TEST DATA

Test Data No. : _____

Station : _____
Protected Eqpt. ID _____
Date of Test : _____
CT Ratio : _____
PT Ratio : _____
Breakers Tripped : _____

Relay Specifications:

Brand: _____
Model: _____
Serial No. _____
Current Rating: _____
Voltage Rating: _____
Manufacturing Date: _____

A. RELAY SETTINGS
A.1 LINE DIFFERENTIAL SETTINGS

PARAMETERS	VALUE
DIFFERENTIAL CURRENT PICKUP	
CT FACTOR	
DIFFERENTIAL SLOPE	
LOCAL ADDRESS	
REMOTE ADDRESS	

B. TEST RESULTS
B.1 DIFFERENTIAL TEST
B.1.1 PICK-UP TEST (LOOPBACK)

PARAMETERS	A	B	C
CURRENT PICK-UP (A)			
RELAY INDICATION/TARGET			

B.1.2 END TO END TEST (LOOPBACK)
B.1.2.1 STABILITY TEST

Local Station : _____
Nominal Current (A) : _____
Angle Displacement (°) : _____

Remote Station : _____
Nominal Current (A) : _____
Angle Displacement (°) : _____

Phase	Measured Values (A)		
	A	B	C
Local			
Remote			
Differential			
Bias			

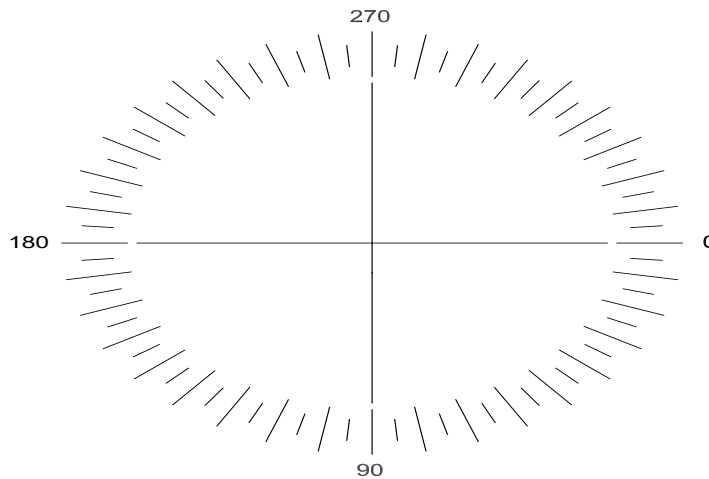| Phase	Measured Values (A)		
	A	B	C
Local			
Remote			
Differential			
Bias			

B.1.2.2 INCREASE CURRENT MAGNITUDE AT LOCAL END (TEST POINT 1)

Local Station	: _____	Remote Station	: _____
Test Current (A)	_____	Test Current (A)	_____
Angle Displacement (°)	: _____	Angle Displacement (°)	: _____
Trip Current (A)	: _____	Trip Current (A)	: _____

Phase	Measured Values (A)			Phase	Measured Values (A)		
	A	B	C		A	B	C
Local				Local			
Remote				Remote			
Differential				Differential			
Bias				Bias			

B.1.2.3 INCREASE CURRENT MAGNITUDE AT REMOTE END (TEST POINT 1)

Local Station	: _____	Remote Station	: _____
Test Current (A)	_____	Test Current (A)	_____
Angle Displacement (°)	: _____	Angle Displacement (°)	: _____
Trip Current (A)	: _____	Trip Current (A)	: _____

Phase	Measured Values (A)			Phase	Measured Values (A)		
	A	B	C		A	B	C
Local				Local			
Remote				Remote			
Differential				Differential			
Bias				Bias			

B.1.2.4 INCREASE CURRENT MAGNITUDE AT LOCAL END (TEST POINT 2)

Local Station	: _____	Remote Station	: _____
Test Current (A)	_____	Test Current (A)	_____
Angle Displacement (°)	: _____	Angle Displacement (°)	: _____
Trip Current (A)	: _____	Trip Current (A)	: _____

Phase	Measured Values (A)			Phase	Measured Values (A)		
	A	B	C		A	B	C
Local				Local			
Remote				Remote			
Differential				Differential			
Bias				Bias			

B.1.2.5 INCREASE CURRENT MAGNITUDE AT REMOTE END (TEST POINT 2)

Local Station	: _____	Remote Station	: _____
Test Current (A)	_____	Test Current (A)	_____
Angle Displacement (°)	: _____	Angle Displacement (°)	: _____
Trip Current (A)	: _____	Trip Current (A)	: _____

Phase	Measured Values (A)			Phase	Measured Values (A)		
	A	B	C		A	B	C
Local				Local			
Remote				Remote			
Differential				Differential			
Bias				Bias			

B.1.2.6 COMPUTED SLOPE

Slope Local	
Slope Remote	

REMARKS: _____

C. PARAMETER CHECK

SECONDARY VALUES				PHASE ANGLE (Out of phase for incoming; In phase for outgoing)	PRIMARY VALUES (RELAY)		PRIMARY VALUES (STATISTICAL METER)	
CIRCUIT 1		CIRCUIT 2						
Parameter	Magnitude	Parameter	Magnitude	Degrees				
	(±10% of expected input value)		(±10% of expected input value)					
I_A		V_{AN}			Power Flow :		Power Flow :	
		V_{BN}			MW :		MW :	
		V_{CN}			MVAR :		MVAR :	
I_B		V_{AN}						
		V_{BN}			I_A :		I_A :	
		V_{CN}			I_B :		I_B :	
I_C		V_{AN}			I_C :		I_C :	
		V_{BN}			I_N			
		V_{CN}			V_{AB} :		V_{AB} :	
I_N		V_{AB}			V_{BC} :		V_{BC} :	
		V_{BC}			V_{CA} :		V_{CA} :	
		V_{CA}						

D. RELAY OPERATING PARAMETERS

PARAMETERS	MEASURED VALUES		
	A	B	C
AUXILLIARY VOLTAGE (VDC)			
TRIPPING VOLTAGE (VDC)			
IDIFF			
IBIAS			
ILOCAL			
IREMOTE			

REMARKS:

E. FUNCTIONAL TESTING / SIMULATION

FUNCTION	CONTROLLING BREAKERS	SIMULATION USED		BREAKERS TRIPPED	REMARKS
		INJECTION	SIGNALLING		

Tested by :   *Concurred by :*

Contractor - Test Engineer

Owner's Representative

Witnessed by :

NGCP Representative

TEST INSTRUMENTS:

(Eqpt.ID/Make/Model/SN/
Date of last calibration)