberian Pacific Ocean or ESPO crude oil effective January 2, 2019. Platts will change the assessment laycan of its ESPO M1 and ESPO M2 to reflect cargoes loading two calendar months and three calendar months forward, respectively, from the month of publication. This change will apply to ESPO assessments at both the Asian close and European close. For example, in January 2019, Platts ESPO M1 and ESPO M2 assessments will reflect cargoes loading FOB Kozmino in March and April, respectively. The change follows extensive consultation with the industry, after Platts formally invited feedback on a proposal to amend the ESPO assessment laycan in a subscriber note published September 10, 2017: <https://www.platts.com/subscriber-notes-details/27871024>. Currently, the Platts ESPO M1 assessment reflects cargoes loading 15-45 days forward, and ESPO M2 reflects loadings 45-75 days from the date of publication. The decision to amend the assessment laycans follows changes in the ESPO market since shipments first began in 2009. Spot cargoes of ESPO crude in the past often traded on a relatively prompt basis, partly because of the loading port Kozmino's proximity to the major refining center in North Asia. As spot volumes and acceptability of the grade grew, market dynamics in recent years have pushed trading activity in ESPO to align more closely with trading calendars of similar grades from Asia and the Middle East that typically trade for loading two months forward. The change helps refiners better evaluate ESPO relative to other grades and secure cargoes early to

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fit their desired mix of feedstock. Spot cargoes of ESPO crude, each typically 100,000 mt, now usually trade for loading FOB Kozmino basis two months forward as a differential to front-month Platts Dubai crude assessments. The benchmark Platts Dubai assessments also reflect cargoes loading two calendar months forward. From January 2019, Platts ESPO M1 assessments will align with the Platts front-line Dubai crude assessments month while ESPO M2 will align with second-line Dubai crude assessments. The change will also align the ESPO M1 assessment with front-month Platts assessments for other Far East Russian crude grades such as Sokol and Sakhalin Blend. At the Asian close, alongside the ESPO M1 (AARWF00) outright assessment, the ESPO M1 Diff to Dubai (AARCNO0) will reflect value for cargoes two calendar months forward. Similarly, ESPO M2 (AAWFEO0) and ESPO M2 Diff to Dubai (AAWFG00) will reflect cargoes loading three calendar months forward. At the European close, the outright ESPO FOB Kozmino (AARWD00) and ESPO M1 Diff to Fwd Dated Brent AARWE00 will reflect value for cargoes two calendar months forward. Please send all comments, feedback and questions to asia_crude@spglobal.com and pricegroup@spglobal.com. For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts renames, revises Eagle Ford FOB Corpus Christi assessments

S&P Global Platts has redefined and renamed its Eagle Ford FOB Corpus Christi crude and condensate assessments as Eagle Ford crude and condensate FOB USGC, with effect from August 1, 2018, to more broadly reflect the evolving regional export market. In line with this change, Platts will discontinue its Eagle Ford FOB Houston crude and condensate assessments with effect from September 4, 2018. The change follows a July 23 proposal note and July 30 decision note. To reflect this changing market, Platts is considering values for Eagle Ford crude and condensate cargoes on an FOB basis from locations along the USGC. Eagle Ford typically has been exported from Corpus Christi and Houston, where it is often referred to as South Texas Sweet. Platts may consider exports from other locations that could include Texas City, Beaumont, Nederland and Port Arthur. The most competitive location sets the values for the Eagle Ford crude and condensate FOB USGC

assessments. The revised assessments continue to reflect Aframax vessels, with a typical size of about 600,000 barrels. Platts recognizes not all Aframaxes may hold the same amount of crude oil or condensate, and that characteristics of the barrels as well as port restrictions may change the amount able to be loaded. FOB HOUSTON DISCONTINUATION: With multiple locations reflected in the redefined Eagle Ford FOB USGC assessments, Platts therefore will discontinue its assessments of Eagle Ford crude and condensate FOB Houston, with effect September 4. The affected assessments are:

ASSESSMENT NAME	CODE
Eagle Ford Crude FOB Houston	AAYAV00
Eagle Ford Crude FOB Houston vs forward WTI	AAYAW00
Eagle Ford Condensate FOB Houston	AAYBB00
Eagle Ford Condensate FOB Houston vs forward WTI	AAYBC00

The following methodology changes for the assessments took effect August 1:

CHANGE IN CONDENSATE SPECIFICATION: Platts now reflects 52 API oil in its Eagle Ford condensate assessments, down from the previous 55 API specification. There is significant variance in the gravity of Eagle Ford oil at the wellhead, though the commonly traded streams are Eagle Ford 45 and Eagle Ford 52, and to a lesser extent, Eagle Ford 60. The Platts Eagle Ford crude assessment continues to reflect 45 API barrels.

TIMING: The revised assessments reflect a laycan of 15-45 days forward. For example, on August 1, Platts is assessing Eagle Ford FOB USGC cargoes loading August 16-September 15. This change aligns with the revised WTI FOB USGC and new Bakken FOB USGC assessments. Previously, the Platts Eagle Ford FOB Corpus Christi assessments roll to the second month forward on the 15th of the month.

DIFFERENTIAL BASIS: The revised differential reflects the value of Eagle Ford crude and condensate FOB USGC cargoes versus a 15-45 day NYMEX WTI Light Sweet Crude Oil futures strip. This is a change from the previous cash WTI CMA basis.

RENAMED ASSESSMENTS: Platts has renamed the Eagle Ford crude and condensate FOB Corpus Christi assessments and related differentials to the following:

ASSESSMENT NAME	CODE
Eagle Ford Crude FOB USGC	AAYAT00
Eagle Ford Crude FOB USGC vs NYMEX WTI strip	AAYAU00
Eagle Ford Condensate FOB USGC	AAYAR00

Eagle Ford Condensate FOB USGC vs NYMEX WTI strip AAYAS00
MOC GUIDELINES: Platts will publish bids, offers and trades for Eagle Ford crude and condensate FOB USGC cargoes during the Market on Close assessment process, with clearly stated locations and dates. The Eagle Ford assessments appear on Platts Global Alert pages 210, 214, 222 and 260; in the Crude Oil Marketwire, North American Crude and Products Scan and Oilgram Price Report publications; and in the Platts price database. Please send any questions or comments to americas_crude@spglobal.com and pricegroup@spglobal.com. For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts renames, broadens scope of WTI FOB Houston assessment

