

ITEM	INSTRUMENT	INSTRUMENT SPECIFICATION SHEET (ISS)	DESIGN BY: EVS	APPRVD BY: MS	DATE: OCT 2004	REVISION: OCT 2004
			TAG PREFIX	ISS NO.	DET. DWG.	REV. NO.
1	ANALYTICAL TRANSMITTER	H2S GAS DETECTION	AE, AIT	ISSA1.XLS	FUTURE	O
2	ANALYTICAL TRANSMITTER	COMBUSTIBLE GAS DETECTION	AE, AIT	ISSA2.XLS	FUTURE	O
3	ANALYTICAL TRANSMITTER	DISSOLVED OXYGEN	AE, AIT	ISSA3.XLS	FUTURE	O
4	FLOWMETER	MAGNETIC FLOWMETER	FE, FIT	ISSF1.XLS	FUTURE	O
5	FLOW SWITCH	ULTRASONIC FLOW SWITCH	FS,FSL	ISSF2.XLS	FUTURE	O
6	FLOWMETER	THERMAL DISPERSION FLOWMETER	FE, FIT	ISSF3.XLS	FUTURE	O
7	LEVEL TRANSMITTER	DUAL ULTRASONIC LEVEL TRANSMITTER	LE, LIT	ISSL1.XLS	FUTURE	O
8	PRESSURE TRANSMITTER	GAUGE PRESSURE LEVEL TRANSMITTER	PIT	ISSP1.XLS	FUTURE	O
9	LEVEL TRANSMITTER	DIFFERENTIAL PRESSURE TRANSMITTER	LE, LIT	ISSP2.XLS	FUTURE	O
10	PRESSURE SWITCH	PRESSURE SWITCH	PS	ISSP3.XLS	FUTURE	O
11	PLANT CONTROLLER	PLC		ISSPLC.XLS	FUTURE	O
12	DIALER	ALARM DIALER		ISSDLLR.XLS	FUTURE	O



City of Iqaluit
IQALUIT WASTE WATER TREATMENT PLANT
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GAUGE PRESSURE TX



				DESIGN BY	DRAWN BY	PROJECT No.	DATE
				EVS	EVS	75360	OCT 2004
0	JAN 03	FOR TENDER		CHECKED BY	APPROVED BY	SHEET No.	REV.
No.	DATE	REVISION	APPR	JH	MS	ISSP1	O
P R E S S U R E T R A N S M I T T E R G A U G E E L E M E N T	1	MANUFACTURER		Endress + Hauser			
	2	MODEL NO.		Cerebar PMC 41			
	3	TYPE		Capacitive Pressure Transmitter Gauge			
	4						
	5						
	6	TAG NO.					
	7	TYPE		Diaphragm			
	8	SERVICE		Blowers Delivery Air Pressure			
	9	RANGE					
	10	BODY MATERIAL		Aluminum			
	11	WETTED PARTS MATERIAL		316 SS			
	12	ABS PRESSURE COMPENSATION					
	13	STATIC HEAD COMPENSATION					
	14						
	15	OVER PRESSURE PROTECTION		Standard			
	16	CONNECTION TYPE	SIZE	Threaded Insert	1/2" - 14 NPT		
	17	OUTPUT		4-20 mA			
	18	SPAN ADJUST RANGE		100 %			
	19	ZERO ADJUST RANGE		100 % of Span			
	20	CALIBRATED RANGE					
	21	ACCURACY		0.1 %			
	22	SCALE		0 - 100 %			
	23						
	24	POWER SUPPLY		24 VDC External			
	25	ENCLOSURE		NEMA 4X			
	26	AREA CLASSIFICATION		General Purpose			
	27	REQUIRED APPROVALS		CSA			
	28	MOUNTING		Bracket for 2" Pipe			
	29	ACCESSORIES		Indicator - LCD Type			
	30						
	31						
	32						
	33						
	34						
	35						
	36						
N O T E S	37	TAGGING		Customer Stainless Steel Tag			
	38						
	39	ACCESSORIES		Installation, Operation and Maintenance Manual			
	40			Isolation/pressure relief valve			
	41	ALTERNATES					
	42						
	43						



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IQUALUIT WASTE WATER TREATMENT PLANT
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ALARM HORN & BEACON



