EARTH RESISTANCE DET24C

OWNER	Example Owner			PAGE	1
PLANT	Example Plant	AMBIENT TEMP.	°F	DATE	10/10/2014
SUBSTATION	GROUND MAT (EARTH) GROUNDING TESTS	HUMIDITY	%	JOB #	D MAT (EARTH) GRO
POSITION	AUTOMATED	ASSET ID			

NUMBER OF TESTS: 1

ASSET ID	SERIAL NO.	RESISTANCE Ω	CURRENT A	TIME	DATE	FILTER on/off	INSTRUMENT SERIAL NO.	TEST NOTES

COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED:

TESTED BY: Default Administrator

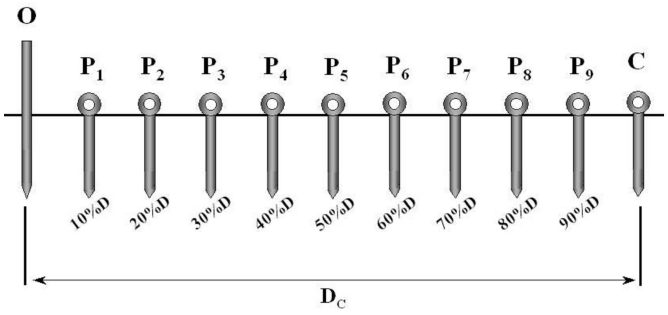
INTERSECTING CURVES

OWNER	Example Owner		PAGE 2
PLANT	Example Plant	AMBIENT TEMP. °F	DATE 10/10/2014
SUBSTATION	GROUND MAT (EARTH) GROUNDING TESTS	HUMIDITY %	JOB # D MAT (EARTH) GROU
POSITION	GENERAL	ASSET ID	

TYPE OF GROUND ROD		NUMBER OF GROUND RODS	
DIAMETER OF GROUND ROD	INCHES	LENGTH OF GROUND RODS	FEET
SOIL TYPE		SOIL CONDITION:	○ DRY ○ DAMP ○ WET
CONNECTING CONDUCTOR SIZE	AWG	CONNECTING CONDUCTOR	○ BARE ○ INSULATED
DIAGONAL MEASUREMENT OF GROUND GRID	FEET	GROUND TESTER MAKE/MODEL	
GROUND TESTER SERIAL NUMBER		LAST CALIBRATION DATE	

PROBE PLACEMENT DIRECTION

	DISTANCE FROM C TO O					
	TEST 1		TEST 2		TEST 3	
	DISTANCE IN FEET (P)	RESISTANCE (OHMS)	DISTANCE IN FEET (P)	RESISTANCE (OHMS)	DISTANCE IN FEET (P)	RESISTANCE (OHMS)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						



Measurement process is repeated with three different values for D_C.

TEST EQUIPMENT USED: TESTED BY: Default Administrator

INTERSECTING CURVES

FALL OF POTENTIAL CURVE: O TO C = FEET

RESISTANCE (ohms)

FALL OF POTENTIAL CURVE: O TO C = FEET

RESISTANCE (ohms)

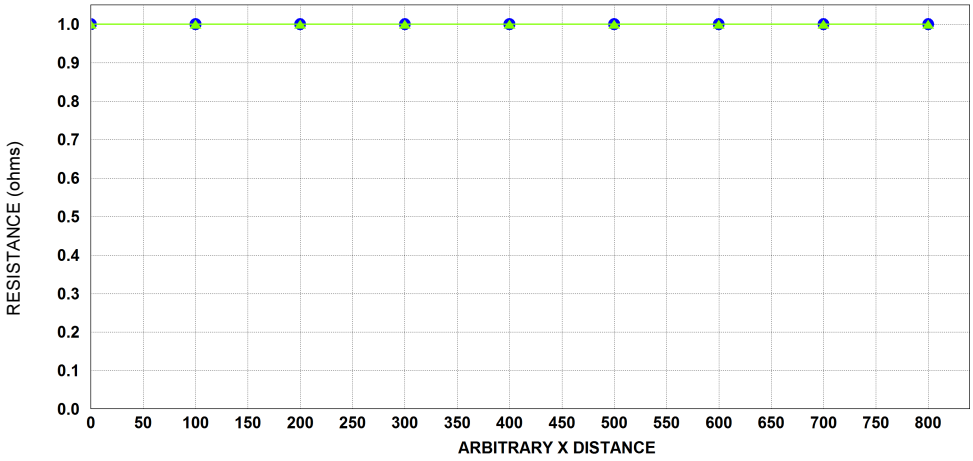
FALL OF POTENTIAL CURVE: O TO C = FEET

RESISTANCE (ohms)

INTERSECTING CURVES

ARBITRARY X DISTANCE	TEST 1 FEET		TEST 2 FEET		TEST 3 FEET	
	D p	RESISTANCE	D p	RESISTANCE	D p	RESISTANCE
0		1.0		1.0		1.0
100		1.0		1.0		1.0
200		1.0		1.0		1.0
300		1.0		1.0		1.0
400		1.0		1.0		1.0
500		1.0		1.0		1.0
600		1.0		1.0		1.0
700		1.0		1.0		1.0
800		1.0		1.0		1.0

RESISTANCE VERSUS X DISTANCES (O to C = , and FEET)



RESISTANCE RESULT: 1.0 OHMS

COMMENTS:
DEFICIENCIES:

SIMPLIFIED FALL OF POTENTIAL

Your Company Logo

OWNER Example Owner | PAGE 5

PLANT Example Plant | AMBIENT TEMP. °F | DATE 10/10/2014

SUBSTATION GROUND MAT (EARTH) GROUNDING TESTS | HUMIDITY % | JOB # D MAT (EARTH) GROU

POSITION GENERAL | ASSET ID

TYPE OF GROUND ROD | NUMBER OF GROUND RODS

DIAMETER OF GROUND ROD INCHES | LENGTH OF GROUND RODS FEET

SOIL TYPE | SOIL CONDITION: ○ DRY ○ DAMP ○ WET

CONNECTING CONDUCTOR SIZE AWG | CONNECTING CONDUCTOR ○ BARE ○ INSULATED

DIAGONAL MEASUREMENT OF GROUND GRID FEET | GROUND TESTER MAKE/MODEL

GROUND TESTER SERIAL NUMBER | LAST CALIBRATION DATE

PROBE PLACEMENT DIRECTION

DISTANCE FROM GROUND ELECTRODE TO C IN FEET

DESIRED ACCURACY %

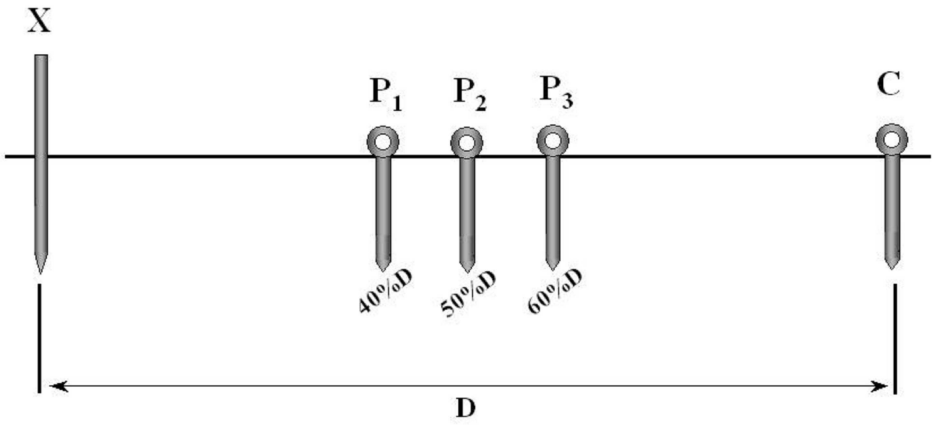
	PERCENT OF OVERALL DISTANCE	DISTANCE IN FEET (GROUND ELECTRODE TO P)	RESISTANCE READING (OHMS)	DEVIATION
R1	40.00 %	0.0		0.00
R2	50.00 %	0.0		0.00
R3	60.00 %	0.0		0.00

R avg 0.00

MAX DEVIATION 0.00

ACCURACY 0.0 %

RESULT (OHMS) RETEST



COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED: | TESTED BY: Default Administrator

FULL FALL OF POTENTIAL

OWNER	Example Owner		PAGE 6
PLANT	Example Plant	AMBIENT TEMP. °F	DATE 10/10/2014
SUBSTATION	GROUND MAT (EARTH) GROUNDING TESTS	HUMIDITY %	JOB # D MAT (EARTH) GROU
POSITION	GENERAL	ASSET ID	

TYPE OF GROUND ROD		NUMBER OF GROUND RODS	
DIAMETER OF GROUND ROD	INCHES	LENGTH OF GROUND RODS	FEET
SOIL TYPE		SOIL CONDITION:	○ DRY ○ DAMP ○ WET
CONNECTING CONDUCTOR SIZE	AWG	CONNECTING CONDUCTOR	○ BARE ○ INSULATED
DIAGONAL MEASUREMENT OF GROUND GRID	FEET	GROUND TESTER MAKE/MODEL	
GROUND TESTER SERIAL NUMBER		LAST CALIBRATION DATE	

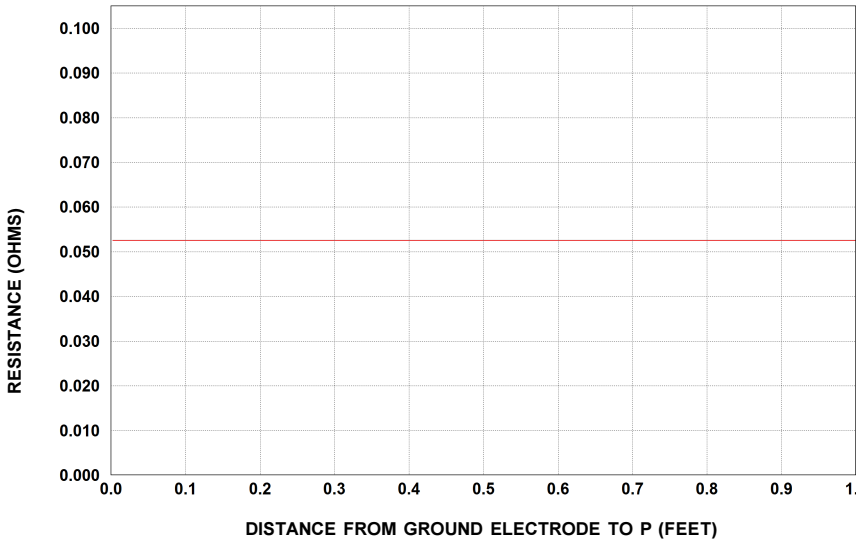
PROBE PLACEMENT DIRECTION

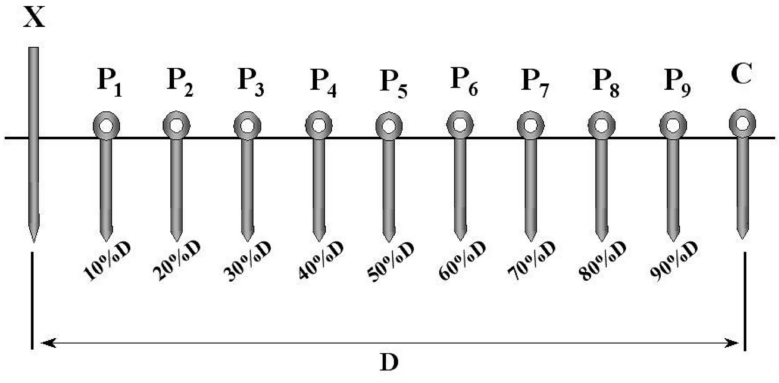
DISTANCE FROM GROUND ELECTRODE TO C IN FEET

