THE TEXAS COMPANY — MONTEBELLO LABORATORY

RATE CALCULATIONS

RUN NO. 62-K
HOURS 230-254

	GAS ANALYSES				GENERATOR BALANCE										WEIGHT BALANCE		
HOUR	1400	2200	0600	AVERAGE	M/HR	C	H	O		Mol %	M/Hr	C	H	O		#/hr Measured	At Wt. Balance
FRESH FEED									O_2 32.000	0.22	10.382 0.029			20.822	WET GAS	309.98	334.86
CO 28.010	36.82	37.45	37.51	37.260	15.411	15.411		15.411	CO_2 44.010	1.35	0.177	0.177		0.354	OIL	64.31	64.31
H_2 2.016	60.37	60.10	59.87	60.114	24.863		49.726		N_2 28.016	0.40	0.052				WATER	125.13	125.13
CO_2 44.010	1.93	2.06	2.11	2.033	0.841	0.841		1.682	CH_4 16.042	83.61	10.968	10.968	43.872		TOTAL	499.42	524.30
N_2 28.016	0.35	0.25	0.36	0.320	0.132				C_2H_6 30.068	6.73	0.883	1.766	5.298		FRESH FEED	524.30	
CH_4 16.042	0.53	0.14	0.15	0.273	0.113	0.113	0.452		C_3H_8 44.094	5.50	0.721	2.163	5.768		WEIGHT BALANCE	95.25	
			M. W	12.676593					C_4H_{10} 58.120	1.55	0.203	0.812	2.030				
			H_2O 18.016				7.982	3.991	C_5H_{12} 72.146	0.64	0.084	0.420	1.008		WET GAS FACTOR	1080263	
						16.365	58.160	21.084	MW	20.000656					INDICATED LOSS—S C F H	467	
			BALANCE			100.36	100.32	99.57	TOTAL			16.306	57.976	21.176		6288	

WET GAS					GAS FLOW RATES										LIQUID PRODUCT RATES					
CO 28.010	14.71	15.55	15.33	15.197		$\sqrt{h}$	PRESSURE	TEMP.	M. W.	S. C. F. H.	M/HR	HOUR	GAGE	GAL.	°F	FACTOR	GAL. AT 60	API° #/GAL.	#	#/HR GAL HR
H_2 2.016	47.02	46.84	47.14	47.000	FRESH FEED		416.8	73.9	2283736			OIL	7'4½"	390.78	74	0.9930	388.04	49.1 6.523	2531.18	
CO_2 44.010	23.78	23.53	24.17	23.826	79.31	6.388	20.773	0.9869	1.5112	15696	41.360		4'5"	235.83	62	0.9990	235.59	49.4 6.512	1534.16	
N_2 28.016	1.05	1.23	0.97	1.083	WET GAS		1.75	72.0	1432537				2'3"	119;67	59	1.0005	119.73	49.1	781.00	
CH_4 16.042	6.67	5.75	5.55	5.990	158.44	7.654	4.056	0.9887	1.19688	5821	15.339		0'9½"	41.26	61	0.9995	41.24	6.523	269.01	
C_2H_6 28.052	1.52	1.43	1.45	1.467	RECYCLE		417.4	124.9									45.29		434.50	64.31
C_3H_6 33.068	0.90	0.94	0.92	0.920	79.31	8.508	20.787	0.9429	1.19688	15829	41.710						236.23		1543.51	9.843
C_3H_8 42.078	1.24	1.45	1.13	1.273	BLEED															
C_3H_8 44.094	0.14	0.20	0.16	0.167	5.02	8.342	20.787	1.0000	1.19688	1042	2.746	WATER	7'6½"	399.50	82	0.99726	398.41	10.5 8.299	3306.40	
C_4H_8 56.104	1.26	1.42	1.32	1.333	NATURAL GAS		439.6	202.6	1447452		44.456		4'4"	231.47	73	0.99858	231.14	10-5 8.299	1918.23	
C_4H_{10} 58.120	0.45	0.48	0.53	0.487	28.43	7.708	21.314	0.8859	1.2031	4978	13.117		4'11"	262.02	74	0.99846	261.62	"	2171.18	
C_5H_{10} 70.130	0.76	0.73	0.77	0.753	OXYGEN		444.9	75.9					1'3½"	67.20	81	0.99743	67.03		556.28	125.13
C_5H_{12} 72.146	0.19	0.19	0.27	0.217	27.07	6.892	21.438	0.9850	--	3940	10.382						361.86		3003.07	15.078
C_6H_{12} 84.156	0.31	0.26	0.29	0.287	STEAM		39.6													
			M. W.	20.2089	215.7	5.945	0.3268		419#/hr											

THE TEXAS COMPANY — MONTEBELLO LABORATORY

RATE CALCULATIONS

RUN NO. 62-L
HOURS 254-279

	GAS ANALYSES				GENERATOR BALANCE										WEIGHT BALANCE		
HOUR	1400	2200	0600	AVERAGE	M/HR	C	H	O		Mol %	M/Hr	C	H	O		#/hr Measured	At Wt. Balance
FRESH FEED									O_2 32.000	0.28	10.437 0.037			20.948	WET GAS	310.64	338.63
CO 28.010	37.20	37.41	37.22	37.277	15.416	15.416		15.416	CO_2 44.010	1.46	0.191	0.191		0.382	OIL	62.17	62.17
H_2 2.016	60.11	60.15	60.54	60.267	24.922		49.844		N_2 28.016	1.00	0.131				WATER	121.67	121.67
CO_2 44.010	1.94	2.16	1.97	2.023	0.837	0.837		1.674	CH_4 16.042	82.48	10.772	10.772	43.088		TOTAL	494.48	522.47
N_2 28.016	0.19	0.14	0.12	0.150	0.062				C_2H_6 30.068	6.89	0.900	1.800	5.400		FRESH FEED	522.47	
CH_4 16.042	0.56	0.14	0.15	0.283	0.117	0.117	0.468		C_3H_8 44.094	5.54	0.724	2.172	5.792		WEIGHT BALANCE	94.64	
			M. W	12.634016					C_4H_{10} 58.120	1.68	0.219	0.876	2.190				
			H_2O 18.016				7.847	3.924	C_5H_{12} 72.146	0.67	0.088	0.440	1.056		WET GAS FACTOR	1090104	
						16.370	58.159	21.014	MW	20.218035					INDICATED LOSS—S C F H	538	
			BALANCE			100.73	101.10	98.52	TOTAL			16.251	57.526	21.330		6510	