S&P Global Platts has redefined and renamed its WTI FOB Houston assessment as WTI FOB USGC with effect from August 1, 2018, to more broadly reflect the evolving regional crude export market. This change follows a July 23 proposal note and July 30 decision note. Significant volumes of US crude are being exported from the Gulf Coast to countries around the world. West Texas Intermediate is the dominant export grade thanks to booming production and numerous pipeline additions and infrastructure improvements that allow it to be loaded and shipped from multiple ports. To reflect this dynamic market, Platts is considering values for WTI cargoes on an FOB basis from locations along the USGC, including Corpus Christi, Texas City, Houston, Beaumont, Nederland and Port Arthur. The most competitive location sets the value for the WTI FOB USGC assessment. The grade reflected continues to be Midland-quality WTI produced in the Permian basins of West Texas and transported directly to the USGC. Recent assays show Midland WTI to be 42-44 API, 0.13%-0.35% sulfur. The revised assessment continues to reflect Aframax vessels, with a typical size of about 600,000 barrels. Platts recognizes not all Aframaxes may hold the same amount of crude oil, and that characteristics of the crude itself as well as port restrictions may change the amount able to be loaded. The following methodology changes for the assessment also took effect August 1.

TIMING: The revised assessment reflects a laycan of 15-45 days forward. For example, on August 1, Platts assessed WTI FOB USGC

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cargoes loading August 16-September 15. This change aligns with the revised Eagle Ford crude and condensate FOB USGC and new Bakken FOB USGC assessments. Previously, the Platts WTI FOB Houston assessment rolled to the second month forward on the 15th of the month.

DIFFERENTIAL BASIS: The revised differential reflects the value of WTI FOB USGC cargoes versus a 15-45 day NYMEX WTI Light Sweet Crude Oil futures strip. This is a change from the previous cash WTI CMA basis.

RENAMED ASSESSMENTS: Platts has renamed the WTI FOB Houston assessment as WTI FOB USGC (AAYBA00) while the previous differential vs forward WTI has been renamed WTI FOB USGC vs NYMEX WTI strip (AAYAZ00).

MOC GUIDELINES: Platts will publish bids, offers and trades for WTI FOB USGC cargoes during the Market on Close assessment process, with clearly stated locations and dates; sellers will commit to providing Midland-quality WTI cargoes. The assessments appear on Platts Global Alert pages 210, 214 and 222 and in the publications Crude Oil Marketwire, North American Crude and Products Scan and Oilgram Price Report. Please send any questions or comments to americas_crude@spglobal.com and pricegroup@spglobal.com. For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts to reduce incrementability in Cash BFOE spread MOC

S&P Global Platts will reduce the incrementability with which companies can change bids and offers within the Cash BFOE cargo and partial spread Market on Close assessment process to 1 cent/barrel per second effective September 3, 2018. This decision follows on from a proposal published May 22 and available here: <https://www.spglobal.com/platts/en/our-methodology/subscriber-notes/052218-platts-proposes-reduction-in-incrementability-changes-in-cash-bfoe-spread-moc>. Currently, a company bidding or offering a Cash BFOE cargo and partial spread in the Platts MOC can move an indication by up to 3 cents/barrel every second. Under the new change, incrementability would be reduced, meaning that a company could only move an indication by 1 cent/b every second. This change only applies to Cash BFOE spread indications and not

to Cash BFOE outright price indications where incrementability will remain at 3 cents/b. Additionally, the repeat time for Cash BFOE cargo and partial spreads and Cash BFOE outright bids and offers will remain at 10 seconds. Following the introduction of implied indications functionality in the Platts MOC in September 2017, Platts has observed an increase in the efficiency of transaction execution. Platts believes that, as a result of this trend, the current incrementability allowed to change a Cash BFOE spread bid or offer does not sufficiently test market value at all levels and could lead to an increase in “gapping” wherein an indication moves too quickly to adequately test value. Please send any further comments and feedback to europa_crude@spglobal.com and pricegroup@spglobal.com. For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts to assess Forties de-escalator at 20 cents/b for August 2018

Effective August 1, 2018, the sulfur de-escalator to be applied to Forties cargoes and related instruments in the Platts North Sea assessment process will be 20 cents/b per 0.1% weight of sulfur over the 0.6% weight standard, unchanged from July. The de-escalator should apply to cargoes loading from August 1, 2018. S&P Global Platts has assessed this de-escalator level after reviewing the change in outright crude value, the differential between low and high sulfur products, as well as the difference in value between North Sea crudes and comparable heavy, sourer crudes, such as Urals. A rationale for this decision will be available shortly on the Platts website, www.spglobal.com. It can also be accessed directly using the following URL <http://plts.co/UVf130I7017>. Platts guidelines for its sulfur de-escalator use three significant figures for determination of sulfur-related payment. The test reflecting this figure should be the ASTM-D2622. Forties cargoes and all related instruments, including BFOE cash forwards, bid or offered through the Platts system must adhere to this standard. In addition, Platts will publish the sulfur de-escalator, representing the dollar value per 0.1% weight of sulfur, in its crude oil publications. Please send comments to europa_crude@spglobal.com and pricegroup@spglobal.com.

Platts updates cut-off time in Mid East crude MOC effective Aug 1

S&P Global Platts has changed the timing cut off for submission of new bids and offers during the Market on Close assessment process for Middle East crude partials and partials spreads to 4:15 pm Singapore time, from the previous 4:00 pm Singapore time, effective August 1, 2018. The change is aimed at bringing greater efficiency to the MOC assessment process that is used to assess benchmark Dubai and Oman crude oil prices. With the new timing, Platts will continue to publish, bids, offers or expressions of interest to trade before 4:15 pm, but will not publish any new bids or offers submitted after 4:15 pm. Activity in the Middle East sour crude MOC assessment process has grown substantially in recent years, reflecting rising trade volumes in the broader Asia market, underpinned by strong oil demand growth in countries such as China and India. Platts timing and increment guidelines are a key component of its MOC assessment methodology, essential to an orderly and transparent price assessment process. The change applies to all crude partials and spreads in the Middle East MOC assessment process for Dubai, Oman, Upper Zakum, Al Shaheen and Murban crudes. The five grades are physically deliverable into the benchmark Dubai crude contract. Platts continues to accept bids, offers and expressions of interest to trade for publication up until 4:00 pm for full cargoes and will continue to not accept bids and offers for publication for full cargoes after 4:00 pm. For more information on Platts Middle East crude benchmarks and how they are assessed, please visit: <http://www.platts.com/price-assessments/oil/dubai-crude> Please send any feedback or questions to asia_crude@spglobal.com and pricegroup@spglobal.com For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing.