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				JH	MS	ISSX1	O
No.	DATE	REVISION	APPR				
	1	MANUFACTURER		EDWARDS			
	2	MODEL No.		868-STRR-N5			
	3	TYPE		Adaptahorn Vibrating Horn w strobe beacon			
	4	NOMINAL VOLATGE		120 VAC			
	5						
	6	TAG No.		HN-xxx, BA-xxx, HN-xxx, BA-xxx			
	7	FEATURES					
	8	TONE SELECTION		N/A			
	9	# OF SIGNALS		1 Vibrating Signal + 1 strobe light			
	10	SOUND LEVELS		90dba @ 10ft			
	11	ENCLOSURE:					
	12	TYPE		Heavy Duty			
	13	MATERIAL		Die Cast			
	14	RATING		NEMA 4X			
	15	MOUNTING		Supplied Box			
	16						
	17	CSA APPROVED / AREA APPROVAL		Yes			
	18						
	19						
	20						
	21						
	22						
	23						
	24						
	25						
	26						
	27						
	28						
	29						
	30						
	31						
	32						
	33						
	34						
	35						
	36						
NOTES	37	TAGGING					
	38						
	39	PROCUREMENT		Supply Total 2 off			
	40			Horn c/w mounting box & Red Lens			
	41	ALTERNATES					
	42						



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H2S GAS DETECTOR



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				JH	MS	ISSA1	O
No.	DATE	REVISION	APPR				
	1	MANUFACTURER		Gas Tech			
	2	MODEL NO.		Safe T Net 210			
	3	TYPE		Online Gas Monitor			
	4	SERVICE		Ambient H2S Gas Detection			
	5						
S E N S O R	6	TAG NO.		AE-			
	7	SENSOR		Toxi-1000 H2S			
	8	RANGE		0 - 100 ppm			
	9	PROCESS DATA					
	10	CONNECTION	TYPE	RATING	Open To Atmosphere		
	11	MATERIAL		CONN.	Aluminum		
	12	MOUNTING		Wall Mount			
	13						
	14	TEMPERATURE		-40 to +40 Deg. C			
	15	AREA CLASSIFICATION		Class 1 Div 1			
	16	ENCLOSURE		Aluminum - Explosion proof Class 1 Div 1			
	17	SIGNAL CABLE LENGTH		tbd			
	18	APPROVALS REQUIRED		CSA			
	19						
20							
21							
22							
C O N T R O L L E R	23	TAG NO.		AIT-			
	24	CONTROLLER		Gas Tech Safe T Net 210			
	25	MOUNTING		Wall Mounted			
	26	OUTPUT		2 channel 4 - 20 mA c/w 2 Alarm Relays / channel			
	27	INDICATOR	TYPE		Digital Display ppm	High Intensity LED for alarms	
	28	SCALE FACTOR		N/A			
	29	SCALED PULSE OUTPUT		N/A			
	30	AREA CLASSIFICATION		Class 1 Div 2 - located outside of headworks			
	31	POWER SUPPLY MODULE		N/A			
	32	POWER SUPPLY		120 VAC, 60 Hz			
	33	APPROVALS REQUIRED		CSA			
	34	INPUT SIGNALS		Suitable for 2 sensors			
	35	ENCLOSURE		NEMA 4X			
	36	BATTERY BACK UP		Battery Back-Up Required			
37							
N O T E S	38						
	39	TAGGING		Each meter to be c/w a SS tag number			
	40	PROCUREMENT		Supply one (1) safeTNet 210 Transmitter c/w two (2) Toxi-H2S sensor heads			
	41						
	42	ALTERNATES					
	43	ACCESSORIES		Installation, Operation and Maintenance Manual			
	44			one (1) calibration kit c/w sample gas bottle			



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IQALUIT WASTE WATER TREATMENT PLANT
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COMBUSTIBLE GAS DETECTOR



