APPENDIX A

TYPICAL MATERIAL BALANCE FOR THE BENCH-SCALE UNIT

SYN GAS :YIELDS ARE ON N2,CH4 - FREE BASIS
MATERIAL BALANCE. V47

CO 225- 67- 2- 0

DESCRIPTION-FLUID PILOT PLANT
MATERIAL BALANCE DATE- 8-26-78
COMPUTED-- 9/ 5/78
TIME START- 1800
DURATION- 20.00 HRS

RECYCLE OPERATING CONDITIONS
TOTAL WEIGHT BALANCE
REACTOR INLET TEMP,F- 420.
PREHEATER TEMP,F- 420.
SEPARATOR TEMP,F- 77.
REACTOR PRESS, PSIG- 200.00
PSIA- 214.70
BARO PRESS, MM- 762.90

	H2	CO	CO2	CH4
MOL RATIO	1.08/	1.00/	0.00/	0.00

CATALYST CONDITIONS:

REACTOR	IDENTIFICATION	WT,GMS	VOL,CC	AGE,DAYS	EVAL,DAYS
1	SGF-A-3	37.3	100.0	2.2	2.2
2	FRESH	0.0	0.0	0.0	0.0
3		0.0	0.0	0.0	0.0
4		0.0	0.0	0.0	0.0
5		0.0	0.0	0.0	0.0
TOTAL		37.3	100.0		

TOTAL CHARGE

CATALYST	WHSV	LHSV	GHSV
SGF-A-3	1.66	0.00	1014.

TOTAL CHG/CAT

	WT	VOL
	87.7	0.5353E+05

CO BASIS

CATALYST	WHSV	LHSV	GHSV
SGF-A-3	1.54	0.00	487.

CO/CAT

	WT	VOL
	81.4	0.2569E+05

TEMPERATURE CONDITIONS:

REACTOR	INLET,F	0	1	2	3	4	5	6
1	420.	0.	559.	560.	562.	559.	569.	562.
2	0.	0.	0.	0.	0.	0.	0.	0.
3	0.	0.	0.	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.	0.	0.	0.

REACTOR	7	8	9	10	11	12	OUT,F	D-1,F	AV BED
1	561	568.	560.	550.	453.	497.	560.	140.	0.
2	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.	0.	0.	0.	0.

REACTOR CONDITIONS:

REACTOR	PROBE INC	CAT BED:INTH	IN. RFL TO 0	PREHEATER,F
1	0.00	0.00	0.00	420.
2	0.00	0.00	0.00	0.
3	0.00	0.00	0.00	0.
4	0.00	0.00	0.00	0.
5	0.00	0.00	0.00	0.

WT % CARBON ON CATALYST 0.00

CHARGE STOCK:
IDENTIFICATION: H2/CO SYN GAS
DRUM #
CHARGE RATE: 0.00ML/HR

WT PCT MEOH 0.00
SPEC GRAV 0.0000
MOLECULAR WT 0.00

***** AQUEOUS PHASE ANALYSIS *****

	WT %	VOL %
WATER	100.00	100.00
METHANOL	0.00	0.00
DIMETHYL ETHER	0.00	0.00
UNKNOWNS	0.00	0.00

SPECIFIC GRAVITY = 1.0000
COMBINED HYDROGEN = 11.19
COMBINED OXYGEN = 88.81

DILUTION RATIO 0.0 MOLS/MOL M REC/CHARGE 2.9
CHG STCK PSIA 54.6 M REC/MEOH 0.0

METHANOL OPINFO FILE INPUT DATA

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CHARGE STOCK:
IDENTIFICATION: H2/CO SYN GAS DRUM #
PERCENT METHANOL 0.00

INPUT STREAM SPECIFICATIONS:

STREAM	SPEC GRAV OR GAS GRAV	AV MOL WT	COMP C	COMP H	COMP O	FLOW
CHARGE STOCK LIQ	0.0000	0.000	0.0000	0.0000	0.0000	0.000 MI/R 1
HYDROGEN	0.0695	2.016	0.0000	1.0000	0.0000	1.862 SCFH
CO	0.9655	28.001	0.4288	0.0000	0.5712	1.718 SCFH
CO2	1.5172	43.999	0.2729	0.0000	0.7271	0.000 SCFH
N2	0.9659	28.013	0.0000	0.0000	0.0000	0.000 SCFH
H2	0.0690					0.000 SCFH
RECYCLE GAS	0.0000					10.507 SCFH

PRODUCT STREAM SPECIFICATIONS:

STREAM	SPEC GRAV OR GAS GRAV	WT OR VOL PER RUN TIME
HC PHASE	0.0000	71.800 GMS
AQUEOUS PHASE	0.0000	188.700 GMS
COMBINED GAS	0.0000	33.899 SCF
LIGHT GAS	0.0000	0.000 MI
HEAVY GAS	0.0000	0.000 MI

EXPERIMENTAL OCTANE NUMBERS:
R+0 0.0 R+3 97.5
OCTANES (AFTER ALKYLATION) TO BE CALCD BY USING THE EXPT OCTANES
CHARGE AT BOTTOM OF RESERVOIR (ML LOSS) 0.0
WT % CARBON ON CATALYST 0.00
ROTAMETER SETTING FOR NITROGEN, CC/MIN 0.00
LENGTH OF MATERIAL BALANCE, HRS 20.00
MATERIAL BALANCE TIME START 1800
SYN GAS MATERIAL BALANCE

MATERIAL BALANCE CONDITIONS:

	WT C	WT O	WT H	WT INERT	TOTAL WT	CALCD GRAVITY
***** CHARGE *****						
CHARGE STOCK (LIQUID)	0.00	0.00	0.00	0.00	0.00	
HYDROGEN	0.00	0.00	89.71	0.00	89.71	
CO	493.05	656.78	0.01	0.00	1149.83	
CO2	0.00	0.00	0.00	0.00	0.00	
N2	0.00	0.00	0.00	0.00	0.00	
H2	0.00	0.00	0.00	0.00	0.00	0.0000
***** PRODUCT *****						
HC PHASE	62.37	0.00	9.43	0.00	71.80	0.7696
AQUEOUS PHASE	0.00	167.58	21.12	0.00	188.70	1.0000
COMBINED GAS	422.31	499.61	52.45	3.73	978.10	0.8325
LIGHT GAS	0.00	0.00	0.00	0.00	0.00	0.0000
HEAVY GAS	0.00	0.00	0.00	0.00	0.00	0.0000
TOTAL CHARGE	493.05	656.78	89.71	0.00	1239.54	
WT % (INCL INERT)	39.78	52.99	7.24	0.00		
WT % (EXCL INERT)	39.78	52.99	7.24	0.00		
TOTAL PRODUCT	484.69	667.20	82.99	3.73	1238.60	
WT % (INCL INERT)	39.13	53.87	6.70	0.30		
WT % (EXCL INERT)	39.25	54.03	6.72	0.00		
TOTAL RECOVERY, %	98.30	101.59	92.51	0.00	99.97	
INERT-FREE, %					99.97	

	SCFH(60F,1ATM)	GM MOLS/HR	GMS/HR	GMS/RUN * IN *	GMS/RUN * OUT * CHG BASIS
***** CHARGE *****					
CHARGE STOCK (LIQUID	-----	0.00	0.00	0.00	-----
HYDROGEN	1.862	2.22	4.49	89.71	20.25
CO	1.718	2.05	57.49	1149.83	507.19
CO2	0.000	0.00	0.00	0.00	289.21
N2	0.000	0.00	0.00	0.00	3.73
H2	0.000	0.00	0.00	0.00	0.00
***** PRODUCT ***** ALL VALUES ON CHG BASIS					
HC PHASE	-----	0.03	3.59	-----	71.85
AQUEOUS PHASE	-----	0.52	9.44	-----	188.84
COMBINED GAS	1.695	2.03	48.94	-----	978.84
LIGHT GAS	0.000	0.00	0.00	-----	0.00
HEAVY GAS	0.000	0.00	0.00	-----	0.00

