Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **Harry Cotham**
Project Info:

Engine: **LM6000 PC-SPRINT w/ FIGV at -5 Degrees**
Deck Info: **GE125P - 8fk.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.85PF (14839)**
Fuel: **Gas Fuel #10-1, 19000 Btu/lb,LHV**

Date: **03/09/2010**
Time: **2:19:58 PM**
Version: **3.8.6**

Case #	**100**
Ambient Conditions	
Dry Bulb, °F	17.0
Wet Bulb, °F	15.2
RH, %	70.0
Altitude, ft	120.0
Ambient Pressure, psia	14.633
Engine Inlet	
Comp Inlet Temp, °F	27.0
RH, %	43.4
Conditioning	HEAT
Tons or kBtu/hr	2575
Pressure Losses	
Inlet Loss, inH20	5.00
Volute Loss, inH20	4.00
Exhaust Loss, inH20	12.00
Partload %	**100**
kW, Gen Terms	**49858**
Est. Btu/kW-hr, LHV	**8483**
Guar. Btu/kW-hr, LHV	**8613**
Fuel Flow	
MMBtu/hr, LHV	423.0
lb/hr	22261
NOx Control	**Water**
Water Injection	
lb/hr	21932
Temperature, °F	100.0
SPRINT	**HPC**
lb/hr	3785
Emissions (ESTIMATED, NOT FOR GUARANTEE)	
NOx ppmvd Ref 15% O2	25
NOx as NO2, lb/hr	43
CO ppmvd Ref 15% O2	48
CO, lb/hr	49.96
CO2, lb/hr	56232
HC ppmvd Ref 15% O2	6.4
HC, lb/hr	3.74
SOX as SO2, lb/hr	0.00

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **Harry Cotham**
Project Info:

Engine: **LM6000 PC-SPRINT w/ FIGV at -5 Degrees**
Deck Info: **GE125P - 8fk.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.85PF (14839)**
Fuel: **Gas Fuel #10-1, 19000 Btu/lb,LHV**

Date: **03/09/2010**
Time: **2:19:58 PM**
Version: **3.8.6**

Case #	**100**
Aero Energy Fuel Number	**(GEDEF)**
	Volume %
Hydrogen	0.0000
Methane	84.5000
Ethane	5.5800
Ethylene	0.0000
Propane	2.0500
Propylene	0.0000
Butane	0.7800
Butylene	0.0000
Butadiene	0.0000
Pentane	0.1800
Cyclopentane	0.0000
Hexane	0.1700
Heptane	0.0000
Carbon Monoxide	0.0000
Carbon Dioxide	0.6700
Nitrogen	5.9300
Water Vapor	0.0000
Oxygen	0.1400
Hydrogen Sulfide	0.0000
Ammonia	0.0000
Btu/lb, LHV	19000
Btu/scf, LHV	946.0
Btu/scf, HHV	1047.0
Btu/lb, HHV	20996
Fuel Temp, °F	77.0
NOx Scalar	0.998
Specific Gravity	0.65
Wobbe	50.657

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PC Sprint, 46F, NONE**

Engine: **LM6000 PC-SPRINT w/ VIGV**
Deck Info: **G0125O - 8f2.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **12:39:11 PM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Ambient Conditions				
Dry Bulb, °F	46.0	46.0	46.0	46.0
Wet Bulb, °F	43.2	43.2	43.2	43.2
RH, %	80.0	80.0	80.0	80.0
Altitude, ft	120.0	120.0	120.0	120.0
Ambient Pressure, psia	14.633	14.632	14.632	14.632
Engine Inlet				
Comp Inlet Temp, °F	46.0	46.0	46.0	46.0
RH, %	80.0	80.0	80.0	80.0
Conditioning	NONE	NONE	NONE	NONE
Tons or kBtu/hr	0	0	0	0
Pressure Losses				
Inlet Loss, inH20	5.00	5.00	5.00	5.00
Volute Loss, inH20	4.00	4.00	4.00	4.00
Exhaust Loss, inH20	12.00	12.00	12.00	12.00
Partload %	**100**	**75**	**50**	**25**
kW, Gen Terms	**50714**	**38044**	**25367**	**12700**
Est. Btu/kW-hr, LHV	**8548**	**8875**	**9665**	**12808**
Fuel Flow				
MMBtu/hr, LHV	433.5	337.7	245.2	162.7
lb/hr	21064	16407	11914	7904
NOx Control	**Water**	**Water**	**Water**	**Water**
Water Injection				
lb/hr	20744	12784	9283	4202
Temperature, °F	100.0	100.0	100.0	100.0
SPRINT	**LPC**	**LPC**	**OFF**	**OFF**
lb/hr	8375	8375	0	0
Control Parameters				
HP Speed, RPM	10433	9986	9715	9219
LP Speed, RPM	3600	3600	3600	3600
PS3 - CDP, psia	461.2	401.3	307.6	236.7
T3CRF - CDT, °F	970	880	864	770
T48IN, °R	2038	1872	1809	1623
T48IN, °F	1578	1412	1349	1164
Exhaust Parameters				
Temperature, °F	841.0	757.3	777.1	717.9
lb/sec	299.6	273.1	213.3	173.6
lb/hr	1078676	983222	767914	625109
Energy, Btu/s- Ref 0 °R	101032	84999	66884	51216
Energy, Btu/s- Ref T2 °F	62869	50495	40176	29650
Cp, Btu/lb-R	0.2772	0.2711	0.2690	0.2640
Emissions (ESTIMATED, NOT FOR GUARANTEE)				
NOx ppmvd Ref 15% O2	25	25	25	25
NOx as NO2, lb/hr	44	34	25	16
CO ppmvd Ref 15% O2	20.9	21	30	25
CO, lb/hr	22.20	17.38	18.22	10.06
CO2, lb/hr	56621.54	44168.89	32104.56	21358.17
HC ppmvd Ref 15% O2	2.2	2	3	3
HC, lb/hr	1.34	1.05	1.16	0.62
SOX as SO2, lb/hr	0.00	0.00	0.00	0.00

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PC Sprint, 46F, NONE**

Engine: **LM6000 PC-SPRINT w/ VIGV**
Deck Info: **G0125O - 8f2.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **12:39:11 PM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Exh Wght % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	1.2212	1.2321	1.2459	1.2565
N2	71.6488	72.2776	73.0879	73.7006
O2	14.5085	15.7849	16.4784	17.7608
CO2	5.2492	4.4923	4.1807	3.4167
H20	7.3674	6.2089	5.0023	3.8619
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0021	0.0018	0.0024	0.0016
HC	0.0001	0.0001	0.0002	0.0001
NOX	0.0028	0.0024	0.0022	0.0018
Exh Mole % Dry (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.9671	0.9619	0.9596	0.9545
N2	80.9103	80.4651	80.2685	79.8408
O2	14.3440	15.3850	15.8441	16.8449
CO2	3.7733	3.1835	2.9227	2.3561
H20	0.0000	0.0000	0.0000	0.0000
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0023	0.0020	0.0026	0.0017
HC	0.0002	0.0002	0.0003	0.0002
NOX	0.0028	0.0023	0.0021	0.0017
Exh Mole % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.8563	0.8685	0.8840	0.8962
N2	71.6417	72.6555	73.9509	74.9638
O2	12.7008	13.8918	14.5971	15.8160
CO2	3.3410	2.8745	2.6927	2.2122
H20	11.4554	9.7056	7.8706	6.1084
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0021	0.0018	0.0024	0.0016
HC	0.0002	0.0002	0.0003	0.0002
NOX	0.0025	0.0021	0.0020	0.0016

Aero Energy Fuel Number	**800-5 (Mariposa)**	
	Volume %	**Weight %**
Hydrogen	0.0000	0.0000
Methane	94.0000	88.2891
Ethane	3.5200	6.1968
Ethylene	0.0000	0.0000
Propane	0.1900	0.4905
Propylene	0.0000	0.0000
Butane	0.0600	0.2042
Butylene	0.0000	0.0000
Butadiene	0.0000	0.0000
Pentane	0.1900	0.8026
Cyclopentane	0.0000	0.0000
Hexane	0.0100	0.0505
Heptane	0.0000	0.0000
Carbon Monoxide	0.0000	0.0000
Carbon Dioxide	0.6800	1.7522
Nitrogen	1.3500	2.2142
Water Vapor	0.0000	0.0000
Oxygen	0.0000	0.0000
Hydrogen Sulfide	0.0000	0.0000
Ammonia	0.0000	0.0000
Btu/lb, LHV	20580	
Btu/scf, LHV	928.6	
Btu/scf, HHV	1029.0	
Btu/lb, HHV	22805	
Fuel Temp, °F	76.9	
NOx Scalar	0.998	
Specific Gravity	0.59	

