

Table 18 RESULT OF PROPYLENE OPERATION

RUN NO. 9972-10
 CATALYST CA-Y-62 #9939-37 55 CC 35.00GM (32.59GM AFTER THE RUN, -2.41GM)
 FEED H₂:C₃H₆:H₂O @1:1:2 MOLE RATIO, 0.5 C₃H₆ WHSV, CONTINUOUS OVERNITE
 C₃H₆ MW= 42.0813 DENSITY= 0.51041 GM/CC (@ 73 F)
 TARGET FLOW: C₃H₆ 34.3 CC/HR H₂ 150 CC/MN, 9.0 L/HR H₂O 15 CC/HR
 ACTUAL FLOW: 34.4 CCMR EFFLUENT 15.3 L/HR AQ LAYR 13.9CC/HR

RUN & SAMPLE NO.	9972-10-1	9972-10-2	9972-10-3	9972-10-4	9972-10-5
C ₃ H ₆ WHSV	0.5	0.5	0.5	0.5	0.5
HRS ON STREAM	7.42	23.7	30.7	48.0	53.6
PRESSURE, PSIG	145	146	146	140	145
TEMP., C	280	280	279	357	340
FEED C ₃ H ₆ CC	245.41	569.48	237.23	608.93	184.37
HOURS FEEDING	7.417	16.333	7.00	17.25	5.5
EFFLUENT GAS LITER	113.4	253.4	110.50	281.10	88.1
CM AQUEOUS LAYER	100.31	228.11	97.81	239.49	76.0
CM LIQ HYDROCARBON	1.68	0.94	0.00	0.00	0.0
WT FR. LIQ HC/FEED	.0134	.0032	.0000	.0000	.0000
MATERIAL BALANCE WT %	94.31	84.85	97.56	93.22	100.42
C ₃ H ₆ CONVERSION %	10.47	9.14	5.99	2.45	2.38
PRDT SELECTIVITY WT %					
CH ₄	0.04	0.04	0.12	0.74	0.21
C ₂ HC'S	0.16	0.14	0.05	0.61	0.29
C ₃ H ₈	20.32	25.71	30.44	37.97	34.21
C ₄ H ₁₀	2.40	8.22	7.57	1.65	15.80
C ₄ H ₈	7.33	11.56	13.43	13.09	13.35
C ₅ H ₁₂	1.79	1.74	3.85	0.33	2.18
C ₆ H ₁₀	0.18	0.22	1.58	0.00	1.07
C ₆ H ₁₄	11.16	8.37	8.63	1.48	5.13
C ₆ H ₁₂ & CYCLO'S	16.66	17.71	12.52	24.42	15.52
C ₇ + IN GAS	26.10	22.12	21.82	18.92	12.24
LIQ HC'S	13.86	4.16	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00
SUB-GROUPING					
C1 -C4	30.25	45.68	51.60	54.86	63.85
C5 -420 F	64.69	52.14	48.40	45.14	36.15
420-700 F	4.85	2.02	0.00	0.00	0.00
700-END PT	0.21	0.17	0.00	0.00	0.00
C5 -END PT	69.75	54.32	48.40	45.14	36.15

Table 18 (cont.)

HEO/NORMAL MOLE RATIO					
C4	3.2118	0.2095	0.4038	0.0732	0.0116
C5	29.6667	51.4000	25.4194	1.3333	1.6667
C6	16.0000	11.5238	9.2533	8.6364	32.0000
C4-	0.4181	0.3406	0.3934	0.0339	0.1338
PARAFFIN/OLEFIN M RATIO					
C2	0.3119	0.6923	0.5294	0.1176	1.1429
C3	0.0229	0.0251	0.0189	0.0093	0.0081
C4	0.3163	0.6867	0.5438	0.1148	1.1428
C5	9.9077	7.8209	2.3671	-	1.9785
LIG HC COLLECTION					
PHYS. APPEARANCE	OIL	OIL	TRACE OIL		
DENSITY	.	.			
N. REFRACTIVE INDEX	.	.			
SIMULATED DISTILLATION					
10 WT % @ DEG F.	281	333	---	---	---
16	298	364	---	---	---
50	393	425	---	---	---
84	491	538	---	---	---
90	535	606	---	---	---
RANGE (16-84%)	193	174	---	---	---
WT % @420 F	63.5	47.5	---	---	---
WT % @700 F	98.5	96.0	---	---	---

Table 18 (cont.) RESULTS OF PROPYLENE OPERATION

RUN NO. 9972-10
 CATALYST CAY.62 #9939-37 55 CC 35.00CM (32.59GM AFTER THE RUN, -2.41GM)
 FEED H₂:C₃H₆:H₂O @ 1:1:2 MOLE RATIO, 0.5 C₃H₆ WHSV, CONTINUOUS OVERNITE
 C₃H₆ MW= 42.0813 DENSITY= 0.51041 GM/CC (@ 73 F)
 TARGET FLOW: C₃H₆ 34.3 CC/HR H₂ 150 CC/MN. 9.0 L/HR H₂O 15 CC/HR
 ACTUAL FLOW: 34.43 CCHR EFFLUENT 15.3 L/HR AQ LAYER 13.9 CC/HR

RUN & SAMPLE NO.	9972-10-6	9972 10-7
C ₃ H ₆ WHSV	0.5	0.5
HRS ON STREAM	71.6	77.6
PRESSURE, PSIG	144	146
TEMP. C	340	340
FEED C ₃ H ₆ CC	618.56	207.66
HOURS FEEDING	18.08	6.0
EFFLNT GAS LITER	239.2	97.4
GM AQUEOUS LAYER	249.68	84.48
GM LIQ HYDROCARBON	0.00	0.00
WT FR. LIQ HC/FEED	.0000	.0000
MATERIAL BALANCE WT %	79.99	94.53
C ₃ H ₆ CONVERSION %	1.78	2.15
PRDT SELECTIVITY WT %		
CH ₄	0.39	0.15
C ₂ HC'S	0.30	0.36
C ₃ H ₈	45.31	39.99
C ₄ H ₁₀	3.75	10.13
C ₄ H ₈	5.10	6.63
C ₅ H ₁₂	0.00	3.10
C ₅ H ₁₀	0.00	0.51
C ₆ H ₁₄	3.30	1.44
C ₆ H ₁₂ & CYCLO'S	30.32	29.10
C ₇ + IN GAS	11.56	8.53
LIQ HC'S	0.00	0.00
TOTAL	100.00	100.00
SUBGROUPING		
C1 -C4	54.83	57.31
C5 -420 F	45.17	42.69
420-700 F	0.00	0.00
700-END PT	0.00	0.00
C5 -END PT	45.17	42.69

Table 15 (cont.)