CONVERSION, MOL %:
H2 77.43 CO 55.89 H2+CO 67.09

WT % YIELDS	N2 FREE		N2 FREE
HYDROCARBONS	18.638	COKE	0.000
H2O	15.281	CO	41.041
METHANOL	0.000	CO2	23.402
DIMETHYL ETHER	0.000	H2	1.638

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LUMPED HYDROCARBON BREAKDOWN

NAME	WT % YIELDS	WT % OF TOTAL HC	VOL % OF TOTAL HC	MOLE % OF TOTAL HC
METHANE	4.516	24.929	38.543	54.955
ETHANE	2.359	12.660	15.983	15.317
ETHENE	0.059	0.314	0.345	0.408
PROPANE	1.402	7.521	7.070	6.205
PROPENE	0.139	0.746	0.682	0.645
N-BUTANE	0.791	4.246	3.468	2.658
I-BUTANE	0.971	5.211	4.416	3.262
BUTENES	0.354	1.900	1.493	1.232
(TOTAL C4-)	10.591	56.826	72.000	84.681
N-PENTANE	0.395	2.120	1.603	1.069
I-PENTANE	0.861	4.620	3.529	2.330
PENTENES	0.347	1.863	1.341	0.966
CYCLOPENTANES	0.043	0.228	0.145	0.104
N-HEXANE	0.063	0.337	0.242	0.142
I-HEXANES	0.475	2.549	1.840	1.076
HEXENES	0.092	0.495	0.345	0.214
CYCLOHEXANES	0.043	0.233	0.144	0.087
N-HEPTANE	0.046	0.246	0.170	0.089
I-HEPTANES	0.200	1.072	0.743	0.389
C7-OLEFINS	0.179	0.961	0.649	0.356
DIMETHYL-N5	0.065	0.350	0.222	0.120
N-OCTANE	0.032	0.171	0.115	0.054
ISO-C8-P + O + N5 + N6	0.740	3.972	2.594	1.283
N-NONANE	0.027	0.146	0.097	0.041
ISO-C9-P + O + N5 + N6	0.777	4.168	2.708	1.194
N-DECANE	0.016	0.085	0.056	0.022
ISO-C10-P + O + N5 + N6	0.489	2.622	1.668	0.681
UNKNOWNS (HC: AROMATICS)	0.002	0.011	0.006	0.003
BENZENE	0.012	0.065	0.035	0.030
TOLUENE	0.094	0.502	0.275	0.198
ETHYLBENZENE	0.040	0.212	0.116	0.073
P-XYLENE	0.097	0.523	0.288	0.179
M-XYLENE	0.279	1.497	0.822	0.513
O-XYLENE	0.067	0.359	0.194	0.123
TRIMETHYLBENZENES	0.457	2.449	1.326	0.741
METHYL-ETHYL-BENZENES	0.409	2.197	1.206	0.665
C3-BENZENES	0.029	0.154	0.085	0.047
1,2,4,5-TETRAMETHYLBENZENE	0.047	0.254	0.136	0.069
1,2,3,5-TETRAMETHYLBENZENE	0.026	0.140	0.075	0.038
1,2,3,4-TETRAMETHYLBENZENE	0.015	0.083	0.044	0.023
OTHER C10-BENZENES	0.437	2.342	1.284	0.635
C11-ALKYLBENZENES	0.269	1.442	0.782	0.354
NAPHTHALENES	0.017	0.092	0.044	0.026
UNKNOWNS (ALL OTHER)	0.860	4.613	3.071	1.376
(TOTAL C5+)	8.047	43.174	28.001	15.319

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YIELD SUMMARY

NON-HYDROCARBON PRODUCTS (WT % YIELDS)

H2	CO	CO2	WATER	METHANOL	ETHER	TOTAL
1.64	41.04	23.40	15.28	0.00	0.00	81.36

HYDROCARBON PRODUCTS (WT % OF HC PRODUCT; LAST COL, WT % YIELDS)