Platts launches USGC Bakken assessments, redefines Williston basis

S&P Global Platts has launched two new daily price assessments for Bakken crude oil on the US Gulf Coast, and renamed and further defined its existing Bakken assessments, with effect from August 1, 2018. Platts originally published a subscriber note May 25 proposing to launch new Bakken assessments at Patoka, Illinois, and on the US Gulf Coast, as well as to further define its existing

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Bakken assessment in North Dakota. This was initially proposed for a launch July 17. A decision note was published July 23. Platts currently assesses the value of Bakken crude at three locations: close to the wellhead at North Dakota terminals with the operational capability to move crude by rail or pipeline; injected at Guernsey, Wyoming; and injected at Clearbrook, Minnesota.

NEW BAKKEN FOB USGC ASSESSMENT: Platts launched a daily price assessment for Bakken FOB USGC from August 1. This assessment reflects an Aframax-sized cargo, which is typically about 600,000 barrels, loading 15-45 days forward. For example, on August 1, Platts is assessing Bakken FOB USGC cargoes loading August 16-September 15. This change aligns with the revised FOB USGC Eagle Ford crude and condensate and WTI assessments. The new Bakken FOB USGC assessment is published as an outright price (ABAKC00) as well as a differential versus a 15-45 day NYMEX WTI Light Sweet Crude Oil futures strip (ABAKD00). Platts will publish bids, offers and trades for Bakken FOB USGC cargoes during the Market on Close assessment process, with clearly stated locations and dates.

NEW BAKKEN USGC PIPE ASSESSMENT: Platts launched a new daily pipeline assessment for Bakken crude on the US Gulf Coast. This reflects the value of Bakken crude in pipe at the Nederland and Beaumont terminals in Texas, where Bakken crude is actively traded. The new Bakken USGC pipe assessment is published as an outright price (ABAKA00) and as a differential to the corresponding NYMEX WTI Light Sweet Crude Oil futures calendar month average (ABAKB00). It follows the roll calendar of the existing Bakken pipeline assessments i.e. it will roll to the next front month on the date pipeline nominations are due. Platts follows the nomination schedule published by the Crude Oil Logistics Committee on its website for its Bakken pipeline assessments.

RENAME AND REDEFINE NORTH DAKOTA ASSESSMENT: The Dakota Access Pipeline (DAPL) and Energy Transfer Crude Oil Pipeline (ETCOP) projects that have come online recently have led to differences in the price for Bakken crude in the Williston Basin, depending on location. Therefore, from August 1, Platts has renamed and redefined its Bakken assessment near the wellhead in North Dakota as a Bakken Williston assessment reflecting barrels for DAPL injection. This continues to be published as an outright price as well as a differential versus the corresponding NYMEX WTI Light Sweet Crude Oil futures calendar month average. In addition,

Platts standardized the names of its existing Bakken assessments across all publications, on Platts Global Alert and in the Platts price database, from August 1. The names of the existing assessments have been standardized to:

ASSESSMENT NAME	CODE
Bakken Williston	AAXPP00
Bakken Williston vs NYMEX WTI CMA	AASRX00
Bakken Guernsey	AASRR00
Bakken Guernsey vs NYMEX WTI CMA	AASRV00
Bakken Clearbrook	AASRU00
Bakken Clearbrook vs NYMEX WTI CMA	AASRW00

In the May 25 subscriber note, Platts had originally proposed launching a daily price assessment for Bakken at Patoka, Illinois. Following feedback and market observation, Platts decided not to launch a Bakken assessment in Patoka, but will continue to monitor market activity and publish price indications when received. The Platts Bakken assessments appear on Platts Global Alert pages 210, 214 and 260; in the Crude Oil Marketwire, North American Crude & Products Scan, and Oilgram Price Report publications; and in the Platts price database. Please send any further questions or comments to americas_crude@spglobal.com and pricegroupespglobal.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 Quality Premium for October-loading Murban set at \$1.4885/b

The Quality Premium for October-loading Murban crude oil is \$1.4885/b, and will be effective for trade in October-loading cargoes during the Platts Dubai Market on Close assessment process through August. The Murban QP can be found on Platts Global Alert pages 2210 and 2220, in the Crude Oil Marketwire, and under code AAISV00 in the Platts database. Please send all comments, feedback and questions to asia_crude@spglobal.com and pricegroupespglobal.com. For written comments, please provide clear indication if comments are not intended for publication by S&P Global Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts launches daily West African Crude Market Parity Prices

Effective August 1, 2018, S&P Global Platts has launched six new daily Market Parity Prices (MPP) for West African crude oil. These new calculated prices reflect Platts' understanding of refinery value of individual crude grades and market economics. Platts' new MPP methodology will provide prices for crude grades with no or irregular spot market activity. While Platts will continue to publish any spot market information heard regarding these crude grades, this information would not be used in the daily calculation of the MPP. Platts will publish these MPPs in Crude Oil Marketwire, on Platts Global Alert page 1270 and under the following codes in the Platts pricing database:

Crude Grade	Code
Amenam	AAXTI00
EA Blend	AAXTJ00
Yoho	AAXTK00
Asaramatoru	AAXTV00
Abo	AAXTL00
TEN	AAXTW00

These new prices reflect the value of each of the above West African crudes on an outright price basis at 16:30 London time by calculating the gross product worth (GPW) of each crude grade and subtracting freight and refining costs, before applying an adjustment differential that reflects related market value. In order to calculate the GPW of each crude grade, Platts Analytics has modeled the yield of the following products in a marginal Northwest European refinery, delivered Rotterdam:

Product	Code
Propane FOB NWE	PMABB00
Butane FOB NWE	PMAAL00
Naphtha FOB Rotterdam Barge	PAAAM00
Gasoline Eurobob FOB AR Barge	AAQZV00
Jet FOB Rdam Barge	PJABA00
ULSD 10ppmS FOB ARA Barge	AAJUS00
Gasoil 0.1%S FOB ARA Barge	AAYWT00
FO 1%S FOB NWE Cargo	PUAAM00

Platts then subtracts additional costs, such as freight, labor, capital, power, insurance, and chemicals and catalysts from this GPW model. Finally, Platts applies an adjustment differential derived by averaging the difference between the cost-adjusted

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GPW and the daily assessed price of the following four light, sweet crude grades:

Crude Grade	Code
Qua Iboe FOB Nigeria	PCAI00
Azeri Light BTC FOB Ceyhan 80kt	AAUFK00
Ekofisk FOB North Sea	PCADI00
Gulfaks CIF Rotterdam	AASAU00

The annual Worldscale flat rates used in the calculation for the four reference grades and six new MPP grades are as follows:

