



City of Iqaluit
WATER TREATMENT PLANT
NUNAVUT

E A R T H T E C H



PLC I/O INDEX

Project No. 75360
ISSUE: ORIGINAL

PLC POINT NAME	CARD TYPE	POINT DESCRIPTION		SIGNAL TYPE				SOURCE DEVICE	DATA FIELD 1 LOGIC 0 (SIGNAL RANGE)		DATA FIELD 2 LOGIC 1 (E.U. RANGE)		P&ID	ALARM	ALARM CATEGORY	REMARKS	REV STAT
		ASSOCIATED EQUIPMENT	FUNCTION/TYPE	DI	DO	AI	AO										
YA-	MXR-201	BIOREACTOR 1 ANOXIC ZONE 1	MIXER	1					FAULT		HEALTHY		I3-02	Y			0
YA-	P-203	BIOREACTOR 1 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-02	Y			0
YA-	P-205	BIOREACTOR 1 WAS PUMP	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-02	Y			0
YA-	MXR-202	BIOREACTOR 2 ANOXIC ZONE 1	MIXER	1					FAULT		HEALTHY		I3-02	Y			0
YA-	P-204	BIOREACTOR 2 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-02	Y			0
YA-	P-206	BIOREACTOR 2 WAS PUMP	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-02	Y			0
YA-	P-501	CLARIFIERS EFFLUENT PUMP No.1	MOTOR	1					FAULT		HEALTHY		I3-03	Y			0
YA-	P-502	CLARIFIERS EFFLUENT PUMP No.2	MOTOR	1					FAULT		HEALTHY		I3-03	Y			0
YA-	P-509	HYPOCHLORITE DOSING PUMP No.1	MOTOR	1					FAULT		HEALTHY		I3-06	Y			0
YA-	P-510	HYPOCHLORITE DOSING PUMP No.2	MOTOR	1					FAULT		HEALTHY		I3-06	Y			0
YA-	P-411	POLYMER DOSING PUMP No.1	MOTOR	1					FAULT		HEALTHY		I3-06	Y			0
YA-	P-412	POLYMER DOSING PUMP No.2	MOTOR	1					FAULT		HEALTHY		I3-06	Y			0
YA-	B-214	PROCESS AIR BLOWER No.1	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-05	Y			0
YA-	B-215	PROCESS AIR BLOWER No.2	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-05	Y			0
YA-	B-216	PROCESS AIR BLOWER No.3	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-05	Y			0
YA-	B-217	PROCESS AIR BLOWER No.4	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-05	Y			0
YA-	B-218	PROCESS AIR BLOWER No.5	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-05	Y			0
YA-	B-219	PROCESS AIR BLOWER No.6	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-05	Y			0
YA-	P-102	RAW WASTE WATER LIFT STATION PUMP 1	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-01	Y			0
YA-	P-103	RAW WASTE WATER LIFT STATION PUMP 2	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-01	Y			0
YA-	P-104	RAW WASTE WATER LIFT STATION PUMP 3	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-01	Y			0
YA-	M-	RAW WASTE WATER SCREEN No.1	MOTOR	1					FAULT		HEALTHY		I3-01	Y			0
YA-	M-	RAW WASTE WATER SCREEN No.2	MOTOR	1					FAULT		HEALTHY		I3-01	Y			0
YA-	M-	SECONDARY CLARIFIER No.1	MOTOR	1					FAULT		HEALTHY		I3-03	Y			0
YA-	M-	SECONDARY CLARIFIER No.2	MOTOR	1					FAULT		HEALTHY		I3-03	Y			0
YA-	P-305	SECONDARY CLARIFIERS RAS PUMP No.1	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-03	Y			0
YA-	P-306	SECONDARY CLARIFIERS RAS PUMP No.2	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-03	Y			0
YA-	P-307	SECONDARY CLARIFIERS RAS PUMP No.3	VARIABLE FREQUENCY DRIVE	1					FAULT		HEALTHY		I3-03	Y			0
YA-	P-404	TWAS PUMP No.1	MOTOR	1					FAULT		HEALTHY		I3-04	Y			0
YA-	P-405	TWAS PUMP No.2	MOTOR	1					FAULT		HEALTHY		I3-04	Y			0
AH-	AIT-	RAW WASTE WATER LIFT STATION	COMBUSTIBLE GAS DETECTION	1					HIGH LEVEL ALARM		HEALTHY		I3-01	Y			0
AH-	AIT-	RAW WASTE WATER LIFT STATION	COMBUSTIBLE GAS DETECTION	1					HIGH LEVEL ALARM		HEALTHY		I3-01	Y			0
AH-	AIT-	RAW WASTE WATER LIFT STATION	H2S GAS DETECTION	1					HIGH LEVEL ALARM		HEALTHY		I3-01	Y			0
AH-	AIT-	RAW WASTE WATER LIFT STATION	H2S GAS DETECTION	1					HIGH LEVEL ALARM		HEALTHY		I3-01	Y			0
PSH-	PSH-	BIOREACTOR 1 WAS PUMP DELIVERY	PRESSURE SWITCH	1					HIGH PRESSURE		HEALTHY		I3-02	Y			0
PSH-	PSH-	BIOREACTOR 2 WAS PUMP DELIVERY	PRESSURE SWITCH	1					HIGH PRESSURE		HEALTHY		I3-02	Y			0
PSH-	PSH-	TWAS PUMP No.1 OUTLET	PRESSURE SWITCH	1					HIGH PRESSURE		HEALTHY		I3-04	Y			0
PSH-	PSH-	TWAS PUMP No.2 OUTLET	PRESSURE SWITCH	1					HIGH PRESSURE		HEALTHY		I3-04	Y			0
FSL-	FSL-	BIOREACTOR 1 WAS	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-02	Y			0
FSL-	FSL-	BIOREACTOR 2 WAS	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-02	Y			0
FSL-	FSL-	PROCESS AIR	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-04	Y			0
FSL-	FSL-	PROCESS AIR BLOWER No.1	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-05	Y			0
FSL-	FSL-	PROCESS AIR BLOWER No.2	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-05	Y			0
FSL-	FSL-	PROCESS AIR BLOWER No.3	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-05	Y			0
FSL-	FSL-	PROCESS AIR BLOWER No.4	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-05	Y			0
FSL-	FSL-	PROCESS AIR BLOWER No.5	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-05	Y			0
FSL-	FSL-	PROCESS AIR BLOWER No.6	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-05	Y			0
FSL-	FSL-	SECONDARY CLARIFIERS RAS PUMP No.1	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-03	Y			0
FSL-	FSL-	SECONDARY CLARIFIERS RAS PUMP No.2	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-03	Y			0
FSL-	FSL-	SECONDARY CLARIFIERS RAS PUMP No.3	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-03	Y			0
FSL-	FSL-	TWAS PUMP No.1 INLET	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-04	Y			0
FSL-	FSL-	TWAS PUMP No.1 INLET	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-04	Y			0
FSL-	FSL-	TWAS PUMP No.2 INLET	FLOW SWITCH	1					LOW FLOW		HEALTHY		I3-04	Y			0