WET GAS 1400	0600				GAS FLOW RATES										LIQUID PRODUCT RATES 25 hours					
CO 28.010	16.03	15.96		15.995		$\sqrt{h}$	PRESSURE	TEMP.	M. W.	S. C. F. H.	M/HR	HOUR	GAGE	GAL.	°F	FACTOR	GAL. AT 60	API° #/GAL.	#	#/HR GAL HR
H_2 2.016	48.45	48.02		48.235	FRESH FEED		416.5	76.7	2291432			OIL	6'8"	353.68	63	0.9985	353.15	49.0 6.526	2304.66	
CO_2 44.010	22.35	22.83		22.590	79.31	6.396	20.765	0.9843	1.5137	15694	41.354		2'3"	119.67	59	1.0005	119.73	49.1 6.523	781.00	
N_2 28.016	0.99	1.02		1.005	WET GAS		1.77	74.5	1466499								44.67		430.50	62.17
CH_4 16.042	6.00	5.22		5.610	158.44	7.800	4.046	0.9863	1.2110	5972	15.736						238.09		1554.16	9.524
C_2H_6 28.052	1.37	1.77		1.570	RECYCLE		417.3	125.3												
C_3H_6 33.068	0.87	0.90		0.885	79.31	8.508	20.785	0.9425	1.2110	16008	42.182									
C_3H_8 42.078	0.85	0.72		0.785	BLEED															
C_3H_8 44.094	0.02	0.14		0.080	5.02	8.054	20.785	1.0000	1.2110	1018	2.682	WATER	7'2½"	382.05	80	0.99759	381.13	10.5 8.299	3163.00	
C_4H_8 56.104	1.13	1.29		1.210	NATURAL GAS		439.9	201.4	1431889		44.864		4'11	262.02	74	0.99846	261.62	"	2171.18	
C_4H_{10} 58.120	0.60	0.57		0.585	28.43	7.708	21.321	0.8867	1.1966	4957	13.062		5'2½"	277.30	76	0.99819	276.80	"	2297.16	
C_5H_{10} 70.130	0.75	0.84		0.795	OXYGEN		444.3	79.1					0'6-3/4	29.87	84	0.99692	29.78	"	247.14	121.67
C_5H_{12} 72.146	0.27	0.31		0.290	27.07	6.954	21.424	0.9822	--	3961	10.437						366.53		3041.84	14.661
C_6H_{12} 84.156	0.32	0.41		0.365	STEAM		29.1													
			M. W.	19.740855	215.7	6.254	0.2881		389#/hr											

THE TEXAS COMPANY — MONTEBELLO LABORATORY

RATE CALCULATIONS

RUN NO. 62-M
HOURS 279-303

	GAS ANALYSES			
HOUR	1400	2200	0600	AVERAGE
FRESH FEED				
CO 28.010	37.13	37.59	37.27	37.330
H_2 2.016	60.18	59.93	60.15	60.086
CO_2 44.010	2.10	2.27	2.16	2.177
N_2 28.016	0.24	0.08	0.18	0.167
CH_4 16.042	0.35	0.13	0.24	0.240
			M. W	12.710852
			H_2O 18.016	
			BALANCE	
WET GAS				
CO 28.010	16.04	16.73	16.24	16.337
H_2 2.016	48.22	48.77	48.85	48.614
CO_2 44.010	22.39	21.95	22.30	22.213
N_2 28.016	1.10	1.35	1.14	1.197
CH_4 16.042	5.65	5.07	5.43	5.383
C_2H_4 28.052	1.31	1.26	1.37	1.313
C_2H_6 30.068	0.75	0.79	0.75	0.763
C_3H_6 42.078	1.46	1.34	1.37	1.390
C_3H_8 44.094	0.17	0.22	0.19	0.193
C_4H_8 56.104	1.31	1.14	1.12	1.190
C_4H_{10} 58.120	0.50	0.47	0.35	0.440
C_5H_{10} 70.130	0.67	0.55	0.54	0.587
C_5H_{12} 72.146	0.12	0.12	0.12	0.120
C_6H_{12} 84.156	0.31	0.24	0.23	0.260
			M. W.	19.439022

GENERATOR BALANCE									
M/HR	C	H	O		Mol %	M/Hr	C	H	O
				O_2 32.000	0.25	10.437 0.033			20.940
15.456	15.456	15.456	15.456	CO_2 44.010	1.36	0.178	0.178		0.356
24.877		49.754		N_2 28.016	1.21	0.158			
0.901	0.901		1.802	CH_4 16.042	82.40	10.776	10.776	43.104	
0.069				C_2H_6 30.068	6.78	0.887	1.774	5.322	
0.099	0.099	0.396		C_3H_8 44.094	5.49	0.718	2.154	5.744	
				C_4H_{10} 58.120	1.75	0.229	0.916	2.290	
		7.787	3.894	C_5H_{12} 72.146	0.76	0.099	0.495	1.188	
	16.456	57.937	21.152	MW	20.260918				
	101.00	100.50	99.32	TOTAL			16.293	57.648	21.296

GAS FLOW RATES							
	$\sqrt{h}$	PRESSURE	TEMP.	M. W.	S. C. F. H.	M/HR	
FRESH FEED 79.31	6.421	417.5 20.789	77.7 0.9834	2277581 1.5092	15712	41.402	
WET GAS 158.44	7.954	1.79 4.060	77.1 0.9839	1489272 1.2204	6144	16.190	
RECYCLE 79.31	8.504	418.3 20.809	125.9 0.9420	1.2204	16135	42.516	
BLEED 5.02	8.200	20.809	1.0000	1.2204	1045	2.754	
NATURAL GAS 28.43	7.713	4408 21.342	200.3 0.8872	1428859 1.1953	4963	13.078	
OXYGEN 27.07	6.950	445.5 21.452	79.7 0.9815		3961	10.437	
STEAM 215.7	6.267	30.4					

	HOUR	GAGE	GAL.
	OIL	7'3"	384.23
		6'8"	353.68
		5'0½"	268.57
		1'6"	78.16
	WATER	7'5-3/4	396.23
		5'2½"	277.30
		5'4¼"	284.93
		1'1¼"	58.47

WEIGHT BALANCE		
	#/hr Measured	At Wt. Balance
WET GAS	314.72	345.92
OIL	61.28	61.28
WATER	119.05	119.05
TOTAL	495.05	526.25
FRESH FEED	526.25	
WEIGHT BALANCE	94.07	
WET GAS FACTOR	1099135	
INDICATED LOSS—S C F H	609	
	6753	

LIQUID PRODUCT RATES					
°F	FACTOR	GAL. AT 60	API° #/GAL.	#	# HR GAL HR
66	0.9970	383.08	49.2 6.520	2497.68	
65	0.9985	353.15	49.0 6.526	2304.66	
67	0.9965	267.63	49.2	1744.95	
65	0.9975	77.96	6.520	508.30	
		46.29		441.00	61.28
		225.89		1470.67	9.412
84	0.99692	395.01	10.5 8.299	3278.19	
76	0.99819	276.80	10.5 8.299	2297.16	
77	0.99804	284.37	"	2359.99	
84.	0.99692	58.29	"	483.75	119.05
		344.29		2857.27	14.345

THE TEXAS COMPANY — MONTEBELLO LABORATORY

RATE CALCULATIONS

RUN NO. 62-N
HOURS 303-327

	GAS ANALYSES			
HOUR	1400	2200	0600	AVERAGE
FRESH FEED				
CO 28.010	36.97	37.15	36.23	36.783
H_2 2.016	60.14	60.28	61.01	60.477
CO_2 44.010	2.13	2.08	2.07	2.093
N_2 28.016	0.36	0.19	0.41	0.320
CH_4 16.042	0.40	0.30	0.28	0.327
			M. W	12.585372
			H_2O 18.016	
			BALANCE	
WET GAS				
CO 28.010	16.64	16.44	17.29	16.790
H_2 2.016	49.38	48.83	49.41	49.206
CO_2 44.010	20.56	21.82	21.42	21.266
N_2 28.016	1.39	1.29	1.10	1.260
CH_4 16.042	5.93	5.52	4.96	5.470
C_2H_4 28.052	1.29	1.19	1.17	1.217
C_2H_6 30.068	0.82	0.80	0.74	0.787
C_3H_6 42.078	1.39	1.23	1.21	1.277
C_3H_8 44.094	0.21	0.23	0.17	0.203
C_4H_8 56.104	1.14	1.19	1.17	1.167
C_4H_{10} 58.120	0.34	0.49	0.45	0.427
C_5H_{10} 70.130	0.57	0.59	0.58	0.580
C_5H_{12} 72.146	0.11	0.15	0.11	0.123
C_6H_{12} 84.156	0.23	0.23	0.22	0.227
			M. W.	19.078846