	ISO-P	N-P	OLEFIN	CYC5	TOTAL HC	TOTAL YIELD
C1	0.00	24.27	0.00	0.00	24.27	4.52
C2	0.00	12.66	0.31	0.00	12.97	2.42
C3	0.00	7.52	0.75	0.00	8.27	1.54
C4	5.21	4.25	1.90	0.00	11.36	2.12
C5	4.62	2.12	1.86	0.06	8.66	1.61
C5- TOTAL	9.83	50.78	4.82	0.06	65.49	12.21

	ISO-P	N-P	OLEFIN	CYC5	CYC6	AROM	TOTAL HC	TOTAL YIELD
C6	2.55	0.34	0.50	0.17	0.01	0.06	3.63	0.68
C7	1.07	0.25	0.96	0.35	0.22	0.50	3.35	0.62
C8	0.82	0.17	2.43	0.00	0.00	2.59	6.02	1.12
C9	1.64	0.15	1.82	0.00	0.00	4.80	8.41	1.57
C10	0.00	0.09	0.00	0.00	0.00	2.89	2.97	0.55
C11	0.00	0.00	0.00	0.00	0.00	1.47	1.47	0.27
C6+ TOTAL	6.08	0.99	5.71	0.52	0.23	12.31	25.84	4.82

C1+ TOTAL (EXCL UNKNOWNS)	91.33	17.02
TOTAL (UNKNOWNS, IDEN=4-13)	3.51	0.65
TOTAL (OTHER UNKNOWNS)	5.16	0.96
C1+ TOTAL	100.00	18.64
TOTAL AROMATICS (INCL UNKNOWNS)	12.32	2.30

YIELD SUMMARY (CONSIDER CYC5 IN C6+ PORTION)

	WT % YIELDS	VOL % YIELDS	VOL % OF TOTAL HC
H2	1.638	---	---
CO	41.041	---	---
CO2	23.402	---	---
WATER	15.281	28.124	---
METHANOL	0.000	0.000	---
DM-ETHER	0.000	0.000	---
METHANE	4.516	27.703	38.543
ETHANE	2.359	11.488	15.983
PROPANE	1.402	5.081	7.070
I-C4	0.971	3.174	4.416
N-C4	0.791	2.492	3.468
I-C5	0.861	2.537	3.529
N-C5	0.395	1.152	1.603
C6+	6.443	15.473	21.528
C5+	8.047	20.126	28.001
C4+	10.163	26.865	37.377

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PHYSICAL PROPERTIES

	R+0 EXP	R+0 CALC	R+3 EXP	R+3 CALC	WT % OLEFIN	SP GRAV	MOL WT	RVP
C4+	0.0	0.0	98.5	0.0	9.47	0.6955	86.9	23.3
C5+	0.0	0.0	96.9	0.0	7.57	0.7385	101.6	6.1
C6+	0.0	0.0	96.8	0.0	5.71	0.7737	114.9	1.3
HC LIQ	0.0	0.0	97.5	0.0	19.89	0.7696	112.3	

CALCULATED ALKYLATE YIELD

BASIS:	100 GMS PRODUCT GMS	100 GMS PRODUCT CC	100 GMS TOTAL HC WT %	100 GMS TOTAL HC VOL %
I-C8 PRODUCED BY ALKYLATION	0.71	1.01	3.79	2.61
I-C7 PRODUCED BY ALKYLATION	0.30	0.42	1.60	1.09
C3= REMAINING AFTER ALKYLATION	0.01	0.03	0.07	0.07
C4= REMAINING AFTER ALKYLATION	0.01	0.01	0.04	0.03
I-C4 REMAINING AFTER ALKYLATION	0.44	0.78	2.35	2.01
C5+ YIELD INCLUDING ALKYLATES	9.05	12.36	48.56	31.92

YIELDS : GRAMS/STANDARD CUBIC METER OF CONVERTED CO+H2

TOTAL HYDROCARBON MAKE	179.01
C3 +	112.41
C5 +	77.28
C5 + (INCLUDING ALKYLATES)	86.93

PHYSICAL PROPERTIES (INCLUDING ALKYLATES)