Crude Grade	WS Flat Rate (\$/mt)
Qua Iboe	12.56
Azeri Light	11.10
Ekofisk	4.15
Gulfaks	N/A
Amenam	12.54
EA Blend	12.18

Yoho	12.45
Asaramatoru	13.14
Abo	12.05
TEN	10.80

For more information, a Frequently Asked Questions document will be made available shortly here: <http://plts.co/g2Cf30lct7U>. Please send any further comments and feedback to europa_crude@spglobal.com and pricegroup@spglobal.com. For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Quality premiums for September 2018-loading N Sea cargoes

Effective August 1, 2018, the North Sea Quality Premium for September 2018-loading cargoes of Oseberg crude will be \$0.5620/b, while a Quality Premium of \$0.2370/b will be set for

September 2018-loading cargoes of North Sea Ekofisk crude. The month-ahead Ekofisk and Oseberg QPs can be found on Platts Global Alert pages 1210 and 1212, respectively, in Crude Oil Marketwire, and under codes AAXDZ00 and AAXDX00. Current month QPs can be found on the same page and under codes AAXDY00 and AAXDW00, respectively. The QPs are published to four decimal places and at 60% of the net price differences between Ekofisk and Oseberg, and the most competitive grade of crude among Brent, Forties, Oseberg, Ekofisk and Troll during the month prior to announcement. Platts announces QPs on the first publishing day of each month, a month prior to the escalators coming into effect. Platts has made available a Question & Answer document in English, Mandarin and Russian that further elaborates on commonly raised questions from all respondents on its Dated Brent homepage at www.platts.com. Please send any comments and queries to Europe_Crude@spglobal.com and PriceGroup@spglobal.com.

US AND CARIBBEAN YIELDS AND NETBACKS EFFECTIVE AUGUST 3, 2018 (\$/barrel)

Caribbean Summer Specifications (PGA page 802)

	Crack Yield		Freight		Crack Netback		Spot Price		Crack Margin	
BCF 22	TYAET00	75.82	TDDBN00	0.36	TNAET00	75.46				
BCF 24	TYAFF00	77.04	TDDBQ00	0.36	TNAFF00	76.68				
Escalante	TYAKE00	75.86	TDDEY00	3.19	TNAKE00	72.67	PCAGC00	69.375	TNAKEMR	3.295
Isthmus	TYAMN00	80.15	TDDDK00	0.70	TNAMN00	79.45	PDATO09	66.520	TNAMNMR	12.930
Maya	TYAOF00	70.44	TDDDR00	0.71	TNAOF00	69.73	PDATS09	62.830	TNAOFMR	6.900
Merey	TYAOV00	72.76	TDDDU00	0.38	TNAOV00	72.38				
Mesa	TYAPD00	80.13	TDDFB00	0.34	TNAPD00	79.79	AAITB00	67.725	TNAPDMR	12.065
Olmecca	TYAQB00	80.60	TDDEA00	0.67	TNAQB00	79.93	PDATT09	69.960	TNAQBMR	9.970

Caribbean Summer Specifications (PGA page 804)

	Coke Yield		Freight		Coke Netback		Spot Price		Coke Margin	
BCF 22	TYAER00	77.99	TDDBN00	0.36	TNAER00	77.63				
BCF 24	TYAFD00	78.84	TDDBQ00	0.36	TNAFD00	78.48				
Escalante	TYAKC00	79.23	TDDEY00	3.19	TNAKC00	76.04	PCAGC00	69.375	TNAKCMR	6.665
Isthmus	TYAML00	81.09	TDDDK00	0.70	TNAML00	80.39	PDATO09	66.520	TNAMLMR	13.870
Maya	TYAOD00	75.69	TDDDR00	0.71	TNAOD00	74.98	PDATS09	62.830	TNAODMR	12.150
Merey	TYAOT00	75.89	TDDDU00	0.38	TNAOT00	75.51				
Mesa	TYAPB00	80.91	TDDFB00	0.34	TNAPB00	80.57	AAITB00	67.725	TNAPBMR	12.845
Olmecca	TYAPZ00	82.14	TDDEA00	0.67	TNAPZ00	81.47	PDATT09	69.960	TNAPZMR	11.510

US Atlantic Coast Summer Specifications (PGA page 810)

	Crack Yield		Freight		Crack Netback		Spot Price		Crack Margin	
Arab Heavy	TYABN00	77.06	TDDAM00	0.98	TNABN00	76.08	AAADI00	66.540	TNABNMR	9.540
Arab Light	TYACL00	81.12	TDDAU00	0.93	TNACL00	80.19	AAXCU00	69.290	TNACLMR	10.900
Arab Medium	TYADR00	78.31	TDDBC00	0.95	TNADR00	77.36	AAXDN00	67.690	TNADRMR	9.670
Bakken	TYASE00	85.59	TDDRN00	7.50	TNASE00	78.09	AAXPP00	64.520	TNASEMR	13.570
Bonny Light	TYAGP00	88.11	TDDBZ00	1.32	TNAGP00	86.79	PCAIC00	74.255	TNAGPMR	12.535
Brass River	TYAHB00	86.09	TDDEW00	1.25	TNAHB00	84.84	AAEJB00	74.005	TNAHBMR	10.835
Brent	TYAHP00	84.81	TDDCC00	1.03	TNAHP00	83.78	AAVJA00	72.870	TNAHPMR	10.910
Cabinda	TYAIB00	83.76	TDDCH00	1.44	TNAIB00	82.32	PCAFD00	72.355	TNAIBMR	9.965
Ekofisk	TYAKB00	85.17	TDDCS00	0.92	TNAKB00	84.25	PCADI00	73.210	TNAKBMR	11.040
Forcados	TYAKV00	89.51	TDDDA00	1.32	TNAKV00	88.19	PCABC00	74.255	TNAKVMR	13.935
Hibernia	TYALT00	84.32	TDDDE00	1.22	TNALT00	83.10	AAJJK00	71.985	TNALTMR	11.115
Oriente	TYAQR00	78.87	TDDED00	4.27	TNAQR00	74.60	PCADE00	67.555	TNAQMR	7.045
Statfjord	TYASN00	85.41	TDDEL00	1.03	TNASN00	84.38	PCAE00	72.385	TNASNMR	11.995
Troll	TYATH00	87.55	TDDEQ00	0.96	TNATH00	86.59	AAWEX00	73.945	TNATHMR	12.645

US Atlantic Coast Summer Specifications (PGA page 812)