DISTANCE IN FEET (GROUND ELECTRODE TO P)	PERCENT OF OVERALL DISTANCE	RESISTANCE READING (Ohms)
	%	Ω
	%	Ω
	%	Ω
	%	Ω
	%	Ω
	%	Ω
	%	Ω
	%	Ω
	%	Ω
	%	Ω
	%	Ω
	%	Ω
	%	Ω
	%	Ω
	%	Ω

RESULT: OHMS

EARTH RESISTANCE CURVE





COMMENTS:
DEFICIENCIES:

TEST EQUIPMENT USED:

TESTED BY: Default Administrator

FALL OF POTENTIAL
61.8% RULE

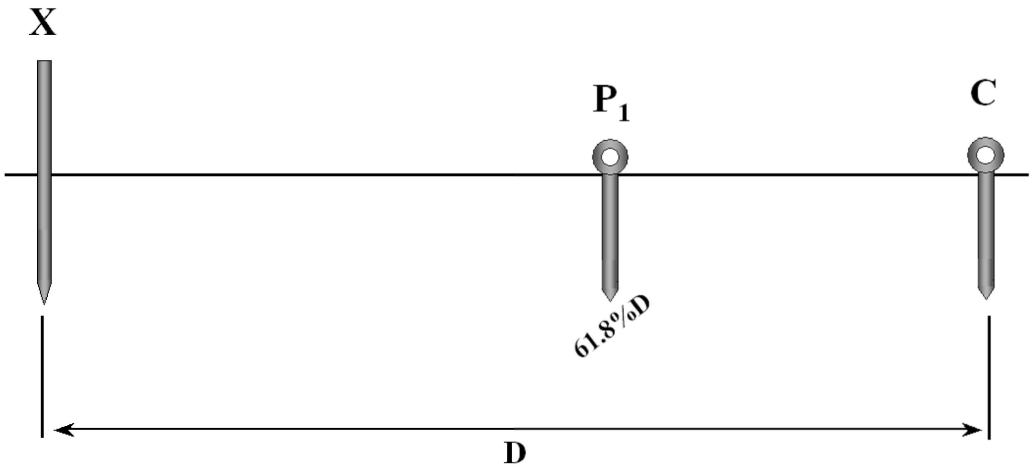
Your Company Logo

OWNER	Example Owner	PAGE	7
PLANT	Example Plant	AMBIENT TEMP. °F	DATE 10/10/2014
SUBSTATION	GROUND MAT (EARTH) GROUNDING TESTS	HUMIDITY %	JOB # D MAT (EARTH) GROU
POSITION	GENERAL	ASSET ID	

TYPE OF GROUND ROD		NUMBER OF GROUND RODS	
DIAMETER OF GROUND ROD	INCHES	LENGTH OF GROUND RODS	FEET
SOIL TYPE		SOIL CONDITION:	○ DRY ○ DAMP ○ WET
CONNECTING CONDUCTOR SIZE	AWG	CONNECTING CONDUCTOR	○ BARE ○ INSULATED
DIAGONAL MEASUREMENT OF GROUND GRID	FEET	GROUND TESTER MAKE/MODEL	
GROUND TESTER SERIAL NUMBER		LAST CALIBRATION DATE	

PROBE PLACEMENT DIRECTION

	DISTANCE IN FEET (GROUND ELECTRODE TO C)	PERCENT OF OVERALL DISTANCE	DISTANCE IN FEET (GROUND ELECTRODE TO P)	RESISTANCE READING (OHMS)
DISTANCE #1		61.8 %		
DISTANCE #2		61.8 %		
DISTANCE #3		61.8 %		



COMMENTS:
DEFICIENCIES:

TEST EQUIPMENT USED:

TESTED BY: Default Administrator

SOIL RESISTIVITY

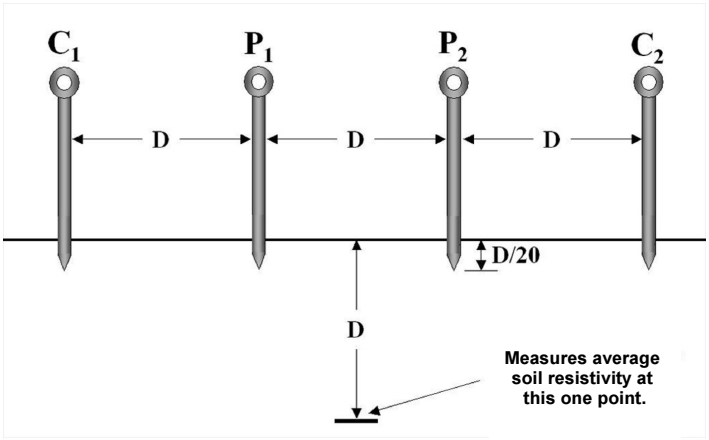
OWNER	Example Owner		PAGE 8
PLANT	Example Plant	AMBIENT TEMP. °F	DATE 10/10/2014
SUBSTATION	GROUND MAT (EARTH) GROUNDING TESTS	HUMIDITY %	JOB # D MAT (EARTH) GROU
POSITION	GENERAL	ASSET ID	

TYPE OF GROUND ROD		NUMBER OF GROUND RODS	
DIAMETER OF GROUND ROD	INCHES	LENGTH OF GROUND RODS	FEET
SOIL TYPE		SOIL CONDITION:	○ DRY ○ DAMP ○ WET
CONNECTING CONDUCTOR SIZE	AWG	CONNECTING CONDUCTOR	○ BARE ○ INSULATED
DIAGONAL MEASUREMENT OF GROUND GRID	FEET	GROUND TESTER MAKE/MODEL	
GROUND TESTER SERIAL NUMBER		LAST CALIBRATION DATE	