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PC Sprint, 46F, NONE**

Engine: **LM6000 PC-SPRINT w/ VIGV**
Deck Info: **G0125O - 8f2.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **12:39:11 PM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Wobbe	52.208	52.208	52.208	52.208
Engine Exhaust				
Exhaust Avg. Mol. Wt., Wet Basis	28.0	28.2	28.3	28.5
Inlet Flow Wet, pps	289.4	271.9	227.1	225.8
Inlet Flow Dry, pps	287.9	270.5	226.0	224.6
Shaft HP	69192	52000	34851	17753
Generator Information				
Capacity kW	67440	67440	67440	67440
Efficiency	0.9829	0.9811	0.9761	0.9593
Inlet Temp, °F	46.0	46.0	46.0	46.0
Gear Box Loss	N/A	N/A	N/A	N/A
TRQ48, Torque Limit Cold End	123437	97791	65519	40656
Correct Control Parameters				
PS3JQA, psia	466.965	406.316	311.445	239.659
XN25R3, rpm	6302	6218	6102	5997
8th Stage Bleed				
Flow, pps	0.0	0.0	0.0	0.0
Pressure, psia	0.000	0.000	0.000	0.000
Temperature, °R	0	0	0	0
CDP Bleed				
Flow, pps	0.0	0.0	0.0	0.0
Pressure, psia	0.000	0.000	0.000	0.000
Est. Gas Pressure at Baseplate, psig	**638.4**	**531.3**	**397.3**	**289.1**
WAR36 - Fuel Air Ratio				
CardPack	**8f2**	**8f2**	**8f2**	**8f2**
Exhaust CardPack	**7f5**	**7f5**	**7f5**	**7f5**
NSI	**304**	**0**	**439**	**439**
NSI	**1716**	**0**	**0**	**0**
NSI	**0**	**0**	**0**	**0**

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PC Sprint, 59F, EVAP**

Engine: **LM6000 PC-SPRINT w/ VIGV**
Deck Info: **G0125O - 8f2.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **10:37:20 AM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Ambient Conditions				
Dry Bulb, °F	59.0	59.0	59.0	59.0
Wet Bulb, °F	51.5	51.5	51.5	51.5
RH, %	60.0	60.0	60.0	60.0
Altitude, ft	120.0	120.0	120.0	120.0
Ambient Pressure, psia	14.633	14.632	14.632	14.632
Engine Inlet				
Comp Inlet Temp, °F	52.6	52.6	52.6	52.6
RH, %	92.9	92.9	92.9	92.9
Conditioning	EVAP	EVAP	EVAP	EVAP
Tons or kBtu/hr	0	0	0	0
Pressure Losses				
Inlet Loss, inH20	4.50	4.50	4.50	4.50
Volute Loss, inH20	4.00	4.00	4.00	4.00
Exhaust Loss, inH20	12.00	12.00	12.00	12.00
Partload %	**100**	**74**	**50**	**25**
kW, Gen Terms	**49673**	**36539**	**24847**	**12440**
Est. Btu/kW-hr, LHV	**8566**	**11645**	**9737**	**12953**
Fuel Flow				
MMBtu/hr, LHV	425.5	425.5	241.9	161.1
lb/hr	20675	20675	11756	7830
NOx Control	**Water**	**Water**	**Water**	**Water**
Water Injection				
lb/hr	19350	19350	8906	3982
Temperature, °F	100.0	100.0	100.0	100.0
SPRINT	**LPC**	**LPC**	**OFF**	**OFF**
lb/hr	8997	8997	0	0
Control Parameters				
HP Speed, RPM	10457	10457	9756	9263
LP Speed, RPM	3600	3600	3600	3600
PS3 - CDP, psia	454.2	454.2	303.8	233.6
T3CRF - CDT, °F	973	973	873	780
T48IN, °R	2038	2038	1817	1636
T48IN, °F	1578	1578	1357	1176
Exhaust Parameters				
Temperature, °F	845.1	845.1	786.0	731.1
lb/sec	294.9	294.9	210.2	170.6
lb/hr	1061500	1061500	756565	614294
Energy, Btu/s- Ref 0 °R	99927	99927	66523	51032
Energy, Btu/s- Ref T2 °F	61816	61816	39817	29518
Cp, Btu/lb-R	0.2779	0.2779	0.2698	0.2650
Emissions (ESTIMATED, NOT FOR GUARANTEE)				
NOx ppmvd Ref 15% O2	25	25	25	25
NOx as NO2, lb/hr	43	43	24	16
CO ppmvd Ref 15% O2	15	15	23	19
CO, lb/hr	15.76	15.76	13.70	7.44
CO2, lb/hr	55582.61	55582.61	31685.63	21159.15
HC ppmvd Ref 15% O2	2.1	2	3	2
HC, lb/hr	1.24	1.24	0.84	0.47
SOX as SO2, lb/hr	0.00	0.00	0.00	0.00

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PC Sprint, 59F, EVAP**

Engine: **LM6000 PC-SPRINT w/ VIGV**
Deck Info: **G0125O - 8f2.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **10:37:20 AM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Exh Wght % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	1.2185	1.2185	1.2431	1.2534
N2	71.4888	71.4888	72.9236	73.5232
O2	14.4788	14.4788	16.4184	17.6673
CO2	5.2362	5.2362	4.1881	3.4445
H20	7.5733	7.5733	5.2227	4.1086
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0015	0.0015	0.0018	0.0012
HC	0.0001	0.0001	0.0001	0.0001
NOX	0.0028	0.0028	0.0022	0.0018
Exh Mole % Dry (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.9671	0.9671	0.9597	0.9547
N2	80.9093	80.9093	80.2775	79.8599
O2	14.3465	14.3465	15.8237	16.8007
CO2	3.7724	3.7724	2.9348	2.3816
H20	0.0000	0.0000	0.0000	0.0000
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0017	0.0017	0.0020	0.0013
HC	0.0002	0.0002	0.0002	0.0001
NOX	0.0028	0.0028	0.0022	0.0017
Exh Mole % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.8533	0.8533	0.8809	0.8928
N2	71.3935	71.3935	73.6892	74.6775
O2	12.6592	12.6592	14.5251	15.7104
CO2	3.3287	3.3287	2.6939	2.2270
H20	11.7611	11.7611	8.2068	6.4893
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0015	0.0015	0.0018	0.0012
HC	0.0002	0.0002	0.0002	0.0001
NOX	0.0024	0.0024	0.0020	0.0016

Aero Energy Fuel Number	**800-5 (Mariposa)**	
	Volume %	**Weight %**
Hydrogen	0.0000	0.0000
Methane	94.0000	88.2891
Ethane	3.5200	6.1968
Ethylene	0.0000	0.0000
Propane	0.1900	0.4905
Propylene	0.0000	0.0000
Butane	0.0600	0.2042
Butylene	0.0000	0.0000
Butadiene	0.0000	0.0000
Pentane	0.1900	0.8026
Cyclopentane	0.0000	0.0000
Hexane	0.0100	0.0505
Heptane	0.0000	0.0000
Carbon Monoxide	0.0000	0.0000
Carbon Dioxide	0.6800	1.7522
Nitrogen	1.3500	2.2142
Water Vapor	0.0000	0.0000
Oxygen	0.0000	0.0000
Hydrogen Sulfide	0.0000	0.0000
Ammonia	0.0000	0.0000
Btu/lb, LHV	20580	
Btu/scf, LHV	928.6	
Btu/scf, HHV	1029.0	
Btu/lb, HHV	22805	
Fuel Temp, °F	76.9	
NOx Scalar	0.998	
Specific Gravity	0.59	