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PLC POINT NAME	CARD TYPE	POINT DESCRIPTION		SIGNAL TYPE				SOURCE DEVICE		DATA FIELD 1 LOGIC 0 (SIGNAL RANGE)		DATA FIELD 2 LOGIC 1 (E.U. RANGE)		P&ID	ALARM	ALARM CATEGORY	REMARKS	REV STAT
		ASSOCIATED EQUIPMENT	FUNCTION/TYPE	DI	DO	AI	AO											
FSL-	FSL-	TWAS PUMP No.2 INLET	FLOW SWITCH	1					FSL-	LOW FLOW		HEALTHY		I3-04	Y			O
YS-	MXR-201	BIOREACTOR 1 ANOXIC ZONE 1	MIXER	1					MXR-201	MANUAL		AUTO		I3-02				O
YS-	P-203	BIOREACTOR 1 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE	1					P-203	MANUAL		AUTO		I3-02				O
YS-	P-205	BIOREACTOR 1 WAS PUMP	VARIABLE FREQUENCY DRIVE	1					P-205	MANUAL		AUTO		I3-02				O
YS-	MXR-202	BIOREACTOR 2 ANOXIC ZONE 1	MIXER	1					MXR-202	MANUAL		AUTO		I3-02				O
YS-	P-204	BIOREACTOR 2 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE	1					P-204	MANUAL		AUTO		I3-02				O
YS-	P-206	BIOREACTOR 2 WAS PUMP	VARIABLE FREQUENCY DRIVE	1					P-206	MANUAL		AUTO		I3-02				O
YS-	P-501	CLARIFIERS EFFLUENT PUMP No.1	MOTOR	1					P-501	MANUAL		AUTO		I3-03				O
YS-	P-502	CLARIFIERS EFFLUENT PUMP No.2	MOTOR	1					P-502	MANUAL		AUTO		I3-03				O
YS-	P-509	HYPOCHLORITE DOSING PUMP No.1	MOTOR	1					P-509	MANUAL		AUTO		I3-06				O
YS-	P-510	HYPOCHLORITE DOSING PUMP No.2	MOTOR	1					P-510	MANUAL		AUTO		I3-06				O
YS-	P-411	POLYMER DOSING PUMP No.1	MOTOR	1					P-411	MANUAL		AUTO		I3-06				O
YS-	P-412	POLYMER DOSING PUMP No.2	MOTOR	1					P-412	MANUAL		AUTO		I3-06				O
YS-	B-214	PROCESS AIR BLOWER No.1	VARIABLE FREQUENCY DRIVE	1					B-214	MANUAL		AUTO		I3-05				O
YS-	B-215	PROCESS AIR BLOWER No.2	VARIABLE FREQUENCY DRIVE	1					B-215	MANUAL		AUTO		I3-05				O
YS-	B-216	PROCESS AIR BLOWER No.3	VARIABLE FREQUENCY DRIVE	1					B-216	MANUAL		AUTO		I3-05				O
YS-	B-217	PROCESS AIR BLOWER No.4	VARIABLE FREQUENCY DRIVE	1					B-217	MANUAL		AUTO		I3-05				O
YS-	B-218	PROCESS AIR BLOWER No.5	VARIABLE FREQUENCY DRIVE	1					B-218	MANUAL		AUTO		I3-05				O
YS-	B-219	PROCESS AIR BLOWER No.6	VARIABLE FREQUENCY DRIVE	1					B-219	MANUAL		AUTO		I3-05				O
YS-	P-102	RAW WASTE WATER LIFT STATION PUMP 1	VARIABLE FREQUENCY DRIVE	1					P-102	MANUAL		AUTO		I3-01				O
YS-	P-103	RAW WASTE WATER LIFT STATION PUMP 2	VARIABLE FREQUENCY DRIVE	1					P-103	MANUAL		AUTO		I3-01				O
YS-	P-104	RAW WASTE WATER LIFT STATION PUMP 3	VARIABLE FREQUENCY DRIVE	1					P-104	MANUAL		AUTO		I3-01				O
YS-	M-	RAW WASTE WATER SCREEN No.1	MOTOR	1					M-	MANUAL		AUTO		I3-01				O
YS-	M-	RAW WASTE WATER SCREEN No.2	MOTOR	1					M-	MANUAL		AUTO		I3-01				O
YS-	M-	SECONDARY CLARIFIER No.1	MOTOR	1					M-	MANUAL		AUTO		I3-03				O
YS-	M-	SECONDARY CLARIFIER No.2	MOTOR	1					M-	MANUAL		AUTO		I3-03				O
YS-	P-305	SECONDARY CLARIFIERS RAS PUMP No.1	VARIABLE FREQUENCY DRIVE	1					P-305	MANUAL		AUTO		I3-03				O
YS-	P-306	SECONDARY CLARIFIERS RAS PUMP No.2	VARIABLE FREQUENCY DRIVE	1					P-306	MANUAL		AUTO		I3-03				O
YS-	P-307	SECONDARY CLARIFIERS RAS PUMP No.3	VARIABLE FREQUENCY DRIVE	1					P-307	MANUAL		AUTO		I3-03				O
YS-	P-404	TWAS PUMP No.1	MOTOR	1					P-404	MANUAL		AUTO		I3-04				O
YS-	P-405	TWAS PUMP No.2	MOTOR	1					P-405	MANUAL		AUTO		I3-04				O
MM-	MXR-201	BIOREACTOR 1 ANOXIC ZONE 1	MIXER	1					MXR-201	RUNNING		STOPPED		I3-02				O
MM-	MXR-202	BIOREACTOR 2 ANOXIC ZONE 1	MIXER	1					MXR-202	RUNNING		STOPPED		I3-02				O
MM-	P-501	CLARIFIERS EFFLUENT PUMP No.1	MOTOR	1					P-501	RUNNING		STOPPED		I3-03				O
MM-	P-502	CLARIFIERS EFFLUENT PUMP No.2	MOTOR	1					P-502	RUNNING		STOPPED		I3-03				O
MM-	P-509	HYPOCHLORITE DOSING PUMP No.1	MOTOR	1					P-509	RUNNING		STOPPED		I3-06				O
MM-	P-510	HYPOCHLORITE DOSING PUMP No.2	MOTOR	1					P-510	RUNNING		STOPPED		I3-06				O
MM-	P-411	POLYMER DOSING PUMP No.1	MOTOR	1					P-411	RUNNING		STOPPED		I3-06				O
MM-	P-412	POLYMER DOSING PUMP No.2	MOTOR	1					P-412	RUNNING		STOPPED		I3-01				O
MM-	M-	RAW WASTE WATER SCREEN No.1	MOTOR	1					M-	RUNNING		STOPPED		I3-01				O
MM-	M-	SECONDARY CLARIFIER No.1	MOTOR	1					M-	RUNNING		STOPPED		I3-03				O
MM-	M-	SECONDARY CLARIFIER No.2	MOTOR	1					M-	RUNNING		STOPPED		I3-03				O
MM-	P-404	TWAS PUMP No.1	MOTOR	1					P-404	RUNNING		STOPPED		I3-04				O
MM-	P-405	TWAS PUMP No.2	MOTOR	1					P-405	RUNNING		STOPPED		I3-04				O
YK-	P-203	BIOREACTOR 1 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE	1					P-203	STOPPED		RUNNING		I3-02				O
YK-	P-205	BIOREACTOR 1 WAS PUMP	VARIABLE FREQUENCY DRIVE	1					P-205	STOPPED		RUNNING		I3-02				O
YK-	P-204	BIOREACTOR 2 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE	1					P-204	STOPPED		RUNNING		I3-02				O
YK-	P-206	BIOREACTOR 2 WAS PUMP	VARIABLE FREQUENCY DRIVE	1					P-206	STOPPED		RUNNING		I3-02				O
YK-	B-214	PROCESS AIR BLOWER No.1	VARIABLE FREQUENCY DRIVE	1					B-214	STOPPED		RUNNING		I3-05				O
YK-	B-215	PROCESS AIR BLOWER No.2	VARIABLE FREQUENCY DRIVE	1					B-215	STOPPED		RUNNING		I3-05				O
YK-	B-216	PROCESS AIR BLOWER No.3	VARIABLE FREQUENCY DRIVE	1					B-216	STOPPED		RUNNING		I3-05				O
YK-	B-217	PROCESS AIR BLOWER No.4	VARIABLE FREQUENCY DRIVE	1					B-217	STOPPED		RUNNING		I3-05				O