ISO/NORMAL MOLE RATIO		
C4	0.0493	0.0856
C5	-	0.5000
C6	0.7700	3.9444
C4-	0.2190	0.4550

PARAFFIN/OLEFIN M RATIO		
C2	0.7143	1.2759
C3	0.0080	0.0086
C4	0.7095	1.4629
C5	-	5.8462

1.10 HC COLLECTION

PHYS. APPEARANCE

DENSITY

N. REFRACTIVE INDEX

SIMULATED DISTILLATION

10 WT % @ DEG F.	---	---
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16	---	---
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50	---	---
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84	---	---
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90	---	---
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RANGE (16-84%)	---	---
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WT % @420 F	---	---
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WT % @700 F	---	---
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Table 19

RESULT OF PROPYLENE OPERATION

RUN NO. 9972-13
 CATALYST LZ-105-6 #9939-01 67CC 35.06GM (37.10GM AFTER THE RUN, -2.04GM)
 FEED H₂:C₃H₆:H₂O @ 1:1:2 MOLE RATIO, 0.5 C₃H₆ WHSV, CONTINUOUS OVERNITE
 C₃H₆ MW- 42.0813 DENSITY- 0.51041 GM/CC (@ 73 F)
 TARGET FLOW: C₃H₆ 34.3 CC/HR H₂ 168 CCMN, 10.1 L/HR H₂O 15 CC/HR
 ACTUAL FLOW: 28.45 CCHR EFFLUENT 13.8 L/HR AQ LAYER 10.5 CC/HR

RUN & SAMPLE NO.	9972-13-1	9972-13-2	9972-13-3	9972-13-4	9972-13-5
C ₃ H ₆ WHSV	0.42	0.42	0.42	0.42	0.42
HRS ON STREAM	5.03	23.9	30.9	48.0	55.0
PRESSURE, PSIG	161	157	154	155	156
TEMP. C	280	280	280	280	280
FEED C ₃ H ₆ CC	138.44	534.87	176.19	492.08	193.81
HOURS FEEDING	5.033	18.90	7.00	17.10	7.00
EFFLUENT GAS LITER	65.35	235.75	88.90	222.30	88.50
GM AQUEOUS LAYER	49.01	197.72	73.99	180.05	71.50
GM LIQ HYDROCARBON	24.99	138.89	48.98	133.18	55.29
WT FR. LIQ HC/FEED	.3522	.5087	.5447	.5303	.5589
MATERIAL BALANCE WT %	88.72	81.58	93.30	91.23	98.42
C ₃ H ₆ CONVERSION %	96.66	94.11	92.61	90.29	90.41
PRDT SELECTIVITY WT %					
CH ₄	0.02	0.01	0.02	0.01	0.01
C ₂ HC'S	0.12	0.10	0.11	0.07	0.07
C ₃ H ₈	9.78	2.67	2.56	2.03	1.78
C ₄ H ₁₀	16.20	4.07	3.99	2.50	2.36
C ₄ H ₈	2.24	4.57	5.68	6.27	6.36
C ₅ H ₁₂	12.14	3.93	3.79	2.83	2.49
C ₅ H ₁₀	0.07	0.16	0.24	0.23	0.22
C ₆ H ₁₄	7.68	6.40	6.39	7.24	6.90
C ₆ H ₁₂ & CYCLO'S	0.77	1.68	1.97	1.79	2.55
C ₇ + IN GAS	7.79	9.28	9.80	11.75	12.17
LIQ HC'S	43.19	67.12	65.35	65.29	65.07
TOTAL	100.00	100.00	100.00	100.00	100.00
SUBGROUPING					
C ₁ -C ₄	28.36	11.42	12.46	10.88	10.59
C ₅ -420 P	67.80	82.60	78.52	83.44	80.56
420-700 P	3.84	5.97	9.02	5.68	8.85
700-END PT	0.00	0.00	0.00	0.00	0.00
C ₅ -END PT	71.64	88.58	87.54	89.12	89.41

Table 19 (cont.)

ISO/NORMAL MOLE RATIO					
C4	1.7003	2.4154	2.3051	2.6302	2.3587
C5	2.0616	2.1181	1.9322	2.0360	2.0297
C6	6.0933	10.5051	9.5125	12.1574	12.8041
C4+	0.4936	0.4681	0.4411	0.4371	0.4152
PARAFFIN/OLEFIN M RATIO					
C2	1.1074	0.2107	0.3782	-	-
C3	2.7274	0.4049	0.3180	0.1794	0.1598
C4	6.9926	0.8609	0.6771	0.3849	0.3585
C5	174.2464	23.5243	15.0714	11.9156	10.7620
LIG HC COLLECTION					
PHYS. APPEARANCE	OIL	OIL	OIL	OIL	OIL
DENSITY	0.792	0.759	0.747	0.745	0.749
N. REFRACTIVE INDEX	1.4540	1.4323	1.4296	1.4266	1.4257
SIMULATED DISTILLATION					
10 WT % @ DEG F.	180	172	182	173	173
16	204	200	209	202	207
50	294	292	307	292	304
84	389	391	409	391	409
90	411	414	444	413	443
RANGE (16-84%)	185	191	200	189	202
WT % @420 F	91.1	91.2	86.2	91.3	86.4
WT % @700 F	100	100	100	100	100

Table 19 (cont.) RESULT OF PROPYLENE OPERATION

RUN NO. 9972-13
 CATALYST LZ-105-6 #7939-01 67CC 35.06GM (37.10GM AFTER THE RUN, -2.04GM)
 FEED H₂:C₃H₆:H₂O @ 1:1:2 MOLE RATIO, 0.5 C₃H₆ WHSV, CONTINUOUS OVERNIGHT
 C₃H₆ MW- 42.0813 DENSITY: 0.51041 GM/CC (@ 73 F)
 TARGET FLOW: C₃H₆ 34.3 CC/HR H₂ 168 CCMN, 10.1 L/HR H₂O 15 CC/HR
 ACTUAL FLOW: 29.45 CCHR EFFLUENT 13.8 L/HR AQ LAYR 10.5 CC/HR

