

TABLE I
1980 CHARGE AND YIELD SUMMARY

CONOCO INC.

LAKE CHARLES REFINERY

	BBLs (FOE)* [TONS]**
<u>CHARGE SUMMARY</u>	
TOTAL CRUDE CHARGE	20,534,435
<u>YIELD SUMMARY</u>	
<u>Light Ends</u>	
Fuel Gases	(1,101,559)
LPG Propane	314,009
Butane	424,429
Isobutane	109,641
Propane-Propylene	
Butane-Butylene	26,593
Field PBC	-514,504
Total Light Ends	1,461,727
<u>Gasoline</u>	
Isopentane	190,755
Debut. St. Run	-4,176
Den. Casinghead	473,842
Lt. St. Run Gaso.	1,312,460
Thermal Gasoline	308,150
Coker Gasoline	32,571
FCC Gasoline	2,698,326
Lt. Poly Gasoline	235,985
Reformate	4,179,206
Norm. Paraffin Gaso.	-499,127
Alkylate	639,213
Total Gasoline	9,567,205

* FOE = 6,368,000 BTU

** Short Tons (2,000 lbs.)

MCD 00002649

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1980 Charge and Yield Summary
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	BBLs (FOE)* [TONS]**
<u>YIELD SUMMARY (continued)</u>	
<u>Distillate</u>	
Heating Oil Dist.	2,701,440
Light Kerosene	44,711
Reg. Diesel	4,535,834
Lt. FCC Cycle Oil	550,264
Lt. Therm. Cycle Oil	190,538
Total Distillate	8,022,787
<u>Gas Oil</u>	
Vacuum Heating Oil	11,710
Gas Oil	-8,589
Purch.-Gas Oil	-1,996,430
Purch.-PCP Ret.	-93,075
Vacuum Gas Oil	-156,182
Total Gas Oil	-2,242,566
<u>Virgin Residium</u>	
Reduced Crude	43,574
Topped Crude	4,416,125
Vacuum Residium	224,671
C-C Residium	-149,159
Bright Stock Ext.	-64,619
Total Virgin Residium	4,470,592
<u>Tar</u>	
Thermal Tar	-11,077
Arco Tar	-28,163
Monsanto Tar	-421,433
Shell Tar	-135,570
Shell Naphtha	-42,410
Total Tar	-638,653

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** Short Tons (2,000 lbs.)

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	BBLs (FOE)* [TONS]**
<u>YIELD SUMMARY (continued)</u>	
<u>Miscellaneous</u>	
No. 1 Lt. Coker G.O.	-54,624
No. 1 Coker Gas Oil	5,642
Reforming Naphtha	-106,867
Slurry Oil	47,721
Syn. Twr. Btms.	-998,401
Aromatic Dist.	-26,662
Carbon Black Oil	601,677
No. 1 Grn. Coke	[40,046]
No. 1 Calcined Coke	[92,120]
Total Net Acids	1,103
Slop	-242,062
Rerun	-4,437
Total Miscellaneous	-106,657

* FOE = 6,368,000 BTU
** Short Tons (2,000 lbs.)

