

Customer 0069910 EMCOR  
Sub-Name SUB 2

City EDWARDS, CA  
Unit No.

Location OUTDOOR/GROUND  
Other

**NAMEPLATE DATA**

Manufacturer	GE	Equipment Type	TRANSFORMER
Manufacture Date		Transformer Class	OA
Serial No.	M123155B	Impedence %	5.76
KVA Rating	1,500	Phase/Cycle	3/60
High Voltage	12,000	D Liquid Type	OIL
Low Voltage	480	Y Gallons	237
Weight	0	Other Access	

**ADDITIONAL EQUIPMENT**

Radiators	Yes	Conservator Tank	No
Fans	No	LTC Compartment	No
Water Cooled	No	Bushing Location	
Oil Pumps	No	Breather	N2 Blanket
Top FPV (inch)	0.00	Hose Length (feet)	100
Bottom FPV (inch)	1.00 Valve	Service Online	Yes
Insulation Type		Power Available	Yes

**VISUAL INSPECTION**

DATE	LEVEL	SAMPLE TEMP	TOP TEMP	P/V	PAINT	LEAKS
03/17/10	NORMAL	20	43	1.50	GOOD	NONE

**FIELD SERVICE**

DATE SERVICE

**Additional Information**

Reason Not Tested

**LIQUID SCREEN TEST DATA**

DATE	SERVICE	ACID	IFT	DIEL 877	DIEL 1816	GAP	COLOR	SP. GRAV.	VISUAL	SEDIMENT
03/17/10		0.020 AC	38.6 AC	49 AC			2.00 AC	0.880 AC	CLEAR AC	NONE AC

**INHIBITOR CONTENT**

DATE	PCT. BY WEIGHT
03/17/10	ND UN

**LIQUID POWER FACTOR**

DATE	25 C	100 C
03/17/10	0.026 AC	0.470 AC

NOTE - STUDIES SHOW THAT A LEVEL OF 3% INHIBITOR IS OPTIMUM FOR PRESERVATION OF IN-SERVICE TRANSFORMER OILS. OILS WITH A LEVEL BELOW .08% ARE CONSIDERED TO BE UNINHIBITED

NOTE: \* AFTER A TEST RESULT INDICATES THAT THIS TEST WAS PERFORMED BY AN OUTSIDE LAB.

Customer 0069910 EMCOR  
Sub-Name SUB 2  
Location OUTDOOR/GROUND

S/N M123155B  
Mfg. GE  
Unit No.

Gallons 237 High Volt. 12,000  
KVA 1,500 Low Volt. 480

**KARL FISCHER TESTING MOISTURE CONTENT EXPRESSED IN PPM**

DATE	TEMP	PPM	SATURATION	PCT.	MOIST./DRY WGT.	GRADE
03/17/10	25	8	11.8	AC	1.36	B

RECOMMENDATION ACCEPTABLE DATA / RETEST 1 YEAR

**FURAN ANALYSIS EXPRESSED IN PPB**

DATE	5H2F	2FOL	2FAL	2ACF	5M2F	TOTAL
03/17/10	ND	ND	6	ND	ND	6

RECOMMENDATION RETEST 1 YEAR  
NORMAL RESULT FOR HEALTHY EQUIPMENT.

CALCULATED DP 800 EST. LIFE REMAINING 100%

**GAS-IN-OIL ANALYSIS GAS CHROMATOGRAPHY EXPRESSED IN PPM**

DATE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLEN	TOTAL COMBUST.	TOTAL GAS
03/17/10	39	1,331	72,978	62	212	2,318	54	6	ND	373	77,000

RECOMMENDATION RETEST 1 YEAR

A-THE ANALYSIS OF THIS SAMPLE SHOWS ONLY MINOR AMOUNTS OF COMBUSTIBLE GAS.

**ICP METALS-IN-OIL EXPRESSED IN PPM**

DATE	ALUMINUM	IRON	COPPER
03/17/10	ND	ND	ND

RECOMMENDATION RETEST 1 YEAR  
THERE ARE NO SIGNIFICANT AMOUNTS OF METALS  
IN THIS SAMPLE. THIS DATA CAN SERVE AS A  
BASELINE FOR FURTHER ANALYSIS.

NOTE: \* AFTER A TEST RESULT INDICATES THAT THIS TEST WAS PERFORMED BY AN OUTSIDE LAB.

**PCB CONTENT EXPRESSED IN PPM**

DATE	1242	1254	1260	OTHER	TOTAL

COLOR LABEL: CLASS:

Results in mg/kg  
ND means "none detected"  
( < 2 mg/kg per ASTM D4059)

Customer 0069910 EMCOR  
Sub-Name SUB 1

City EDWARDS, CA  
Unit No.