GENERATOR BALANCE									
M/HR	C	H	O		Mol %	M/Hr	C	H	O
				O_2 32.000	0.29	10.372 0.038			20.820
15.369	15.369		15.369	CO_2 44.010	1.34	0.176	0.176		0.352
25.269		50.538		N_2 28.016	1.32	0.173			
0.875	0.875		1.750	CH_4 16.042	81.98	10.746	10.746	42.984	
0.134				C_2H_6 30.068	6.95	0.911	1.822	5.466	
0.137	0.137	0.548		C_3H_8 44.094	5.71	0.749	2.247	5.992	
				C_4H_{10} 58.120	1.70	0.223	0.892	2.230	
		7.404	3.702	C_5H_{12} 72.146	0.71	0.093	0.465	1.116	
	16.381	58.490	20.821	MW	20.311347				
	100.20	101.21	98.34	TOTAL	[illegible]		16.348	57.788	21.172

GAS FLOW RATES							
	$\sqrt{h}$	PRESSURE	TEMP.	M. W.	S. C. F. H.	M/HR	
FRESH FEED 79.31	6.442	415.8 20.748	74.6 0.9863	2300289 1.5167	15857	41.784	
WET GAS 158.44	8.125	1.80 4.062	74.8 0.9861	1517387 1.2318	6352	16.738	
RECYCLE 79.31	8.504	416.2 20.758	124.6 0.9432	1.2318	16266	42.862	
BLEED 5.02	8.508	20.758	1.0000	1.2318	1092	2.877	
NATURAL GAS 28.43	7.742	439.4 21.310	199.8 0.8884	1425311 1.1939	4975	13.109	
OXYGEN 27.07	6.892	444.4 21.427	76.5 0.9845	--	3936	10.372	
STEAM 215.7	6.275	29.4					

	HOUR	GAGE	GAL.
	OIL	7'6"	397.32
		5'0½"	268.57
		2'3½"	120.83
		0'10"	43.36
	WATER	7'5½"	395.14
		5'4¼"	284.93
		5'9-3/4	308.94
		1'8"	87.01

WEIGHT BALANCE		
	# hr Measured	At Wt. Balance
WET GAS	319.34	354.77
OIL	56.54	56.54
WATER	114.56	114.56
TOTAL	490.44	525.87
FRESH FEED	525.87	
WEIGHT BALANCE	93.26	
WET GAS FACTOR	1110947	
INDICATED LOSS—S C F H	705	
	7057	

LIQUID PRODUCT RATES					
°F.	FACTOR	GAL. AT 60	API° #/GAL.	#	# HR GAL HR
73	0.9935	394.74	49.1 6.523	2574.89	
67	0.9965	267.63	49.2 6.520	1744.95	
65	0.9975	120.53	49.1	786.22	
64	0.9980	43.27	6.523	282.25	
		43.53		423.00	56.54
		207.90		1356.91	8.663
81	0.99743	394.12	10.5 8.299	3270.80	
77	0.99804	284.37	"	2359.99	
76	0.99819	308.38	"	2559.25	
78	0.99788	86.83	"	720.60	114.56
		331.30		2749.46	13.304

THE TEXAS COMPANY — MONTEBELLO LABORATORY

RATE CALCULATIONS

RUN NO. 62-0
HOURS 327-351

	GAS ANALYSES				GENERATOR BALANCE										WEIGHT BALANCE		
HOUR	1400	2200	0600	AVERAGE	M/HR	C	H	O		Mol %	M/Hr	C	H	O		#/hr Measured	At Wt. Balance
FRESH FEED									O_2 32.000	0.27	10.292 0.035			20.654	WET GAS	326.49	364.53
CO 28.010	37.65	37.78	37.23	37.553	15.445	15.445		15.445	CO_2 44.010	1.22	0.158	0.158		0.316	OIL	53.38	53.38
H_2 2.016	59.67	59.81	60.02	59.833	24.609		49.218		N_2 28.016	1.63	0.212				WATER	107.12	107.12
CO_2 44.010	2.24	2.16	2.08	2.160	0.888	0.888		1.776	CH_4 16.042	81.39	10.570	10.570	42.280		TOTAL	486.99	525.03
N_2 28.016	0.21	0.10	0.13	0.147	0.060				C_2H_6 30.068	7.33	0.952	1.904	5.712		FRESH FEED	525.03	
CH_4 16.042	0.23	0.15	0.54	0.307	0.126	0.126	0.504		C_3H_8 44.094	5.84	0.758	2.274	6.064		WEIGHT BALANCE	92.75	
			M. W	12.765877					C_4H_{10} 58.120	1.64	0.213	0.852	2.130				
			H_2O 18.016				7.509	3.755	C_5H_{12} 72.146	0.68	0.088	0.440	1.056		WET GAS FACTOR	1116511	
						16.459	57.231	20.976	MW	20.359401					INDICATED LOSS—S C F H	744	
			BALANCE			101.61	99.98	100.03	TOTAL			16.198	57.242	20.970		7128	

WET GAS					GAS FLOW RATES											LIQUID PRODUCT RATES				
CO 28.010	17.99	17.21	17.78	17.660		$\sqrt{H}$	PRESSURE	TEMP.	M. W.	S. C. F. H.	M/HR	HOUR	GAGE	GAL.	°F	FACTOR	GAL. AT 60	API° #/GAL	#	#/HR GAL HR
H_2 2.016	47.78	47.66	49.66	48.367	FRESH FEED 79.31	6.383	4149 20.727	72.9 0.9878	2267764 1.5059	15608	411128	OIL	5'10-1/8	310.58	61	0.9995	310.42	48.8 6.534	2028.28	
CO_2 44.010	21.52	21.74	20.11	21.123									2'3¼"	120.83	65	0.9975	120.53	49.1 6.523	786.22	
N_2 28.016	1.33	1.26	1.12	1.237	WET GAS 158.44	8.200	1.98 4.084	75.9 0.9851	1491630 1.2213	6384	16.822						*5.97 195.86		*39.00 1281.06	53.38 8.161
CH_4 16.042	4.98	4.90	5.62	5.167																
C_2H_4 28.052	1.80	1.26	1.22	1.427	RECYCLE 79.31	8.504	415.3 20.736	124.7 0.9430	1.2213	16107	42.443									
C_2H_6 30.068	0.80	0.81	0.75	0.787																
C_3H_6 42.078	1.35	1.45	1.10	1.300	BLEED 5.02	8.604	20.736	1.0000	1.2213	1094	2.883	WATER	7'1"	375.50	78	0.99788	374.70	10.5	3109.64	
C_3H_8 44.094	0.29	0.25	0.19	0.243																
C_4H_8 56.104	0.70	1.65	1.02	1.123	NATURAL GAS 28.43	7.688	439.0 21.300	200.0 0.8876	1421947 1.1925	4928	12.986		5'9-3/4	308.94	76	0.99819	308.38	8.299	2559.25	
C_4H_{10} 58.120	0.35	0.47	0.42	0.413									6'1½"	325.31	74	0.99846	324.81	"	2695.60	
C_5H_{10} 70.130	0.76	0.81	0.58	0.717	OXYGEN 27.07	6.842	442.7 21.387	74.9 0.9860	--	3906	10.292		1'6-3/4	81.48	74	0.99846	81.35	"	675.12	107.12
C_5H_{12} 72.146	0.12	0.16	0.12	0.133													309.78		2570.87	12.908
C_6H_{12} 84.156	0.23	0.37	0.31	0.303	STEAM 215.7	6.271	26.6 0.2781		376#/hr											
			M. W.	19.408287																