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PC Sprint, 59F, EVAP**

Engine: **LM6000 PC-SPRINT w/ VIGV**
Deck Info: **G0125O - 8f2.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **10:37:20 AM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Wobbe	52.208	52.208	52.208	52.208
Engine Exhaust				
Exhaust Avg. Mol. Wt., Wet Basis	28.0	28.0	28.3	28.5
Inlet Flow Wet, pps	284.9	284.9	225.3	223.1
Inlet Flow Dry, pps	282.7	282.7	223.6	221.4
Shaft HP	67778	67778	34150	17403
Generator Information				
Capacity kW	64115	65785	64115	64115
Efficiency	0.9828	0.9808	0.9757	0.9586
Inlet Temp, °F	59.0	59.0	59.0	59.0
Gear Box Loss	N/A	N/A	N/A	N/A
TRQ48, Torque Limit Cold End	121006	121006	64569	39980
Correct Control Parameters				
PS3JQA, psia	459.303	459.303	307.214	236.225
XN25R3, rpm	6315	6315	6109	6004
8th Stage Bleed				
Flow, pps	0.0	0.0	0.0	0.0
Pressure, psia	0.000	0.000	0.000	0.000
Temperature, °R	0	0	0	0
CDP Bleed				
Flow, pps	0.0	0.0	0.0	0.0
Pressure, psia	0.000	0.000	0.000	0.000
Est. Gas Pressure at Baseplate, psig	**627.8**	**627.8**	**392.1**	**285.5**
WAR36 - Fuel Air Ratio				
CardPack	**8f2**	**8f2**	**8f2**	**8f2**
Exhaust CardPack	**7f5**	**7f5**	**7f5**	**7f5**
NSI	**304**	**304**	**439**	**439**
NSI	**0**	**0**	**0**	**0**
NSI	**0**	**0**	**0**	**0**

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PC Sprint, 93F, EVAP**

Engine: **LM6000 PC-SPRINT w/ VIGV**
Deck Info: **G0125O - 8f2.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **12:41:17 PM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Ambient Conditions				
Dry Bulb, °F	93.0	93.0	93.0	93.0
Wet Bulb, °F	67.5	67.5	67.5	67.5
RH, %	26.0	26.0	26.0	26.0
Altitude, ft	120.0	120.0	120.0	120.0
Ambient Pressure, psia	14.633	14.632	14.632	14.632
Engine Inlet				
Comp Inlet Temp, °F	71.3	71.3	71.3	71.3
RH, %	82.4	82.4	82.4	82.4
Conditioning	EVAP	EVAP	EVAP	EVAP
Tons or kBtu/hr	0	0	0	0
Pressure Losses				
Inlet Loss, inH20	4.50	4.50	4.50	4.50
Volute Loss, inH20	4.00	4.00	4.00	4.00
Exhaust Loss, inH20	12.00	12.00	12.00	12.00
Partload %	**100**	**75**	**50**	**25**
kW, Gen Terms	**46316**	**34748**	**23170**	**11602**
Est. Btu/kW-hr, LHV	**8647**	**9081**	**9953**	**13447**
Fuel Flow				
MMBtu/hr, LHV	400.5	315.5	230.6	156.0
lb/hr	19460	15332	11205	7581
NOx Control	**Water**	**Water**	**Water**	**Water**
Water Injection				
lb/hr	16602	10070	7908	3485
Temperature, °F	100.0	100.0	100.0	100.0
SPRINT	**LPC**	**LPC**	**OFF**	**OFF**
lb/hr	9343	9343	0	0
Control Parameters				
HP Speed, RPM	10523	10116	9836	9375
LP Speed, RPM	3600	3600	3600	3600
PS3 - CDP, psia	432.5	373.0	289.2	225.0
T3CRF - CDT, °F	984	906	896	806
T48IN, °R	2038	1900	1842	1667
T48IN, °F	1578	1440	1382	1207
Exhaust Parameters				
Temperature, °F	858.2	796.7	816.7	765.8
lb/sec	280.4	251.3	198.6	162.7
lb/hr	1009545	904527	714800	585714
Energy, Btu/s- Ref 0 °R	96373	81437	64770	50381
Energy, Btu/s- Ref T2 °F	58668	47874	38502	29020
Cp, Btu/lb-R	0.2793	0.2745	0.2722	0.2675
Emissions (ESTIMATED, NOT FOR GUARANTEE)				
NOx ppmvd Ref 15% O2	25	25	25	25
NOx as NO2, lb/hr	40	32	23	16
CO ppmvd Ref 15% O2	8	7	12	9
CO, lb/hr	7.44	5.55	6.62	3.52
CO2, lb/hr	52330.25	41279.52	30207.99	20486.76
HC ppmvd Ref 15% O2	2	2	2	2
HC, lb/hr	1.17	0.92	0.67	0.45
SOX as SO2, lb/hr	0.00	0.00	0.00	0.00

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PC Sprint, 93F, EVAP**

Engine: **LM6000 PC-SPRINT w/ VIGV**
Deck Info: **G0125O - 8f2.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **12:41:17 PM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Exh Wght % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	1.2131	1.2217	1.2368	1.2468
N2	71.1697	71.6710	72.5529	73.1317
O2	14.4574	15.4983	16.2516	17.4718
CO2	5.1835	4.5637	4.2261	3.4977
H20	7.9727	7.0423	5.7294	4.6495
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0007	0.0006	0.0009	0.0006
HC	0.0001	0.0001	0.0001	0.0001
NOX	0.0027	0.0024	0.0022	0.0018
Exh Mole % Dry (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.9669	0.9626	0.9600	0.9552
N2	80.8924	80.5254	80.3096	79.8981
O2	14.3865	15.2449	15.7493	16.7117
CO2	3.7504	3.2639	2.9777	2.4325
H20	0.0000	0.0000	0.0000	0.0000
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0008	0.0007	0.0010	0.0007
HC	0.0002	0.0002	0.0002	0.0001
NOX	0.0028	0.0024	0.0022	0.0018
Exh Mole % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.8475	0.8571	0.8739	0.8853
N2	70.9013	71.7031	73.1004	74.0489
O2	12.6096	13.5747	14.3355	15.4882
CO2	3.2872	2.9063	2.7104	2.2544
H20	12.3511	10.9559	8.9767	7.3208
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0007	0.0006	0.0009	0.0006
HC	0.0002	0.0002	0.0002	0.0001
NOX	0.0024	0.0021	0.0020	0.0016

Aero Energy Fuel Number	**800-5 (Mariposa)**	
	Volume %	**Weight %**
Hydrogen	0.0000	0.0000
Methane	94.0000	88.2891
Ethane	3.5200	6.1968
Ethylene	0.0000	0.0000
Propane	0.1900	0.4905
Propylene	0.0000	0.0000
Butane	0.0600	0.2042
Butylene	0.0000	0.0000
Butadiene	0.0000	0.0000
Pentane	0.1900	0.8026
Cyclopentane	0.0000	0.0000
Hexane	0.0100	0.0505
Heptane	0.0000	0.0000
Carbon Monoxide	0.0000	0.0000
Carbon Dioxide	0.6800	1.7522
Nitrogen	1.3500	2.2142
Water Vapor	0.0000	0.0000
Oxygen	0.0000	0.0000
Hydrogen Sulfide	0.0000	0.0000
Ammonia	0.0000	0.0000
Btu/lb, LHV	20580	
Btu/scf, LHV	928.6	
Btu/scf, HHV	1029.0	
Btu/lb, HHV	22805	
Fuel Temp, °F	76.9	
NOx Scalar	0.998	
Specific Gravity	0.59	

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PC Sprint, 93F, EVAP**

Engine: **LM6000 PC-SPRINT w/ VIGV**
Deck Info: **G0125O - 8f2.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **12:41:17 PM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Wobbe	52.208	52.208	52.208	52.208
Engine Exhaust				
Exhaust Avg. Mol. Wt., Wet Basis	27.9	28.0	28.2	28.4
Inlet Flow Wet, pps	271.3	251.8	214.2	214.1
Inlet Flow Dry, pps	267.6	248.3	211.2	211.2
Shaft HP	63217	47534	31884	16273
Generator Information				
Capacity kW	54284	54284	54284	54284
Efficiency	0.9825	0.9803	0.9745	0.9561
Inlet Temp, °F	93.0	93.0	93.0	93.0
Gear Box Loss	N/A	N/A	N/A	N/A
TRQ48, Torque Limit Cold End	113409	89130	60706	37964
Correct Control Parameters				
PS3JQA, psia	437.360	377.191	292.449	227.528
XN25R3, rpm	6332	6257	6109	6016
8th Stage Bleed				
Flow, pps	0.0	0.0	0.0	0.0
Pressure, psia	0.000	0.000	0.000	0.000
Temperature, °R	0	0	0	0
CDP Bleed				
Flow, pps	0.0	0.0	0.0	0.0
Pressure, psia	0.000	0.000	0.000	0.000
Est. Gas Pressure at Baseplate, psig	**594.6**	**494.2**	**372.9**	**274.9**
WAR36 - Fuel Air Ratio				
CardPack	**8f2**	**8f2**	**8f2**	**8f2**
Exhaust CardPack	**7f5**	**7f5**	**7f5**	**7f5**
NSI	**9193**	**0**	**439**	**439**
NSI				
NSI				