Location OUTDOOR/GROUND  
Other

**NAMEPLATE DATA**

Manufacturer	GE	Equipment Type	TRANSFORMER
Manufacture Date		Transformer Class	OA
Serial No.	M123882B	Impedence %	5.98
KVA Rating	1,500	Phase/Cycle	3/60
High Voltage	12,000	D Liquid Type	OIL
Low Voltage	480	Y Gallons	237
Weight	7,415	Other Access	

**ADDITIONAL EQUIPMENT**

Radiators	Yes	Conservator Tank	No
Fans	No	LTC Compartment	No
Water Cooled	No	Bushing Location	Side Encl.
Oil Pumps	No	Breather	N2 Blanket
Top FPV (inch)	0.00	Hose Length (feet)	100
Bottom FPV (inch)	1.00 Valve	Service Online	Yes
Insulation Type		Power Available	Yes

**VISUAL INSPECTION**

DATE	LEVEL	SAMPLE TEMP	TOP TEMP	P/V	PAINT	LEAKS
03/17/10	NORMAL	21	42	-1.50	GOOD	NONE

**FIELD SERVICE**

DATE SERVICE

**Additional Information**

Reason Not Tested

**LIQUID SCREEN TEST DATA**

DATE	SERVICE	ACID	IFT	DIEL 877	DIEL 1816	GAP	COLOR	SP. GRAV.	VISUAL	SEDIMENT
03/17/10		0.020 AC	36.8 AC	49 AC			2.00 AC	0.870 AC	CLEAR AC	NONE AC

**INHIBITOR CONTENT**

DATE	PCT. BY WEIGHT
03/17/10	ND UN

**LIQUID POWER FACTOR**

DATE	25 C	100 C
03/17/10	0.039 AC	0.988 AC

NOTE - STUDIES SHOW THAT A LEVEL OF 3% INHIBITOR IS OPTIMUM FOR PRESERVATION OF IN-SERVICE TRANSFORMER OILS. OILS WITH A LEVEL BELOW .08% ARE CONSIDERED TO BE UNINHIBITED

NOTE: \* AFTER A TEST RESULT INDICATES THAT THIS TEST WAS PERFORMED BY AN OUTSIDE LAB.

Customer 0069910 EMCOR  
Sub-Name SUB 1  
Location OUTDOOR/GROUND

S/N M123882B  
Mfg. GE  
Unit No.

Gallons 237 High Volt. 12,000  
KVA 1,500 Low Volt. 480

**KARL FISCHER TESTING MOISTURE CONTENT EXPRESSED IN PPM**

DATE	TEMP	PPM	SATURATION	PCT.	MOIST./DRY WGT.	GRADE
03/17/10	26	7	99	AC	1.12	A

RECOMMENDATION ACCEPTABLE DATA / RETEST 1 YEAR

**FURAN ANALYSIS EXPRESSED IN PPB**

DATE	5H2F	2FOL	2FAL	2ACF	5M2F	TOTAL
03/17/10	ND	ND	3	ND	ND	3

RECOMMENDATION RETEST 1 YEAR  
NORMAL RESULT FOR HEALTHY EQUIPMENT

CALCULATED DP 800 EST. LIFE REMAINING 100%

**GAS-IN-OIL ANALYSIS GAS CHROMATOGRAPHY EXPRESSED IN PPM**

DATE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLEN	TOTAL COMBUST.	TOTAL GAS
03/17/10	15	1,454	72,547	64	233	2,609	57	21	ND	390	77,000

RECOMMENDATION RETEST 1 YEAR

A-THE ANALYSIS OF THIS SAMPLE SHOWS ONLY MINOR AMOUNTS OF COMBUSTIBLE GAS.

**ICP METALS-IN-OIL EXPRESSED IN PPM**

DATE	ALUMINUM	IRON	COPPER
03/17/10	ND	ND	ND

RECOMMENDATION RETEST 1 YEAR  
THERE ARE NO SIGNIFICANT AMOUNTS OF METALS  
IN THIS SAMPLE. THIS DATA CAN SERVE AS A  
BASELINE FOR FURTHER ANALYSIS.

NOTE: \* AFTER A TEST RESULT INDICATES THAT THIS TEST WAS PERFORMED BY AN OUTSIDE LAB.

**PCB CONTENT EXPRESSED IN PPM**

DATE	1242	1254	1260	OTHER	TOTAL

COLOR LABEL: CLASS:

Results in mg/kg  
ND means "none detected"  
( < 2 mg/kg per ASTM D4059)

Customer 0069910 EMCOR  
Sub-Name SUB 4

City EDWARDS, CA  
Unit No.