THE TEXAS COMPANY — MONTEBELLO LABORATORY

RATE CALCULATIONS

RUN NO. 62-F
HOURS 351-375

	GAS ANALYSES				GENERATOR BALANCE										WEIGHT BALANCE		
HOUR	1400	2200	0600	AVERAGE	M/HR	C	H	O		Mol %	M/Hr	C	H	O		#/hr Measured	At Wt. Balance
FRESH FEED									O_2 32.000	0.22	10.131 0.029			20.320	WET GAS	322.49	364.95
CO 28.010	37.78	37.26	37.78	37.607	15.332	15.332		15.332	CO_2 44.010	1.98	0.259	0.259		0.518	OIL	53.71	53.71
H_2 2.016	58.60	59.82	59.71	59.376	24.207	[illegible]	48.414		N_2 28.016	0.87	0.114				WATER	105.06	105.06
CO_2 44.010	2.42	2.08	1.94	2.147	0.875	0.875		1.750	CH_4 16.042	83.00	10.877	10.877	43.508		TOTAL	481.26	523.72
N_2 28.016	0.26	0.34	0.17	0.257	0.105				C_2H_6 30.068	7.19	0.942	1.884	5.652		FRESH FEED	523.72	
CH_4 16.042	0.94	0.50	0.40	0.613	0.250	0.250	1.000		C_3H_8 44.094	4.33	0.567	1.701	4.536		WEIGHT BALANCE	91.89	
			M. W	12.845974				3.756	C_4H_{10} 58.120	1.68	0.220	0.880	2.200				
			H_2O 18.016				7.573	3.787	C_5H_{12} 72.146	0.73	0.096	0.480	1.152		WET GAS FACTOR	1131662	
						16.457	56.987	20.869	MW	20.074638					INDICATED LOSS—S C F H	865	
			BALANCE			102.34	99.89	100.15	TOTAL			16.081	57.048	20.838		7438	

WET GAS					GAS FLOW RATES											LIQUID PRODUCT RATES				
CO 28.010	18.15	17.64	17.15	17.647		$\sqrt{H}$	PRESSURE	TEMP.	M. W.	S. C. F. H.	M/HR	HOUR	GAGE	GAL.	°F	FACTOR	GAL. AT 60	API° #/GAL	#	#/HR GAL HR
H_2 2.016	49.37	50.43	49.91	49.904	FRESH FEED 79.31	6.342	415.0 20.729	72.2 0.9885	2253624 1.5012	15472	40.769	OIL	7'3½"	386.41	73	0.9935	383.90	49.0 6.526	2505.33	
CO_2 44.010	19.95	19.50	20.25	19.900									5'10 1/8	310.58	61	0.9995	310.42	48.8 6.534	2028.28	
N_2 28.016	1.00	1.18	1.14	1.107	WET GAS 158.44	8.333	1.81 4.063	78.5 0.9827	1554820 1.2469	6573	17.320		2'7½"	140.41	65	0.9975	140.06	49.0 6.526	914.03	
CH_4 16.042	6.46	5.63	5.66	5.917									0'6"	26.55	80	0.9901	26.29	"	171.57	
C_2H_4 28.052	1.24	1.13	1.11	1.160	RECYCLE 79.31	8.504	415.2 20.734	127.5 0.9408	1.2469	16405	43.228						*10.65 197.90		*69.50 1289.01	53.71 8.246
C_2H_6 30.068	0.53	0.74	0.78	0.683																
C_3H_6 42.078	1.05	1.12	0.75	0.973	BLEED 5.02	8.579	20.734	1.0000	1.2469	1113	2.933	WATER	7'0-3/4	374.41	74	0.99846	373.83	10.5	3102.42	
C_3H_8 44.094	0.15	0.15	0.03	0.110																
C_4H_8 56.104	0.92	1.06	1.09	1.023	NATURAL GAS 28.43	7.704	438.9 21.298	199.8 0.8878	1442118 1.2009	4973	13.104		6'1½"	325.31	74	0.99846	324.81	8.299	2695.60	
C_4H_{10} 58.120	0.33	0.44	0.68	0.483									5'1"	270.75	76	0.99819	270.26	"	2242.89	
C_5H_{10} 70.130	0.53	0.59	0.77	0.630	OXYGEN 27.07	6.738	442.1 21.373	74.5 0.9863	--	3845	10.131		0'3½"	15.49	75	0.99832	15.46	"	128.30	105.06
C_5H_{12} 72.146	0.12	0.15	0.27	0.180													303.82		2521.41	12.659
C_6H_{12} 84.156	0.20	0.24	0.41	0.283	STEAM 215.7	6.188	27.3 0.2807		375#/hr											
			M. W.	18.619518																

THE TEXAS COMPANY — MONTEBELLO LABORATORY

RATE CALCULATIONS

RUN NO. 62-Q
HOURS 375-399

	GAS ANALYSES				GENERATOR BALANCE										WEIGHT BALANCE		
HOUR	1400	2200	0600	AVERAGE	M/HR	C	H	O		Mol %	M/Hr	C	H	O		#/hr Measured	At Wt. Balance
FRESH FEED									O_2 32.000	0.28	10.116 0.037			20.306	WET GAS	319.27	358.91
CO 28.010	37.48	37.91	36.87	37.420	15.297	15.297		15.297	CO_2 44.010	1.93	0.252	0.252		0.504	OIL	55.74	55.74
H_2 2.016	59.29	59.31	59.77	59.456	24.306		48.612		N_2 28.016	1.05	0.137				WATER	109.24	109.24
CO_2 44.010	2.00	2.20	2.13	2.110	0.863	0.863		1.726	CH_4 16.042	82.89	10.838	10.838	43.352		TOTAL	484.25	523.89
N_2 28.016	0.26	0.21	0.63	0.367	0.150				C_2H_4 30.068	7.39	0.966	1.932	5.796		FRESH FEED	523.89	
CH_4 16.042	0.97	0.37	0.60	0.647	0.264	0.264	1.056		C_2H_6 44.094	4.16	0.544	1.632	4.352		WEIGHT BALANCE	92.43	
			M. W	12.815196			7.022	3.787	C_4H_{10} 58.120	1.61	0.211	0.844	2.110				
			H_2O 18.016				7.298	3.649	C_5H_{12} 72.146	0.69	0.090	0.450	1.080		WET GAS FACTOR	1124158	
						16.424	56.966	20.672	MW	20.02025					INDICATED LOSS—S C F H	779	
			BALANCE			102.98	100.49	99.34	TOTAL			15.948	56.690	20.810		7050	