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				CHECKED BY	APPROVED BY	SHEET No.	REV.
				JH	MS	ISSA2	O
No.	DATE	REVISION	APPR				
S E N S O R	1	MANUFACTURER		Gas Tech			
	2	MODEL NO.		Safe T Net 210			
	3	TYPE		Online Gas Monitor			
	4	SERVICE		Ambient Combustible Gas Detection			
	5						
	6	TAG NO.		AE-			
	7	SENSOR		LEL-1000			
	8	RANGE		0 - 100 % LEL			
	9	PROCESS DATA					
	10	CONNECTION	TYPE	Open To Atmosphere			
	11	MATERIAL	RATING	Aluminum			
	12	MOUNTING	CONN.	Wall Mount			
	13						
	14	TEMPERATURE		-40 to +75 Deg. C			
	15	AREA CLASSIFICATION		Class 1 Div 1			
	16	ENCLOSURE		Aluminum - Explosion proof Class 1 Div 1			
	17	SIGNAL CABLE LENGTH		tbd			
	18	APPROVALS REQUIRED		CSA			
	19						
	20						
	21						
	22						
C O N T R O L L E R	23	TAG NO.		AIT-			
	24	CONTROLLER		Gas Tech Safe T Net 210			
	25	MOUNTING		Wall Mounted			
	26	OUTPUT		2 channel 4 - 20 mA c/w 2 Alarm Relays / channel			
	27	INDICATOR	TYPE	Digital Display ppm		High Intensity LED for alarms	
	28	SCALE FACTOR		N/A			
	29	SCALED PULSE OUTPUT		N/A			
	30	AREA CLASSIFICATION		Class 1 Div 2 - located outside of headworks			
	31	POWER SUPPLY MODULE		N/A			
	32	POWER SUPPLY		120 VAC, 60 Hz			
	33	APPROVALS REQUIRED		CSA			
	34	INPUT SIGNALS		Suitable for 2 sensors			
	35	ENCLOSURE		NEMA 4X			
	36	BATTERY BACK UP		Battery Back-Up Required			
	37						
N O T E S	38						
	39	TAGGING		Each meter to be c/w a SS tag number			
	40	PROCUREMENT		Supply one (1) safeTNet 210 Transmitter c/w two (2) LEL-sensor heads			
	41						
	42	ALTERNATES					
	43	ACCESSORIES		Installation, Operation and Maintenance Manual			
	44			one (1) calibration kit c/w sample gas bottle			



City of Iqaluit
IQALUIT WASTE WATER TREATMENT PLANT
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DISSOLVED OXYGEN



				DESIGN BY	DRAWN BY	PROJECT No.	DATE
				EVS	EVS	75360	OCT 2004
				CHECKED BY	APPROVED BY	SHEET No.	REV.
No.	DATE	REVISION	APPR	JH	MS	ISSA3	0
	1	MANUFACTURER		Capital Controls Company Inc			
	2	MODEL No.		Series 9610			
	3	TYPE		Galvanic			
	4	SERVICE		Mixed Liquor			
	5						
	6						
P R O B E	7	TAG No.		AE-			
	8	SENSOR		Gold Cathode (replaceable)			
	9	RANGE		0-5 ppm			
	10	OPERATING PRINCIPLE		Galvanic			
	11	INSERTION / SUBMERGED		Submerged			
	12	MOUNTING		pole			
	13	PROBE LENGTH					
	14	CONNECTION	TYPE SIZE				
	15	HOUSING					
	16	SELF CLEANING / CALIBRATION		Not self cleaning / Manual calibration			
	17						
	18						
	19	TEMPERATURE COMPENSATION		Integral to sensor			
	20	CABLE LENGTH	(METERS)	8			
T R A N S M I T T E R	21	TRANSMITTER TAG No.		AIT-			
	22	MODEL No.		9610			
	23	LOCAL DISPLAY		4 Digit high Intensity LED			
	24	LOCAL KEYPAD		Membrane			
	25	STORED DATA		High DO, Low DO, Avg DO			
	26						
	27	ENCLOSURE		NEMA 4X			
	28	MOUNTING		Wall or handrail			
	29	ANALOG OUTPUTS		Isolated 4-20 mA DC			
	30						
	31						
	32						
	33						
	34	DIGITAL OUTPUTS		2 DPDT set pt.; Multivariable alarm contacts			
	35	COMMUNICATIONS					
	36	POWER REQUIREMENTS		120 VAC			
	37	APPROVALS REQUIRED		CSA			
	38	ALTERNATES		Royce			
N O T E S	39						
	40						
	41						
	42						
	43						



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IQALUIT WASTE WATER TREATMENT PLANT
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MAGNETIC FLOWMETER