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PLC POINT NAME	CARD TYPE	POINT DESCRIPTION		SIGNAL TYPE				SOURCE DEVICE	DATA FIELD 1 LOGIC 0 (SIGNAL RANGE)		DATA FIELD 2 LOGIC 1 (E.U. RANGE)		P&ID	ALARM	ALARM CATEGORY	REMARKS	REV STAT
		ASSOCIATED EQUIPMENT	FUNCTION/TYPE	DI	DO	AI	AO										
YK-	B-219	PROCESS AIR BLOWER No.6	VARIABLE FREQUENCY DRIVE	1				B-219	STOPPED		RUNNING		I3-05				O
YK-	P-102	RAW WASTE WATER LIFT STATION PUMP 1	VARIABLE FREQUENCY DRIVE	1				P-102	STOPPED		RUNNING		I3-01				O
YK-	P-103	RAW WASTE WATER LIFT STATION PUMP 2	VARIABLE FREQUENCY DRIVE	1				P-103	STOPPED		RUNNING		I3-01				O
YK-	P-104	RAW WASTE WATER LIFT STATION PUMP 3	VARIABLE FREQUENCY DRIVE	1				P-104	STOPPED		RUNNING		I3-01				O
YK-	P-305	SECONDARY CLARIFIERS RAS PUMP No.1	VARIABLE FREQUENCY DRIVE	1				P-305	STOPPED		RUNNING		I3-03				O
YK-	P-306	SECONDARY CLARIFIERS RAS PUMP No.2	VARIABLE FREQUENCY DRIVE	1				P-306	STOPPED		RUNNING		I3-03				O
YK-	P-307	SECONDARY CLARIFIERS RAS PUMP No.3	VARIABLE FREQUENCY DRIVE	1				P-307	STOPPED		RUNNING		I3-03				O
HS-	SV-	RAW WASTE WATER SCREEN No.1	SOLENOID VALVE		1			SV-	CLOSE		OPEN		I3-01				O
HS-	SV-	RAW WASTE WATER SCREEN No.2	SOLENOID VALVE		1			SV-	CLOSE		OPEN		I3-01				O
AH-	HN-	RAW WASTE WATER LIFT STATION	ALARM ANNUNCIATORS / INDICATORS		1			HN-	NORMAL		HIGH LEVEL ALARM		I3-01				O
MN-	MXR-201	BIOREACTOR 1 ANOXIC ZONE 1	MIXER		1			MXR-201	STOP		RUN		I3-02				O
MN-	P-203	BIOREACTOR 1 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE		1			P-203	STOP		RUN		I3-02				O
MN-	P-205	BIOREACTOR 1 WAS PUMP	VARIABLE FREQUENCY DRIVE		1			P-205	STOP		RUN		I3-02				O
MN-	MXR-202	BIOREACTOR 2 ANOXIC ZONE 1	MIXER		1			MXR-202	STOP		RUN		I3-02				O
MN-	P-204	BIOREACTOR 2 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE		1			P-204	STOP		RUN		I3-02				O
MN-	P-206	BIOREACTOR 2 WAS PUMP	VARIABLE FREQUENCY DRIVE		1			P-206	STOP		RUN		I3-02				O
MN-	P-501	CLARIFIERS EFFLUENT PUMP No.1	MOTOR		1			P-501	STOP		RUN		I3-03				O
MN-	P-502	CLARIFIERS EFFLUENT PUMP No.2	MOTOR		1			P-502	STOP		RUN		I3-03				O
MN-	P-509	HYPOCHLORITE DOSING PUMP No.1	MOTOR		1			P-509	STOP		RUN		I3-06				O
MN-	P-510	HYPOCHLORITE DOSING PUMP No.2	MOTOR		1			P-510	STOP		RUN		I3-06				O
MN-	P-411	POLYMER DOSING PUMP No.1	MOTOR		1			P-411	STOP		RUN		I3-06				O
MN-	P-412	POLYMER DOSING PUMP No.2	MOTOR		1			P-412	STOP		RUN		I3-06				O
MN-	B-214	PROCESS AIR BLOWER No.1	VARIABLE FREQUENCY DRIVE		1			B-214	STOP		RUN		I3-05				O
MN-	B-215	PROCESS AIR BLOWER No.2	VARIABLE FREQUENCY DRIVE		1			B-215	STOP		RUN		I3-05				O
MN-	B-216	PROCESS AIR BLOWER No.3	VARIABLE FREQUENCY DRIVE		1			B-216	STOP		RUN		I3-05				O