WET GAS 1400	2200			GAS FLOW RATES											LIQUID PRODUCT RATES					
CO 28.010	16.27	16.28		16.275		$\sqrt{h}$	PRESSURE	TEMP.	M. W.	S. C. F. H.	M/HR	HOUR	GAGE	GAL.	°F	FACTOR	GAL. AT 60	API° #/GAL.	#	# HR GAL HR
H_2 2.016	48.94	47.82		48.380	FRESH FEED		415.3	73.6	2259036			OIL	6'4-3/8	337.85	62	0.9990	337.51	48.6 6.541	2207.65	
CO_2 44.010	21.27	22.46		21.865	79.31	6.358	20.736	0.9872	1.5030	15514	40.880		2'7½"	140.41	65	0.9975	140.06	49.0 6.526	914.03	
N_2 28.016	1.18	1.26		1.220	WET GAS		1.93	77.8	1498336								46.77		444.25	55.74
CH_4 16.042	6.92	6.06		6.490	158.44	8.063	4.078	0.9833	1.2241	6271	16.524						204.22		1337.87	8.509
C_2H_4 28.052	1.09	1.33		1.210	RECYCLE		416.1	127.0												
C_2H_6 33.068	0.75	0.90		0.775	79.31	8.508	20.756	0.9412	1.2241	16136	42.519									
C_3H_6 42.078	0.79	1.00		0.895	BLEED															
C_3H_8 44.094	0.05	0.20		0.125	5.02	8.567	20.756	1.0000	1.2241	1093	2.880	WATER	7'4"	388.59	85	0.99674	387.32	10.4 8.305	3216.69	
C_4H_8 56.104	1.03	1.09		1.060	NATURAL GAS		438.1	202.7	1446035				5'1"	270.75	76	0.99819	270.26	10.5 8.299	2242.89	
C_4H_{10} 58.120	0.56	0.44		0.500	28.43	7.700	21.279	0.8858	1.2025	4962	13.075		4'6-7/8	244.01	72	0.99872	243.70	10.4	2023.93	
C_5H_{10} 70.130	0.65	0.71		0.680	OXYGEN		441.8	76.5					0'10½"	45.50	96	0.99467	45.26	8.305	375.88	109.24
C_5H_{12} 72.146	0.24	0.20		0.220	27.07	6.742	21.366	0.9845	--	3839	10.116						315.50		2621.85	13.146
C_6H_{12} 84.156	0.26	0.35		0.305	STEAM		27.1													
			M. W.	19.321451	215.7	6.125	0.2799		370#/hr											

THE TEXAS COMPANY — MONTEBELLO LABORATORY

RATE CALCULATIONS

RUN NO. 62-R
HOURS 399-423

	GAS ANALYSES				GENERATOR BALANCE										WEIGHT BALANCE		
HOUR	1400	0600		AVERAGE	M/HR	C	H	O		Mol %	M/Hr	C	H	O		#/hr Measured	At Wt. Balance
FRESH FEED									O_2 32.000	0.28	10.113 0.036			20.298	WET GAS	305.86	351.61
CO 28.010	37.94	35.57		36.755	15.059	15.059		15.059	CO_2 44.010	1.93	0.249	0.249		0.498	OIL	61.05	61.05
H_2 2.016	59.41	60.02		59.715	24.465		48.930		N_2 28.016	1.05	0.136				WATER	113.60	113.60
CO_2 44.010	1.90	3.30		2.600	1.065	1.065		2.130	CH_4 16.042	82.89	10.711	10.711	42.844		TOTAL	480.51	526.26
N_2 28.016	0.26	0.62		0.440	0.180				C_2H_4 30.068	7.39	0.955	1.910	5.730		FRESH FEED	526.26	
CH_4 16.042	0.49	0.49		0.490	0.201	0.201	0.804		C_2H_6 44.094	4.16	0.538	1.614	4.304		WEIGHT BALANCE	91.31	
			M. W	12.845066					C_4H_{10} 58.120	1.61	0.208	0.832	2.080				
			H_2O 18.016				6.753	3.377	C_5H_{12} 72.146	0.69	0.089	0.445	1.068		WET GAS FACTOR	1149578	
						16.325	56.487	20.566	MW	20.02025					INDICATED LOSS—S C F H	904	
			BALANCE			103.58	100.82	98.99	TOTAL			15.761	56.026	20.796		6951	

WET GAS				GAS FLOW RATES											LIQUID PRODUCT RATES					
CO 28.010	15.10			15.10		$\sqrt{h}$	PRESSURE	TEMP.	M. W.	S. C. F. H.	M/HR	HOUR	GAGE	GAL.	°F	FACTOR	GAL. AT 60	API° #/GAL.	#	# HR GAL HR
H_2 2.016	49.15			49.15	FRESH FEED		415.8	77.0	2253783			OIL	7'1½"	376.59	68	0.9961	375.12	49.4 6.512	2442.78	
CO_2 44.010	22.22			22.29	79.31	6.396	20.748	0.9840	1.5013	15548	40.970		6'4-3/8	337.85	62	0.9990	337.51	48.6 6.541	2207.65	
N_2 28.016	1.13			1.13	WET GAS		1.88	76.0	1508182				4'10¼"	258.75	59	1.005	260.04	49.4	1693.38	
CH_4 16.042	6.36			6.36	158.44	7.746	4.073	0.9850	1.2281	6047	15.934		1'6½"	80.37	68	0.9961	80.06	6.512	521.35	
C_2H_4 28.052	1.67			1.67	RECYCLE		416.8	128.0									48.91		458.00	61.05
C_2H_6 33.068	0.74			0.74	79.31	8.504	20.773	0.9404	1.2281	16181	42.638						226.50		1465.16	9.438
C_3H_6 42.078	0.58			0.58	BLEED															
C_3H_8 44.094	0.15			0.15	5.02	8.217	20.773	1.0000	1.2281	1052	2.772	WATER	7'2-3/4	383.14	87	0.99638	381.75	10.4 8.305	3170.43	
C_4H_8 56.104	1.10			1.10	NATURAL GAS		438.1	205.8	1446035				4'6-7/8	244.01	72	0.99872	243.70	10.4 8.305	2023.93	
C_4H_{10} 58.120	0.48			0.48	28.43	7.629	21.279	0.8837	1.2025	4904	12.922		5'2"	275.11	72	0.99872	274.76	"	2281.88	
C_5H_{10} 70.130	0.70			0.70	OXYGEN		442.1	80.4					1'7½"	84.80	85	0.99674	84.52	"	701.94	113.60
C_5H_{12} 72.146	0.19			0.19	27.07	6.763	21.373	0.9809	--	3838	10.113						328.29		2726.44	13.679
C_6H_{12} 84.156	0.36			0.36	STEAM		27.7													
			M. W.	19.195289	215.7	6.238	0.2824		380#/hr											