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PD Sprint, 17F, Inlet Air Heating**

Engine: **LM6000 PD-SPRINT**
Deck Info: **G0125O - 8g8.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **12:03:05 PM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Ambient Conditions				
Dry Bulb, °F	17.0	17.0	17.0	17.0
Wet Bulb, °F	16.1	16.1	16.1	16.1
RH, %	85.0	85.0	85.0	85.0
Altitude, ft	120.0	120.0	120.0	120.0
Ambient Pressure, psia	14.633	14.632	14.632	14.632
Engine Inlet				
Comp Inlet Temp, °F	25.0	17.0	17.0	17.0
RH, %	58.0	85.0	85.0	85.0
Conditioning	HEAT	HEAT	HEAT	HEAT
Tons or kBtu/hr	2024	0	0	0
Pressure Losses				
Inlet Loss, inH20	5.00	5.00	5.00	5.00
Volute Loss, inH20	4.00	4.00	4.00	4.00
Exhaust Loss, inH20	12.00	12.00	12.00	12.00
Partload %	**100**	**75**	**48**	**25**
kW, Gen Terms	**48250**	**36195**	**23309**	**12084**
Est. Btu/kW-hr, LHV	**8115**	**8840**	**11104**	**14930**
Fuel Flow				
MMBtu/hr, LHV	391.5	320.0	258.8	180.4
lb/hr	19025	15548	12576	8766
NOx Control	**DLE**	**DLE**	**DLE**	**DLE**
SPRINT	**OFF**	**OFF**	**OFF**	**OFF**
lb/hr	0	0	0	0
Control Parameters				
HP Speed, RPM	10231	9999	9925	9287
LP Speed, RPM	3600	3600	3600	3600
PS3 - CDP, psia	464.0	374.6	285.6	223.8
T3CRF - CDT, °F	961	886	812	707
T48IN, °R	2034	2002	2024	1840
T48IN, °F	1574	1542	1565	1381
Exhaust Parameters				
Temperature, °F	838.3	865.7	908.4	830.3
lb/sec	298.2	245.7	211.5	176.4
lb/hr	1073395	884670	761233	635210
Energy, Btu/s- Ref 0 °R	97498	82153	73001	56935
Energy, Btu/s- Ref T2 °F	62077	52810	44514	33556
Cp, Btu/lb-R	0.2687	0.2700	0.2740	0.2694
Emissions (ESTIMATED, NOT FOR GUARANTEE)				
NOx ppmvd Ref 15% O2	25	-999	-999	-999
NOx as NO2, lb/hr	39	32	26	18
CO ppmvd Ref 15% O2	25	25	25	25
CO, lb/hr	23.92	19.55	15.83	11.01
CO2, lb/hr	51195.55	41833.87	33815.96	23613.19
HC ppmvd Ref 15% O2	15	15	15	15
HC, lb/hr	8.20	6.70	5.43	3.77
SOX as SO2, lb/hr	0.00	0.00	0.00	0.00

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PD Sprint, 17F, Inlet Air Heating**

Engine: **LM6000 PD-SPRINT**
Deck Info: **G0125O - 8g8.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **12:03:05 PM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Exh Wght % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	1.2631	1.2627	1.2611	1.2651
N2	74.1003	74.0800	73.9872	74.2144
O2	15.9477	15.8644	15.3526	16.6050
CO2	4.7695	4.8234	5.1611	4.3347
H20	3.9139	3.9639	4.2321	3.5758
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0022	0.0023	0.0024	0.0020
HC	0.0008	0.0008	0.0008	0.0007
NOX	0.0025	0.0025	0.0027	0.0023
Exh Mole % Dry (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.9629	0.9632	0.9654	0.9601
N2	80.5525	80.5823	80.7683	80.3154
O2	15.1779	15.1082	14.6730	15.7327
CO2	3.3004	3.3398	3.5864	2.9861
H20	0.0000	0.0000	0.0000	0.0000
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0024	0.0025	0.0026	0.0022
HC	0.0015	0.0015	0.0016	0.0013
NOX	0.0024	0.0025	0.0026	0.0022
Exh Mole % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.9031	0.9027	0.9007	0.9056
N2	75.5538	75.5187	75.3547	75.7567
O2	14.2360	14.1589	13.6895	14.8397
CO2	3.0956	3.1300	3.3460	2.8166
H20	6.2056	6.2837	6.7026	5.6760
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0023	0.0023	0.0025	0.0021
HC	0.0014	0.0014	0.0015	0.0012
NOX	0.0023	0.0023	0.0025	0.0021

Aero Energy Fuel Number	**800-5 (Mariposa)**	
	Volume %	**Weight %**
Hydrogen	0.0000	0.0000
Methane	94.0000	88.2891
Ethane	3.5200	6.1968
Ethylene	0.0000	0.0000
Propane	0.1900	0.4905
Propylene	0.0000	0.0000
Butane	0.0600	0.2042
Butylene	0.0000	0.0000
Butadiene	0.0000	0.0000
Pentane	0.1900	0.8026
Cyclopentane	0.0000	0.0000
Hexane	0.0100	0.0505
Heptane	0.0000	0.0000
Carbon Monoxide	0.0000	0.0000
Carbon Dioxide	0.6800	1.7522
Nitrogen	1.3500	2.2142
Water Vapor	0.0000	0.0000
Oxygen	0.0000	0.0000
Hydrogen Sulfide	0.0000	0.0000
Ammonia	0.0000	0.0000
Btu/lb, LHV	20580	
Btu/scf, LHV	928.6	
Btu/scf, HHV	1029.0	
Btu/lb, HHV	22805	
Fuel Temp, °F	76.9	
NOx Scalar	0.998	
Specific Gravity	0.59	

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PD Sprint, 17F, Inlet Air Heating**

Engine: **LM6000 PD-SPRINT**
Deck Info: **G0125O - 8g8.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **12:03:05 PM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Wobbe	52.208	52.208	52.208	52.208
Engine Exhaust				
Exhaust Avg. Mol. Wt., Wet Basis	28.6	28.6	28.5	28.6
Inlet Flow Wet, pps	296.7	257.6	244.5	244.7
Inlet Flow Dry, pps	296.2	257.2	244.1	244.3
Shaft HP	65843	49493	32073	16924
Generator Information				
Capacity kW	73919	73919	73919	73919
Efficiency	0.9827	0.9807	0.9746	0.9575
Inlet Temp, °F	17.0	17.0	17.0	17.0
Gear Box Loss	N/A	N/A	N/A	N/A
Burner Mode	ABC	ABC	ABC	BC+12A
TRQ48, Torque Limit Cold End	120261	87714	59402	37123
Correct Control Parameters				
PS3JQA, psia	469.800	379.283	289.170	226.598
XN25R3, rpm	6303	6221	6104	6303
8th Stage Bleed				
Flow, pps	0.0	4.8	23.9	19.9
Pressure, psia	0.000	119.308	62.820	54.436
Temperature, °R	0	1016	940	884
CDP Bleed				
Flow, pps	0.0	0.0	5.6	5.2
Pressure, psia	0.000	0.000	267.000	208.000
Est. Gas Pressure at Baseplate, psig	**617.1**	**493.2**	**384.4**	**310.1**
WAR36 - Fuel Air Ratio				
WFA - Fuel Flow, A Ring	7497.59	6518.39	5226.69	2032.76
WFB - Fuel Flow, B Ring	8216.37	6374.79	5294.40	4913.78
WFC - Fuel Flow, C Ring	3311.19	2654.77	2055.14	1819.65
CardPack	**8g8**	**8g8**	**8g8**	**8g8**
Exhaust CardPack	**7f5**	**7f5**	**7f5**	**7f5**
NSI	**304**	**0**	**316**	**1401**
NSI	**0**	**0**	**0**	**1402**
NSI	**0**	**0**	**0**	**0**

