
WORLDWIDE REFINERY PROCESSING REVIEW

Monitoring Technology Development and Competition in One Single Source

Second Quarter 2020

Hydrocracking, and Catalytic Reforming

Plus

Latest Refining Technology Developments & Licensing



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1Q, 2Q, 3Q, 4Q...	(the) first, second, third, and fourth quarters, respectively	K	thousand
AAA	American Automobile Association (US)	kL	kiloliter
ANS	Alaskan North Slope crude	lb	pound(s)
API	American Petroleum Institute (US)	METI	Ministry of Economy, Trade and Industry (Japan)
ARA	Antwerp, Rotterdam, Amsterdam	MM	million
ASTM	American Society for Testing & Materials	MOU	memorandum of understanding
b or bbl	barrel(s)	mpg	miles per gallon
B	billion	mt	metric ton
boe	barrel(s) of oil equivalent	MW	megawatt
CA	California	N.A.	not applicable or not available
CAA	Clean Air Act (US)	NAAQS	national ambient air quality standards
CARB	California Air Resources Board	NESCAUM	Northeast States for Coordinated Air Use Management
cf	cubic foot, cubic feet	NG	natural gas
cfr	cost and freight	NGL	natural gas liquid
cif	cost, insurance, and freight	NPRA	National Petrochemical & Refiners Association (US)
Concawe	Conservation of Clean Air and Water Europe	NWE	Northwest Europe
CIS	Commonwealth of Independent States	NYMEX	New York Mercantile Exchange (US)
CNG	compressed natural gas	OECD	Organization for Economic Cooperation & Development
dst	centistoke	OPEC	Organization of the Petroleum Exporting Countries
d	day	OSHA	Occupational, Safety and Health Administration (US)
DOE	Department of Energy	PC	petrochemical(s)
EEC	European Economic Community	PM	particulate matter
EIA	US Energy Information Administration	RBOB	RFG before oxygenate blending
EPA	US Environmental Protection Agency	RFG	reformulated gasoline
EPC(M)	engineering, procurement, and construction (management)	RMT	refining, marketing, and transportation
EU15	15 original EU members	RVP	Reid vapor pressure
EU25	EU15 and the 10 new members admitted in May 2004	SCAQMD	South Coast Air Quality Management District (California)
EUROPIA	European Petroleum Industry Association (Brussels)	VLCC	very large crude carrier
FCV	fuel cell vehicle	WTI	West Texas Intermediate
fd	free delivered	y	year
FEED	front-end engineering design	¢	US cent(s)
fob	free on board	€	EU euro(s)
gal	gallon	£	UK pound(s)
GTL	gas to liquid(s)	\$	US dollar(s)
h	hour	¥	Japanese yen
H1 or H2	first or second half of the year		
ICE	Int'l Commodity Exchange (UK—formerly Int'l Petroleum Exchange)		
IEA	Int'l Energy Agency (Paris-based)		
IPAA	Independent Petr. Assoc. of America		
IPO	initial public offering		
j.v.	joint venture		
LPG	liquefied petroleum gas		

2Q 2020 Review

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