THE TEXAS COMPANY — MONTEBELLO LABORATORY

RATE CALCULATIONS

RUN NO. 62-S
HOURS 423-447

	GAS ANALYSES				GENERATOR BALANCE										WEIGHT BALANCE		
HOUR	1400	2200	0600	AVERAGE	M/HR	C	H	O		Mol %	M/Hr	C	H	O		#/hr Measured	At Wt. Balance
FRESH FEED									O_2 32.000	0	10.050 0			20.100	WET GAS	312.24	355.82
CO 28.010	37.69	37.65	37.47	37.604	15.435	15.435		15.435	CO_2 44.010	1.93	0.251	0.251		0.502	OIL	59.34	59.34
H_2 2.016	58.99	59.43	59.48	59.310	24.344		48.688		N_2 28.016	1.32	0.172				WATER	111.76	111.76
CO_2 44.010	2.08	2.10	2.09	2.090	0.858	0.858		1.716	CH_4 16.042	82.81	10.775	10.775	43.100		TOTAL	483.34	526.92
N_2 28.016	0.16	0.24	0.33	0.243	0.100				C_2H_4 30.068	7.19	0.936	1.872	5.616		FRESH FEED	526.92	
CH_4 16.042	1.08	0.55	0.63	0.753	0.309	0.309	1.236		C_2H_6 44.094	4.27	0.556	1.668	4.448		WEIGHT BALANCE	91.73	
			M. W	12.837254					C_4H_{10} 58.120	1.70	0.221	0.884	2.210				
			H_2O 18.016				6.782	3.391	C_5H_{12} 72.146	0.78	0.101	0.505	1.212		WET GAS FACTOR	1139572	
						16.602	56.706	20.542	MW	20.099066					INDICATED LOSS—S C F H	820	
			BALANCE			104.06	100.21	99.71	TOTAL			15.955	56.886	20.602		5695	

WET GAS					GAS FLOW RATES										LIQUID PRODUCT RATES					
CO 28.010	14.06	15.08	13.88	14.340		$\sqrt{H}$	PRESSURE	TEMP.	M. W.	S. C. F. H.	M/HR	HOUR	GAGE	GAL.	°F	FACTOR	GAL. AT 60	API° #/GAL.	#	#/HR GAL HR
H_2 2.016	48.36	43.53	48.99	46.960	FRESH FEED		416	81	2255155			OIL	7'3"	384.23	82	0.9891	380.04	48.9 6.530	2481.66	
CO_2 44.010	23.04	26.96	24.27	24.757	79.31	6.428	20.753	0.9804	1.5017	15577	41046		4'10½"	258.75	59	1.005	260.04	6.512 49.4	1693.38	
N_2 28.016	1.09	1.63	1.24	1.320	WET GAS		1.82	78	1435365				3'3¼"	175.82	62	0.9990	175.64	48.9 6.530	1146.93	
CH_4 16.042	7.41	6.50	5.46	6.457	158.44	7.746	4.064	0.8831	1.1981	5875	15.481		1'7"	82.59	82	0.9891	81.69	49.4 6.512	531.97	
C_2H_4 28.052	1.33	1.79	1.22	1.447	RECYCLE		417	129									3.22		21.00	59.34
C_2H_6 33.068	0.74	0.36	0.74	0.613	79.31	8.510	20.777	0.9396	1.1981	15786	41.597						217.17	6.552	1424.24	9.049
C_3H_6 42.078	1.31	1.14	1.27	1.240	BLEED															
C_3H_8 44.094	0.21	0.09	0.28	0.193	5.02	8.50	20.777	1.0000	1.1981	1062	2.798	WATER	7'6¼"	398.41	84	.99692	397.18	10.5 8.299	3296.20	
C_4H_8 56.104	1.14	1.14	1.19	1.157	NATURAL GAS		439	208	1440365				5'2"	275.11	72	0.99872	274.76	10.4 8.305	2281.88	
C_4H_{10} 58.120	0.31	0.49	0.38	0.393	28.43	7.700	21.300	0.8823	1.2002	4938	13.012		5'5¼"	289.30	74	.99846	288.85	10.5 8.299	2397.17	
C_5H_{10} 70.130	0.54	0.71	0.67	0.673	OXYGEN		442	85					1'8¼"	88.12	86	.99656	87.92	10.4 8.305	729.35	111.76
C_5H_{12} 72.146	0.12	0.25	0.15	0.173	27.07	6.750	21.371	0.9768		3814	10.050						323.45		2682.14	13.477
C_6H_{12} 84.156	0.24	0.33	0.26	0.277	STEAM		25													
			M. W.	20.169079	215.7	6.20														

THE TEXAS COMPANY — MONTEBELLO LABORATORY

RATE CALCULATIONS

RUN NO. 62-T
HOURS 447-471

	GAS ANALYSES				GENERATOR BALANCE										WEIGHT BALANCE		
HOUR	2200	0600		AVERAGE	M/HR	C	H	O		Mol %	M/Hr	C	H	O		#/hr Measured	At Wt. Balance
FRESH FEED									O_2 32.000	0.27	10.092 0.035			20.254	WET GAS	310.48	358.53
CO 28.010	36.90	36.87		36.885	15.147	15.147		15.147	CO_2 44.010	2.12	0.275	0.275		0.550	OIL	57.43	57.43
H_2 2.016	60.00	60.05		60.025	24.649		49.298		N_2 28.016	1.08	0.140				WATER	107.96	107.96
CO_2 44.010	2.43	2.41		2.420	0.994	0.994		1.988	CH_4 16.042	82.55	10.722	10.722	42.888		TOTAL	475.87	523.92
N_2 28.016	0.43	0.31		0.370	0.152				C_2H_4 30.068	7.16	0.930	1.860	5.580		FRESH FEED	523.92	
CH_4 16.042	0.24	0.36		0.300	0.123	0.123	0.492		C_2H_6 44.094	4.20	0.545	1.635	4.360		WEIGHT BALANCE	90.83	
			M. W	12.75842			6.572	3.669	C_4H_{10} 58.120	1.76	0.229	0.916	2.290				
			H_2O 18.016				7.005	3.503	C_5H_{12} 72.146	0.86	0.112	0.560	1.344		WET GAS FACTOR	1154760	
						16.264	56.795	20.638	MW	20.21284					INDICATED LOSS—S C F H	978	
			BALANCE			101.85	100.59	99.20	TOTAL			15.968	56.462	20.804		7300	

WET GAS	1400	2200	0600		GAS FLOW RATES										LIQUID PRODUCT RATES					
CO 28.010	14.67	14.90	14.38	14.650		$\sqrt{H}$	PRESSURE	TEMP.	M. W.	S. C. F. H.	M/HR	HOUR	GAGE	GAL.	°F	FACTOR	GAL. AT 60	API° #/GAL.	#	#/HR GAL HR
H_2 2.016	49.51	53.04	49.57	50.706	FRESH FEED		415	80	2269089			OIL	7'3¼"	385.32	67	.9965	383.97	49.6 6.505	*2497.72	
CO_2 44.010	22.35	17.90	24.09	21.446	79.31	6.413	20.729	0.9813	15063	15584	41.065		3'3½"	175.82	62	.9990	175.64	48.9 6.530	-1146.93	
N_2 28.016	1.70	1.23	1.21	1.380	WET GAS		1.85	80	1553344								4.23		*27.50	57.43
CH_4 16.042	6.27	6.03	5.72	6.007	158.44	7.996	4.080	0.9813	1.2463	6322	16.659						212.56	6.484	1378.29	8.857
C_2H_4 28.052	1.26	1.41	1.19	1.287	RECYCLE		417	130										6.505	1382.70	
C_2H_6 33.068	0.69	0.80	0.91	0.800	79.31	8.510	20.777	0.9388	1.2463	16407	43.233									
C_3H_6 42.078	1.04	1.41	1.03	1.160	BLEED															
C_3H_8 44.094	0.10	0.24	0.05	0.130	5.02	8.000	20.777	1.0000	1.2463	1040	2.740	WATER	7'3"	384.23	84	.99692	383.05	10.4 8.305	3181.23	
C_4H_8 56.104	1.09	1.35	0.18	0.873	NATURAL GAS		438	205	1432257				5'5¼"	289.30	74	.99846	-288.85	10.5 8.299	2397.17	
C_4H_{10} 58.120	0.31	0.48	0.46	0.417	28.43	7.700	21.277	0.8843	1.1968	4929	12.988		5'4-3/4	287.12	74	.99846	*286.68	10.4 8.305	2380.88	107.96
C_5H_{10} 70.130	0.61	0.73	0.70	0.680	OXYGEN		441	85					1'4"	69.39	86	.99656	-69.15	10.5 8.299	573.88	12.989
C_5H_{12} 72.146	0.16	0.24	0.19	0.197	27.07	6.785	21.347	0.9768	--	3830	10.092						311.73		2591.06	
C_6H_{12} 84.156	0.24	0.24	0.32	0.267	STEAM		24													
			M. W.	18.637203	215.7	5.880														