RUN & SAMPLE NO.	9972-13-6	9972-13-7	9972-13-8	9972-13-9	9972-13-10
C ₃ H ₆ WHSV	0.42	0.42	0.42	0.42	0.42
HRS ON STREAM	71.5	78.7	95.4	102.7	119.1
PRESSURE, PSIG	157	149	150	152	158
TEMP. C	340	337	338	338	338
FEED C ₃ H ₆ CC	481.38	195.92	484.53	190.67	485.79
HOURS FEEDING	16.50	7.25	16.75	7.25	16.40
EFFLUENT GAS LITER	231.10	102.00	234.40	100.40	230.60
GM AQUEOUS LAYER	173.41	77.41	175.42	76.78	171.51
GM LIQ HYDROCARBON	88.99	38.19	93.39	38.59	95.19
WT FR. LIQ HC/FEED	.3622	.3963	.3776	.3965	.3839
MATERIAL BALANCE WT %	92.38	103.08	95.76	102.38	91.11
C ₃ H ₆ CONVERSION %	93.75	92.49	91.23	90.80	89.38
PRDT SELECTIVITY WT %					
CH ₄	0.06	0.05	0.04	0.04	0.04
C ₂ HC'S	0.42	0.42	0.39	0.41	0.40
C ₃ H ₈	7.25	6.05	5.02	4.69	4.22
C ₄ H ₁₀	13.72	12.07	9.98	9.70	7.60
C ₄ H ₈	5.91	7.27	8.52	8.92	9.58
C ₅ H ₁₂	10.50	10.05	8.75	8.09	6.73
C ₅ H ₁₀	0.17	0.42	0.38	0.39	0.30
C ₆ H ₁₄	7.76	8.63	8.94	8.79	9.00
C ₆ H ₁₂ & CYCLO'S	1.19	1.51	1.60	1.74	1.77
C ₇ + IN GAS	10.68	12.22	12.64	13.58	12.62
LIQ HC'S	42.35	41.30	43.75	43.94	47.75
TOTAL	100.00	100.00	100.00	100.00	100.00
SURGROUPING					
C ₁ -C ₄	27.37	25.86	23.95	23.26	21.83
C ₅ -420 F	68.61	70.50	72.42	72.35	74.41
420-700 F	4.02	3.64	3.63	4.39	3.76
700-END PT	0.00	0.00	0.00	0.00	0.00
C ₅ -END PT	72.63	74.14	76.05	76.74	78.17

Table 19 (cont.)

ISO/NORMAL MOLE RATIO					
C4	2.5130	2.3893	2.4320	2.4708	2.6692
C5	3.0550	2.4097	2.4092	2.3612	2.6237
C6	8.1918	7.8099	8.6750	8.8595	10.0478
C4*	0.4577	0.4327	0.4345	0.4343	0.4544
PARAFFIN/OLEFIN M RATIO					
C2	0.5772	0.3732	0.3282	0.3597	0.3044
C3	1.0466	0.7199	0.5009	0.4444	0.3399
C4	2.2397	1.6013	1.1308	0.9955	0.7659
C5	60.2097	23.5307	22.2957	20.2755	21.7099
L.IQ HC COLLECTION					
PHYS. APPEARANCE	OIL	OIL	OIL	OIL	OIL
DENSITY	0.770	0.785	0.775	0.738	0.746
N. REFRACTIVE INDEX	1.4404	1.4451	1.4398	1.4396	1.4349
SIMULATED DISTILLATION					
10 WT % @ DEG F.	166	168	162	166	162
16	200	200	196	198	194
50	295	298	294	289	285
84	390	387	384	384	379
90	416	411	408	410	406
RANGE (16-84%)	190	187	188	186	185
WT % @420 F	90.5	91.2	91.7	91.5	92.13
WT % @700 F	100	100	100	100	100

Table 19 (cont.) RESULT OF PROPYLENE OPERATION

RUN NO. 9972-13
 CATALYST 1.2-105-6 #9939-01 67CC 35.06GM (37.10GM AFTER THE RUN, 12.04GM)
 FEED H₂:C₃H₆:H₂O @ 1:1:2 MOLE RATIO, 0.5 C₃H₆ WHSV, CONTINUOUS OVERNITE
 C₃H₆ MW= 42.0813 DENSITY= 0.51041 GM/CC (@ 73 F)
 TARGET FLOW: C₃H₆ 34.3 CC/HR H₂ 168 CCMN, 10.1 L/HR H₂O 15 CC/HR
 ACTUAL FLOW: 28.45 CCHR EFFLUENT 13.8 L/HR AQ LAYR 10.5 CC/HR

RUN & SAMPLE NO.	9972-13-11	972-13-12	972-13-13	972-13-14	9972-13-15
C ₃ H ₆ WHSV	0.42	0.42	0.42	0.42	0.42
HRS ON STREAM	126.8	143.1	150.7	166.9	172.7
PRESSURE, PSIG	154	150	157	153	148
TEMP. C	338	370	370	370	370
FEED C ₃ H ₆ CC	210.8	484.53	213.43	473.83	156.69
HOURS FEEDING	7.7	16.3	7.58	16.25	5.75
EFFLNT GAS LITER	106.9	238.9	110.6	237.0	83.5
GM AQUEOUS LAYER	80.74	169.10	78.81	168.16	59.56
GM LIQ HYDROCARBON	41.30	80.04	37.28	75.14	26.25
WT FR. LIQ HC/FEED	.3838	.3236	.3537	.3107	.3282
MATERIAL BALANCE WT %	96.71	100.42	106.26	95.88	109.56
C ₃ H ₆ CONVERSION %	89.22	88.41	87.83	85.46	84.55
PRDT SELECTIVITY WT %					
CH ₄	0.04	0.13	0.12	0.12	0.12
C ₂ HC'S	0.38	0.78	0.76	0.80	0.86
C ₃ H ₈	3.95	7.46	6.55	6.10	5.82
C ₄ H ₁₀	7.41	12.14	10.63	9.56	9.02
C ₄ H ₈	9.99	10.82	11.07	13.26	13.82
C ₅ H ₁₂	6.44	9.06	8.13	7.04	6.73
C ₅ H ₁₀	0.30	0.51	0.47	0.38	0.41
C ₆ H ₁₄	9.02	8.53	8.68	8.86	9.33
C ₆ H ₁₂ & CYCLO'S	1.89	1.79	1.93	1.93	2.18
C ₇ + IN GAS	14.82	11.92	14.02	13.59	15.07
LIQ HC'S	45.76	36.85	37.64	38.35	36.66
TOTAL	100.00	100.00	100.00	100.00	100.00
SUBGROUPING					
C ₁ -C ₄	21.77	31.34	29.12	29.85	29.63
C ₅ -420 F	74.62	65.96	68.20	67.68	68.09
420-700 F	3.62	2.70	2.68	2.47	2.28
700-END PT	0.00	0.00	0.00	0.00	0.00
C ₅ -END PT	78.23	68.66	70.88	70.15	70.37

Table 19 (cont.)

