	Ĩ									Page 1 o	of 3	
V	Vinnipèg			POW	ER CA	ABLE, 41	60V			Cable ID:		
Project	Facility:				Project	Project Name:						
Proj	Area :				Bid Op	Bid Opportunity:						
	1				-							
	Source:					Dest. / Load:						
g	Manufactu	ırer:		Type:		Conductor:				Copper	Alum	ninum
Cable Data	No. of Conducto	No. of Conductors: Size:] AWG] MCM Length:				m 🗌 Measured 🔹 Previous Da 🗋 Jacket Markings 🔄 TDR			s Data
Cat	Rated Vol		Operating Voltage:		V Date Installed:							
	Installatio	n: Cable Tra	uit	□ Alum. Conduit □ Direct Buried Other: □ PVC Conduit □ Underground Duct								
	Physical Damage on Exposed Ends: 🛛 Yes					Cable Io	lentification -	Tag Install	led:		Yes	□ No
Visual Inspection	Visual Signs of Overheating/Corona:					Cable S	upported Ap	propriatel	y:		Yes	🗌 No
Vis Inspe	Damage t	Damage to Splices/Terminations:					Grounded:				Yes	🗌 No
	Bend Rad	ius Acceptable:		Yes	No Comments:							
		Source:			Cable	Deet /Lee	1.		Nista, Anna		D	to time
st	Test Preparatio	Disconneo	ted I with Source Is	olated	Disconnected is				Note: Appro is required, p connected d	prior to leavin	ng cab	
Insulation Resistance Test	Cable Ter	nperature:	°C Temperatu	ire Corr	rection F	Factor for 20)°C:		ound all conc ch reading.	luctors not u	nder t	est for
sistaı	Test			Insu	Iation F	Resistance	(ΜΩ)		Test Summ	ary		
n Re:	Voltage		A-GNI)	В	B-GND	C-GI	ND	Test Pas	sed		
ulatio	2500V	Reading								nvestigation	Requ	ired.
lnsu	2000	Corrected to 20°	c						Test Faile	ed		
	Comment	S:	•				•					

INSPECTION FORM 4160V POWER CABLE

Page 2 of 3

Cable ID:

	Test Preparation:		Source: Disconnected Connected with Source Isolated	Cable Dest. / Load:	Note: Approval of City's Representative is required, prior to				
	Frequency:	0.1 Hz	Waveform: sinus	soidal	Ground all conductors not under test for each reading.				
	Test Voltage	Elapsed Time	Pea	k Leakage Current (uA)	Test Summary			
	(RMS)	(min)	A-GND	B-GND	C-GND	Test Passed Test Inconclusive			
	7000V	0				Further Investigation Required.			
	7000V	1							
	7000V	2							
High Potential Very Low Frequency (VLF) Test	7000V	3							
al (VLF)	7000V	4							
High Potential v Frequency (V	7000V	5							
jh Po requ€	7000V	6							
Hiç ow Fi	7000V	7							
ery L	7000V	8							
>	7000V	9							
	7000V	10							
	7000V	11							
	7000V	12							
	7000V	13							
	7000V	14							
	7000V	15							
	Comments:								

Cable Returned to Service:

Monitoring / Further Inspection

Repair / Replacement Required:

Comments:

Required:

Final Analysis

INSPECTION FORM 4160V POWER CABLE

Page 3 of 3

Cable ID:

	Frequency:	0.1 Hz	Waveform: si	inusoidal						
	Test Voltage		Α			В		С		
Dissipation Factor (Tangent Delta) Test	(RMS)	Tan Delta	Capacitance (nF)	Current (µA)	Tan Delta	Capacitance (nF)	Current (µA)	Tan Delta	Capacitance (nF)	Current (µA)
	2400V									
ion F Delt	4800V									
sipat	Difference									
Dis (Tar	Test Summary		Comments:							
	 Test Passed Test Inconclusive Further Investigation Required. Test Failed 									
1	I		Γ							
	Termina	tion	Con	nection Res	istance (µ	Ω) - As Left		Torque Check		
ion			Α		ВС					
Connection Resistance	Sourc	e							□ок	
Res	Dest. / L	oad							Пок	

	Company	Name	Signature	Date (yyyy/mm/dd)
Performed By				
Checked By				

🗌 No

🗌 No

🗌 No

🗌 Yes

🗌 Yes

🗌 Yes

Comments:

Note: The person performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that the analysis results are correct.