PROBE PLACEMENT DIRECTION

LOCATION IDENTIFIER	DISTANCE BETWEEN ELECTRODES (feet)	DISTANCE BETWEEN ELECTRODES (cm)	ELECTRODE DEPTH (inches)	RESISTANCE (ohms)	SOIL RESISTIVITY (ohm-cm)

Soil Resistivity (ohm-cm) = 2 * PI * Distance Between Electrodes (cm) * Resistance (ohms)



COMMENTS:
DEFICIENCIES:

TEST EQUIPMENT USED:

TESTED BY: Default Administrator

STAR DELTA

OWNER	Example Owner		PAGE 9
PLANT	Example Plant	AMBIENT TEMP. °F	DATE 10/10/2014
SUBSTATION	GROUND MAT (EARTH) GROUNDING TESTS	HUMIDITY %	JOB # D MAT (EARTH) GRO
POSITION	GENERAL	ASSET ID	

TYPE OF GROUND ROD		NUMBER OF GROUND RODS	
DIAMETER OF GROUND ROD	INCHES	LENGTH OF GROUND RODS	FEET
SOIL TYPE		SOIL CONDITION:	○ DRY ○ DAMP ○ WET
CONNECTING CONDUCTOR SIZE	AWG	CONNECTING CONDUCTOR	○ BARE ○ INSULATED
DIAGONAL MEASUREMENT OF GROUND GRID	FEET	GROUND TESTER MAKE/MODEL	
GROUND TESTER SERIAL NUMBER		LAST CALIBRATION DATE	

	DISTANCE IN FEET	RESISTANCE READING (OHMS)
R12		
R13		
R14		
R23		
R34		
R42		

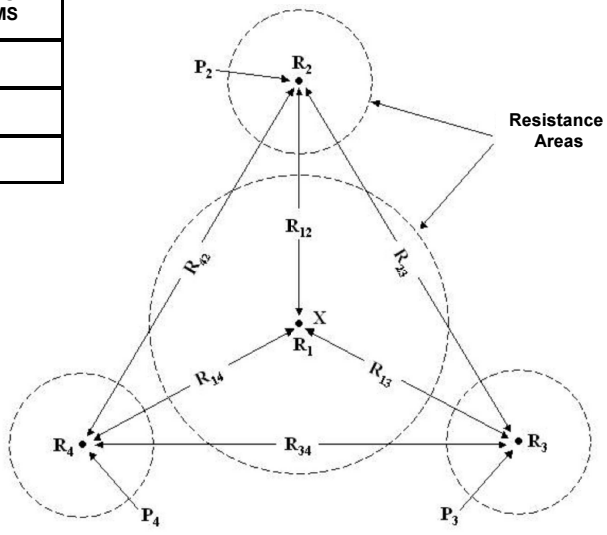
R1 RESISTANCE OF THE GROUND ELECTRODE UNDER TEST

R2 RESISTANCE OF PROBE P2

R3 RESISTANCE OF PROBE P3

R4 RESISTANCE OF PROBE P4

EQUATION	R1 RESULT OHMS	R2 RESULT OHMS	R3 RESULT OHMS	R4 RESULT OHMS
#1				
#2				
#3				
#4				



COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED:

TESTED BY: Default Administrator

SLOPE METHOD

OWNER Example Owner | PAGE 10

PLANT Example Plant | AMBIENT TEMP. °F | DATE 10/10/2014

SUBSTATION GROUND MAT (EARTH) GROUNDING TESTS | HUMIDITY % | JOB # D MAT (EARTH) GROU

POSITION GENERAL | ASSET ID

TYPE OF GROUND ROD | NUMBER OF GROUND RODS

DIAMETER OF GROUND ROD INCHES | LENGTH OF GROUND RODS FEET

SOIL TYPE | SOIL CONDITION: ○ DRY ○ DAMP ○ WET

CONNECTING CONDUCTOR SIZE AWG | CONNECTING CONDUCTOR ○ BARE ○ INSULATED

DIAGONAL MEASUREMENT OF GROUND GRID FEET | GROUND TESTER MAKE/MODEL

GROUND TESTER SERIAL NUMBER | LAST CALIBRATION DATE

PROBE PLACEMENT DIRECTION

DISTANCE FROM GROUND ELECTRODE TO C IN FEET

◉ Interpolate Result

○ Measure Result

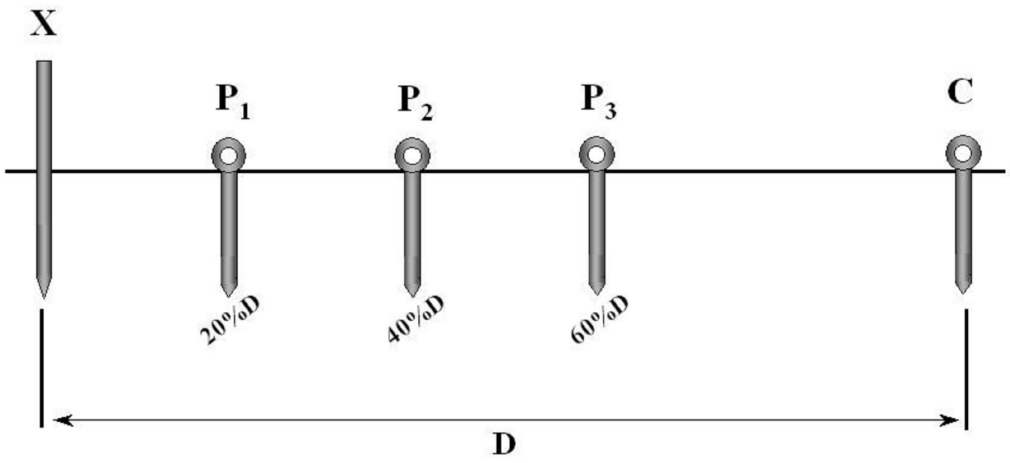
"P" PROBE POSITION	PERCENT OF OVERALL DISTANCE	DISTANCE IN FEET (GROUND ELECTRODE TO P)	RESISTANCE READING (OHMS)
R1	20.00 %C	0.0	
R2	40.00 %C	0.0	
R3	60.00 %C	0.0	