	R+0 CALC	R+3 CALC	SP GRAV	MOL WT	RVP	WT % OF TOTAL HC	VOL % OF CHARGE
C4+	0.0	98.5	0.7095	93.3	16.2	55.202	27.025
C5+ (INCL NC4)	0.0	98.1	0.7185	96.2	11.9	52.809	25.551
C5+	0.0	97.7	0.7344	102.5	5.5	48.563	23.028
C6+	0.0	97.9	0.7628	114.1	1.3	39.959	18.317
FRACT AT 9RVP	0.0	97.9	0.7257	99.1	9.0	50.872	24.400

(NOTE: OCTANES WERE CALCD BY USE OF EXPTL OCTANES)

HYDROCARBON PRODUCT

COMBINED H	0.1809
COMBINED C	0.8191

RECYCLE GAS ANALYSIS

CALCULATED PROPERTIES

GAS GRAVITY: 0.8414
MOLECULAR WEIGHT: 24.4

COMPOUND	MOLE %	WT %
WATER	0.00	0.00
METHANOL	0.00	0.00
DIMETHYL ETHER	0.00	0.00
HYDROGEN	24.02	1.99
CO	45.73	52.52
CO2	16.45	29.68
NITROGEN	0.00	0.00
METHANE	8.43	5.54
ETHENE	0.06	0.07
ETHANE	2.33	2.88
PROPENE	0.10	0.17
PROPANE	0.93	1.69
BUTENES	0.00	0.00
I-BUTANE	0.45	1.08
1-BUTENE	0.12	0.28
N-BUTANE	0.39	0.92
TRANS-2-BUTENE	0.05	0.12
CIS-2-BUTENE	0.04	0.09
UNKNOWN C4-MONOOLEFINS	0.00	0.00
C4-DIOLEFINS (DIENES)	0.00	0.00
PENTENES	0.00	0.00
3-METHYL-1-BUTENE	0.00	0.00
I-PENTANE	0.31	0.91
1-PENTENE	0.00	0.01
2-METHYL-1-BUTENE	0.03	0.08
N-PENTANE	0.14	0.42
TRANS-2-PENTENE	0.02	0.06
CIS-2-PENTENE	0.01	0.03
2-METHYL-2-BUTENE	0.08	0.24
UNKNOWN C5-MONOOLEFINS	0.00	0.00
C5-DIOLEFINS (DIENES)	0.00	0.00
CYCLOPENTANE	0.01	0.02
C6+ HC	0.29	1.21

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BREAKDOWN OF TOTAL YIELD — CALC CODE 3 = 7

