

# Crack Hedging and Selected Product Crack Level for Processing Desk as of 23 April 2022

## **Selected Product Crack Level**

Crack Level for	Product MOPS vs Platts Dated Brent	(USD/BBL)

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Product Crack	Trigger level/ Preserve Value	Volatility	Checkpoint	M+1	M+2	M+3	M+4	M+5	M+6	M+7	M+8	M+9	M+10	M+11	M+12
Naphtha	-2.54	1.46	-4.00	-10.49	-9.59	-9.01	-9.10	-9.20	-8.96	-9.26	-9.39	-9.63	-10.03	-10.39	-10.52
Mogas (ULG 95)	8.12	1.62	6.50	12.96	12.00	11.56	11.56	11.51	11.35	10.55	9.92	9.28	9.18	9.16	9.02
Jet/Kero	3.50	1.50	2.00	18.64	13.84	11.52	11.28	11.13	11.96	11.51	11.53	11.52	11.84	11.92	11.90
Gasoil 10ppm	6.47	1.47	5.00	24.41	17.20	12.88	11.63	11.23	11.86	11.41	11.28	11.14	11.14	10.93	10.65
FO 180	-9.03	1.39	-10.43	-8.25	-9.18	-8.48	-7.86	-7.52	-7.41	-8.05	-8.38	-8.63	-8.80	-9.23	-9.62
LPG Propane	-5.18	9.35	-14.53	-37.89	-40.18	-40.89	-33.78	-28.05	-22.42	-17.43	-12.33	-7.38	-2.59	1.79	6.04
LPG Butane	2.42	9.98	-7.56	-31.01	-25.33	-19.26	-13.36	-7.63	-2.00	2.99	8.10	13.04	17.83	22.21	26.46

### Crack Level for Product MOPS vs Platts Dubai (USD/BBL)

Product Crack	Trigger level/ Preserve Value	Volatility	Checkpoint	M+1	M+2	M+3	M+4	M+5	M+6	M+7	M+8	M+9	M+10	M+11	M+12
Naphtha	-1.56	0.44	-2.00	-3.36	-0.08	0.46	-0.22	-1.15	-2.02	-2.42	-2.84	-3.27	-4.22	-4.82	-5.12
Mogas (ULG 95)	9.27	0.77	8.50	20.09	21.51	21.03	20.44	19.56	18.29	17.39	16.47	15.64	14.99	14.73	14.42
Jet/Kero	4.65	0.65	4.00	25.77	23.35	20.99	20.16	19.18	18.90	18.35	18.08	17.88	17.65	17.49	17.30
Gasoil 10ppm	7.61	0.61	7.00	31.54	26.71	22.35	20.51	19.28	18.80	18.25	17.83	17.50	16.95	16.50	16.05
FO 180	-8.24	0.44	-8.68	-1.12	0.33	0.99	1.02	0.53	-0.47	-1.21	-1.83	-2.27	-2.99	-3.66	-4.22
LPG Propane	-4.78	8.21	-12.99	-30.76	-30.67	-31.42	-24.90	-20.00	-15.48	-10.59	-5.78	-1.02	3.22	7.36	11.44
LPG Butane	1.43	8.83	-7.40	-23.88	-15.82	-9.79	-4.48	0.42	4.94	9.83	14.65	19.40	23.64	27.78	31.86

### **Indicator Legend**

To add value

Trigger to preserve value

Checkpoint to preserve value / cut loss

#### Notes:

### **Breach Highlights**

#### FO 180 vs Dated Brent:

CEO has approved to waive 100% of FO 180 production and strategically letting the physical open and hedge if the opportunity (abnormal uptick) arises on 4 Mar 2022.

### Naphtha vs Dated Brent, LPG Propane/LPG Butane vs Dated Brent, LPG Propane/LPG Butane vs Dubai:

CEO has approved to waive 100% of LPG and naphtha production by letting the physicals to realise at spot cracks in view of strong LPG and Naphtha cracks on 7 Mar 2022.

#### Naphtha vs Dubai:

CEO has approved to the waive of Naphtha Cracks against Platts Dubai across the months in 2022 due to the minimal hedgeable volume on 24 Mar 2022.

<sup>\*</sup>Trigger Level valid until 31 Mar 2022. The Checkpoint shall be the lower of the 25th Lower Percentile basis preceding 3 months historical data (Oct 21 - Dec 21), except for LPG which utilizes 60 data points (equivalent of 3 months data) or KPBI, whichever is lower.