ISO/NORMAL MOLE RATIO						
C4	2	7	20.2801	2.2867	2.2908	2.3034
C5	7	31	2.2856	2.2850	2.4651	2.4084
C6	10	39	3.7282	4.0431	10.7955	10.7362
C4=	0.4403		0.4291	0.4341	0.4414	0.4416
PARAFFIN/OLEFIN M RATIO						
C2	0.2506		0.5230	0.4913	0.4576	0.4499
C3	0.3129		0.5474	0.4560	0.3445	0.3060
C4	0.7166		1.0827	0.9277	0.6961	0.6300
C5	20.7721		17.2261	16.7365	18.0000	16.0911
LIQ HC COLLECTION						
PHYS. APPEARANCE	OIL					
DENSITY	0.762		0.740	0.759	0.771	0.770
N. REFRACTIVE INDEX	1.4337		1.4458	1.4434	1.4411	1.4381
SIMULATED DISTILLATION						
10 WT % @ DEG F.	164		164	164	162	163
16	196		197	196	194	194
50	288		290	289	286	285
84	381		376	375	372	371
90	407		403	402	398	397
RANGE(16-84%)	185		179	179	178	177
WT % @420 F	92.1		92.67	92.89	93.55	93.78
WT % @700 F	100		100	100	100	100

Table 20

RESULT OF PROPYLENE OPERATION

RUN NO. 9972-14
 CATALYST UCC-107 #10042-21 5600 35.00GM (23.83GM AFTER THE RUN, -1.17GM)
 FEED H₂:C₃H₆:H₂O @ 1:1:2 MOLE RATIO, 0.5 C₃H₆ WHSV, CONTINUOUS OVERNITE
 C₃H₆ MW: 42.0813 DENSITY: 0.51041 GM/CC (@ 73 F)
 TARGET FLOW: C₃H₆ 34.3 CC/HR H₂ 170 CC/MN, 10.2 L/HR H₂O 15 CC/HR
 ACTUAL FLOW: 35.15 CCHR EFFLUENT 20.4 L/HR AQ LAYR 13.9 CC/HR

RUN & SAMPLE NO.	9972-14-1	9972-14-2	9972-14-3	9972-14-4	9972-14-5
C ₃ H ₆ WHSV	0.5	0.5	0.5	0.5	0.5
HRS ON STREAM	6.3	25.9	30.3	49.3	52.7
PRESSURE, PSIG	157	150	149	147	149
TEMP. C	280	279	280	279	280
FEED C ₃ H ₆ CC	208.28	690.3	144.73	682.13	113.27
HOURS FEEDING	6.33	19.6	4.4	19.0	3.3
EFFLNT GAS LITER	116.9	395.3	88.5	391.5	67.6
GM AQUEOUS LAYER	82.48	269.11	60.56	260.74	16.07
GM LIQ HYDROCARBON	1.59	1.17	0.00	0.00	0.00
WT FR. LIQ HC/FEED	.0173	.0033	.0000	.0000	.0000
MATERIAL BALANCE WT %	95.27	91.29	100.60	92.23	80.15
C ₃ H ₆ CONVERSION %	13.18	5.95	4.53	3.34	4.14
PRDT SELECTIVITY WT %					
CH ₄	0.00	0.00	0.00	0.00	0.00
C ₂ HC'S	0.00	0.00	0.00	0.00	0.00
C ₂ H ₆	21.49	24.28	29.93	33.18	26.58
C ₄ H ₁₀	3.33	2.67	2.00	0.54	3.00
C ₄ H ₈	5.88	9.01	3.53	2.73	7.75
C ₅ H ₁₂	1.50	1.67	0.58	0.00	0.13
C ₅ H ₁₀	0.13	0.08	0.16	0.00	0.15
C ₆ H ₁₄	9.35	6.07	7.12	6.34	5.44
C ₆ H ₁₂ & CYCLO'S	7.04	12.21	15.35	17.69	15.50
C ₇ + IN GAS	39.08	37.90	41.33	39.53	41.45
LIQ HC'S	12.20	6.10	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00
SUBGROUPING					
C1 -C4	30.70	35.97	35.45	36.45	37.33
C5 -420 F	65.15	60.56	64.55	63.55	62.67
420-700 F	3.78	3.10	0.00	0.00	0.00
700-END PT	0.37	0.38	0.00	0.00	0.00
C5 -END PT	69.30	64.03	64.55	63.55	62.67

Table 20 (cont.)

ISO/NORMAL MOLE RATIO

C4	1.3338	0.3317	0.6330	-	0.1901
C5	8.5424	4.8085	5.5455	-	-
C6	13.0000	5.1481	4.7734	3.5138	3.6404
C4-	0.4014	0.4007	0.6734	0.6923	0.4336

PARAFFIN/OLEFIN M RATIO

C2	-	-	-	-	-
C3	0.0316	0.0149	0.0130	0.0111	0.0111
C4	0.5465	0.2862	0.5453	0.1908	0.3739
C5	11.0392	19.5000	3.6000	-	0.8571

LIO HC COLLECTION

PHYS. APPEARANCE

DENSITY

N, REFRACTIVE INDEX

SIMULATED DISTILLATION

10 WT % @ DEG F.	277	341	---	---	---
16	288	368	---	---	---
50	387	439	---	---	---
84	491	568	---	---	---
90	550	642	---	---	---
RANGE(16-84%)	203	200	---	---	---
WT % @420 F	66.0	43.0	---	---	---
WT % @700 F	97.0	91.0	---	---	---

Table 20 (cont.) RESULT OF PROPYLENE OPERATION

RUN NO. 9972-14
 CATALYST NCC-107 #10042-21 56CC 35.00GM (33.83GM AFTER THE RUN, -1.17GM)
 FEED H₂:C₃H₆:H₂O @ 1:1:2 MOLE RATIO, 0.5 C₃H₆ WHSV, CONTINUOUS OVERNITE
 C₃H₆ MW= 42.0813 DENSITY= 0.51041 GM/CC (@ 73 F)
 TARGET FLOW: C₃H₆ 34.3 CC/HR H₂ 170 CCM, 10.2 L/HR H₂O 15 CC/HR
 ACTUAL FLOW: 35.15 CCHR EFFLUENT 20.4 L/HR AQ LAYER 13.9 CC/HR