SLOPE CHANGE RESISTANCE/DISTANCE CURVE

P_T / C

P_T / (ft) 0.0

RESULT (ohms): 0.00



COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED: | TESTED BY: Default Administrator

FOUR POTENTIAL METHOD

Your Company Logo

OWNER Example Owner | PAGE 11

PLANT Example Plant | AMBIENT TEMP. °F | DATE 10/10/2014

SUBSTATION GROUND MAT (EARTH) GROUNDING TESTS | HUMIDITY % | JOB # D MAT (EARTH) GROU

POSITION GENERAL | ASSET ID

TYPE OF GROUND ROD | NUMBER OF GROUND RODS

DIAMETER OF GROUND ROD INCHES | LENGTH OF GROUND RODS FEET

SOIL TYPE | SOIL CONDITION: ○ DRY ○ DAMP ○ WET

CONNECTING CONDUCTOR SIZE AWG | CONNECTING CONDUCTOR ○ BARE ○ INSULATED

DIAGONAL MEASUREMENT OF GROUND GRID FEET | GROUND TESTER MAKE/MODEL

GROUND TESTER SERIAL NUMBER | LAST CALIBRATION DATE

PROBE PLACEMENT DIRECTION

DISTANCE FROM GROUND ELECTRODE TO C IN FEET

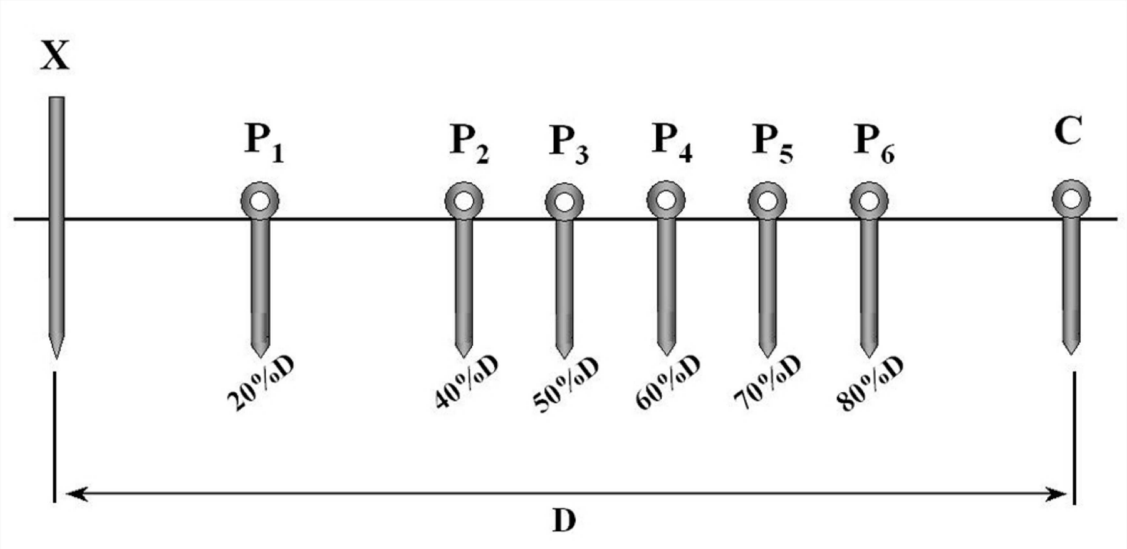
	PERCENT OF OVERALL DISTANCE	DISTANCE IN FEET (GROUND ELECTRODE TO P)	GROUND RESISTANCE (OHMS)
R1	20.00 %		
R2	40.00 %		
R3	50.00 %		
R4	60.00 %		
R5	70.00 %		
R6	80.00 %		

EQUATION #1 R_∞ RESULT

EQUATION #2 R_∞ RESULT

EQUATION #3 R_∞ RESULT

EQUATION #4 R_∞ RESULT



EQUATION #1 (R_∞) = -0.1187R1 - 0.4667R2 + 1.9816R4 - 0.3961R6

EQUATION #2 (R_∞) = -2.6108R2 + 4.0508R3 - 0.1626R4 - 0.2774R6

EQUATION #3 (R_∞) = -1.8871R2 + 1.1148R3 + 3.6837R4 - 1.9114R5

EQUATION #4 (R_∞) = -6.5225R3 + 13.6816R4 - 6.8803R5 + 0.7201R6

COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED: | TESTED BY: Default Administrator

GROUNDED SURFACES TEST
SINGLE ROOM

OWNER	Example Owner		PAGE 12
PLANT	Example Plant	AMBIENT TEMP. °F	DATE 10/10/2014
SUBSTATION	GROUND MAT (EARTH) GROUNDING TESTS	HUMIDITY %	JOB # D MAT (EARTH) GRO
POSITION	OTHER	ASSET ID	

OTHER

GROUND REFERENCE

ITEM	MILLIVOLT READING	ITEM	MILLIVOLT READING

MAXIMUM ALLOWABLE VALUE IS 20 MILLIVOLTS FOR NEW CONSTRUCTION PER THE NATIONAL FIRE PROTECTION ASSOCIATION NFPA-99, 1996, 3-3.3.2.6.

COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED:

TESTED BY: Default Administrator

GROUND ROD SURVEY

Your Company Logo

OWNER Example Owner | PAGE 13

PLANT Example Plant | AMBIENT TEMP. °F | DATE 10/10/2014

SUBSTATION GROUND MAT (EARTH) GROUNDING TESTS | HUMIDITY % | JOB # D MAT (EARTH) GRO

POSITION OTHER | ASSET ID

ROD NUMBER	LOCATION OR IDENTIFICATION	ROD SIZE D X L	COPPER CLAD STEEL OR GALVANIZED	CONNECTING CONDUCTOR SIZE	SOIL TYPE	RESISTANCE OHMS *

* TEST METHOD USED FOR DETERMINING GROUND ROD RESISTANCE:

- ☐ 2 POINT
- ☐ 3 POINT
- ☐ CLAMP-ON

REFERENCE GROUND

COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED:

TESTED BY: Default Administrator

GROUND RESISTANCE
TWO TERMINAL METHOD

OWNER	Example Owner		PAGE 14
PLANT	Example Plant	AMBIENT TEMP. °F	DATE 10/10/2014
SUBSTATION	GROUND MAT (EARTH) GROUNDING TESTS	HUMIDITY %	JOB # D MAT (EARTH) GRO
POSITION	OTHER	ASSET ID	

DRAWING REFERENCE NUMBER		
FROM		
TEST #	TO	☐ UNCORRECTED ☐ CORRECTED RESISTANCE RESULT
		☐ MILLI-OHMS ☐ OHMS
		☐ MILLI-OHMS ☐ OHMS
		☐ MILLI-OHMS ☐ OHMS
		☐ MILLI-OHMS ☐ OHMS
		☐ MILLI-OHMS ☐ OHMS
		☐ MILLI-OHMS ☐ OHMS
		☐ MILLI-OHMS ☐ OHMS
		☐ MILLI-OHMS ☐ OHMS
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		☐ MILLI-OHMS ☐ OHMS
		☐ MILLI-OHMS ☐ OHMS
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		☐ MILLI-OHMS ☐ OHMS
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		☐ MILLI-OHMS ☐ OHMS
		☐ MILLI-OHMS ☐ OHMS
		☐ MILLI-OHMS ☐ OHMS

COMMENTS:
DEFICIENCIES:

TEST EQUIPMENT USED: _____ TESTED BY: Default Administrator

GROUND MAT TEST

OWNER	Example Owner		PAGE 15
PLANT	Example Plant	AMBIENT TEMP. °F	DATE 10/10/2014
SUBSTATION	GROUND MAT (EARTH) GROUNDING TESTS	HUMIDITY %	JOB # D MAT (EARTH) GRO
POSITION	OTHER	ASSET ID	

TYPE OF GROUND ROD _____ NUMBER OF RODS _____

DIAMETER OF GROUND ROD _____ LENGTH OF GROUND RODS _____

SOIL TYPE _____ SOIL CONDITION: ○ DRY ○ DAMP ○ WET

CONNECTING CONDUCTOR SIZE _____ CONNECTING CONDUCTOR ○ BARE ○ INSULATED

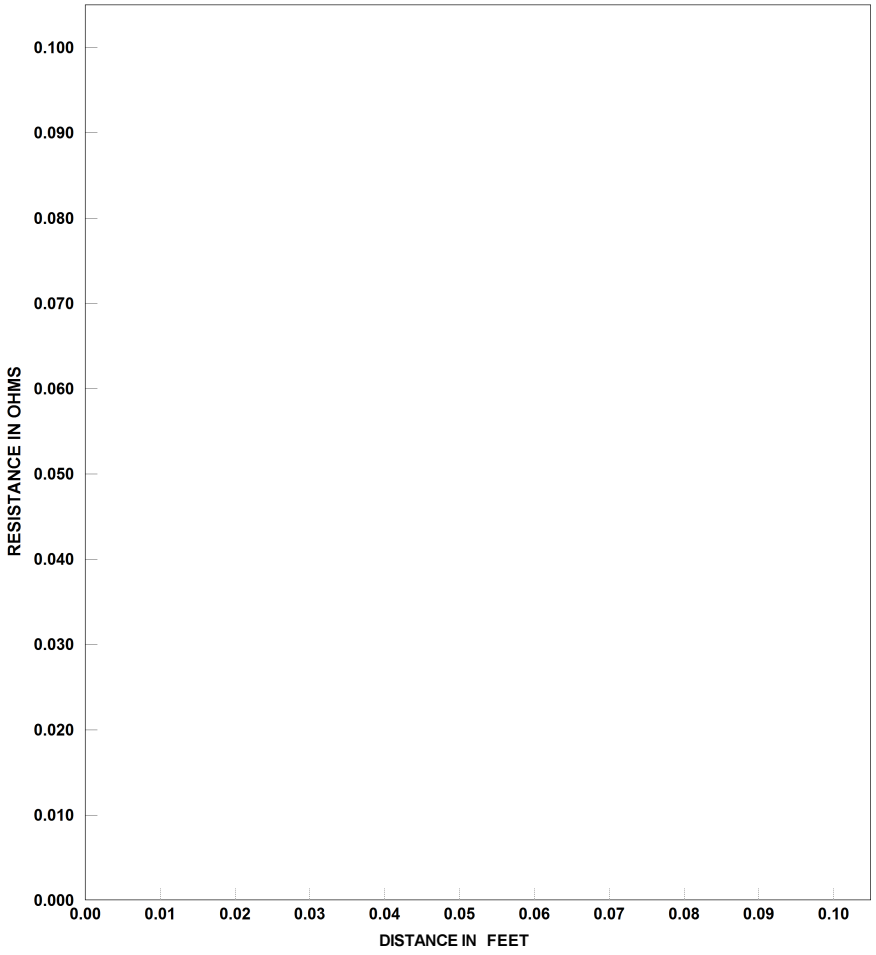
CURRENT TRANSFORMER TYPE: BAR TYPE ○

WINDOW: SOLID ○ SPLIT CORE ○

STYLE: ROUND ○ RECTANGULAR ○

AUXILIARY POTENTIAL ELECTRODE

DISTANCE IN FEET	RESISTANCE IN OHMS



GROUND RESISTANCE @ 61.8% OF DISTANCE OHMS

TEST TYPE: ○ FALL OF POTENTIAL

○ TWO-POINT

○ INDUCED FREQUENCY

COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED: _____ TESTED BY: Default Administrator