Location OUTDOOR/GROUND  
Other

**NAMEPLATE DATA**

Manufacturer	GE	Equipment Type	TRANSFORMER
Manufacture Date		Transformer Class	OA
Serial No.	M123882A	Impedence %	5.88
KVA Rating	1,500	Phase/Cycle	3/60
High Voltage	12,000	D Liquid Type	OIL
Low Voltage	480	Y Gallons	237
Weight	7,415	Other Access	

**ADDITIONAL EQUIPMENT**

Radiators	Yes	Conservator Tank	No
Fans	No	LTC Compartment	No
Water Cooled	No	Bushing Location	Side Encl.
Oil Pumps	No	Breather	N2 Blanket
Top FPV (inch)	0.00	Hose Length (feet)	100
Bottom FPV (inch)	1.00	Valve Service Online	Yes
Insulation Type		Power Available	Yes

**VISUAL INSPECTION**

DATE	LEVEL	SAMPLE TEMP	TOP TEMP	P/V	PAINT	LEAKS
03/17/10	NORMAL	20	23	0.00	GOOD	NONE

**FIELD SERVICE**

DATE SERVICE

**Additional Information**

Reason Not Tested

**LIQUID SCREEN TEST DATA**

DATE	SERVICE	ACID	IFT	DIEL 877	DIEL 1816	GAP	COLOR	SP. GRAV.	VISUAL	SEDIMENT
03/17/10		0.020 AC	36.4 AC	48 AC			2.00 AC	0.880 AC	CLEAR AC	NONE AC

**INHIBITOR CONTENT**

DATE	PCT. BY WEIGHT
03/17/10	ND UN

**LIQUID POWER FACTOR**

DATE	25 C	100 C
03/17/10	0.058 AC	1.373 AC

NOTE - STUDIES SHOW THAT A LEVEL OF 3% INHIBITOR IS OPTIMUM FOR PRESERVATION OF IN-SERVICE TRANSFORMER OILS. OILS WITH A LEVEL BELOW .08% ARE CONSIDERED TO BE UNINHIBITED

NOTE: \* AFTER A TEST RESULT INDICATES THAT THIS TEST WAS PERFORMED BY AN OUTSIDE LAB.

Customer 0069910 EMCOR  
Sub-Name SUB 4  
Location OUTDOOR/GROUND

S/N M123882A  
Mfg. GE  
Unit No.

Gallons 237 High Volt. 12,000  
KVA 1,500 Low Volt. 480

**KARL FISCHER TESTING MOISTURE CONTENT EXPRESSED IN PPM**

DATE	TEMP	PPM	SATURATION	PCT.	MOIST / DRY WGT.	GRADE
03/17/10	25	7	10.3	AC	1.19	A

RECOMMENDATION ACCEPTABLE DATA / RETEST 1 YEAR

**FURAN ANALYSIS EXPRESSED IN PPB**

DATE	5H2F	2FOL	2FAL	2ACF	5M2F	TOTAL
03/17/10	ND	ND	7	ND	ND	7

RECOMMENDATION RETEST 1 YEAR  
NORMAL RESULT FOR HEALTHY EQUIPMENT.

CALCULATED DP 800 EST. LIFE REMAINING 100%

**GAS-IN-OIL ANALYSIS GAS CHROMATOGRAPHY EXPRESSED IN PPM**

DATE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON CARBON		ETHANE	ETHYLENE	ACETYLEN	TOTAL	TOTAL
					MONOXIDE	DIOXIDE					
03/17/10	36	2,106	76,859	52	257	3,125	39	24	ND	408	82,498

RECOMMENDATION RETEST 1 YEAR

A-THE ANALYSIS OF THIS SAMPLE SHOWS ONLY MINOR AMOUNTS OF COMBUSTIBLE GAS.

**ICP METALS-IN-OIL EXPRESSED IN PPM**

DATE	ALUMINUM	IRON	COPPER
03/17/10	ND	ND	ND

RECOMMENDATION RETEST 1 YEAR  
THERE ARE NO SIGNIFICANT AMOUNTS OF METALS  
IN THIS SAMPLE. THIS DATA CAN SERVE AS A  
BASELINE FOR FURTHER ANALYSIS.

NOTE: \* AFTER A TEST RESULT INDICATES THAT THIS TEST WAS PERFORMED BY AN OUTSIDE LAB.

**PCB CONTENT EXPRESSED IN PPM**

DATE	1242	1254	1260	OTHER	TOTAL
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COLOR LABEL: CLASS:

Results in mg/kg  
ND means "none detected"  
( < 2 mg/kg per ASTM D4059)

Customer 0069910 EMCOR  
 Sub-Name SUB 3

City EDWARDS, CA  
 Unit No.