THE TEXAS COMPANY — MONTEBELLO LABORATORY

RATE CALCULATIONS

RUN NO. 62-U
HOURS 471-495

	GAS ANALYSES				GENERATOR BALANCE										WEIGHT BALANCE		
HOUR	1400	2200	0600	AVERAGE	M/HR	C	H	O		Mol %	M/Hr	C	H	O		#/hr Measured	At Wt. Balance
FRESH FEED									O_2 32.000	0.26	10.116 0.034			20.300	WET GAS	318.67	369.03
CO 28.010	37.21	41.15	36.44	38.267	15.394	15.394		15.394	CO_2 44.010	2.05	0.267	0.267		0.534	OIL	56.61	56.61
H_2 2.016	59.26	54.67	60.52	58.150	23.393		46.786		N_2 28.016	0.73	0.095				WATER	106.09	106.09
CO_2 44.010	2.23	3.02	2.41	2.553	1.027	1.027		2.054	CH_4 16.042	82.57	10.748	10.748	42.992		TOTAL	481.37	531.73
N_2 28.016	0.35	0.45	0.15	0.317	0.128				C_2H_6 30.068	7.34	0.955	1.910	5.730		FRESH FEED	531.73	
CH_4 16.042	0.95	0.71	0.48	0.713	0.287	0.287	1.148		C_3H_8 44.094	4.50	0.586	1.758	4.688		WEIGHT BALANCE	90.53	
			M. W	13.217656					C_4H_{10} 58.120	1.77	0.230	0.920	2.300				
			H_2O 18.016				7.886	3.943	C_5H_{12} 72.146	0.78	0.102	0.510	1.224		WET GAS FACTOR	115803	
						16.708	55.820	21.391	MW	20.21849					INDICATED LOSS—S C F H	1012	
			BALANCE			103.69	98.04	102.67	TOTAL			16.113	56.934	20.834			

WET GAS					GAS FLOW RATES										LIQUID PRODUCT RATES						
CO 28.010		16.09	15.54	15.815		$\sqrt{h}$	PRESSURE	TEMP.	M. W.	S. C. F. H.	M/HR	HOUR	GAGE	GAL.	°F	FACTOR	GAL. AT 60	API° #/GAL.	#	# HR GAL HR
H_2 2.016		50.30	50.37	50.335	FRESH FEED		415	80	2190252			OIL	5'6"	292.57	65	.9975	291.94	49.1 6.523		
CO_2 44.010		22.17	22.31	22.240	79.31	6394	20.729	0.9813	1.4800	15267	40.229		1'8"	87.01	64	.9980	86.84			
N_2 28.016		1.04	1.25	1.145	WET GAS		1.93	81	153231								205.00		1337.22	
CH_4 16.042		5.16	5.16	5.160	158.44	8.163	4.078	0.9804	1.2379	6401	16.867						3.30		21.50	8.679
C_2H_6 28.052		1.11	1.14	1.125	RECYCLE		416	129									208.30		1358.72	56.614
C_3H_8 33.068		0.64	0.62	0.630	79.31	8.52	20.753	0.9396	1.2379	16311	42.980									
C_3H_6 42.078		1.06	0.97	1.015	BLEED															
C_3H_8 44.094		0.09	0.21	0.150	5.02	8.20	20.753	1.0000	1.2379	1057	2.785	WATER	7'4½"	390.78	83	.99709	389.64	10.3 8.311		
C_4H_8 56.104		1.02	1.00	1.010	NATURAL GAS		438	202	1431857		45.765		5'4-3/4	287.12	74	.99846	286.68	10.4 8.305	2380.88	
C_4H_{10} 58.120		0.42	0.42	0.420	28.43	7.700	21.277	0.8863	1.1966	4940	13.017		5'0"	266.38	76	.99819	265.90	10.3 83.11		
C_5H_{10} 70.130		0.55	0.61	0.580	OXYGEN		441	84					1'2½"	62.73	86	.99656	62.50			12.765
C_5H_{12} 72.146		0.16	0.16	0.160	27.07	6.795	21.347	0.9777	---	3839	10.116						306.36	8.311	2546.16	106.09
C_6H_{12} 84.156		0.19	0.24	0.215	STEAM		26													
			M. W.	18.8930	215.7	5.528	0.2753		328#/hr											

THE TEXAS COMPANY — MONTEBELLO LABORATORY

RATE CALCULATIONS

RUN NO. 62-V
HOURS 495-519

	GAS ANALYSES				GENERATOR BALANCE										WEIGHT BALANCE		
HOUR	1400	2200	0600	AVERAGE	M/HR	C	H	O		Mol %	M/Hr	C	H	O		#/hr Measured	At Wt. Balance
FRESH FEED									O_2 32.000	0.26	10.169 0.034			20.406	WET GAS	315.85	347.02
CO 28.010	36.71	36.70	36.86	36.756	15.208	15.208		15.208	CO_2 44.010	2.05	0.269	0.269		0.538	OIL	63.46	63.46
H_2 2.016	59.59	60.34	60.21	60.080	24.857		49.714		N_2 28.016	0.73	0.096				WATER	113.62	113.62
CO_2 44.010	2.20	2.23	2.32	2.250	0.931	0.931		1.862	CH_4 16.042	82.57	10.849	10.849	43.396		TOTAL	492.93	524.10
N_2 28.016	0.19	0.27	0.13	0.197	0.082				C_2H_6 30.068	7.34	0.964	1.928	5.784		FRESH FEED	524.10	
CH_4 16.042	1.21	0.46	0.48	0.717	0.297	0.297	1.188		C_3H_8 44.094	4.50	0.591	1.773	4.728		WEIGHT BALANCE	94.05	
			M. W	12.667006			6.560	3.874	C_4H_{10} 58.120	1.77	0.233	0.932	2.330				
			H_2O 18.016				7.154	3.577	C_5H_{12} 72.146	0.78	0.102	0.510	1.224		WET GAS FACTOR	1098686	
						16.436	58.056	20.647	MW	20.21849					INDICATED LOSS—S C F H	597	
			BALANCE			101.08	101.03	98.58	TOTAL			16.261	57.462	20.944		6648	