	Coke Yield		Freight		Coke Netback		Spot Price		Coke Margin	
Arab Heavy	TYABL00	82.05	TDDAM00	0.98	TNABL00	81.07	AAADI00	66.540	TNABLMR	14.530
Arab Light	TYACJ00	83.78	TDDAU00	0.93	TNACJ00	82.85	AAXCU00	69.290	TNACJMR	13.560
Arab Medium	TYADP00	82.53	TDDBC00	0.95	TNADP00	81.58	AAXDN00	67.690	TNADPMR	13.890
Brent	TYAHN00	86.12	TDDCC00	1.03	TNAHN00	85.09	AAVJA00	72.870	TNAHNMR	12.220
Cabinda	TYAHZ00	86.54	TDDCH00	1.44	TNAHZ00	85.10	PCAFD00	72.355	TNAHZMR	12.745
Ekofisk	TYAJZ00	86.65	TDDCS00	0.92	TNAJZ00	85.73	PCADI00	73.210	TNAJZMR	12.520
Hibernia	TYALR00	86.34	TDDDE00	1.22	TNALR00	85.12	AAJJK00	71.985	TNALRMR	13.135
Oriente	TYAQP00	83.24	TDDED00	4.27	TNAQP00	78.97	PCADE00	67.555	TNAQPMR	11.415
Statfjord	TYASL00	86.51	TDDEL00	1.03	TNASL00	85.48	PCAE00	72.385	TNASLMR	13.095
Troll	TYATF00	88.09	TDDEQ00	0.96	TNATF00	87.13	AAWEX00	73.945	TNATFMR	13.185

US Midwest Summer Specifications (PGA page 820)

	Crack Yield		Freight		Crack Netback		Spot Price		Crack Margin	
Bakken	TYASA00	84.76	TDDR000	3.48	TNASA00	81.28	AAXPP00	64.520	TNASAMR	16.760
LLS	TYANT00	87.65	TDDQV00	1.02	TNANT00	86.63	PCABN00	71.590	TNANTMR	15.040
Mixed Lt Sour	TYAPX00	80.72	TDDQZ00	2.42	TNAPX00	78.30	AALRX00	60.970	TNAPXMR	17.330
Mixed Lt Sweet	TYAQZ00	85.87	TDDRA00	4.00	TNAQZ00	81.87	AALRR00	61.920	TNAQZMR	19.950
Syncrude	TYAUR00	88.09	TDDFP00	4.00	TNAUR00	84.09	AASOK00	70.220	TNAURMR	13.870
WTI	TYAUB00	83.68	TDDRG00	1.88	TNAUB00	81.80	PCACG00	68.490	TNAUBMR	13.310
WTS	TYAUJ00	82.25	TDDRI00	2.64	TNAUJ00	79.61	PCACK00	51.490	TNAUJMR	28.120

US Midwest Summer Specifications (PGA page 822)

	Coke Yield		Freight		Coke Netback		Spot Price		Coke Margin	
Bow River	TYAGV00	84.84	TDDRL00	4.19	TNAGV00	80.65				
LLS	TYANR00	88.63	TDDQV00	1.02	TNANR00	87.61	PCABN00	71.590	TNANRMR	16.020
Mixed Lt Sour	TYAPV00	83.36	TDDQZ00	2.42	TNAPV00	80.94	AALRX00	60.970	TNAPVMR	19.970
Mixed Lt Sweet	TYAQX00	86.92	TDDRA00	4.00	TNAQX00	82.92	AALRR00	61.920	TNAQXMR	21.000
WCS	TYAVG00	80.45	TDDRL00	4.19	TNAV00	76.26	AAPPN00	35.970	TNAVGMR	40.290
WTI	TYATZ00	85.28	TDDRG00	1.88	TNATZ00	83.40	PCACG00	68.490	TNATZMR	14.910
WTS	TYAUH00	85.47	TDDRI00	2.64	TNAUH00	82.83	PCACK00	51.490	TNAUHRM	31.340

US YIELDS AND NETBACKS (\$/barrel)

US Gulf Coast Summer specifications (PGA page 830)

	Crack Yield		Freight		Crack Netback		Spot Price		Crack Margin	
Arab Berri	TYAAL00	82.69	TDDAC00	1.01	TNAAL00	81.68	AAXT00	71.190	TNAALMR	10.490
Arab Heavy	TYABR00	75.64	TDDAJ00	1.08	TNABR00	74.56	AAXD00	66.540	TNABRMR	8.020
Arab Light	TYACP00	79.32	TDDAR00	1.03	TNACP00	78.29	AAXC00	69.290	TNACPMR	9.000
Arab Medium	TYADV00	76.72	TDDAZ00	1.05	TNADV00	75.67	AAXD00	67.690	TNADVMR	7.980
Bakken	TYASG00	83.11	TDDRP00	7.92	TNAGS00	75.19	AAXP00	64.520	TNAGSMR	10.670
Basrah Light	TYAGD00	79.17	TDDBS00	2.29	TNAGD00	76.88	AAXD00	70.680	TNAGDMR	6.200
BCF 22	TYAFB00	77.14	TDDBL00	1.38	TNAFB00	75.76				
BCF 24	TYAFJ00	78.31	TDDBO00	1.36	TNAFJ00	76.95				
Bonny Light	TYAGR00	86.35	TDDBX00	1.41	TNAGR00	84.94	PCAIC00	74.255	TNAGMR	10.685
Brent	TYAHT00	82.51	TDDCB00	2.44	TNAHT00	80.07	AAVJA00	72.870	TNAHTMR	7.200
Cabinda	TYAIF00	81.76	TDDCF00	1.66	TNAIF00	80.10	PCAFD00	72.355	TNAIFMR	7.745
Eagle Ford	TYASC00	82.55	TDDRQ00	1.42	TNASC00	81.13	AAVAJ00	71.000	TNASCMR	10.130
Escalante	TYAKJ00	77.40	TDDCV00	4.04	TNAKJ00	73.36	PCAGC00	69.375	TNAKJMR	3.985
Forcados	TYAKX00	87.95	TDDCY00	1.41	TNAKX00	86.54	PCABC00	74.255	TNAKXMR	12.285
Isthmus	TYAMR00	81.83	TDDDJ00	0.77	TNAMR00	81.06	PDAT009	66.520	TNAMRMR	14.540
Kuwait	TYANL00	77.71	TDDDL00	1.08	TNANL00	76.63	AAXDQ00	71.900	TNANLMR	4.730
LLS	TYANP00	85.82	TDDQW00	0.95	TNANP00	84.87	PCABN00	71.590	TNANPMR	13.280
Marlim	TYAUG00	80.09	TDDGK00	1.40	TNAUG00	78.69	AAITF00	68.225	TNAUGMR	10.465
Mars	TYAOB00	79.39	TDDQY00	0.36	TNAOB00	79.03	AAMBR00	68.490	TNAOBMR	10.540
Maya	TYAOJ00	71.07	TDDDP00	0.76	TNAOJ00	70.31	PDATS09	62.830	TNAOJMR	7.480
Merrey	TYAOZ00	73.34	TDDDT00	1.44	TNAOZ00	71.90				
Mesa	TYAPL00	81.34	TDDDV00	1.31	TNAPL00	80.03	AAITB00	67.725	TNAPLMR	12.305
Olmecca	TYAQF00	82.98	TDDDY00	0.72	TNAQF00	82.26	PDATT09	69.960	TNAQFMR	12.300
Troll	TYATL00	85.25	TDDPE00	2.69	TNATL00	82.56	AAWEX00	73.945	TNATLMR	8.615
Urals	TYAUK00	80.61	TDDFM00	2.62	TNAUK00	77.99	AAWH00	70.220	TNAUKMR	7.770
WTI	TYATX00	82.39	TDDRH00	1.62	TNATX00	80.77	PCACG00	68.490	TNATXMR	12.280
WTS	TYAUF00	81.54	TDDRJ00	4.05	TNAUF00	77.49	PCACK00	51.490	TNAUFMR	26.000