MN-	B-217	PROCESS AIR BLOWER No.4	VARIABLE FREQUENCY DRIVE		1			B-217	STOP		RUN		I3-05				O
MN-	B-218	PROCESS AIR BLOWER No.5	VARIABLE FREQUENCY DRIVE		1			B-218	STOP		RUN		I3-05				O
MN-	B-219	PROCESS AIR BLOWER No.6	VARIABLE FREQUENCY DRIVE		1			B-219	STOP		RUN		I3-05				O
MN-	P-102	RAW WASTE WATER LIFT STATION PUMP 1	VARIABLE FREQUENCY DRIVE		1			P-102	STOP		RUN		I3-01				O
MN-	P-103	RAW WASTE WATER LIFT STATION PUMP 2	VARIABLE FREQUENCY DRIVE		1			P-103	STOP		RUN		I3-01				O
MN-	P-104	RAW WASTE WATER LIFT STATION PUMP 3	VARIABLE FREQUENCY DRIVE		1			P-104	STOP		RUN		I3-01				O
MN-	M-	RAW WASTE WATER SCREEN No.1	MOTOR		1			M-	STOP		RUN		I3-01				O
MN-	M-	RAW WASTE WATER SCREEN No.2	MOTOR		1			M-	STOP		RUN		I3-01				O
MN-	M-	SECONDARY CLARIFIER No.1	MOTOR		1			M-	STOP		RUN		I3-03				O
MN-	M-	SECONDARY CLARIFIER No.2	MOTOR		1			M-	STOP		RUN		I3-03				O
MN-	P-305	SECONDARY CLARIFIERS RAS PUMP No.1	VARIABLE FREQUENCY DRIVE		1			P-305	STOP		RUN		I3-03				O
MN-	P-306	SECONDARY CLARIFIERS RAS PUMP No.2	VARIABLE FREQUENCY DRIVE		1			P-306	STOP		RUN		I3-03				O
MN-	P-307	SECONDARY CLARIFIERS RAS PUMP No.3	VARIABLE FREQUENCY DRIVE		1			P-307	STOP		RUN		I3-03				O
MN-	P-404	TWAS PUMP No.1	MOTOR		1			P-404	STOP		RUN		I3-04				O
MN-	P-405	TWAS PUMP No.2	MOTOR		1			P-405	STOP		RUN		I3-04				O
AIT-	AIT-	BIOREACTOR 1 AEROBIC ZONE 2	DISSOLVED OXYGEN METER			1		AIT-	DISSOLVED OXYGEN		PPM		I3-02				O
AIT-	AIT-	BIOREACTOR 1 AEROBIC ZONE 3	DISSOLVED OXYGEN METER			1		AIT-	DISSOLVED OXYGEN		PPM		I3-02				O
AIT-	AIT-	BIOREACTOR 2 AEROBIC ZONE 2	DISSOLVED OXYGEN METER			1		AIT-	DISSOLVED OXYGEN		PPM		I3-02				O
AIT-	AIT-	BIOREACTOR 2 AEROBIC ZONE 3	DISSOLVED OXYGEN METER			1		AIT-	DISSOLVED OXYGEN		PPM		I3-02				O
FIT-	FIT-	BIOREACTOR 1 RECIRCULATION	FLOW TRANSMITTER			1		FIT-	FLOW RATE		L/SEC		I3-02				O
FIT-	FIT-	BIOREACTOR 2 RECIRCULATION	FLOW TRANSMITTER			1		FIT-	FLOW RATE		L/SEC		I3-02				O
FIT-	FIT-	CLARIFIER 1 WAS TO BFP	FLOW TRANSMITTER			1		FIT-	FLOW RATE		L/SEC		I3-03				O
FIT-	FIT-	CLARIFIER 2 WAS TO BFP	FLOW TRANSMITTER			1		FIT-	FLOW RATE		L/SEC		I3-03				O
FIT-	FIT-	CLARIFIERS RAS TO BIOREACTOR 1	FLOW TRANSMITTER			1		FIT-	FLOW RATE		L/SEC		I3-03				O
FIT-	FIT-	CLARIFIERS RAS TO BIOREACTOR 2	FLOW TRANSMITTER			1		FIT-	FLOW RATE		L/SEC		I3-03				O
FIT-	FIT-	RAW WASTE WATER LIFT PUMPS	FLOW TRANSMITTER			1		FIT-	FLOW RATE		L/SEC		I3-01				O
LIT-	LIT-	BIOREACTOR 1 ANOXIC ZONE 1	LEVEL TRANSMITTER			1		LIT-	LEVEL		PERCENTAGE %		I3-02				O
LIT-	LIT-	BIOREACTOR 2 ANOXIC ZONE 1	LEVEL TRANSMITTER			1		LIT-	LEVEL		PERCENTAGE %		I3-02				O