WET GAS					GAS FLOW RATES										LIQUID PRODUCT RATES						
CO 28.010	13.87	12.78	13.00	13.216		$\sqrt{h}$	PRESSURE	TEMP.	M. W.	S. C. F. H.	M/HR	HOUR	GAGE	GAL.	°F	FACTOR	GAL. AT 60	API° #/GAL.	#	# HR GAL HR
H_2 2.016	47.02	49.28	48.79	48.363	FRESH FEED		419	73	2285465			OIL	7'1⅛"	377.68	82	0.9891	373.56	49.2 6.520	2435.61	
CO_2 44.010	23.92	24.50	24.45	24.290	79.31	6.367	20.825	0.9877	1.5118	15702	41.375		5'6"	292.57	65	0.9975	291.84	49.1 6.523	1903.67	
N_2 28.016	1.11	1.35	1.34	1.267	WET GAS		1.92	77	1461471				3'11"	209.64	60	1.0000	209.64	49.2	1366.85	
CH_4 16.042	7.38	6.26	6.16	6.600	158.44	7.875	4.077	0.9840	1.2089	6051	15.945		1'2-3/4	63.92	87	0.9866	63.06	6.520	411.15	
C_2H_6 28.052	1.38	1.35	1.40	1.377	RECYCLE		417	123									45.44		435.50	63.46
C_3H_8 33.068	0.72	0.72	0.73	0.723	79.31	8.504	20.777	0.9444	1.2089	15999	42.158						233.74		1523.14	9.739
C_3H_6 42.078	0.98	1.00	1.09	1.023	BLEED															
C_3H_8 44.094	0.18	0.05	0.07	0.100	5.02	8.013	20.777	1.0000	1.2089	1010	2.661	WATER	7'3¼"	385.32	85	0.99674	384.06	10.3 8.311	3191.92	
C_4H_8 56.104	1.34	1.07	1.24	1.217	NATURAL GAS		442	197	1431857				5'0"	266.38	76	0.99819	265.90		2209.89	
C_4H_{10} 58.120	0.59	0.46	0.50	0.517	28.43	7.708	21.371	0.8897	1.1966	4986	13.138		5'5½"	290.39	70	0.99896	290.09		2410.94	
C_5H_{10} 70.130	0.88	0.69	0.73	0.767	OXYGEN		445	76					1'6½"	80.37	83	0.99709	80.14		666.04	113.62
C_5H_{12} 72.146	0.25	0.19	0.20	0.213	27.07	6.750	21.441	0.9850	--	3859	10.169						328.11		2726.93	13.671
C_6H_{12} 84.156	0.38	0.30	0.30	0.327	STEAM		28													
			M. W.	19.808807	215.7	5.683	0.2837		348#/hr											

THE TEXAS COMPANY — MONTEBELLO LABORATORY

RATE CALCULATIONS

RUN NO. 62-W
HOURS 519-543

	GAS ANALYSES			
HOUR	1400	2200	0600	AVERAGE
FRESH FEED				
CO 28.010	36.48	36.62	37.08	36.727
H_2 2.016	60.08	60.54	60.09	60.236
CO_2 44.010	2.12	2.39	2.39	2.300
N_2 28.016	0.23	0.18	0.12	0.177
CH_4 16.042	1.09	0.27	0.32	0.560
			M. W	12.653244
			H_2O 18.016	
			BALANCE	
WET GAS				
CO 28.010	13.77	15.26	17.26	15.430
H_2 2.016	49.72	40.75	38.13	42.868
CO_2 44.010	23.05	27.70	27.86	26.203
N_2 28.016	1.00	2.26	3.56	2.273
CH_4 16.042	6.78	6.08	6.11	6.323
C_2H_4 28.052	1.35	1.60	1.48	1.477
C_2H_6 30.068	0.66	0.66	0.95	0.757
C_3H_6 42.078	1.17	1.60	1.13	1.300
C_3H_8 44.094	0.10	0.23	0.09	0.140
C_4H_8 56.104	1.09	1.69	1.39	1.390
C_4H_{10} 58.120	0.37	0.66	0.69	0.573
C_5H_{10} 70.130	0.63	0.96	0.84	0.810
C_5H_{12} 72.146	0.10	0.16	0.20	0.153
C_6H_{12} 84.156	0.21	0.39	0.31	0.303
			M. W.	21.6662

GENERATOR BALANCE

M/HR	C	H	O		Mol %	M/Hr	C	H	O
				O_2 32.000	0	10.155			20.310
15.160	15.160		15.160	CO_2 44.010	2.01	0.265	0.265		0.530
24.865		49.730		N_2 28.016	1.05	0.138			
0.949	0.949		1.898	CH_4 16.042	83.23	10.955	10.955	43.820	
0.073				C_2H_6 30.068	7.02	0.924	1.848	5.544	
0.231	0.231	0.924		C_3H_8 44.094	4.12	0.542	1.626	4.336	
				C_4H_{10} 58.120	1.78	0.234	0.936	2.340	
		7.099	3.550	C_5H_{12} 72.146	0.79	0.104	0.520	1.248	
	16.340	57.753	20.608	MW	20.06246				
	101.18	100.81	98.89	TOTAL			16.150	57.288	20.840

WEIGHT BALANCE

	#/hr Measured	At Wt. Balance
WET GAS	336.78	349.08
OIL	61.66	61.66
WATER	111.56	111.56
TOTAL	510.00	522.30
FRESH FEED	522.30	
WEIGHT BALANCE	97.65	
WET GAS FACTOR	1036522	
INDICATED LOSS—S C F H	215	
	6114	

GAS FLOW RATES

	$\sqrt{H}$	PRESSURE	TEMP.	M. W.	S. C. F. H.	M/HR
FRESH FEED 79.31	6.342	419 20.825	72 0.9887	228795 1.5126	15665	41.278
WET GAS 158.44	8.042	1.93 4.078	79 0.9822	1336182 1.15593	5899	15.544
RECYCLE 79.31	8.500	417 20.777	124 0.9436	1.15593	15277	40.256
BLEED 5.02	8.388	20.777	1.0000	1.15593	1011	2.664
NATURAL GAS 28.43	7.692	442 21.371	197 0.8897	1442993 1.2012	4995	42.920 13.162
OXYGEN 27.07	6.742	444 21.417	75 0.9859	--	3854	10.155
STEAM 215.7	5.704	26 0.2753		339#/hr		

LIQUID PRODUCT RATES

HOUR	GAGE	GAL.	°F	FACTOR	GAL. AT 60	API° #/GAL.	#	#/HR GAL HR
OIL	7'3½"	386.41	68	0.9961	384.90	48.6 6.541	2517.63	
	3'11"	209.64	60	1.0000	209.64	49.2 6.520	1366.85	
	2'4-3/4	127.74	62	0.9990	127.61	48.6	834.70	
	1'7"	82.59	62	0.9990	82.51	6.541	539.70	61.66
					45.20		434.00	9.398
					225.56		1479.78	
WATER	7'4"	388.59	76	0.99819	387.89	10.2 8.317	3226.08	
	5'5½"	290.39	70	0.99896	290.09	10.3 8.311	2410.94	
	5'8"	301.30	74	0.99846	300.84	10.2	2502.09	
	1'5-3/4	77.06	76	0.99819	76.92	8.317	639.74	111.56
					321.72		2677.49	13.405