US Gulf Coast Summer specifications (PGA page 832)

	Coke Yield		Freight		Coke Netback		Spot Price		Coke Margin	
Arab Berri	TYAAJ00	83.24	TDDAC00	1.01	TNAAJ00	82.23	AAXT00	71.190	TNAAJMR	11.040
Arab Heavy	TYABP00	79.47	TDDAJ00	1.08	TNABP00	78.39	AAXD00	66.540	TNABPMR	11.850
Arab Light	TYACN00	81.29	TDDAR00	1.03	TNACN00	80.26	AAXC00	69.290	TNACNMR	10.970
Arab Medium	TYADT00	80.01	TDDAZ00	1.05	TNADT00	78.96	AAXD00	67.690	TNADTMR	11.270
Basrah Light	TYAGB00	80.91	TDDBS00	2.29	TNAGB00	78.62	AAXD00	70.680	TNAGBMR	7.940
BCF 22	TYAEZ00	80.87	TDDBL00	1.38	TNAEZ00	79.49				
BCF 24	TYAFH00	81.53	TDDBO00	1.36	TNAFH00	80.17				
Brent	TYAHR00	83.05	TDDCB00	2.44	TNAHR00	80.61	AAVJA00	72.870	TNAHRMR	7.740
Cabinda	TYAID00	83.47	TDDCF00	1.66	TNAID00	81.81	PCAFD00	72.355	TNAIDMR	9.455
Escalante	TYAKH00	81.84	TDDCV00	4.04	TNAKH00	77.80	PCAGC00	69.375	TNAKHMR	8.425
Isthmus	TYAMP00	82.63	TDDDJ00	0.77	TNAMP00	81.86	PDAT009	66.520	TNAMPMR	15.340
Kuwait	TYANJ00	80.22	TDDDL00	1.08	TNANJ00	79.14	AAXDQ00	71.900	TNANJMR	7.240
LLS	TYANN00	85.61	TDDQW00	0.95	TNANN00	84.66	PCABN00	71.590	TNANNMR	13.070
Marlim	TYAUE00	83.45	TDDGK00	1.40	TNAUE00	82.05	AAITF00	68.225	TNAUEMR	13.825
Mars	TYANZ00	81.55	TDDQY00	0.36	TNANZ00	81.19	AAMBR00	68.490	TNANZMR	12.700
Maya	TYAOH00	78.15	TDDDP00	0.76	TNAOH00	77.39	PDATS09	62.830	TNAOHMR	14.560
Merrey	TYAOX00	79.56	TDDDT00	1.44	TNAOX00	78.12				
Mesa	TYAPJ00	82.67	TDDDV00	1.31	TNAPJ00	81.36	AAITB00	67.725	TNAPJMR	13.635
Olmecca	TYAQD00	82.99	TDDDY00	0.72	TNAQD00	82.27	PDATT09	69.960	TNAQDMR	12.310
Troll	TYATJ00	85.05	TDDPE00	2.69	TNATJ00	82.36	AAWEX00	73.945	TNATJMR	8.415
Urals	TYAUI00	82.51	TDDFM00	2.62	TNAUI00	79.89	AAWH00	70.220	TNAUIMR	9.670
WCS	TYASJ00	77.91	TDDRS00	8.57	TNASJ00	69.34	AAPPN00	35.970	TNASIMR	33.370
WTI	TYATV00	82.62	TDDRH00	1.62	TNATV00	81.00	PCACG00	68.490	TNATVMR	12.510
WTS	TYAUD00	82.71	TDDRJ00	4.05	TNAUD00	78.66	PCACK00	51.490	TNAUDMR	27.170

US West Coast Summer specifications (PGA page 840)

	Crack Yield		Freight		Crack Netback		Spot Price		Crack Margin	
ANS	TYAAD00	83.05	TDDGL00	0.00	TNAAD00	83.05	PCAAD00	73.320	TNAADM	9.730
Arab Berri	TYAAT00	84.81	TDDAE00	1.59	TNAAT00	83.22	AAXT00	71.190	TNAATMR	12.030
Arab Light	TYACX00	81.69	TDDAT00	1.63	TNACX00	80.06	AAXC00	69.290	TNACXMR	10.770
Arab Medium	TYADY00	79.45	TDDBB00	1.66	TNADY00	77.79	AAXD00	67.690	TNADYMR	10.100
Bakken	TYASK00	84.95	TDDRT00	6.50	TNASK00	78.45	AAXP00	64.520	TNASKMR	13.930
Basrah Light	TYAGL00	81.70	TDDBW00	2.07	TNAGL00	79.63	AAXD00	70.680	TNAGLMR	8.950
Escalante	TYAKN00	81.35	TDDCW00	3.59	TNAKN00	77.76	PCAGC00	69.375	TNAKNMR	3.385
Kern River	TYAMV00	83.98	TDDGM00	1.71	TNAMV00	82.27	PCABJ00	71.240	TNAMVMR	11.030
Line 63	TYANX00	84.05	TDDGN00	0.15	TNANX00	83.90	PCABM00	77.120	TNANXMR	6.780
Marlim	TYAVC00	83.63	TDDQX00	3.91	TNAVC00	79.72	AAITF00	68.225	TNAVCMR	11.495
Minas	TYATC00	86.42	TDDGO00	3.07	TNATC00	83.35	PCABO00	67.930	TNATCMR	15.420
Mixed Lt Sweet	TYARD00	87.08	TDDGP00	2.07	TNARD00	85.01	AALRR00	61.920	TNARDMR	23.090
Oriente	TYAQV00	80.54	TDDCE00	1.53	TNAQV00	79.01	PCADE00	67.555	TNAQVMR	11.455
Thums	TYASZ00	83.16	TDDGQ00	0.00	TNASZ00	83.16	PCACD00	72.860	TNASZMR	10.300