PLC POINT NAME	CARD TYPE	POINT DESCRIPTION		SIGNAL TYPE				SOURCE DEVICE		DATA FIELD 1 LOGIC 0 (SIGNAL RANGE)	DATA FIELD 2 LOGIC 1 (E.U. RANGE)	P&ID	ALARM	ALARM CATEGORY	REMARKS	REV STAT
		ASSOCIATED EQUIPMENT	FUNCTION/TYPE	DI	DO	AI	AO									
LIT-	LIT-	FEW STORAGE TANKS	LEVEL TRANSMITTER			1		LIT-		LEVEL	PERCENTAGE %	I3-03				0
LIT-	LIT-	RAW WASTE WATER LIFT STATION	LEVEL TRANSMITTER			1		LIT-		LEVEL	PERCENTAGE %	I3-01				0
LIT-	LIT-	RAW WASTE WATER SCREENS	LEVEL TRANSMITTER			1		LIT-		LEVEL	PERCENTAGE %	I3-01				0
LIT-	LIT-	TWAS VAULT	LEVEL TRANSMITTER			1		LIT-		LEVEL	PERCENTAGE %	I3-04				0
ZT-	FCV-	BIOREACTOR 1 AEROBIC ZONE 2 AERATION	FLOW CONTROL VALVE			1		FCV-		POSITION FEEDBACK	PERCENTAGE %	I3-02				0
ZT-	FCV-	BIOREACTOR 1 AEROBIC ZONE 3 AERATION	FLOW CONTROL VALVE			1		FCV-		POSITION FEEDBACK	PERCENTAGE %	I3-02				0
ZT-	FCV-	BIOREACTOR 2 AEROBIC ZONE 2 AERATION	FLOW CONTROL VALVE			1		FCV-		POSITION FEEDBACK	PERCENTAGE %	I3-02				0
ZT-	FCV-	BIOREACTOR 2 AEROBIC ZONE 3 AERATION	FLOW CONTROL VALVE			1		FCV-		POSITION FEEDBACK	PERCENTAGE %	I3-03				0
ZT-	FCV-	CLARIFIER 1 WAS TO BFP	FLOW CONTROL VALVE			1		FCV-		POSITION FEEDBACK	PERCENTAGE %	I3-03				0
ZT-	FCV-	CLARIFIER 2 WAS TO BFP	FLOW CONTROL VALVE			1		FCV-		POSITION FEEDBACK	PERCENTAGE %	I3-03				0
PIT-	PIT-	PROCESS AIR DELIVERY PRESSURE 1	PRESSURE TRANSMITTER			1		PIT-		PRESSURE	K-pa	I3-05				0
PIT-	PIT-	PROCESS AIR DELIVERY PRESSURE 2	PRESSURE TRANSMITTER			1		PIT-		PRESSURE	K-pa	I3-05				0
SI	P-203	BIOREACTOR 1 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE			1		P-203		SPEED FEEDBACK	PERCENTAGE %	I3-02				0
SI	P-205	BIOREACTOR 1 WAS PUMP	VARIABLE FREQUENCY DRIVE			1		P-205		SPEED FEEDBACK	PERCENTAGE %	I3-02				0
SI	P-204	BIOREACTOR 2 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE			1		P-204		SPEED FEEDBACK	PERCENTAGE %	I3-02				0
SI	P-206	BIOREACTOR 2 WAS PUMP	VARIABLE FREQUENCY DRIVE			1		P-206		SPEED FEEDBACK	PERCENTAGE %	I3-02				0
SI	B-214	PROCESS AIR BLOWER No.1	VARIABLE FREQUENCY DRIVE			1		B-214		SPEED FEEDBACK	PERCENTAGE %	I3-05				0
SI	B-215	PROCESS AIR BLOWER No.2	VARIABLE FREQUENCY DRIVE			1		B-215		SPEED FEEDBACK	PERCENTAGE %	I3-05				0
SI	B-216	PROCESS AIR BLOWER No.3	VARIABLE FREQUENCY DRIVE			1		B-216		SPEED FEEDBACK	PERCENTAGE %	I3-05				0
SI	B-217	PROCESS AIR BLOWER No.4	VARIABLE FREQUENCY DRIVE			1		B-217		SPEED FEEDBACK	PERCENTAGE %	I3-05				0
SI	B-218	PROCESS AIR BLOWER No.5	VARIABLE FREQUENCY DRIVE			1		B-218		SPEED FEEDBACK	PERCENTAGE %	I3-05				0
SI	B-219	PROCESS AIR BLOWER No.6	VARIABLE FREQUENCY DRIVE			1		B-219		SPEED FEEDBACK	PERCENTAGE %	I3-05				0
SI	P-102	RAW WASTE WATER LIFT STATION PUMP 1	VARIABLE FREQUENCY DRIVE			1		P-102		SPEED FEEDBACK	PERCENTAGE %	I3-01				0
SI	P-103	RAW WASTE WATER LIFT STATION PUMP 2	VARIABLE FREQUENCY DRIVE			1		P-103		SPEED FEEDBACK	PERCENTAGE %	I3-01				0
SI	P-104	RAW WASTE WATER LIFT STATION PUMP 3	VARIABLE FREQUENCY DRIVE			1		P-104		SPEED FEEDBACK	PERCENTAGE %	I3-01				0