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				JH	MS	ISSF1	O
No.	DATE	REVISION	APPR				
	1	MANUFACTURER		Rosemount			
	2	MODEL NO.		8700 Series			
	3	TYPE		Electro / Magnetic			
	4	SERVICE		see page 2			
	5						
E L E M E N T	6	TAG NO.		see page 2			
	7	LINE SIZE		see page 2			
	8	METER SIZE		Vendor to advise			
	9	CONNECTION	TYPE	RATING	Flanged ANSI		150 lb.
	10	MATERIAL	TUBE	CONN.	316 SS		Flange Material - Carbon Steel
	11	LINING MATERIAL		Vendor to advise			
	12	ELECTRODE DESIGN		Bullet Nosed			
	13	ELECTRODE MATERIAL		316 SS			
	14	PROTECTION CLASSIFICATION		General Purpose			
	15	FINISH		Standard Enamel			
	16	GROUNDING RINGS		316 SS (x2)			
	17	MAX FLOW		see page 2			
	18	SIGNAL CABLE LENGTH		N/A			
	19	APPROVALS REQUIRED		CSA			
	20	LINING PROTECTORS		N/A			
	21	MODEL NO.		see page 2			
T R A N S M I T T E R	22						
	23	TAG NO.		see page 2			
	24	MOUNTING		Integral			
	25	OUTPUT		4 - 20 mA			
	26	INDICATOR	TYPE	RANGE	LCD Backlit		Engineering Units l/s
	27	SCALE FACTOR					
	28	SCALED PULSE OUTPUT					
	29	AREA CLASSIFICATION		General Purpose			
	30	FINISH		Standard Enamel			
	31	POWER SUPPLY		120 VAC, 60 Hz			
	32	APPROVALS REQUIRED		CSA			
	33	INPUT / OUTPUT SIGNALS		Isolated			
	34	ENCLOSURE		EEMAC 4			
	35	MODEL NO.		see page 2			
	36						
	N O T E S	37					
38		TAGGING		Each meter to be c/w a SS tag number			
39		PROCUREMENT		Supply Mag. Flowmeter plus Transmitter as per page 2			
40		ALTERNATES		ABB, E+H			
41							
42		ACCESSORIES		Installation, Operation and Maintenance Manual			
43							

Date: 10/17/2004
File: Instrument Spec Sheets.xls



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IQALUIT WASTE WATER TREATMENT PLANT
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ULTRASONIC FLOWSWITCH



				DESIGN BY	DRAWN BY	PROJECT No.	DATE
				EVS	EVS	75360	OCT 2004
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				JH	MS	ISSF2	O
E L E M E N T	No.	DATE	REVISION	APPR			
	1		MANUFACTURER		Greyline		
	2		MODEL NO.		DFS-II		
	3		TYPE		Single Head Ultrasonic Doppler Effect		
	4		SERVICE		see page 2		
E L E M E N T	6		TAG NO.		see page 2		
	7		LINE SIZE		see page 2		
	8		CONNECTION		Outer Pipe Mount With Clamp Strap		
	9		PROTECTION CLASSIFICATION		see page 2		
	10		MAX FLOW		see page 2		
	11		SIGNAL CABLE LENGTH		see page 2		
	12		APPROVALS REQUIRED		CSA		
	13		TEMPERATURE RANGE		-40 degC to 93 degC		
	14		HOUSING		Stainless Steel		
	15		PIPE MATERIAL		PVC Sch 80 or Carbon Steel		
	16						
	17						
T R A N S M I T T E R	22		TAG NO.		see page 2		
	23		MOUNTING		Wall / Panel		
	24		OUTPUT		n/a		
	25		INDICATOR	TYPE	RANGE	LED's - Relay Status, Signal Strength	
	26		RELAY CONTACTS		1 off 5A DPDT		
	27		FLOW RANGE		0.076 to 3 m/sec		
	28		TIME DELAY		0 to 60 Seconds		
	29		AREA CLASSIFICATION		General Purpose		
	30		FINISH		Standard Enamel		
	31		POWER SUPPLY		120 VAC, 60 Hz		
	32		APPROVALS REQUIRED		CSA		
	33		ENCLOSURE		NEMA 4X		
	34						
	35						
	36						
	N O T E S	38		TAGGING		Each meter to be c/w a SS tag number	
39			PROCUREMENT		Supply Transmitter, Sensor Head, Mounting Strap & Comp		
40			ALTERNATES				
41							
42			ACCESSORIES		Installation, Operation and Maintenance Manual		
43							