GROUND MAT TEST

OWNER	Example Owner	PAGE	16
PLANT	Example Plant	AMBIENT TEMP. °F	DATE 10/10/2014
SUBSTATION	GROUND MAT (EARTH) GROUNDING TESTS	HUMIDITY %	JOB # D MAT (EARTH) GRO
POSITION	OTHER	ASSET ID	

TYPE OF GROUND ROD _____ NUMBER OF RODS _____

DIAMETER OF GROUND ROD _____ LENGTH OF GROUND RODS _____

SOIL TYPE _____ SOIL CONDITION: ○ DRY ○ DAMP ○ WET

CONNECTING CONDUCTOR SIZE _____ CONNECTING CONDUCTOR ○ BARE ○ INSULATED

CURRENT TRANSFORMER TYPE: BAR TYPE ○

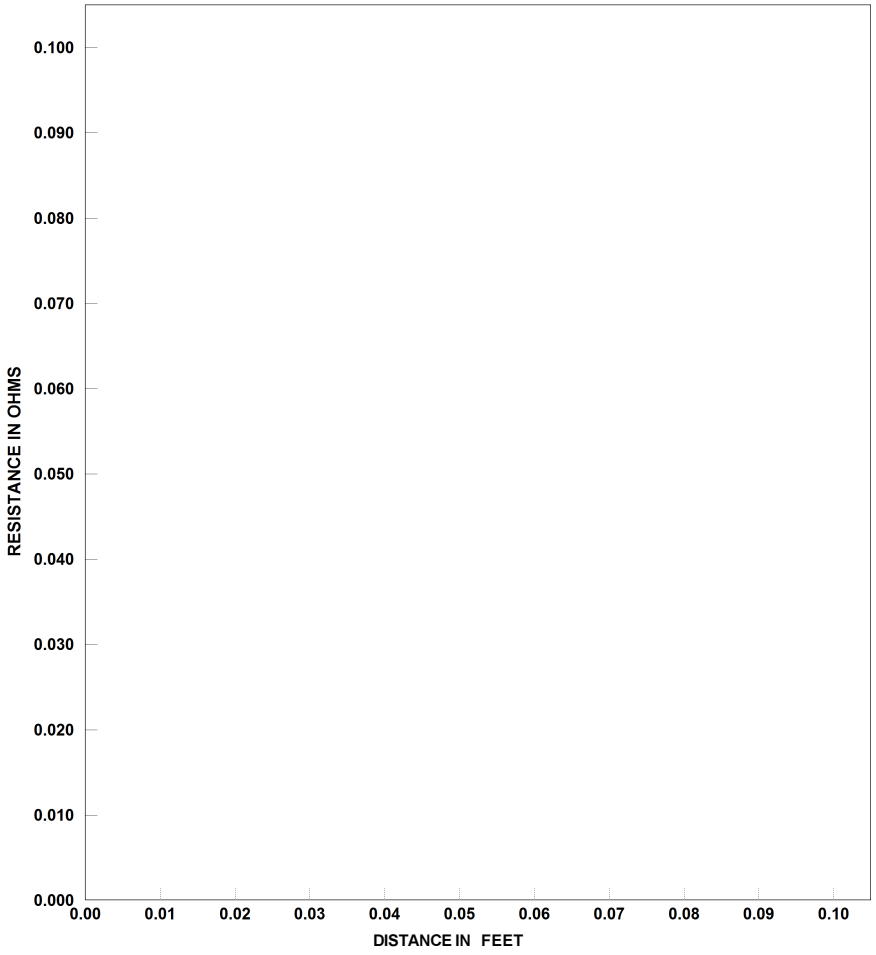
WINDOW: SOLID ○ SPLIT CORE ○

STYLE: ROUND ○ RECTANGULAR ○

AUXILIARY POTENTIAL ELECTRODE

DISTANCE IN FEET	RESISTANCE IN OHMS

GROUND RESISTANCE @ 61.8% OF DISTANCE _____ OHMS



TEST TYPE:
- ○ FALL OF POTENTIAL
- ○ TWO-POINT
- ○ INDUCED FREQUENCY

COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED: _____ TESTED BY: Default Administrator

LINE ISOLATION MONITOR SYSTEM TEST

OWNER	Example Owner		PAGE 17
PLANT	Example Plant	AMBIENT TEMP. °F	DATE 10/10/2014
SUBSTATION	GROUND MAT (EARTH) GROUNDING TESTS	HUMIDITY %	JOB # D MAT (EARTH) GRO
POSITION	OTHER	ASSET ID	

NAMEPLATE DATA

MANUFACTURER				SERIAL NO.	
MODEL NO.		CATALOG NO.		TYPE	
INPUT VOLTAGE		OUTPUT VOLTAGE		ALARM CURRENT PICKUP	

INDICATOR TESTS

DESCRIPTION	INSPECTED	CONDITION	DESCRIPTION	INSPECTED	CONDITION
SAFE LIGHT	☐		SILENCE	☐	
HAZARD LIGHT	☐		SELF CALIBRATION	☐	
PUSH TO TEST	☐		METER READING - CIRCUITS ON	☐	mA
PUSH TO TEST	☐		METER READING - CIRCUITS OFF	☐	mA

VOLTAGE TESTS

NO LOAD PRIMARY VOLTAGE				NO LOAD SECONDARY VOLTAGE			
H1-GROUND	V	H1-H2	V	X1-GROUND	V	X1-X2	V
H2-GROUND	V	H2-H3	V	X2-GROUND	V	X2-X3	V
H3-GROUND	V	H3-H1	V	X3-GROUND	V	X3-X1	V

VOLTAGE TESTS

PANEL LEAKAGE	L1-GND (μA)	L2-GND (μA)	L3-GND (μA)
BRANCH CKT. BREAKERS OFF			
BRANCH CKT. BREAKERS ON (LOADS ARE REMOVED OR OFF)			

LIM TRIP LEVEL TEST

	L1-GND (mA)	L2-GND (mA)	L3-GND (mA)
LIM METER READING			
EXTERNAL METER READING			

SHADED AREAS FOR 3-PHASE SYSTEMS ONLY

HAZARD LEAKAGE CURRENT TESTS - BRANCH CIRCUITS

CIRCUIT NUMBER	LEAKAGE CURRENT L1-GND (μA)	LEAKAGE CURRENT L2-GND (μA)	LEAKAGE CURRENT L3-GND (μA)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED: _____ TESTED BY: Default Administrator

GROUNDED SURFACES TEST
MULTI-ROOM

Your Company Logo

OWNER Example Owner | PAGE 18

PLANT Example Plant | AMBIENT TEMP. °F | DATE 10/10/2014

SUBSTATION GROUND MAT (EARTH) GROUNDING TESTS | HUMIDITY % | JOB # D MAT (EARTH) GROU

POSITION OTHER | ASSET ID

GROUND REFERENCE

OTHER

ITEM	MILLIVOLT READING				
	RM	RM	RM	RM	RM

MAXIMUM ALLOWABLE VALUE IS 20 MILLIVOLTS FOR NEW CONSTRUCTION CRITICAL CARE AREAS, AND 500 MILLIVOLTS FOR GENERAL CARE AREAS PER NFPA-99, 1996, 3-3.3.2.6, CRITERIA FOR ACCEPTABILITY.

COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED:

TESTED BY: Default Administrator

GROUND POINT CONTINUITY TEST

OWNER Example Owner

PLANT Example Plant

SUBSTATION GROUND MAT (EARTH) GROUNDING TESTS

POSITION OTHER

AMBIENT TEMP. °F

HUMIDITY %

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DATE 10/10/2014

JOB # D MAT (EARTH) GROU

ASSET ID

General Description:

Maximum Resistance

Test #	Description	Test Amps A	Volts V	Calc. Resist. (ohms)	Lead Resist. (ohms)	Ground Resist. (ohms)	Com.	Test #	Description	Test Amps A	Volts V	Calc. Resist. (ohms)	Lead Resist. (ohms)	Ground Resist. (ohms)	Com.

COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED:

TESTED BY: Default Administrator

FALL OF POTENTIAL TEST

Your Company Logo

OWNER Example Owner

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PLANT Example Plant

AMBIENT TEMP. °F

DATE 10/10/2014

SUBSTATION GROUND MAT (EARTH) GROUNDING TESTS

HUMIDITY %

JOB # D MAT (EARTH) GROU

POSITION OTHER

ASSET ID

TYPE OF GROUND ROD

NUMBER OF GROUND RODS

DIAMETER OF GROUND ROD INCHES

LENGTH OF GROUND RODS FEET

SOIL TYPE

SOIL CONDITION: ○ DRY ○ DAMP ○ WET

CONNECTING CONDUCTOR SIZE AWG

CONNECTING CONDUCTOR ○ BARE ○ INSULATED

DIAGONAL MEASUREMENT OF GROUND GRID FEET

GROUND TESTER MAKE/MODEL

GROUND TESTER SERIAL NUMBER

LAST CALIBRATION DATE

POINT UNDER TEST

DIRECTION OF ELECTRODES

DISTANCE C1 TO C2	DISTANCE P1 TO P2	PERCENT P TO C	MEASURED RESISTANCE
			R_{40} OHM(S)
			R_{50} OHM(S)
			R_{60} OHM(S)
			R OHM(S)
			R OHM(S)

RA EQUALS AVERAGED RESISTANCE (R_{40} R_{50} R_{60}): OHM(S)

R_{60} MINUS RA DIVIDE BY RA EQUALS X PERCENT

X PERCENT TIMES 1.2 EQUALS Y PERCENT

IF Y PERCENT IS LESS THAN YOUR DESIRED TEST ACCURACY, RA CAN BE USED AS THE REST RESULT.

COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED:

TESTED BY: Default Administrator

GROUND RESISTIVITY TEST

Your Company Logo

OWNER Example Owner

PLANT Example Plant

SUBSTATION GROUND MAT (EARTH) GROUNDING TESTS

POSITION OTHER

AMBIENT TEMP. °F

HUMIDITY %

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DATE 10/10/2014

JOB # D MAT (EARTH) GRO

ASSET ID

SOIL TYPE

SOIL CONDITION: ○ DRY ○ DAMP ○ WET

TEST ELECTRODE DEPTH INCHES

TEST ELECTRODE SPACING FEET

TEST PLOT ID	METER READING (OHMS)	CALCULATED RESISTIVITY (OHMS - CM)	TEST PLOT ID	METER READING (OHMS)	CALCULATED RESISTIVITY (OHMS - CM)	TEST PLOT ID	METER READING (OHMS)	CALCULATED RESISTIVITY (OHMS - CM)

ρ - SOIL RESISTIVITY IN OHM CENTIMETERS

A - DISTANCE BETWEEN TEST ELECTRODES IN I FEET

R - RESISTANCE IN OHMS

CENTIMETERS = (INCHES) (2.54)

CENTIMETERS = (FEET) (12) (2.54)

RESISTIVITY CALCULATION N: $\rho = 2 \pi A R$

COMMENTS:

DEFICIENCIES:

TEST EQUIPMENT USED:

TESTED BY: Default Administrator