SI	P-305	SECONDARY CLARIFIERS RAS PUMP No.1	VARIABLE FREQUENCY DRIVE			1		P-305		SPEED FEEDBACK	PERCENTAGE %	I3-03				0
SI	P-306	SECONDARY CLARIFIERS RAS PUMP No.2	VARIABLE FREQUENCY DRIVE			1		P-306		SPEED FEEDBACK	PERCENTAGE %	I3-03				0
SI	P-307	SECONDARY CLARIFIERS RAS PUMP No.3	VARIABLE FREQUENCY DRIVE			1		P-307		SPEED FEEDBACK	PERCENTAGE %	I3-03				0
FCV-	FCV-	BIOREACTOR 1 AEROBIC ZONE 2 AERATION	FLOW CONTROL VALVE				1	FCV-		POSITION SETPOINT	PERCENTAGE %	I3-02				0
FCV-	FCV-	BIOREACTOR 1 AEROBIC ZONE 3 AERATION	FLOW CONTROL VALVE				1	FCV-		POSITION SETPOINT	PERCENTAGE %	I3-02				0
FCV-	FCV-	BIOREACTOR 2 AEROBIC ZONE 2 AERATION	FLOW CONTROL VALVE			1		FCV-		POSITION SETPOINT	PERCENTAGE %	I3-02				0
FCV-	FCV-	BIOREACTOR 2 AEROBIC ZONE 3 AERATION	FLOW CONTROL VALVE			1		FCV-		POSITION SETPOINT	PERCENTAGE %	I3-02				0
FCV-	FCV-	CLARIFIER 1 WAS TO BFP	FLOW CONTROL VALVE			1		FCV-		POSITION SETPOINT	PERCENTAGE %	I3-03				0
FCV-	FCV-	CLARIFIER 2 WAS TO BFP	FLOW CONTROL VALVE			1		FCV-		POSITION SETPOINT	PERCENTAGE %	I3-03				0
SC	P-203	BIOREACTOR 1 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE				1	P-203		SPEED SETPOINT	PERCENTAGE %	I3-02				0
SC	P-205	BIOREACTOR 1 WAS PUMP	VARIABLE FREQUENCY DRIVE				1	P-205		SPEED SETPOINT	PERCENTAGE %	I3-02				0
SC	P-204	BIOREACTOR 2 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE				1	P-204		SPEED SETPOINT	PERCENTAGE %	I3-02				0
SC	P-206	BIOREACTOR 2 WAS PUMP	VARIABLE FREQUENCY DRIVE				1	P-206		SPEED SETPOINT	PERCENTAGE %	I3-02				0
SC	B-214	PROCESS AIR BLOWER No.1	VARIABLE FREQUENCY DRIVE				1	B-214		SPEED SETPOINT	PERCENTAGE %	I3-05				0
SC	B-215	PROCESS AIR BLOWER No.2	VARIABLE FREQUENCY DRIVE				1	B-215		SPEED SETPOINT	PERCENTAGE %	I3-05				0
SC	B-216	PROCESS AIR BLOWER No.3	VARIABLE FREQUENCY DRIVE				1	B-216		SPEED SETPOINT	PERCENTAGE %	I3-05				0
SC	B-217	PROCESS AIR BLOWER No.4	VARIABLE FREQUENCY DRIVE				1	B-217		SPEED SETPOINT	PERCENTAGE %	I3-05				0
SC	B-218	PROCESS AIR BLOWER No.5	VARIABLE FREQUENCY DRIVE				1	B-218		SPEED SETPOINT	PERCENTAGE %	I3-05				0
SC	B-219	PROCESS AIR BLOWER No.6	VARIABLE FREQUENCY DRIVE				1	B-219		SPEED SETPOINT	PERCENTAGE %	I3-05				0
SC	P-102	RAW WASTE WATER LIFT STATION PUMP 1	VARIABLE FREQUENCY DRIVE				1	P-102		SPEED SETPOINT	PERCENTAGE %	I3-01				0
SC	P-103	RAW WASTE WATER LIFT STATION PUMP 2	VARIABLE FREQUENCY DRIVE				1	P-103		SPEED SETPOINT	PERCENTAGE %	I3-01				0
SC	P-104	RAW WASTE WATER LIFT STATION PUMP 3	VARIABLE FREQUENCY DRIVE				1	P-104		SPEED SETPOINT	PERCENTAGE %	I3-01				0
SC	P-305	SECONDARY CLARIFIERS RAS PUMP No.1	VARIABLE FREQUENCY DRIVE				1	P-305		SPEED SETPOINT	PERCENTAGE %	I3-03				0
SC	P-306	SECONDARY CLARIFIERS RAS PUMP No.2	VARIABLE FREQUENCY DRIVE				1	P-306		SPEED SETPOINT	PERCENTAGE %	I3-03				0
SC	P-307	SECONDARY CLARIFIERS RAS PUMP No.3	VARIABLE FREQUENCY DRIVE				1	P-307		SPEED SETPOINT	PERCENTAGE %	I3-03				0