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PD Sprint, 46F, NONE**

Engine: **LM6000 PD-SPRINT**
Deck Info: **G0125O - 8g8.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/11/2009**
Time: **3:44:04 PM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Ambient Conditions				
Dry Bulb, °F	46.0	46.0	46.0	46.0
Wet Bulb, °F	43.2	43.2	43.2	43.2
RH, %	80.0	80.0	80.0	80.0
Altitude, ft	120.0	120.0	120.0	120.0
Ambient Pressure, psia	14.633	14.632	14.632	14.632
Engine Inlet				
Comp Inlet Temp, °F	46.0	46.0	46.0	46.0
RH, %	80.0	80.0	80.0	80.0
Conditioning	NONE	NONE	NONE	NONE
Tons or kBtu/hr	0	0	0	0
Pressure Losses				
Inlet Loss, inH20	4.00	4.00	4.00	4.00
Volute Loss, inH20	4.00	4.00	4.00	4.00
Exhaust Loss, inH20	12.00	12.00	12.00	12.00
Partload %	**100**	**75**	**50**	**25**
kW, Gen Terms	**47814**	**35868**	**23919**	**11974**
Est. Btu/kW-hr, LHV	**8238**	**8779**	**10477**	**14992**
Fuel Flow				
MMBtu/hr, LHV	393.9	314.9	250.6	179.5
lb/hr	19139	15301	12177	8723
NOx Control	**DLE**	**DLE**	**DLE**	**DLE**
SPRINT	**LPC**	**OFF**	**OFF**	**OFF**
lb/hr	8766	0	0	0
Control Parameters				
HP Speed, RPM	10309	10109	10064	9494
LP Speed, RPM	3600	3600	3600	3600
PS3 - CDP, psia	458.9	382.1	288.9	218.9
T3CRF - CDT, °F	944	928	862	753
T48IN, °R	2027	1993	2014	1896
T48IN, °F	1567	1534	1554	1436
Exhaust Parameters				
Temperature, °F	839.4	854.6	914.4	882.4
lb/sec	293.9	251.7	203.3	169.8
lb/hr	1057929	905946	731924	611162
Energy, Btu/s- Ref 0 °R	97204	83526	70738	57360
Energy, Btu/s- Ref T2 °F	60400	51601	43229	33528
Cp, Btu/lb-R	0.2718	0.2700	0.2740	0.2725
Emissions (ESTIMATED, NOT FOR GUARANTEE)				
NOx ppmvd Ref 15% O2	25	25	-999	-999
NOx as NO2, lb/hr	40	32	25	18
CO ppmvd Ref 15% O2	25	25	25	25
CO, lb/hr	24.08	19.23	15.32	10.96
CO2, lb/hr	51465.75	41183.84	32755.91	23487.92
HC ppmvd Ref 15% O2	15	15	15	15
HC, lb/hr	8.25	6.59	5.25	3.76
SOX as SO2, lb/hr	0.00	0.00	0.00	0.00

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PD Sprint, 46F, NONE**

Engine: **LM6000 PD-SPRINT**
Deck Info: **G0125O - 8g8.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/11/2009**
Time: **3:44:04 PM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Exh Wght % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	1.2470	1.2592	1.2578	1.2600
N2	73.1575	73.8711	73.7878	73.9138
O2	15.5217	16.0669	15.6066	16.3032
CO2	4.8648	4.6370	4.9408	4.4811
H20	5.2034	4.1605	4.4013	4.0368
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0023	0.0022	0.0023	0.0021
HC	0.0008	0.0007	0.0008	0.0007
NOX	0.0026	0.0024	0.0026	0.0024
Exh Mole % Dry (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.9639	0.9621	0.9641	0.9611
N2	80.6377	80.4890	80.6562	80.4035
O2	14.9786	15.3266	14.9353	15.5265
CO2	3.4133	3.2161	3.4378	3.1029
H20	0.0000	0.0000	0.0000	0.0000
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0025	0.0024	0.0025	0.0023
HC	0.0015	0.0014	0.0015	0.0014
NOX	0.0025	0.0024	0.0025	0.0023
Exh Mole % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.8850	0.8988	0.8970	0.8997
N2	74.0347	75.1887	75.0421	75.2641
O2	13.7520	14.3173	13.8957	14.5341
CO2	3.1338	3.0044	3.1985	2.9045
H20	8.1885	6.5851	6.9605	6.3921
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0023	0.0022	0.0024	0.0021
HC	0.0014	0.0013	0.0014	0.0013
NOX	0.0023	0.0022	0.0024	0.0021

Aero Energy Fuel Number	**800-5 (Mariposa)**	
	Volume %	**Weight %**
Hydrogen	0.0000	0.0000
Methane	94.0000	88.2891
Ethane	3.5200	6.1968
Ethylene	0.0000	0.0000
Propane	0.1900	0.4905
Propylene	0.0000	0.0000
Butane	0.0600	0.2042
Butylene	0.0000	0.0000
Butadiene	0.0000	0.0000
Pentane	0.1900	0.8026
Cyclopentane	0.0000	0.0000
Hexane	0.0100	0.0505
Heptane	0.0000	0.0000
Carbon Monoxide	0.0000	0.0000
Carbon Dioxide	0.6800	1.7522
Nitrogen	1.3500	2.2142
Water Vapor	0.0000	0.0000
Oxygen	0.0000	0.0000
Hydrogen Sulfide	0.0000	0.0000
Ammonia	0.0000	0.0000
Btu/lb, LHV	20580	
Btu/scf, LHV	928.6	
Btu/scf, HHV	1029.0	
Btu/lb, HHV	22805	
Fuel Temp, °F	76.9	
NOx Scalar	0.998	
Specific Gravity	0.59	

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PD Sprint, 46F, NONE**

Engine: **LM6000 PD-SPRINT**
Deck Info: **G0125O - 8g8.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/11/2009**
Time: **3:44:04 PM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Wobbe	52.208	52.208	52.208	52.208
Engine Exhaust				
Exhaust Avg. Mol. Wt., Wet Basis	28.3	28.5	28.5	28.5
Inlet Flow Wet, pps	289.8	261.0	232.3	232.6
Inlet Flow Dry, pps	288.3	259.7	231.1	231.4
Shaft HP	65248	49051	32895	16776
Generator Information				
Capacity kW	67440	67440	67440	67440
Efficiency	0.9827	0.9806	0.9751	0.9572
Inlet Temp, °F	46.0	46.0	46.0	46.0
Gear Box Loss	N/A	N/A	N/A	N/A
Burner Mode	ABC	ABC	ABC	AB
TRQ48, Torque Limit Cold End	118510	90375	60248	36500
Correct Control Parameters				
PS3JQA, psia	463.478	385.912	291.782	221.084
XN25R3, rpm				
8th Stage Bleed				
Flow, pps	0.0	4.9	19.2	19.2
Pressure, psia	0.000	124.262	71.325	52.384
Temperature, °R	0	1052	985	917
CDP Bleed				
Flow, pps	0.0	0.0	0.0	5.0
Pressure, psia	0.000	0.000	0.000	203.000
Est. Gas Pressure at Baseplate, psig	**613.7**	**494.8**	**380.1**	**296.6**
WAR36 - Fuel Air Ratio				
WFA - Fuel Flow, A Ring	7602.22	6440.94	5142.33	4239.23
WFB - Fuel Flow, B Ring	8247.65	6124.24	4986.93	4483.94
WFC - Fuel Flow, C Ring	3289.14	2735.59	2048.08	0.00
CardPack	**8g8**	**8g8**	**8g8**	**8g8**
Exhaust CardPack	**7f5**	**7f5**	**7f5**	**7f5**
NSI	**304**	**439**	**439**	**439**
NSI	**0**	**0**	**0**	**1401**
NSI	**0**	**0**	**0**	**1404**