Location OUTDOOR/GROUND  
 Other

**NAMEPLATE DATA**

Manufacturer	GE	Equipment Type	TRANSFORMER
Manufacture Date		Transformer Class	OA
Serial No.	M123155A	Impedence %	5.77
KVA Rating	1,500	Phase/Cycle	3/60
High Voltage	12,000	D Liquid Type	OIL
Low Voltage	480	Y Gallons	237
Weight	7,415	Other Access	

**ADDITIONAL EQUIPMENT**

Radiators	Yes	Conservator Tank	No
Fans	No	LTC Compartment	No
Water Cooled	No	Bushing Location	Side Encl.
Oil Pumps	No	Breather	N2 Blanket
Top FPV (inch)	0.00	Hose Length (feet)	100
Bottom FPV (inch)	1.00	Valve Service Online	Yes
Insulation Type		Power Available	Yes

**VISUAL INSPECTION**

DATE	LEVEL	SAMPLE TEMP	TOP TEMP	P/V	PAINT	LEAKS
03/17/10	NORMAL	24	25	0.00		

**FIELD SERVICE**

DATE SERVICE

**Additional Information**

Reason Not Tested

**LIQUID SCREEN TEST DATA**

DATE	SERVICE	ACID	IFT	DIEL 877	DIEL 1816	GAP	COLOR	SP. GRAV.	VISUAL	SEDIMENT
03/17/10		0.020 AC	35.1 AC	49 AC			2.00 AC	0.880 AC	CLEAR AC	NONE AC

**INHIBITOR CONTENT**

DATE	PCT. BY WEIGHT
03/17/10	ND UN

**LIQUID POWER FACTOR**

DATE	25 C	100 C
03/17/10	0.043 AC	0.647 AC

NOTE - STUDIES SHOW THAT A LEVEL OF 3% INHIBITOR IS OPTIMUM FOR PRESERVATION OF IN-SERVICE TRANSFORMER OILS. OILS WITH A LEVEL BELOW .08% ARE CONSIDERED TO BE UNINHIBITED

NOTE: \* AFTER A TEST RESULT INDICATES THAT THIS TEST WAS PERFORMED BY AN OUTSIDE LAB.

Customer 0069910 EMCOR  
Sub-Name SUB 3  
Location OUTDOOR/GROUND

S/N M123155A  
Mfg. GE  
Unit No.

Gallons 237 High Volt. 12,000  
KVA 1,500 Low Volt. 480

**KARL FISCHER TESTING MOISTURE CONTENT EXPRESSED IN PPM**

DATE	TEMP	PPM	SATURATION	PCT.	MOIST./DRY WGT.	GRADE
03/17/10	29	7	8.8	AC	0.97	A

RECOMMENDATION ACCEPTABLE DATA / RETEST 1 YEAR

**FURAN ANALYSIS EXPRESSED IN PPB**

DATE	5H2F	2FOL	2FAL	2ACF	5M2F	TOTAL
03/17/10	ND	ND	5	ND	ND	5

RECOMMENDATION RETEST 1 YEAR  
NORMAL RESULT FOR HEALTHY EQUIPMENT.

CALCULATED DP 800 EST. LIFE REMAINING 100%

**GAS-IN-OIL ANALYSIS GAS CHROMATOGRAPHY EXPRESSED IN PPM**

DATE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLEN	TOTAL COMBUST.	TOTAL GAS
03/17/10	ND	29,352	61,047	1	3	344	ND	TRACE	ND	4	90,747

RECOMMENDATION RETEST 1 YEAR

A-THE ANALYSIS OF THIS SAMPLE SHOWS ONLY MINOR AMOUNTS OF COMBUSTIBLE GAS.

**ICP METALS-IN-OIL EXPRESSED IN PPM**

DATE	ALUMINUM	IRON	COPPER
03/17/10	ND	ND	ND

RECOMMENDATION RETEST 1 YEAR  
THERE ARE NO SIGNIFICANT AMOUNTS OF METALS  
IN THIS SAMPLE. THIS DATA CAN SERVE AS A  
BASELINE FOR FURTHER ANALYSIS.

NOTE: \* AFTER A TEST RESULT INDICATES THAT THIS TEST WAS PERFORMED BY AN OUTSIDE LAB.

**PCB CONTENT EXPRESSED IN PPM**

DATE	1242	1254	1260	OTHER	TOTAL

COLOR LABEL: CLASS:

Results in mg/kg  
ND means "none detected"  
( < 2 mg/kg per ASTM D4059)