MCD 000002851

TABLE II
FIXED ROOF TANKS
FUGITIVE HYDROCARBONS
1980
CONOCO INC.
LAKE CHARLES REFINERY

PRODUCT NAME	TANK NO.	CAP. MBBL	TURN- OVERS PER YR	TYPICAL TRUE VAPOR PRESS PSIA	VAPOR MOL. WT. LB/LBM	LIQ. DENS LB/GAL	TOTAL LOSS TPY	AVERAGE EFFICIENCY % $\times 10^{-4}$
F. Gaso.	*	0.02	37.7	8.6000	64.0	5.6	0.2	99.78
Naphtha	68	55.0	23.0	1.3000	68.0	6.4	104.7	99.94
Naphtha	69	55.0	23.0	1.3000	68.0	6.4	104.7	99.94
CR Dist.	21	25.0	38.8	0.0150	68.0	5.6	1.2	99.99+
Kerosene	94	2.5	21.7	0.0150	130.0	7.0	0.3	99.99+
Kerosene	95	2.5	21.7	0.0150	130.0	7.0	0.3	99.99+
Kerosene	35	80.0	21.7	0.0150	130.0	7.0	5.6	99.99+
#2 Dist	81	120.0	1.8	0.0120	130.0	7.1	4.6	99.99
#2 Dist	82	150.0	1.8	0.0120	130.0	7.1	5.6	99.99
#2 Dist	201	25.0	1.8	0.0120	130.0	7.1	1.3	99.98
#2 Dist	202	15.0	1.8	0.0120	130.0	7.1	0.9	99.98
#2 Dist	343	80.0	1.8	0.0120	130.0	7.1	3.5	99.98
#2 Dist	351	80.0	1.8	0.0120	130.0	7.1	3.5	99.98
#2 Dist	370	80.0	1.8	0.0120	130.0	7.1	3.5	99.98
#2 Dist	74	150.0	1.8	0.0120	130.0	7.1	5.6	99.99
#2 Dist	75	150.0	1.8	0.0120	130.0	7.1	5.6	99.99
#2 Dist	76	150.0	1.8	0.0120	130.0	7.1	5.6	99.99
#2 Dist	378	80.0	1.8	0.0120	130.0	7.1	3.5	99.98
#2 Dist	22	25.0	1.8	0.0120	130.0	7.1	1.3	99.98
Op Fdstk	344	80.0	37.6	0.0120	130.0	6.3	5.6	99.99+
Op Fdstk	345	150.0	37.6	0.0120	130.0	6.3	9.7	99.99+
Lt Fdstk	342	80.0	58.9	0.0120	130.0	6.9	5.8	99.99+
Lt Fdstk	340	80.0	58.9	0.0120	130.0	6.9	5.8	99.99+
Hy Fdstk	297	80.0	41.0	0.0120	130.0	7.2	5.6	99.99+
Hy Fdstk	338	80.0	41.0	0.0120	130.0	7.2	5.6	99.99+
Gas Oil	36	80.0	22.0	0.0001	190.0	7.1	0.2	99.99+
Gas Oil	37	80.0	22.0	0.0001	190.0	7.1	0.2	99.99+
Gas Oil	83	120.0	22.0	0.0001	190.0	7.1	0.3	99.99+
Gas Oil	100	150.0	22.0	0.0001	190.0	7.1	0.3	99.99+
Gas Oil	101	150.0	22.0	0.0001	190.0	7.1	0.3	99.99+
Slurry	71	25.0	10.7	0.0001	190.0	8.7	0.1	99.99+
Slurry	72	25.0	10.7	0.0001	190.0	8.7	0.1	99.99+
Slurry	73	25.0	10.7	0.0001	190.0	8.7	0.1	99.99+
Slurry	299	80.0	10.7	0.0001	190.0	8.7	0.2	99.99+
Slurry	308	80.0	10.7	0.0001	190.0	8.7	0.2	99.99+
Coker Fd	67	55.0	5.5	0.0001	190.0	9.1	0.1	99.99+
Coker Fd	91	80.0	5.5	0.0001	190.0	9.1	0.2	99.99+
Coker Fd	20	25.0	5.5	0.0001	190.0	9.1	0.1	99.99+
Coker Fd	66	55.0	5.5	0.0001	190.0	9.1	0.2	99.99+
Coker Fd	90	80.0	5.5	0.0001	190.0	9.1	0.3	99.99+
Coker Fd	400	25.0	5.5	0.0001	190.0	9.1	0.1	99.99+
Coker Fd	3801	250.0	5.5	0.0001	190.0	9.1	0.5	99.99+
Coker Fd	3802	250.0	5.5	0.0001	190.0	9.1	0.5	99.99+
CBO	60	30.0	10.9	0.0001	190.0	8.9	0.1	99.99+
#6 FO	84	150.0	16.6	0.0001	190.0	7.9	0.3	99.99+
#6 FO	89	150.0	16.6	0.0001	190.0	7.9	0.3	99.99+
#6 FO	355	15.0	16.6	0.0001	190.0	7.9	0.0	99.99+
#6 FO	354	15.0	16.6	0.0001	190.0	7.9	0.0	99.99+
#6 FO	398	90.0	16.6	0.0001	190.0	7.9	0.2	99.99+
#6 FO	3803	250.0	16.6	0.0001	190.0	7.9	0.5	99.99+
#6 FO	3804	250.0	16.6	0.0001	190.0	7.9	0.5	99.99+