	<u> </u>		INSPE		ORM			Page	1 of 3		
V					YSTEM			ID:			
ect	Facility:		Pi	roject Name	:						
Project	Area :		Bi	Bid Opportunity:							
					,						
ы	Connection to Grou Visible:	ind Electrode is	□ Yes	No Facility Contains a Main Ground Bus:			ound Bus:		☐ Yes	🗌 No	
pecti	Connecting Conduc	ctor: Size:	Qty:		Torque Ground Connections:						
Visual Inspection	Visual signs of Corr	osion:	□ Yes	🗌 No							
Visua	Soil Type:				Soil Cond	dition: 🗌 Dry 🗌] Damp 🛛	Wet			
	Comments:										
	Date of Test:				Time of T	est:					
	Weather and Temp	erature:			Terrain:						
	Grounding System Connection Point:		UTM (Coordi		E N						
	Current Probe Injection Point:		UTM (Coordi		Е	Ν					
	Test Conditions:				Test La	yout:					
	Voltage Probe Distance (meters)	UTM GPS Coord	dinate:	Test Curr (mA)		Test Voltage (mV)	Resistanc H (Ω)	ce @ Iz	Resista (Ω	Hz	
st #1		E	Ν								
al Te		E	Ν								
otenti		E	Ν								
Fall Of Potential Test #1		E	Ν								
Fall		E	Ν								
		E	Ν								
		E	Ν								
		E	Ν								
		E	Ν								
		E	Ν								
		E	Ν								
		E	Ν								
	Comments:										

	Date of Test:				Time of Test:						
	Weather and Tempe	rature:			Terrain:						
	Grounding System Connection Point:		UTM GPS Coordinate	S e:	Е	E N					
	Current Probe Injection Point:		UTM GPS Coordinate		E	Ν					
	Test Conditions:	Test Conditions:			Test La	yout:					
	Voltage Probe Distance (meters)	UTM GPS Coordinate:		Test Current (mA)		Test Voltage (mV)	Resistance @ Hz (Ω)	Resistance @ Hz (Ω)			
st #2		E	Ν								
Fall Of Potential Test #2		E	Ν								
otent		E	Ν								
Of P		E	Ν								
Fall		Е	Ν								
		E	Ν								
		Е	Ν								
		E	Ν								
		E	Ν								
		E	Ν								
		E	Ν								
		E	Ν								
	Comments:										

Performed By

Checked By

the analysis results are correct.

INSPECTION FORM GROUNDING SYSTEM

ID:

	Poir	nt A		Point B	Resistance (mΩ)	Test Summary	
	Facility Grou	nd Electrode	Ма	in Ground Bus		Further Investigati	on Required.
	Facility Grou	nd Electrode	4160V S	witchgear GND	Bus		
	Facility Grou	nd Electrode	Sy	stem Neutral			
S)	Facility Grou	nd Electrode	600V Sv	witchgear GND E	Bus		
Resistance Checks (Ductor Test)	Facility Grou	nd Electrode	MCC	: GND Bus	5		
sistance Chec (Ductor Test)	Facility Grou	nd Electrode	MCC	: GND Bus	5		
esiste (Duc	Facility Grou	nd Electrode	C	Other :			
Re	Facility Grou	nd Electrode	C	Other :			
	Facility Grou	nd Electrode	Other :				
	Comments:						
	Monitoring / Ins	pection Required	· □	Yes 🗌 No	Comments:		
Final Analysis							
Fii Ana	Repair / Replacement Required: Yes						
		Company		Name		Signature	Date (yyyy/mm/dd)

Note: The person performing the check is responsible for ensuring that the data is transcribed from the handwritten form correctly, and that