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PD Sprint, 59F, EVAP**

Engine: **LM6000 PD-SPRINT**
Deck Info: **G0125O - 8g8.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **10:56:49 AM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Ambient Conditions				
Dry Bulb, °F	59.0	59.0	59.0	59.0
Wet Bulb, °F	51.5	51.5	51.5	51.5
RH, %	60.0	60.0	60.0	60.0
Altitude, ft	120.0	120.0	120.0	120.0
Ambient Pressure, psia	14.633	14.632	14.632	14.632
Engine Inlet				
Comp Inlet Temp, °F	52.6	52.6	52.6	52.6
RH, %	92.9	92.9	92.9	92.9
Conditioning	EVAP	EVAP	EVAP	EVAP
Tons or kBtu/hr	0	0	0	0
Pressure Losses				
Inlet Loss, inH20	4.50	4.50	4.50	4.50
Volute Loss, inH20	4.00	4.00	4.00	4.00
Exhaust Loss, inH20	12.00	12.00	12.00	12.00
Partload %	**100**	**75**	**50**	**25**
kW, Gen Terms	**46886**	**35172**	**23453**	**11744**
Est. Btu/kW-hr, LHV	**8276**	**8817**	**10517**	**15157**
Fuel Flow				
MMBtu/hr, LHV	388.0	310.1	246.7	178.0
lb/hr	18855	15068	11985	8649
NOx Control	**DLE**	**DLE**	**DLE**	**DLE**
SPRINT	**LPC**	**OFF**	**OFF**	**OFF**
lb/hr	8909	0	0	0
Control Parameters				
HP Speed, RPM	10335	10143	10084	9531
LP Speed, RPM	3600	3600	3600	3600
PS3 - CDP, psia	453.4	378.8	285.5	216.5
T3CRF - CDT, °F	950	937	868	761
T48IN, °R	2027	1992	2014	1904
T48IN, °F	1568	1532	1554	1444
Exhaust Parameters				
Temperature, °F	843.6	856.3	919.4	893.6
lb/sec	290.0	249.4	200.1	167.3
lb/hr	1044047	897870	720471	602447
Energy, Btu/s- Ref 0 °R	96474	83054	70052	57176
Energy, Btu/s- Ref T2 °F	59596	50945	42664	33362
Cp, Btu/lb-R	0.2726	0.2706	0.2747	0.2736
Emissions (ESTIMATED, NOT FOR GUARANTEE)				
NOx ppmvd Ref 15% O2	25	25	-999	-999
NOx as NO2, lb/hr	39	31	25	18
CO ppmvd Ref 15% O2	25	25	25	25
CO, lb/hr	23.72	18.94	15.08	10.87
CO2, lb/hr	50701.04	40558.71	32239.10	23286.29
HC ppmvd Ref 15% O2	15	15	15	15
HC, lb/hr	8.13	6.49	5.17	3.73
SOX as SO2, lb/hr	0.00	0.00	0.00	0.00

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PD Sprint, 59F, EVAP**

Engine: **LM6000 PD-SPRINT**
Deck Info: **G0125O - 8g8.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **10:56:49 AM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Exh Wght % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	1.2435	1.2561	1.2546	1.2566
N2	72.9538	73.6907	73.6040	73.7183
O2	15.4713	16.0534	15.5725	16.2064
CO2	4.8562	4.6077	4.9251	4.5068
H20	5.4695	4.3867	4.6380	4.3067
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0023	0.0022	0.0023	0.0021
HC	0.0008	0.0007	0.0008	0.0007
NOX	0.0026	0.0024	0.0026	0.0024
Exh Mole % Dry (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.9639	0.9620	0.9641	0.9614
N2	80.6405	80.4792	80.6544	80.4238
O2	14.9722	15.3494	14.9395	15.4791
CO2	3.4169	3.2032	3.4354	3.1297
H20	0.0000	0.0000	0.0000	0.0000
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0025	0.0024	0.0025	0.0023
HC	0.0015	0.0014	0.0015	0.0014
NOX	0.0025	0.0024	0.0025	0.0023
Exh Mole % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.8811	0.8953	0.8935	0.8959
N2	73.7106	74.8993	74.7470	74.9479
O2	13.6855	14.2851	13.8453	14.4252
CO2	3.1233	2.9812	3.1838	2.9166
H20	8.5935	6.9333	7.3243	6.8088
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0023	0.0022	0.0023	0.0021
HC	0.0014	0.0013	0.0014	0.0013
NOX	0.0023	0.0022	0.0023	0.0021

Aero Energy Fuel Number	**800-5 (Mariposa)**	
	Volume %	**Weight %**
Hydrogen	0.0000	0.0000
Methane	94.0000	88.2891
Ethane	3.5200	6.1968
Ethylene	0.0000	0.0000
Propane	0.1900	0.4905
Propylene	0.0000	0.0000
Butane	0.0600	0.2042
Butylene	0.0000	0.0000
Butadiene	0.0000	0.0000
Pentane	0.1900	0.8026
Cyclopentane	0.0000	0.0000
Hexane	0.0100	0.0505
Heptane	0.0000	0.0000
Carbon Monoxide	0.0000	0.0000
Carbon Dioxide	0.6800	1.7522
Nitrogen	1.3500	2.2142
Water Vapor	0.0000	0.0000
Oxygen	0.0000	0.0000
Hydrogen Sulfide	0.0000	0.0000
Ammonia	0.0000	0.0000
Btu/lb, LHV	20580	
Btu/scf, LHV	928.6	
Btu/scf, HHV	1029.0	
Btu/lb, HHV	22805	
Fuel Temp, °F	76.9	
NOx Scalar	0.998	
Specific Gravity	0.59	

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PD Sprint, 59F, EVAP**

Engine: **LM6000 PD-SPRINT**
Deck Info: **G0125O - 8g8.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **10:56:49 AM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Wobbe	52.208	52.208	52.208	52.208
Engine Exhaust				
Exhaust Avg. Mol. Wt., Wet Basis	28.3	28.5	28.4	28.5
Inlet Flow Wet, pps	286.0	257.8	229.0	229.3
Inlet Flow Dry, pps	283.7	255.8	227.2	227.5
Shaft HP	63989	48109	32267	16465
Generator Information				
Capacity kW	76917	64115	64115	64115
Efficiency	0.9802	0.9804	0.9747	0.9565
Inlet Temp, °F	59.0	59.0	59.0	59.0
Gear Box Loss	N/A	N/A	N/A	N/A
Burner Mode	ABC	ABC	ABC	AB
TRQ48, Torque Limit Cold End	116728	89360	59222	35947
Correct Control Parameters				
PS3JQA, psia	458.494	383.056	288.708	218.933
XN25R3, rpm	6317	6260	6106	6330
8th Stage Bleed				
Flow, pps	0.0	4.9	18.3	18.9
Pressure, psia	0.000	123.040	71.307	51.613
Temperature, °R	0	1058	989	922
CDP Bleed				
Flow, pps	0.0	0.0	0.0	4.9
Pressure, psia	0.000	0.000	0.000	201.000
Est. Gas Pressure at Baseplate, psig	**605.1**	**488.5**	**374.6**	**294.1**
WAR36 - Fuel Air Ratio				
WFA - Fuel Flow, A Ring	7493.40	6363.96	5065.16	4176.44
WFB - Fuel Flow, B Ring	8093.73	5974.15	4895.08	4472.62
WFC - Fuel Flow, C Ring	3267.95	2729.81	2024.90	0.00
CardPack	**8g8**	**8g8**	**8g8**	**8g8**
Exhaust CardPack	**7f5**	**7f5**	**7f5**	**7f5**
NSI	**304**	**439**	**439**	**439**
NSI	**0**	**0**	**0**	**0**
NSI	**0**	**0**	**0**	**0**