IDEN		COMPOUND	WT % YIELDS	VOL % YIELDS	MOLE % YIELDS
1		WATER	15.281	28.124	20.336
2		METHANOL	0.000	0.000	0.000
3		DIMETHYL ETHER	0.000	0.000	0.000
4		UNKNOWNS (AQUEOUS PHASE)	0.000	0.000	0.000
5		UNKNOWNS (LT. HY GAS PHASE)	0.000	0.000	0.000
6		UNKNOWNS (COMB GAS PHASE)	0.651	1.696	0.137
7		UNKNOWNS (PARA & OLE & AR)	0.000	0.000	0.000
12		UNKNOWNS (HC PARAFFINICS)	0.000	0.000	0.000
13		UNKNOWNS (HC AROMATICS)	0.002	0.004	0.000
14		HYDROGEN	1.638	---	19.489
15		CO	41.041	---	35.178
16		CO2	27.402	---	12.752
18		METHANE	4.516	27.703	6.751
19		ETHENE	0.059	0.248	0.050
20		ETHANE	2.359	11.488	1.882
21		PROPENE	0.179	0.490	0.079
22		PROPANE	1.402	5.081	0.762
23	*	BUTENES	0.000	0.000	0.000
24		1-BUTANE	0.971	3.174	0.401
25		1-BUTENE	0.207	0.633	0.088
26		N-BUTANE	0.791	2.492	0.327
27		TRANS-2-BUTENE	0.093	0.281	0.040
28		CIS-2-BUTENE	0.054	0.160	0.023
29		UNKNOWN C4-MONOOLEFINS	0.000	0.000	0.000
30		C4-DIOLEFINS (DIENES)	0.000	0.000	0.000
31	*	PENTENES	0.000	0.000	0.000
32		3-METHYL-1-BUTENE	0.001	0.002	0.000
33		I-PENTANE	0.861	2.537	0.286
34		1-PENTENE	0.002	0.005	0.001
35		2-METHYL-1-BUTENE	0.066	0.186	0.023
36		N-PENTANE	0.395	1.152	0.131
37		TRANS-2-PENTENE	0.044	0.124	0.015
38		CIS-2-PENTENE	0.018	0.050	0.006
39		2-METHYL-2-BUTENE	0.217	0.597	0.074
40		UNKNOWN C5-MONOOLEFINS	0.000	0.000	0.000
41		C5-DIOLEFINS (DIENES)	0.000	0.000	0.000
42		2,2-DIMETHYLBUTANE	0.001	0.002	0.000
43		CYCLOPENTANE	0.011	0.027	0.004
44		2,3-DIMETHYLBUTANE	0.016	0.045	0.005
45		2-METHYLPENTANE	0.331	0.925	0.092
46		3-METHYLPENTANE	0.127	0.350	0.035
47		HEXENES	0.092	0.248	0.026
48		N-HEXANE	0.063	0.174	0.017
49		2,2-DIMETHYLPENTANE	0.000	0.000	0.000
50		2,4-DIMETHYLPENTANE	0.002	0.005	0.000
51		METHYLCYCLOPENTANE	0.031	0.077	0.009
52		3,3-DIMETHYLPENTANE	0.001	0.002	0.000
53		CYCLOHEXANE	0.002	0.006	0.001
54		2-METHYLHEXANE	0.085	0.230	0.020
55		2,3-DIMETHYLPENTANE	0.011	0.029	0.003
56		3-METHYLHEXANE	0.101	0.268	0.024
57		1-CIS-3-DIMETHYL-N5	0.021	0.052	0.005
58		1-TRANS-3-DIMETHYL-N5	0.019	0.047	0.005
59		1-TRANS-2-DIMETHYL-N5	0.025	0.061	0.006
60		3-ETHYL-PENTANE	0.000	0.000	0.000