CABLE SCHEDULE

1. GENERAL

1.1 References - General

- .1 Refer To Section 17010.

1.2 Cable Schedule

- .1 The following spreadsheet gives an itemized list of the instrumentation cabling requirements. It is intended to serve as an aid for determining the cabling requirements for the work specified in the division.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION



City of Iqaluit
IQALUIT WASTE WATER TREATMENT PLANT
NUNAVUT

INSTRUMENTATION CABLE SCHEDULE



EARTH TECH

[illegible]

PLC COMPONENT LAYOUT

1. GENERAL

1.1 References - General

- .1 Refer To Section 17010.

1.2 PLC Component Layout

- .1 The following diagram gives a detailed view of the PLC module configuration within the upper and lower PLC racks.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

INSTRUMENT INDEX

1. GENERAL

1.1 References - General

- .1 Refer To Section 17010.

1.2 Instrument Index

- .1 The following spreadsheet gives an itemized list of the instrumentation included as part of this work.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION

INSTRUMENT TAG NO.	INSTRUMENT DESCRIPTION		P&ID DWG	SPEC SECTION	INSTR SPEC SHT (ISS)	INSTR LOOP DGRM (ILD)	MOTOR CNTL SCM (MCS)	STD DETAIL (ISTD)	LOCN DWG	REMARKS	REV STAT
	ASSOCIATED EQUIPMENT	FUNCTION/TYPE									
AIT-	RAW WASTE WATER LIFT STATION	COMBUSTIBLE GAS DETECTION	I3-01								O
AIT-	RAW WASTE WATER LIFT STATION	COMBUSTIBLE GAS DETECTION	I3-01								O
AIT-	BIOREACTOR 1 AEROBIC ZONE 2	DISSOLVED OXYGEN METER	I3-02								O
AIT-	BIOREACTOR 1 AEROBIC ZONE 3	DISSOLVED OXYGEN METER	I3-02								O
AIT-	BIOREACTOR 2 AEROBIC ZONE 3	DISSOLVED OXYGEN METER	I3-02								O
AIT-	RAW WASTE WATER LIFT STATION	H2S GAS DETECTION	I3-01								O
AIT-	RAW WASTE WATER LIFT STATION	H2S GAS DETECTION	I3-01								O
B-214	PROCESS AIR BLOWER No.1	VARIABLE FREQUENCY DRIVE	I3-05								O
B-215	PROCESS AIR BLOWER No.2	VARIABLE FREQUENCY DRIVE	I3-05								O
B-216	PROCESS AIR BLOWER No.3	VARIABLE FREQUENCY DRIVE	I3-05								O
B-217	PROCESS AIR BLOWER No.4	VARIABLE FREQUENCY DRIVE	I3-05								O
B-218	PROCESS AIR BLOWER No.5	VARIABLE FREQUENCY DRIVE	I3-05								O
B-219	PROCESS AIR BLOWER No.6	VARIABLE FREQUENCY DRIVE	I3-05								O
BA-	RAW WASTE WATER LIFT STATION	INDICATING BEACON	I3-01								O
BA-	RAW WASTE WATER LIFT STATION	INDICATING BEACON	I3-01								O
FCV-	BIOREACTOR 1 AEROBIC ZONE 2 AERATION	FLOW CONTROL VALVE	I3-02								O
FCV-	BIOREACTOR 1 AEROBIC ZONE 3 AERATION	FLOW CONTROL VALVE	I3-02								O
FCV-	BIOREACTOR 2 AEROBIC ZONE 2 AERATION	FLOW CONTROL VALVE	I3-02								O
FCV-	BIOREACTOR 2 AEROBIC ZONE 3 AERATION	FLOW CONTROL VALVE	I3-02								O
FCV-	CLARIFIER 1 WAS TO BFP	FLOW CONTROL VALVE	I3-03								O
FCV-	CLARIFIER 2 WAS TO BFP	FLOW CONTROL VALVE	I3-03								O
FIT-	BIOREACTOR 1 RECIRCULATION	FLOW TRANSMITTER	I3-02								O
FIT-	BIOREACTOR 2 RECIRCULATION	FLOW TRANSMITTER	I3-02								O
FIT-	CLARIFIER 1 WAS TO BFP	FLOW TRANSMITTER	I3-03								O
FIT-	CLARIFIER 2 WAS TO BFP	FLOW TRANSMITTER	I3-03								O
FIT-	CLARIFIERS RAS TO BIOREACTOR 1	FLOW TRANSMITTER	I3-03								O
FIT-	CLARIFIERS RAS TO BIOREACTOR 2	FLOW TRANSMITTER	I3-03								O
FIT-	RAW WASTE WATER LIFT PUMPS	FLOW TRANSMITTER	I3-01								O
FSL-	BIOREACTOR 1 WAS	FLOW SWITCH	I3-02								O
FSL-	BIOREACTOR 2 WAS	FLOW SWITCH	I3-02								O
FSL-	PROCESS AIR	FLOW SWITCH	I3-04								O
FSL-	PROCESS AIR BLOWER No.1	FLOW SWITCH	I3-05								O
FSL-	PROCESS AIR BLOWER No.2	FLOW SWITCH	I3-05								O
FSL-	PROCESS AIR BLOWER No.3	FLOW SWITCH	I3-05								O
FSL-	PROCESS AIR BLOWER No.4	FLOW SWITCH	I3-05								O
FSL-	PROCESS AIR BLOWER No.5	FLOW SWITCH	I3-05								O
FSL-	PROCESS AIR BLOWER No.6	FLOW SWITCH	I3-05								O
FSL-	SECONDARY CLARIFIERS RAS PUMP No.1	FLOW SWITCH	I3-03								O
FSL-	SECONDARY CLARIFIERS RAS PUMP No.2	FLOW SWITCH	I3-03								O