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PD Sprint, 93F, EVAP**

Engine: **LM6000 PD-SPRINT**
Deck Info: **G0125O - 8g8.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **10:55:05 AM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Ambient Conditions				
Dry Bulb, °F	93.0	93.0	93.0	93.0
Wet Bulb, °F	67.5	67.5	67.5	67.5
RH, %	26.0	26.0	26.0	26.0
Altitude, ft	120.0	120.0	120.0	120.0
Ambient Pressure, psia	14.633	14.632	14.632	14.632
Engine Inlet				
Comp Inlet Temp, °F	71.3	71.3	71.3	71.3
RH, %	82.4	82.4	82.4	82.4
Conditioning	EVAP	EVAP	EVAP	EVAP
Tons or kBtu/hr	0	0	0	0
Pressure Losses				
Inlet Loss, inH20	4.50	4.50	4.50	4.50
Volute Loss, inH20	4.00	4.00	4.00	4.00
Exhaust Loss, inH20	12.00	12.00	12.00	12.00
Partload %	**100**	**75**	**50**	**25**
kW, Gen Terms	**43793**	**32851**	**21910**	**10971**
Est. Btu/kW-hr, LHV	**8407**	**8878**	**10711**	**15756**
Fuel Flow				
MMBtu/hr, LHV	368.2	291.6	234.7	172.9
lb/hr	17890	14171	11404	8400
NOx Control	**DLE**	**DLE**	**DLE**	**DLE**
SPRINT	**LPC**	**OFF**	**OFF**	**OFF**
lb/hr	9225	0	0	0
Control Parameters				
HP Speed, RPM	10414	10219	10105	9602
LP Speed, RPM	3600	3600	3600	3600
PS3 - CDP, psia	432.2	361.0	274.8	208.8
T3CRF - CDT, °F	965	956	884	782
T48IN, °R	2032	1990	2013	1927
T48IN, °F	1572	1530	1554	1467
Exhaust Parameters				
Temperature, °F	860.9	868.4	936.9	926.3
lb/sec	275.3	237.2	190.5	160.1
lb/hr	991134	853845	685851	576351
Energy, Btu/s- Ref 0 °R	93369	80106	67913	56403
Energy, Btu/s- Ref T2 °F	56885	48341	41048	32759
Cp, Btu/lb-R	0.2748	0.2723	0.2764	0.2763
Emissions (ESTIMATED, NOT FOR GUARANTEE)				
NOx ppmvd Ref 15% O2	25	25	-999	-999
NOx as NO2, lb/hr	37	29	24	17
CO ppmvd Ref 15% O2	25	25	25	25
CO, lb/hr	22.51	17.81	14.35	10.56
CO2, lb/hr	48102.41	38147.51	30676.99	22610.64
HC ppmvd Ref 15% O2	15	15	15	15
HC, lb/hr	7.71	6.10	4.92	3.62
SOX as SO2, lb/hr	0.00	0.00	0.00	0.00

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PD Sprint, 93F, EVAP**

Engine: **LM6000 PD-SPRINT**
Deck Info: **G0125O - 8g8.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **10:55:05 AM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Exh Wght % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	1.2355	1.2493	1.2477	1.2492
N2	72.4801	73.2865	73.2008	73.2820
O2	15.3299	16.0014	15.5233	15.9761
CO2	4.8533	4.5573	4.8729	4.5739
H20	6.0956	4.9004	5.1496	4.9135
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0023	0.0021	0.0023	0.0021
HC	0.0008	0.0007	0.0008	0.0007
NOX	0.0026	0.0024	0.0026	0.0024
Exh Mole % Dry (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.9641	0.9619	0.9639	0.9620
N2	80.6562	80.4656	80.6406	80.4748
O2	14.9352	15.3814	14.9718	15.3598
CO2	3.4379	3.1851	3.4171	3.1973
H20	0.0000	0.0000	0.0000	0.0000
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0025	0.0023	0.0025	0.0023
HC	0.0015	0.0014	0.0015	0.0014
NOX	0.0025	0.0023	0.0025	0.0023
Exh Mole % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.8721	0.8876	0.8858	0.8875
N2	72.9602	74.2530	74.1034	74.2451
O2	13.5101	14.1938	13.7581	14.1708
CO2	3.1098	2.9392	3.1401	2.9498
H20	9.5418	7.7207	8.1066	7.7411
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0023	0.0022	0.0023	0.0022
HC	0.0014	0.0013	0.0014	0.0013
NOX	0.0023	0.0022	0.0023	0.0022

Aero Energy Fuel Number	**800-5 (Mariposa)**	
	Volume %	**Weight %**
Hydrogen	0.0000	0.0000
Methane	94.0000	88.2891
Ethane	3.5200	6.1968
Ethylene	0.0000	0.0000
Propane	0.1900	0.4905
Propylene	0.0000	0.0000
Butane	0.0600	0.2042
Butylene	0.0000	0.0000
Butadiene	0.0000	0.0000
Pentane	0.1900	0.8026
Cyclopentane	0.0000	0.0000
Hexane	0.0100	0.0505
Heptane	0.0000	0.0000
Carbon Monoxide	0.0000	0.0000
Carbon Dioxide	0.6800	1.7522
Nitrogen	1.3500	2.2142
Water Vapor	0.0000	0.0000
Oxygen	0.0000	0.0000
Hydrogen Sulfide	0.0000	0.0000
Ammonia	0.0000	0.0000
Btu/lb, LHV	20580	
Btu/scf, LHV	928.6	
Btu/scf, HHV	1029.0	
Btu/lb, HHV	22805	
Fuel Temp, °F	76.9	
NOx Scalar	0.998	
Specific Gravity	0.59	

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **praju**
Project Info: **Mariposa PD Sprint, 93F, EVAP**

Engine: **LM6000 PD-SPRINT**
Deck Info: **G0125O - 8g8.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.9PF (14839)**
Fuel: **Site Gas Fuel#800-5T, 20580 Btu/lb,LHV**

Date: **11/09/2009**
Time: **10:55:05 AM**
Version: **3.8.1**

Case #	**100**	**101**	**102**	**103**
Wobbe	52.208	52.208	52.208	52.208
Engine Exhaust				
Exhaust Avg. Mol. Wt., Wet Basis	28.2	28.4	28.4	28.4
Inlet Flow Wet, pps	271.3	237.3	220.6	221.0
Inlet Flow Dry, pps	267.6	234.0	217.6	218.0
Shaft HP	59791	44972	30182	15424
Generator Information				
Capacity kW	76917	54284	54284	54284
Efficiency	0.9794	0.9796	0.9735	0.9539
Inlet Temp, °F	93.0	93.0	93.0	93.0
Gear Box Loss	N/A	N/A	N/A	N/A
Burner Mode	ABC	ABC	ABC	AB
TRQ48, Torque Limit Cold End	109522	83618	55916	34123
Correct Control Parameters				
PS3JQA, psia	437.056	365.056	277.888	211.146
XN25R3, rpm	6330	6260	6106	6330
8th Stage Bleed				
Flow, pps	0.0	4.7	15.6	18.1
Pressure, psia	0.000	116.296	72.320	50.220
Temperature, °R	0	1068	1006	940
CDP Bleed				
Flow, pps	0.0	0.0	0.0	4.7
Pressure, psia	0.000	0.000	0.000	194.000
Est. Gas Pressure at Baseplate, psig	**574.7**	**461.4**	**358.0**	**285.8**
WAR36 - Fuel Air Ratio				
WFA - Fuel Flow, A Ring	7108.05	6028.69	4831.69	3981.28
WFB - Fuel Flow, B Ring	7628.97	5499.71	4618.70	4418.62
WFC - Fuel Flow, C Ring	3153.43	2642.94	1953.45	0.00
CardPack	**8g8**	**8g8**	**8g8**	**8g8**
Exhaust CardPack	**7f5**	**7f5**	**7f5**	**7f5**
NSI	**304**	**439**	**439**	**439**
NSI	**0**	**0**	**0**	**1404**
NSI	**0**	**0**	**0**	**0**

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **Harry Cotham**
Project Info: **LM6000PF-15 Sprint Performance**

Engine: **LM6000 PF-SPRINT-15**
Deck Info: **GE125P - 8i4.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.85PF (14839)**
Fuel: **Gas Fuel #10-1, 19000 Btu/lb,LHV**