* Underground tank to gas pump

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DTE:jw
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TABLE III
FLOATING ROOF TANKS
FUGITIVE HYDROCARBONS
1981
CONOCO INC.
LAKE CHARLES REFINERY

PRODUCT NAME	TANK NO.	CAP. MBBL	TURN- OVERS PER YR	TYPICAL TRUE VAPOR PRESS PSIA	VAPOR MOL. WT. LB/LBM	LIQ. DENS. LB/GAL	TOTAL LOSS TPY	AVERAGE EFFICIENCY %
Crude	102	150.0	45.0	4.00	50.0	7.1	14.7	99.99+
Crude	346	250.0	45.0	4.00	50.0	7.1	19.4	99.99+
Crude	347	250.0	45.0	4.00	50.0	7.1	19.4	99.99+
Crude	371	400.0	45.0	4.00	50.0	7.1	24.3	99.99+
Crude	372	200.0	45.0	4.00	50.0	7.1	17.4	99.99+
Crude	373	200.0	45.0	4.00	50.0	7.1	17.4	99.99+
F. Gaso.	25	25.0	38.8	8.60	64.0	5.6	14.2	99.99
F. Gaso.	26	25.0	38.8	8.60	64.0	5.6	14.2	99.99
F. Gaso.	30	80.0	38.8	8.60	64.0	5.6	20.6	99.99
F. Gaso.	32	80.0	38.8	8.60	64.0	5.6	33.7	99.99
F. Gaso.	33	80.0	38.8	8.60	64.0	5.6	33.7	99.99
F. Gaso.	64	25.0	38.8	8.60	64.0	5.6	14.2	99.99
F. Gaso.	65	25.0	38.8	8.60	64.0	5.6	14.2	99.99
F. Gaso.	78	120.0	38.8	8.60	64.0	5.6	40.0	99.99
F. Gaso.	79	120.0	38.8	8.60	64.0	5.6	40.0	99.99
F. Gaso.	80	120.0	38.8	8.60	64.0	5.6	40.0	99.99
F. Gaso.	92	25.0	38.8	8.60	64.0	5.6	14.2	99.99
F. Gaso.	93	25.0	38.8	8.60	64.0	5.6	14.2	99.99
F. Gaso.	87	150.0	38.8	8.60	64.0	5.6	47.2	99.99
UF Gaso.	27	25.0	38.8	5.20	68.0	5.6	8.1	99.99
UF Gaso.	59	25.0	38.8	5.20	68.0	5.6	8.1	99.99
UF Gaso.	85	150.0	38.8	5.20	68.0	5.6	26.8	99.99+
UF Gaso.	31	80.0	38.8	5.20	68.0	5.6	19.1	99.99
UF Gaso.	77	120.0	38.8	5.20	68.0	5.6	22.7	99.99+
UF Gaso.	3	1.5	38.8	5.20	68.0	5.6	1.4	99.99
UF Gaso.	98	35.0	38.8	5.20	68.0	5.6	10.5	99.99
UF Gaso.	99	35.0	38.8	5.20	68.0	5.6	10.5	99.99
UF Gaso.	18	15.0	38.8	5.20	68.0	5.6	5.6	99.99
UF Gaso.	86	150.0	38.8	5.20	68.0	5.6	26.8	99.99+
UF Gaso.	23	15.0	38.8	5.20	68.0	5.6	5.6	99.99+
UF Gaso.	199	30.0	38.8	5.20	68.0	5.6	8.3	99.99+
UF Gaso.	19	15.0	38.8	5.20	68.0	5.6	5.6	99.99+
UF Gaso.	24	15.0	38.8	5.20	68.0	5.6	5.6	99.99+
UF Gaso.	61	10.0	38.8	5.20	68.0	5.6	4.2	99.99+
UF Gaso.	62	10.0	38.8	5.20	68.0	5.6	4.2	99.99+
Kerosene	34	80.0	21.7	0.02	130.0	7.0	1.4	99.99+
Slop	42	5.0	7.0	4.00	50.0	7.1	1.4	99.97
Slop	43	5.0	7.0	4.00	50.0	7.1	1.4	99.97
Slop	70	4.0	7.0	4.00	50.0	7.1	1.4	99.97
Naphtha	193	80.0	23.0	1.30	68.0	6.4	4.1	99.99+

DTE:jw
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