RUN & SAMPLE NO.	9972-14-6	9972-14-7	9972-14-8	9972-14-9	9972-14-10
C ₃ H ₆ WHSV	0.5	0.5	0.5	0.5	0.5
HRS ON STREAM	73.8	77.25	97.8	103.8	123.8
PRESSURE, PSIG	147	149	147	150	152
TEMP. C	280	280	279	339	337
FEED C ₃ H ₆ CC	754.48	115.78	721.76	205.52	713.58
HOURS FEEDING	21.2	1.1	20.6	6.0	20.0
EFFLUENT GAS LITER	435.0	71.3	424.8	123.3	411.9
GM AQUEOUS LAYER	291.46	48.09	282.76	82.85	275.77
GM LIQ HYDROCARBON	0.00	0.00	0.00	0.15	0.6
WT FR. LIQ HC/FEED	.0000	.0000	.0000	.0015	.0016
MATERIAL BALANCE WT %	93.22	88.35	93.51	100.99	92.42
C ₃ H ₆ CONVERSION %	2.67	3.19	3.02	8.70	4.98
PRDT SELECTIVITY WT %					
CH ₄	0.00	0.00	0.00	0.30	0.28
C ₂ HC'S	0.00	0.00	0.00	0.21	0.00
C ₃ H ₈	38.46	32.04	33.15	29.02	28.13
C ₄ H ₁₀	0.48	3.85	3.01	1.33	1.46
C ₄ H ₈ -	2.35	6.85	7.37	5.97	4.75
C ₅ H ₁₂	0.00	0.20	0.24	0.72	0.39
C ₅ H ₁₀ -	0.00	0.00	0.00	0.22	0.25
C ₆ H ₁₄	5.67	5.10	4.88	7.25	6.49
C ₆ H ₁₂ - & CYCLO'S	0.00	16.93	17.75	15.25	19.48
C ₇ + IN GAS	53.03	35.02	33.61	38.07	35.21
LIQ HC'S	0.00	0.00	0.00	1.66	3.57
TOTAL	100.00	100.00	100.00	100.00	100.00
SUBGROUPING					
C1 -C4	41.30	42.75	43.52	36.82	34.61
C5 -420 F	58.70	57.25	56.48	62.43	63.79
420-700 F	0.00	0.00	0.00	0.68	1.57
700-END PT	0.00	0.00	0.00	0.08	0.03
C5 -END PT	58.70	57.25	56.48	63.18	65.39

Table 20 (cont.)

ISO/NORMAL MOLE RATIO						
C1		0.1254	0.1567	1.2363	0.4068	
C5	-	-	-	1.3557	1.0769	
C6	3.2892	2.6477	2.3564	4.1263	2.4791	
C4	0.7533	0.4910	0.4587	0.5796	0.6238	
PARAFFIN/OLEFIN M RATIO						
C2	-	-	-	-	-	
C3	0.0103	0.0103	0.0100	0.0268	0.0143	
C4	0.1982	0.5423	0.3939	0.2144	0.2964	
C5	-	-	-	3.1404	1.5000	
LIQ HC COLLECTION						
PHYS. APPEARANCE						
DENSITY						
N. REFRACTIVE INDEX						
SIMULATED DISTILLATION						
10 WT % @ DEG F.	---	---	---	---	---	---
16	---	---	---	---	---	---
50	---	---	---	---	---	---
84	---	---	---	---	---	---
90	---	---	---	---	---	---
RANGE (16-84%)	---	---	---	---	---	---
WT % @420 F	---	---	---	---	---	---
WT % @700 F	---	---	---	---	---	---

Table 20 (cont.) RESULT OF PROPYLENE OPERATION

RUN NO. 9972-14
 CATALYST UCC-107 #10042-21 56CC 34.00CM (33.83CM AFTER THE RUN, -1.17CM)
 FEED H₂:C₃H₆:H₂O @ 1:1:2 MOLE RATIO, 0.5 C₃H₆ WHSV, CONTINUOUS OVERNITE
 C₃H₆ MW= 42.0813 DENSITY= 0.51041 GM/CC (@ 73 F)
 TARGET FLOW: C₃H₆ 34.3 CC/HR H₂ 170 CCMN, 10.2 L/HR H₂O 15 CC/HR
 ACTUAL FLOW: 35.15 CCHR EFFLUENT 20.4 L/HR AQ LAYR 13.9 CC/HR

RUN & SAMPLE NO. 9972-14-11 9972-14-12

	9972-14-11	9972-14-12
C ₃ H ₆ WHSV	0.5	0.5
HRS ON STREAM	127.5	145.0
PRESSURE, PSIG	150	149
TEMP. C	370	371
FEED C ₃ H ₆ CC	116.41	679.89
HOURS FEEDING	3.7	17.5
EFFLNT GAS LITER	74.1	350.5
GM AQUEOUS LAYER	50.28	240.66
GM LIQ HYDROCARBON	0.00	0.00
WT FR. LIQ HC/FEED	.0000	.0000
MATERIAL BALANCE WT %	108.41	90.66
C ₃ H ₆ CONVERSION %	8.05	5.68
PRDT SELECTIVITY WT %		
CH ₄	0.75	0.56
C ₂ HC'S	0.92	0.52
C ₃ H ₈	33.56	29.89
C ₄ H ₁₀	1.45	1.98
C ₄ H ₈ -	6.81	6.37
C ₅ H ₁₂	0.70	0.38
C ₅ H ₁₀ -	0.28	0.12
C ₆ H ₁₄	7.56	21.72
C ₆ H ₁₂ - & CYCLO'S	16.81	15.79
C ₇ - IN GAS	31.37	22.67
LIQ HC'S	0.00	0.00
TOTAL	100.00	100.00
SUBGROUPING		
C1 -C4	43.28	39.32
C5 -420 F	56.72	60.68
420-700 F	0.00	0.00
700-END PT	0.00	0.00
C5 -END PT	56.72	60.68

Table 20 (cont.)

100/NORMAL MOLE RATIO		
C4	0.8378	0.2025
C5	1.0385	0.5000
C6	2.9103	0.1719
C4+	0.5503	0.4490
PARAFFIN/OLEFIN M RATIO		
C2	0.6774	-
C3	0.0284	0.0175
C4	0.2050	0.3004
C5	2.4091	3.1579
LIQ HC COLLECTION		
PHYS. APPEARANCE		
DENSITY		
N. REFRACTIVE INDEX		
SIMULATED DISTILLATION		
10 WT % @ DEG F.	---	---
16	---	---
50	---	---
84	---	---
90	---	---
RANGE (16-84)	---	---
WT % @120 F	---	---
WT % @700 F	---	---

Table 21 RESULT OF PROPYLENE OPERATION

RUN NO. 9972-15
 CATALYST RE-Y62 #9939-97 63 CC 35.00GM (40.87GM AFTER THE RUN, -5.87GM)
 FEED H₂:C₃H₆:H₂O @1:1:2 MOLE RATIO, 0.5 C₃H₆ WHSV, CONTINUOUS OVERNITE
 C₃H₆ MW= 42.0813 DENSITY= 0.51041 GM/CC (@ 73 F)
 TARGET FLOW: C₃H₆ 34.3 CC/HR H₂ 170 CCMN, 10.21/HR H₂O 15 CC/HR
 ACTUAL FLOW: 35.3 CC/HR EFFLUENT 20.01/HR AQ LAYR 13.7CC/H