US West Coast Summer specifications (PGA page 842)

	Coke Yield		Freight		Coke Netback		Spot Price		Coke Margin	
ANS	TYAAB00	84.84	TDDGL00	0.00	TNAAB00	84.84	PCAAD00	73.320	TNAABMR	11.520
Arab Berri	TYAAR00	85.11	TDDAE00	1.59	TNAAR00	83.52	AAXT00	71.190	TNAARMR	12.330
Arab Light	TYACV00	83.04	TDDAT00	1.63	TNACV00	81.41	AAXC00	69.290	TNACVMR	12.120
Arab Medium	TYADW00	81.94	TDDBB00	1.66	TNADW00	80.28	AAXD00	67.690	TNADWMR	12.590
Basrah Light	TYAGJ00	82.80	TDDBW00	2.07	TNAGJ00	80.73	AAXD00	70.680	TNAGJMR	10.050
Escalante	TYAKL00	84.55	TDDCW00	3.59	TNAKL00	80.96	PCAGC00	69.375	TNAKLMR	11.585
Kern River	TYAMT00	87.42	TDDGM00	1.71	TNAMT00	85.71	PCABJ00	71.240	TNAMTMR	14.470
Line 63	TYANV00	85.52	TDDGN00	0.15	TNANV00	85.37	PCABM00	77.120	TNANVMR	8.250
Marlim	TYAVD00	86.32	TDDQX00	3.91	TNAVD00	82.41	AAITF00	68.225	TNAVDMR	14.185
Minas	TYATA00	87.30	TDDGO00	3.07	TNATA00	84.23	PCABO00	67.930	TNATAMR	16.300
Mixed Lt Sweet	TYARB00	86.75	TDDRP00	2.07	TNARB00	84.68	AALRR00	61.920	TNARBMR	22.760
Oriente	TYAQT00	82.59	TDDCE00	1.53	TNAQT00	81.06	PCADE00	67.555	TNAQTMR	13.505
Thums	TYASX00	85.34	TDDGQ00	0.00	TNASX00	85.34	PCACD00	72.860	TNASXMR	12.480

EUROPEAN YIELDS AND NETBACKS EFFECTIVE AUGUST 3, 2018 (\$/barrel)

Northwest Europe Summer Specifications (PGA page 1810)

	Crack Yield		Freight		Crack Netback		Spot Price		Crack Margin	
Arab Heavy*	TYAAV00	75.97	TDDAN00	0.95	TNAAV00	75.02	AAXDH00	67.610	TNAAVMR	7.410
Arab Light*	TYABT00	79.83	TDDAV00	0.91	TNABT00	78.92	AAXDK00	70.360	TNABTMR	8.560
Arab Medium*	TYACZ00	77.16	TDDBD00	0.93	TNACZ00	76.23	AAADM00	69.060	TNACZMR	7.170
Azeri Light	TYAEB00	83.24	TDDBI00	1.30	TNAEB00	81.94	AATHM00	73.335	TNAEBMR	8.605
Basrah Light	TYAFP00	79.64	TDDBU00	1.24	TNAFP00	78.40	AAXD000	70.680	TNAFPMR	7.720
Brass River	TYATS00	82.50	TDDRE00	1.19	TNATS00	81.31	AAEJB00	74.005	TNATSMR	7.305
Brent	TYAHF00	82.00	TDDCD00	1.02	TNAHF00	80.98	AAVJA00	72.870	TNAHFMR	8.110
Cabinda	TYAVK00	80.71	TDDQR00	1.30	TNAVK00	79.41	PCAFD00	72.355	TNAVKMR	7.055
Eagle Ford	TYEAB00	78.31	TNEBF00	1.06	TNEAB00	77.25	AAAT000	71.390	TNEABMR	5.860
Ekofisk	TYAJV00	82.49	TDDCT00	0.56	TNAJV00	81.93	PCADI00	73.210	TNAJVMR	8.720
Flotta Gold	TYAKP00	80.51	TDDCX00	0.77	TNAKP00	79.74	PCACZ00	71.245	TNAKPMR	8.495
Forties	TYALB00	80.80	TDDEZ00	1.04	TNALB00	79.76	PCADJ00	72.440	TNALBMR	7.320
Gulfaks	TYALF00	82.96	TDDDC00	0.71	TNALF00	82.96	AASAU00	74.345	TNALFMR	8.615
Hungo	TYAVI00	81.51	TDDQU00	1.32	TNAVI00	80.19	AASLJ00	71.855	TNAVIMR	8.335
Iran Heavy	TYALV00	79.75	TDDDG00	1.50	TNALV00	78.25	PCABH00	68.720	TNALVMR	9.530
Iran Light	TYAMD00	81.20	TDDDI00	1.47	TNAMD00	79.73	PCABI00	70.970	TNAMDMR	8.760
Kirkuk	TYATU00	79.88	TDDGH00	1.71	TNATU00	78.17	AAEJD00	68.760	TNATUMR	9.410
Kuwait	TYAMX00	77.99	TDDDM00	0.95	TNAMX00	77.04	AAXDQ00	71.900	TNAMXMR	5.140
Light Houston Sweet	TYAEAE00	81.24	TDEFR00	1.14	TNEAE00	80.10	AAXE000	70.890	TNEAEMR	9.210
Murban	TYATQ00	82.03	TDDR000	0.88	TNATQ00	81.15	AAKNL00	74.300	TNATQMR	6.850
Oseberg	TYAVJ00	83.50	TDDRC00	0.71	TNAVJ00	82.79	PCAEU00	73.670	TNAVJMR	9.120
Saharan Blend	TYATY00	80.64	TDDGI00	1.22	TNATY00	79.42	AAGZY00	72.110	TNATYMR	7.310
Statfjord	TYASD00	82.41	TDDEK00	0.75	TNASD00	81.66	PCAE000	72.385	TNASDMR	9.275
Urals	TYATN00	80.26	TDDET00	1.02	TNATN00	79.24	AAWV000	70.220	TNATNMR	9.020
Zuetina	TYAUC00	82.51	TDDGJ00	0.99	TNAUC00	81.52	AAADT00	71.440	TNAUCMR	10.080