# **Selected Product Crack Level**

## MENTOR & KERMIT - Crack Level for Product MOPS vs Platts Dated Brent (USD/BBL)

Product Crack	M+1 (Apr)	M+2 (May)	M+3 (Jun)	M+4 (Jul)	M+5 (Aug)	M+6 (Sep)	M+7 (Oct)	M+8 (Nov)	M+9 (Dec)	M+10 (Jan)	M+11 (Feb)	M+12 (Mar)
Naphtha	32%	35%	32%	29%	19%	13%	6%	6%	0%	0%	0%	0%
Mogas	34%	14%	23%	10%	7%	7%	0%	0%	0%	0%	0%	0%
Jet/Kero	38%	10%	10%	0%	0%	0%	19%	19%	19%	0%	0%	0%
Gasoil	19%	15%	15%	4%	4%	4%	0%	0%	0%	0%	0%	0%
FO	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
LPG	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

### PETRON - Crack Level for Product MOPS vs Platts Dated Brent (USD/BBL)

Product Crack	M+1 (Apr)	M+2 (May)	M+3 (Jun)	M+4 (Jul)	M+5 (Aug)	M+6 (Sep)	M+7 (Oct)	M+8 (Nov)	M+9 (Dec)	M+10 (Jan)	M+11 (Feb)	M+12 (Mar)
Naphtha	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Mogas	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Jet/Kero	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Gasoil	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
FO	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
LPG	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

### MENTOR - Crack Level for Product MOPS vs Platts Dubai (USD/BBL)

Product Crack	M+1 (Apr)	M+2 (May)	M+3 (Jun)	M+4 (Jul)	M+5 (Aug)	M+6 (Sep)	M+7 (Oct)	M+8 (Nov)	M+9 (Dec)	M+10 (Jan)	M+11 (Feb)	M+12 (Mar)
Naphtha	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Mogas	35%	35%	35%	26%	26%	0%	0%	0%	0%	0%	0%	0%
Jet/Kero	21%	42%	21%	21%	21%	21%	21%	21%	21%	0%	0%	0%
Gasoil	40%	44%	29%	22%	29%	29%	7%	7%	7%	0%	0%	0%
FO	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
LPG	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

## **Indicator Legend**

Dynamic hedging executed

Spread Hedge Ratio <=30% (Unwind & single-legged hedging is not allowed)

Spread Hedge Ratio >30% and <=75% (Unwind allowed for M+2 & onwards; Single-legged hedging allowed for M+1 to M+3)

