HEAT AND MATERIAL BALANCE

Stream No.		WG1	WG2	DR1	DG1	DG2	RG1	RG2	RG3	RG4	RG42	RG42s	RG5
Total Phase Properties				(NNF)									
Vapor Fraction		100.0000	100.0000	0.0000	100.0000	100.0000	0.0000	0.2156	0.2313	0.0000	0.0295	0.0295	0.0593
Temperature	°F	88	88	88	98	104	95	95	112	112	112	112	112
Pressure	psig	150.00	150.00	150.00	148.00	144.00	150.00	75.00	70.00	70.00	60.00	60.00	50.00
Mol Weight		16.252	16.252		16.245	16.245	107.737	107.737	107.737	107.949	107.949	107.949	107.949
Molar Flow	lbmol/h	6628.121	6628.121		6601.165	6601.165	87.373	87.373	87.373	87.170	17.434	69.736	87.170
Mass Flow	lb/h	107720.585	107720.585		107235.785	107235.785	9413.233	9413.233	9413.233	9409.945	1881.989	7527.956	9409.945
Heat Flow	MMbtu/h	-214.317	-214.317		-210.965	-210.577	-23.863	-23.863	-23.774	-23.768	-4.754	-19.014	-23.768
Std Gas Flow	MMSCFD	60.250	60.250		60.005	60.005	0.794	0.794	0.794	0.792	0.158	0.634	0.792
Vapor Phase Properties													
Mass Flow	lb/h	107,720.585	107,720.585		107,235.785	107,235.785		3.061	3.288		0.084	0.335	0.843
Mol Weight		16.25	16.25		16.24	16.24		16.25	16.27		16.28	16.28	16.30
Mass Density	lb/cf	0.466	0.466		0.451	0.434		0.248	0.227		0.200	0.200	0.173
Actual Gas Vol Flow	cfh	231359.531	231359.531		237811.406	246925.045		12.364	14.488		0.419	1.676	4.865
Compressibility Factor		0.978	0.978		0.980	0.981		0.988	0.990		0.991	0.991	0.992
Cp/Cv		1.338	1.338		1.333	1.329		1.317	1.311		1.309	1.309	1.306
Viscosity	cp	0.012	0.012		0.012	0.012		0.012	0.012		0.012	0.012	0.012
Heat Capacity	Btu/lb°F	0.544	0.544		0.547	0.549		0.540	0.544		0.543	0.543	0.542
Thermal Conductivity	btu/f h°F	0.020	0.020		0.021	0.021		0.020	0.021		0.021	0.021	0.021
Liquid Phase Properties													
Mass Flow	lb/h						9413.233	9410.172	9409.945	9409.945	1881.905	7527.621	9409.102
Mol Weight							107.74	107.93	107.95	107.95	107.98	107.98	108.00
Mass Density	lb/cf						69.068	69.117	68.629	68.629	68.636	68.636	68.643
Actual Liq Vol Flow	gpm						16.992	16.974	17.095	17.095	3.418	13.674	17.090
Viscosity	cp						21.712	21.955	15.264	15.264	15.286	15.286	15.308
Heat Capacity	Btu/lb°F						0.574	0.575	0.583	0.583	0.583	0.583	0.583
Thermal Conductivity	btu/f h°F						0.119	0.119	0.120	0.120	0.120	0.120	0.120
Surface Tension	lbf/ft						0.003	0.003	0.003	0.003	0.003	0.003	0.003
Composition													
TEG	weight %	0.0000	0.0000		0.0004	0.0004	94.6369	94.6369	94.6369	94.6699	94.6699	94.6699	94.6699
Water	weight %	0.4605	0.4605		0.0163	0.0163	5.2863	5.2863	5.2863	5.2880	5.2880	5.2880	5.2880
Composition													
TEG	mole %	0.0000	0.0000		0.0000	0.0000	67.8942	67.8942	67.8942	68.0516	68.0516	68.0516	68.0516
Water	mole %	0.4154	0.4154		0.0147	0.0147	31.6136	31.6136	31.6136	31.6860	31.6860	31.6860	31.6860
N_2	mole %	0.7967	0.7967		0.7999	0.7999	0.0009	0.0009	0.0009	0.0002	0.0002	0.0002	0.0002
CO_2	mole %	0.1494	0.1494		0.1499	0.1499	0.0089	0.0089	0.0089	0.0083	0.0083	0.0083	0.0083
H_2S	mole %	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Methane	mole %	98.1904	98.1904		98.5856	98.5856	0.4740	0.4740	0.4740	0.2472	0.2472	0.2472	0.2472
Ethane	mole %	0.4382	0.4382		0.4399	0.4399	0.0081	0.0081	0.0081	0.0065	0.0065	0.0065	0.0065
Propane	mole %	0.0100	0.0100		0.0100	0.0100	0.0004	0.0004	0.0004	0.0003	0.0003	0.0003	0.0003
i-Butane	mole %	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Butane	mole %	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
i-Pentane	mole	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Pentane	mole	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Hexane	mole	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	mole %	100.0000	100.0000		100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000

Note(s)