Italy Summer Specifications (PGA page 1820)

	Crack Yield		Freight		Crack Netback		Spot Price		Crack Margin	
Arab Heavy*	TYABD00	78.13	TDDAI00	1.10	TNABD00	77.03	AAXDH00	67.610	TNABDMR	9.420
Arab Light*	TYACB00	79.70	TDDAQ00	1.05	TNACB00	78.65	AAXDK00	70.360	TNACBMR	8.290
Arab Medium*	TYADH00	78.44	TDDAY00	1.07	TNADH00	77.37	AAADM00	69.060	TNADHMR	8.310
Azeri Light	TYAEF00	83.19	TDDBH00	0.89	TNAEF00	82.30	AATHM00	73.335	TNAEFMR	8.965
Basrah Light	TYAFX00	79.60	TDDBR00	0.83	TNAFX00	78.77	AAXD000	70.680	TNAFXMR	8.090
CPC Blend	TYAVN00	79.70	TDDQT00	0.93	TNAVN00	78.77	AAOFV00	70.220	TNAVNM	9.250
Eagle Ford	TYEAC00	77.14	TNEIF00	1.16	TNEAC00	75.98	AAAT000	71.390	TNEACMR	4.590
Es Sider	TYAKD00	81.14	TDDCU00	0.57	TNAKD00	80.57	PCACO00	70.560	TNAKDMR	10.010
Iran Heavy	TYALZ00	80.16	TDDDF00	0.66	TNALZ00	79.50	PCABH00	68.720	TNALZMR	10.780
Iran Light	TYAMH00	80.93	TDDDH00	0.64	TNAMH00	80.29	PCABI00	70.970	TNAMHMR	9.320
Kirkuk	TYAMU00	79.74	TDDFF00	0.82	TNAMU00	78.92	AAEJD00	68.760	TNAMUMR	10.160
Light Houston Sweet	TYEAF00	80.25	TDIFR00	1.25	TNEAF00	79.00	AAXE000	70.890	TDEAFMR	8.110
Saharan Blend	TYAR000	79.49	TDDFG00	0.51	TNAR000	78.98	AAGZY00	72.110	TNAR0MR	6.870
Suez Blend	TYAU000	79.48	TDDRF00	0.70	TNAU000	78.78	PCACA00	68.290	TNAU0MR	10.490
Urals	TYATR00	80.56	TDDES00	0.99	TNATR00	79.57	AAGZS00	70.220	TNATMR	9.350
WCS**	TYEAI00	77.54	TDYFR00	9.99	TNEAI00	67.55	AAPPN00	35.970	TDWFRMR	31.580
Zuetina	TYAUL00	81.39	TDDEU00	0.65	TNAUL00	80.74	AAADT00	71.440	TNAULMR	9.300

*Arab proxy spot values for European buyers prior to July 1, 2017 had been calculated by adding monthly Saudi OSP differentials to ICE BWAWE for European OSPs (PGA1069). After July 1, Arab proxy spot values will be calculated by adding monthly Saudi OSP differentials to ICE Brent. In the US and Asia, Arab proxy spot values continue to be calculated by adding monthly Saudi OSP differentials to Mars for US OSPs (PGA1070) and Oman/Dubai average Asian OSPs (PGA1068).

ASIAN YIELDS AND NETBACKS EFFECTIVE AUGUST 3, 2018 (\$/barrel)

Singapore Summer Specifications (PGA page 2810)

	Crack Yield		Freight		Crack Netback		Spot Price		Crack Margin	
Al Shaheen	TYEAA00	78.05	TNEFA00	0.81	TNEAA00	77.24	AAPEV00	71.900	TDEAMR	5.340
Arab Heavy	TYABH00	75.42	TDDAO00	0.80	TNABH00	74.62	AAXDG00	71.700	TNABHMR	2.920
Arab Light	TYACF00	77.57	TDDAW00	0.77	TNACF00	76.80	AAXDJ00	73.850	TNACFMR	2.950
Arab Medium	TYADL00	75.76	TDDBE00	0.78	TNADL00	74.98	AAIDL00	72.300	TNADLMR	2.680
Attaka	TYADX00	79.73	TDDBG00	2.30	TNADX00	77.43	PCAAJ00	69.380	TNADXMR	8.050
Cabinda	TYAVF00	79.03	TDDQS00	2.09	TNAVVF00	76.94	PCAFD00	72.355	TNAVVMR	4.585
Das Blend	TYDSH00	78.31	TDDCQ00	0.73	TNDSH00	77.58	AAXF000	73.650	TNDSHMR	3.930
Dubai	TYAJN00	78.71	TDDCQ00	0.73	TNAJN00	77.98	PCAA000	71.900	TNAJNMR	6.080
Duri	TYAJR00	78.14	TDDCR00	1.37	TNAJR00	76.77	PCABA00	65.480	TNAJMR	11.290

Singapore Winter Specifications (PGA page 2810)

	Crack Yield		Freight		Crack Netback		Spot Price		Crack Margin	
Forties	TYEAD00	78.13	TNEFD00	2.15	TNEAD00	75.98	PCADJ00	72.440	TNEADM	3.540
Kuwait	TYANF00	76.18	TDDDN00	0.84	TNANF00	75.34	AAXDQ00	71.900	TNANFMR	3.440
Minas	TYAPR00	79.82	TDDDX00	1.25	TNAPR00	78.57	PCAB000	67.930	TNAPRMR	10.640
Murban	TYAPY00	79.01	TDDCQ00	0.73	TNAPY00	78.28	AAKNL00	74.300	TNAPYMR	3.980
Oman	TYAQL00	78.29	TDDEB00	0.70	TNAQL00	77.59	PCAB500	72.000	TNAQLMR	5.590
Qatar Land	TYARA00	78.53	TDDBE00	0.78	TNARA00	77.75	AAKNP00	73.200	TNARAMR	4.550
Qatar Marine	TYARE00	78.93	TDDBE00	0.78	TNARE00	78.15	AAKNR00	71.550	TNAREMR	6.600
Tapis	TYAST00	80.00	TDDE000	1.05	TNAST00	78.95	PCACB00	74.630	TNASTMR	4.320
Upper Zakum	TYEAG00	77.60	TNEFR00	0.77	TNEAG00	76.83	AAOUQ00	71.900	TNEAGMR	4.930