	Q			PECTION				Page 1	of 2	
r I	Winnipèg		SWI	TCHGEAR,	, 4160V			ID:		
Project	Facility:			Project Name	e:					
Pro	Area :			Bid Opportur	nity:					
ar	ID:			Location:				# of Cells:		
Switchgear Data	Manufactu	rer:		Туре:	Serial #:					
Swi	Rated Volt	age: V	Current Rating:	A		Withstand Rating:		А		
	Identificatio	on Tag Installed:	☐ Yes	🗌 No	Visual Sign	I Signs of Overheating:				
	Visual sign	s of Moisture:	☐ Yes	🗌 No	Visual Signs of Corona:				Yes	🗌 No
Visual Inspection / Cleaning	Fuse/Brea	ker Sizes Match Dr	awings: 🗌 Yes	🗌 No	PT and CT	ratios match	drawings:	Γ	Yes	🗌 No
	Elevation [Drawings Correct:	🗌 No	Cables Sup	ported Appro	opriately:	C	Yes	🗌 No	
	Cleanlines	Cleanliness (As Found):			Insulators C	Condition:		Good 🗌 Ac	ceptabl	e 🗌 Poor
ction	Connection	ns:	Good Accep	table 🗌 Poor	Electro/Med Interlock Sy			Good 🗌 Acc	ceptable	e 🗌 Poor
lnspe	Ground Co	onnection:	Good Accept	able 🗌 Poor	Vents/Filter	'S:		Good 🗌 Acc	ceptable	e 🗌 Poor
isual	Doors Med	hanical:	Good Accept	able 🗌 Poor						
>	Cell Fit and	d Alignment:	Good Accept	able 🗌 Poor						
	Required C Met:	Clearances are	Good Accept	able 🗌 Poor						
	Indicating	mechanisms:	Good Accept	able 🗌 Poor	Unit Cleane	ed: 🗌 Ye	s Photogra	ph Taken:	<u>с</u>	Yes
	Test Prepara	ation: Conne	nnected Disco	est. / Load: onnected nected with Lo	ad Isolated		oval of City's F ng cables cor			
tion Resistance Test (Buswork)	Test		Insulation Resistant Phase To GN			Temperature	e: °C			
stanc ırk)	Voltage	A	В		С					
on Resistar (Buswork)	2500 V									
tion (B	Test		Insulation Resistan							

			e Isolated	ted with Load Isolated	prior to leaving cables connected during the test.				
e Test	Test	Ir	sulation Resistance Phase To GND	Temperature:	°C				
stanc ork)	Voltage	Α	В	С					
Resi uswo	2500 V								
Insulation Resistance (Buswork)	Test	Ir	sulation Resistance Phase To Phase	(ΜΩ)					
Insu	Voltage	A – B	B – C	A - C					
	2500 V								
	Comments:								

INSPECTION FORM SWITCHGEAR, 4160V

Page 2 of 2

ID:

псе		Point A		Point B		Resistar (μΩ)		Test Summary □ Test Passed □ Test Inconclusive			
sista	Switch	gear GND Bus	s Fa	cility Ground Electro	de				vestigation Required.		
Ground Resistance	Switchgear GND Bus		s S	Switchgear Enclosure			L				
Grou	Switch	gear GND Bus	6	System Neutral							
	Comments	3:	1		1		1				
	То		From		Resista (mΩ)	ice		Test Sumn	nary		
				Α	В		С	Test Pas			
									Investigation Required.		
ance											
Connection Resistance								_			
tion R								_			
nnect								_			
Ŝ											
	Comments	:									
	Test Prepa		urce: Disconnect Connected Source Iso	with conne	Approval of Cit	/'s Repre	esentative is requ	uired, prior to	leaving cables		
itial T	Peak DC Test			Test Summary (mA)		Т	est Summary				
gh Potential Test	Voltage (1 minute duration)	A		В	с		Test Passed	sive			
Ĩ	12 kV						Further Inves Test Failed	tigation Requ	ired.		
	Comments		•								
	Returned	to Service:		Yes I	No Commen	ts:					
Final Analysis		g / Inspection	Required:								
Ε Αná		Replacement R	-	Yes I							
	Company Name					Signatu	ire		Date (yyyy/mm/dd)		
Perfor	rmed By										

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Checked By