Date: **01/19/2010**
Time: **1:58:55 PM**
Version: **3.8.6**

Case #	**100**	**101**	**102**	**103**
Ambient Conditions				
Dry Bulb, °F	17.0	46.0	59.0	93.0
Wet Bulb, °F	15.2	40.9	51.5	67.5
RH, %	70.0	65.0	60.0	26.0
Altitude, ft	120.0	120.0	120.0	120.0
Ambient Pressure, psia	14.633	14.632	14.632	14.632
Engine Inlet				
Comp Inlet Temp, °F	27.0	46.0	52.6	71.3
RH, %	43.4	65.0	92.9	82.4
Conditioning	HEAT	NONE	EVAP	EVAP
Tons or kBtu/hr	2535	0	0	0
Pressure Losses				
Inlet Loss, inH20	5.00	5.00	5.00	5.00
Volute Loss, inH20	4.00	4.00	4.00	4.00
Exhaust Loss, inH20	12.00	12.00	12.00	12.00
Partload %	**100**	**100**	**100**	**100**
kW, Gen Terms	**47870**	**47661**	**46829**	**43741**
Est. Btu/kW-hr, LHV	**8128**	**8248**	**8283**	**8414**
Guar. Btu/kW-hr, LHV	**8294**	**8416**	**8452**	**8586**
Fuel Flow				
MMBtu/hr, LHV	389.1	393.1	387.9	368.1
lb/hr	20479	20690	20415	19371
NOx Control	**DLE**	**DLE**	**DLE**	**DLE**
SPRINT	**OFF**	**LPC**	**LPC**	**LPC**
lb/hr	0	8766	8909	9225
Control Parameters				
HP Speed, RPM	10232	10305	10335	10414
LP Speed, RPM	3600	3600	3600	3600
PS3 - CDP, psia	462.2	458.5	453.4	432.3
T3CRF - CDT, °F	964	944	951	966
T48IN, °R	2034	2027	2027	2032
T48IN, °F	1574	1567	1568	1572
Exhaust Parameters				
Temperature, °F	839.2	839.4	843.6	860.9
lb/sec	297.1	293.8	290.1	275.4
lb/hr	1069513	1057675	1044348	991440
Energy, Btu/s- Ref 0 °R	97107	97018	96422	93319
Energy, Btu/s- Ref T2 °F	61711	60287	59568	56858
Cp, Btu/lb-R	0.2685	0.2714	0.2724	0.2746

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **Harry Cotham**
Project Info: **LM6000PF-15 Sprint Performance**

Engine: **LM6000 PF-SPRINT-15**
Deck Info: **GE125P - 8i4.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.85PF (14839)**
Fuel: **Gas Fuel #10-1, 19000 Btu/lb,LHV**

Date: **01/19/2010**
Time: **1:58:55 PM**
Version: **3.8.6**

Case #	**100**	**101**	**102**	**103**
Emissions (ESTIMATED, NOT FOR GUARANTEE)				
NOx ppmvd Ref 15% O2	15	15	15	15
NOx as NO2, lb/hr	24	24	24	22
CO ppmvd Ref 15% O2	25	25	25	25
CO, lb/hr	23.89	24.15	23.83	22.61
CO2, lb/hr	51794.16	52292.41	51595.21	#######
HC ppmvd Ref 15% O2	15	15	15	15
HC, lb/hr	8.19	8.28	8.17	7.75
SOX as SO2, lb/hr	0.00	0.00	0.00	0.00
Exh Wght % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	1.2617	1.2464	1.2416	1.2336
N2	74.1453	73.2515	72.9750	72.5020
O2	15.9580	15.5404	15.4606	15.3195
CO2	4.8428	4.9441	4.9404	4.9374
H20	3.7878	5.0130	5.3777	6.0029
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0022	0.0023	0.0023	0.0023
HC	0.0008	0.0008	0.0008	0.0008
NOX	0.0015	0.0015	0.0015	0.0015
Exh Mole % Dry (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.9608	0.9617	0.9618	0.9620
N2	80.5151	80.5995	80.6075	80.6230
O2	15.1713	14.9703	14.9514	14.9144
CO2	3.3475	3.4629	3.4738	3.4950
H20	0.0000	0.0000	0.0000	0.0000
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0024	0.0025	0.0025	0.0025
HC	0.0015	0.0015	0.0015	0.0015
NOX	0.0015	0.0015	0.0015	0.0015
Exh Mole % Wet (NOT FOR USE IN ENVIRONMENTAL PERMITS)				
AR	0.9030	0.8857	0.8805	0.8715
N2	75.6748	74.2323	73.7913	73.0412
O2	14.2593	13.7877	13.6871	13.5119
CO2	3.1463	3.1893	3.1800	3.1663
H20	6.0116	7.8998	8.4561	9.4041
SO2	0.0000	0.0000	0.0000	0.0000
CO	0.0023	0.0023	0.0023	0.0023
HC	0.0014	0.0014	0.0014	0.0014
NOX	0.0014	0.0014	0.0014	0.0014

Estimated Average Engine Performance NOT FOR GUARANTEE, REFER TO PROJECT F&ID FOR DESIGN

GE Energy

Performance By: **Harry Cotham**
Project Info: **LM6000PF-15 Sprint Performance**

Engine: **LM6000 PF-SPRINT-15**
Deck Info: **GE125P - 8i4.scp**
Generator: **BDAX 290ERT 60Hz, 13.8kV, 0.85PF (14839)**
Fuel: **Gas Fuel #10-1, 19000 Btu/lb,LHV**

Date: **01/19/2010**
Time: **1:58:55 PM**
Version: **3.8.6**

Case #	**100**	**101**	**102**	**103**
Aero Energy Fuel Number	**(GEDEF)**			
	Volume %	**Weight %**		
Hydrogen	0.0000	0.0000		
Methane	84.5000	71.8447		
Ethane	5.5800	8.8924		
Ethylene	0.0000	0.0000		
Propane	2.0500	4.7909		
Propylene	0.0000	0.0000		
Butane	0.7800	2.4027		
Butylene	0.0000	0.0000		
Butadiene	0.0000	0.0000		
Pentane	0.1800	0.6883		
Cyclopentane	0.0000	0.0000		
Hexane	0.1700	0.7764		
Heptane	0.0000	0.0000		
Carbon Monoxide	0.0000	0.0000		
Carbon Dioxide	0.6700	1.5628		
Nitrogen	5.9300	8.8044		
Water Vapor	0.0000	0.0000		
Oxygen	0.1400	0.2374		
Hydrogen Sulfide	0.0000	0.0000		
Ammonia	0.0000	0.0000		
Btu/lb, LHV	19000			
Btu/scf, LHV	946.0			
Btu/scf, HHV	1047.0			
Btu/lb, HHV	20996			
Fuel Temp, °F	77.0			
NOx Scalar	0.998			
Specific Gravity	0.65			
Wobbe	50.657	50.657	50.657	50.657
Engine Exhaust				
Exhaust Avg. Mol. Wt., Wet E	28.6	28.4	28.3	28.2
Exhaust Flow, ACFM	576412	574208	570051	550383
Exhaust Flow, SCFM	223223	222194	219784	209668
Exhaust Flow, Btu/lb	327	330	332	339
Exhaust Flow, Calories/s	#######	#######	#######	#######
Inlet Flow Wet, pps	295.2	289.3	285.6	270.9
Inlet Flow Dry, pps	294.8	288.1	283.4	267.2
Shaft HP	65392	65106	63970	59775

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GE Energy

Performance By: **Harry Cotham**
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Case #	**100**	**101**	**102**	**103**
Generator Information				
Capacity kW	69810	63692	60552	51268
Efficiency	0.9817	0.9817	0.9817	0.9813
Inlet Temp, °F	17.0	46.0	59.0	93.0
Gear Box Loss	N/A	N/A	N/A	N/A
Burner Mode	ABC	ABC	ABC	ABC
TRQ48, Torque Limit Cold En	119552	118285	116672	109471
Correct Control Parameters				
PS3JQA, psia	467.978	464.231	459.068	437.704
XN25R3, rpm				
8th Stage Bleed				
Flow, pps	0.0	0.0	0.0	0.0
Pressure, psia	0.000	0.000	0.000	0.000
Temperature, °R	0	0	0	0
CDP Bleed				
Flow, pps	0.0	0.0	0.0	0.0
Pressure, psia	0.000	0.000	0.000	0.000
Est. Gas Pressure at Basep	**621.1**	**620.1**	**612.0**	**581.1**
WAR36 - Combustor Water to	0.0013	0.0132	0.0171	0.0237
WA36 - Combustor Air Flow	209.53	204.51	201.12	189.59
WF36 - Combustor Fuel Flow	20478.79	20690.29	20415.30	#######
WFA - Fuel Flow, A Ring	8537.42	8722.69	8600.59	8133.64
WFB - Fuel Flow, B Ring	7994.87	8065.01	7924.28	7465.84
WFC - Fuel Flow, C Ring	3946.50	3902.59	3890.43	3771.67
CardPack	**8i4**	**8i4**	**8i4**	**8i4**
Exhaust CardPack	**7f5**	**7f5**	**7f5**	**7f5**
NSI	**304**	**304**	**304**	**304**
NSI	**0**	**0**	**0**	**0**
NSI	**0**	**0**	**0**	**0**