Spread Hedge Ratio >75%

No hedging done yet



# Crack Hedging for Processing Desk as of 23 April 2022

Total hedgeable   Pricing   Physical (BBL)   Total hedgeable   Volume   Physical (BBL)   Total hedgeable   Volume   Physical (BBL)   Total hedgeable   Pricing   Period   Hedge (BBL)   Total hedgeable   Pricing   Processing Desk Crack Hedging   Physical (BBL)   Total hedgeable   Volume   Physical (BBL)   Total hedgeable   Volume   Physical (BBL)   Total hedgeable   Volume   Physical (BBL)   Total hedgeable   Pricing   Period	PETRONAS														
Physical (BBL)   volume (bbl) (75%)   Period   Hedge Ratio   Hedged (BBL)   (USD/BBL)   Value						Process	ing Desk Crac	k Hedging							Mentor & Kermit 1
Mar	Portfolio	Crack Type					Trade Date				USD / Bbl	USD	Indicator	^	
Brent Crack	Mentor &	Naphtha	1557000	1167750	WMA	21%	05-Aug-21	-50000	1.60	-7.33	8.93	446299.57	Blue		25 6QN/I
Til-Feb-22	Kermit				Mar		20-Dec-21	-50000	2.95	-7.33	10.28	513799.57	Blue		33.00101
11-Feb-22		Brent Crack					20-Dec-21	-50000	3.00	-7.33	10.33	516299.57	Blue		Total MTM P&L (USD)
Processing Desk Crack Hedging   Processing Desk Crack Hedging   Processing Desk Crack Hedging   Physical (BBL)   Volume   Physical (BBL)   Volume (bbl) (75%)   Period   Hedge Ratio   Period   Hedge Ratio   Period   Hedge (BBL)							11-Feb-22	-70000	1.80	-7.33	9.13	638819.39	Blue	~	
Folio   Crack Type   Volume   Physical (BBL)   Volume (bbl) (75%)   Period   Hedge Ratio   Pricing   Spread   Hedge Ratio   Trade Date   Volume (USD/BBL)   Value   USD   Indicator   Value   USD   USD   Indicator   Value   USD   Indicator   Value   USD   USD   USD   Indicator   Value   USD   US							14-Feb-22	-50000	2.30	-7.33	9.63	481299.57	Blue		
Physical (BBL) volume (bbl) (75%) Period Hedge Ratio Hedged (BBL) (USD/BBL) Value  tor & Gasoil 10ppm / Dated Crack Mark Mark Mark Mark Mark Mark Mark Mar						Process	ing Desk Crac	k Hedging							Mentor & Kermit 2
tor & Gasoil 10ppm / Dated Crack	Portfolio	Crack Type	Volume	Total hedgeable	Pricing	Spread	Trade Date	Volume	Crack Value Hedged	MTM Crack	USD / Bbl	USD	Indicator	^	
Trade   Dated Crack   Dated			Physical (BBL)	volume (bbl) (75%)	Period	Hedge Ratio		Hedged (BBL)	(USD/BBL)	Value					
Dated Crack	Mentor &	Gasoil	2702000	2026500	WMA	4%	24-Feb-21	-25000	13.48	11.63	1.85	46250.00	Blue		10 751/
WMA 4% 24-Feb-21 -25000 13.48 11.23 2.25 56250.00 Blue  Processing Desk Crack Hedging  Crack Type Volume Physical (BBL) Volume (bbl) (75%) Period Hedge Ratio Period Hedged (BBL) (USD/BBL) Value Wolume (bbl) (75%) Period Hedge Ratio Period Hedged (BBL) (USD/BBL) Value Wolume (bbl) (75%) Period Hedge Ratio Period Hedged (BBL) (USD/BBL) Value Wolume (bbl) (75%) Period (BBL) (USD/BBL) Value Wolume (BBL) (USD/BBL) Value Wolume (BBL) (USD/BBL) Period (BBL) (USD/BBL) Period (BBL) (USD/BBL) Value Wolume (BBL) (USD/BBL) Period (BBL) Period (BBL) (USD/BBL) Period (BBL) Period (	Kermit	10ppm /			Jul		24-Feb-21	-25000	13.48	11.63	1.85	46250.00	Blue		-TO. / 21/1
WMA   4%   24-Feb-21   -25000   13.48   11.23   2.25   56250.00   Blue   Value   Special (BBL)   Val		Dated Crack					24-Feb-21	-50000	13.48	11.63	1.85	92500.00	Blue		Total MTM P&L (USD)
Processing Desk Crack Hedging  Ifolio Crack Type Volume Physical (BBL) Volume (bbl) (75%) Period Hedge Ratio Hedged (BBL) (USD/BBL) Value Walue Hedged (USD/BBL) Value Walue Hedged (USD/BBL) Value Walue Wa					WMA	4%	24-Feb-21	-25000	13.48	11.23	2.25	56250.00	Blue	~	,
folio Crack Type Volume Physical (BBL) Volume (bbl) (75%) Period Hedge Ratio Hedged (BBL) (USD/BBL) Value Value Hedged (BBL) Value					Aug		24-Feb-21	-25000	13.48	11.23	2.25	56250.00	Blue		
Physical (BBL) volume (bbl) (75%) Period Hedge Ratio Hedged (BBL) (USD/BBL) Value						Process	ing Desk Crac	k Hedging							Mentor
ntor Mogas 95 / 576000 432000 WMA 17% 18-Feb-22 -50000 18.23 16.48 1.75 87510.87 Blue	Portfolio	Crack Type					Trade Date				USD / Bbl	USD	Indicator	^	
	Mentor	Mogas 95 /	576000	432000	WMA	17%	18-Feb-22	-50000	18.23	16.48	1.75	87510.87	Blue		-28 25M

23-Feb-22

10-Feb-22

24-Feb-22

07-Mar-22

Dubai

Dynamic hedging with full compliance Spread Hedge Ratio <=30% (Unwind is not allowed) Spread Hedge Ratio >30% and <=75% (Unwind allowed for M+2 and onwards) Spread Hedge Ratio >75% Spread Hedge Ratio >75% (Not meeting the minimum clip to unwind)

-28.25IVI

1.82

2.23

2.30

5.92

16.48

16.83

16.83

16.83

91010.87

111500.00

115000.00

296000.00

Total MTM P&L (USD)

Mar

**WMA** 

Apr

35%

-50000

-50000

-50000

-50000

18.30

19.06

19.13

22.75

<sup>\*</sup>MTM PNL is calculated based in derivatives PNL, excluding physical PNL.

<sup>\*</sup>Any paper deals executed after 1 May 2020 is subjected to the Additional Enhancement to R&T Hedging Mandate.

<sup>\*</sup>Spread Hedge Ratio = Total Derivatives Spread Volume based on Planned Production Volume / Total Planned Production Volume. The ratio is monitored and controlled at maximum 75% based on the latest planned production volume up to M-1. M is referred to as the actual production month.