RUN & SAMPLE NO.	9972-15-1	9972-15-2	9972-15-3	9972-15-4	9972-15-5
C ₃ H ₆ WHSV	0.5	0.5	0.5	0.5	0.5
HRS ON STREAM	7.3	25.4	32.7	50.9	54.3
PRESSURE, PSIG	158	152	149	151	151
TEMP. C	280	280	280	279	279
FEED C ₃ H ₆ CC	230.31	644.99	251.70	663.87	113.27
HOURS FEEDING	7.25	18.083	7.25	18.167	3.417
EFFLUENT GAS LITER	120.8	357.8	147.8	373.8	70.0
GM AQUEOUS LAYER	95.76	250.05	100.02	250.08	47.36
GM LIQ HYDROCARBON	1.40	0.00	0.00	0.00	0.00
WT FR. LIQ HC/FEED	.0119	.0000	.0000	.0000	.0000
MATERIAL BALANCE WT %	89.21	93.08	94.42	91.76	NORMALIZED
C ₃ H ₆ CONVERSION %	10.46	2.13	1.65	1.31	0.99
PRDT SELECTIVITY WT %					
CH ₄	0.00	0.00	0.37	0.00	0.00
C ₂ HC'S	0.46	0.00	0.00	0.00	0.00
C ₃ H ₈	27.55	55.56	64.09	71.11	70.11
C ₄ H ₁₀	3.10	4.54	2.52	1.93	0.96
C ₄ H ₈	4.97	8.16	4.05	2.20	2.04
C ₅ H ₁₂	2.34	1.35	1.36	0.32	0.00
C ₅ H ₁₀	0.25	0.00	0.00	0.00	0.00
C ₆ H ₁₄	8.80	4.76	3.97	2.61	0.85
C ₆ H ₁₂ & CYCLO'S	3.95	4.99	5.10	0.00	0.00
C ₇ - IN GAS	35.62	20.54	18.54	21.83	26.04
LIQ HC'S	12.97	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00
SUBGROUPING					
C ₁ -C ₄	36.08	68.35	71.03	75.24	73.11
C ₅ -420 F	58.60	31.65	28.97	24.76	26.89
420-700 F	3.75	0.00	0.00	0.00	0.00
700-END PT	1.57	0.00	0.00	0.00	0.00
C ₄ -END PT	63.92	31.65	28.97	24.76	26.89

Table 2: (cont.)

ISO/NORMAL MOLE RATIO						
C4	12.4651	0.7906	3.6129	2.2143	-	-
C5	11.5893	2.5652	1.9524	0.0000	-	-
C6	21.8454	4.1778	4.0667	1.8276	-	-
C4-	0.3342	0.3077	0.3235	0.3019	0.3939	-
PARAFFIN/OLEFIN M RATIO						
C2	0.1605	-	-	-	-	-
C3	0.0313	0.0119	0.0106	0.0093	0.0069	-
C4	0.6019	0.5369	0.6008	0.8491	0.4545	-
C5	9.2763	-	-	-	-	-
LIQ HC COLLECTION						
PHYS. APPEARANCE	OIL	-	-	-	-	-
DENSITY	.	.	.	.	.	.
N. REFRACTIVE INDEX	.	.	.	.	.	.
SIMULATED DISTILLATION						
10 WT % @ DEG F.	286	---	---	---	---	---
16	308	---	---	---	---	---
50	345	---	---	---	---	---
84	589	---	---	---	---	---
90	861	---	---	---	---	---
RANGE (16-84%)	281	---	---	---	---	---
WT % @420 F	59.0	---	---	---	---	---
WT % @700 F	87.9	---	---	---	---	---

Table 21 (cont.) RESULT OF PROPYLENE OPERATION

RUN NO. 9972-15
 CATALYST RE-V62 #9939-97 63 CC 35.00GM(40.87GM AFTER THE RUN, 40.87GM)
 FEED H2:C3H6:H2O @1:1:2 MOLE RATIO, 0.5 C3H6 WHSV, CONTINUOUS OVERNITE
 C3H6 MW- 42.0813 DENSITY= 0.51041 GM/CC (@ 73 F)
 TARGET FLOW: C3H6 34.3 CC/HR H2 170 CCMN, 10.2 L/HR H2O 15 CC/HR
 ACTUAL FLOW: 35.3 CC/HR EFFLUENT 20.0 L/HR AQ LAYR 13.7CC/H

RUN & SAMPLE NO.	9972-15-6	9972-15-7	9972-15-8	9972-15-9
C3H6 WHSV	0.5	0.5	0.5	0.5
HRS ON STREAM	75.1	80.4	98.5	101.9
PRESSURE, PSIG	152	159	155	159
TEMP. C	343	343	373	373
FEED C3H6 CC	740.54	188.78	643.14	112.64
HOURS FEEDING	20.75	5.333	18.167	3.417
EFFLUENT GAS LITER	424.1	105.9	364.3	66.7
GM AQUEOUS LAYER	287.16	72.39	249.52	46.7
GM LIQ HYDROCARBON	0.66	0.00	0.92	0.00
WT FR. LIQ HC/FEED	.0017	.0000	.0028	.0000
MATERIAL BALANCE WT %	91.39	93.96	90.97	94.18
C3H6 CONVERSION %	4.23	4.17	7.99	8.01
PRDT SELECTIVITY WT %				
CH4	0.40	0.38	0.52	0.62
C2 HC'S	0.00	0.34	0.50	0.31
C3H8	35.62	35.27	22.46	23.15
C4H10	0.78	0.86	0.78	0.73
C4H8-	5.66	5.69	11.04	11.78
C5H12	0.36	0.48	0.75	0.74
C5H10-	0.44	0.53	0.76	0.85
C6H14	5.76	6.31	7.50	7.86
C6H12- & CYCLO'S	12.88	13.39	11.90	12.79
C7+ IN GAS	33.68	36.74	39.96	41.18
LIQ HC'S	4.43	0.00	3.85	0.00
TOTAL	100.00	100.00	100.00	100.00
SUBGROUPING				
C1 -C4	42.46	42.54	35.29	36.59
C5 -420 F	55.68	57.46	63.09	63.41
420-700 F	1.55	0.00	1.58	0.00
700-END PT	0.31	0.00	0.07	0.00
C5 -END PT	57.54	57.46	64.71	63.41

Table 21 (cont.)

ISO/NORMAL MOLE RATIO				
C4	0.7273	0.6364	0.9369	1.1236
C5	0.2353	0.8667	0.6019	0.5714
C6	3.0426	3.1467	4.4822	4.3789
C4+	0.3907	0.3926	0.2827	0.2775
PARAFFIN/OLEFIN M RATIO				
C2	-	-	0.5138	-
C3	0.0153	0.0149	0.0189	0.0195
C4	0.1326	0.1463	0.0685	0.0596
C5	0.7925	0.8750	0.9593	0.8462
LIQ HC COLLECTION				
PHYS. APPEARANCE			OIL	
DENSITY				
N. REFRACTIVE INDEX				
SAVELATED DISTILLATION				
10 WT % @ DEG F.	---	---	297	---
16	---	---	325	---
50	---	---	408	---
84	---	---	518	---
90	---	---	569	---
RANGE (16-84%)	---	---	193	--
WT % @420 F	---	---	57.0	---
WT % @700 F	---	---	98.1	---

Table 22

RESULT OF PROPYLENE OPERATION

RUN NO. 9972-16
 CATALYST S-115-LE #9919-13 49CC 35.0 GM (34.7GM AFTER THE RUN, 0.3GM)
 FEED H₂:C₃H₆:H₂O 81:1:2 MOLE RATIO, 0.5 C₃H₆ WHSV, CONTINUOUS OVERNITE
 C₃H₆ MW= 42.0813 DENSITY= 0.51041 GM/CC (@ 73 F)
 TARGET FLOW: C₃H₆ 34.3 CC/HR H₂ 170 CCM, 10.2 L/HR H₂O 15 CC/HR
 ACTUAL FLOW: 35.6 CC/HR EFFLUENT 15.0 L/HR AQ LAYR 14.2CC/HR

RUN & SAMPLE NO.	9972-16-1	9972-16-2	9972-16-3	9972-16-4	9972-16-5
C ₃ H ₆ WHSV	0.5	0.5	0.5	0.5	0.5
HRS ON STREAM	5.2	25.2	28.2	47.9	54.4
PRESSURE, PSIG	143	144	142	145	149
TEMP. °C	275	280	281	282	349
FEED C ₃ H ₆ CC	205.77	725.53	91.24	709.80	214.58
HOURS FEEDING	5.167	20.0	3.0	19.667	6.5
EFFLNT GAS LITER	84.2	364.6	55.5	765.5	89.3
GM AQUEOUS LAYER	68.9	296.29	43.22	283.83	94.77
GM LIQ HYDROCARBON	14.93	18.48	2.28	12.72	41.35
WT FR. LIQ HC/FEED	.1422	.0499	.0490	.0351	.3775
MATERIAL BALANCE WT %	77.57	85.15	109.36	92.56	93.24
C ₃ H ₆ CONVERSION %	30.45	11.61	11.71	10.58	80.08
PRDT SELECTIVITY WT %					
CH ₄	0.00	0.00	0.00	0.00	0.01
C ₂ HC'S	0.00	0.00	0.00	0.00	0.28
C ₃ H ₈	2.42	6.39	6.56	7.70	2.72
C ₄ H ₁₀	0.45	0.00	0.76	0.78	3.26
C ₄ H ₈ -	6.34	7.13	9.59	11.09	17.20
C ₅ H ₁₂	0.52	0.00	0.51	0.78	3.86
C ₅ H ₁₀ -	0.63	0.00	1.10	1.34	0.58
C ₆ H ₁₄	2.11	1.73	2.62	3.10	11.72
C ₆ H ₁₂ = & CYCLO'S	2.24	0.00	3.62	2.50	2.95
C ₇ + IN GAS	22.94	34.50	34.28	36.65	5.39
LIQ HC'S	62.35	50.25	40.97	36.06	52.04
TOTAL	100.00	100.00	100.00	100.00	100.00
SURGROUPING					
C ₁ -C ₄	9.21	13.52	16.91	19.57	23.46
C ₅ -420 P	68.19	58.74 ?	61.38	62.76	69.09
420-700 P	22.60	20.40 ?	21.47	17.66	7.44
700-END PT	0.00	7.34 ?	0.25	0.01	0.00
C ₅ -END PT	90.79	86.48	83.09	80.43	76.54

Table 22 (cont.)

ISO/NORMAL MOLE RATIO					
C4	0.2895	-	0.2269	0.1970	2.4518
C5	0.5611	-	0.3008	0.6051	1.7523
C6	4.2500	-	4.2857	4.6333	15.1733
C4+	0.1263	-	0.1280	0.1326	0.4447
PARAFFIN/OLEFIN M RATIO					
C2	-	-	-	-	-
C3	0.0101	0.0080	0.0083	0.0087	0.1052
C4	0.0679	-	0.0766	0.0681	0.1829
C5	0.8058	-	0.4541	0.5638	6.4843
LIQ HC COLLECTION					
PHYS. APPEARANCE	OIL	OIL	OIL	OIL	OIL
DENSITY	0.752	0.760	0.766	0.760	0.739
REFRACTIVE INDEX	1.4266	1.4310	1.4325	1.4313	1.4238
SIMULATED DISTILLATION					
10 WT % @ DEG F.	230	262	280	275	147
16	255	289	298	291	173
50	360	430	424	417	267
84	475	651	505	492	409
90	507	1009 ?	538	525	439
RANGE (16-84%)	220	362 ?	207	201	238
WT % @420 F	63.8	44.8	47.0	51.0	85.7
WT % @700 F	100.0	85.4 ?	99.4	100.0	100.0

Table 22 (cont.) RESULT OF PROPYLENE OPERATION

RUN NO. 9972-16
 CATALYST S-115-LE #9939-13 49CC 35.0 GM(34.7GM AFTER THE RUN, 0.30GM)
 FEED H₂:C₃H₆:H₂O @1:1:2 MOLE RATIO, 0.5 C₃H₆ WHSV, CONTINUOUS OVERNITE
 C₃H₆ MW= 42.0813 DENSITY= 0.51041 GM/CC (@ 73 F)
 TARGET FLOW: C₃H₆ 34.3 CC/HR H₂ 170 CC/MN, 10.2 L/HR H₂O 15 CC/HR
 ACTUAL FLOW: 35.6 CC/HR EFFLUENT 15.0 L/HR AQ LAYER 14.2CC/HR

RUN & SAMPLE NO.	9972 16-6	9972-16 7	9972 16-8	9972-16-9	9972 16-10
C ₃ H ₆ WHSV	0.5	0.5	0.5	0.5	0.5
HRS ON STREAM	71.6	79.8	96.4	103.5	120.6
PRESSURE, PSIG	146	155	148	156	151
TEMP. C	340	340	340	341	371
FEED C ₃ H ₆ CC	617.44	276.87	592.76	256.11	609.64
HOURS FEEDING	17.25	8.167	16.583	7.167	17.083
EFFLNT GAS LITER	225.9	*2.1.111.1F	223.0	96.5	239.5
GM AQUEOUS LAYER	245.08	117.29	237.06	102.98	248.73
GM LIQ HYDROCARBON	131.26	56.15	120.67	50.02	104.88
WT FR. LIQ HC/FEED	.4226	.3973	.3988	.3826	.3427
MATERIAL BALANCE WT %	95.42	*LEAKING	89.25	92.38	91.64
C ₃ H ₆ CONVERSION %	82.67	79.59	87.08	85.75	86.85
PRDT SELECTIVITY WT %					
CH ₄	0.00	0.00	0.00	0.00	0.01
C ₂ HC'S	0.22	0.19	0.17	0.17	0.46
C ₃ H ₈	2.13	2.15	1.90	1.96	2.74
C ₄ H ₁₀	2.43	2.19	1.73	1.80	3.65
C ₄ H ₈ -	14.59	14.98	15.24	15.67	18.97
C ₅ H ₁₂	2.88	2.68	2.34	2.36	3.72
C ₅ H ₁₀ -	0.49	0.52	0.53	0.56	0.60
C ₆ H ₁₄	8.93	10.00	10.05	10.33	10.78
C ₆ H ₁₂ = & CYCLO'S	2.45	2.67	2.69	2.88	2.66
C ₇ + IN GAS	12.55	13.87	13.48	14.66	13.66
LIQ HC'S	53.32	50.75	51.86	49.61	42.76
TOTAL	100.00	100.00	100.00	100.00	100.00
SURGROUPING					
C ₁ -C ₄	19.37	19.50	19.05	19.60	25.83
C ₅ -420 F	77.64	74.28	75.64	77.62	72.50
420-700 F	2.99	6.22	5.32	2.78	1.67
700-END PT	0.00	0.00	0.00	0.00	0.00
C ₅ -END PT	80.63	80.50	80.95	80.40	74.17

Table 22 (cont.)

ISO/NORMAL MOLE RATIO

C4	2.5125	2.4883	2.4114	2.4140	2.6612
C5	1.7557	1.6729	1.5560	1.5127	1.9185
C6	13.7427	15.2488	16.4649	16.8586	15.1353
C4-	0.4471	0.4307	0.4215	0.4216	0.4517

PARAFFIN/OLEFIN M RATIO

C2	0.0194	-	0.0223	-	0.0443
C3	0.0973	0.0802	0.1226	0.1130	0.1737
C4	0.1609	0.1411	0.1098	0.1110	0.1867
C5	5.7629	5.0106	4.3173	4.0747	6.0094

SIO HC COLLECTION

PHYS. APPEARANCE	OIL	OIL	OIL	OIL	OIL
DENSITY	0.742	0.742	0.736	0.695?	0.747
N. REFRACTIVE INDEX	1.4244	1.4265	1.4262	1.4235	1.4255
SIMULATED DISTILLATION					
10 WT % @ DEG F.	150	159	152	156	147
16	167	181	174	170	166
50	260	267	259	260	255
84	359	397	382	360	341
90	391	430	422	391	372
RANGE(10-84%)	192	216	208	190	175
WT % @420 F	94.4	87.8	89.0	94.4	96.1
WT % @700 F	100.0	100.0	100.0	100.0	100.0

Table 22 (cont.) RESULT OF PROPYLENE OPERATION

RUN NO. 9972 16
 CATALYST S-115-LE #9839-13 4900 35.0 GM (34.7GM AFTER THE RUN, 10.3GM)
 FEED H₂:C₃H₆:H₂O 1:1:2 MOLE RATIO, 0.5 C₃H₆ WHSV, CONTINUOUS OVERNITE
 C₃H₆ MW= 42.0813 DENSITY 0.51041 GM/CC (@ 73 F)
 TARGET FLOW: C₃H₆ 34.3CC/HR H₂ 170 CCMN, 10.2 L/HR H₂O 15 CC/HR
 ACTUAL FLOW: 35.6CC/HR EFFLUENT 15.0 L/HR AQ LAYR 14.2CC/HR

RUN & SAMPLE NO.	9972 16-11	972 16-12	972-16-13	972 16-14
C ₃ H ₆ WHSV	0.5	0.5	0.5	0.5
HRS ON STREAM	127.4	144.8	151.1	169.3
PRESSURE, PSIG	146	153	151	147
TEMP. C	371	370	371	370
FEED C ₃ H ₆ CC	225.27	624.72	213.95	657.60
HOURS FEEDING	6.833	17.417	6.25	18.25
EFFLUENT GAS LIT/HR	95.0	243.4	97.2	247.5
GM AQUEOUS LAYER	100.64	249.75	90.23	237.11
GM C ₁₀ HYDROCARBON	38.81	104.61	35.20	139.00
WT PR. LIQ HC/FEED	.3375	.3283	.3223	.4141
MATERIAL BALANCE WT %	99.60	91.80	102.46	96.72
C ₃ H ₆ CONVERSION %	85.91	85.53	85.66	86.87
PRDT SELECTIVITY WT %				
C ₁ H ₄	0.13	0.01	0.02	0.01
C ₂ HC'S	0.44	0.47	0.50	0.41
C ₃ H ₈	2.81	2.88	2.98	2.59
C ₄ H ₁₀	3.73	3.81	4.13	3.51
C ₄ H ₈ *	19.27	18.84	20.10	13.29
C ₅ H ₁₂	3.79	3.92	4.17	3.74
C ₅ H ₁₀ -	0.61	0.60	0.64	0.59
C ₆ H ₁₄	11.00	10.84	11.59	10.16
C ₆ H ₁₂ * & CYCLO'S	2.75	2.68	2.90	2.50
C ₇ + IN GAS	14.98	14.21	15.19	13.53
LIQ HC'S	40.48	41.73	37.79	49.72
TOTAL	100.00	100.00	100.00	100.00
SUBGROUPING				
C ₁ -C ₄	26.38	26.01	27.73	19.77
C ₅ -420 F	72.12	72.45	70.80	78.54
420-700 F	1.50	1.53	1.47	1.69
700-END PT	0.00	0.00	0.00	0.00
C ₅ -END PT	73.62	73.99	72.27	80.23

Table 22 (cont.)

ISO/NORMAL MOLE RATIO				
C4	2.6151	2.6121	2.5467	2.4590
C5	1.8849	1.9090	1.8826	1.7719
C6	14.7360	14.6706	14.0187	14.0910
C4	0.4517	0.4509	0.4496	0.5809
PARAFFIN/OLEFIN M RATIO				
C2	-	0.0398	0.0416	0.0562
C3	0.1646	0.1779	0.1712	0.1617
C4	0.1868	0.1952	0.1984	0.2546
C5	5.9995	6.3662	6.3032	6.2117
L10 HC COLLECTION				
PHYS. APPEARANCE	OIL	OIL	OIL	OIL
DENSITY	0.743	0.750	0.713	0.760
N. REFRACTIVE INDEX	1.4272	1.4246	1.4252	1.4246
SIMULATED DISTILLATION				
10 WT % @ DEG F.	149	149	156	146
16	166	166	171	165
50	258	256	259	255
84	342	340	344	338
90	372	371	374	364
RANGE (16-84°)	176	174	177	173
WT % @420 F	96.3	96.3	96.1	96.6
WT % @700 F	100.0	100.0	100.0	100.0