61	N-HEPTANE	0.046	0.122	0.011
62	C7-OLEFINS	0.179	0.466	0.044
63	METHYLCYCLOHEXANE	0.041	0.097	0.010
64 *	ISO-C8-P + O + N5 + N6	0.000	0.000	0.000
65	MONOMETHYL-ISO-C8-P	0.142	0.369	0.030
66	OTHER ISO-C8-P	0.011	0.028	0.002
67	C8-OLEFINS	0.454	1.148	0.097
68	C8-NAPHTHENES (N5+N6)	0.124	0.320	0.029
69	N-OCTANE	0.032	0.083	0.007
70 *	ISO-C9-P + O + N5 + N6	0.000	0.000	0.000
71	MONOMETHYL-ISO-C9-P	0.090	0.228	0.017
72	OTHER ISO-C9-P	0.216	0.549	0.040
73	C9-OLEFINS	0.339	0.847	0.064
74	C9-NAPHTHENES (N5+N6)	0.132	0.323	0.025
75	N-NONANE	0.027	0.070	0.005
76	ISO-C10-P + O + N5 + N6	0.489	1.199	0.084
77	N-DECANE	0.016	0.040	0.003
78	C11-P + O + N5 + N6	0.208	0.512	0.032
79	BENZENE	0.012	0.025	0.004
80	TOLUENE	0.094	0.197	0.024
81	ETHYLBENZENE	0.040	0.084	0.009
82	P-XYLENE	0.097	0.207	0.022
83	M-XYLENE	0.279	0.591	0.063
84	O-XYLENE	0.067	0.139	0.015
85	ISOPROPYLBENZENE	0.006	0.012	0.001
86	N-PROPYLBENZENE	0.023	0.049	0.005
87	1-METHYL-3-ETHYL-BENZENE	0.406	0.860	0.081
88	1-METHYL-4-ETHYL-BENZENE	0.000	0.000	0.000
89	1,3,5-TRIMETHYL-BENZENE	0.024	0.051	0.005
90	1-METHYL-2-ETHYLBENZENE	0.004	0.008	0.001
91	ISO-C4-BENZENE	0.015	0.032	0.003
92	SEC-C4-BENZENE	0.000	0.000	0.000
93	1-METHYL-3-ISO-C3-BENZENE	0.010	0.021	0.002
94	1,2,4-TRIMETHYLBENZENE	0.377	0.789	0.075
95	1-METHYL-4-ISO-C3-BENZENE	0.000	0.000	0.000
96	1-METHYL-2-ISO-C3-BENZENE	0.061	0.128	0.011
97	1,3-DIETHYLBENZENE	0.122	0.258	0.022
98	1-METHYL-3-N-C3-BENZENE	0.021	0.045	0.004
99	N-C4-BENZENE	0.000	0.000	0.000
100	1,2,3-TRIMETHYLBENZENE	0.055	0.113	0.011
101	1,2-DIETHYLBENZENE	0.002	0.004	0.000
102	1-METHYL-2-N-C3-BENZENE	0.004	0.008	0.001
103	C10-ALKYLBENZENES	0.201	0.426	0.036
104	1,2,4,5-TETRAMETHYLBENZENE	0.047	0.098	0.008
105	1,2,3,5-TETRAMETHYLBENZENE	0.026	0.054	0.005
106	1,2,3,4-TETRAMETHYLBENZENE	0.015	0.031	0.003
107	C11-ALKYLBENZENES	0.269	0.562	0.043
108	NAPHTHALENE	0.013	0.024	0.002
109	METHYL-NAPHTHALENES	0.004	0.008	0.001

AN ASTERISK DENOTES AN UNUSED IDEN ENTRY

**** NOTE: FOR APL USE
IDEN 27 = 23 + 25+27+28+29+30
IDEN 31 = 31 + 32+34+35+37+38+39+40+41
IDEN 64 = 64 + 65+66+67+68
IDEN 70 = 70 + 71+72+73+74

METHANOL OPINFO FILE INPUT DATA

VERSION # 7 OPINFO FILE

COMMENTS: CT-225-67-2 52.5 HRS
D. LIEDERMAN

FLUID PILOT PLANT RUN CT- 225- 67- 2- 0
DATE MATERIAL BALANCE WAS RUN 8-26-78
PROJECT NUMBER: 29502
RECYCLE OPERATING CONDITIONS

CATALYST CONDITIONS:

REACTOR	IDENTIFICATION	VOL.CC	WT.GMS	AGE,DAYS	EVAL,DAYS	TYPE
1	SGF-A-3	100.0	37.3	2 2	2 2	1
2	FRESH	0.0	0.0	0.0	0.0	0
3		0.0	0.0	0.0	0.0	0
4		0.0	0.0	0.0	0.0	0
5		0.0	0.0	0.0	0.0	0

PRESSURE CONDITIONS:
REACTOR,PSIG 200.00 BAROMETRIC,MM 762.90

TEMPERATURE CONDITIONS,F:

REAC	IN	0	1	2	3	4	5	6	7	8	9	10	11	12	OUT
1	420.	0.	559.	560.	562.	559.	569.	562.	561.	568.	560.	550.	453.	497.	560.
2	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	0.	0.	0.	0.	0.	0	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

SEPARATOR,F 77. ROOM,F 78.

REACTOR CONDITIONS:

REACTOR	PROBE INC	CAT BED LNTH	BED REL TO 0	PREHEATER,F
1	0.00	0.00	0.00	420.
2	0.00	0.00	0.00	0.
3	0.00	0.00	0.00	0.
4	0.00	0.00	0.00	0.
5	0.00	0.00	0.00	0