INSTRUMENT INDEX	
Project No.	75360
Issue:	ORIGINAL

INSTRUMENT TAG NO.	INSTRUMENT DESCRIPTION		PAID DWG	SPEC SECTION	INSTR SPEC SHT (ISS)	INSTR LOOP DGRM (ILD)	MOTOR CNTL SCM (MCS)	STD DETAIL (ISTD)	LOCN DWG	REMARKS	REV STAT
	ASSOCIATED EQUIPMENT	FUNCTION/TYPE									
FSL-	SECONDARY CLARIFIERS RAS PUMP No.3	FLOW SWITCH	13-03								0
FSL-	TWAS PUMP No.1 INLET	FLOW SWITCH	13-04								0
FSL-	TWAS PUMP No.2 INLET	FLOW SWITCH	13-04								0
HN-	RAW WASTE WATER LIFT STATION	ANNUNCIATING HORN	13-01								0
HN-	RAW WASTE WATER LIFT STATION	ANNUNCIATING HORN	13-01								0
LIT-	BIOREACTOR 1 ANOXIC ZONE 1	LEVEL TRANSMITTER	13-02								0
LIT-	BIOREACTOR 2 ANOXIC ZONE 1	LEVEL TRANSMITTER	13-02								0
LIT-	FEW STORAGE TANKS	LEVEL TRANSMITTER	13-03								0
LIT-	RAW WASTE WATER LIFT STATION	LEVEL TRANSMITTER	13-01								0
LIT-	RAW WASTE WATER SCREENS	LEVEL TRANSMITTER	13-01								0
LIT-	TWAS VAULT	LEVEL TRANSMITTER	13-04								0
M-	RAW WASTE WATER SCREEN No.1	MOTOR	13-01								0
M-	RAW WASTE WATER SCREEN No.2	MOTOR	13-01								0
M-	SECONDARY CLARIFIER No.1	MOTOR	13-03								0
M-	SECONDARY CLARIFIER No.2	MOTOR	13-03								0
MXR-201	BIOREACTOR 1 ANOXIC ZONE 1	MIXER	13-02								0
MXR-202	BIOREACTOR 2 ANOXIC ZONE 1	MIXER	13-02								0
P-102	RAW WASTE WATER LIFT STATION PUMP 1	VARIABLE FREQUENCY DRIVE	13-01								0
P-103	RAW WASTE WATER LIFT STATION PUMP 2	VARIABLE FREQUENCY DRIVE	13-01								0
P-104	RAW WASTE WATER LIFT STATION PUMP 3	VARIABLE FREQUENCY DRIVE	13-01								0
P-203	BIOREACTOR 1 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE	13-02								0
P-204	BIOREACTOR 2 RECIRCULATION PUMP	VARIABLE FREQUENCY DRIVE	13-02								0
P-205	BIOREACTOR 1 WAS PUMP	VARIABLE FREQUENCY DRIVE	13-02								0
P-206	BIOREACTOR 2 WAS PUMP	VARIABLE FREQUENCY DRIVE	13-02								0
P-305	SECONDARY CLARIFIERS RAS PUMP No.1	VARIABLE FREQUENCY DRIVE	13-03								0
P-306	SECONDARY CLARIFIERS RAS PUMP No.2	VARIABLE FREQUENCY DRIVE	13-03								0
P-307	SECONDARY CLARIFIERS RAS PUMP No.3	VARIABLE FREQUENCY DRIVE	13-03								0
P-404	TWAS PUMP No.1	MOTOR	13-04								0
P-405	TWAS PUMP No.2	MOTOR	13-04								0
P-411	POLYMER DOSING PUMP No.1	MOTOR	13-06								0
P-412	POLYMER DOSING PUMP No.2	MOTOR	13-06								0
P-501	CLARIFIERS EFFLUENT PUMP No.1	MOTOR	13-03								0
P-502	CLARIFIERS EFFLUENT PUMP No.2	MOTOR	13-03								0
P-509	HYPOCHLORITE DOSING PUMP No.1	MOTOR	13-06								0

INSTRUMENT SPECIFICATION SHEETS

1. GENERAL

1.1 References - General

- .1 Refer To Section 17010.

1.2 Instrument Specification Sheets

- .1 The following data sheets provide information for instruments included as part of this work.
- .2 All instruments described in the instrument specification sheets are to be from a single source. Design has been based on the first named supplier. Acceptable single source suppliers are Moore Products, Bailey, Fisher-Rosemount and E&H.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION