

FLOW BOSS
LOI CAP ID
1000 Passwords

AS BUILTS
SITE COPY

PENN WEST

ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT MULTI WELL COMPRESSOR STATION

LSD: 12-12-65-11 W5M

ELECTRICAL DRAWINGS
ISSUED FOR CONSTRUCTION
06-10-23

PREPARED BY

TRIDYNE PROJECTS
CORPORATION

TRIDYNE PROJECT #: 2006052

P-300

1-12

Cable	Termination point	core	Tag
Tx-301	to uniconn	DH T - C	BLK Tx-301
"	"	" - L	WH Tx-301
Com-P300VFD	to uniconn comcard	- Tx+	WH/BLUE com-VFDP300
"	"	" Tx-	BLUE "
"	"	" gnd	WH "
Tx-VFDP300	to TBS 13	A/1+ core1	WH PY-300
"	" TBS 14	A/1- core1	BLK PY-300
"	" Picopak out +	core2	WH PT-302
"	" " out -	core2	BLK PT-302
"	" " out +	core3	WH TT-302
"	" " out -	core3	BLK TT-302
ASVFD300	to TBS 24	DP core1	BLK 8461A
"	" TBS 26	DI2 core2	BLK 8462B
C-P300	" TBS 24	DP WH	1607B
"	" TBS 25	DI1 BLK	1607A
P-P300B-1	Spare.		
P-P300B	to Termination block	Red, BLK, BLUE	
P-P300A	to Main breaker	Red, BLK, Blue	
No Tag $\frac{1}{2}$ flex	to uniconn 31	Spin A	Red
"	"	" 32	Spin B BLK
"	"	" 33	Spin C WH

WIRING & SCHEMATIC DIAGRAM SYMBOLS

	FIELD WIRING OR EXTERNAL TO PANEL		SOLENOID VALVE
	INTERNAL PANEL WIRING		SPST SWITCH
	COILED SPARE WIRE		SPDT SWITCH
	R - RELAY COIL C/W TERMINAL No. C - CONTACTOR C/W TERMINAL No. M - MOTOR STARTER C/W TERMINAL No. TD - TIME DELAY RELAY C/W TERMINAL No.		MULTI POSITION SWITCH
	NORMALLY OPEN RELAY CONTACT C/W PIN No.		NORMALLY OPEN SP PUSHBUTTON
	NORMALLY CLOSED RELAY CONTACT C/W PIN No.		NORMALLY CLOSED SP PUSHBUTTON
	CIRCUIT BREAKER C/W SIZE		TWO POSITION SELECTOR SWITCH C/W FUNCTION
	FUSE C/W SIZE		THREE POSITION SELECTOR SWITCH C/W FUNCTION
	CONTROL TRANSFORMER		BYPASS SWITCH C/W FUNCTION
	GROUND/OVDC		NORMALLY OPEN LEVEL SWITCH C/W TAG
	THERMAL OVERLOAD DEVICE		NORMALLY CLOSED LEVEL SWITCH C/W TAG
	RESISTOR C/W SIZE		NORMALLY OPEN PRESSURE SWITCH C/W TAG
	RECTIFIER OR DIODE		NORMALLY CLOSED PRESSURE SWITCH C/W TAG
	CAPACITOR		NORMALLY OPEN PRESSURE DIFFERENTIAL SWITCH C/W TAG
	SURGE CAPACITOR		NORMALLY CLOSED PRESSURE DIFFERENTIAL SWITCH C/W TAG
	PILOT LIGHT C/W COLOR		NORMALLY OPEN FLOW SWITCH C/W TAG
	ROTATING BEACON C/W COLOR		NORMALLY CLOSED FLOW SWITCH C/W TAG
	PHOTOCELL		NORMALLY OPEN LIMIT SWITCH C/W TAG
	FLUORESCENT LIGHT C/W SIZE		NORMALLY CLOSED LIMIT SWITCH C/W TAG
	SOUND ALARM/HORN		NORMALLY OPEN TEMPERATURE SWITCH C/W TAG
	MOTOR C/W HORSEPOWER		NORMALLY CLOSED TEMPERATURE SWITCH C/W TAG
	EXHAUST FAN		NORMALLY OPEN VIBRATION SWITCH C/W TAG
	MANUAL MOTOR STARTER		NORMALLY CLOSED VIBRATION SWITCH C/W TAG
	GROUND RECEPTACLE		NORMALLY OPEN TIME DELAY DE-ENERGIZED CONTACTS C/W TAG
	FIELD TERMINAL BLOCK (CONTROL PANEL DRAWINGS)		NORMALLY CLOSED TIME DELAY DE-ENERGIZED CONTACTS C/W TAG
	FIELD TERMINAL BLOCK (JUNCTION BOX DRAWINGS)		NORMALLY OPEN TIME DELAY ENERGIZED CONTACTS C/W TAG
	BATTERY C/W SIZE		NORMALLY CLOSED TIME DELAY ENERGIZED CONTACTS C/W TAG

LAYOUT SYMBOLS

	ABOVE GRADE CONDUIT OR CABLE		UNIT HEATER
	BELOW GRADE CONDUIT OR CABLE		DEVICE BOX/FIRE DETECTION/GAS DETECTION
	CONDUIT OR CABLE DROPPING DOWN		ANALOG/THERMOCOUPLE
	CONDUIT OR CABLE RISING UP		ULTRA VIOLET FIRE DETECTION HEAD
	CLASS 1 DIV. 1 LB OUTLET BOX		SOUND ALARM/HORN
	CLASS 1 DIV. 1 T OUTLET BOX		TELEPHONE
	UNION FITTING		HEAT TRACE
	FLEXIBLE CONDUIT		HEAT TRACE TEE KIT
	CONDUIT SEAL		HEAT TRACE END KIT
	END CAP		HEAT TRACE POWER/SPLICE KIT
	MAIN GROUND GRID		BILL OF MATERIAL ITEM No.
	GROUND WELL, COVER & ELECTRODE		INSTRUMENT TAG No.
	EQUIPMENT OR BUILDING GROUND CONNECTOR		CONDUIT OR CABLE TAG
	BOLTED T-CONNECTOR FROM MAIN GRID		DETAIL DESIGNATION DWG. REFERENCE No.
	CADWELD T-CONNECTOR FROM MAIN GRID		SECTION DESIGNATION DWG. REFERENCE No.
	PENDENT OR CEILING MOUNTED FIXTURE		BATTERY LIGHTING C/W POWER PACK UNIT WITH # OF HEADS REQUIRED INDICATED
	WALL MOUNTED FIXTURE		GROUND CLAMP W/ SELF COILING CABLE
	EMERGENCY LIGHT		
	ROTATING ALARM BEACON C/W COLOR		
	STROBE ALARM BEACON C/W COLOUR		
	POLE MOUNTED LIGHT FIXTURES		
	PHOTOCELL		
	FLUORESCENT FIXTURE		
	PULL BOX OR JUNCTION BOX		
	ELECTRICAL PANELBOARD		
	MOTOR HORIZONTAL MOUNT		
	MOTOR VERTICAL MOUNT		
	EXHAUST FAN WALL MOUNT		
	EXHAUST FAN VERTICAL MOUNT		
	LOCAL DISCONNECT		
	SPST SWITCH		
	THREE OR FOUR WAY SWITCH		
	MANUAL MOTOR STARTER SWITCH		
	ESD PUSHBUTTON STATION		
	STOP/START PUSHBUTTON STATION		
	THREE POSITION SELECTOR SWITCH		
	TWO POSITION SELECTOR SWITCH		
	PILOT LIGHT		
	RECEPTACLE		
	WEATHERPROOF RECEPTACLE		
	THERMOSTAT		
	WELDER RECEPTACLE		
	SPECIAL RECEPTACLE		

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature: _____

Date: _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SJP	DMJ
2006052	B	ISSUED FOR APPROVAL	05-10-17	KD	SJP	DMJ
2006052	A	ISSUED FOR INFORMATION ONLY	05-10-11	KD	SJP	DMJ

PENN WEST

ENERGY TRUST

TRIDYNE PROJECTS

CORPORATION

PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM

SYMBOLS LEGEND

SCALE: NONE DWG. No. SYMBOLS 1 0

SINGLE LINE DIAGRAM SYMBOLS

	POWER OR CONTROL CONDUCTOR		DRAW OUT CIRCUIT BREAKER		RELAY OR DEVICE C/W FUNCTION (SEE LIST BELOW)
	FUTURE POWER OR CONTROL CONDUCTOR		SHORTING CURRENT BLOCK	AM	AMMETER
	GENERATOR		POTENTIAL TRANSFORMER C/W SIZE & QUANTITY	AS	AMMETER SWITCH
	POWER TRANSFORMER C/W SIZE & RATING		ZERO SEQUENCE CURRENT TRANSFORMER C/W RATIO	AVR	AUTO VOLTAGE REGULATION (AR & AF CONTROL)
	AUTO TRANSFORMER C/W SIZE & RATING		CURRENT TRANSFORMER C/W SIZE & QUANTITY	CS	CLOSE SWITCH
	TRANSFER SWITCH C/W SIZE & RATING		DELTA	ETM	ELAPSED TIME METER
	BUS DUCT		WYE, FLOATING NEUTRAL	FM	FREQUENCY METER
	CONTACTOR C/W EEMAC SIZE		WYE, SOLIDLY GROUNDED NEUTRAL	GF	GROUND FAULT
	REVERSING CONTACTOR C/W EEMAC SIZE		WYE, HIGH RESISTANCE GROUND C/W SIZE	GD	GROUND FAULT DETECTOR
	THERMAL OVERLOAD DEVICE		PILOT LIGHT C/W COLOR	GFR	GROUND FAULT RELAY
	STRESS CONE		CONTROL TRANSFORMER	KVAR	KILOVAR METER
	WEATHER HEAD		MOTOR C/W HORSEPOWER	kWH	KILOWATT HOUR METER
	POTHEAD		SYNCHRONOUS MOTOR C/W HORSEPOWER	LT	LONG TIME TRIP
	OPERATING COIL, RELAY, STARTER, ETC.		DISTRIBUTION PANEL C/W CCTS & VOLTS	M/H	MECHANICALLY HELD CLOSED
	DISCONNECT SWITCH		UNIT HEATER C/W SIZE	MOC	MECHANICALLY OPERATED CONTACT
	LOAD BREAK SWITCH		HOA CONTROL STATION	MPR	MOTOR PROTECTION RELAY
	FUSED LOAD BREAK SWITCH		STOP/START CONTROL STATION	OTS	OVER CURRENT
	STAB TYPE DISCONNECT		ON/OFF CONTROL STATION	OL	OVERLOAD
	FUSE C/W SIZE		CONTROL SWITCH STATION	PFM	POWER FACTOR METER
	PF CAPACITOR C/W SIZE		LOCK OFF STOP CONTROL STATION	PMG	PERMANENT MAGNET GENERATOR
	SURGE CAPACITOR		LOCAL/REMOTE CONTROL STATION	PQM	POWER QUALITY METER
	GROUND		MOTOR WINDING HEATER	SR	SENSING RELAY
	LIGHTNING ARRESTOR		MOTOR RTD SENSOR	ST	SHORT TIME TRIP
	RESISTOR C/W SIZE		WELDING RECEPTACLE	SYN	SYNCHROSCOPE
	VARIABLE RESISTOR C/W SIZE		PLC INTERFACE	TC	TRIP COIL
	CIRCUIT BREAKER/HMCP C/W TRIP & FRAME SIZE		DCS INTERFACE	TI	TEMPERATURE INDICATOR
			DIGITAL METERING SYSTEM	TOC	TRUCK OPERATED CONTACT
				VAM	VOLT-AMP METER
				VFD	VARIABLE FREQUENCY DRIVE
				FM	VOLT METER
				VS	VOLT METER SWITCH
				WHM	WATTHOUR METER

2	TIME DELAY STARTING OR CLOSING RELAY
5	STOPPING DEVICE
20	ELECTRONICALLY OPERATED VALVE
25	SYNCHRONIZING OR SYNCHRONISM CHECK DEVICE
26	APPARATUS RELAY
27	UNDERVOLTAGE RELAY
30	ANNUNCIATOR RELAY
32	DIRECTIONAL POWER RELAY
33	POSITION SWITCH
37	UNDERCURRENT/UNDERPOWER RELAY
38	BEARING/WINDING TEMPERATURE RELAY
40	FIELD RELAY
41	FIELD CIRCUIT BREAKER
42	RUNNING CIRCUIT BREAKER
43	MANUAL TRANSFER OR SELECTOR DEVICE
46	REVERSE-PHASE OR PHASE-BALANCE, CURRENT RELAY
47	PHASE SEQUENCE VOLTAGE RELAY
48	INCOMPLETE SEQUENCE RELAY
49	THERMAL RELAY
50	INSTANTANEOUS OVERCURRENT OR RATE OF RISE RELAY
50G	INSTANTANEOUS GROUND OVERCURRENT RELAY
50N	INSTANTANEOUS NEUTRAL OVERCURRENT RELAY
51	AC TIME OVERCURRENT RELAY
51G	AC TIME GROUND OVERCURRENT RELAY
51N	AC TIME NEUTRAL OVERCURRENT RELAY
51S	AC TIME STALL OVERCURRENT RELAY
52	AC CIRCUIT BREAKER
55	POWER FACTOR RELAY
59	OVERVOLTAGE RELAY
59G	TIME GROUND OVERVOLTAGE RELAY
60	VOLTAGE BALANCE RELAY
62	TIME-DELAY STOPPING OR OPENING RELAY
63	LIQUID OR GAS PRESSURE, LEVEL OR FLOW RELAY
64	GROUND PROTECTIVE RELAY
65	GOVERNOR
67	AC DIRECTIONAL OVERCURRENT RELAY
67N	AC DIRECTIONAL GROUND OVERCURRENT RELAY
69	PERMISSIVE CONTROL DEVICE
70	ELECTRICALLY OPERATED RHEOSTAT
74	ALARM RELAY
76	DC OVERCURRENT RELAY
78	PHASE ANGLE MEASUREMENT OR OUT-OF-STEP PROTECTIVE RELAY
79	AC RECLOSING RELAY
81	FREQUENCY RELAY
810	OVERFREQUENCY RELAY
81U	UNDERFREQUENCY RELAY
83	AUTOMATIC SELECTIVE CONTROL OR TRANSFER RELAY
85	CARRIER OR PILOT WIRE, RECEIVER RELAY
86	LOCK-OUT DEVICE
87	DIFFERENTIAL PROTECTIVE DEVICE
89	LINE SWITCH
90	REGULATING DEVICE
94	TRIPPING OR TRIP-FREE RELAY

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
		<p>PERMIT TO PRACTICE TRIDYNE PROJECTS CORP. Signature _____ Date _____ PERMIT NUMBER: P 8650 The Association of Professional Engineers, Geologists and Geophysicists of Alberta</p>	2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	
			2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
			2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

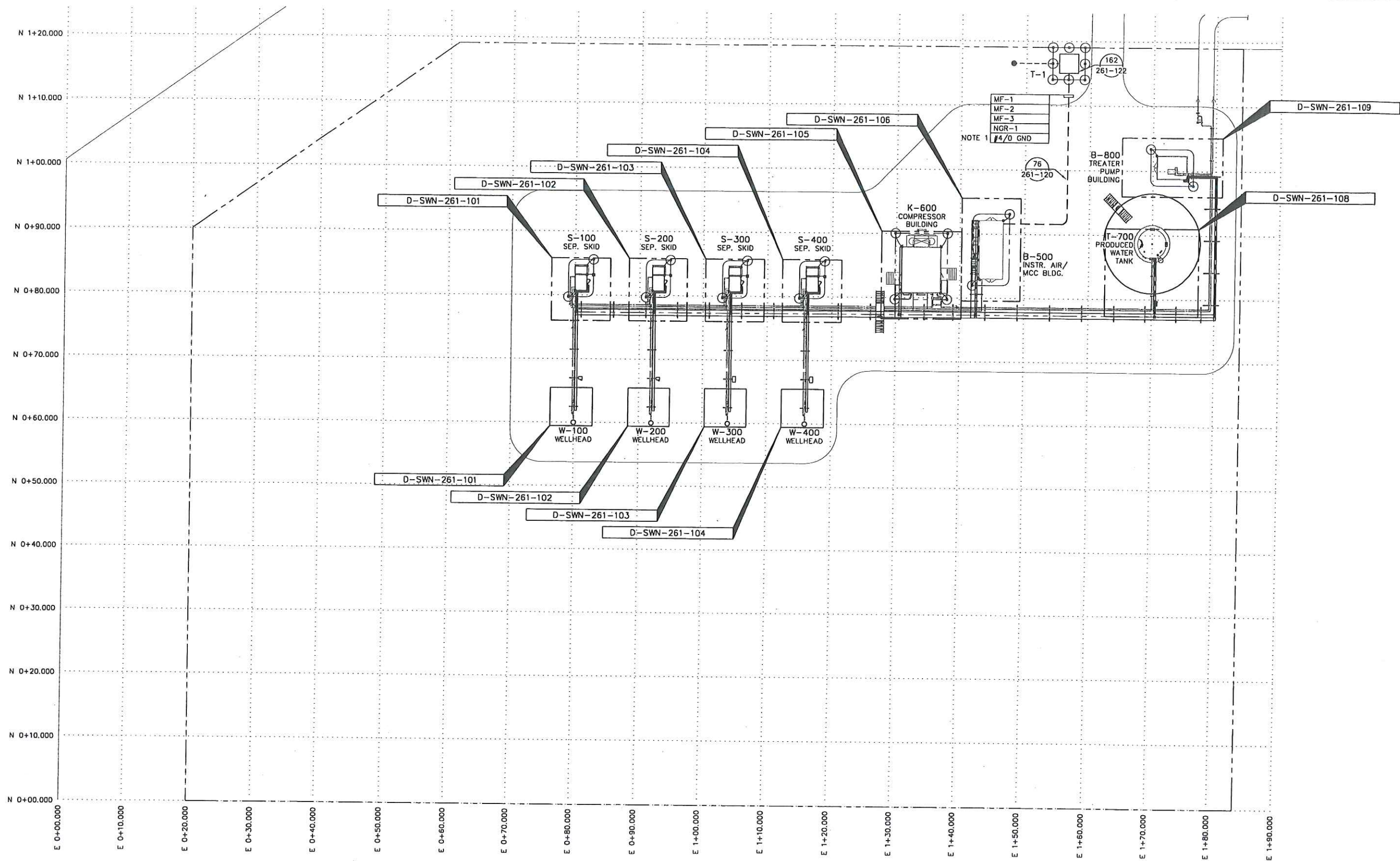
PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM

SYMBOLS LEGEND

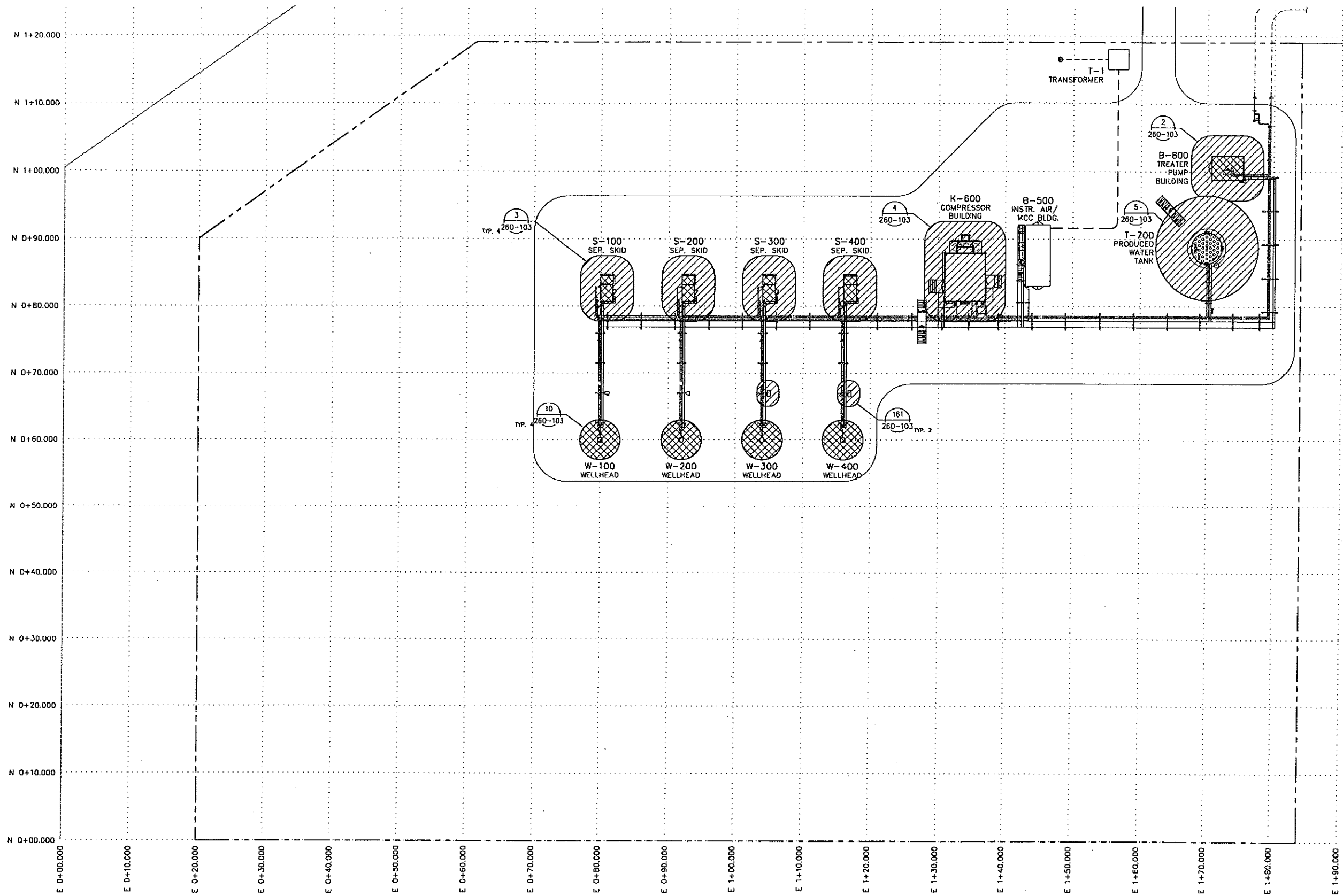
SCALE: NONE DWG. No. SYMBOLES 2 0



NOTE 1
 MF-1
 MF-2
 MF-3
 NGR-1
 #4/0 GND

NOTES:
 1. GROUND CONDUCTOR IS BARE FOR THIS PORTION ONLY.

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS				PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D	 TRIDYNE PROJECTS CORPORATION	PENN WEST ENERGY TRUST		
		 PERMIT TO PRACTICE TRIDYNE PROJECTS CORP. Signature _____ Date _____ PERMIT NUMBER: P 8630 The Association of Professional Engineers, Geologists and Geophysicists of Alberta												SOUTH SWAN HILLS - 4 WELL CBM PILOT		
															MULTI WELL COMPRESSOR STATION	
															LSD: 12-12-65-11 W5M	
														PLOT PLAN		
						2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ		SCALE: NTS	DWG. No. 0-SWN-260-101	0	
						2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP					
						2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ				



REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SJP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	DMJ
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST

ENERGY TRUST

TRIDYNE PROJECTS

CORPORATION

PENN WEST ENERGY TRUST

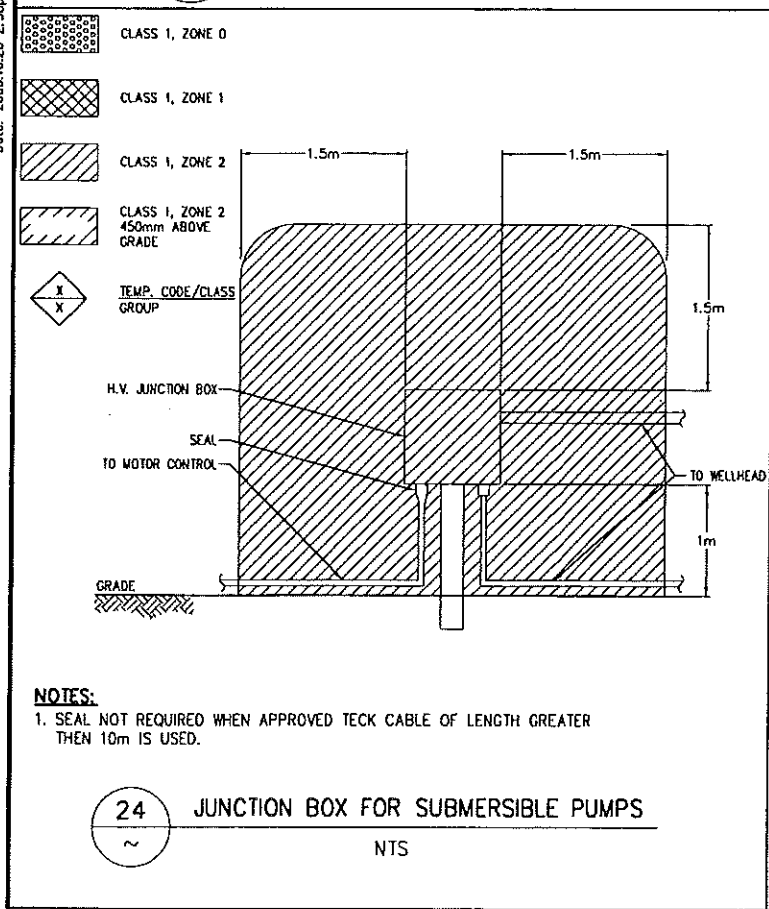
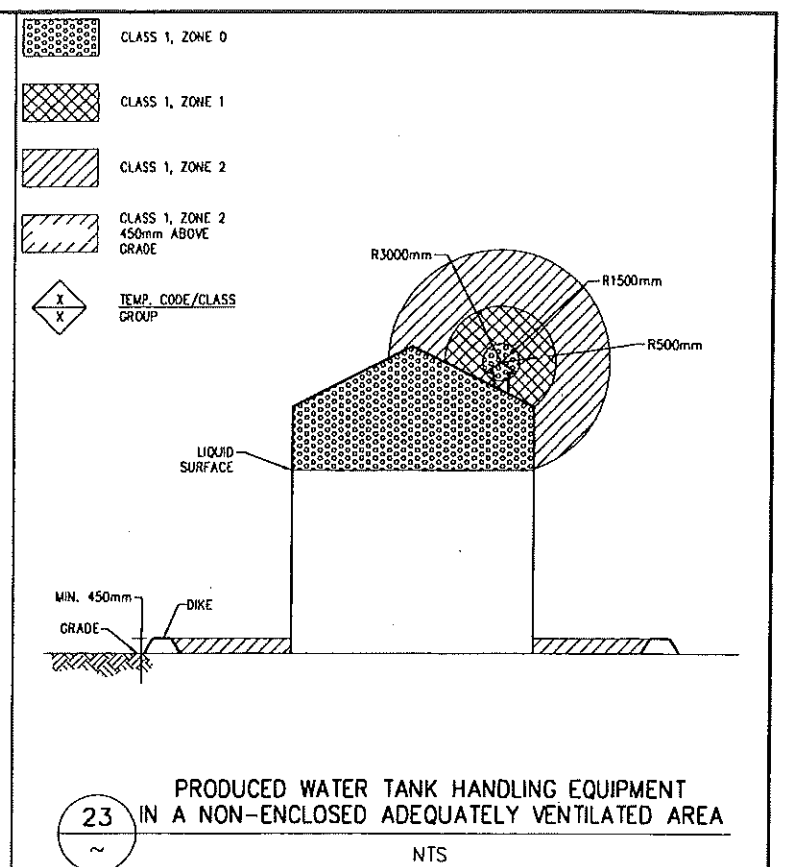
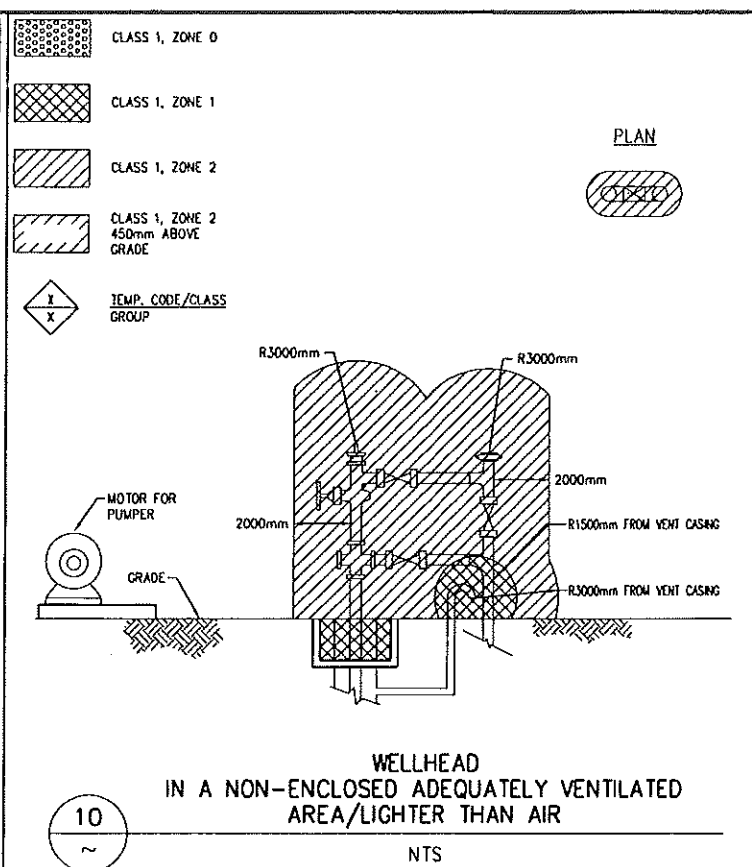
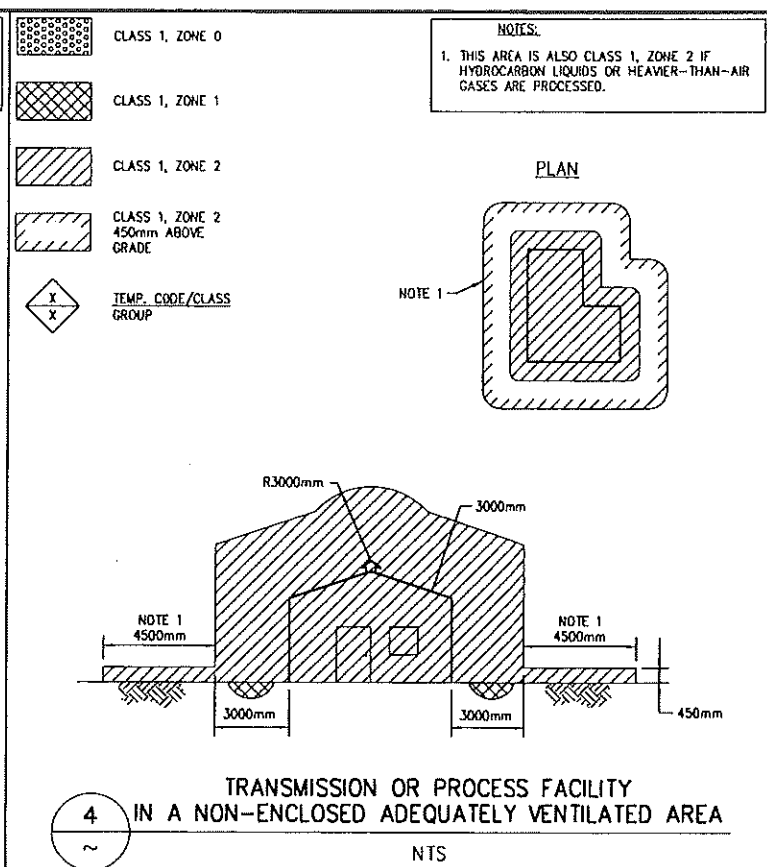
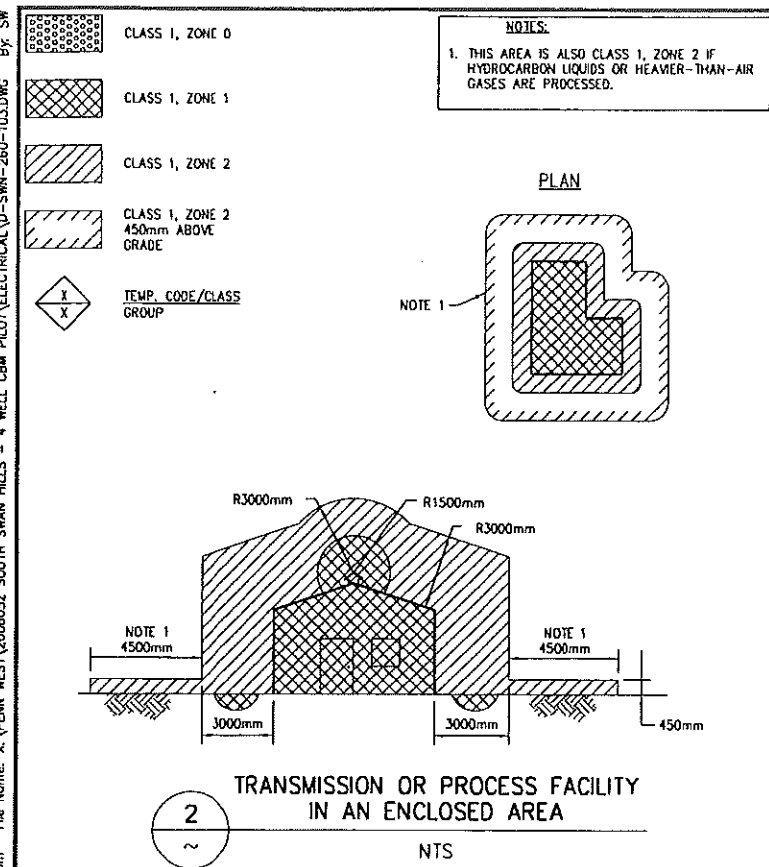
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M

FACILITY AREA CLASSIFICATION

SCALE: NTS DWG. No. D-SWN-260-102 0

Date: 2008.10.20 2:58pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL-D-SWN-260-103.DWG By: SW



REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
			2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	80	DMJ
			2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
			2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST ENERGY TRUST

TRIDYNE PROJECTS CORPORATION

PENN WEST ENERGY TRUST

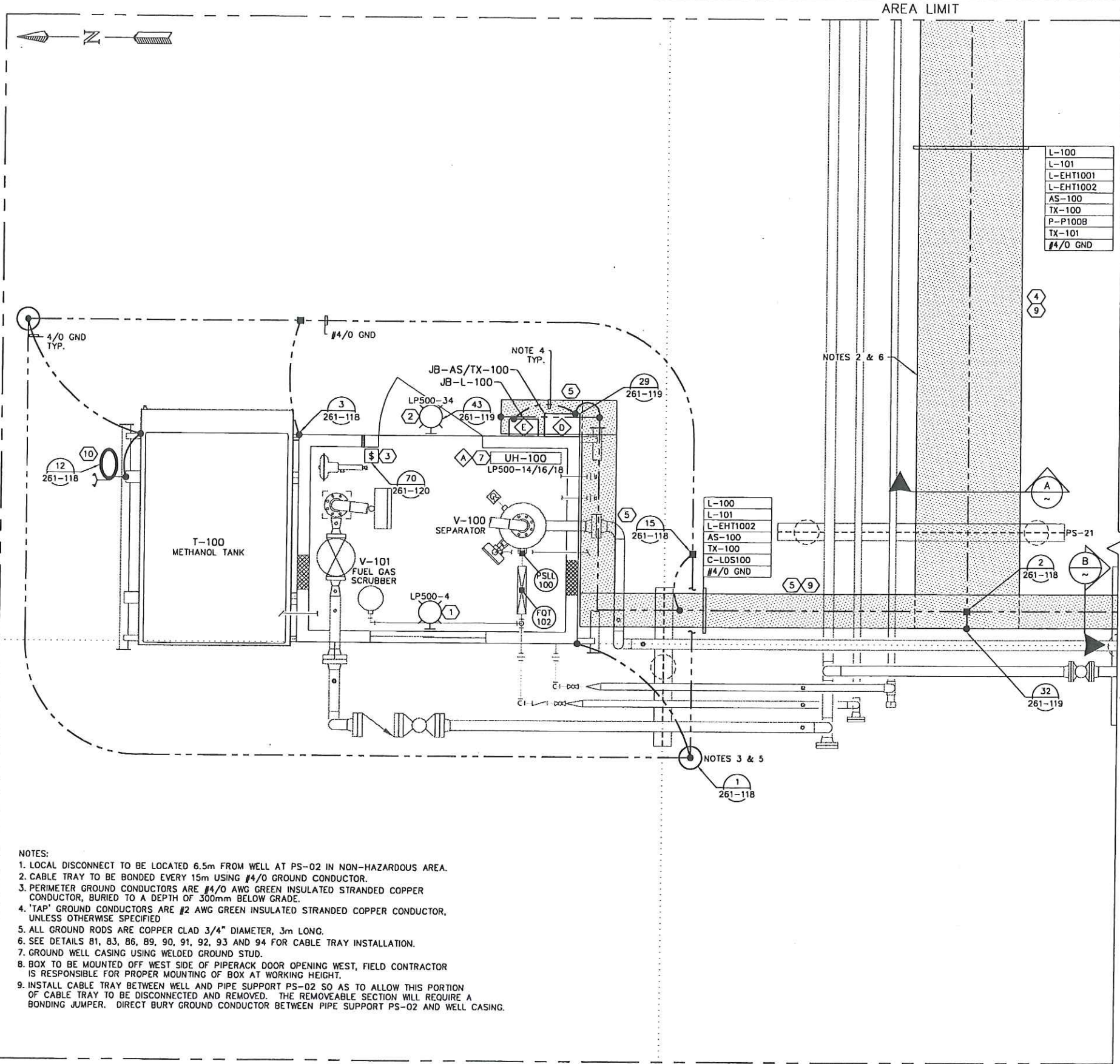
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M

AREA CLASSIFICATION DETAILS

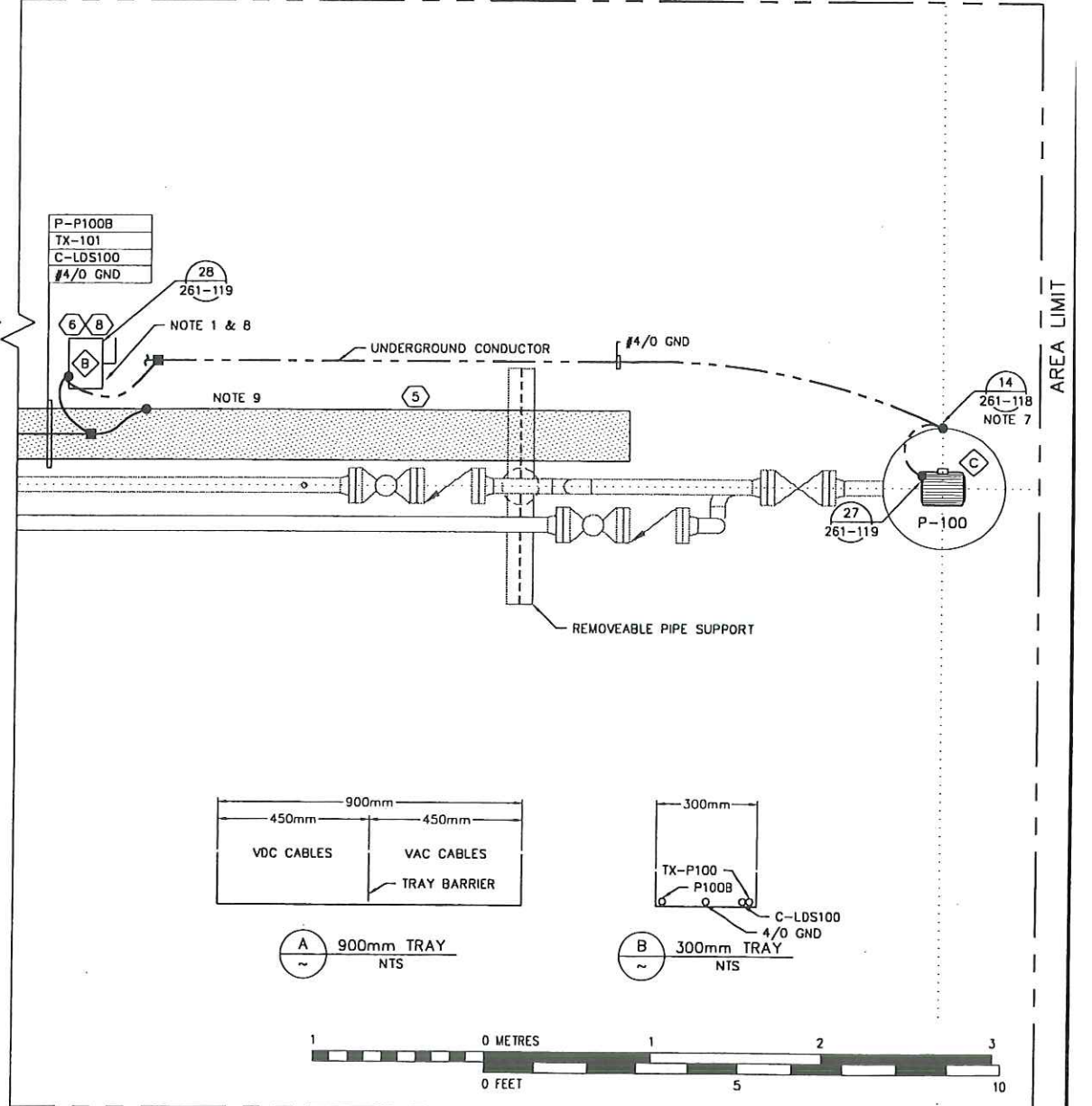
SCALE: N.T.S. DWG. No. D-SWN-260-103 0

Date: 2006.10.23 2:07pm File Name: x:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-261-101.DWG By: Chuck



BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1	1	MH INTERIOR LIGHT FIXTURE EXPLOSION PROOF	CROUSE-HINDS	EVL5BX9212/120	100W	CONTRACTOR
2	1	MH EXTERIOR LIGHT FIXTURE EXPLOSION PROOF	CROUSE-HINDS	EVL5BX92072/120	70W	CONTRACTOR
3	1	EXPLOSION PROOF ON/OFF SWITCH	CROUSE-HINDS	EDSC2129		CONTRACTOR
4	AS REQ	CLASS E ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU3-6-36-L12-6	900mm	CONTRACTOR
5	AS REQ	CLASS D1 ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU2-4-12-L12-6	300mm	CONTRACTOR
6	1	100A, 480VAC, 3 PHASE, NON-FUSIBLE DISCONNECT	CUTLER-HAMMER	3HD363NF		CONTRACTOR
7	1	5kW, 208VAC, 3 PHASE UNIT HEATER				OWNER
8	1	AUXILIARY CONTACTS	CUTLER-HAMMER	DS200EK1		CONTRACTOR
9	AS REQ	CABLE TRAY BARRIER	THOMAS & BETTS	PER SIDE RAIL HEIGHT		CONTRACTOR
10	1	STATIC GROUND TRUCK CLAMP	AS PER DETAIL			CONTRACTOR

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	UH-100	75mm x 100mm	25mm	BLACK ON WHITE
B	1	LDS-100 P-100 LOCAL DISCONNECT	75mm x 100mm	25mm	BLACK ON WHITE
C	1	P-100 PROGRESSIVE CAVITY PUMP	100mm x 150mm	25mm	BLACK ON WHITE
D	1	JB-AS/TX-100 24VDC & ANALOG	100mm x 150mm	25mm	BLACK ON WHITE
E	1	JB-L-100 120/208VAC	100mm x 150mm	25mm	BLACK ON WHITE



- NOTES:
- LOCAL DISCONNECT TO BE LOCATED 6.5m FROM WELL AT PS-02 IN NON-HAZARDOUS AREA.
 - CABLE TRAY TO BE BONDED EVERY 15m USING #4/0 GROUND CONDUCTOR.
 - PERIMETER GROUND CONDUCTORS ARE #4/0 AWG GREEN INSULATED STRANDED COPPER CONDUCTOR, BURIED TO A DEPTH OF 300mm BELOW GRADE.
 - 'TAP' GROUND CONDUCTORS ARE #2 AWG GREEN INSULATED STRANDED COPPER CONDUCTOR, UNLESS OTHERWISE SPECIFIED.
 - ALL GROUND RODS ARE COPPER CLAD 3/4" DIAMETER, 3m LONG.
 - SEE DETAILS 81, 83, 86, 89, 90, 91, 92, 93 AND 94 FOR CABLE TRAY INSTALLATION.
 - GROUND WELL CASING USING WELDED GROUND STUD.
 - BOX TO BE MOUNTED OFF WEST SIDE OF PIPERACK DOOR OPENING WEST, FIELD CONTRACTOR IS RESPONSIBLE FOR PROPER MOUNTING OF BOX AT WORKING HEIGHT.
 - INSTALL CABLE TRAY BETWEEN WELL AND PIPE SUPPORT PS-02 SO AS TO ALLOW THIS PORTION OF CABLE TRAY TO BE DISCONNECTED AND REMOVED. THE REMOVEABLE SECTION WILL REQUIRE A BONDING JUMPER. DIRECT BURY GROUND CONDUCTOR BETWEEN PIPE SUPPORT PS-02 AND WELL CASING.

REFERENCE DRAWING	DESCRIPTION
D-SWN-265-101	JUNCTION BOX LAYOUT

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.
Signature _____
Date _____
PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST

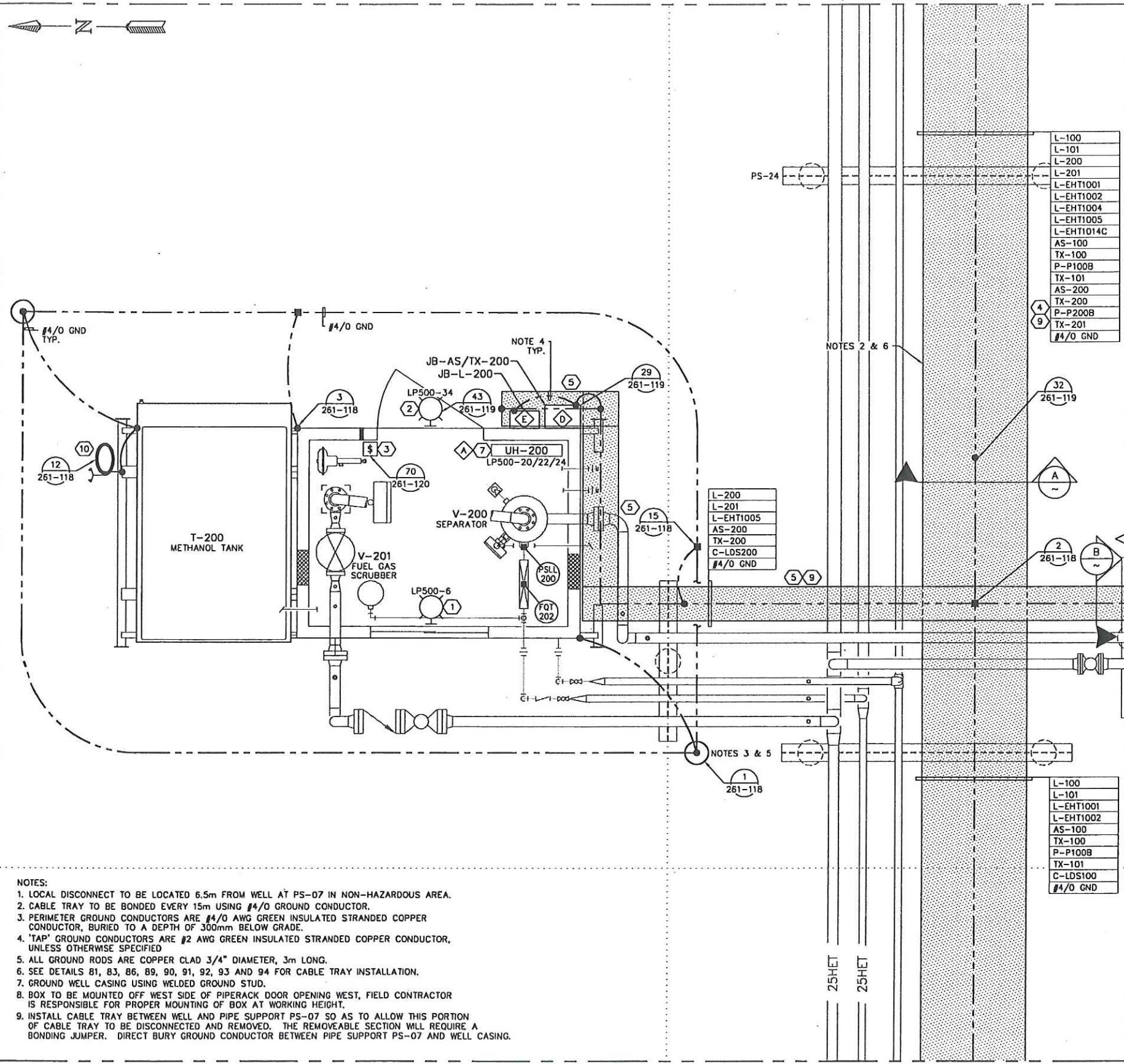
TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
S-100 SEPARATOR SKID
ELECTRICAL AND INSTRUMENTATION LAYOUT

SCALE: 1:20 DWG. No. D-SWN-261-101 0

AREA LIMIT

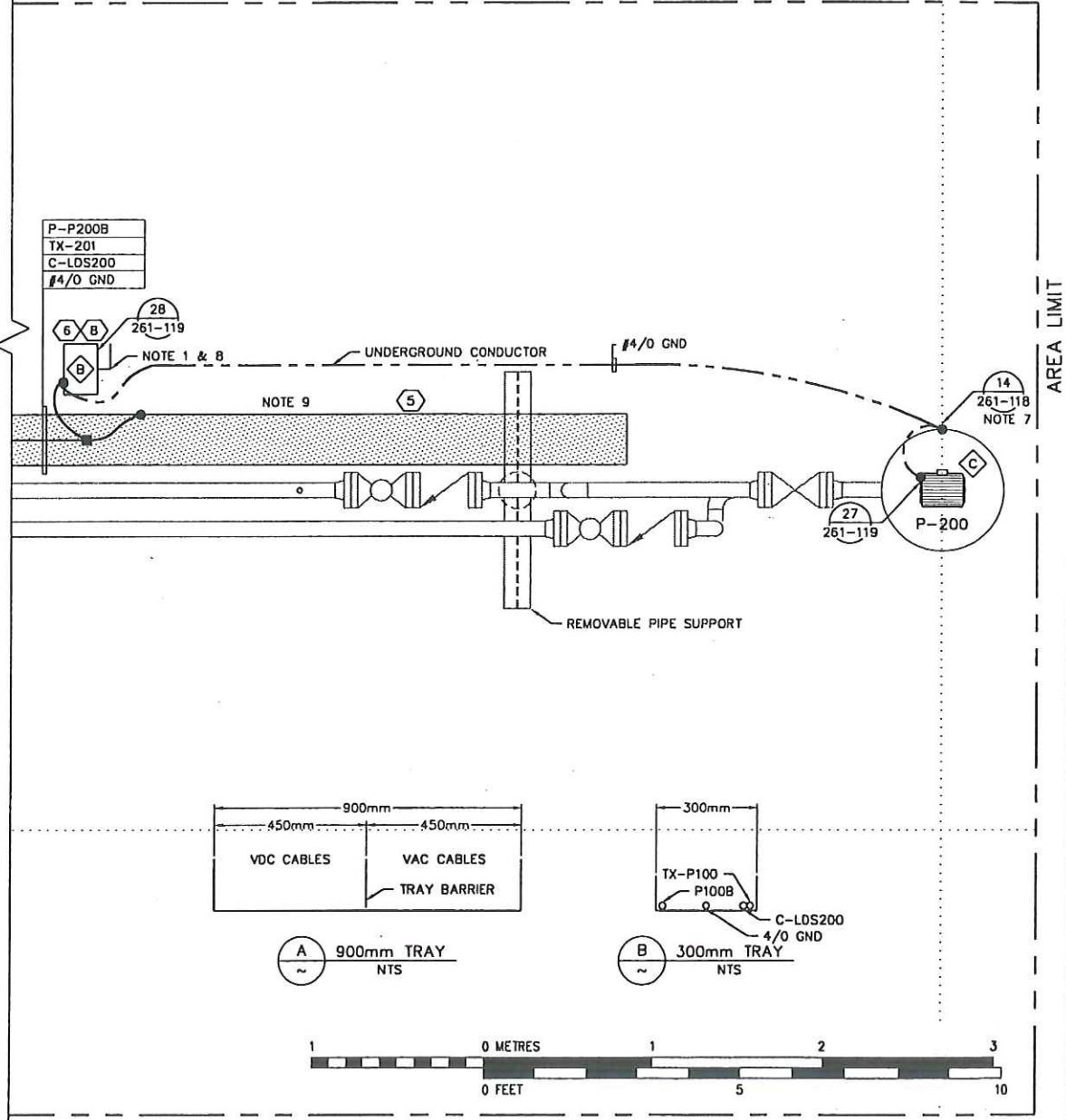


BILL OF MATERIALS

ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1	1	MH INTERIOR LIGHT FIXTURE EXPLOSION PROOF	CROUSE-HINDS	EVL5BX9212/120	100W	CONTRACTOR
2	1	MH EXTERIOR LIGHT FIXTURE EXPLOSION PROOF	CROUSE-HINDS	EVL5BX92072/120	70W	CONTRACTOR
3	1	EXPLOSION PROOF ON/OFF SWITCH	CROUSE-HINDS	EDSC2129		CONTRACTOR
4	AS REQ	CLASS E ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU3-6-36-L12-6	900mm	CONTRACTOR
5	AS REQ	CLASS D1 ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU2-4-12-L12-6	300mm	CONTRACTOR
6	1	100A, 480VAC, 3 PHASE, NON-FUSIBLE DISCONNECT	CUTLER-HAMMER	3HD363NF		CONTRACTOR
7	1	5kW, 208VAC, 3 PHASE UNIT HEATER				OWNER
8	1	AUXILIARY CONTACTS	CUTLER-HAMMER	DS200EK1		CONTRACTOR
9	AS REQ	CABLE TRAY BARRIER	THOMAS & BETTS	PER SIDE RAIL HEIGHT		CONTRACTOR
10	1	STATIC GROUND TRUCK CLAMP	AS PER DETAIL			CONTRACTOR

LAMICOID ENGRAVING SCHEDULE

ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	UH-200	75mm x 100mm	25mm	BLACK ON WHITE
B	1	LDS-200 P-200 LOCAL DISCONNECT	75mm x 100mm	25mm	BLACK ON WHITE
C	1	P-200 PROGRESSIVE CAVITY PUMP	100mm x 150mm	25mm	BLACK ON WHITE
D	1	JB-AS/TX-200 24VDC & ANALOG	100mm x 150mm	25mm	BLACK ON WHITE
E	1	JB-L-200 120/208VAC	100mm x 150mm	25mm	BLACK ON WHITE




- NOTES:**
1. LOCAL DISCONNECT TO BE LOCATED 6.5m FROM WELL AT PS-07 IN NON-HAZARDOUS AREA.
 2. CABLE TRAY TO BE BONDED EVERY 15m USING #4/0 GROUND CONDUCTOR.
 3. PERIMETER GROUND CONDUCTORS ARE #4/0 AWG GREEN INSULATED STRANDED COPPER CONDUCTOR, BURIED TO A DEPTH OF 300mm BELOW GRADE.
 4. 'TAP' GROUND CONDUCTORS ARE #2 AWG GREEN INSULATED STRANDED COPPER CONDUCTOR, UNLESS OTHERWISE SPECIFIED
 5. ALL GROUND RODS ARE COPPER CLAD 3/4" DIAMETER, 3m LONG.
 6. SEE DETAILS 81, 83, 86, 89, 90, 91, 92, 93 AND 94 FOR CABLE TRAY INSTALLATION.
 7. GROUND WELL CASING USING WELDED GROUND STUD.
 8. BOX TO BE MOUNTED OFF WEST SIDE OF PIPERACK DOOR OPENING WEST, FIELD CONTRACTOR IS RESPONSIBLE FOR PROPER MOUNTING OF BOX AT WORKING HEIGHT.
 9. INSTALL CABLE TRAY BETWEEN WELL AND PIPE SUPPORT PS-07 SO AS TO ALLOW THIS PORTION OF CABLE TRAY TO BE DISCONNECTED AND REMOVED. THE REMOVABLE SECTION WILL REQUIRE A BONDING JUMPER. DIRECT BURY GROUND CONDUCTOR BETWEEN PIPE SUPPORT PS-07 AND WELL CASING.



REFERENCE DRAWING	DESCRIPTION
D-SWN-265-102	JUNCTION BOX LAYOUT

STAMPS & PERMITS



PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.
Signature _____
Date _____
PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SJP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST ENERGY TRUST

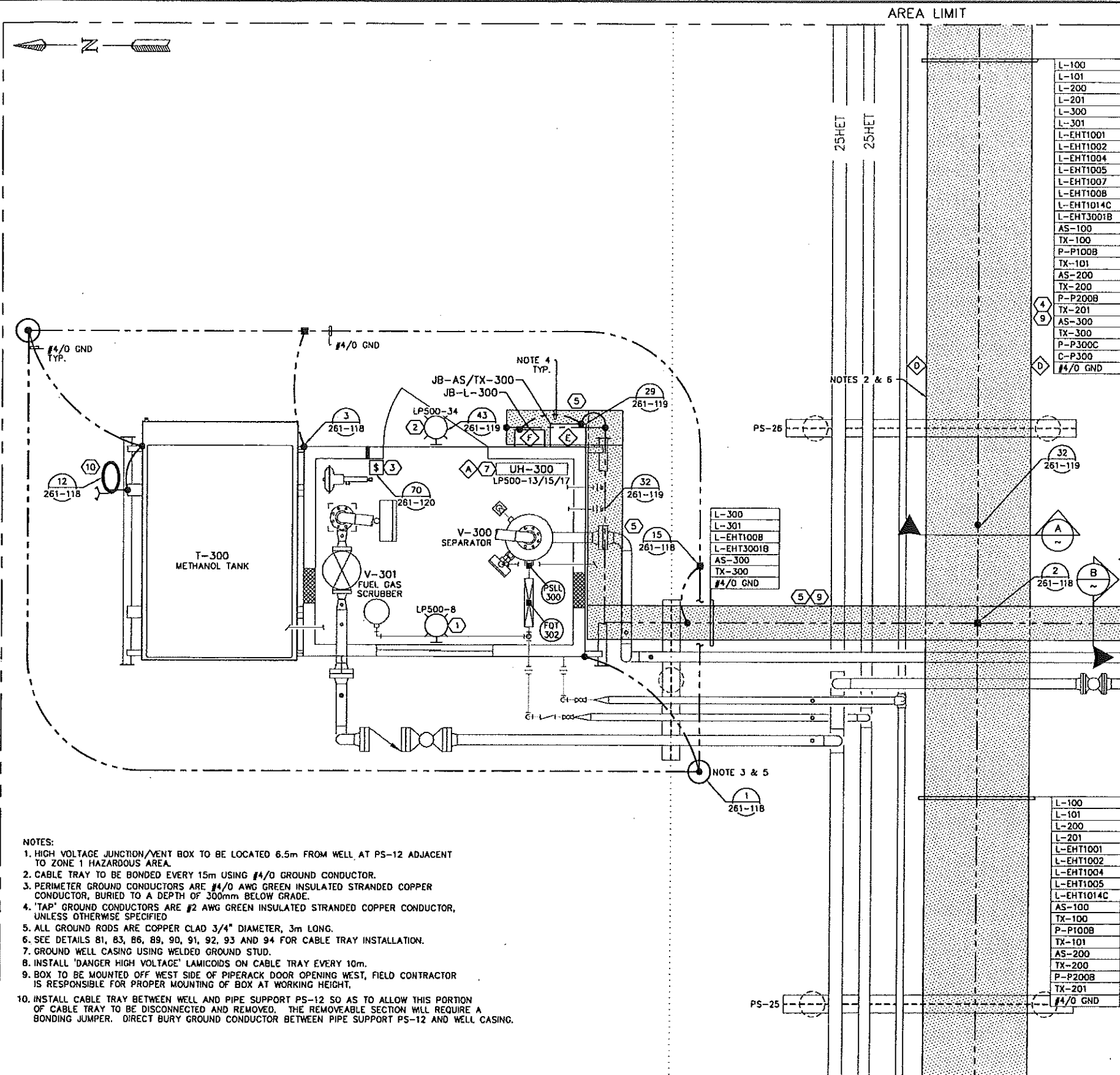
TRIDYNE PROJECTS CORPORATION

PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
S-200 SEPARATOR SKID
ELECTRICAL AND INSTRUMENTATION LAYOUT

SCALE: 1:20 DWG. No. D-SWN-261-102 0



- NOTES:**
- HIGH VOLTAGE JUNCTION/VENT BOX TO BE LOCATED 6.5m FROM WELL AT PS-12 ADJACENT TO ZONE 1 HAZARDOUS AREA.
 - CABLE TRAY TO BE BONDED EVERY 15m USING #4/0 GROUND CONDUCTOR.
 - PERIMETER GROUND CONDUCTORS ARE #4/0 AWG GREEN INSULATED STRANDED COPPER CONDUCTOR, BURIED TO A DEPTH OF 300mm BELOW GRADE.
 - 'TAP' GROUND CONDUCTORS ARE #2 AWG GREEN INSULATED STRANDED COPPER CONDUCTOR, UNLESS OTHERWISE SPECIFIED.
 - ALL GROUND RODS ARE COPPER CLAD 3/4" DIAMETER, 3m LONG.
 - SEE DETAILS 81, 83, 86, 88, 90, 91, 92, 93 AND 94 FOR CABLE TRAY INSTALLATION.
 - GROUND WELL CASING USING WELDED GROUND STUD.
 - INSTALL 'DANGER HIGH VOLTAGE' LAMICOIDS ON CABLE TRAY EVERY 10m.
 - BOX TO BE MOUNTED OFF WEST SIDE OF PIPERACK DOOR OPENING WEST, FIELD CONTRACTOR IS RESPONSIBLE FOR PROPER MOUNTING OF BOX AT WORKING HEIGHT.
 - INSTALL CABLE TRAY BETWEEN WELL AND PIPE SUPPORT PS-12 SO AS TO ALLOW THIS PORTION OF CABLE TRAY TO BE DISCONNECTED AND REMOVED. THE REMOVEABLE SECTION WILL REQUIRE A BONDING JUMPER. DIRECT BURY GROUND CONDUCTOR BETWEEN PIPE SUPPORT PS-12 AND WELL CASING.

AREA LIMIT

25HET
25HET

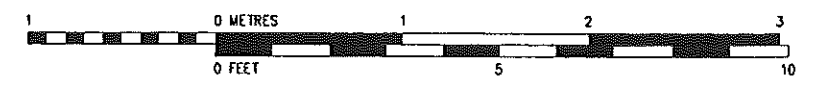
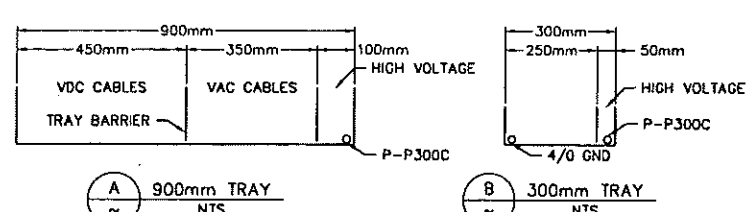
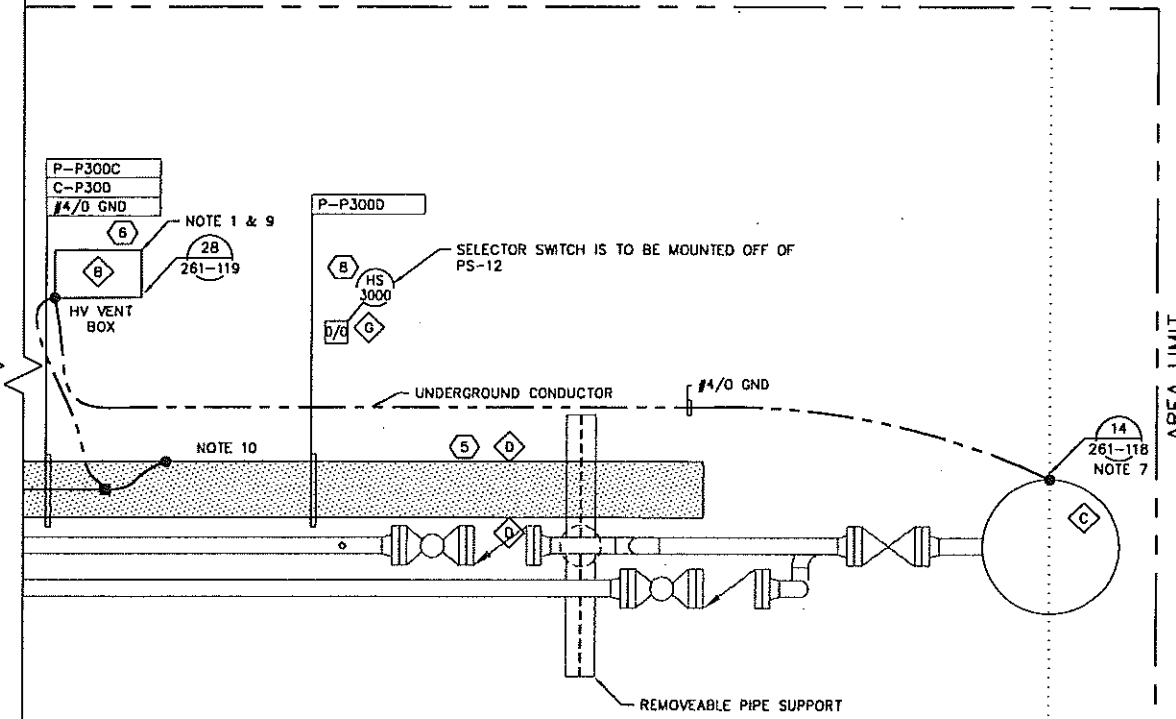
- L-100
- L-101
- L-200
- L-201
- L-300
- L-301
- L-EHT1001
- L-EHT1002
- L-EHT1004
- L-EHT1005
- L-EHT1007
- L-EHT1008
- L-EHT1014C
- L-EHT3001B
- AS-100
- TX-100
- P-1000B
- TX-101
- AS-200
- TX-200
- P-2000B
- TX-201
- AS-300
- TX-300
- P-3000C
- C-P300
- #4/0 GND

- L-300
- L-301
- L-EHT1008
- L-EHT3001B
- AS-300
- TX-300
- #4/0 GND

- L-100
- L-101
- L-200
- L-201
- L-EHT1001
- L-EHT1002
- L-EHT1004
- L-EHT1005
- L-EHT1014C
- AS-100
- TX-100
- P-1000B
- TX-101
- AS-200
- TX-200
- P-2000B
- TX-201
- #4/0 GND

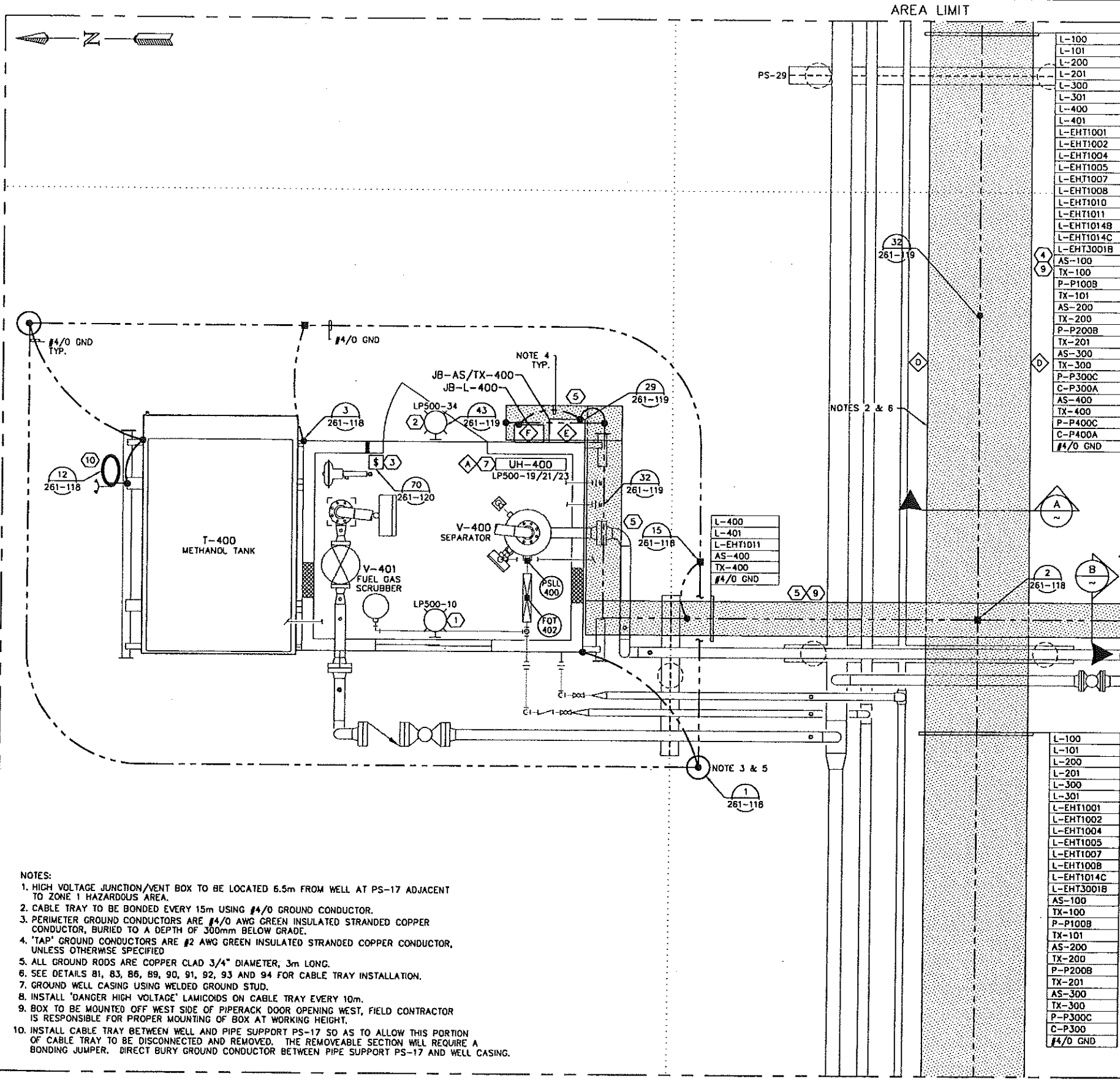
BILL OF MATERIALS					
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SUPPLIER
1	1	MH INTERIOR LIGHT FIXTURE EXPLOSION PROOF	CROUSE-HINDS	EVL5BX9212/120	100W CONTRACTOR
2	1	MH EXTERIOR LIGHT FIXTURE EXPLOSION PROOF	CROUSE-HINDS	EVL5BX92072/120	70W CONTRACTOR
3	1	EXPLOSION PROOF ON/OFF SWITCH	CROUSE-HINDS	EDSC2129	CONTRACTOR
4	AS REQ	CLASS E ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU3-6-36-L12-6	900mm CONTRACTOR
5	AS REQ	CLASS D1 ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU2-4-12-L12-6	300mm CONTRACTOR
6	1	HIGH VOLTAGE VENTBOX	-	-	OWNER
7	1	5kW, 208VAC, 3 PHASE UNIT HEATER	-	-	OWNER
8	1	2 POSITION SELECTOR SWITCH	CROUSE-HINDS	EFSC21271	CONTRACTOR
9	AS REQ	CABLE TRAY BARRIER	THOMAS & BETTS	PER SIDE RAIL HEIGHT	CONTRACTOR
10	1	STATIC GROUND TRUCK CLAMP	AS PER DETAIL	-	CONTRACTOR

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	UH-300 HV VENT BOX	75mm x 100mm	25mm	BLACK ON WHITE
B	1	P-300 HIGH VOLTAGE VENT BOX	75mm x 100mm	25mm	BLACK ON WHITE
C	1	P-300 SUBMERSIBLE PUMP	100mm x 150mm	25mm	BLACK ON WHITE
D	4	DANGER HIGH VOLTAGE	100mm x 150mm	25mm	WHITE ON RED
E	1	JB-AS/TX-300 24VDC & ANALOG	100mm x 150mm	25mm	BLACK ON WHITE
F	1	JB-L-300 120/208VAC	100mm x 150mm	25mm	BLACK ON WHITE
G	1	P-300	13mm x 40mm	7mm	BLACK ON WHITE



REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS		PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D	PENN WEST ENERGY TRUST		
D-SWN-265-103	JUNCTION BOX LAYOUT		PERMIT TO PRACTICE TRIDYNE PROJECTS CORP. Signature _____ Date _____ PERMIT NUMBER: P 8630 The Association of Professional Engineers, Geologists and Geophysicists of Alberta	2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SJP	DMJ	SOUTH SWAN HILLS - 4 WELL CBM PILOT		
				2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP			MULTI WELL COMPRESSOR STATION LSD: 12-12-65-11 WSM S-300 SEPARATOR SKID	
				2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ	ELECTRICAL AND INSTRUMENTATION LAYOUT		SCALE: 1:20

PENN WEST ENERGY TRUST
TRIDYNE PROJECTS CORPORATION



- NOTES:**
- HIGH VOLTAGE JUNCTION/VENT BOX TO BE LOCATED 6.5m FROM WELL AT PS-17 ADJACENT TO ZONE 1 HAZARDOUS AREA.
 - CABLE TRAY TO BE BONDED EVERY 15m USING #4/0 GROUND CONDUCTOR.
 - PERIMETER GROUND CONDUCTORS ARE #4/0 AWG GREEN INSULATED STRANDED COPPER CONDUCTOR, BURIED TO A DEPTH OF 300mm BELOW GRADE.
 - 'TAP' GROUND CONDUCTORS ARE #2 AWG GREEN INSULATED STRANDED COPPER CONDUCTOR, UNLESS OTHERWISE SPECIFIED
 - ALL GROUND RODS ARE COPPER CLAD 3/4" DIAMETER, 3m LONG.
 - SEE DETAILS B1, B3, B6, B9, 90, 91, 92, 93 AND 94 FOR CABLE TRAY INSTALLATION.
 - GROUND WELL CASING USING WELDED GROUND STUD.
 - INSTALL 'DANGER HIGH VOLTAGE' LAMICOIDS ON CABLE TRAY EVERY 10m.
 - BOX TO BE MOUNTED OFF WEST SIDE OF PIPERACK DOOR OPENING WEST, FIELD CONTRACTOR IS RESPONSIBLE FOR PROPER MOUNTING OF BOX AT WORKING HEIGHT.
 - INSTALL CABLE TRAY BETWEEN WELL AND PIPE SUPPORT PS-17 SO AS TO ALLOW THIS PORTION OF CABLE TRAY TO BE DISCONNECTED AND REMOVED. THE REMOVEABLE SECTION WILL REQUIRE A BONDING JUMPER. DIRECT BURY GROUND CONDUCTOR BETWEEN PIPE SUPPORT PS-17 AND WELL CASING.

AREA LIMIT

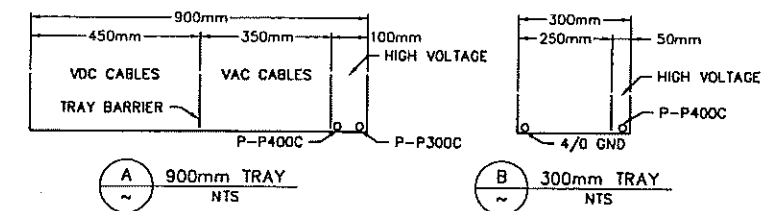
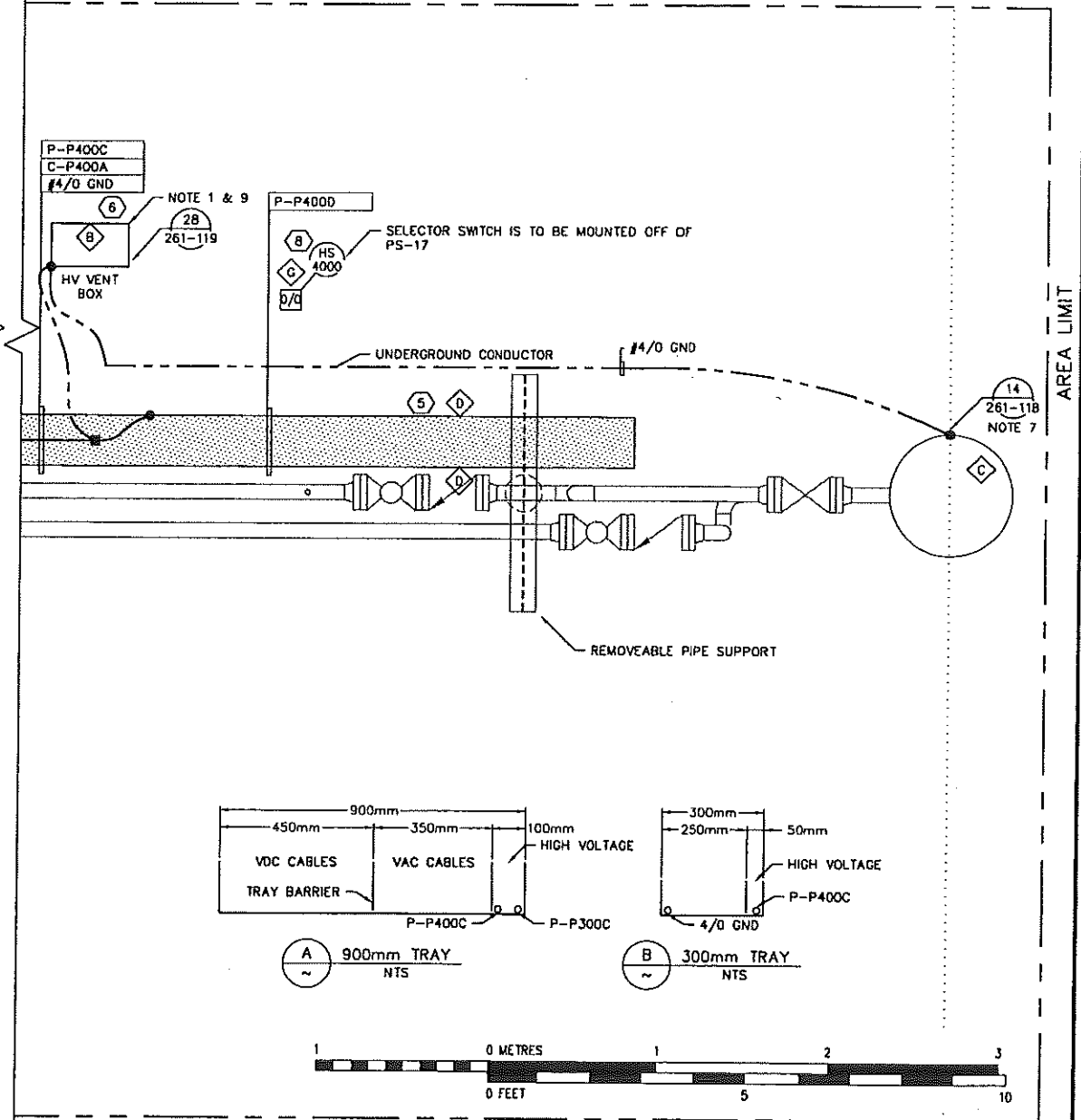
AREA LIMIT

- L-100
- L-101
- L-200
- L-201
- L-300
- L-301
- L-400
- L-401
- L-EHT1001
- L-EHT1002
- L-EHT1004
- L-EHT1005
- L-EHT1007
- L-EHT1008
- L-EHT1010
- L-EHT1011
- L-EHT1014B
- L-EHT1014C
- L-EHT3001B
- AS-100
- TX-100
- P-P100B
- TX-101
- AS-200
- TX-200
- P-P200B
- TX-201
- AS-300
- TX-300
- P-P300C
- C-P300A
- AS-400
- TX-400
- P-P400C
- C-P400A
- #4/0 GND

- L-100
- L-101
- L-200
- L-201
- L-300
- L-301
- L-EHT1001
- L-EHT1002
- L-EHT1004
- L-EHT1005
- L-EHT1007
- L-EHT1008
- L-EHT1014C
- L-EHT3001B
- AS-100
- TX-100
- P-P100B
- TX-101
- AS-200
- TX-200
- P-P200B
- TX-201
- AS-300
- TX-300
- P-P300C
- C-P300
- #4/0 GND

BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1	1	MH INTERIOR LIGHT FIXTURE EXPLOSION PROOF	CROUSE-HINDS	EVL5BX9212/120	100W	CONTRACTOR
2	1	MH EXTERIOR LIGHT FIXTURE EXPLOSION PROOF	CROUSE-HINDS	EVL5BX92072/120	70W	CONTRACTOR
3	1	EXPLOSION PROOF ON/OFF SWITCH	CROUSE-HINDS	EDSC2129		CONTRACTOR
4	AS REQ	CLASS E ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU3-6-36-L12-6	900mm	CONTRACTOR
5	AS REQ	CLASS D1 ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU2-4-12-L12-6	300mm	CONTRACTOR
6	1	HIGH VOLTAGE VENTBOX				OWNER
7	1	5kW, 208VAC, 3 PHASE UNIT HEATER				OWNER
8	1	2 POSITION SELECTOR SWITCH	CROUSE-HINDS	EFSC21271		CONTRACTOR
9	AS REQ	CABLE TRAY BARRIER	THOMAS & BETTS	PER SIDE RAIL HEIGHT		CONTRACTOR
10	1	STATIC GROUND TRUCK CLAMP	AS PER DETAIL			CONTRACTOR

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	UH-400 HV VENT BOX	75mm x 100mm	25mm	BLACK ON WHITE
B	1	HS-400 P-400 LOCAL DISCONNECT	75mm x 100mm	25mm	BLACK ON WHITE
C	1	P-400 SUBMERSIBLE PUMP	100mm x 150mm	25mm	BLACK ON WHITE
D	4	DANGER HIGH VOLTAGE	100mm x 150mm	25mm	WHITE ON RED
E	1	JB-AS/TX-400 24VDC & ANALOG	100mm x 150mm	25mm	BLACK ON WHITE
F	1	JB-L-400 120/208VAC	100mm x 150mm	25mm	BLACK ON WHITE
G	1	G-400	13mm x 40mm	7mm	BLACK ON WHITE



REFERENCE DRAWING	DESCRIPTION
D-SWN-265-104	JUNCTION BOX LAYOUT

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630

The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

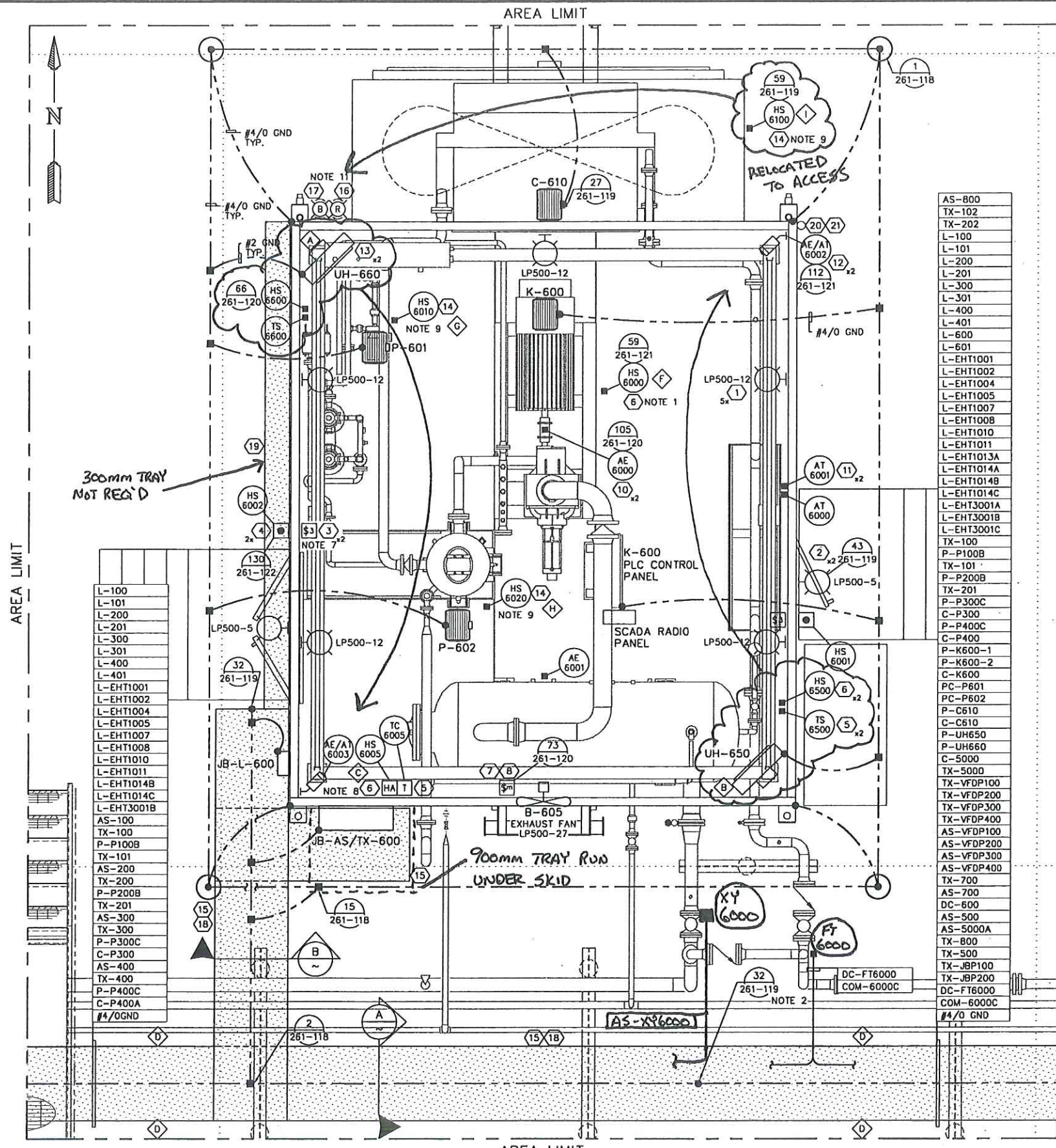
PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
S-400 SEPARATOR SKID
ELECTRICAL AND INSTRUMENTATION LAYOUT

SCALE: 1:20 DWG. No. D-SWN-261-104 0

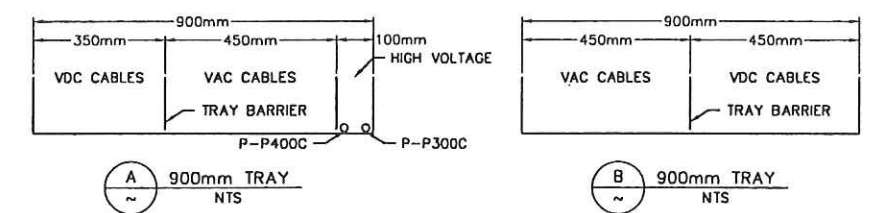


L-100
L-101
L-200
L-201
L-300
L-301
L-400
L-401
L-EHT1001
L-EHT1002
L-EHT1004
L-EHT1005
L-EHT1007
L-EHT1008
L-EHT1010
L-EHT1011
L-EHT1014B
L-EHT1014C
L-EHT3001B
AS-100
TX-100
P-P100B
TX-101
AS-200
TX-200
P-P200B
TX-201
AS-300
TX-300
P-P300C
C-P300
AS-400
TX-400
P-P400C
C-P400A
#4/0GND

AS-800
TX-102
TX-202
L-100
L-101
L-200
L-201
L-300
L-301
L-400
L-401
L-600
L-601
L-EHT1001
L-EHT1002
L-EHT1004
L-EHT1005
L-EHT1007
L-EHT1008
L-EHT1010
L-EHT1011
L-EHT1013A
L-EHT1014A
L-EHT1014B
L-EHT1014C
L-EHT3001A
L-EHT3001B
L-EHT3001C
TX-100
P-P100B
TX-101
P-P200B
TX-201
P-P300C
C-P300
P-P400C
C-P400
P-K600-1
P-K600-2
C-K600
PC-P601
PC-P602
P-C610
C-C610
P-UH650
P-UH660
C-5000
TX-5000
TX-VFDP100
TX-VFDP200
TX-VFDP300
TX-VFDP400
AS-VFDP100
AS-VFDP200
AS-VFDP300
AS-VFDP400
TX-700
AS-700
DC-600
AS-500
AS-5000A
TX-800
TX-500
TX-JBP100
TX-JBP200
DC-F16000
COM-6000C
COM-6000C
#4/0 GND

ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1	5	MH LIGHT FIXTURE	CROUSE-HINDS	VMVM2TW175GP	175W	CONTRACTOR
2	2	MH LIGHT FIXTURE	CROUSE-HINDS	VMVM2TW070GP	70W	CONTRACTOR
3	2	EXPLOSION PROOF 3 WAY SWITCH	CROUSE-HINDS	EDSC2130	-	CONTRACTOR
4	2	ESD PB (MOMENTARY) C/W GUARD	PER DETAIL	-	-	CONTRACTOR
5	3	EXPLOSION PROOF THERMOSTAT	CROUSE-HINDS	HRC2	-	CONTRACTOR
6	4	2 POSITION SELECTOR SWITCH	CROUSE-HINDS	EFSC21271	-	CONTRACTOR
7	1	MANUAL MOTOR STARTER	CROUSE-HINDS	EDSC2199	-	CONTRACTOR
8	1	OVERLOAD HEATER ELEMENT	CROUSE-HINDS	P29	-	CONTRACTOR
9	-	-	-	-	-	-
10	2	LEL GAS DETECTION SENSOR	-	-	-	OWNER
11	2	LEL GAS DETECTION TRANSMITTER	-	-	-	OWNER
12	2	FIRE DETECTOR / TRANSMITTER	-	-	-	OWNER
13	2	UNIT HEATER	RUFFNECK	-	15kW	OWNER
14	2	3 POSITION SELECTOR SWITCH	CROUSE-HINDS	EFS21273	-	CONTRACTOR
15	AS REQ	CLASS E ALUMINUM LADDER CABLE TRAY	THOMAS + BETTS	AU3-6-36-L12-6	900mm	CONTRACTOR
16	1	RED ROTATING BEACON	EDWARDS	10DDVPSTR-G	-	CONTRACTOR
17	1	BLUE ROTATING BEACON	EDWARDS	10DDVPSTB-G	-	CONTRACTOR
18	AS REQ	CABLE TRAY BARRIER	THOMAS & BETTS	PER SIDE RAIL HEIGHT	-	CONTRACTOR
19	AS REQ	CLASS D2 ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU2-4-12-L12-6	300mm	CONTRACTOR
20	1	35' SCHEDULE 40 4" DIA ALUMINUM PIPE MAST	-	-	-	CONTRACTOR
21	1	YAGI ANTENNA	-	-	-	OWNER

ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	UH-660	75mm x 100mm	25mm	BLACK ON WHITE
B	1	UH-650	75mm x 100mm	25mm	BLACK ON WHITE
C	1	EXHAUST FAN	25mm x 50mm	13mm	BLACK ON WHITE
D	4	DANGER HIGH VOLTAGE	100mm x 150mm	25mm	WHITE ON RED
E	2	ESD	50mm x 75mm	13mm	WHITE ON RED
F	1	K-600	13mm x 40mm	7mm	BLACK ON WHITE
G	1	P-601	13mm x 40mm	7mm	BLACK ON WHITE
H	1	P-602	13mm x 40mm	7mm	BLACK ON WHITE
I	1	C-610	13mm x 40mm	7mm	BLACK ON WHITE



- NOTES:
1. INCLUDE 'OFF/AUTO' NAMEPLATE LABELING
 2. CABLE TRAY TO BE BONDED EVERY 15m USING #4/0 GROUND CONDUCTOR.
 3. PERIMETER GROUND CONDUCTORS ARE #4/0 AWG. GREEN INSULATED STRANDED COPPER CONDUCTOR, BURIED TO A DEPTH OF 300mm BELOW GRADE.
 4. 'TAP' GROUND CONDUCTORS ARE #2 AWG. GREEN INSULATED STRANDED COPPER CONDUCTOR, UNLESS OTHERWISE SPECIFIED.
 5. ALL GROUND RODS ARE COPPER CLAD 3/4" DIAMETER, 3m LONG.
 6. SEE DETAILS 81, 83, 86, 89, 91, 92, 93 AND 94 FOR CABLE TRAY INSTALLATION.
 7. INCLUDE 'ON/OFF' NAMEPLATE LABELING
 8. INCLUDE 'HAND/AUTO' NAMEPLATE LABELING
 9. INCLUDE 'HAND/OFF/AUTO' NAMEPLATE LABELING
 10. ALL DEVICE LOCATIONS ARE APPROXIMATE, ELECTRICAL CONTRACTOR TO VERIFY LOCATIONS.
 11. MOUNT BEACONS AT SUFFICIENT HEIGHT ABOVE COOLER ENCLOSURE SO AS TO BE SEEN FROM EAST SIDE OF COMPRESSOR.

REFERENCE DRAWING	DESCRIPTION
D-SWN-265-105	JUNCTION BOX LAYOUT
D-SWN-265-106	JUNCTION BOX AS/TX-600 (PAGE 1 OF 3)
D-SWN-265-107	JUNCTION BOX AS/TX-600 (PAGE 2 OF 3)
D-SWN-265-108	JUNCTION BOX AS/TX-600 LAYOUT
D-SWN-265-113	JUNCTION BOX AS/TX-600 (PAGE 3 OF 3)

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.
Signature _____
Date _____
PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB		DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M
K-600 COMPRESSOR BUILDING
ELECTRICAL AND INSTRUMENTATION LAYOUT

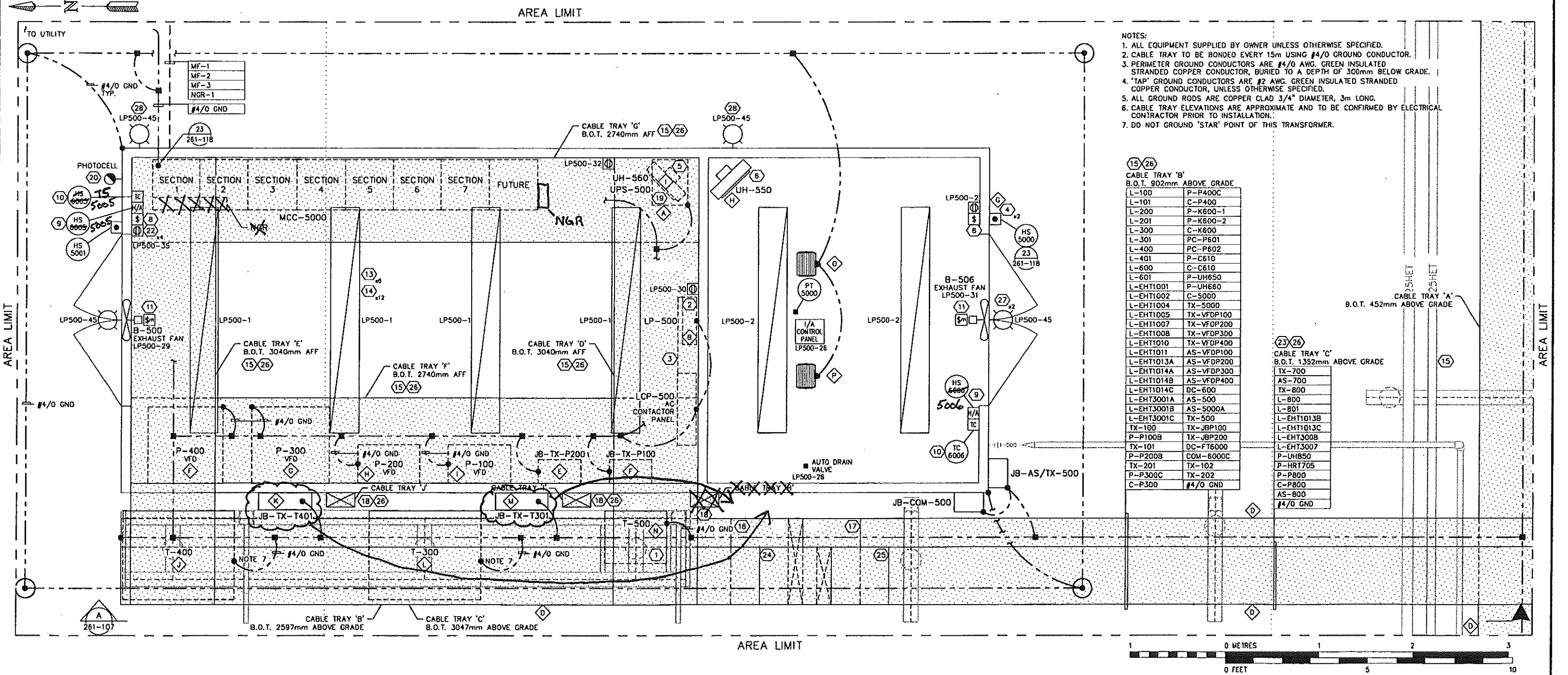
SCALE: 1:30 DWG. No. D-SWN-261-105 0

Date: 2006.10.24 12:08pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-261-106.DWG By: SB

BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1	1	112.5kVA, 480VAC, 120/208VAC, 3φ, 3W TRANSFORMER	HAMMOND	MK112KBC	-	CONTRACTOR
2	1	400A, 208VAC, 3φ 4W, PANEL BOARD	CUTLER-HAMMER	P1A14A-T2	-	CONTRACTOR
3	1	208VAC, STEEL WIRE TROUGH	HOFFMAN	A88T21T	-	CONTRACTOR
4	2	ESD PUSHBUTTON (MOMENTARY) c/w GUARD	PER DETAIL	-	-	CONTRACTOR
5	1	10kW, 480VAC 3φ UNIT HEATER	CALORITECH	GE109CT	-	CONTRACTOR
6	1	5kW, 480VAC 3φ UNIT HEATER	CALORITECH	GE057CT	-	CONTRACTOR
7	2	UNIT HEATER MOUNTING BRACKET	CALORITECH	WB210	-	CONTRACTOR
8	2	2 POLE SWITCH, 15A 120VAC	OPEN	-	-	CONTRACTOR
9	2	2 POSITION SELECTOR SWITCH	CUTLER-HAMMER	MCC21271	-	CONTRACTOR
10	2	THERMOSTAT	OPEN	-	-	CONTRACTOR
11	2	MANUAL MOTOR STARTER	ALLEN-BRADLEY	TAX4	-	CONTRACTOR
12	6	8'x1' FLUORESCENT LIGHT FIXTURE	OPEN	-	-	CONTRACTOR
13	12	8', 96W, COOL WHITE FLUORESCENT LAMP	OPEN	-	-	CONTRACTOR
14	2	OVERLOAD HEATER ELEMENT	ALLEN-BRADLEY	WH6	-	CONTRACTOR
15	AS REQ	CLASS E ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU3-6-36-L12-6	900mm	CONTRACTOR
16	1	ALUMINUM LADDER OUTSIDE 90	THOMAS & BETTS	AUF6-36-L-V090-36	900mm	CONTRACTOR
17	1	ALUMINUM LADDER INSIDE 90	THOMAS & BETTS	AUF6-36-L-V190-36	900mm	CONTRACTOR
18	AS REQ	CLASS D1 ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU3-4-12-L12-6	300mm	CONTRACTOR
19	1	20A, 24VDC UPS	HAYLEY	-	-	OWNER
20	1	PHOTOCELL	TORK	2101	-	CONTRACTOR

BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
21	4	15A, 120VAC DUPLEX RECEPTACLE	OPEN	-	-	CONTRACTOR
22	AS REQ	CLASS E ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU3-6-24-L12-6	600mm	CONTRACTOR
23	1	ALUMINUM LADDER OUTSIDE 90	THOMAS & BETTS	AUF6-36-L-V090-24	600mm	CONTRACTOR
24	1	ALUMINUM LADDER INSIDE 90	THOMAS & BETTS	AUF6-36-L-V190-24	600mm	CONTRACTOR
25	AS REQ	CABLE TRAY BARRIER	THOMAS & BETTS	PER SIDE RAIL HEIGHT	-	CONTRACTOR
26	2	MH LIGHT FIXTURE	CROUSE-HINDS	VHM2TWO70GP	70W	CONTRACTOR
27	2	MH LIGHT FIXTURE	HUBBEL	PGM-250H-128-1LP	250W	CONTRACTOR

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	UPS-500 20A, 24VDC	75mm x 150mm	25mm	BLACK ON WHITE
B	1	LP-500 400A, 120/208VAC, 3φ 3W	100mm x 150mm	25mm	BLACK ON WHITE
C					
D	9	DANGER HIGH VOLTAGE	100mm x 150mm	25mm	WHITE ON RED
E	1	JB-TX-P200	100mm x 150mm	25mm	BLACK ON WHITE
F	1	JB-TX-P100	100mm x 150mm	25mm	BLACK ON WHITE
G	1	ESD	50mm x 75mm	25mm	WHITE ON RED
H	1	UH-550	75mm x 150mm	25mm	BLACK ON WHITE
I	1	UH-560	75mm x 150mm	25mm	BLACK ON WHITE
J	1	T-400 480VAC-B22VAC	100mm x 150mm	25mm	BLACK ON WHITE
K	1	JB-TX-T401	100mm x 150mm	25mm	BLACK ON WHITE
L	1	T-300 480VAC-B22VAC	100mm x 150mm	25mm	BLACK ON WHITE
M	1	JB-TX-T301	100mm x 150mm	25mm	BLACK ON WHITE
N	1	T-500 408VAC-120/208VAC	100mm x 150mm	25mm	BLACK ON WHITE
O	1	K-500A 1/A COMPRESSOR	100mm x 150mm	25mm	BLACK ON WHITE
P	1	K-500B 1/A COMPRESSOR	100mm x 150mm	25mm	BLACK ON WHITE



- NOTES:
- ALL EQUIPMENT SUPPLIED BY OWNER UNLESS OTHERWISE SPECIFIED.
 - CABLE TRAY TO BE BONDED EVERY 15m USING #4/0 GROUND CONDUCTOR.
 - PERIMETER GROUND CONDUCTORS ARE #4/0 AWG, GREEN INSULATED STRANDED COPPER CONDUCTOR, BURIED TO A DEPTH OF 300mm BELOW GRADE.
 - *TAP* GROUND CONDUCTORS ARE #2 AWG, GREEN INSULATED STRANDED COPPER CONDUCTOR, UNLESS OTHERWISE SPECIFIED.
 - ALL GROUND RODS ARE COPPER CLAD 3/4" DIAMETER, 3m LONG.
 - CABLE TRAY ELEVATIONS ARE APPROXIMATE AND TO BE CONFIRMED BY ELECTRICAL CONTRACTOR PRIOR TO INSTALLATION.
 - DO NOT GROUND 'STAR' POINT OF THIS TRANSFORMER.

CABLE TRAY 'B'
B.O.T. 902mm ABOVE GRADE

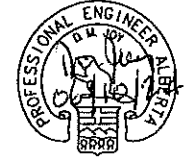
L-100	P-P400C
L-101	C-P400
L-200	P-K600-1
L-201	P-K600-2
L-300	C-K600
L-301	PC-P601
L-400	PC-P602
L-401	P-C610
L-600	C-C610
L-601	P-UH650
L-EHT1001	P-UH660
L-EHT1002	C-5000
L-EHT1004	TX-5000
L-EHT1005	TX-VFDP100
L-EHT1007	TX-VFDP200
L-EHT1008	TX-VFDP300
L-EHT1010	TX-VFDP400
L-EHT1011	AS-VFDP100
L-EHT1013A	AS-VFDP200
L-EHT1014A	AS-VFDP300
L-EHT1014B	AS-VFDP400
L-EHT1014C	DC-600
L-EHT3001A	AS-500
L-EHT3001B	AS-5000A
L-EHT3001C	TX-500
TX-100	TX-JBP100
P-P100B	TX-JBP200
TX-101	DC-F1600C
P-P200B	COM-6000C
TX-201	TX-102
P-P300C	TX-202
C-P300	#4/0 GND

CABLE TRAY 'C'
B.O.T. 1352mm ABOVE GRADE

TX-700
AS-700
TX-800
L-800
L-801
L-EHT1013B
L-EHT1013C
L-EHT3008
L-EHT3007
P-UH850
P-HRT705
P-P800
C-P800
AS-800
#4/0 GND

REFERENCE DRAWING	DESCRIPTION
D-SWN-265-112	JUNCTION BOX LAYOUT

STAMPS & PERMITS



PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.
Signature: _____
Date: _____
PERMIT NUMBER: P 863D
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB		DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

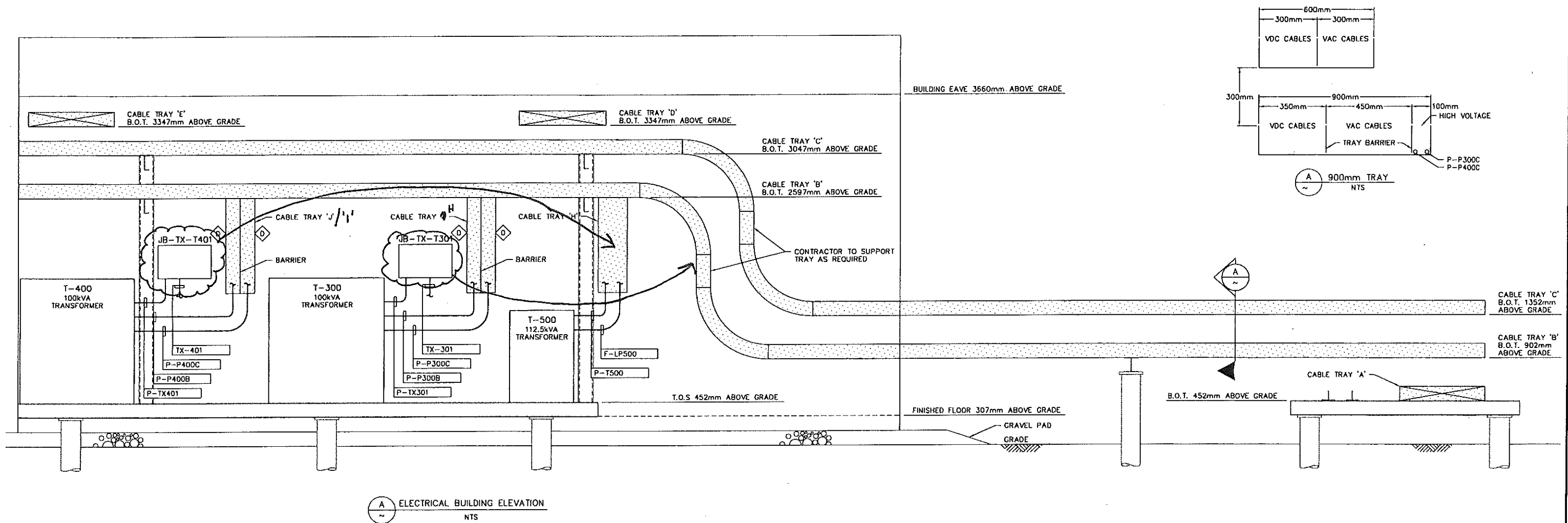
PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT

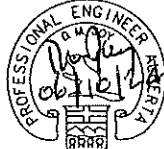
MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M
B-500 ELECTRICAL/INSTRUMENT AIR BUILDING
ELECTRICAL LAYOUT


SCALE: 1:20 DWG. No. D-SWN-261-106 0



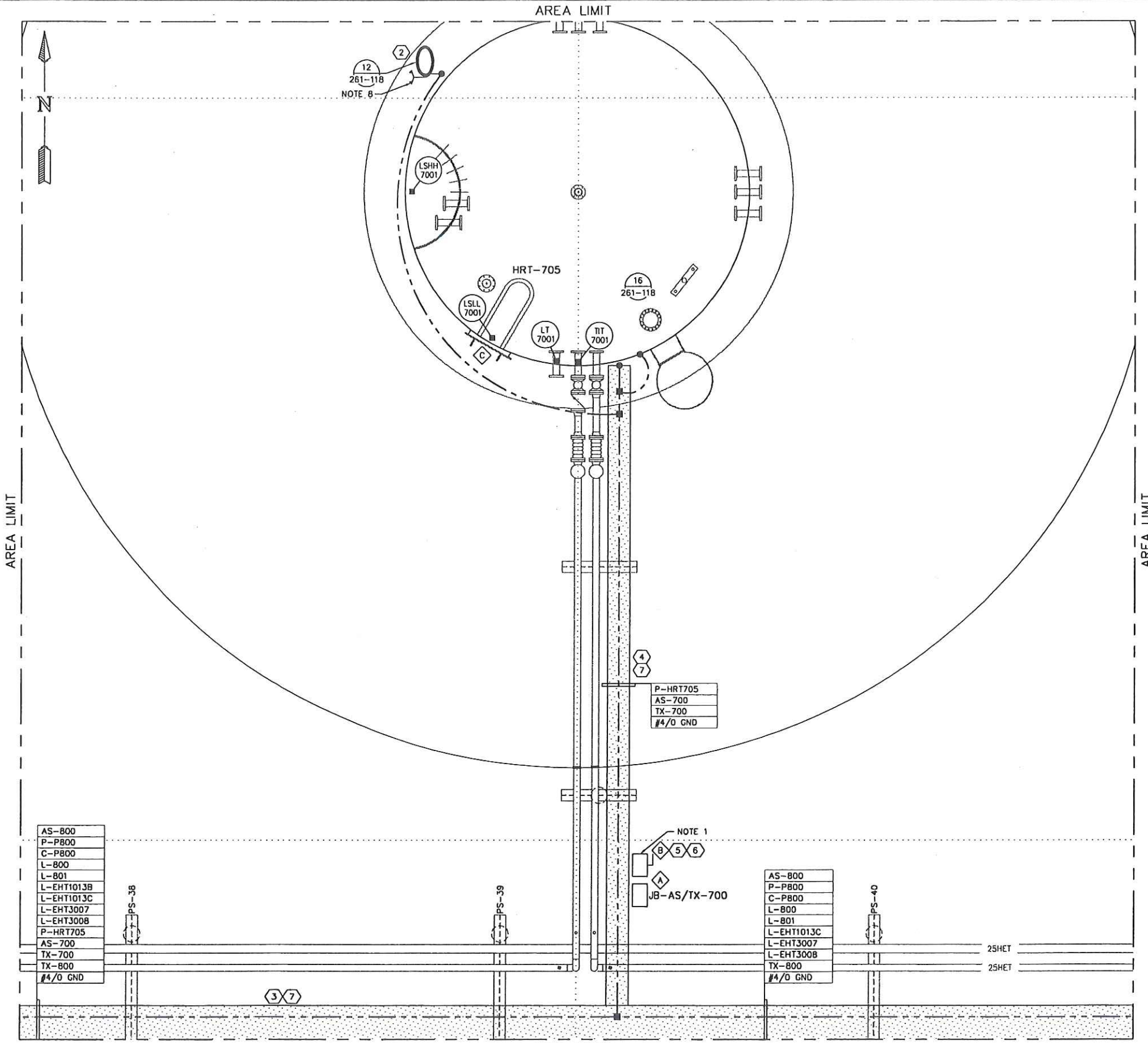
(A) ELECTRICAL BUILDING ELEVATION
NTS

NOTES:
1. SEE DWG D-SWN-261-107 FOR BILL OF MATERIALS AND LAMICOID SCHEDULE.

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
		 <p>PERMIT TO PRACTICE TRIDYNE PROJECTS CORP. Signature _____ Date _____ PERMIT NUMBER: P 8630 The Association of Professional Engineers, Geologists and Geophysicists of Alberta</p>	2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SP	DMJ
			2006052	B	ISSUED FOR APPROVAL	05-10-17	KD	SJP	
			2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ


PENN WEST
 ENERGY TRUST
TRIDYNE PROJECTS
 CORPORATION

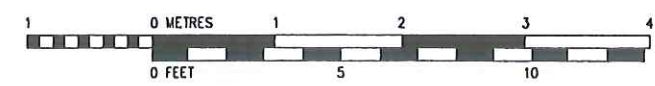
PENN WEST ENERGY TRUST
 SOUTH SWAN HILLS - 4 WELL CBM PILOT
 MULTI WELL COMPRESSOR STATION
 LSD: 12-12-65-11 WSM
 B-500 ELECTRICAL BUILDING
 EXTERIOR ELEVATION
 SCALE: 1:20 DWG. No. D-SWN-261-107 0



BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1						
2	1	STATIC GROUND TRUCK CLAMP	AS PER DETAIL	-	-	CONTRACTOR
3	AS REQ	CLASS E ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU3-6-36-L12-6	900mm	CONTRACTOR
4	AS REQ	CLASS D2 ALUMINUM LADDER CABLE TRAY	THOMAS & BETTS	AU2-4-12-L12-6	300mm	CONTRACTOR
5	1	60A, 480VAC, 3P, NON-FUSABLE DISCONNECT	CUTLER-HAMMER	3HD362NF	-	CONTRACTOR
6	1	AUXILIARY CONTACTS	CUTLER-HAMMER	DS200EK1	-	CONTRACTOR
7	AS REQ	CABLE TRAY BARRIER	THOMAS & BETTS	PER SIDE RAIL HEIGHT	-	CONTRACTOR

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	JB-AS/TX-700 24VDC & ANALOG	100mm x 150mm	25mm	BLACK ON WHITE
B	1	LDS-705 HRT-705 LOCAL DISCONNECT	75mm x 100mm	25mm	BLACK ON WHITE
C	1	HRT-705 IMMERSION HEATER	100mm x 150mm	25mm	BLACK ON WHITE

- NOTES:
- LOCAL DISCONNECT TO BE LOCATED IN NON-HAZARDOUS AREA.
 - CABLE TRAY TO BE BONDED EVERY 15m USING #4/0 GROUND CONDUCTOR.
 - PERIMETER GROUND CONDUCTORS ARE #4/0 AWG. GREEN INSULATED STRANDED COPPER CONDUCTOR, BURIED TO A DEPTH OF 300mm BELOW GRADE.
 - 'TAP' GROUND CONDUCTORS ARE #2 AWG. GREEN INSULATED STRANDED COPPER CONDUCTOR, UNLESS OTHERWISE SPECIFIED.
 - ALL GROUND RODS ARE COPPER CLAD 3/4" DIAMETER, 3m LONG.
 - SEE DETAILS 81, 83, 86, 89, 90, 91, 92, 93 AND 94 FOR CABLE TRAY INSTALLATION.
 - ALL DEVICE LOCATIONS ARE APPROXIMATE, ELECTRICAL CONTRACTOR TO VERIFY LOCATIONS.
 - FIELD CONTRACTOR SHALL POSITION TRUCK OUT GROUND IN LINE OF SIGHT AND AT WORKABLE HEIGHT AS CLOSE AS POSSIBLE TO TRUCK OUT CONNECTION.



REFERENCE DRAWING	DESCRIPTION
D-SWN-265-110	JUNCTION BOX LAYOUT

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.
Signature _____
Date _____
PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
T-700 STORAGE TANK
ELECTRICAL EQUIPMENT LAYOUT

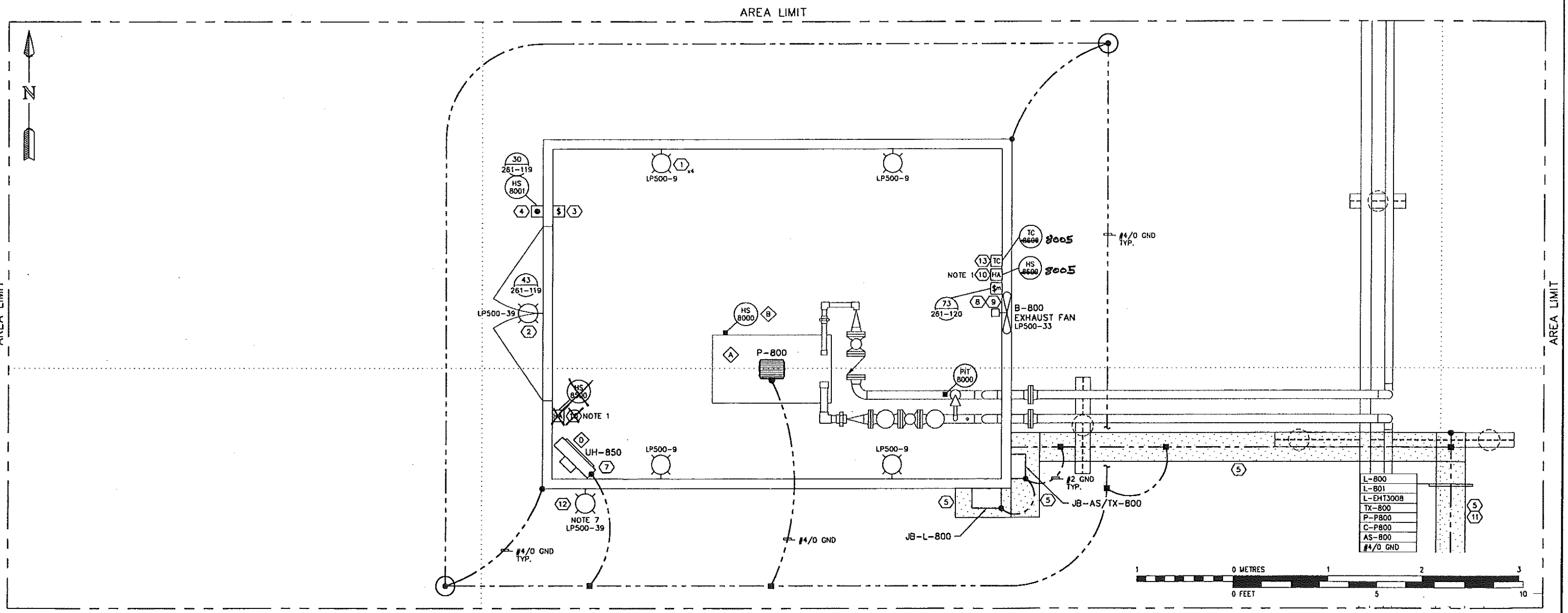
SCALE: 1:30 DWG. No. D-SWN-261-108 0

Date: 2006.10.24 1:44pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-261-109.DWG By: SB

- NOTES:
1. INCLUDE 'HAND/AUTO' NAMEPLATE LABELING.
 2. CABLE TRAY TO BE BONDED EVERY 15m USING #4/0 GROUND CONDUCTOR.
 3. PERIMETER GROUND CONDUCTORS ARE #4/0 AWG GREEN INSULATED STRANDED COPPER CONDUCTOR, BURIED TO A DEPTH OF 300mm BELOW GRADE.
 4. 'TAP' GROUND CONDUCTORS ARE #2 AWG GREEN INSULATED STRANDED COPPER CONDUCTOR, UNLESS OTHERWISE SPECIFIED.
 5. ALL GROUND RODS ARE COPPER CLAD 3/4" DIAMETER, 3m LONG.
 6. SEE DETAILS 81, 83, 85, 89, 90, 91, 92, 93 AND 94 FOR CABLE TRAY INSTALLATION.
 7. WALL PACK TO BE MOUNTED AS HIGH AS POSSIBLE.

BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1	4	MH INTERIOR LIGHT FIXTURE EXPLOSION PROOF	CROUSE-HINDS	EVL5BX92012	100W	CONTRACTOR
2	1	MH EXTERIOR LIGHT FIXTURE EXPLOSION PROOF	CROUSE-HINDS	EVL5BX92072/120	70W	CONTRACTOR
3	1	EXPLOSION PROOF ON/OFF SWITCH	CROUSE-HINDS	EDSC2129	-	CONTRACTOR
4	1	ESD PUSHBUTTON (MOMENTARY) c/w GUARD	PER DETAIL	-	-	CONTRACTOR
5	AS REQ	CLASS D1 ALUMINUM CABLE TRAY	THOMAS + BETTS	AU2-4-12-L12-6	300mm	CONTRACTOR
6	1	MH LIGHT FIXTURE	CROUSE-HINDS	VMVM2TW250GP	250W	CONTRACTOR
7	1	10kW, 480VAC, 3# UNIT HEATER	RUFFNECK	-	-	OWNER
8	1	MANUAL MOTOR STARTER	CROUSE-HINDS	EDSC2199	-	CONTRACTOR
9	1	OVERLOAD HEATER ELEMENT	CROUSE-HINDS	P29	-	CONTRACTOR
10	2	2 POSITION SELECTOR SWITCH	CROUSE-HINDS	EFSC21271	-	CONTRACTOR
11	AS REQ	CABLE TRAY BARRIER	THOMAS & BETTS	PER SIDE RAIL HEIGHT	-	CONTRACTOR
12	1	MH EXTERIOR LIGHT FIXTURE EXPLOSION PROOF	HUBBEL	PCM2-H178	-	CONTRACTOR
13	1	EXPLOSION PROOF THERMOSTAT	CROUSE-HINDS	HRC2	-	CONTRACTOR

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	P-800 WATER TRANSFER PUMP	100mm x 150mm	25mm	BLACK ON WHITE
B	1	P-800	13mm x 40mm	7mm	BLACK ON WHITE
C					
D	1	UH-850	100mm x 150mm	25mm	BLACK ON WHITE
E	1	ESD	50mm x 75mm	13mm	WHITE ON RED



REFERENCE DRAWING	DESCRIPTION
D-SWN-265-111	JUNCTION BOX LAYOUT

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	-
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
B-800 TRANSFER PUMP BUILDING
ELECTRICAL EQUIPMENT LAYOUT

SCALE: 1:20 DWG. No. D-SWN-261-109 0

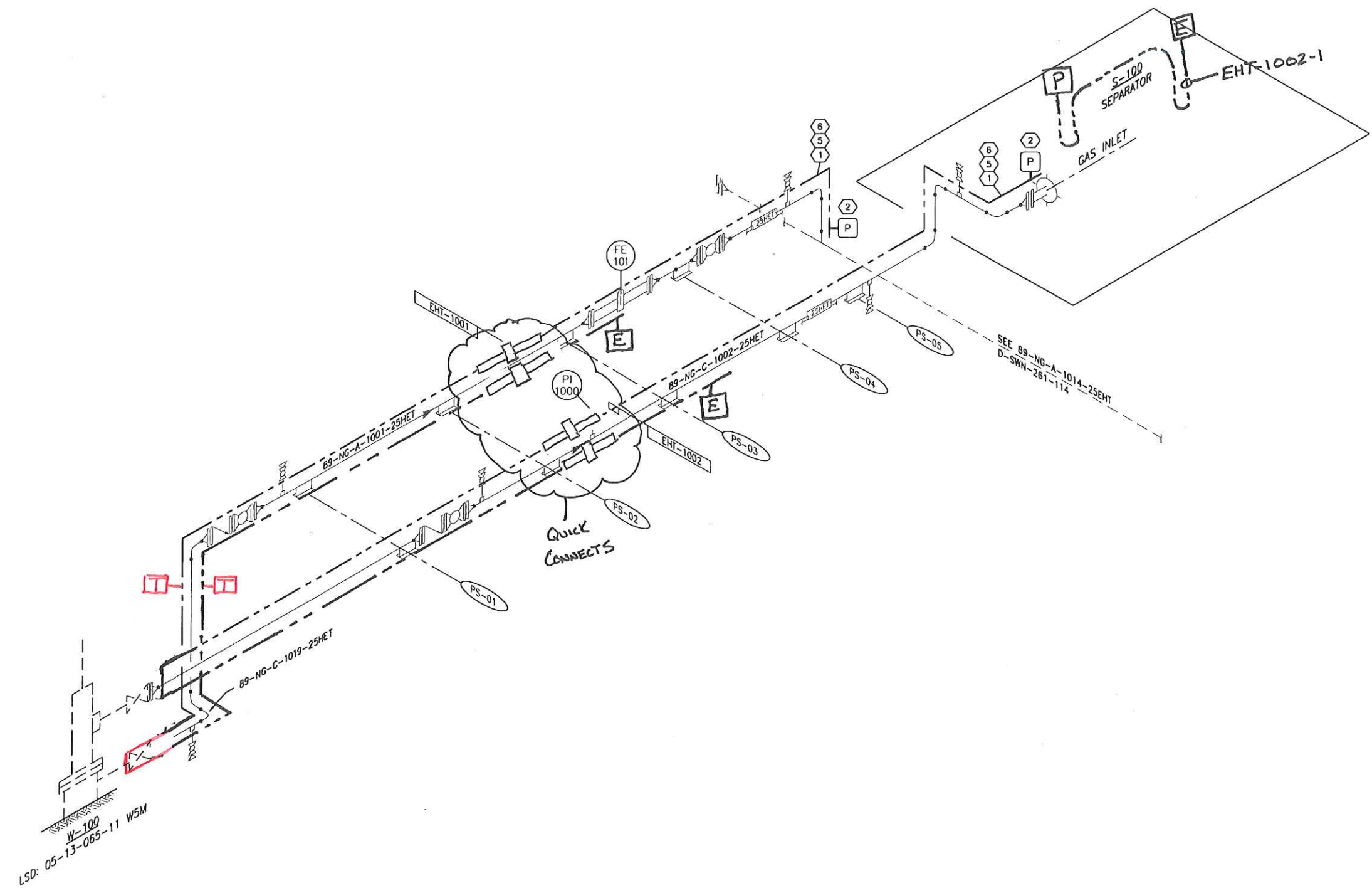
Date: 2006.10.20 2:59pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-261-110.DWG By: SW

ELECTRIC HEAT TRACING DATA

EHT CABLE NAME	DISTRIBUTION PANEL CIRCUIT/SIZE	PIPE LINE NUMBER	PIPE LENGTH (M)	PIPE SIZE (mm)	PIPE MATERIAL	INSULATION TYPE	INSULATION THICKNESS (mm)	PIPE MAINT TEMP (°C)	HEAT TRACE CABLE TYPE	DESIGN VOLTAGE	CABLE LENGTH (M)	DESIGN HEAT LOSS (W/M)	DESIGN CABLE OUTPUT	CABLE OUTPUT END	DESIGN AMBIENT TEMP (°C)	CABLE TEMP (C)	MAX CABLE TEMP (C)	NOMINAL CURRENT (A)	MAX CURRENT (A)	NOMINAL POWER (VA)
EHT-1001	LP-500 LP500-38	89-NG-A-1001-25HET 89-NG-C-1019-25HET	19.4	89	CS	CALCIUM SILICATE	25	5°	HTSX 9-1	120	31.0	26.9	30.4	28.7	-40°	80°	129°	8.8	12.2	1056
EHT-1002	LP-500 LP500-40	89-NG-C-1002-25HET	24.3	89	CS	CALCIUM SILICATE	25	5°	HTSX 9-1	120	42.0	26.9	30.4	27.4	-40°	80°	129°	11.8	16.3	1416

BILL OF MATERIALS

ITEM NO.	QTY	CATALOG NO.	MANUFACTURE	DESCRIPTION
①	73m	HTSX 9-1	THERMON	SELF-REGULATING HEAT TRACE CABLE
②	2	ECA-1-SR	THERMON	POWER CONNECTION KIT
③	2	DL-S	THERMON	LIGHTED END TERMINATION KIT
④	-	ECT-2-SR	THERMON	TEE CONNECTOR KIT
⑤	A/R	FT-1L	THERMON	POLYFIBER MOUNTING TAPE
⑥	A/R	CL	THERMON	CAUTION LABELS



- LEGEND:
- PIPING
 - - - HEAT TRACE CABLE
 - Ⓟ POWER CONNECTION KIT
 - Ⓣ SPLICE CONNECTION KIT
 - ⓔ LIGHTED END TERMINATION KIT
 - END TERMINATION KIT

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.
Signature _____
Date _____
PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	-
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	SW	MI	DMJ

PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
EHT-1001/EHT-1002
HEAT TRACE ISOMETRIC

SCALE: NTS DWG. No. D-SWN-261-110 0

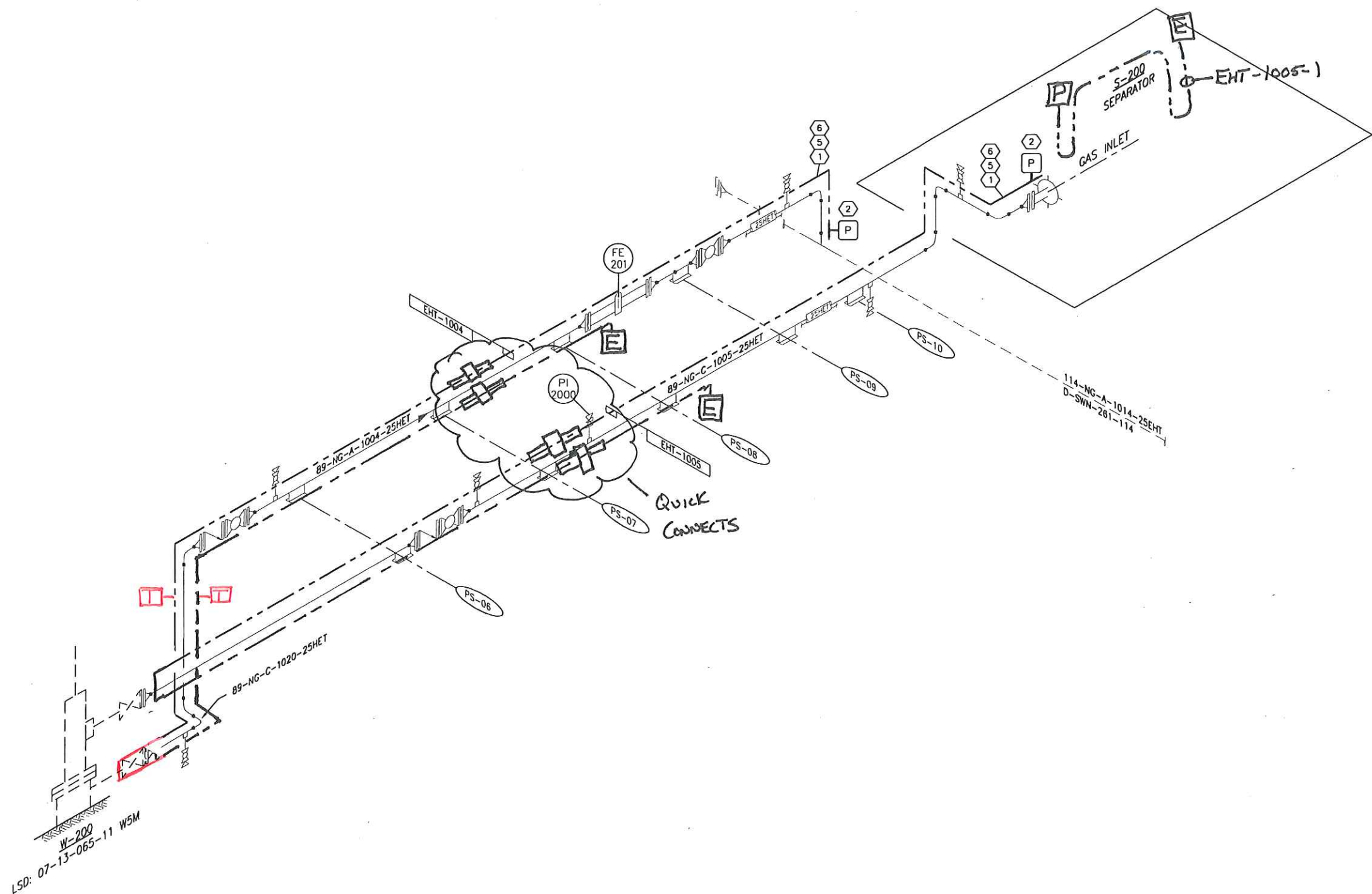
Date: 2006.10.20 2:59pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-261-111.DWG By: SW

ELECTRIC HEAT TRACING DATA

EHT CABLE NAME	DISTRIBUTION PANEL CIRCUIT/SIZE	PIPE LINE NUMBER	PIPE LENGTH (M)	PIPE SIZE (mm)	PIPE MATERIAL	INSULATION TYPE	INSULATION THICKNESS (mm)	PIPE MAINT TEMP (°C)	HEAT TRACE CABLE TYPE	DESIGN VOLTAGE	CABLE LENGTH (M)	DESIGN HEAT LOSS (W/M)	DESIGN CABLE OUTPUT	CABLE OUTPUT END	DESIGN AMBIENT TEMP (°C)	CABLE TEMP (°C)	MAX CABLE TEMP (°C)	NOMINAL CURRENT (A)	MAX CURRENT (A)	NOMINAL POWER (VA)
EHT-1004	LP-500 LP500-42	B9-NG-A-1004-25HET B9-NG-C-1020-25HET	19.4	89	CS	CALCIUM SILICATE	25	5'	HTSX 9-1	120	31.0	26.9	30.4	28.7	-40'	80'	129'	8.8	12.2	1056
EHT-1005	LP-500 LP500-44	B9-NG-C-1005-25HET	24.3	89	CS	CALCIUM SILICATE	25	5'	HTSX 9-1	120	42.0	26.9	30.4	27.4	-40'	80'	129'	11.8	16.3	1416

BILL OF MATERIALS

ITEM NO.	QTY	CATALOG NO.	MANUFACTURE	DESCRIPTION
①	73m	HTSX 9-1	THERMON	SELF-REGULATING HEAT TRACE CABLE
②	2	ECA-1-SR	THERMON	POWER CONNECTION KIT
③	2	DL-S	THERMON	LIGHTED END TERMINATION KIT
④	-	ECT-2-SR	THERMON	TEE CONNECTOR KIT
⑤	A/R	FT-1L	THERMON	POLYFIBER MOUNTING TAPE
⑥	A/R	CL	THERMON	CAUTION LABELS



LEGEND:

- PIPING
- - - HEAT TRACE CABLE
- POWER CONNECTION KIT
- SPLICE CONNECTION KIT
- LIGHTED END TERMINATION KIT
- END TERMINATION KIT

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	BP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	SW	MI	DMJ

PENN WEST

ENERGY TRUST

TRIDYNE PROJECTS

CORPORATION

PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
EHT-1004/EHT-1005
HEAT TRACE ISOMETRIC

SCALE: NTS DWG. No. D-SWN-261-111 0

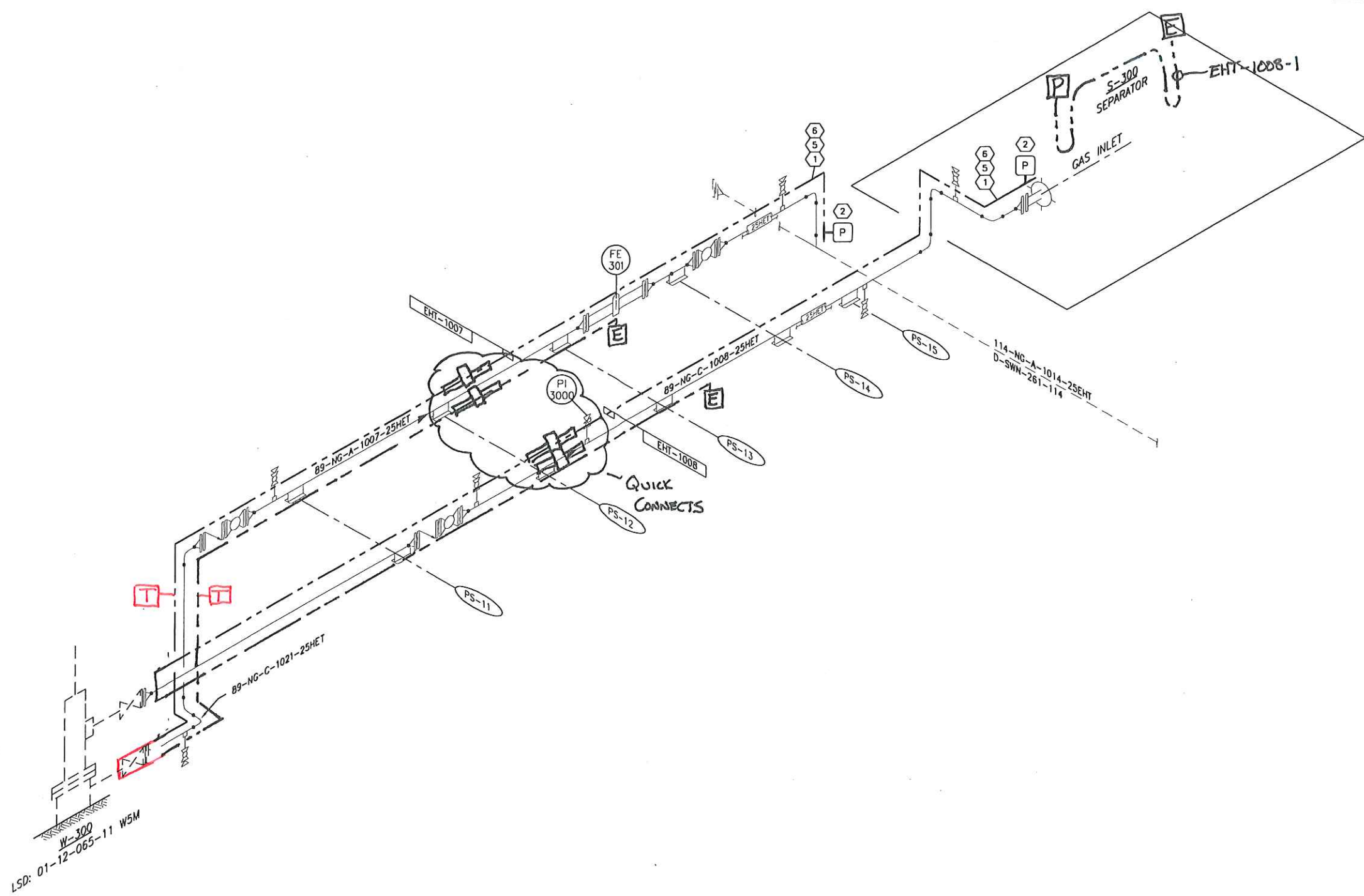
Date: 2006.10.20 2:59pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-261-112.DWG By: SW

ELECTRIC HEAT TRACING DATA

EHT CABLE NAME	DISTRIBUTION PANEL CIRCUIT/SIZE	PIPE LINE NUMBER	PIPE LENGTH (M)	PIPE SIZE (mm)	PIPE MATERIAL	INSULATION TYPE	INSULATION THICKNESS (mm)	PIPE MAINT TEMP (°C)	HEAT TRACE CABLE TYPE	DESIGN VOLTAGE	CABLE LENGTH (M)	DESIGN HEAT LOSS (W/M)	DESIGN CABLE OUTPUT	CABLE OUTPUT END	DESIGN AMBIENT TEMP (°C)	CABLE TEMP (°C)	MAX CABLE TEMP (°C)	NOMINAL CURRENT (A)	MAX CURRENT (A)	NOMINAL POWER (VA)
EHT-1007	LP-500 LP500-46	89-NG-A-1007-25HET 89-NG-C-1021-25HET	19.4	89	CS	CALCIUM SILICATE	25	5'	HTSX 9-1	120	31.0	26.9	30.4	28.7	-40'	80'	129'	8.8	12.2	1056
EHT-1008	LP-500 LP500-48	89-NG-C-1008-25HET	24.3	89	CS	CALCIUM SILICATE	25	5'	HTSX 9-1	120	42.0	26.9	30.4	27.4	-40'	80'	129'	11.8	16.3	1416

BILL OF MATERIALS

ITEM NO.	QTY	CATALOG NO.	MANUFACTURE	DESCRIPTION
①	73m	HTSX 9-1	THERMON	SELF-REGULATING HEAT TRACE CABLE
②	2	ECA-1-SR	THERMON	POWER CONNECTION KIT
③	2	DL-S	THERMON	LIGHTED END TERMINATION KIT
④	-	ECT-2-SR	THERMON	TEE CONNECTOR KIT
⑤	A/R	FT-1L	THERMON	POLYFIBER MOUNTING TAPE
⑥	A/R	CL	THERMON	CAUTION LABELS



LEGEND:

- PIPING
- - - HEAT TRACE CABLE
- Ⓟ POWER CONNECTION KIT
- Ⓣ SPLICE CONNECTION KIT
- ⓔ LIGHTED END TERMINATION KIT
- END TERMINATION KIT

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SJP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	SW	MI	DMJ

PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
EHT-1007/EHT-1008
HEAT TRACE ISOMETRIC

SCALE: NTS DWG. No. D-SWN-261-112 0

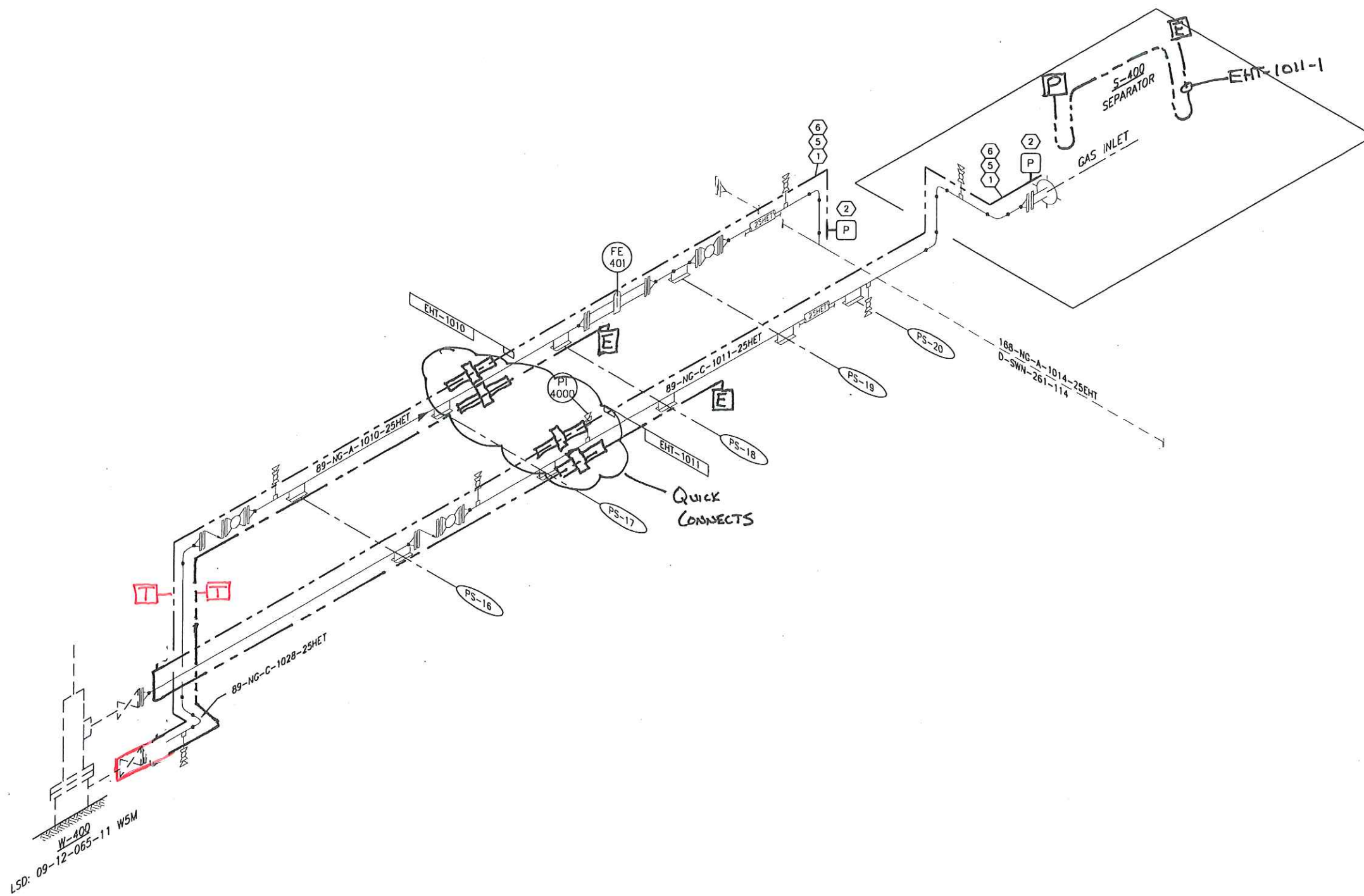
Date: 2006.10.20 2:59pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\0-SWN-261-113.DWG By: SW

ELECTRIC HEAT TRACING DATA

EHT CABLE NAME	DISTRIBUTION PANEL CIRCUIT/SIZE	PIPE LINE NUMBER	PIPE LENGTH (M)	PIPE SIZE (mm)	PIPE MATERIAL	INSULATION TYPE	INSULATION THICKNESS (mm)	PIPE MAINT TEMP (°C)	HEAT TRACE CABLE TYPE	DESIGN VOLTAGE	CABLE LENGTH (M)	DESIGN HEAT LOSS (W/M)	DESIGN CABLE OUTPUT	CABLE OUTPUT END	DESIGN AMBIENT TEMP (°C)	CABLE TEMP (°C)	MAX CABLE TEMP (°C)	NOMINAL CURRENT (A)	MAX CURRENT (A)	NOMINAL POWER (VA)
EHT-1010	LP-500 LP500-50	B9-NG-A-1010-25HET B9-NG-C-1028-25HET	19.4	89	CS	CALCIUM SILICATE	25	5'	HTSX 9-1	120	31.0	26.9	30.4	26.7	-40'	80'	129'	8.8	12.2	1056
EHT-1011	LP-500 LP500-52	B9-NG-C-1011-25HET	24.3	89	CS	CALCIUM SILICATE	25	5'	HTSX 9-1	120	42.0	26.9	30.4	27.4	-40'	80'	129'	11.8	16.3	1416

BILL OF MATERIALS

ITEM NO.	QTY	CATALOG NO.	MANUFACTURE	DESCRIPTION
①	73m	HTSX 9-1	THERMON	SELF-REGULATING HEAT TRACE CABLE
②	2	ECA-1-SR	THERMON	POWER CONNECTION KIT
③	2	DL-S	THERMON	LIGHTED END TERMINATION KIT
④	-	ECT-2-SR	THERMON	TEE CONNECTOR KIT
⑤	A/R	FT-1L	THERMON	POLYFIBER MOUNTING TAPE
⑥	A/R	CL	THERMON	CAUTION LABELS



LEGEND:

- PIPING
- - - HEAT TRACE CABLE
- POWER CONNECTION KIT
- SPLICE CONNECTION KIT
- LIGHTED END TERMINATION KIT
- END TERMINATION KIT

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	CP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	SW	MI	DMJ

PENN WEST

ENERGY TRUST

TRIDYNE PROJECTS

CORPORATION

PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M
EHT-1010/EHT-1011
HEAT TRACE ISOMETRIC

SCALE: NTS DWG. No. D-SWN-261-113 0

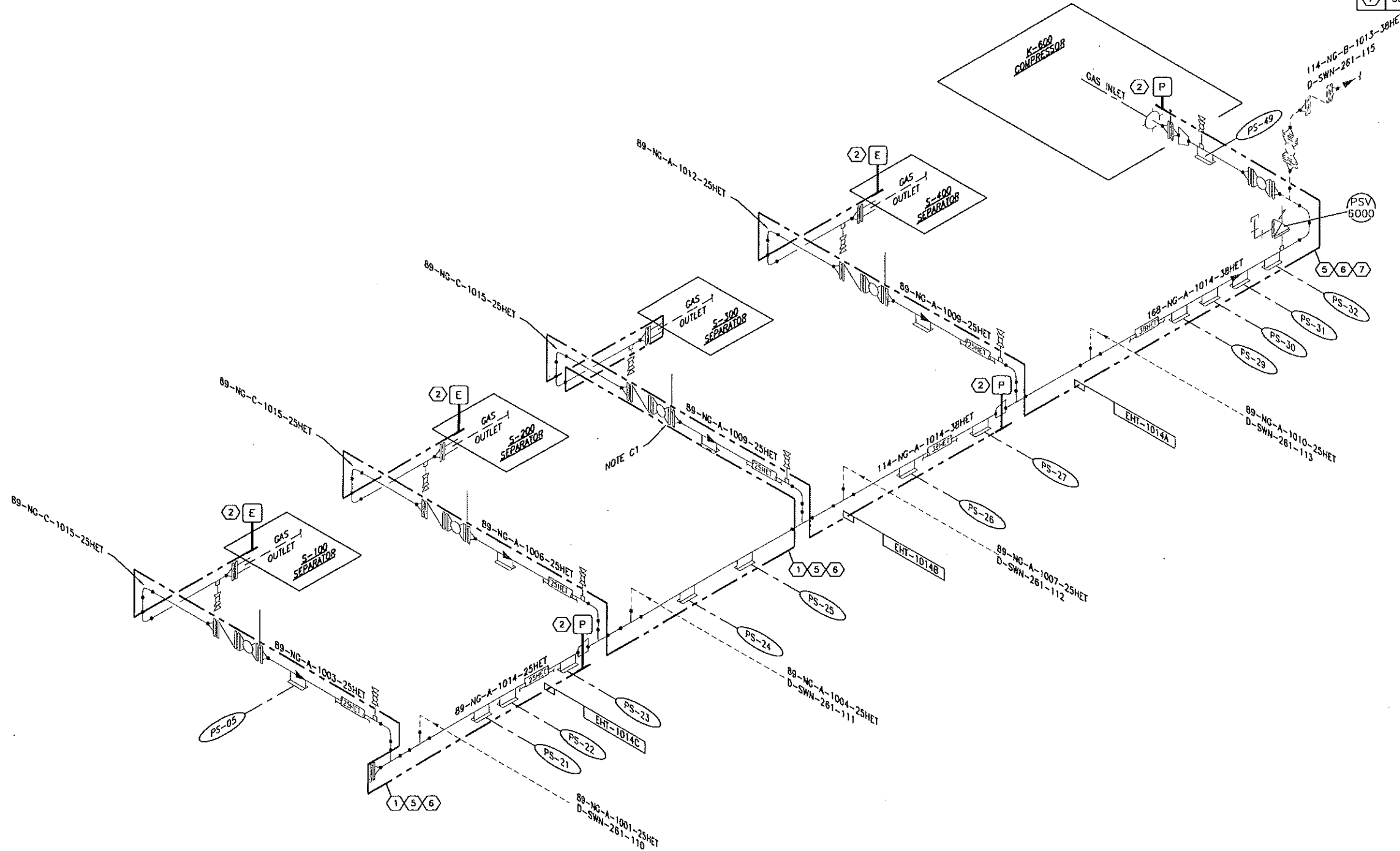
Date: 2006.10.20 2:59pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-261-114.DWG By: SW

ELECTRIC HEAT TRACING DATA

EHT CABLE NAME	DISTRIBUTION PANEL CIRCUIT/SIZE	PIPE LINE NUMBER	PIPE LENGTH (M)	PIPE SIZE (mm)	PIPE MATERIAL	INSULATION TYPE	INSULATION THICKNESS (mm)	PIPE MAINT TEMP (C)	HEAT TRACE CABLE TYPE	DESIGN VOLTAGE	CABLE LENGTH (M)	DESIGN HEAT LOSS (W/M)	DESIGN CABLE OUTPUT	CABLE OUTPUT END	DESIGN AMBIENT TEMP (C)	CABLE TEMP (C)	MAX CABLE TEMP (C)	NOMINAL CURRENT (A)	MAX CURRENT (A)	NOMINAL POWER VA
EHT-1014A	LP-500 LP500-54/56	168-NG-A-1014-38HET 89-NG-A-1009-25HET 89-NG-A-1012-25HET	30	168/89	CS	CALCIUM SILICATE	38/25	5'	HTSX 15-2	208	55.5	41.3	44.6	40.9	-40'	107	137	13.2	18.3	2746
EHT-1014B	LP-500 LP500-58	114-NG-A-1014-38HET 89-NG-A-1009-25HET 89-NG-C-1015-25HET 89-NG-A-1006-25HET 89-NG-C-1015-25HET	35.8	114/89	CS	CALCIUM SILICATE	38/25	5'	HTSX 9-1	120	58.5	26.9	26.9	25.0	-40'	80'	129'	15.9	21.8	1908
EHT-1014C	LP-500 LP500-60	89-NG-C-1014-25HET 89-NG-A-1003-25HET	17.9	89	CS	CALCIUM SILICATE	25	5'	HTSX 9-1	120	26.5	25.7	25.7	29.2	-40'	80'	129'	7.5	10.4	900

BILL OF MATERIALS

ITEM NO.	QTY	CATALOG NO.	MANUFACTURE	DESCRIPTION
①	85m	HTSX 9-1	THERMON	SELF-REGULATING HEAT TRACE CABLE
②	3	ECA-1-SR	THERMON	POWER CONNECTION KIT
③	3	DL-S	THERMON	LIGHTED END TERMINATION KIT
④	-	ECT-2-SR	THERMON	TEE CONNECTOR KIT
⑤	A/R	FT-1L	THERMON	POLYFIBER MOUNTING TAPE
⑥	A/R	CL	THERMON	CAUTION LABELS
⑦	55.5m	HTSX 15-2	THERMON	SELF-REGULATING HEAT TRACE CABLE



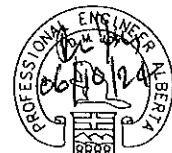
LEGEND:

- PIPING
- - - HEAT TRACE CABLE
- Ⓟ POWER CONNECTION KIT
- Ⓡ SPLICE CONNECTION KIT
- Ⓛ LIGHTED END TERMINATION KIT
- END TERMINATION KIT

CONSTRUCTION NOTES:

C1. SUPPORTS, VALVES AND FLANGES SHALL BE WRAPPED ONCE ONLY ON DOUBLE PASS TRACE LINES.

REFERENCE DRAWING	DESCRIPTION



PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.
Signature _____
Date _____
PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2008052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	-
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST
TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST	
SOUTH SWAN HILLS - 4 WELL CBM PILOT	
MULTI WELL COMPRESSOR STATION LSD: 12-12-65-11 W5M EHT-1014A/EHT-1014B/EHT-1014C HEAT TRACE ISOMETRIC	
SCALE: NTS	DWG. No. D-SWN-261-114
	0

Date: 2006.10.20 2:59pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-261-115.DWG By: SW

ELECTRIC HEAT TRACING DATA

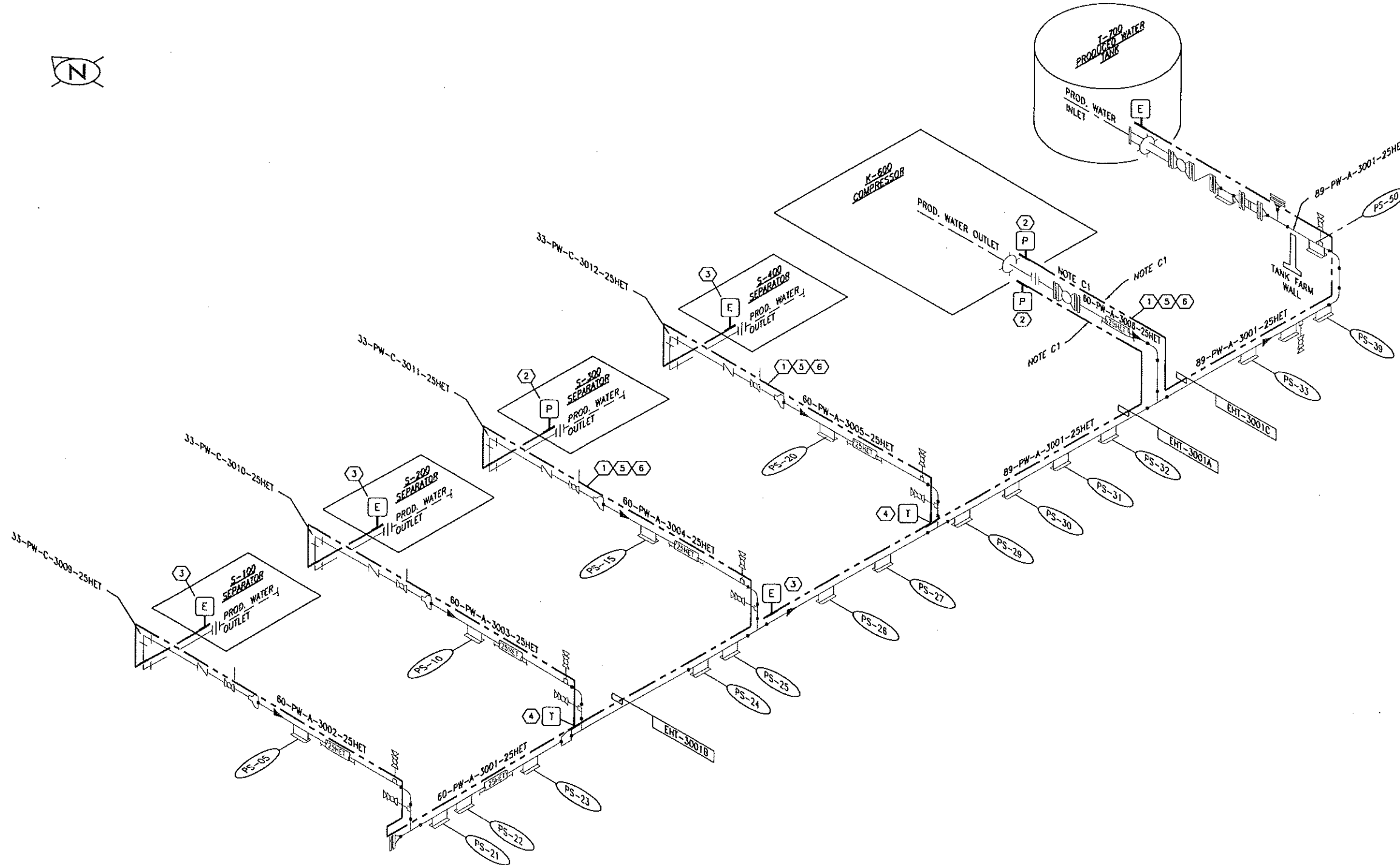
EHT CABLE NAME	DISTRIBUTION PANEL CIRCUIT/SIZE	PIPE LINE NUMBER	PIPE LENGTH (M)	PIPE SIZE (mm)	PIPE MATERIAL	INSULATION TYPE	INSULATION THICKNESS (mm)	PIPE MAINT TEMP (°C)	HEAT TRACE CABLE TYPE	DESIGN VOLTAGE	CABLE LENGTH (M)	DESIGN HEAT LOSS (W/M)	DESIGN CABLE OUTPUT	CABLE OUTPUT END	DESIGN AMBIENT TEMP (°C)	CABLE TEMP (C)	MAX CABLE TEMP (C)	NOMINAL CURRENT (A)	MAX CURRENT (A)	NOMINAL POWER (VA)
EHT-3001A	LP-500 LP500-62	89-PW-A-3001-25HET 60-PW-A-3006-25HET 60-PW-A-3005-25HET 33-PW-C-3012-25HET	40.6	89/60/33	CS	CALCIUM SILICATE	25	5'	HTSX 9-1	120	59.5	26.9	30.4	24.9	-40°	80°	129°	16.1	22.1	1932
EHT-3001B	LP-500 LP500-64	89-PW-A-3001-25HET 60-PW-A-3001-25HET 60-PW-A-3004-25HET 33-PW-C-3011-25HET 60-PW-A-3003-25HET 33-PW-C-3010-25HET 60-PW-A-3002-25HET 33-PW-C-3009-25HET	40	89/60/33	CS	CALCIUM SILICATE	25	5'	HTSX 9-1	120	58	26.9	30.4	25.3	-40°	80°	129°	15.7	21.7	1884
EHT-3001C	LP-500 LP500-66	89-PW-A-3001-25HET 60-PW-A-3006-25HET	47.7	89/60	CS	CALCIUM SILICATE	25	5'	HTSX 9-1	120	61.5	26.9	30.4	24.5	-40°	80°	129°	16.6	22.8	1992

BILL OF MATERIALS

ITEM NO.	QTY	CATALOG NO.	MANUFACTURE	DESCRIPTION
①	179m	HTSX 9-1	THERMON	SELF-REGULATING HEAT TRACE CABLE
②	3	ECA-1-SR	THERMON	POWER CONNECTION KIT
③	5	DL-S	THERMON	LIGHTED END TERMINATION KIT
④	2	ECT-2-SR	THERMON	TEE CONNECTOR KIT
⑤	A/R	FT-1L	THERMON	POLYFIBER MOUNTING TAPE
⑥	A/R	CL	THERMON	CAUTION LABELS

LEGEND:

- PIPING
- - - - HEAT TRACE CABLE
- POWER CONNECTION KIT
- SPLICE CONNECTION KIT
- LIGHTED END TERMINATION KIT
- END TERMINATION KIT



CONSTRUCTION NOTES:
C1. VALVES AND FLANGES SHALL BE WRAPPED WITH EHT-3001A ONLY.

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
			2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SP	DMJ
			2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
			2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	SW	MI	DMJ

PENN WEST ENERGY TRUST

TRIDYNE PROJECTS CORPORATION

PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
EHT-3001A/EHT-3001B/EHT-3001C
HEAT TRACE ISOMETRIC

SCALE: NTS DWG. No. D-SWN-261-115 0

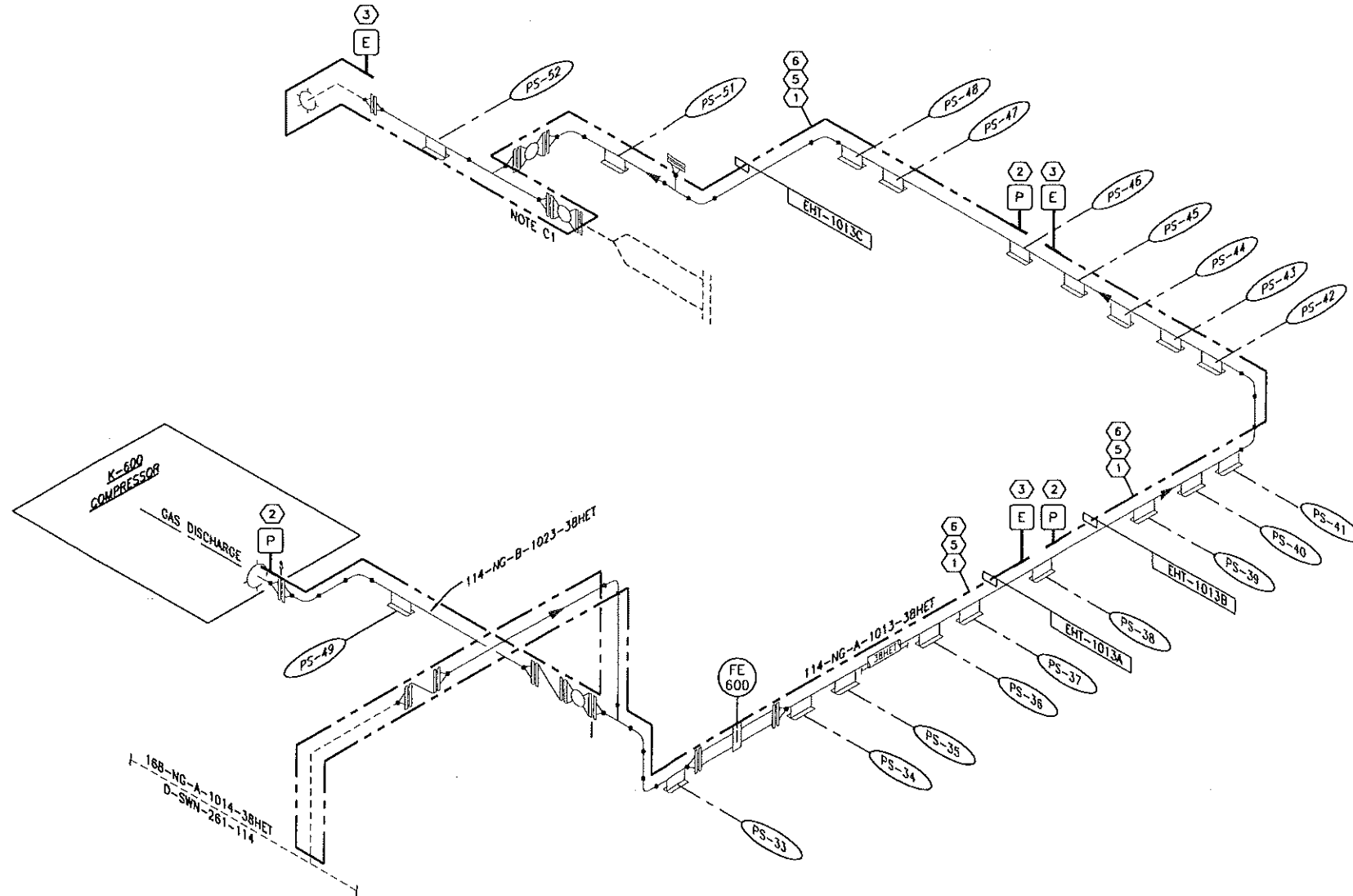
Date: 2006.10.20 2:59pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-261-116.DWG By: SW

ELECTRIC HEAT TRACING DATA

EHT CABLE NAME	DISTRIBUTION PANEL CIRCUIT/SIZE	PIPE LINE NUMBER	PIPE LENGTH (M)	PIPE SIZE (mm)	PIPE MATERIAL	INSULATION TYPE	INSULATION THICKNESS (mm)	PIPE MAINT TEMP (°C)	HEAT TRACE CABLE TYPE	DESIGN VOLTAGE	CABLE LENGTH (M)	DESIGN HEAT LOSS (W/M)	DESIGN CABLE OUTPUT	CABLE OUTPUT END	DESIGN AMBIENT TEMP (°C)	CABLE TEMP (°C)	MAX CABLE TEMP (°C)	NOMINAL CURRENT (A)	MAX CURRENT (A)	NOMINAL POWER (VA)
EHT-1013A	LP-500 LP500-6B	114-NG-A-1013-25HET 114-NG-A-1023-25HET	34.3	114	CS	CALCIUM SILICATE	38	5'	HTSX 9-1	120	58	25.7	30.4	25.1	-40'	80'	129'	15.7	21.7	1884
EHT-1013B	LP-500 LP500-70	114-NG-A-1013-38HET	37.3	114	CS	CALCIUM SILICATE	38	5'	HTSX 9-1	120	50.5	25.7	30.4	26.3	-40'	80'	129'	13.9	19.2	1668
EHT-1013C	LP-500 LP500-72	114-NG-A-1013-38HET	16	114	CS	CALCIUM SILICATE	38	5'	HTSX 9-1	120	28.5	25.7	30.4	29	-40'	80'	129'	8.0	11.1	960

BILL OF MATERIALS

ITEM NO.	QTY	CATALOG NO.	MANUFACTURE	DESCRIPTION
①	137m	HTSX 9-1	THERMON	SELF-REGULATING HEAT TRACE CABLE
②	3	ECA-1-SR	THERMON	POWER CONNECTION KIT
③	3	DL-S	THERMON	LIGHTED END TERMINATION KIT
④	-	ECT-2-SR	THERMON	TEE CONNECTOR KIT
⑤	A/R	FT-1L	THERMON	POLYFIBER MOUNTING TAPE
⑥	A/R	CL	THERMON	CAUTION LABELS



LEGEND:

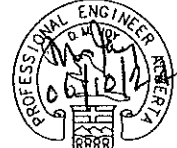
- PIPING
- - - HEAT TRACE CABLE
- POWER CONNECTION KIT
- SPLICE CONNECTION KIT
- LIGHTED END TERMINATION KIT
- END TERMINATION KIT

CONSTRUCTION NOTES:

C1. SUPPORTS, VALVES AND FLANGES SHALL BE WRAPPED ONCE ONLY ON DOUBLE PASS TRACE LINES.

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS



PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____
Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	SW	MI	DMJ

PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
EHT-1013A/EHT-1013B/EHT-1013C
HEAT TRACE ISOMETRIC

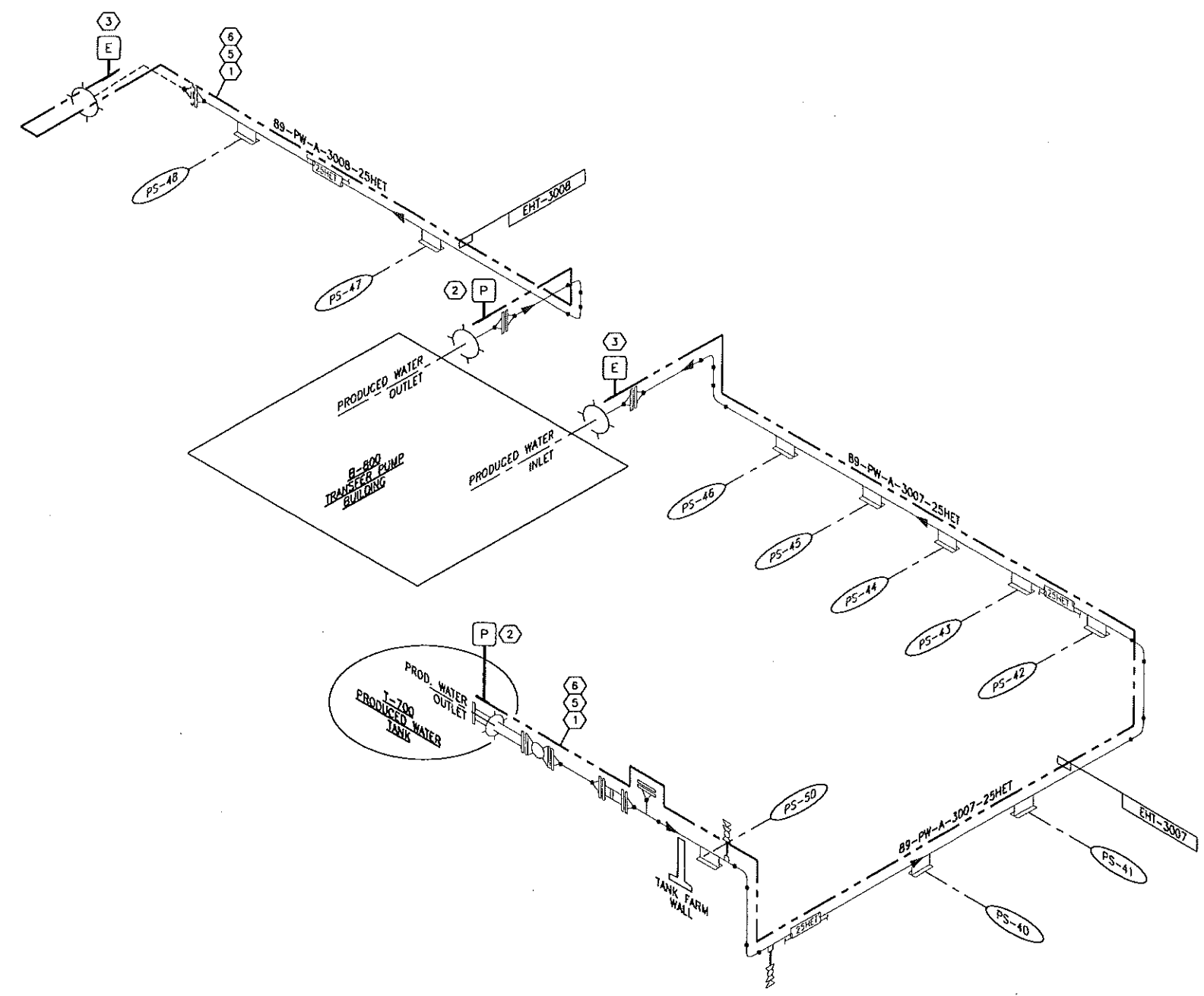
SCALE: NTS DWG. No. D-SWN-261-116 0

Date: 2006.10.20 2:59pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\0-D-SWN-261-117.DWG By: SW

ELECTRIC HEAT TRACING DATA

EHT CABLE NAME	DISTRIBUTION PANEL CIRCUIT/SIZE	PIPE LINE NUMBER	PIPE LENGTH (M)	PIPE SIZE (mm)	PIPE MATERIAL	INSULATION TYPE	INSULATION THICKNESS (mm)	PIPE MAINT TEMP (°C)	HEAT TRACE CABLE TYPE	DESIGN VOLTAGE	CABLE LENGTH (M)	DESIGN HEAT LOSS (W/M)	DESIGN CABLE OUTPUT	CABLE OUTPUT END	DESIGN AMBIENT TEMP (°C)	CABLE TEMP (°C)	MAX CABLE TEMP (°C)	NOMINAL CURRENT (A)	MAX CURRENT (A)	NOMINAL POWER (VA)
EHT-3007	LP-500 LP500-69	89-PW-A-3007-25HET	44.2	89	CS	CALCIUM SILICATE	25	5'	HTSX 9-1	120	60	28.9	30.4	24.8	-40'	80'	129'	16.2	22.3	1944
EHT-3008	LP-500 LP500-71	89-PW-A-3008-25HET	15.9	89	CS	CALCIUM SILICATE	25	5'	HTSX 9-1	120	21.5	26.9	30.4	29.6	-40'	80'	129'	6.1	8.4	732

BILL OF MATERIALS				
ITEM NO.	QTY	CATALOG NO.	MANUFACTURE	DESCRIPTION
①	73m	HTSX 9-1	THERMON	SELF-REGULATING HEAT TRACE CABLE
②	2	ECA-1-SR	THERMON	POWER CONNECTION KIT
③	2	DL-S	THERMON	LIGHTED END TERMINATION KIT
④	-	ECT-2-SR	THERMON	TEE CONNECTOR KIT
⑤	A/R	FT-1L	THERMON	POLYFIBER MOUNTING TAPE
⑥	A/R	CL	THERMON	CAUTION LABELS



- LEGEND:
- PIPING
 - HEAT TRACE CABLE
 - Ⓟ POWER CONNECTION KIT
 - Ⓣ SPLICE CONNECTION KIT
 - ⓔ LIGHTED END TERMINATION KIT
 - END TERMINATION KIT

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.
Signature _____
Date _____
PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	DMJ
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	SW	MI	DMJ

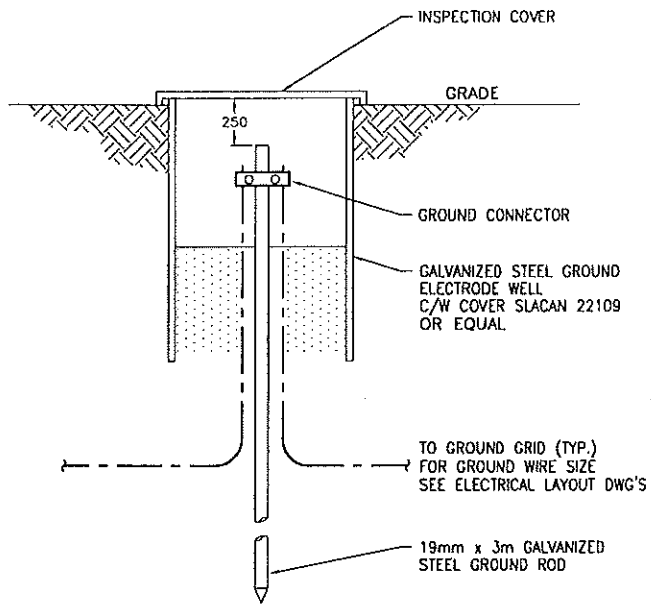
PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

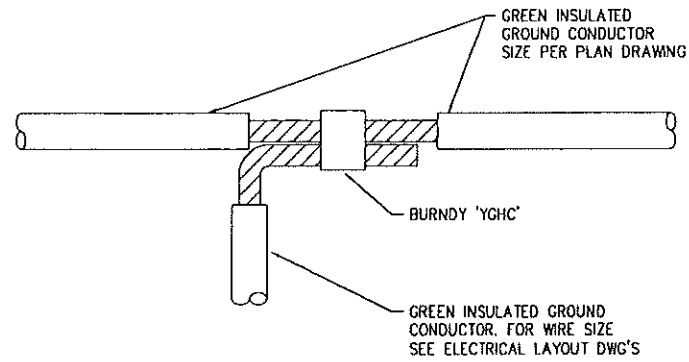
PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
EHT-3007/EHT-3008
HEAT TRACE ISOMETRIC

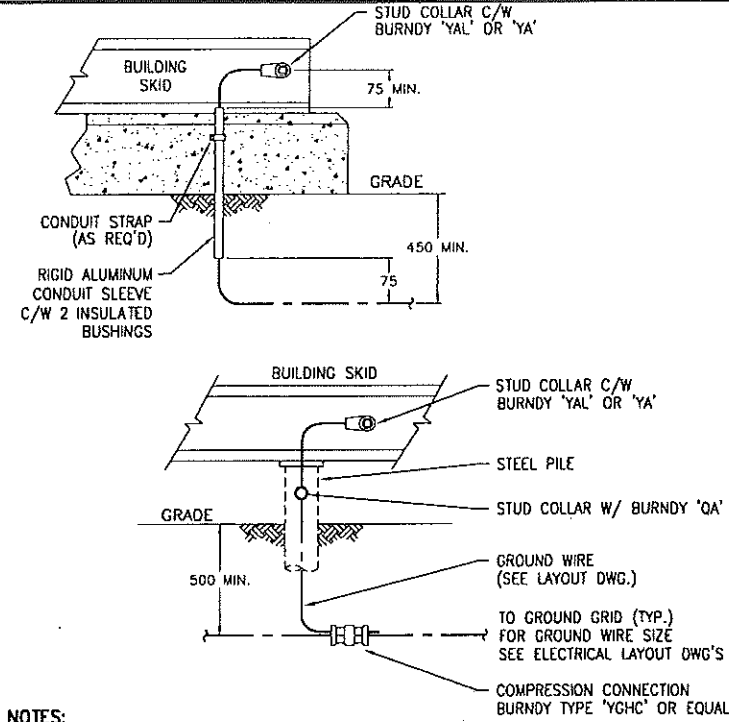
SCALE: NTS DWG. No. D-SWN-261-117 0



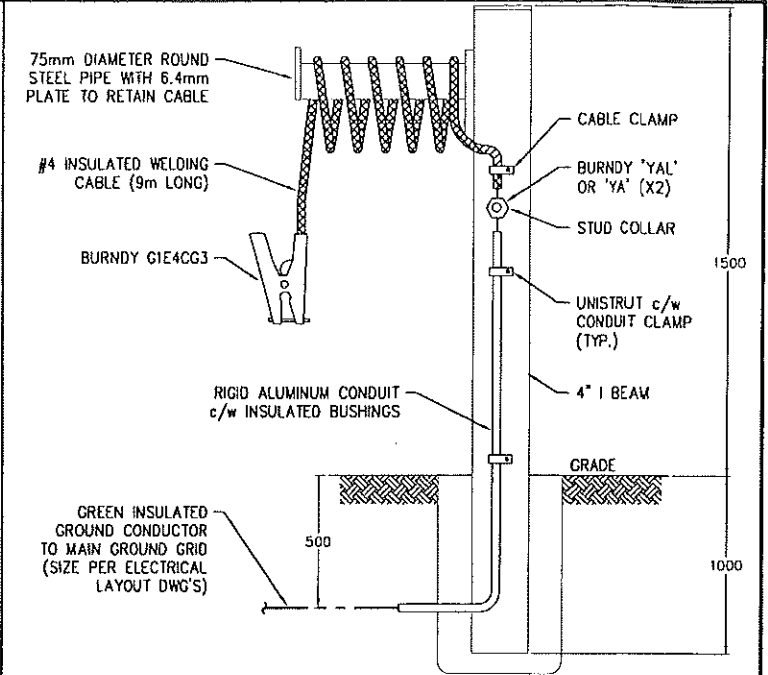
1 GROUND WELL
NTS



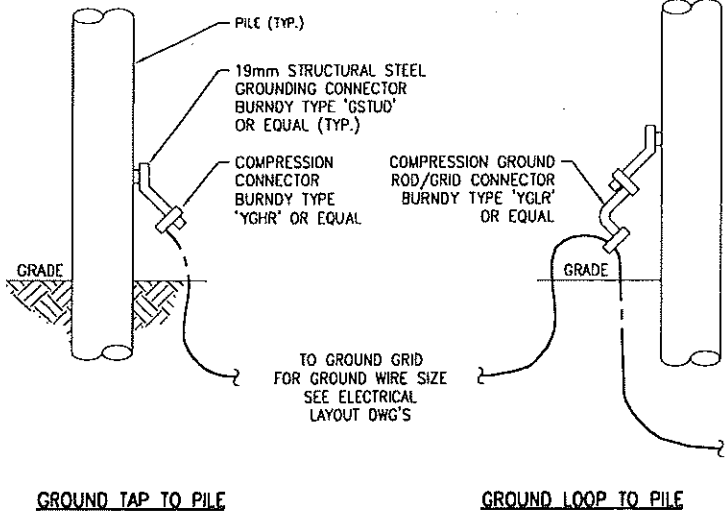
2 GROUND TAP TEE CONNECTION
NTS



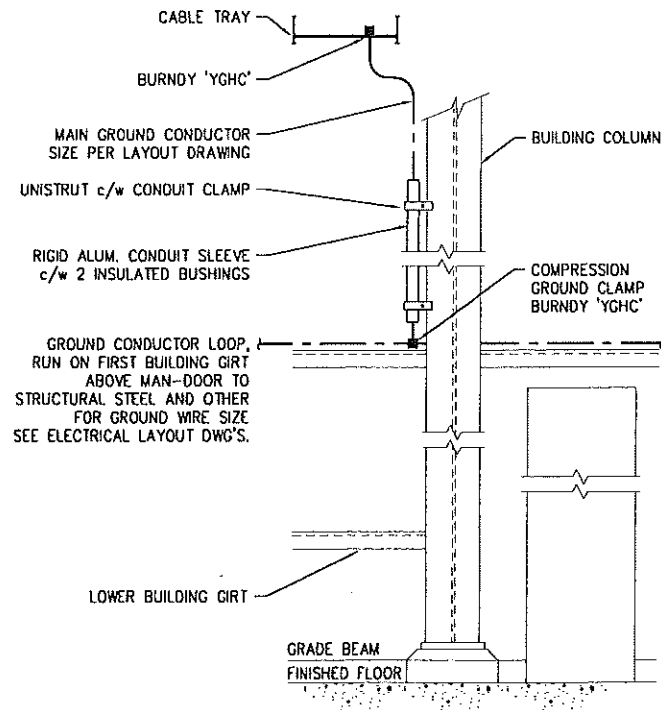
3 SKID GROUNDING
NTS



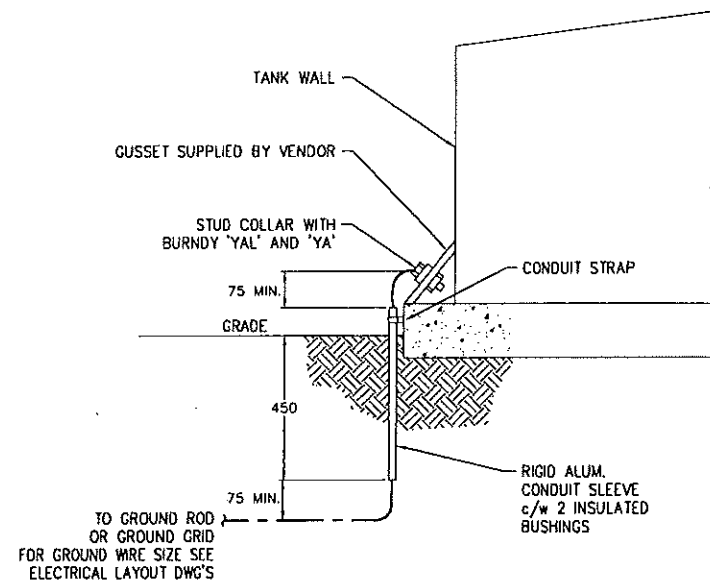
12 TANK TRUCK LOADING STATION GROUNDING
NTS



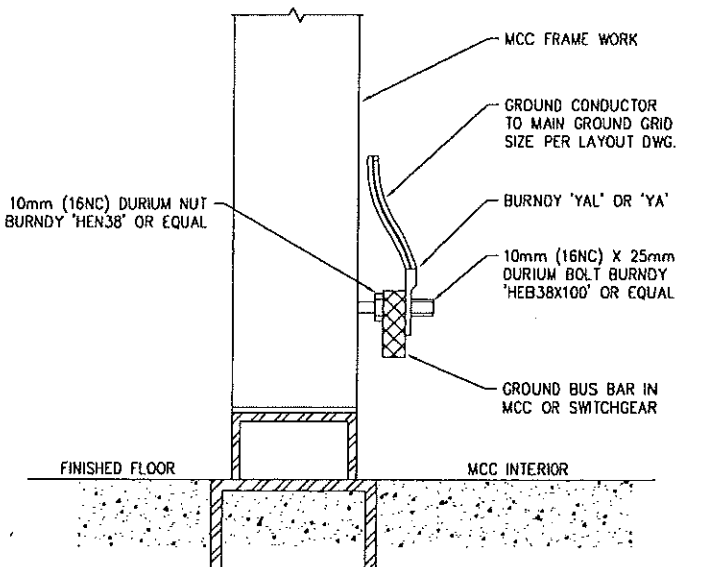
14 PILE GROUNDING
NTS



15 BUILDING LOOP GROUNDING
NTS

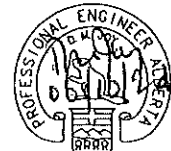


16 VERTICAL STORAGE TANK GROUNDING
NTS



23 SWITCHGEAR/MCC GROUNDING
CLASS I, ZONE 1 & 2

REFERENCE DRAWING	DESCRIPTION



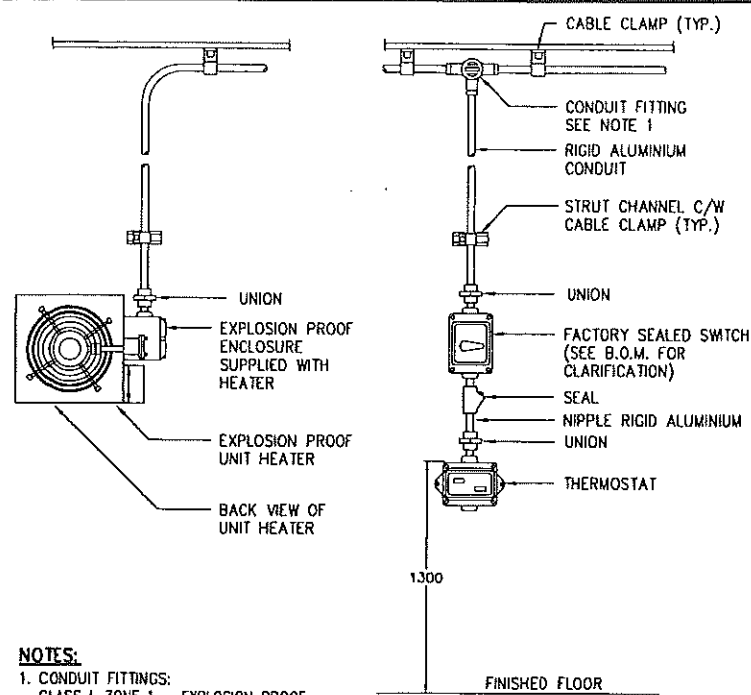
PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.
Signature _____
Date _____
PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	D	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SJP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	DMJ
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST
TRIDYNE PROJECTS
CORPORATION

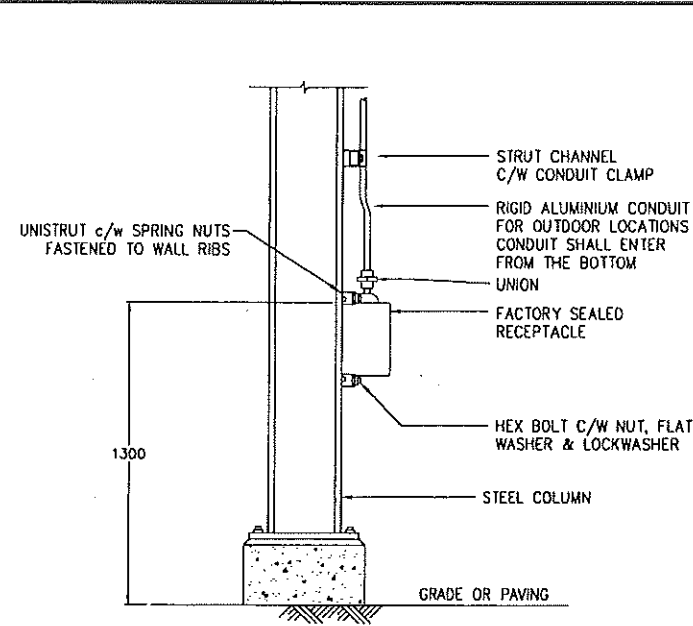
PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT
MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
STANDARD INSTALLATION DETAILS
SCALE: N.T.S. DWG. No. D-SWN-261-11B 0

Date: 2006.10.20 2:59pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\0-SWN-261-120.DWG By: SW

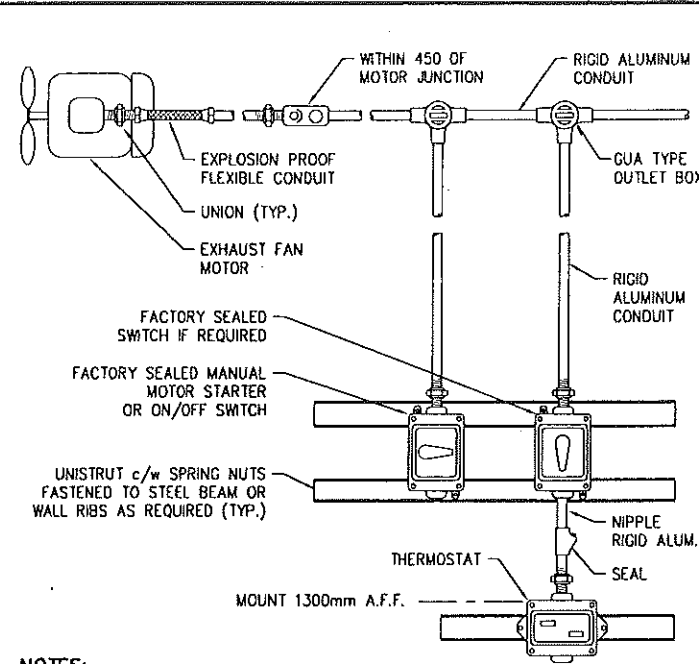


NOTES:
1. CONDUIT FITTINGS:
CLASS I, ZONE 1 - EXPLOSION PROOF
CLASS I, ZONE 2 - VAPOURTIGHT

66 UNIT HEATER WITH EXTERNAL THERMOSTAT CONDUIT CONNECTION
CLASS I, ZONE 1 & 2

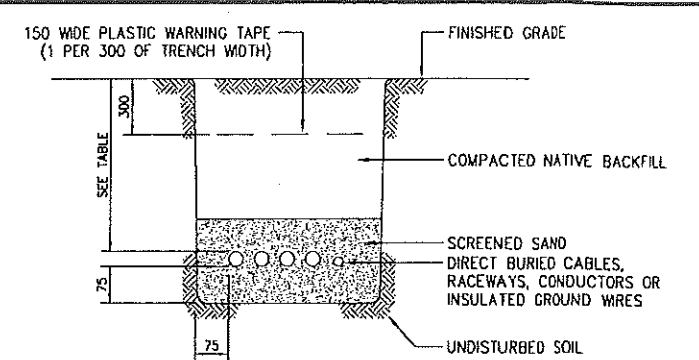


70 RECEPTACLE OR SWITCH ASSEMBLY MOUNTED ON STEEL COLUMN
CLASS I, ZONE 2 & NON-HAZARDOUS



NOTES:
1. CONDUIT FITTINGS:
CLASS I, ZONE 1 - EXPLOSION PROOF
CLASS I, ZONE 2 - VAPOURTIGHT

73 EXHAUST FAN
CLASS I, ZONE 1 & 2

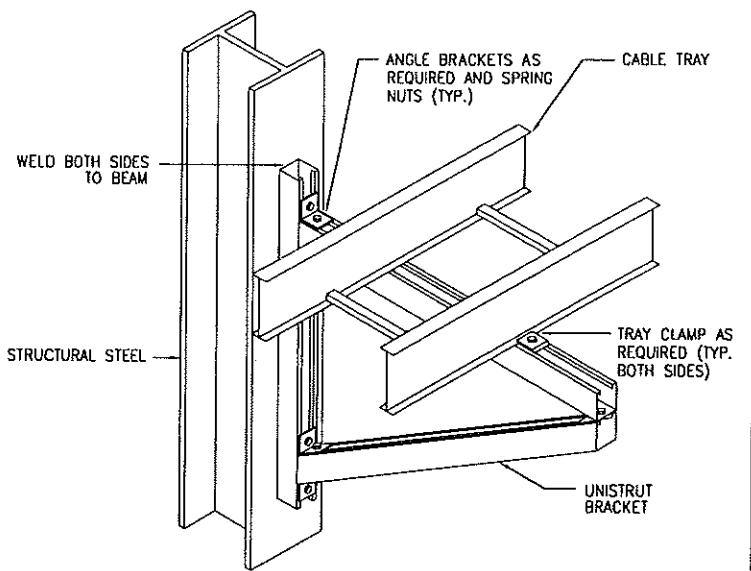


MINIMUM COVER REQUIREMENTS TABLE

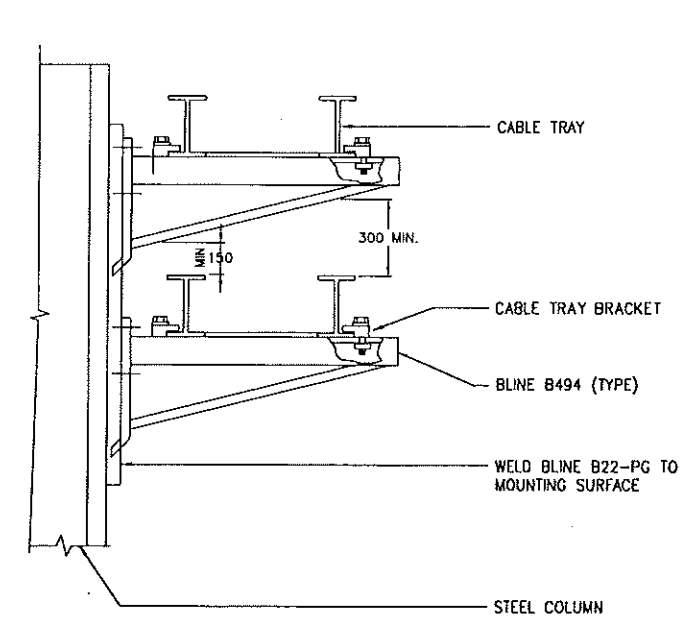
WIRING METHOD	NON-VEHICULAR AREAS		VEHICULAR AREAS	
	750 V OR LESS	OVER 750 V	750 V OR LESS	OVER 750 V
CONDUCTORS OR CABLES NOT HAVING A METAL SHEATH OR ARMOUR	600	750	900	1000
RACEWAY AND CONDUCTORS OR CABLES HAVING A METAL SHEATH OR ARMOUR	450	750	600	1000

NOTES:
1. NOT TO BE USED FOR COMMUNICATION CIRCUIT APPLICATIONS AS MINIMUM COVER REQUIREMENTS ARE DIFFERENT, SEE SECTION 60-600 OF C.E.C.

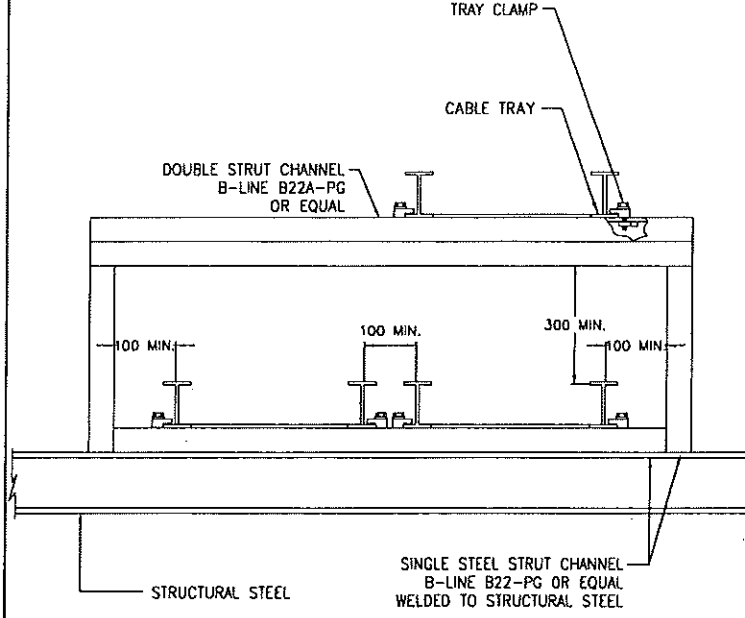
76 TRENCH DETAIL FOR DIRECT BURIED CABLES RACEWAYS OR CONDUCTORS NOT HAVING MECHANICAL PROTECTION
NTS



81 CABLE TRAY CANTILEVER SUPPORT
NTS

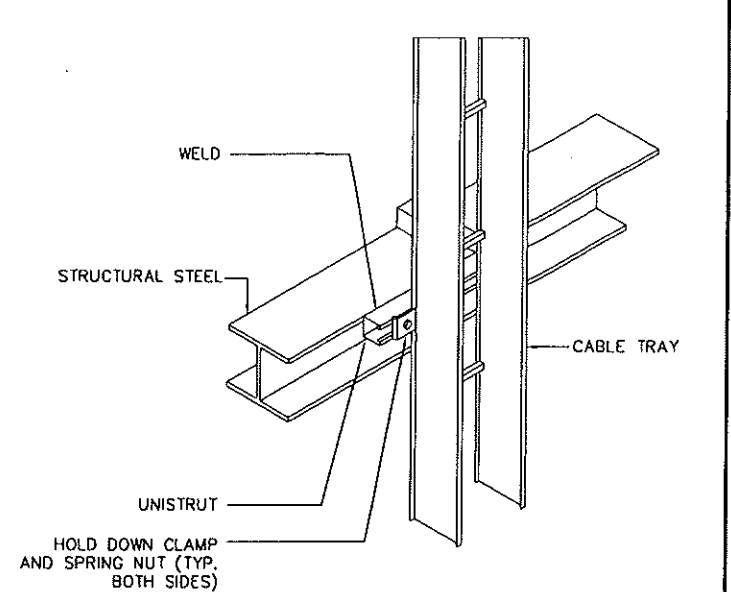


83 HORIZONTAL MULTI OR SINGLE LAYER TRAY MOUNTED ON CANTILEVER BRACKETS FROM STEEL COLUMN
NTS



NOTES:
1. UNISTRUT TO BE WELDED TOGETHER, THEN TO STEEL SUPPORT.

86 HORIZONTAL TWO LAYER CABLE TRAY SUPPORTED FROM STRUCTURAL STEEL
NTS



89 CABLE TRAY VERTICAL SUPPORT
NTS

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
		<p>PERMIT TO PRACTICE TRIDYNE PROJECTS CORP. Signature _____ Date _____ PERMIT NUMBER: P 8630 The Association of Professional Engineers, Geologists and Geophysicists of Alberta</p>	2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	
			2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
			2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

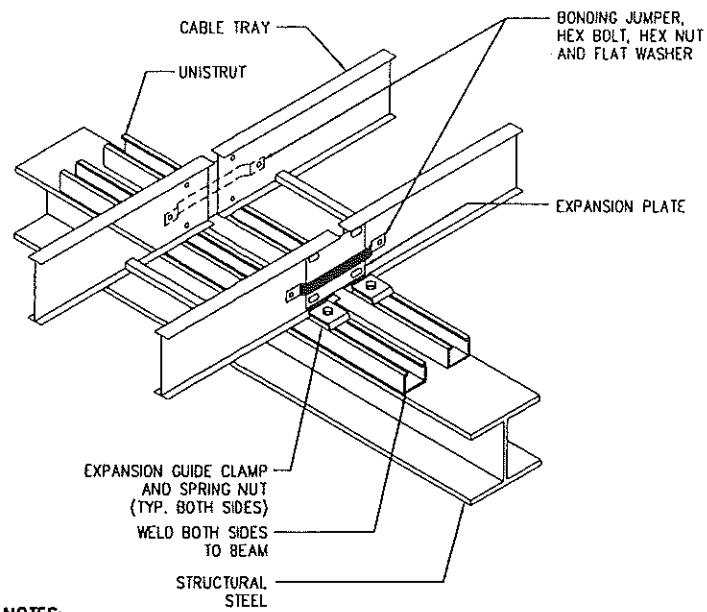
PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT
MULTI WELL COMPRESSOR STATION
LSO: 12-12-65-11 W5M
STANDARD INSTALLATION DETAILS

SCALE: N.T.S. DWG. No. D-SWN-261-120 0

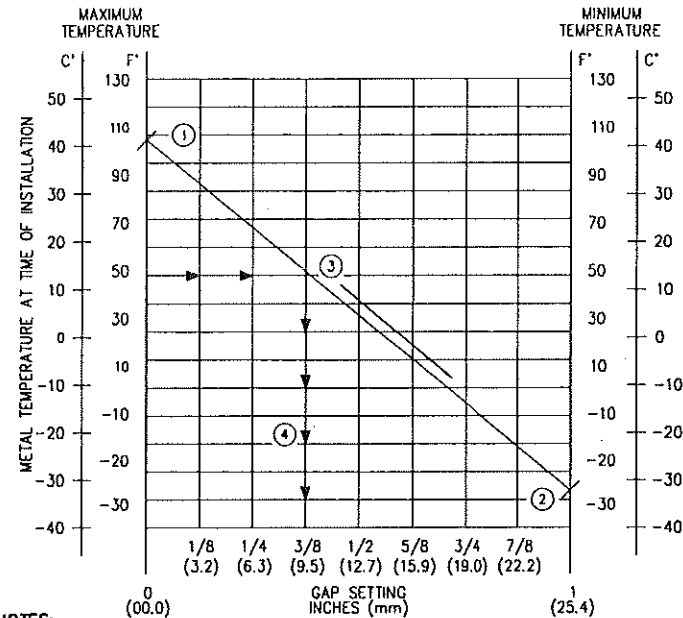
Date: 2006.10.20 2:59pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\0-SWN-261-121.DWG By: SW



NOTES:

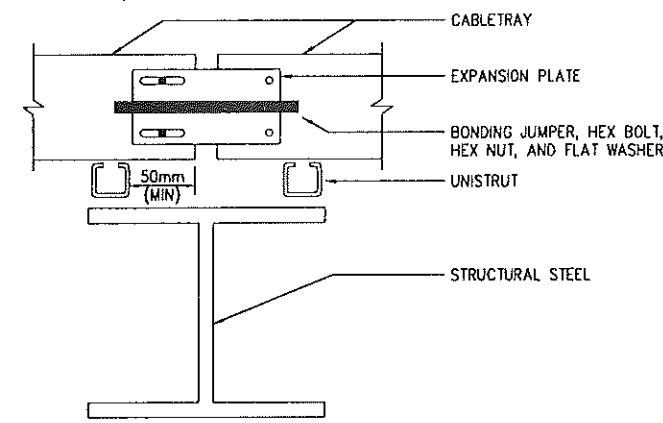
1. ALLOW SLACK IN BONDING JUMPER.
2. BOLT HEADS SHALL BE LOCATED INSIDE TRAY.
3. REFER TO GEMINI ENGINEERING INC. STANDARD GS-2597 (ELECTRICAL CONSTRUCTION) FOR EXPANSION JOINT INTERVALS.

90 CABLE TRAY EXPANSION JOINT
~
NTS

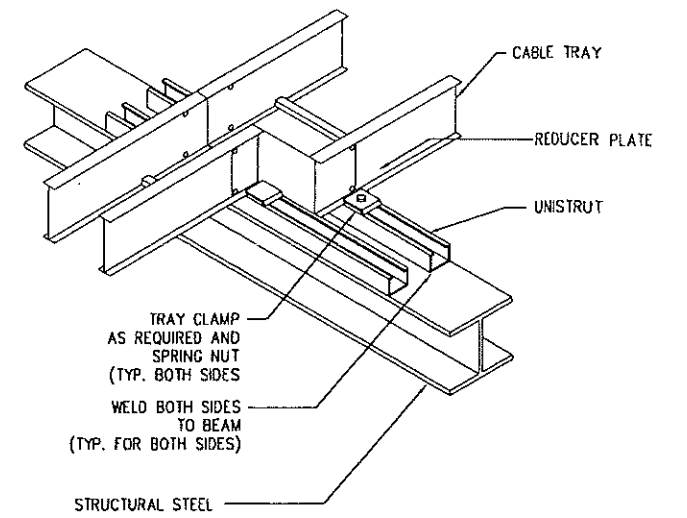


NOTES:

- ACCURATE GAP SETTINGS AT THE TIME OF INSTALLATION ARE NECESSARY FOR THE PROPER OPERATION OF THE EXPANSION SPLICE PLATES. THE FOLLOWING PROCEDURE SHOULD ASSIST THE INSTALLER IN DETERMINING THE CORRECT GAP:
- ① PLOT THE HIGHEST EXPECTED METAL TEMPERATURE ON THE MAXIMUM TEMPERATURE LINE.
 - ② PLOT THE LOWEST EXPECTED METAL TEMPERATURE ON THE MINIMUM TEMPERATURE LINE.
 - ③ DRAW A LINE BETWEEN THE MAXIMUM AND MINIMUM POINTS.
 - ④ PLOT THE METAL TEMPERATURE AT THE TIME OF INSTALLATION TO DETERMINE GAP SETTING.



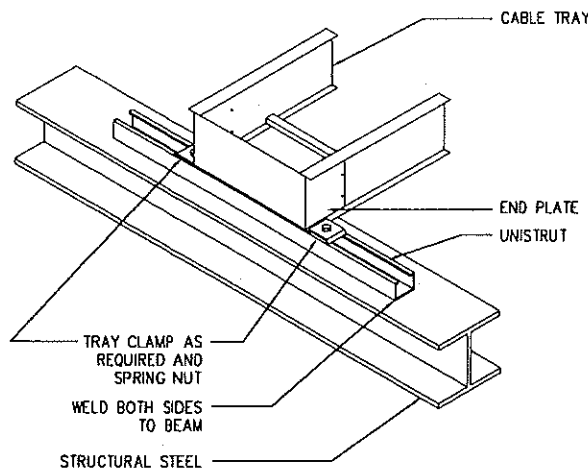
91 CABLE TRAY EXPANSION JOINT - SIDE ANGLE
~
NTS



NOTES:

1. BOLT HEADS SHALL BE LOCATED INSIDE TRAY.

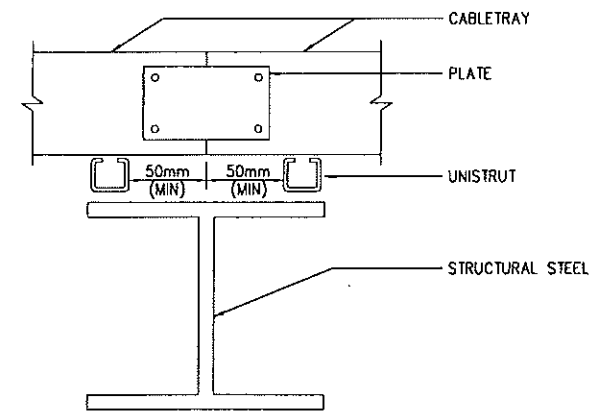
92 CABLE TRAY REDUCER JOINT
~
NTS



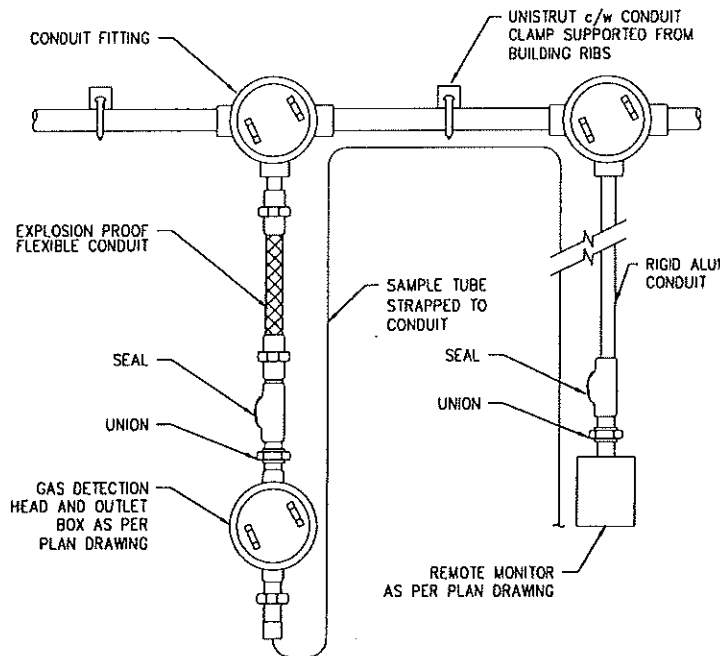
NOTES:

1. BOLT HEADS SHALL BE LOCATED INSIDE TRAY.

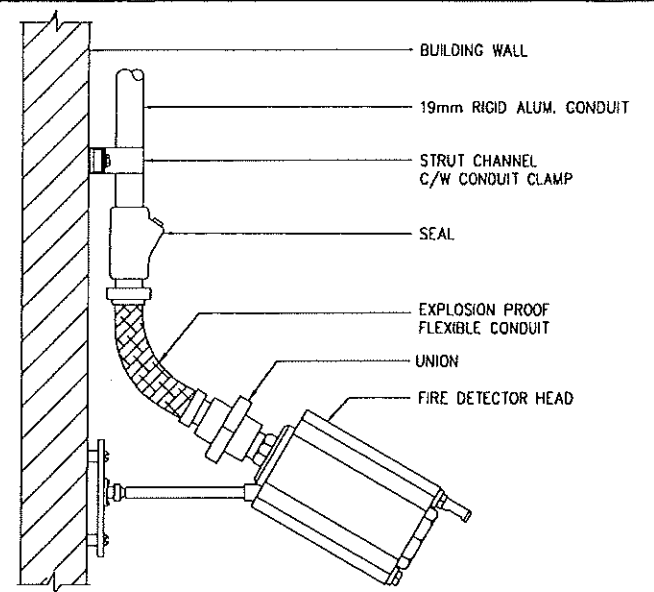
93 CABLE TRAY END PLATE
~
NTS



94 TYPICAL INSTALLATION WITH CABLE TRAY EDGE AND UNISTRUT
~
NTS



105 FLEXIBLE CEILING MOUNTED GAS DETECTION HEAD c/w REMOTE MONITOR AND CALIBRATION
~
CLASS I, ZONE 1 AND 2



NOTES:

1. HORIZONTAL AIM OF SENSOR SHALL BE AS PER ELECTRICAL LAYOUT DWGS.
2. SENSORS SHALL BE MOUNTED AT BUILDING EAVE HEIGHT UNLESS OTHERWISE SPECIFIED ON THE ELECTRICAL LAYOUT DWGS.

112 BRACKET MOUNTED FIRE DETECTOR HEAD
~
CLASS I, ZONE 1 AND 2

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB		DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST

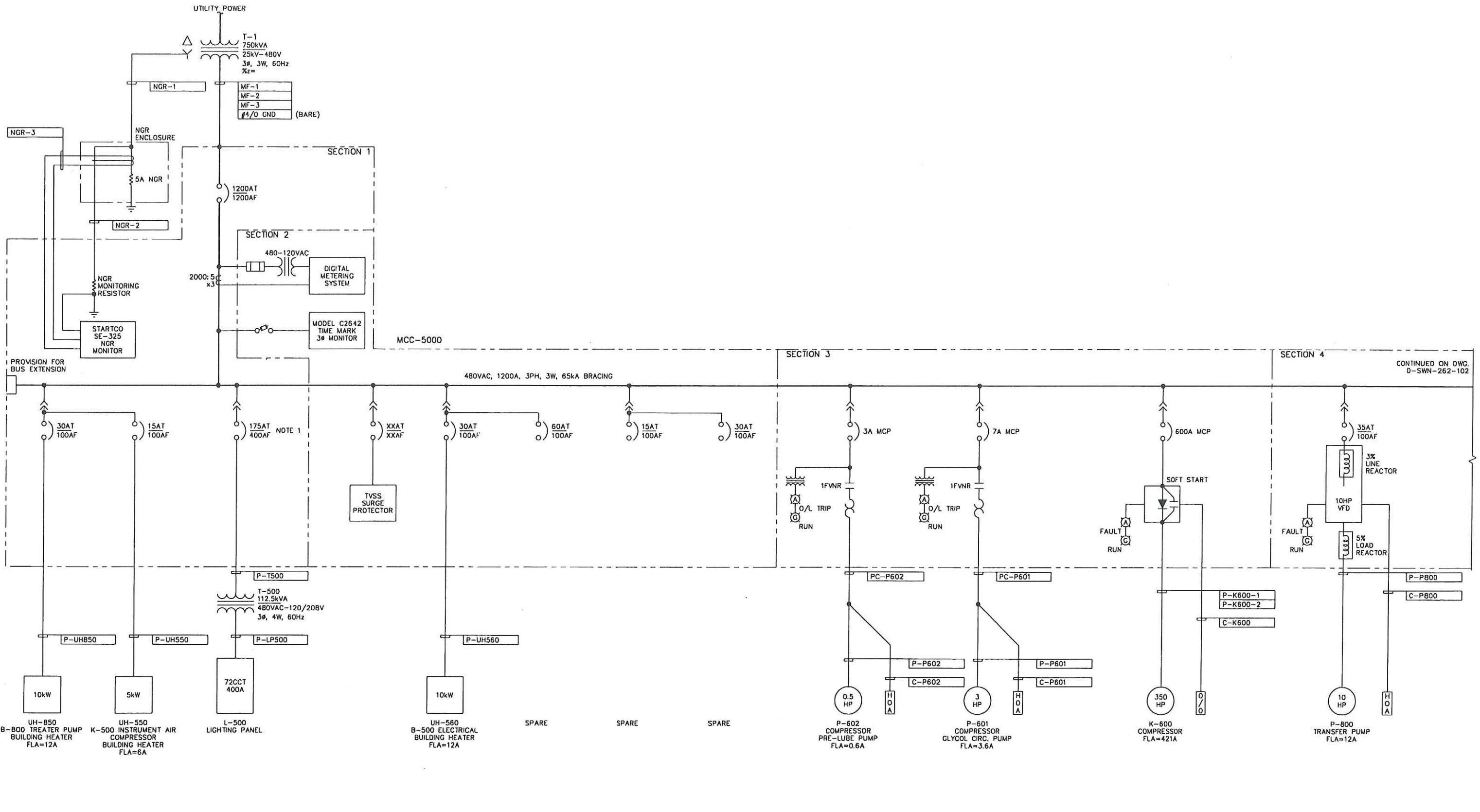
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M

STANDARD INSTALLATION DETAILS

SCALE: N.T.S. DWG. No. 0-SWN-261-121 0

Date: 2006.10.20 2:59pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\0-SWN-262-101.DWG By: SW



CONTINUED ON DWG. D-SWN-262-102

NOTES:
1. COMES WITH ADJUSTABLE TRIP

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630

The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	3	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	DMJ
2006052	2	ISSUED FOR APPROVAL	06-10-17	KD	SJP	SJP
2006052	1	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ
2006052	0	ISSUED FOR MCC CONSTRUCTION	06-08-14	KD	SJP	SJP
2006052	B	ISSUED FOR BID	06-07-28	KD	SJP	SJP
2006052	A	ISSUED FOR UTILITY APPLICATION	06-06-20	KD	SJP	SJP

PENN WEST ENERGY TRUST

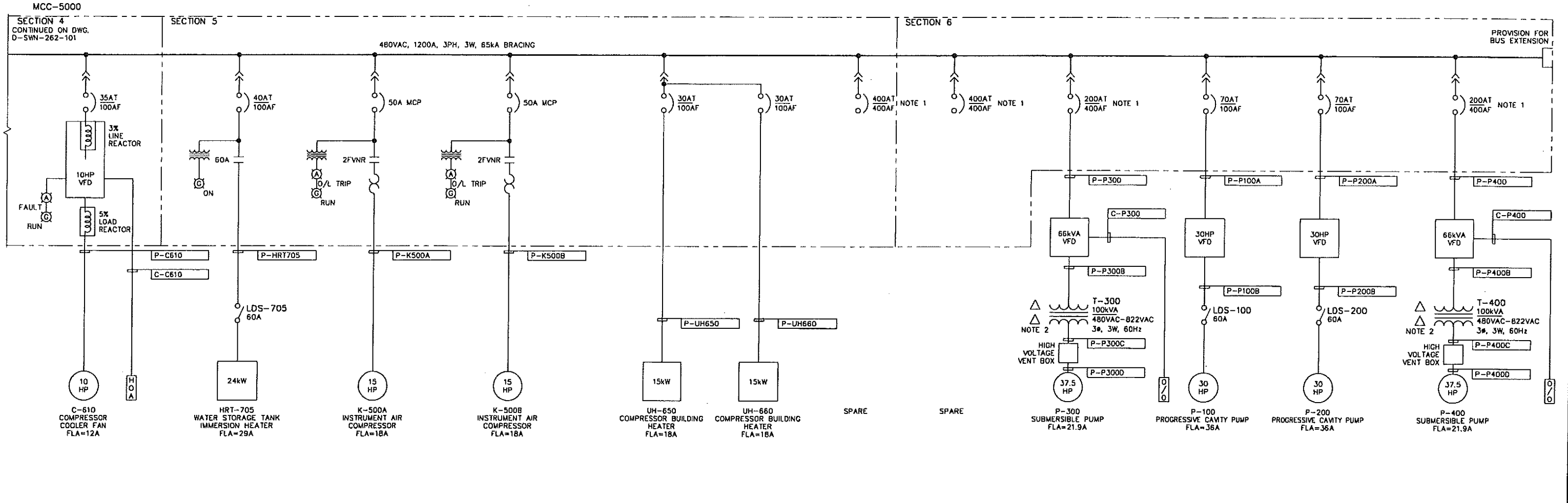
TRIDYNE PROJECTS CORPORATION

PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M
MCC-5000
SINGLE LINE DIAGRAM

SCALE: NONE DWG. No. D-SWN-262-101 3



NOTES:
1. COMES WITH ADJUSTABLE TRIP.
2. DO NOT GROUND 'STAR' POINT OF STEP-UP TRANSFORMER.

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PROFESSIONAL ENGINEER
ALBERTA
B. J. WILSON
10000
10000

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.
Signature _____
Date _____
PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	3	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SP	DMJ
2006052	2	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	1	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ
2006052	0	ISSUED FOR MCC CONSTRUCTION	06-08-14	KD	SJP	SJP
2006052	A	ISSUED FOR BID	06-07-28	KD	SJP	SJP

PENN WEST ENERGY TRUST

TRIDYNE PROJECTS CORPORATION

PENN WEST ENERGY TRUST

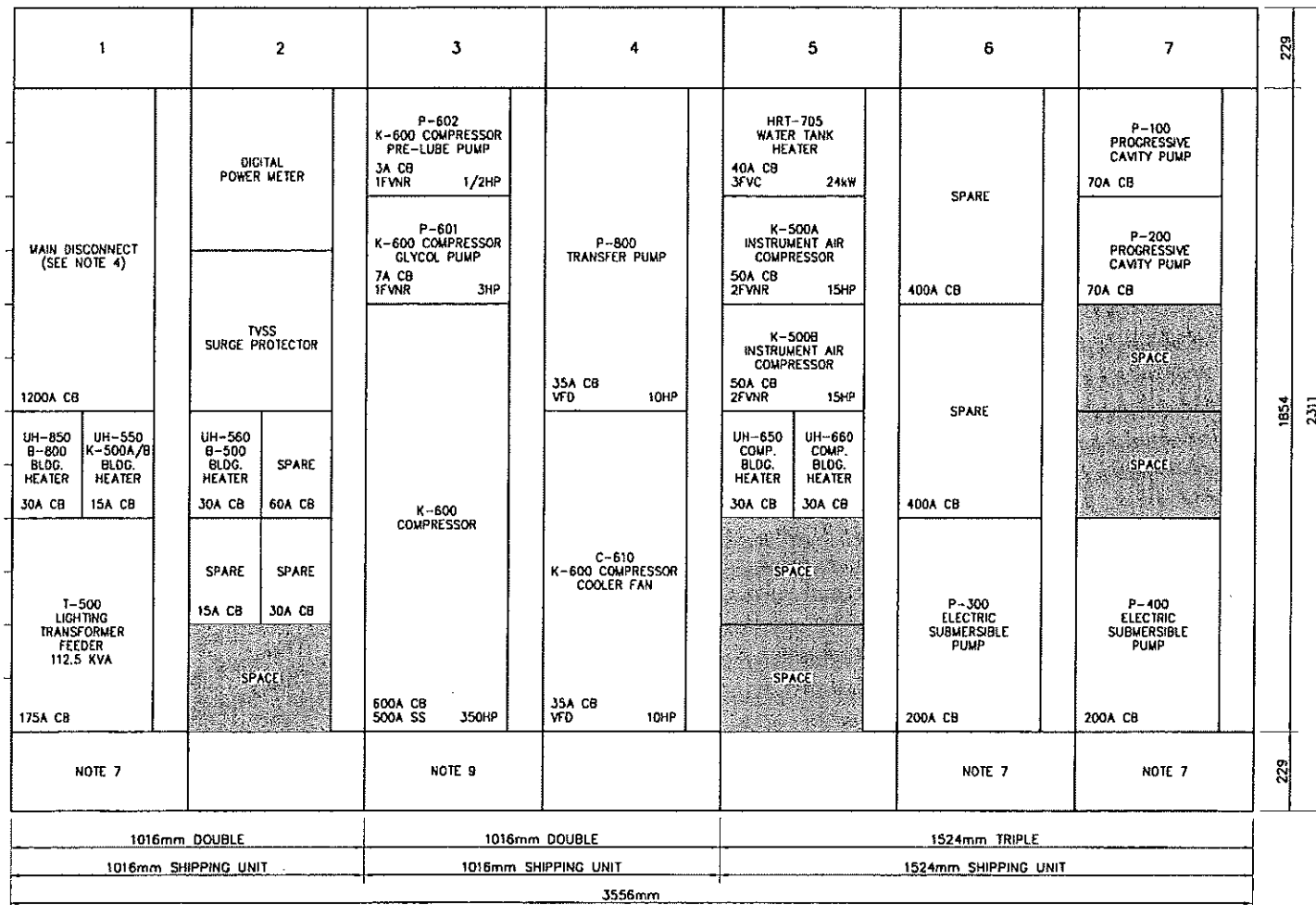
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
MCC-5000
SINGLE LINE DIAGRAM

SCALE: NONE | DWG. No. D-SWN-262-102 | 3

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	1200A MAIN DISCONNECT	100mm x 150mm	25mm	BLACK ON WHITE
B	1	UH-850 B-800 BUILDING HEATER	100mm x 150mm	25mm	BLACK ON WHITE
C	1	UH-550 I/A BUILDING HEATER	100mm x 150mm	25mm	BLACK ON WHITE
D	1	T-500 LIGHTING TRANSFORMER FEEDER	100mm x 150mm	25mm	BLACK ON WHITE
E	1	DIGITAL POWER METER	100mm x 150mm	25mm	BLACK ON WHITE
F	1	1200A TVSS SURGE PROTECTOR	100mm x 150mm	25mm	BLACK ON WHITE
G	1	UH-560 ELECTRICAL BUILDING HEATER	100mm x 150mm	25mm	BLACK ON WHITE
H	1	P-602 K-600 COMPRESSOR PRE-LUBE PUMP	100mm x 150mm	25mm	BLACK ON WHITE
I	1	P-601 K-600 COMPRESSOR GLYCOL PUMP	100mm x 150mm	25mm	BLACK ON WHITE
J	1	K-600 COMPRESSOR	100mm x 150mm	25mm	BLACK ON WHITE
K	1	P-800 TRANSFER PUMP	100mm x 150mm	25mm	BLACK ON WHITE
L	1	C-610 K-600 COMPRESSOR COOLER FAN	100mm x 150mm	25mm	BLACK ON WHITE
M	1	HRT-705 WATER TANK HEATER	100mm x 150mm	25mm	BLACK ON WHITE
N	1	K-500A INSTRUMENT AIR COMPRESSOR	100mm x 150mm	25mm	BLACK ON WHITE
O	1	K-500B INSTRUMENT AIR COMPRESSOR	100mm x 150mm	25mm	BLACK ON WHITE
P	1	UH-650 COMPRESSOR BUILDING HEATER	100mm x 150mm	25mm	BLACK ON WHITE
Q	1	UH-660 COMPRESSOR BUILDING HEATER	100mm x 150mm	25mm	BLACK ON WHITE
R	1	P-300 ELECTRIC SUBMERSIBLE PUMP	100mm x 150mm	25mm	BLACK ON WHITE
S	1	P-100 PROGRESSIVE CAVITY PUMP	100mm x 150mm	25mm	BLACK ON WHITE
T	1	P-200 PROGRESSIVE CAVITY PUMP	100mm x 150mm	25mm	BLACK ON WHITE
U	1	P-400 ELECTRIC SUBMERSIBLE PUMP	100mm x 150mm	25mm	BLACK ON WHITE
V	5	SPARE	100mm x 150mm	25mm	BLACK ON WHITE

NOTE B



MCC FRONT ELEVATION

LEGEND

- NEW
- SPACE

MOTOR CONTROL CENTER SPECIFICATIONS

MANUFACTURER: CUTLER-HAMMER FREEDOM 2100
 ENCLOSURE: NEMA TYPE 1 COMPLETE WITH GASKET
 BUS BRACING: 42,000 AMP RMS SYMMETRICAL
 HORIZONTAL BUS: 1200A COPPER BUS WITH TIN PLATING & INSULATED
 VERTICAL BUS: 400A COPPER HOLLOW TUBE WITH TIN PLATING (EXCEPT AS NOTED).
 GROUND BUS: 300A (1/4"x1") UNPLATED COPPER
 INCOMING LINES: TOP ENTRY
 MAIN DISCONNECT: 1200A MOLDED CASE CIRCUIT BREAKER
 MISC: 21" DEPTH
 INCLUDE BASE CHANNEL
 INCLUDE HORIZONTAL AND GROUND BUS SPLICE KITS

NOTES:

1. 480VAC, 3Ø, JW, 60Hz OPERATING VOLTAGE.
2. TOTAL CONNECTED LOAD = 878A.
3. ALL CIRCUIT BREAKERS ARE RATED MINIMUM 42kA INTERRUPTING.
4. COMPRESSION TYPE CABLE LUGS REQUIRED FOR 4x1c500MCM PER PHASE.
5. SUPPLY SECTIONS AS PER TOP HORIZONTAL DIMENSION LINE.
6. TRANSPORT UNIT AS PER SECOND HORIZONTAL DIMENSION LINE.
7. SUPPLY SECTION WITH 1200A VERTICAL BUS.
8. ELECTRICAL CONTRACTOR TO REPLACE 'FACTORY' LAMICOID WITH NEW LAMICOID AS PER THIS SCHEDULE.
9. SUPPLY SECTION WITH 600A VERTICAL BUS.

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PRGJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
			2006052	4	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SJP	DMJ
			2006052	3	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
			2006052	2	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ
			2006052	1	REISSUED FOR MCC CONSTRUCTION	06-08-16	MI	SJP	
			2006052	0	ISSUED FOR MCC CONSTRUCTION	06-08-14	KD	SJP	SJP

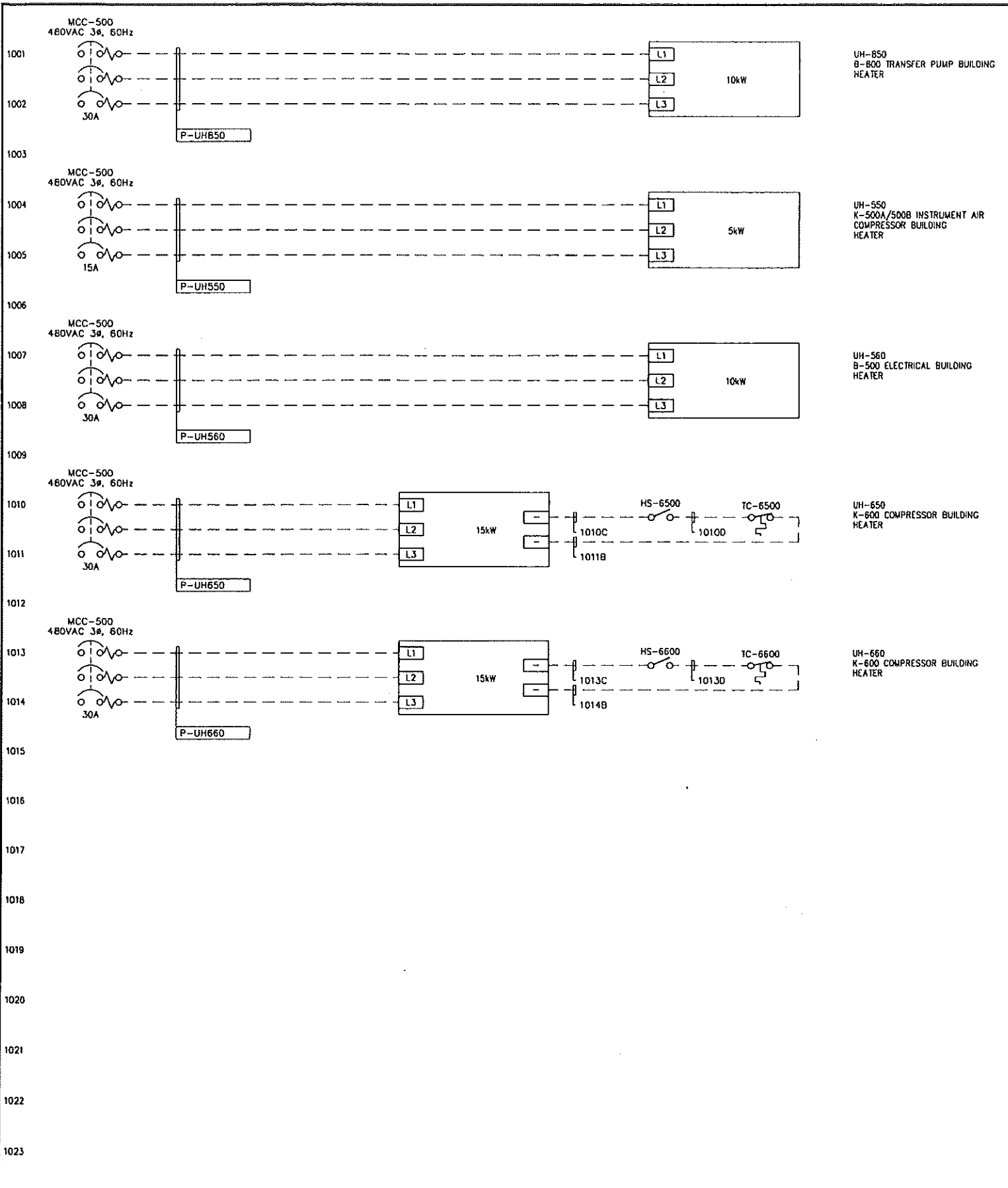
PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
 SOUTH SWAN HILLS - 4 WELL CBM PILOT
 MULTI WELL COMPRESSOR STATION
 LSD: 12-12-65-11 WSM
 MCC-5000
 MCC ELEVATION

SCALE: NONE DWG. No. D-SWN-262-103 4

Date: 2006.10.20 3:00pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\U-SWN-263-103.DWG By: SW

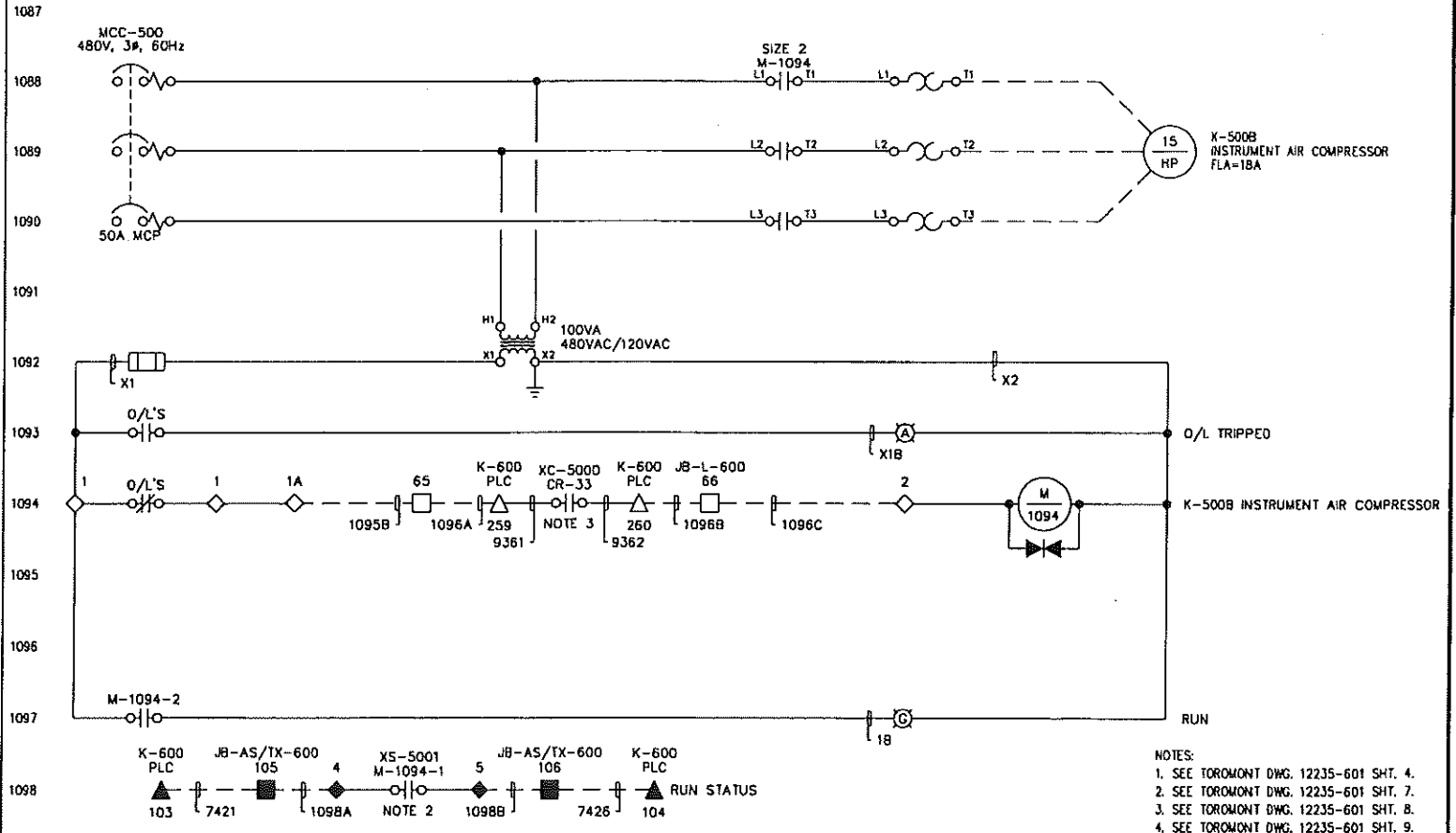
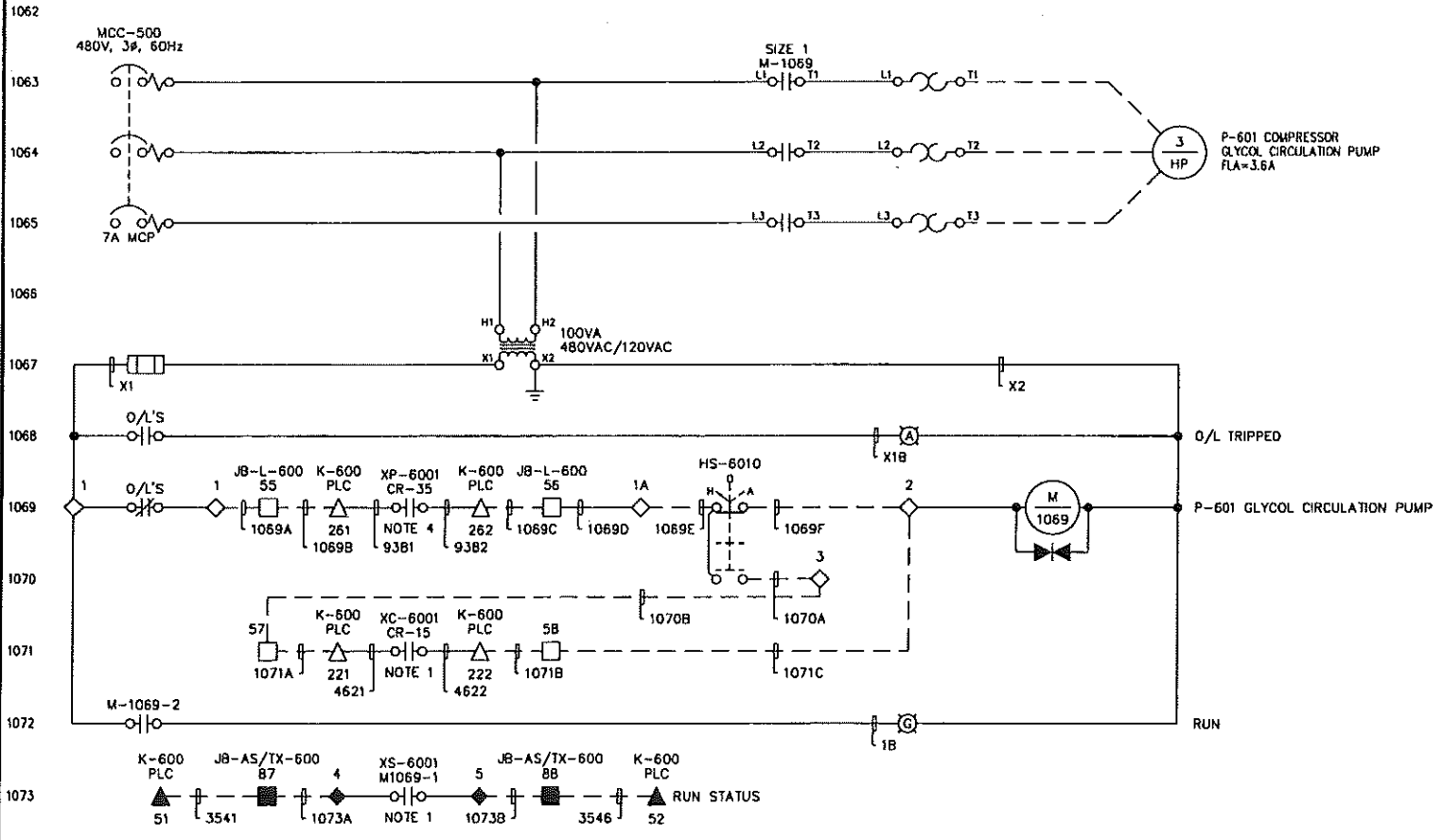
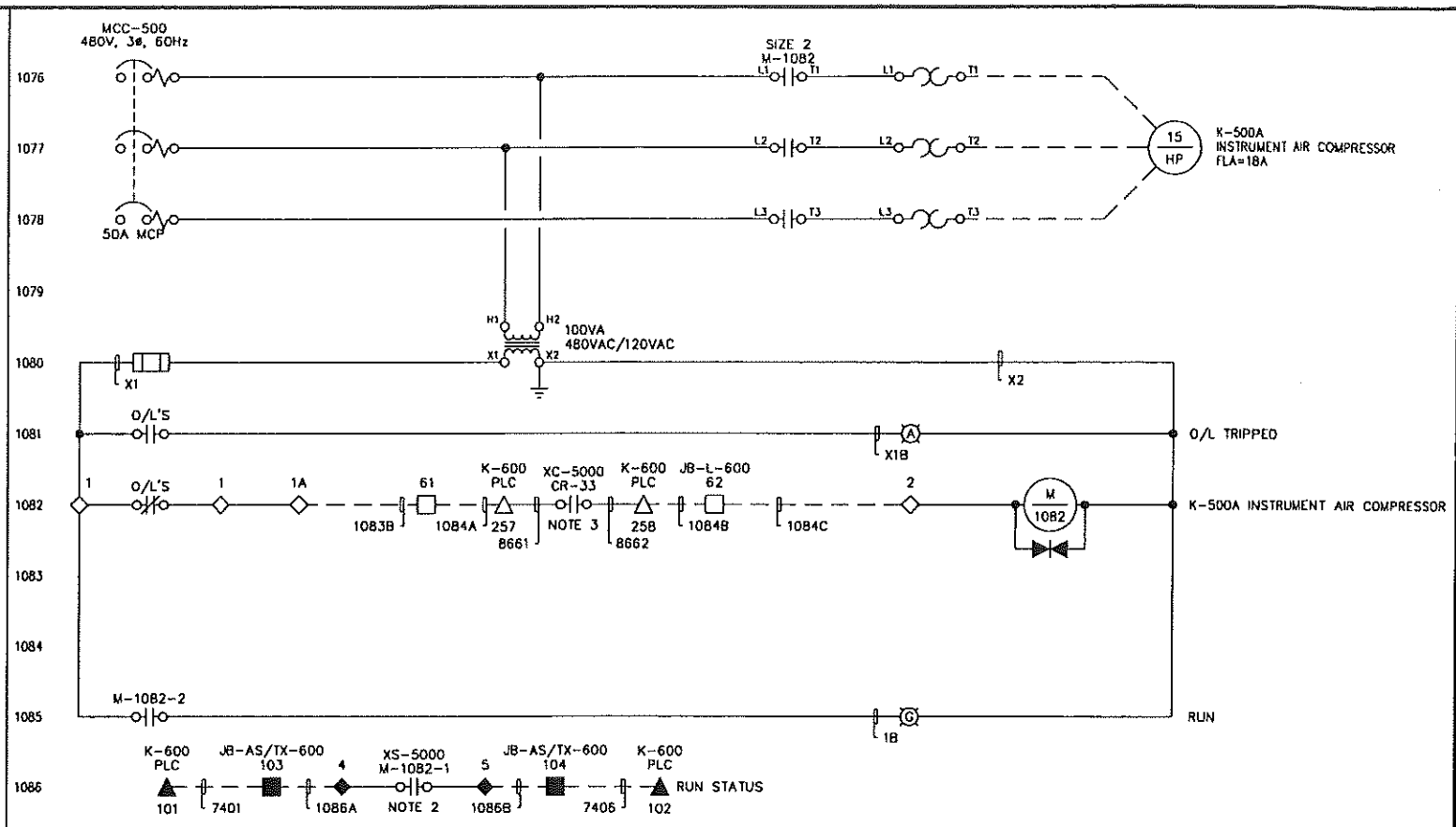
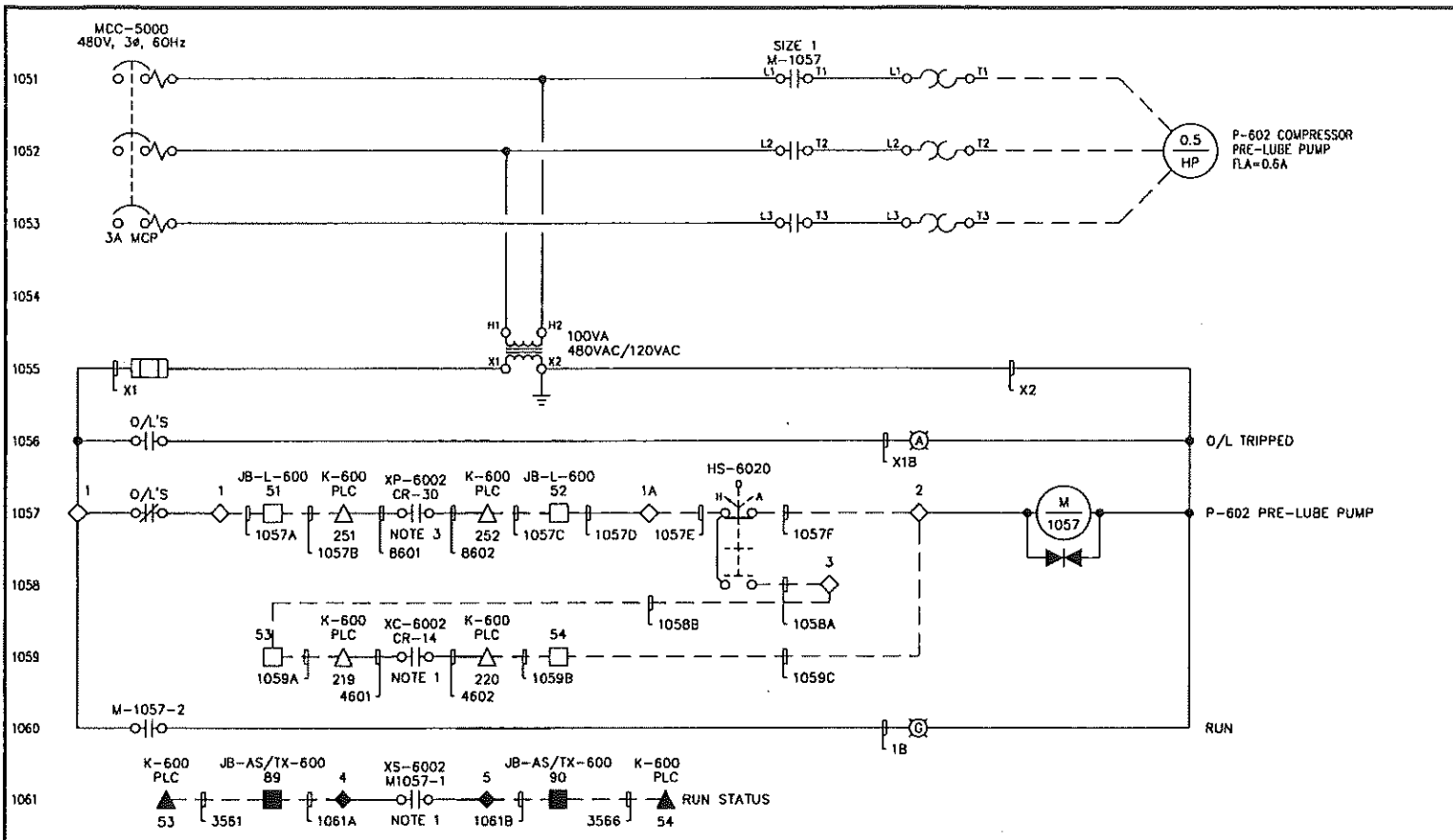


1026	UH-850 B-800 TRANSFER PUMP BUILDING HEATER
1027	
1028	
1029	UH-550 K-500A/500B INSTRUMENT AIR COMPRESSOR BUILDING HEATER
1030	
1031	
1032	UH-560 B-500 ELECTRICAL BUILDING HEATER
1033	
1034	
1035	UH-650 K-600 COMPRESSOR BUILDING HEATER
1036	
1037	
1038	UH-660 K-600 COMPRESSOR BUILDING HEATER
1039	
1040	
1041	
1042	
1043	
1044	
1045	
1046	
1047	
1048	

120VAC	F/G	ANALOG	24VDC	
				MOTOR STARTER (MCC/INDIVIDUAL)
				PLC CONTROL PANEL
				VENDOR/FIELD DEVICE
				FIELD JUNCTION BOX
				CONTACTOR PANEL

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D	 	PENN WEST ENERGY TRUST SOUTH SWAN HILLS - 4 WELL CBM PILOT MULTI WELL COMPRESSOR STATION LSD: 12-12-65-11 WSM 480VAC SCHEMATICS
		 PERMIT TO PRACTICE TRIDYNE PROJECTS CORP. Signature _____ Date _____ PERMIT NUMBER: P 8630 The Association of Professional Engineers, Geologists and Geophysicists of Alberta	2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	BP	DMJ		
			2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP			
			2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ		
											SCALE: NTS

Date: 2006.10.20 3:00pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\2-SWN-263-104.DWG By: SW



- NOTES:
 1. SEE TOROMONT DWG. 12235-601 SHT. 4.
 2. SEE TOROMONT DWG. 12235-601 SHT. 7.
 3. SEE TOROMONT DWG. 12235-601 SHT. 8.
 4. SEE TOROMONT DWG. 12235-601 SHT. 9.

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PROFESSIONAL ENGINEER
ALBERTA

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature: _____

Date: _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	D	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SJP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	DMJ
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST

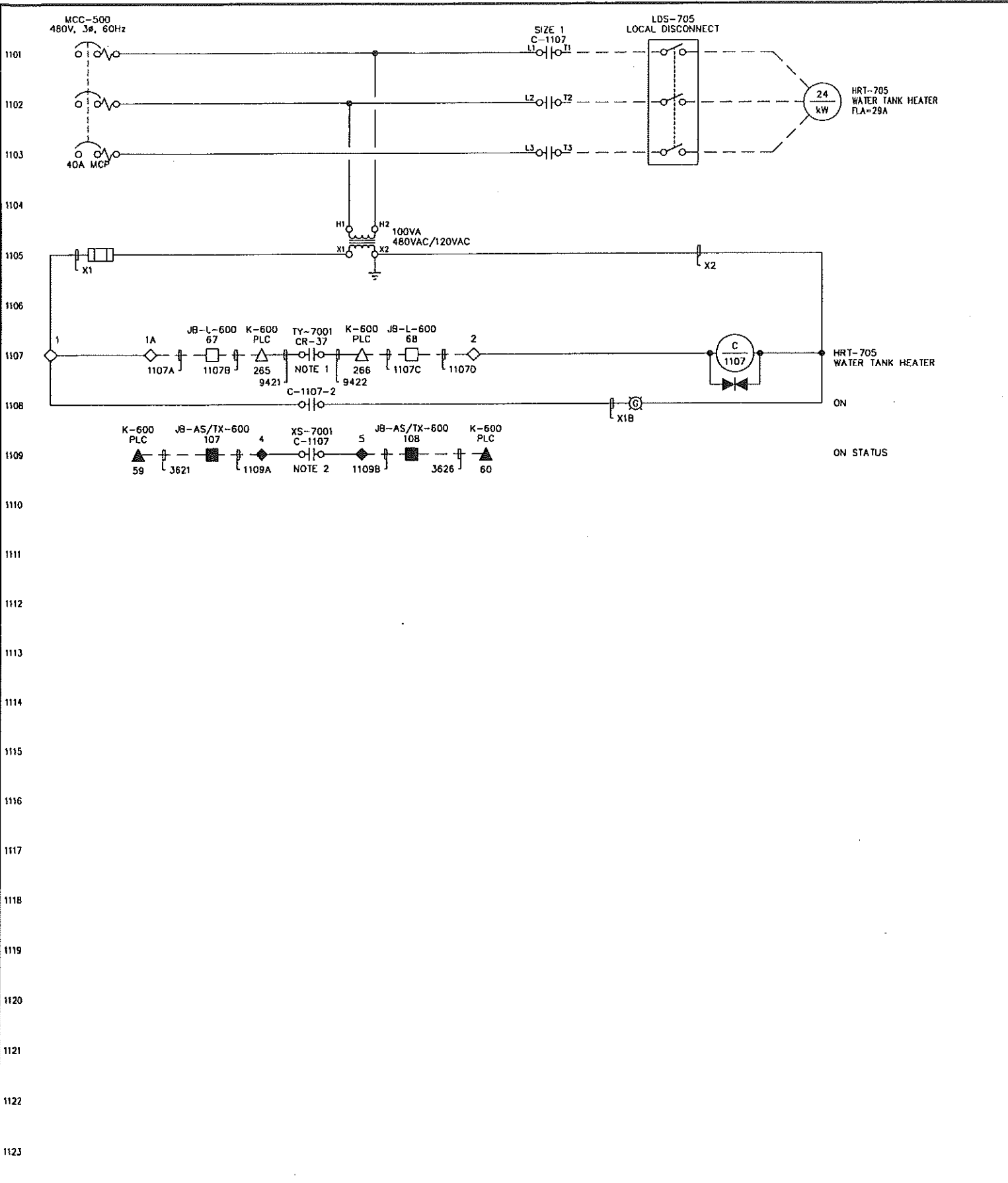
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM

480VAC SCHEMATICS

SCALE: NTS DWG. No. D-SWN-263-104 0

Date: 2006.10.20 3:00pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\0-SWN-263-105.DWG By: SW



1126

1127

1128

1129

1130

1131

1132

1133

1134

1135

1136

1137

1138

1139

1140

1141

1142

1143

1144

1145

1146

1147

1148

NOTES:
 1. SEE TOROMONT DWG. 12235-601 SHT. 3.
 2. SEE TOROMONT DWG. 12235-601 SHT. 9.

TERMINAL BLOCK SYMBOLS:			
120VAC	F/G	ANALOG	24VDC
◇	◇	◇	◇
△	△	△	△
○	○	○	○
□	□	□	□
○	○	○	○

MOTOR STARTER (MCC/INDIVIDUAL)
 PLC CONTROL PANEL
 VENDOR/FIELD DEVICE
 FIELD JUNCTION BOX
 CONTACTOR PANEL

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
			2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SJP	DMJ
			2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	DMJ
			2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST ENERGY TRUST

TRIDYNE PROJECTS CORPORATION

PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

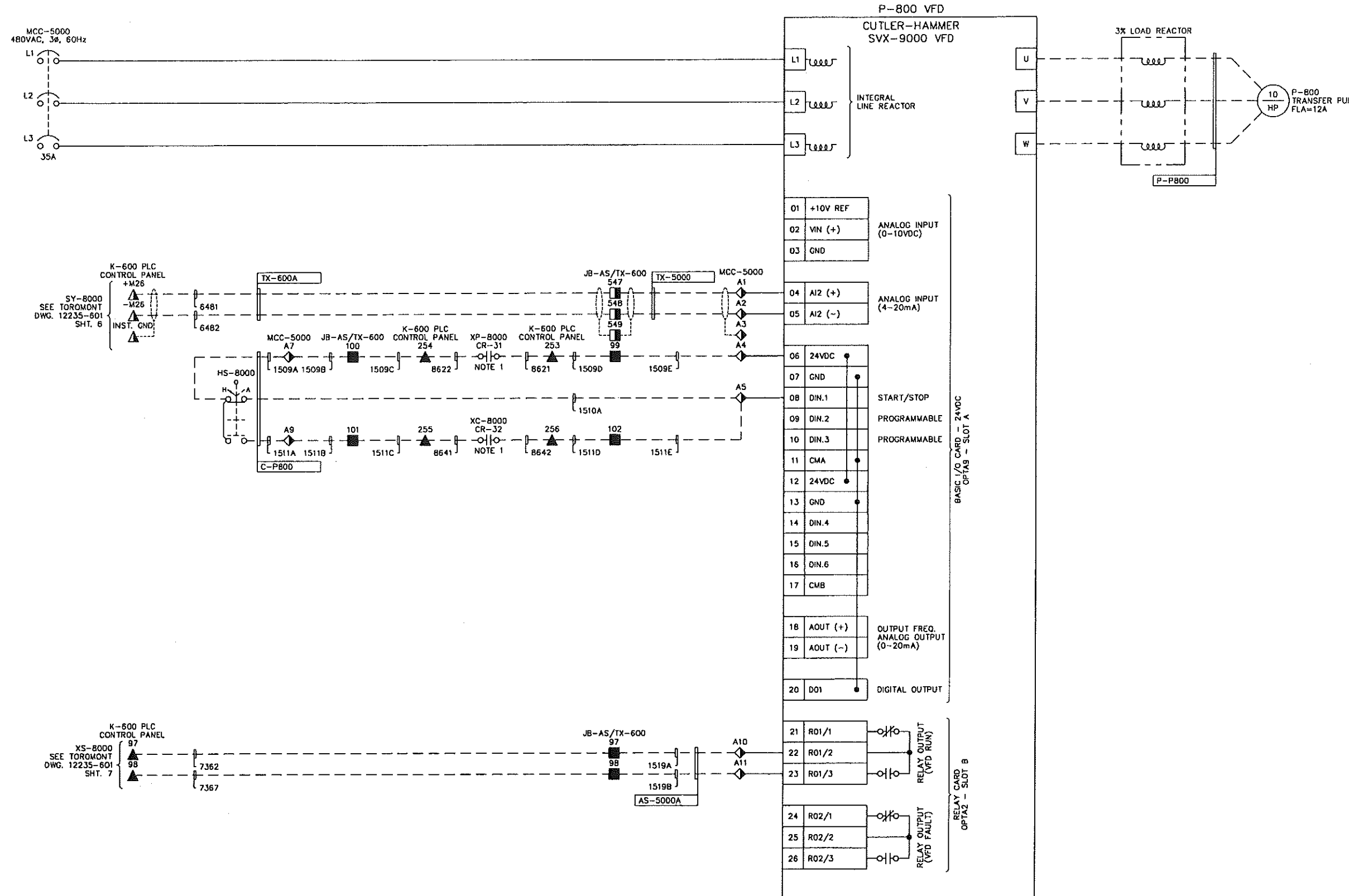
MULTI WELL COMPRESSOR STATION
 LSD: 12-12-65-11 W5M

480VAC SCHEMATICS

SCALE: NTS Dwg. No. D-SWN-263-105 0

Date: 2006.10.20 3:00pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\2-SWN-263-106.DWG By: SW

1501
1502
1503
1504
1505
1506
1507
1508
1509
1510
1511
1512
1513
1514
1515
1516
1517
1518
1519
1520
1521
1522
1523



NOTES:
1. SEE TOROMONT DRAWING 12235-601 SHT. B

NO.	PARAMETER	SETTING
SYSTEM PARAMETERS		
SS.2	APPLICATION SELECTION	STANDARD
BASIC PARAMETERS		
P1.1.1	MINIMUM FREQUENCY	--
P1.1.2	MAXIMUM FREQUENCY	--
P1.1.3	ACCELERATION TIME 1	--
P1.1.4	DECELERATION TIME 1	--
P1.1.6	NOMINAL VOLTAGE OF THE MOTOR	--
P1.1.7	NOMINAL FREQUENCY OF THE MOTOR	--
P1.1.8	NOMINAL SPEED OF THE MOTOR	--
P1.1.9	NOMINAL CURRENT OF THE MOTOR	--
P1.1.10	POWER FACTOR	--
P1.1.14	BASIC FREQUENCY REFERENCE SELECTION	--
INPUT SIGNALS		
P1.2.1	START/STOP LOGIC SELECTION	--
P1.2.2	OIA3 FUNCTION (TERMINAL 10)	--
P1.2.3	REFERENCE OFFSET FOR CURRENT INPUT	--
P1.2.4	REFERENCE SCALING MINIMUM VALUE	--
P1.2.5	REFERENCE SCALING MAXIMUM VALUE	--
OUTPUT SIGNALS		
P1.3.7	DIGITAL OUTPUT FUNCTION	--
P1.3.8	RELAY OUTPUT 1 FUNCTION	--
P1.3.9	RELAY OUTPUT 2 FUNCTION	--
DRIVE CONTROL PARAMETERS		
P1.4.1	ACC./DEC. RAMP 1 SHAPE	--
P1.4.6	START FUNCTION	--
P1.4.7	STOP FUNCTION	--
MOTOR CONTROL PARAMETERS		
P1.6.1	MOTOR CONTROL MODE	--
P1.6.2	V/Hz OPTIMIZATION	--
P1.6.3	V/Hz RATIO SELECTIONS	--
PROTECTIONS		
P1.7.1	RESPONSE TO REFERENCE FAULT	--

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	O	ISSUED FOR CONSTRUCTION	05-10-23	SCB	SP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST

ENERGY TRUST

TRIDYNE PROJECTS

CORPORATION

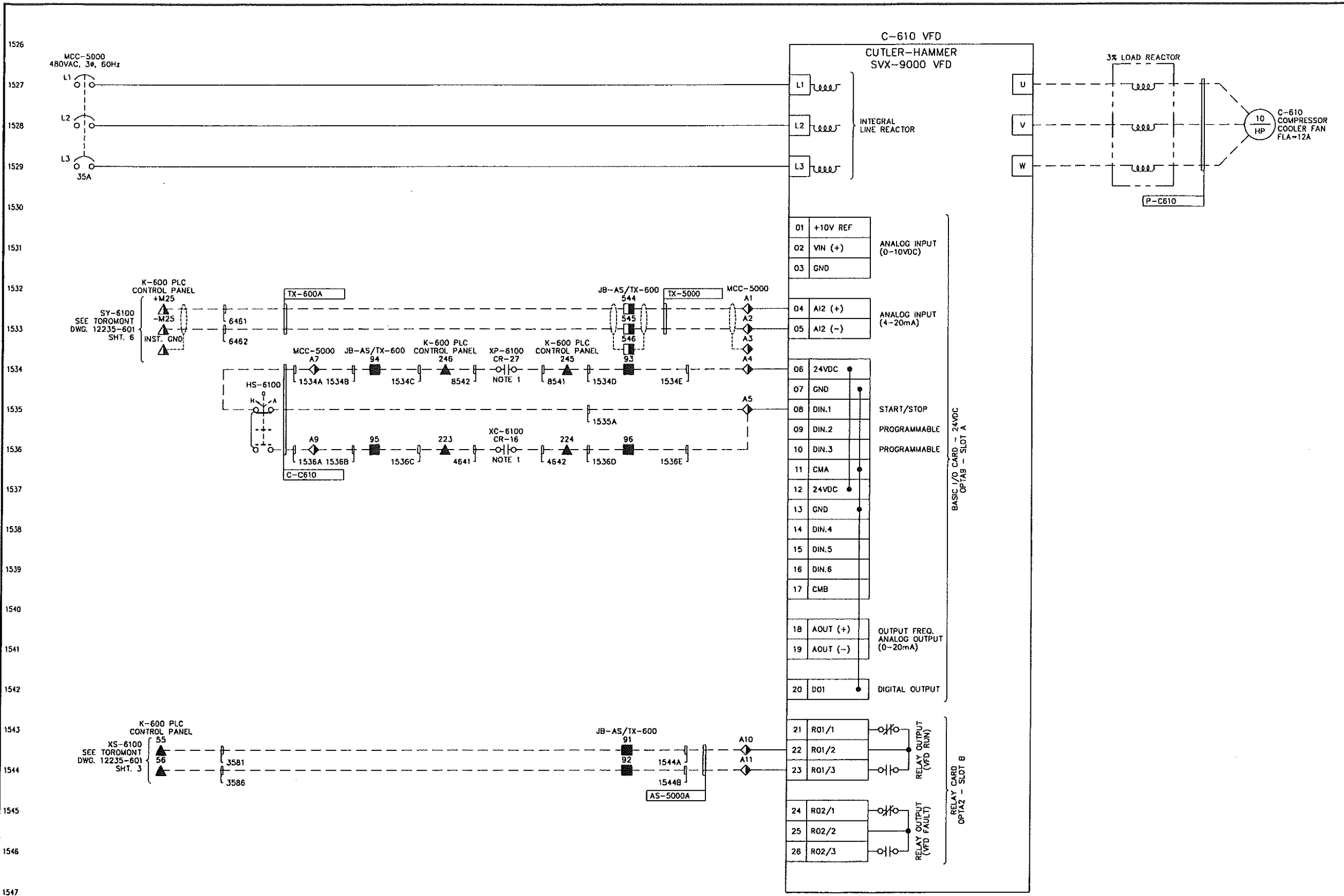
PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M
P-800 TRANSFER PUMP
VFD CONTROL SCHEMATIC

SCALE: NONE DWG No. 0-SWN-263-106 0

Date: 2006.10.20 3:00pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-263-107.DWG By: SW

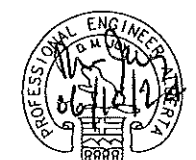


NO.	PARAMETER	SETTING
SYSTEM PARAMETERS		
SS.2	APPLICATION SELECTION	STANDARD
BASIC PARAMETERS		
P1.1.1	MINIMUM FREQUENCY	--
P1.1.2	MAXIMUM FREQUENCY	--
P1.1.3	ACCELERATION TIME 1	--
P1.1.4	DECELERATION TIME 1	--
P1.1.6	NOMINAL VOLTAGE OF THE MOTOR	--
P1.1.7	NOMINAL FREQUENCY OF THE MOTOR	--
P1.1.8	NOMINAL SPEED OF THE MOTOR	--
P1.1.9	NOMINAL CURRENT OF THE MOTOR	--
P1.1.10	POWER FACTOR	--
P1.1.14	BASIC FREQUENCY REFERENCE SELECTION	--
INPUT SIGNALS		
P1.2.1	START/STOP LOGIC SELECTION	--
P1.2.2	DIA3 FUNCTION (TERMINAL 10)	--
P1.2.3	REFERENCE OFFSET FOR CURRENT INPUT	--
P1.2.4	REFERENCE SCALING MINIMUM VALUE	--
P1.2.5	REFERENCE SCALING MAXIMUM VALUE	--
OUTPUT SIGNALS		
P1.3.7	DIGITAL OUTPUT FUNCTION	--
P1.3.8	RELAY OUTPUT 1 FUNCTION	--
P1.3.9	RELAY OUTPUT 2 FUNCTION	--
DRIVE CONTROL PARAMETERS		
P1.4.1	ACC./DEC. RAMP 1 SHAPE	--
P1.4.6	START FUNCTION	--
P1.4.7	STOP FUNCTION	--
MOTOR CONTROL PARAMETERS		
P1.6.1	MOTOR CONTROL MODE	--
P1.6.2	V/Hz OPTIMIZATION	--
P1.6.3	V/Hz RATIO SELECTIONS	--
PROTECTIONS		
P1.7.1	RESPONSE TO REFERENCE FAULT	--

NOTES:
1. SEE TOROMONT DRAWING 12235-601 SHT. 4 AND SHT. 8

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS



PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.


Signature _____

Date _____

PERMIT NUMBER: P 8630

The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	SJP
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ



PENN WEST ENERGY TRUST

TRIDYNE PROJECTS CORPORATION

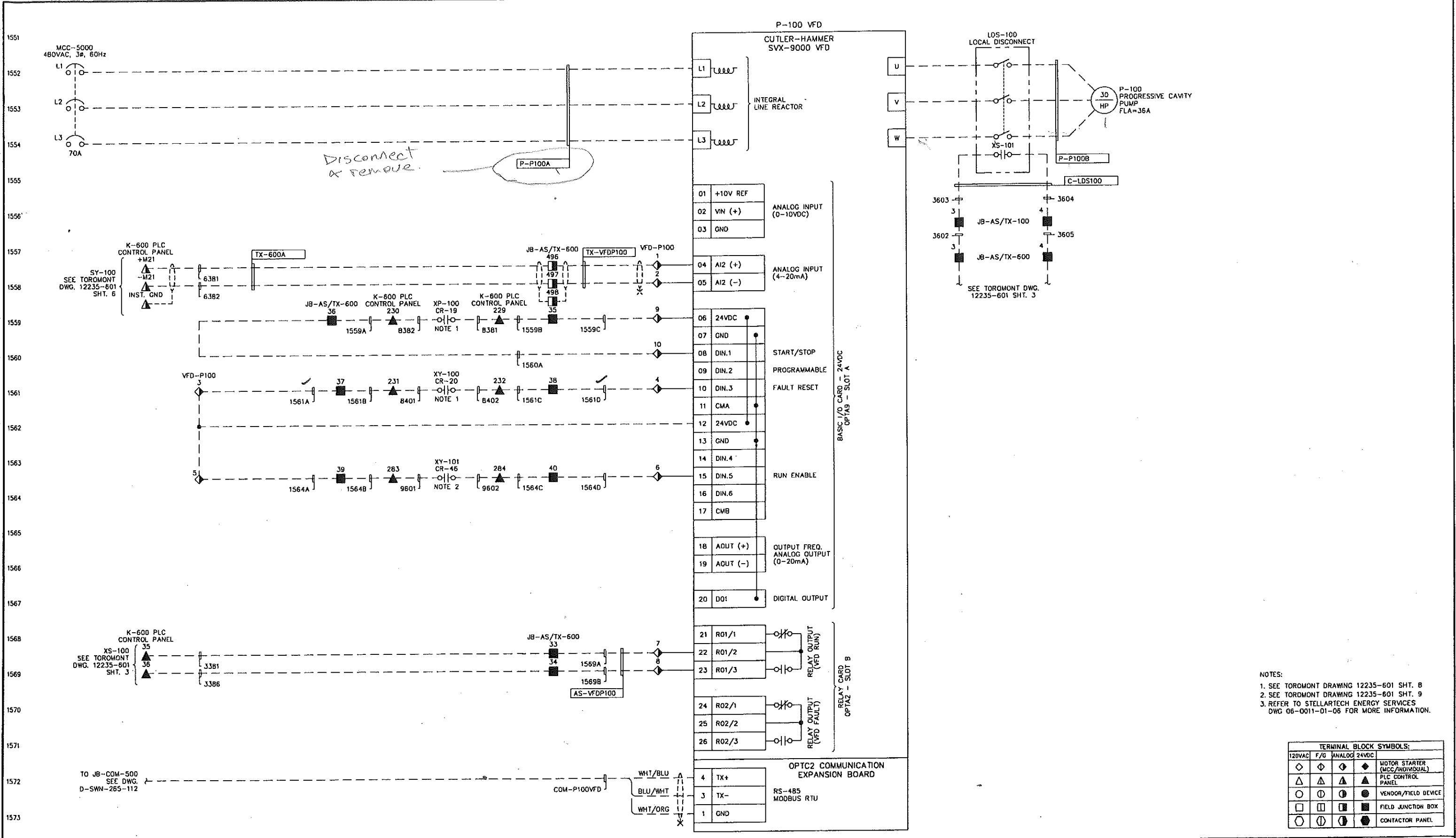
PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
C-610 COOLER FAN
VFD CONTROL SCHEMATIC

SCALE: NONE DWG. No. D-SWN-263-107 0

Date: 2006.10.23 2:09pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-263-108.DWG By: Chuck



NOTES:
 1. SEE TOROMONT DRAWING 12235-601 SHT. 8
 2. SEE TOROMONT DRAWING 12235-601 SHT. 9
 3. REFER TO STELLARTECH ENERGY SERVICES DWG 06-0011-01-06 FOR MORE INFORMATION.

TERMINAL BLOCK SYMBOLS:				
120VAC	F/O	ANALOG	24VDC	
◇	◇	◇	◇	MOTOR STARTER (MCC/INDIVIDUAL)
△	△	△	△	PLC CONTROL PANEL
○	○	○	○	VENDOR/FIELD DEVICE
□	□	□	□	FIELD JUNCTION BOX
○	○	○	○	CONTACTOR PANEL

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
			2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	[Signature]	DMJ
			2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
			2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST ENERGY TRUST

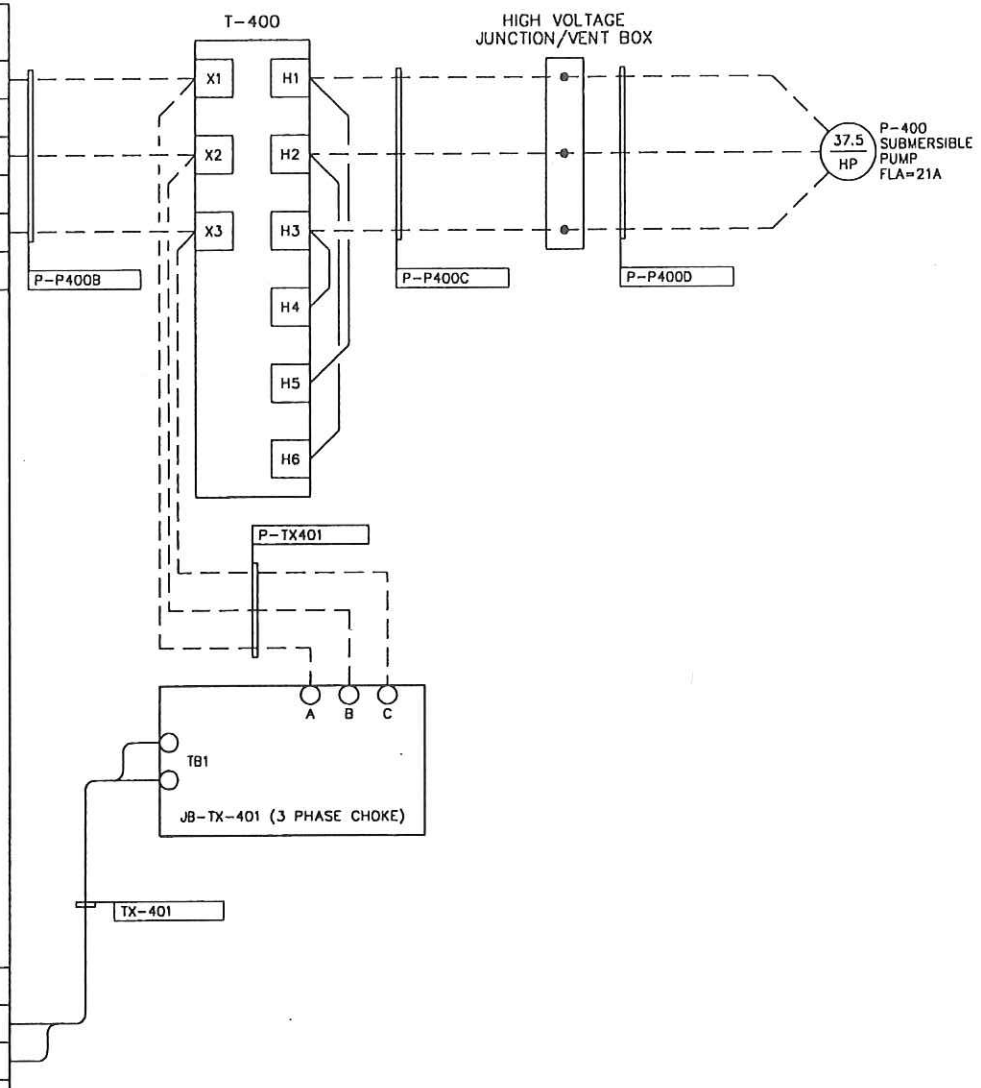
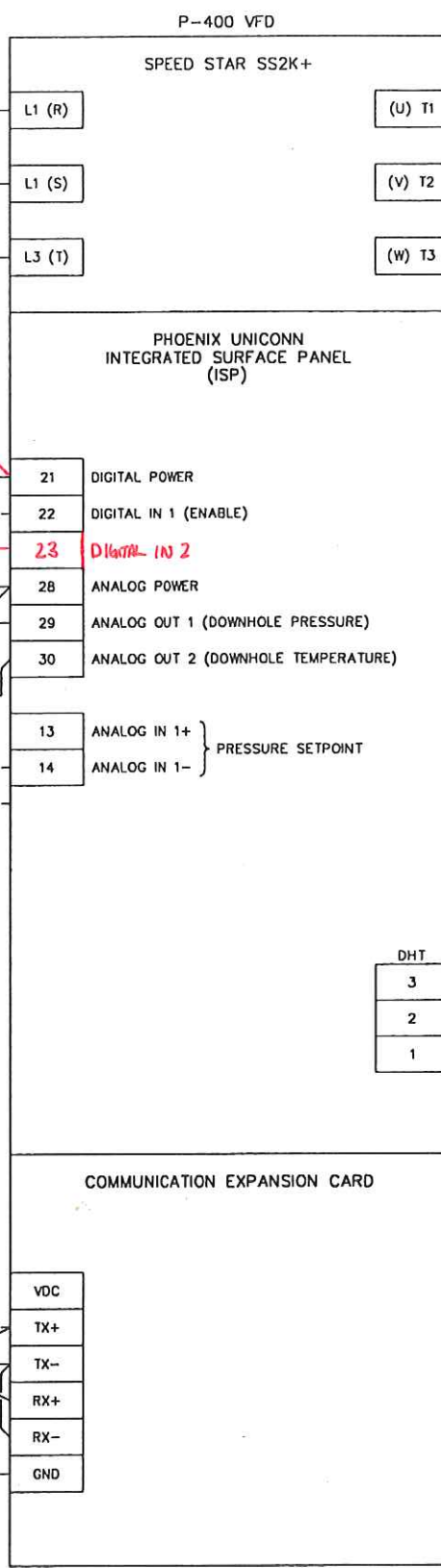
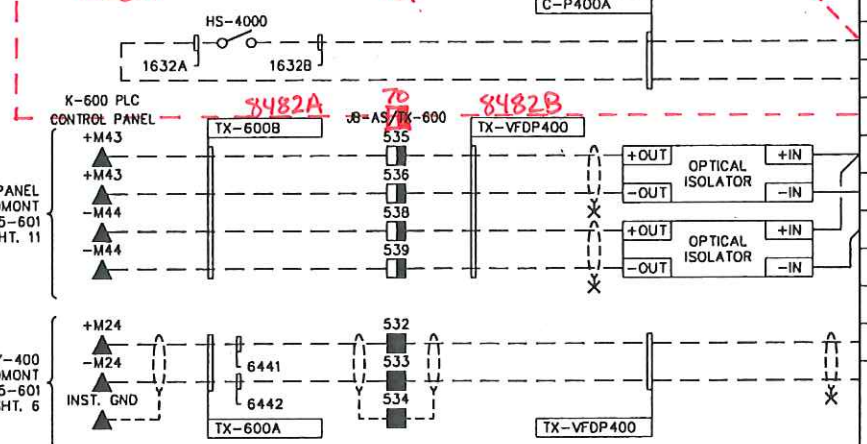
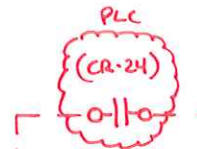
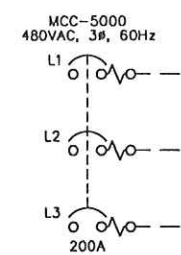
TRIDYNE PROJECTS CORPORATION

PENN WEST ENERGY TRUST
 SOUTH SWAN HILLS - 4 WELL CBM PILOT
 MULTI WELL COMPRESSOR STATION
 LSD: 12-12-65-11 W5M
 P-100 PROGRESSIVE CAVITY PUMP
 VFD CONTROL SCHEMATIC

SCALE: NONE DWG. No. D-SWN-263-108 0

Date: 2006.10.24 12:39pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-263-111.DWG By: SB

1626
1627
1628
1629
1630
1631
1632
1633
1634
1635
1636
1637
1638
1639
1640
1641
1642
1643
1644
1645
1646
1647
1648



TO JB-COM-500
SEE DWG. D-SWN-263-112

TERMINAL BLOCK SYMBOLS:				
120VAC	F/G	ANALOG	24VDC	
◇	◇	◇	◇	MOTOR STARTER (MCC/INDIVIDUAL)
△	△	△	△	PLC CONTROL PANEL
○	○	○	○	VEHICLE/FIELD DEVICE
□	□	□	□	FIELD JUNCTION BOX
○	○	○	○	CONTACTOR PANEL

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SJP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST

ENERGY TRUST

TRIDYNE PROJECTS

CORPORATION

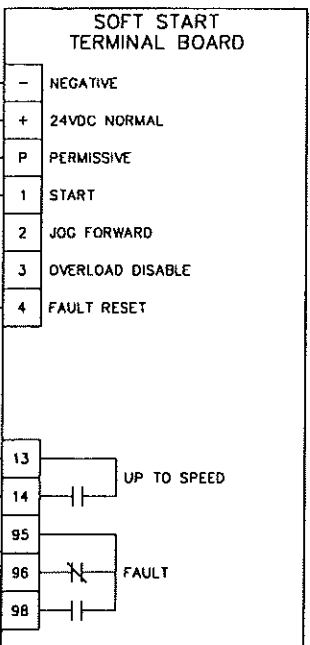
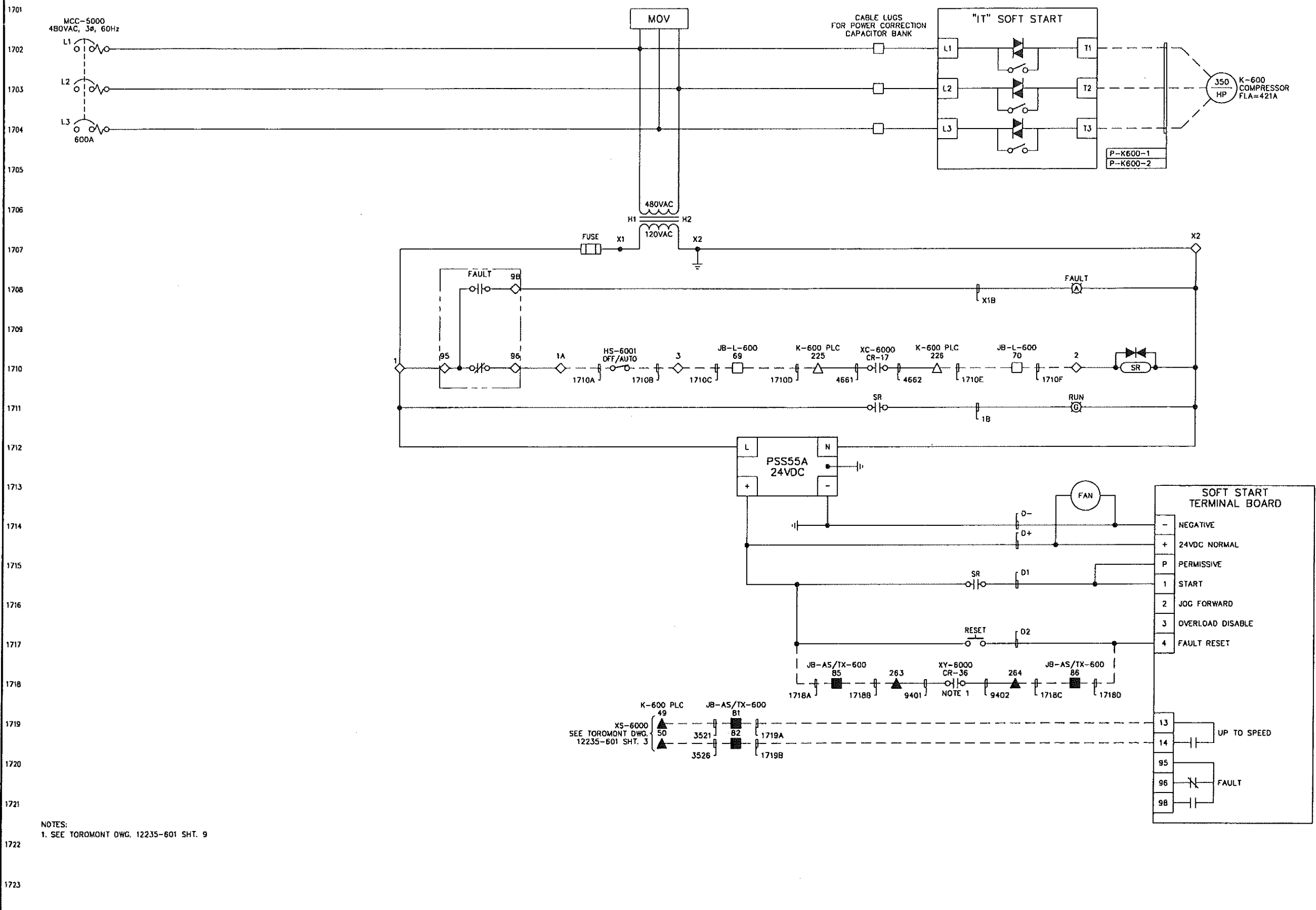
PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M
P-400 VFD CONTROL SCHEMATIC

SCALE: NONE DWG. No. D-SWN-263-111 0

Date: 2006.10.20 3:00pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-263-112.DWG By: SW

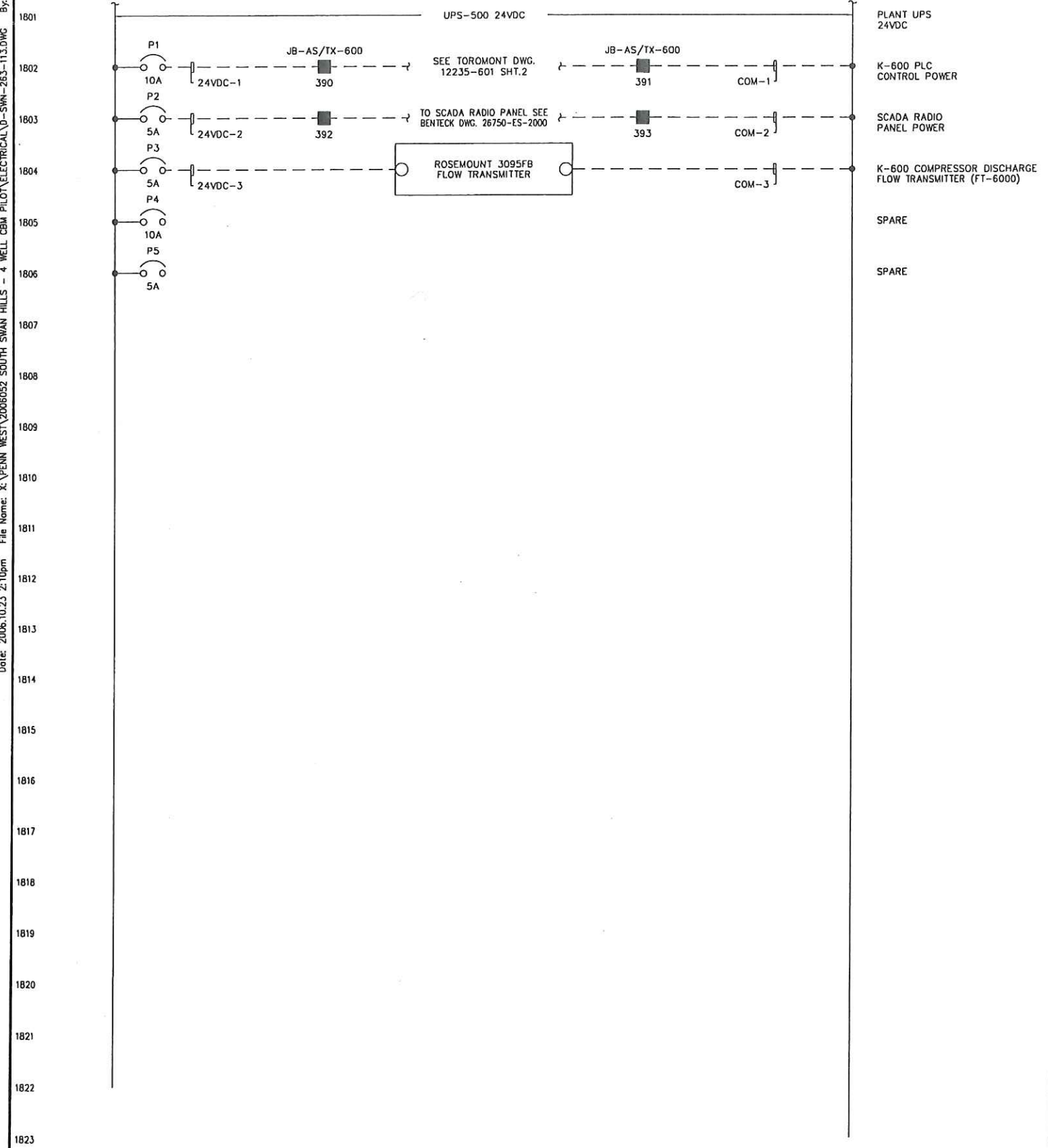


TERMINAL BLOCK SYMBOLS:				
120VAC	F/G	ANALOG	24VDC	
◊	◊	◊	◊	MOTOR STARTER (MCC/INDIVIDUAL)
△	△	△	△	PLC CONTROL PANEL
○	○	○	○	VENDOR/FIELD DEVICE
□	□	□	□	FIELD JUNCTION BOX
○	○	○	○	CONTACTOR PANEL

NOTES:
1. SEE TOROMONT DWG. 12235-601 SHT. 9

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D		PENN WEST ENERGY TRUST SOUTH SWAN HILLS - 4 WELL CBM PILOT MULTI WELL COMPRESSOR STATION LSD: 12-12-65-11 WSM K-600 COMPRESSOR SOFT START SCHEMATIC
		<p>PERMIT TO PRACTICE TRIDYNE PROJECTS CORP. Signature _____ Date _____ PERMIT NUMBER: P 8630 The Association of Professional Engineers, Geologists and Geophysicists of Alberta</p>	2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ			
			2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP			
			2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ		0

Date: 2006.10.23 2:10pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\0-SWN-263-113.DWG By: Chuck



1801
1802
1803
1804
1805
1806
1807
1808
1809
1810
1811
1812
1813
1814
1815
1816
1817
1818
1819
1820
1821
1822
1823

1826
1827
1828
1829
1830
1831
1832
1833
1834
1835
1836
1837
1838
1839
1840
1841
1842
1843
1844
1845
1846
1847
1848

TERMINAL BLOCK SYMBOLS:				
120VAC	F/G	ANALOG	24VDC	
◇	◇	◇	◇	MOTOR STARTER (MCC/INDIVIDUAL)
△	△	△	△	FIELD CONTROL PANEL
○	○	○	○	VENDOR/FIELD DEVICE
□	□	□	□	FIELD JUNCTION BOX
○	○	○	○	CONTACTOR PANEL

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST

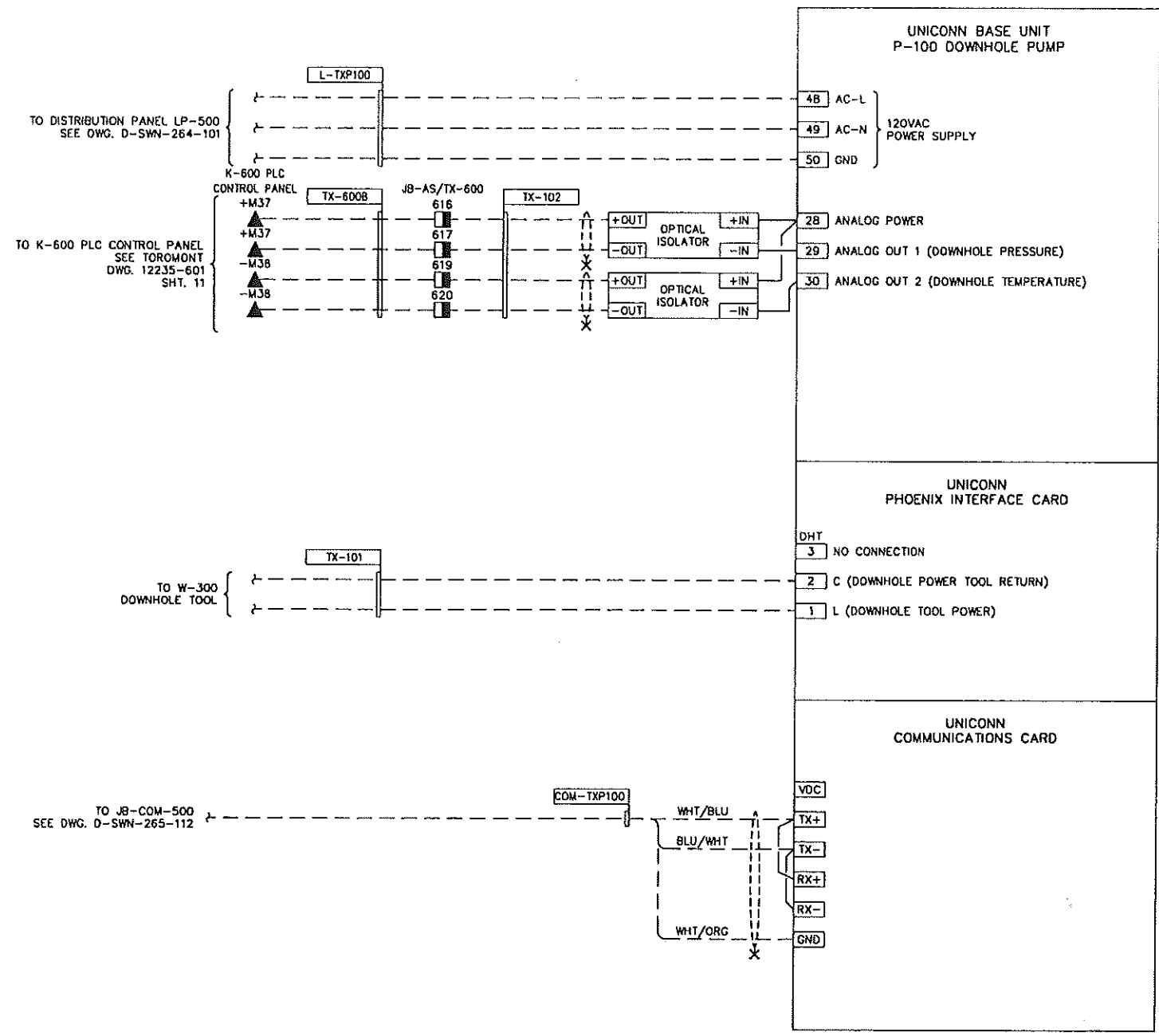
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M

UPS-500 24VDC POWER DISTRIBUTION SCHEMATIC

SCALE: NTS DWG. No. D-SWN-263-113 0

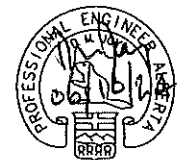
Date: 2006.10.23 4:46pm File Name: X:\PENN WEST\2006052\SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\0-SWN-263-114.DWG By: SB



TERMINAL BLOCK SYMBOLS:				
120VAC	F/C	ANALOG	24VDC	
◇	◇	◇	◇	MOTOR STARTER (MCC/INDIVIDUAL)
△	△	△	△	PLC CONTROL PANEL
○	○	○	○	VENDOR/FIELD DEVICE
□	□	□	□	FIELD JUNCTION BOX
○	○	○	○	CONTACTOR PANEL

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS



PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630

The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	
2006052	A	ISSUED FOR APPROVAL	06-10-17	KD	SJP	

PENN WEST
ENERGY TRUST

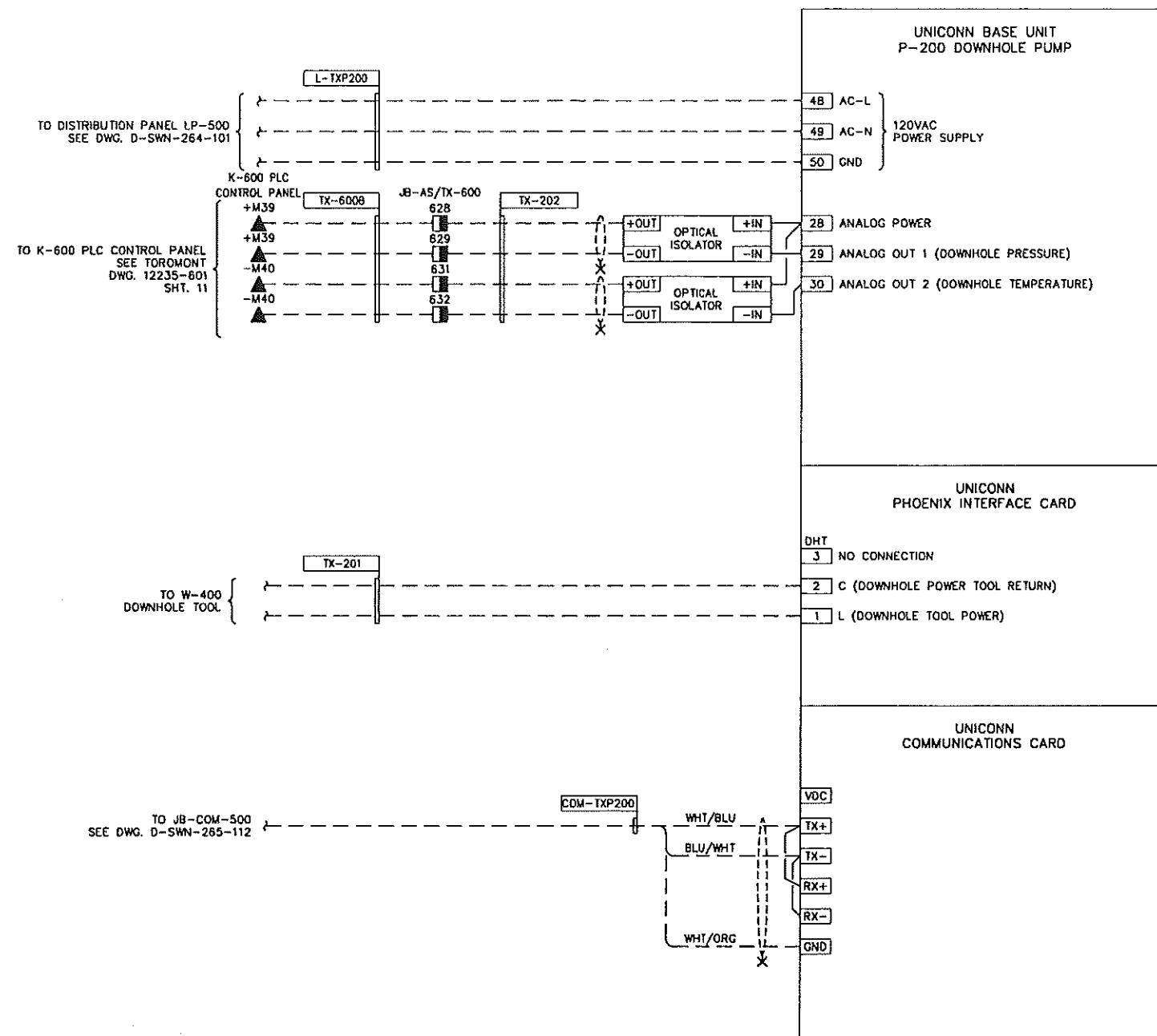
TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST


SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M
JB-TX-P100
WIRING DIAGRAM

SCALE: NONE DWG. No. D-SWN-263-114 0



TERMINAL BLOCK SYMBOLS:				
120VAC	F/O	ANALOG	24VDC	
◇	⊕	⊖	◆	MOTOR STARTER (MCC/INDIVIDUAL)
△	▲	▲	▲	PLC CONTROL PANEL
○	⊙	⊙	⊙	VENDOR/FIELD DEVICE
□	⊞	⊞	⊞	FIELD JUNCTION BOX
○	⊞	⊞	⊞	CONTACTOR PANEL

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
		 <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> PERMIT TO PRACTICE TRIDYNE PROJECTS CORP. Signature _____ Date _____ PERMIT NUMBER: P 8630 The Association of Professional Engineers, Geologists and Geophysicists of Alberta </div>	2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	
			2006052	A	ISSUED FOR APPROVAL	06-10-17	KD	SJP	

PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION


PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT

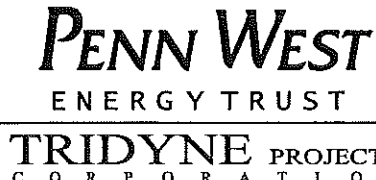
MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M
JB-TX-P200
WIRING DIAGRAM

SCALE: NONE Dwg. No. D-SWN-263-115 0

400A AMP MAIN LUGS				LP-500				120/208V, 3-PHASE, 4-W			
CIRCUIT No.	BKR. SIZE (AMPS)	CONNECTED LOAD (WATTS)			CIRCUIT No.	BKR. SIZE (AMPS)	CONNECTED LOAD (WATTS)				
		ØA	ØB	ØC			ØA	ØB	ØC		
B-500 ELECTRICAL BUILDING INTERIOR LIGHTING	1	15	1072		1440		15	2	1/A BUILDING LIGHTING & RECEPTACLES		
JB-TX-P100 CONTROL PANEL	3	15	240		130		15	4	S-100 SEPARATOR BUILDING INTERIOR LIGHTING		
K-600 COMPRESSOR BUILDING EXTERIOR LIGHTING	5	15		180		130	15	6	S-200 SEPARATOR BUILDING INTERIOR LIGHTING		
SPARE	7	15	-		130		15	8	S-300 SEPARATOR BUILDING INTERIOR LIGHTING		
B-800 TRANSFER PUMP BUILDING INTERIOR LIGHTING	9	15	520		130		15	10	S-400 SEPARATOR BUILDING INTERIOR LIGHTING		
20A 24VDC UPS	11	15	1320			1050	15	12	K-600 COMPRESSOR BUILDING INTERIOR LIGHTING		
UH-300 S-300 SEPARATOR BUILDING HEATER	13		1667		1667			14	UH-100 S-100 SEPARATOR BUILDING HEATER		
	15	3P		1667	1667		3P	16			
	17	20		1667		1667	20	18			
UH-400 S-400 SEPARATOR BUILDING HEATER	19		1667		1667			20	UH-200 S-200 SEPARATOR BUILDING HEATER		
	21	3P		1667	1667		3P	22			
	23	20		1667		1667	20	24			
	25	15	-				15	26			
1/A COMPRESSOR DRAIN VALVE	25	15	-				15	26	1/A COMPRESSOR CONTROL PANEL		
B-605 EXHAUST FAN K-600 COMPRESSOR BUILDING	27	15	190		400		15	28	CP-5000 RECEPTACLE & LIGHT		
B-505 EXHAUST FAN B-500 ELECTRICAL BUILDING	29	15	190			1440	15	30	B-500 RECEPTACLE		
B-506 EXHAUST FAN INSTRUMENT AIR COMPRESSOR BUILDING	31	15	190		1440		15	32	B-500 RECEPTACLE		
B-805 EXHAUST FAN B-800 TRANSFER PUMP BUILDING	33	15	190		360		15	34	SEPARATOR BUILDINGS S-100/200/300/400 EXTERIOR LIGHTING		
B-500 RECEPTACLE	35	15	1440				15	36	SPARE		
JB-TX-P200 CONTROL POWER	37	15	240		1056		30	38	EHT-1001		
B-800 TRANSFER PUMP BUILDING EXTERIOR LIGHTING	39	15	400		1416		30	40	EHT-1002 / EHT-1002-1		
SPARE	41	15	-			1056	30	42	EHT-1004		
SPARE	43	15	-		1416		30	44	EHT-1005 / EHT-1005-1		
B-500 ELECTRICAL BUILDING EXTERIOR LIGHTING	45	15	768			1056	30	46	EHT-1007		
SPARE	47	15	-			1416	30	48	EHT-1008 / EHT-1008-1		
SPARE	49	15	-		1056		30	50	EHT-1010		
SPARE	51	15	-			1416	30	52	EHT-1011 / EHT-1011-1		
SPARE	53	15	-				1373	2P	EHT-1014A		
SPARE	55	15	-		1373		30	56			
SPARE	57	15	-			1908	30	58	EHT-1014B		
SPARE	59	15	-				900	30	60	EHT-1014C	
SPARE	61	15	-		1932		30	62	EHT-3001A		
SPARE	63	15	-			1884	30	64	EHT-3001B		
SPARE	65	15	-				1992	30	66	EHT-3001C	
SPARE	67	15	-		960		30	68	EHT-1013C		
EHT-3007	69	30	1994		1668		30	70	EHT-1013B		
EHT-3008	71	30	732			1884	30	72	EHT-1013A		
LOCATED IN B-500 ELECTRICAL BUILDING				SOLID NEUTRAL				18973 21338 21771 # SUB-TOTAL			
FED FROM T-500								62082 TOTAL			

NOTES:
 1. HEAT TRACE BREAKERS SHALL BE RATED 30MA TRIP.
 2. * = GFI BREAKER.

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
		 <p>PERMIT TO PRACTICE TRIDYNE PROJECTS CORP. Signature _____ Date _____ PERMIT NUMBER: P 8630 The Association of Professional Engineers, Geologists and Geophysicists of Alberta</p>	2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	
			2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
			2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ



PENN WEST
ENERGY TRUST


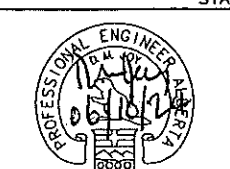
TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
 SOUTH SWAN HILLS - 4 WELL CBM PILOT
 MULTI WELL COMPRESSOR STATION
 LSD: 12-12-65-11 WSM
 LP-500 120/208VAC DISTRIBUTION PANEL

SCALE: NTS DWG. No. D-SWN-264-101 0

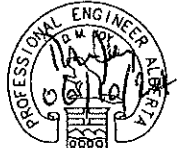

Date: 2006.10.20 3:00pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-264-102.DWG By: SW

CONDUIT OR CABLE TAG	APPLICATION	LOAD	VOLTS	FROM	VIA	TO	CONDUIT/CABLE		CONDUCTOR					REMARKS
							SIZE/TYPE	EST. LENGTH (METRES)	SIZE (AWG)	QUANTITY	INSUL.	VOLTS	SPARE	
MF-1	MCC-5000 POWER	-	480VAC	T1 UTILITY TRANSFORMER SECONDARY	U/G	MCC-5000	TECK 90	-	500MCM	3C	XLPE	1000	0	-
MF-2	MCC-5000 POWER	-	480VAC	T1 UTILITY TRANSFORMER SECONDARY	U/G	MCC-5000	TECK 90	-	500MCM	3C	XLPE	1000	0	-
MF-3	MCC-5000 POWER	-	480VAC	T1 UTILITY TRANSFORMER SECONDARY	U/G	MCC-5000	TECK 90	-	500MCM	3C	XLPE	1000	0	-
NGR-1	GROUND RESISTOR	-	480VAC	T-1 UTILITY TRANSFORMER SECONDARY	U/G	NGR	TECK 90	-	#8	1C	XLPE	1000	0	GREY JACKET
NGR-2	NGR MONITORING RESISTOR	-	480VAC	NGR	WIREWAY	NGR MONITORING RESISTOR	TECK 90	WIREWAY	#14	1C	XLPE	1000	0	MONITORING RESISTOR LOCATED IN MCC-5000
NGR-3	GROUND FAULT CURRENT SENSING	-	480VAC	NGR CURRENT TRANSFORMER	WIREWAY	SE-325 MONITOR	TECK 90	WIREWAY	#16	1PR	XLPE	600	0	SE-325 LOCATED IN MCC-5000
P-T500	T-500 DISTRIBUTION TRANSFORMER POWER	-	480VAC	MCC-5000	TRAY	T-500	TECK 90	-	2/0	3C	XLPE	1000	0	-
P-LP500	LP-500 DISTRIBUTION PANEL POWER	-	480VAC	T-500	TRAY	LP-500	TECK 90	-	500MCM	4C	XLPE	1000	0	-
P-K500A	K-500A INSTRUMENT AIR COMPRESSOR POWER	-	480VAC	MCC-5000	TRAY	K-500A INSTRUMENT AIR COMPRESSOR MOTOR	TECK 90	-	#10	3C	XLPE	600	0	-
P-K500B	K-500B INSTRUMENT AIR COMPRESSOR POWER	-	480VAC	MCC-5000	TRAY	K-500B INSTRUMENT AIR COMPRESSOR MOTOR	TECK 90	-	#10	3C	XLPE	600	0	-
P-UH550	UH-550 INSTRUMENT AIR COMPRESSOR BUILDING HEATER POWER	-	480VAC	MCC-5000	TRAY	UH-550 INSTRUMENT AIR COMPRESSOR BUILDING HEATER	TECK 90	-	#12	3C	XLPE	1000	0	-
P-UH560	UH-560 INSTRUMENT AIR COMPRESSOR BUILDING HEATER POWER	-	480VAC	MCC-5000	TRAY	UH-560 INSTRUMENT AIR COMPRESSOR BUILDING HEATER	TECK 90	-	#12	3C	XLPE	1000	0	-
P-K600-1	K-600 COMPRESSOR POWER	-	480VAC	MCC-5000	TRAY	K-600 COMPRESSOR	TECK 90	-	500MCM	3C	XLPE	600	0	-
P-K600-2	K-600 COMPRESSOR POWER	-	480VAC	MCC-5000	TRAY	K-600 COMPRESSOR	TECK 90	-	500MCM	3C	XLPE	600	0	-
C-K600	K-600 COMPRESSOR CONTROL	-	24VDC	MCC-5000	TRAY	HS-6000	TECK 90	-	#14	2C	XLPE	600	0	-
PC-P601	P-601 GLYCOL CIRCULATION PUMP POWER AND CONTROL	-	480VAC	MCC-5000	TRAY	P-601 GLYCOL CIRCULATION PUMP JUNCTION BOX	TECK 90	-	#12/#14	3C/3C	XLPE	600	0	-
P-P601	P-601 GLYCOL CIRCULATION PUMP POWER	-	480VAC	P-601 GLYCOL CIRCULATION PUMP JUNCTION BOX	TRAY	P-601 GLYCOL CIRCULATION PUMP	TECK 90	-	#14	3C	XLPE	600	0	-
C-P601	P-601 GLYCOL CIRCULATION PUMP CONTROL	-	120VAC	P-601 GLYCOL CIRCULATION PUMP JUNCTION BOX	TRAY	P-601 GLYCOL CIRCULATION PUMP	TECK 90	-	#14	3C	XLPE	600	0	-
PC-P602	P-602 PRE-LUBE PUMP POWER AND CONTROL	-	480VAC	MCC-5000	TRAY	P-602 PRE-LUBE PUMP JUNCTION BOX	TECK 90	-	#12/#14	3C/3C	XLPE	600	0	-
P-P602	P-602 PRE-LUBE PUMP POWER	-	480VAC	P-602 PRE-LUBE PUMP JUNCTION BOX	TRAY	P-602 PRE-LUBE PUMP	TECK 90	-	#12	3C	XLPE	600	0	-
C-P602	P-602 PRE-LUBE PUMP CONTROL	-	120VAC	P-602 PRE-LUBE PUMP JUNCTION BOX	TRAY	P-602 PRE-LUBE PUMP	TECK 90	-	#14	3C	XLPE	600	0	-
P-C610	C-610 COOLER FAN POWER	-	480VAC	MCC-5000	TRAY	C-610 COMPRESSOR COOLER FAN	TECK 90	-	#12	3C	XLPE	1000	0	-
C-C610	C-610 COOLER FAN CONTROL	-	24VDC	MCC-5000	TRAY	HS-6100	TECK 90	-	#14	3C	XLPE	600	0	-
P-UH650	UH-650 COMPRESSOR BUILDING HEATER POWER	-	480VAC	MCC-5000	TRAY	UH-650 K-600 COMPRESSOR BUILDING HEATER	TECK 90	-	#10	3C	XLPE	1000	0	-
P-UH660	UH-660 COMPRESSOR BUILDING HEATER POWER	-	480VAC	MCC-5000	TRAY	UH-660 K-600 COMPRESSOR BUILDING HEATER	TECK 90	-	#10	3C	XLPE	1000	0	-
P-HRT705	HRT-705 TANK HEATER POWER	-	480VAC	MCC-5000	TRAY	HRT-705 T-700 TANK HEATER 3Ø DISCONNECT	TECK 90	-	#8	3C	XLPE	1000	0	-
P-HRT705-1	HRT-705 TANK HEATER POWER	-	480VAC	HRT-705 3Ø DISCONNECT	TRAY	HRT-705 T-700 TANK HEATER	TECK 90	-	#8	3C	XLPE	1000	0	-
P-P800	P-800 TRANSFER PUMP POWER	-	480VAC	MCC-5000	TRAY	P-800 TRANSFER PUMP	TECK 90	-	#12	3C	XLPE	1000	0	-
C-P800	P-800 TRANSFER PUMP CONTROL	-	24VDC	MCC-5000	TRAY	HS-8000	TECK 90	-	#14	3C	XLPE	600	0	-
P-UH850	UH-850 B-800 ELECTRICAL BUILDING HEATER POWER	-	480VAC	MCC-5000	TRAY	UH-850 B-800 BUILDING HEATER	TECK 90	-	#12	3C	XLPE	1000	0	-
P-P100A	P-100 PROGRESSIVE CAVITY PUMP #1 VFD POWER	-	480VAC	MCC-5000	TRAY	P-100 PROGRESSIVE CAVITY PUMP #1 VFD	TECK 90	-	#6	3C	XLPE	1000	0	-
P-P100B	P-100 PROGRESSIVE CAVITY PUMP #1 POWER	-	480VAC	P-100 PROGRESSIVE CAVITY PUMP #1 VFD	TRAY	P-100 PROGRESSIVE CAVITY PUMP #1 3Ø DISCONNECT	TECK 90	-	#6	3C	XLPE	1000	0	-
P-P100C	P-100 PUMP POWER	-	480VAC	P-100 PUMP 3Ø DISCONNECT	TRAY	P-100 PROGRESSIVE CAVITY PUMP	TECK 90	-	#6	3C	XLPE	1000	0	-
P-P200A	P-200 PROGRESSIVE CAVITY PUMP #2 VFD POWER	-	480VAC	MCC-5000	TRAY	P-200 PROGRESSIVE CAVITY PUMP #2 VFD	TECK 90	-	#6	3C	XLPE	1000	0	-
P-P200B	P-200 PROGRESSIVE CAVITY PUMP #2 POWER	-	480VAC	P-200 PROGRESSIVE CAVITY PUMP #2 VFD	TRAY	P-200 PROGRESSIVE CAVITY PUMP #2 3Ø DISCONNECT	TECK 90	-	#6	3C	XLPE	1000	0	-
P-P200C	P-200 PUMP POWER	-	480VAC	P-200 PUMP 3Ø DISCONNECT	TRAY	P-200 PROGRESSIVE CAVITY PUMP	TECK 90	-	#6	3C	XLPE	1000	0	-
TX-301	P-300 DOWNHOLE INSTRUMENTATION SIGNAL	-	110VDC	JB-TX-301	CONDUIT	P-300 VFD ISP	-	-	#14	1PR	-	14KV	1PR	CABLE SUPPLIED BY OWNER, 20' LONG
C-P300	P-300 SUBMERSIBLE PUMP #1 CONTROL	-	24VDC	P-300 VFD	TRAY	HS-3000	TECK 90	-	#14	2C	XLPE	600	0	-
P-P300A	P-300 SUBMERSIBLE PUMP #1 VFD POWER	-	480VAC	MCC-5000	TRAY	P-300 VFD	TECK 90	-	#3	3C	XLPE	1000	0	-
P-P300B	T-300 P-300 STEP-UP TRANSFORMER	-	480VAC	P-300 VFD	CONDUIT	T-300 P-300 STEP-UP TRANSFORMER	TECK 90	-	#13	3C	RW90	1000	0	-
P-P300C	P-300 HIGH VOLTAGE VENT BOX	-	822VAC	T-300 P-300 STEP-UP TRANSFORMER	TRAY	P-300 HIGH VOLTAGE VENT BOX	TECK 90	-	#8	3C	XLPE	5000	0	-
P-P300D	P-300 SUBMERSIBLE PUMP #1 POWER	-	822VAC	P-300 HIGH VOLTAGE VENT BOX	TRAY	P-300 SUBMERSIBLE PUMP #1	TECK 90	-	-	3C	XLPE	5000	0	CABLE SUPPLIED BY OWNER
P-TX301	P-300 DOWNHOLE INSTRUMENTATION SIGNAL	-	822VAC	T-300 P-300 STEP-UP TRANSFORMER	CONDUIT	JB-TX-301	FLEX	-	#18	3C	-	15KV	0	CABLE SUPPLIED BY OWNER
P-P300B-1	SPARE	-	-	P-300 VFD	TRAY	T-300 P-300 STEP-UP TRANSFORMER	TECK 90	-	#6	2C	XLPE	1000V	2	-

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS		PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D	 PENN WEST ENERGY TRUST SOUTH SWAN HILLS - 4 WELL CBM PILOT
		 PERMIT TO PRACTICE TRIDYNE PROJECTS CORP. Signature _____ Date _____ PERMIT NUMBER: P 8630 The Association of Professional Engineers, Geologists and Geophysicists of Alberta		2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SP	DMJ	
				2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP		
				2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ	

Date: 2006.10.20 3:00pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\0-SWN-264-103.DWG By: SW

CONDUIT OR CABLE TAG	APPLICATION	LOAD	VOLTS	FROM	VIA	TO	CONDUIT/CABLE		CONDUCTOR					REMARKS
							SIZE/TYPE	EST. LENGTH (METRES)	SIZE (AWG)	QUANTITY	INSUL.	VOLTS	SPARE	
P-P400A	P-400 SUBMERSIBLE PUMP #2 VFD POWER	-	480VAC	MCC-5000	TRAY	P-400 VFD	TECK 90	-	#3	3C	XLPE	1000	0	-
P-P400B	T-400 P-400 STEP-UP TRANSFORMER	-	480VAC	P-400 VFD	CONDUIT	T-400 P-400 STEP-UP TRANSFORMER	1-1/4"	-	#3/#6	3C/1C	RW90	1000	0/0	-
P-P400C	P-400 HIGH VOLTAGE VENT BOX	-	822VAC	T-400 P-400 STEP-UP TRANSFORMER	TRAY	P-400 HIGH VOLTAGE VENT BOX	TECK 90	-	#8	3C	XLPE	5000	0	-
P-P400D	P-400 SUBMERSIBLE PUMP #2 POWER	-	822VAC	P-400 HIGH VOLTAGE VENT BOX	TRAY	P-400 SUBMERSIBLE PUMP #2	TECK 90	-	-	3C	XLPE	5000	0	CABLE SUPPLIED BY OWNER
P-TX401	P-400 DOWNHOLE INSTRUMENTATION SIGNAL	-	822VAC	T-400 P-400 STEP-UP TRANSFORMER	CONDUIT	JB-TX-401	-	-	#18	3C	-	15kV	0	CABLE SUPPLIED BY OWNER
TX-401	P-400 DOWNHOLE INSTRUMENTATION SIGNAL	-	110VDC	JB-TX-401	CONDUIT	P-400 VFD ISP	-	-	#20	2PR	-	14kV	1PR	CABLE SUPPLIED BY OWNER, 20' LONG
C-P400	P-400 SUBMERSIBLE PUMP #2 CONTROL	-	24VDC	P-400 VFD	TRAY	HS-4000	TECK 90	-	#14	2C	XLPE	600	0	-
P-P400B1	SPARE	-	-	P-400 VFD	TRAY	T-400 P-400 STEP-UP TRANSFORMER	TECK 90	-	#6	2C	XLPE	1000	0	-
L-100	S-100 SEPARATOR BUILDING EXTERIOR LIGHTING	-	120VAC	LCP-500 CONTACTOR PANEL	TRAY	JB-L-100	TECK 90	-	#12	6C	XLPE	600	4C	-
L-101	S-100 SEPARATOR BUILDING 120/208VAC POWER	-	208VAC	LP-500 LIGHTING PANEL	TRAY	JB-L-100	TECK 90	-	#10	12C	XLPE	600	7C	-
L-200	S-200 SEPARATOR BUILDING EXTERIOR LIGHTING	-	120VAC	LCP-500 CONTACTOR PANEL	TRAY	JB-L-200	TECK 90	-	#12	6C	XLPE	600	4C	-
L-201	S-200 SEPARATOR BUILDING 120/208VAC POWER	-	208VAC	LP-500 LIGHTING PANEL	TRAY	JB-L-200	TECK 90	-	#10	12C	XLPE	600	5C	-
L-300	S-300 SEPARATOR BUILDING EXTERIOR LIGHTING	-	120VAC	LCP-500 CONTACTOR PANEL	TRAY	JB-L-300	TECK 90	-	#12	6C	XLPE	600	4C	-
L-301	S-300 SEPARATOR BUILDING 120/208VAC POWER	-	208VAC	LP-500 LIGHTING PANEL	TRAY	JB-L-300	TECK 90	-	#10	12C	XLPE	600	5C	-
L-400	S-400 SEPARATOR BUILDING EXTERIOR LIGHTING	-	120VAC	LCP-500 CONTACTOR PANEL	TRAY	JB-L-400	TECK 90	-	#12	6C	XLPE	600	4C	-
L-401	S-400 SEPARATOR BUILDING 120/208VAC POWER	-	208VAC	LP-500 LIGHTING PANEL	TRAY	JB-L-400	TECK 90	-	#10	12C	XLPE	600	5C	-
L-501	INSTRUMENT AIR COMPRESSOR 120VAC POWER	-	120VAC	LP-500	CONDUIT	INSTRUMENT AIR COMPRESSOR DRYER PANEL & SOLENOID	3/4" RGSC	-	#14	4C	RW90	600	0	-
L-600	K-600 COMPRESSOR BUILDING EXTERIOR LIGHTING & EXHAUST FAN	-	120VAC	LCP-500 CONTACTOR PANEL	TRAY	JB-L-600	TECK 90	-	#12	20C	XLPE	600	7C	-
L-601	K-600 COMPRESSOR BUILDING INTERIOR LIGHTING	-	120VAC	LP-500 LIGHTING PANEL	TRAY	JB-L-600	TECK 90	-	#12	8C	XLPE	600	6C	-
C-5000	MCC-5000 120VAC MOTOR CONTROL	-	120VAC	MCC-5000	TRAY	JB-L-600	TECK 90	-	#14	30C	XLPE	600	10C	-
C-600	120VAC MOTOR CONTROL	-	120VAC	JB-L-600	CONDUIT	K-600 COMPRESSOR PLC CONTROL PANEL	RGSC TECK 90	-	#14	30C	RW90	600	9C	-
L-800	B-800 TRANSFER PUMP BUILDING EXTERIOR LIGHTS	-	120VAC	LCP-500 CONTACTOR PANEL	TRAY	JB-L-800	TECK 90	-	#12	12C	XLPE	600	5C	-
L-801	P-800 TRANSFER PUMP BUILDING 120/208VAC POWER	-	208VAC	LP-500 LIGHTING PANEL	TRAY	JB-L-800	TECK 90	-	#10	12C	XLPE	600	10C	-
L-500	AC CONTACTOR CONTROLLED LOADS	-	120VAC	LP-500 LIGHTING PANEL	CONDUIT	LCP-500 CONTACTOR PANEL	1 1/4" RGSC	-	#12	22C	XLPE	600	6C	INSTALL WIRE NUT ON EACH END OF SPARE CONECTORS
L-TXP100	P-100 DOWNHOLE INSTRUMENTATION CONTROLLER POWER	-	120VAC	LP-500 LIGHTING PANEL	CONDUIT	JB-TX-P100	3/4" RGSC	-	#12	2C	PW90	600	0	-
L-TXP200	P-200 DOWNHOLE INSTRUMENTATION CONTROLLER POWER	-	120VAC	LP-500 LIGHTING PANEL	CONDUIT	JB-TX-P200	3/4" RGSC	-	#12	2C	PW90	600	0	-
L-EHT1001	EHT-1001 HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1001 POWER KIT (PIPERACK)	TECK 90	-	#8	2C	XLPE	600	0	-
L-EHT1002	EHT-1002 HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1002 POWER KIT (S-100 SEPARATOR BLDG.)	TECK 90	-	#6	2C	XLPE	600	0	-
L-EHT1004	EHT-1004 HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1004 POWER KIT (PIPERACK)	TECK 90	-	#8	2C	XLPE	600	0	-
L-EHT1005	EHT-1005 HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1005 POWER KIT (S-200 SEPARATOR BLDG.)	TECK 90	-	#6	2C	XLPE	600	0	-
L-EHT1007	EHT-1007 HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1007 POWER KIT (PIPERACK)	TECK 90	-	#8	2C	XLPE	600	0	-
L-EHT1008	EHT-1008 HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1008 POWER KIT (S-300 SEPARATOR BLDG.)	TECK 90	-	#8	2C	XLPE	600	0	-
L-EHT1010	EHT-1010 HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1010 POWER KIT (PIPERACK)	TECK 90	-	#10	2C	XLPE	600	0	-
L-EHT1011	EHT-1011 HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1011 POWER KIT (S-400 SEPARATOR BLDG.)	TECK 90	-	#8	2C	XLPE	600	0	-
L-EHT1014A	EHT-1014A HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1014A POWER KIT (K-600 COMPRESSOR BLDG.)	TECK 90	-	#8	2C	XLPE	600	0	-
L-EHT1014B	EHT-1014B HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1014B POWER KIT (PIPERACK PS-27)	TECK 90	-	#6	2C	XLPE	600	0	-
L-EHT1014C	EHT-1014C HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1014C POWER KIT (PIPERACK PS-23)	TECK 90	-	#6	2C	XLPE	600	0	-
L-EHT1013A	EHT-1013A HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1013A POWER KIT (K-600 COMPRESSOR BLDG.)	TECK 90	-	#8	2C	XLPE	600	0	-
L-EHT1013B	EHT-1013B HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1013B POWER KIT (PIPERACK PS-38)	TECK 90	-	#8	2C	XLPE	600	0	-
L-EHT1013C	EHT-1013C HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-1013C POWER KIT (PIPERACK PS-46)	TECK 90	-	#8	2C	XLPE	600	0	-
L-EHT3001A	EHT-3001A HEAT TRACE POWER	-	208VAC	LP-500 LIGHTING PANEL	TRAY	EHT-3001A POWER KIT (K-600 COMPRESSOR BLDG.)	TECK 90	-	#10	2C	XLPE	600	0	-
L-EHT3001B	EHT-3001B HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-3001B POWER KIT (S-300 SEPARATOR BLDG.)	TECK 90	-	#6	2C	XLPE	600	0	-
L-EHT3001C	EHT-3001C HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-3001C POWER KIT (K-600 COMPRESSOR BLDG.)	TECK 90	-	#8	2C	XLPE	600	0	-
L-EHT3007	EHT-3007 HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-3007 POWER KIT (T-700 TANK)	TECK 90	-	#6	2C	XLPE	600	0	-
L-EHT3008	EHT-3008 HEAT TRACE POWER	-	120VAC	LP-500 LIGHTING PANEL	TRAY	EHT-3008 POWER KIT (B-800 XFER PUMP BLDG.)	TECK 90	-	#8	2C	XLPE	600	0	-
TX-101	P-100 DOWNHOLE PUMP INSTRUMENTATION	-	110VDC	P-100 DOWN HOLE SENSOR	TRAY	JB-TX-P100	-	-	#14	1PR	-	-	-	SUPPLIED BY OWNER
TX-201	P-200 DOWNHOLE PUMP INSTRUMENTATION	-	110VDC	P-200 DOWN HOLE SENSOR	TRAY	JB-TX-P200	-	-	#14	1PR	-	-	-	SUPPLIED BY OWNER
TX-102	P-100 DOWNHOLE PUMP INSTRUMENTATION	-	4-20mA	JB-TX-P100	TRAY	JB-AS/TX-600	-	-	#16	4PR	XLPE	300	2PR	BELDEN 121493A OR EQUIVALENT
TX-202	P-200 DOWNHOLE PUMP INSTRUMENTATION	-	4-20mA	JB-TX-P200	TRAY	JB-AS/TX-600	-	-	#16	4PR	XLPE	300	2PR	BELDEN 121493A OR EQUIVALENT

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D	 <p>PERMIT TO PRACTICE TRIDYNE PROJECTS CORP. Signature _____ Date _____ PERMIT NUMBER: P 8630 The Association of Professional Engineers, Geologists and Geophysicists of Alberta</p>	 <p>PENN WEST ENERGY TRUST SOUTH SWAN HILLS - 4 WELL CBM PILOT MULTI WELL COMPRESSOR STATION LSD: 12-12-65-11 W5M CONDUIT AND CABLE SCHEDULE</p>	SCALE: NTS	DWG. No. D-SWN-264-103	0
			2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SJP	DMJ					
			2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP						
			2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ					

Date: 2006.10.24 12:40pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-264-104.DWG By: SB

CONDUIT OR CABLE TAG	APPLICATION	LOAD	VOLTS	FROM	VIA	TO	CONDUIT/CABLE		CONDUCTOR					REMARKS
							SIZE/TYPE	EST. LENGTH (METRES)	SIZE (AWG)	QUANTITY	INSUL.	VOLTS	SPARE	
AS-100	S-100 SEPARATOR 24VDC	-	24VDC	JB-AS/TX-600	TRAY	JB-AS/TX-100	TECK 90	-	#14	8C	XLPE	600	6C	-
AS-VFDP100	P-100 VFD 24VDC CONTROL	-	24VDC	P-100 VFD (BUILDING B-500)	TRAY	JB-AS/TX-600	TECK 90	-	#14	12C	XLPE	600	6C	-
C-LDS100	P-100 LOCAL DISCONNECT STATUS	-	24VDC	JB-AS/TX-100	TRAY	LDS-100	TECK 90	-	#14	2C	XLPE	600	0	-
AS-200	S-200 SEPARATOR 24VDC	-	24VDC	JB-AS/TX-600	TRAY	JB-AS/TX-200	TECK 90	-	#14	8C	XLPE	600	6C	-
AS-VFDP200	P-200 VFD 24VDC CONTROL	-	24VDC	P-200 VFD (BUILDING B-500)	TRAY	JB-AS/TX-600	TECK 90	-	#14	12C	XLPE	600	6C	-
C-LDS200	P-200 LOCAL DISCONNECT STATUS	-	24VDC	JB-AS/TX-200	TRAY	LDS-200	TECK 90	-	#14	2C	XLPE	600	0	-
AS-300	S-300 SEPARATOR 24VDC	-	24VDC	JB-AS/TX-600	TRAY	JB-AS/TX-300	TECK 90	-	#14	8C	XLPE	600	6C	-
AS-VFDP300	P-300 VFD 24VDC CONTROL	-	24VDC	P-300 VFD (BUILDING B-500)	TRAY	JB-AS/TX-600	TECK 90	-	#14	12C	XLPE	600	6C	-
AS-X46000	COMPRESSOR ESD VALVE	-	24VDC	JB-AS/TX-600	TRAY	X4-6000	TECK 90	-	#14	2C	XLPE	600	0	-
AS-400	S-400 SEPARATOR 24VDC	-	24VDC	JB-AS/TX-600	TRAY	JB-AS/TX-400	TECK 90	-	#14	8C	XLPE	600	6C	-
AS-VFDP400	P-400 VFD 24VDC CONTROL	-	24VDC	P-400 VFD (BUILDING B-500)	TRAY	JB-AS/TX-600	TECK 90	-	#14	12C	XLPE	600	6C	-
AS-BEALONS	RED & BLUE ALARM STROBES	-	24VDC	JB-AS/TX-600	TRAY	RED & BLUE BEALON ON K-600 COMP	TECK 90	-	#14	6C	XLPE	600	2C	-
AS-5000A	MCC-5000 24VDC MOTOR CONTROL	-	24VDC	MCC-5000	TRAY	JB-AS/TX-600	TECK 90	-	#14	50C	XLPE	600	18C	-
AS-UPS500	UPS 24VDC CONTROL	-	24VDC	UPS-500	TRAY	JB-AS/TX-500	TECK 90	-	#14	6C	XLPE	600	0	-
AS-500	B-500 24VDC CONTROL	-	24VDC	JB-AS/TX-500	TRAY	JB-AS/TX-600	TECK 90	-	#14	20C	XLPE	600	12C	-
DC-COM500	SCADA RADIO POWER	-	24VDC	UPS-500	TRAY	JB-COM-500	TECK 90	-	#14	2C	XLPE	600	0	- CABLE SPARE (NOT REQUIRED)
DC-FT6000	FT-6000 FLOW TRANSMITTER POWER	-	24VDC	UPS-500	TRAY	FT-6000	TECK 90	-	#14	2C	XLPE	600	0	-
DC-600-1	K-600 PLC CONTROL PANEL POWER	-	24VDC	UPS-500	TRAY	JB-AS/TX-600	TECK 90	-	#6	2C	XLPE	600	0	-
DC-600-2	K-600 PLC CONTROL PANEL POWER	-	24VDC	UPS-500	TRAY	JB-AS/TX-600	TECK 90	-	#6	2C	XLPE	600	0	-
AS-600A	24VDC FIELD CONTROL	-	24VDC	JB-AS/TX-600	CONDUIT	K-600 COMPRESSOR PLC CONTROL PANEL	2"RGSC	-	#14	97C	RW90	600	32C	-
AS-600B	24VDC FIELD CONTROL	-	24VDC	JB-AS/TX-600	CONDUIT	K-600 COMPRESSOR PLC CONTROL PANEL	2"RGSC	-	#14/110	47/1C	RW90	600	00X/0C	#10AWG FOR PLC & SCADA PANEL CONTROL POWER
AS-600C	24VDC FIELD CONTROL	-	24VDC	JB-AS/TX-600	CONDUIT	K-600 COMPRESSOR PLC CONTROL PANEL	2"RGSC	-	#14	85C	RW90	600	70C	-
DC-600-3	K-600 PLC CONTROL PANEL POWER	-	24VDC	UPS-500	TRAY	JB-AS/TX-600	TECK 90	-	#6	2C	XLPE	600	2C	SPARE CABLE
AS-700	T-700 STORAGE TANK 24VDC CONTROL	-	24VDC	JB-AS/TX-700	TRAY	JB-AS/TX-600	TECK 90	-	#14	12C	XLPE	600	8C	-
AS-800	B-800 TRANSFER PUMP BLDG. 24VDC CONTROL	-	24VDC	JB-AS/TX-800	TRAY	JB-AS/TX-600	TECK 90	-	#14	8C	XLPE	600	6C	-
TX-100	S-100 SEPARATOR ANALOG	-	4-20mA	JB-AS/TX-600	TRAY	JB-AS/TX-100	ACIC	-	#16	8PR	XLPE	300	6PR	BELDEN 121494A OR EQUIVALENT
TX-VFDP100	P-100 VFD 24VDC CONTROL	-	4-20mA	P-100 VFD (BUILDING B-500)	TRAY	JB-AS/TX-600	ACIC	-	#16	4PR	XLPE	300	3PR	BELDEN 121493A OR EQUIVALENT
TX-200	S-200 SEPARATOR ANALOG	-	4-20mA	JB-AS/TX-600	TRAY	JB-AS/TX-200	ACIC	-	#16	8PR	XLPE	300	6PR	BELDEN 121494A OR EQUIVALENT
TX-VFDP200	P-200 VFD 24VDC CONTROL	-	4-20mA	P-200 VFD (BUILDING B-500)	TRAY	JB-AS/TX-600	ACIC	-	#16	4PR	XLPE	300	3PR	BELDEN 121493A OR EQUIVALENT
TX-300	S-300 SEPARATOR ANALOG	-	4-20mA	JB-AS/TX-600	TRAY	JB-AS/TX-300	ACIC	-	#16	8PR	XLPE	300	6PR	BELDEN 121494A OR EQUIVALENT
TX-VFDP300	P-300 VFD 24VDC CONTROL	-	4-20mA	P-300 VFD (BUILDING B-500)	TRAY	JB-AS/TX-600	ACIC	-	#16	4PR	XLPE	300	3PR	BELDEN 121493A OR EQUIVALENT
TX-400	S-400 SEPARATOR ANALOG	-	4-20mA	JB-AS/TX-600	TRAY	JB-AS/TX-400	ACIC	-	#16	8PR	XLPE	300	6PR	BELDEN 121494A OR EQUIVALENT
TX-VFDP400	P-400 VFD 24VDC CONTROL	-	4-20mA	P-400 VFD (BUILDING B-500)	TRAY	JB-AS/TX-600	ACIC	-	#16	4PR	XLPE	300	3PR	BELDEN 121493A OR EQUIVALENT
TX-500	INSTRUMENT AIR COMPRESSOR ANALOG CONTROL	-	4-20mA	JB-AS/TX-500	TRAY	JB-AS/TX-600	ACIC	-	#16	4PR	XLPE	300	3PR	BELDEN 121493A OR EQUIVALENT
TX-5000	MCC-5000 ANALOG MOTOR CONTROL	-	4-20mA	MCC-5000	TRAY	JB-AS/TX-600	ACIC	-	#16	8PR	XLPE	300	6PR	BELDEN 121494A OR EQUIVALENT
TX-600A	ANALOG FIELD CONTROL	-	4-20mA	JB-AS/TX-600	CONDUIT	K-600 COMPRESSOR PLC CONTROL PANEL	2 1/2" RGSC	-	#16	26PR	XLPE	300	0XPR	BELDEN 1498A OR EQUIVALENT INSTALLED IN SAME CONDUIT AS TX-600B
TX-600B	ANALOG FIELD CONTROL	-	4-20mA	JB-AS/TX-600	CONDUIT	K-600 COMPRESSOR PLC CONTROL PANEL	2 1/2" RGSC	-	#16	24PR	XLPE	300	15PR	BELDEN 1498A OR EQUIVALENT INSTALLED IN SAME CONDUIT AS TX-600A
TX-700	T-700 STORAGE TANK ANALOG CONTROL	-	4-20mA	JB-AS/TX-700	TRAY	JB-AS/TX-600	ACIC	-	#16	4PR	XLPE	300	2PR	BELDEN 121493A OR EQUIVALENT
TX-800	P-800 TRANSFER PUMP ANALOG CONTROL	-	4-20mA	JB-AS/TX-800	TRAY	JB-AS/TX-600	ACIC	-	#16	8PR	XLPE	300	7PR	BELDEN 121494A OR EQUIVALENT
COM-60000	SPARE COMMUNICATIONS CABLE	-	RS-485	JB-COM-500	TRAY	JB-AS/TX-600	ACIC	-	#24	2PR	XLPE	300	2PR	-
COM-P100VFD	P-100 VFD MODBUS COMMUNICATIONS	-	RS-485	JB-COM-500	TRAY	P-100 VFD	ACIC	-	#24	2PR	XLPE	300	-	BELDEN 1288102
COM-P200VFD	P-200 VFD MODBUS COMMUNICATIONS	-	RS-485	JB-COM-500	TRAY	P-200 VFD	ACIC	-	#24	2PR	XLPE	300	-	BELDEN 1288102
COM-P300VFD	P-300 PUMP CONTROLLER MODBUS COMMUNICATIONS	-	RS-485	JB-COM-500	TRAY	P-300 VFD	ACIC	-	#24	2PR	XLPE	300	-	BELDEN 1288102
COM-P400VFD	P-400 PUMP CONTROLLER MODBUS COMMUNICATIONS	-	RS-485	JB-COM-500	TRAY	P-400 VFD	ACIC	-	#24	2PR	XLPE	300	-	BELDEN 1288102
COM-RADIO	SCADA HOST RADIO MODBUS COMMUNICATIONS	-	RS-485	K-600 PLC CONTROL PANEL	WIREWAY/CONDUIT	SCADA RADIO PANEL	1-1/4"RGSC	-	#24	4PR	XLPE	300	-	BELDEN 88104
COM-6000A	MODBUS GATEWAY TO PLC SERIAL COMMUNICATION	-	RS-232	K-600 PLC PROCESSOR	WIREWAY	MODBUS GATEWAY	-	-	#24	4PR	XLPE	300	-	BELDEN 88104
COM-6000B	FIELD DEVICES MODBUS COMMUNICATIONS	-	RS-485	MODBUS GATEWAY	CONDUIT	JB-AS/TX-600	-	-	#24	2PR	XLPE	300	-	BELDEN 88102
COM-6000C	WELL CONTROLLERS MODBUS COMMUNICATIONS	-	RS-485	JB-AS/TX-600	TRAY	TJ-COM-500	ACIC	-	#24	2PR	XLPE	300	-	BELDEN 1288102
COM-FT6000	FLOW METER MODBUS COMMUNICATIONS	-	RS-485	JB-AS/TX-600	TRAY	FE-6000	ACIC	-	#24	2PR	XLPE	300	-	BELDEN 1288102

REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	D	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST

ENERGY TRUST

TRIDYNE PROJECTS

CORPORATION

PENN WEST ENERGY TRUST

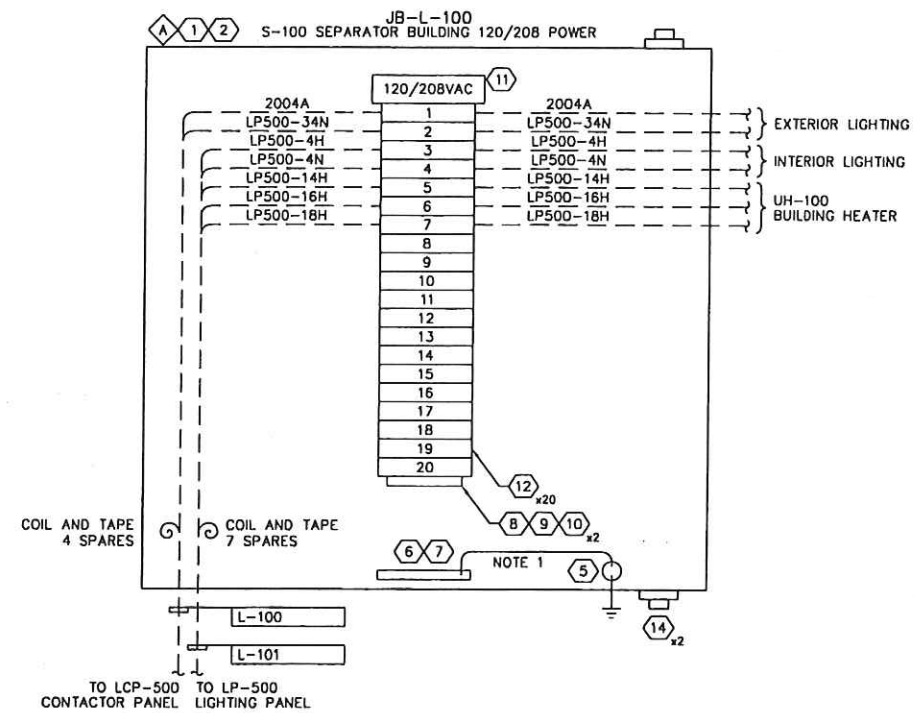
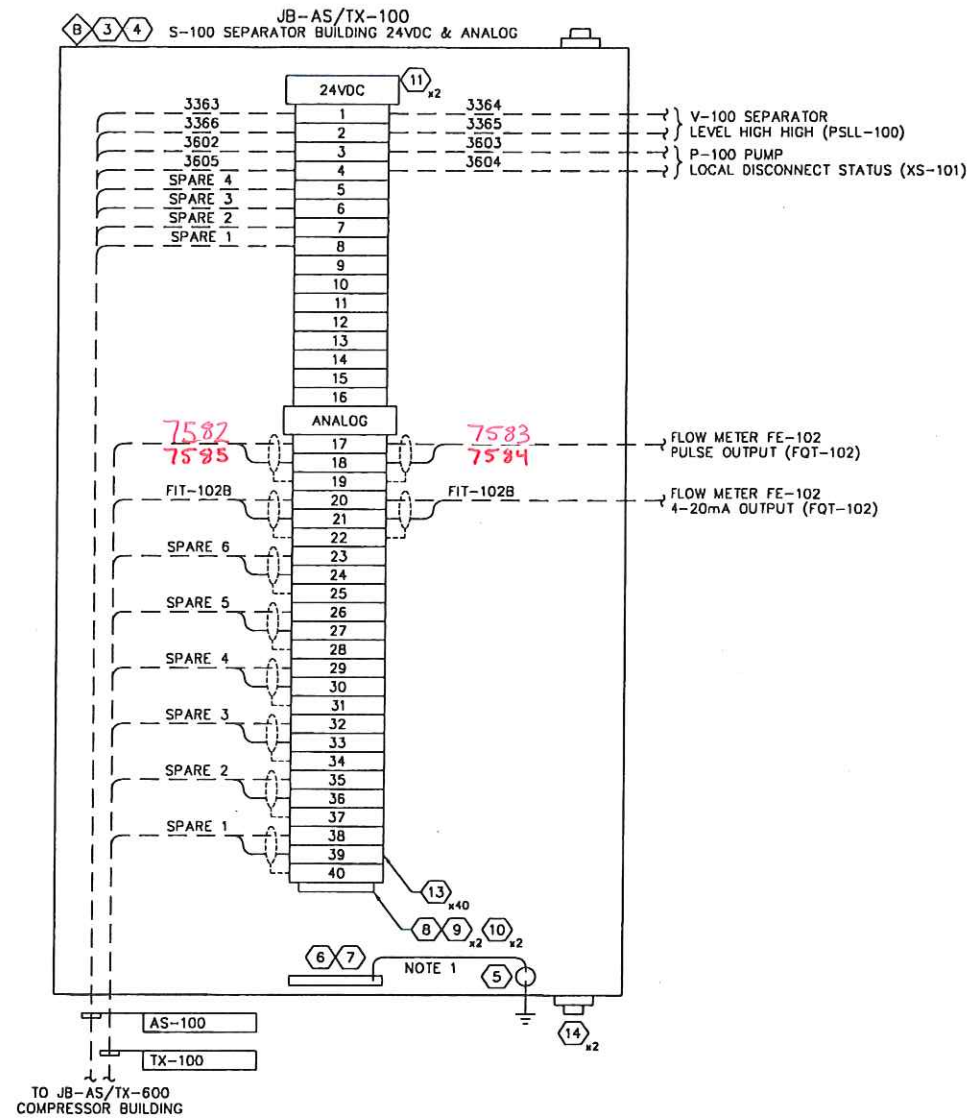
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM

CONDUIT AND CABLE SCHEDULE

SCALE: NTS DWG. No. D-SWN-264-104 0

Date: 2006.10.20 3:01pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\0-SWN-265-101.DWG By: SW



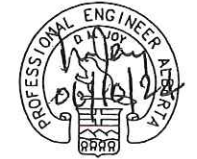
BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1	1	JUNCTION BOX NEMA 4X	HOFFMAN	A12106CHQRF	12"x10"x6"	CONTRACTOR
2	1	BACK PAN	HOFFMAN	A12P10	12"x10"	CONTRACTOR
3	1	JUNCTION BOX NEMA 4X	HOFFMAN	A14128CHQRF	14"x12"x8"	CONTRACTOR
4	1	BACK PAN	HOFFMAN	A14P12	14"x12"	CONTRACTOR
5	1	GROUND LUG	BURNDY	K2A26U		CONTRACTOR
6	2	8" LONG GROUND BUS	ILSCO	N174		CONTRACTOR
7	20	GROUND BUS SCREWS	ILSCO	E-153		CONTRACTOR
8	AS REQ	MOUNTING RAIL	WEIDMULLER	TS-35		CONTRACTOR
9	3	TERMINAL BLOCK END PLATE	WEIDMULLER	WAP2.5-10		CONTRACTOR
10	4	TERMINAL BLOCK END BRACKET	WEIDMULLER	EW35		CONTRACTOR
11	3	LABEL HOLDER	WEIDMULLER	SchT5		CONTRACTOR
12	20	TERMINAL BLOCK	WEIDMULLER	WDU6		CONTRACTOR
13	40	TERMINAL BLOCK	WEIDMULLER	WDU2.5		CONTRACTOR
14	4	BREATHER/DRAIN	KILLARK	KDB-1		CONTRACTOR

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	JB-AS/TX-100 24VDC & ANALOG	100mm x 150mm	25mm	BLACK ON WHITE
B	1	JB-L-100 120/208VAC	100mm x 150mm	25mm	BLACK ON WHITE

NOTES:
1. CONNECT GROUND BUS TO GROUND LUG WITH A GREEN INSULATED #10 AWG CONDUCTOR.

REFERENCE DRAWING	DESCRIPTION
D-SWN-261-101	ELECTRICAL AND INSTRUMENTATION LAYOUT

STAMPS & PERMITS



PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.
Signature _____
Date _____
PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	D	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

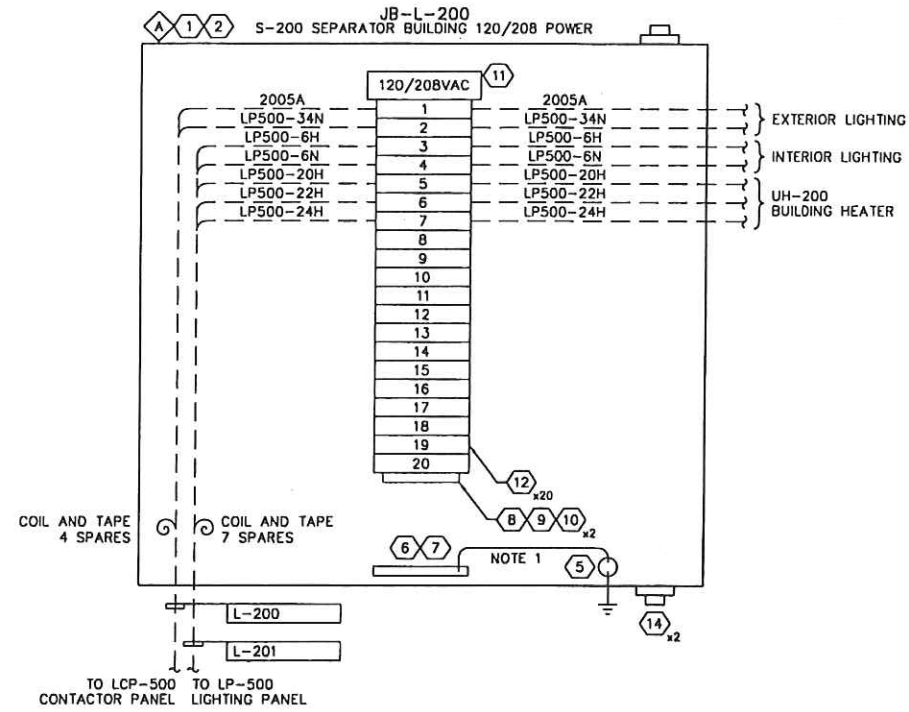
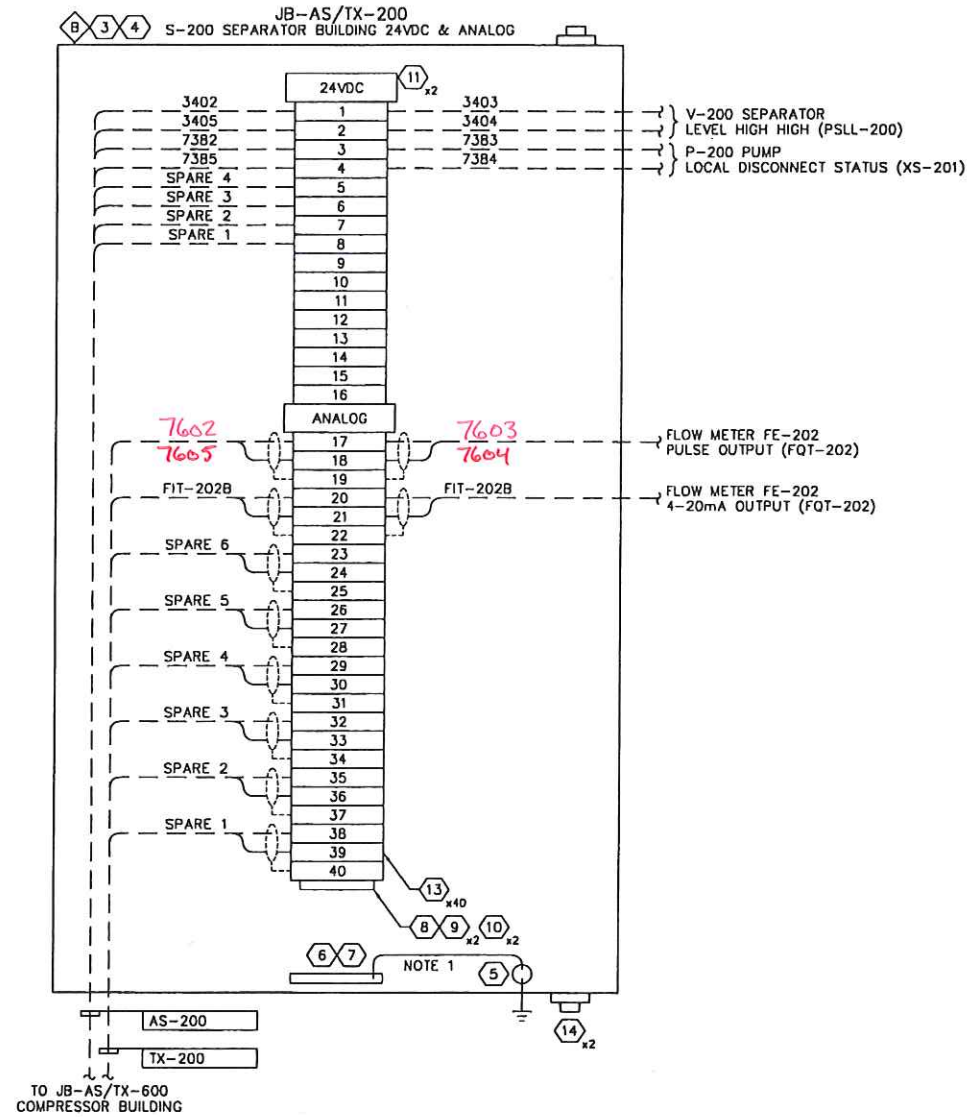
PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
S-100 SEPARATOR SKID
JUNCTION BOX LAYOUT

SCALE: NTS DWG. No. D-SWN-265-101 0



BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1	1	JUNCTION BOX NEMA 4X	HOFFMAN	A12106CHQRFG	12"x10"x6"	CONTRACTOR
2	1	BACK PAN	HOFFMAN	A12P10	12"x10"	CONTRACTOR
3	1	JUNCTION BOX NEMA 4X	HOFFMAN	A14128CHQRFG	14"x12"x8"	CONTRACTOR
4	1	BACK PAN	HOFFMAN	A14P12	14"x12"	CONTRACTOR
5	1	GROUND LUG	BURNDY	K2A26U		CONTRACTOR
6	2	B" LONG GROUND BUS	ILSCO	N174		CONTRACTOR
7	20	GROUND BUS SCREWS	ILSCO	E-153		CONTRACTOR
8	AS REQ	MOUNTING RAIL	WEIDMULLER	TS-35		CONTRACTOR
9	3	TERMINAL BLOCK END PLATE	WEIDMULLER	WAP2.5-10		CONTRACTOR
10	4	TERMINAL BLOCK END BRACKET	WEIDMULLER	EW35		CONTRACTOR
11	3	LABEL HOLDER	WEIDMULLER	ScHT5		CONTRACTOR
12	20	TERMINAL BLOCK	WEIDMULLER	WDU6		CONTRACTOR
13	40	TERMINAL BLOCK	WEIDMULLER	WDU2.5		CONTRACTOR
14	4	BREATHER/DRAIN	KILLARK	KDB-1		CONTRACTOR

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	JB-AS/TX-200 24VDC & ANALOG	100mm x 150mm	25mm	BLACK ON WHITE
B	1	JB-L-200 120/208VAC	100mm x 150mm	25mm	BLACK ON WHITE

NOTES:
1. CONNECT GROUND BUS TO GROUND LUG WITH A GREEN INSULATED #10 AWG CONDUCTOR.

REFERENCE DRAWING	DESCRIPTION
D-SWN-261-102	ELECTRICAL AND INSTRUMENTATION LAYOUT

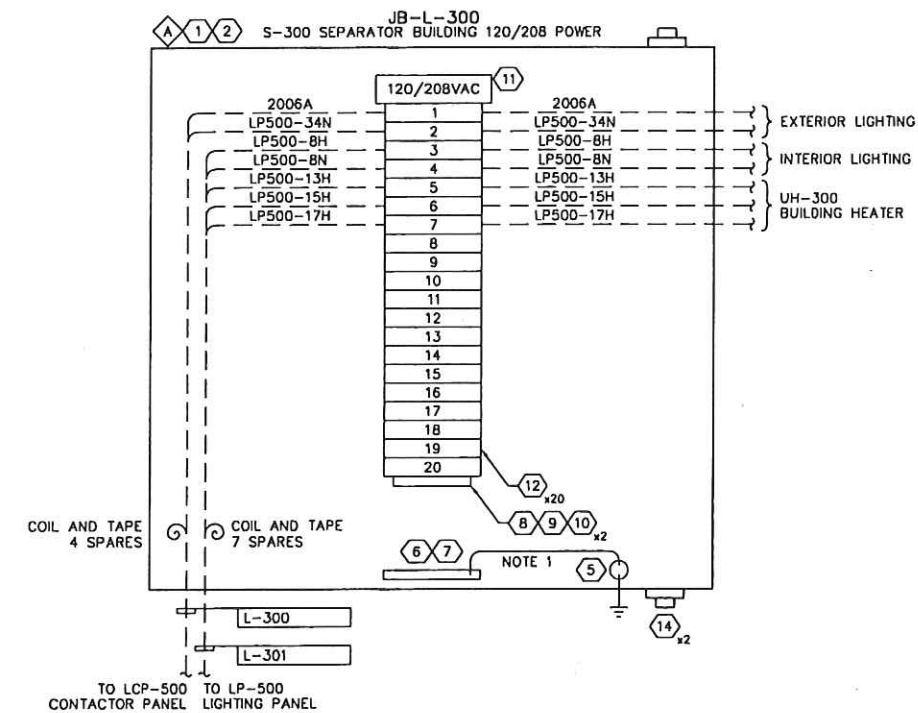
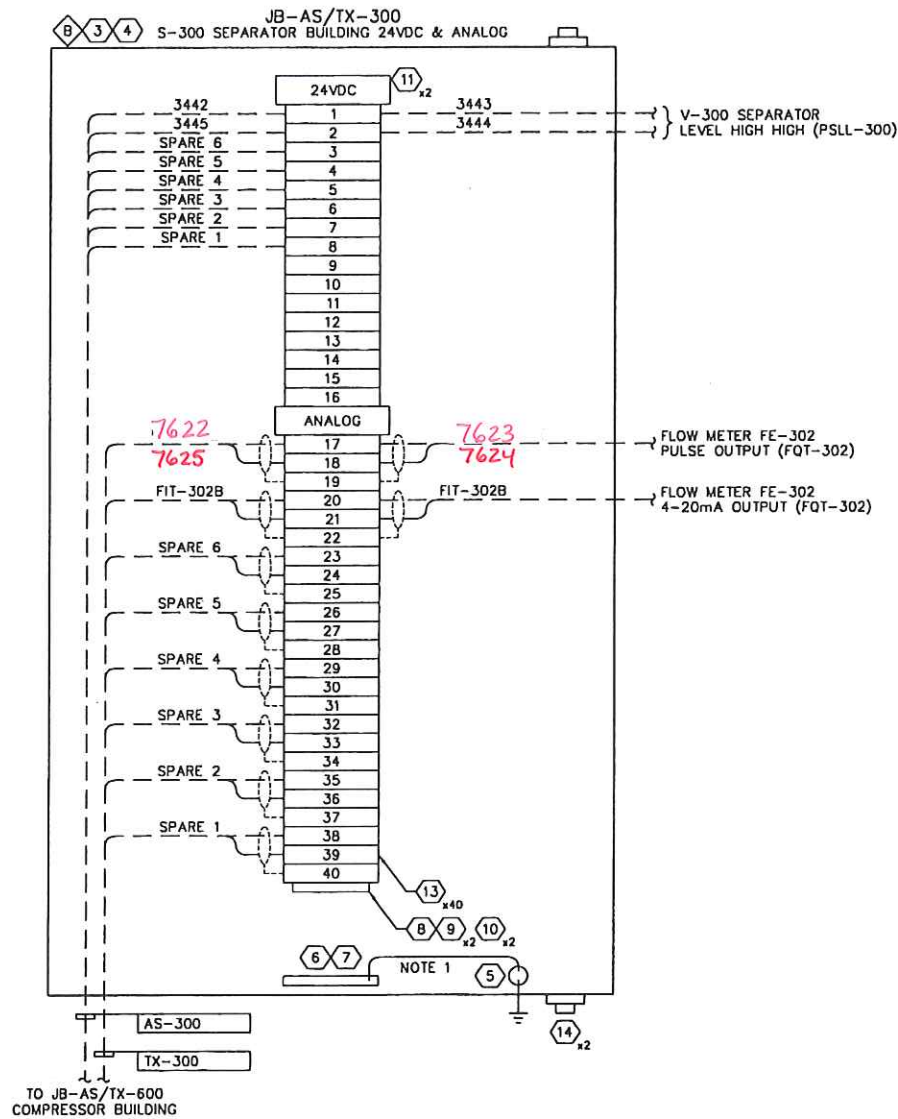


PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.
Signature _____
Date _____
PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST
TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT
MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M
S-200 SEPARATOR SKID
JUNCTION BOX LAYOUT
SCALE: NTS DWG. No. D-SWN-265-102 0



BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1	1	JUNCTION BOX NEMA 4X	HOFFMAN	A12106CHQRFG	12"x10"x6"	CONTRACTOR
2	1	BACK PAN	HOFFMAN	A12P10	12"x10"	CONTRACTOR
3	1	JUNCTION BOX NEMA 4X	HOFFMAN	A14128CHQRFG	14"x12"x8"	CONTRACTOR
4	1	BACK PAN	HOFFMAN	A14P12	14"x12"	CONTRACTOR
5	1	GROUND LUG	BURNDY	K2A26U		CONTRACTOR
6	2	8" LONG GROUND BUS	ILSCO	N174		CONTRACTOR
7	20	GROUND BUS SCREWS	ILSCO	E-153		CONTRACTOR
8	AS REQ	MOUNTING RAIL	WEIDMULLER	TS-35		CONTRACTOR
9	3	TERMINAL BLOCK END PLATE	WEIDMULLER	WAP2.5-10		CONTRACTOR
10	4	TERMINAL BLOCK END BRACKET	WEIDMULLER	EW35		CONTRACTOR
11	3	LABEL HOLDER	WEIDMULLER	ScHT5		CONTRACTOR
12	20	TERMINAL BLOCK	WEIDMULLER	WDU6		CONTRACTOR
13	40	TERMINAL BLOCK	WEIDMULLER	WDU2.5		CONTRACTOR
14	4	BREATHER/DRAIN	KILLARK	KDB-1		CONTRACTOR

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	JB-AS/TX-300 24VDC & ANALOG	100mm x 150mm	25mm	BLACK ON WHITE
B	1	JB-L-300 120/208VAC	100mm x 150mm	25mm	BLACK ON WHITE

NOTES:
1. CONNECT GROUND BUS TO GROUND LUG WITH A GREEN INSULATED #10 AWG CONDUCTOR.

REFERENCE DRAWING	DESCRIPTION
D-SWN-261-103	ELECTRICAL AND INSTRUMENTATION LAYOUT

STAMPS & PERMITS

PROFESSIONAL ENGINEER
TRIDYNE PROJECTS CORP.

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____
Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST ENERGY TRUST

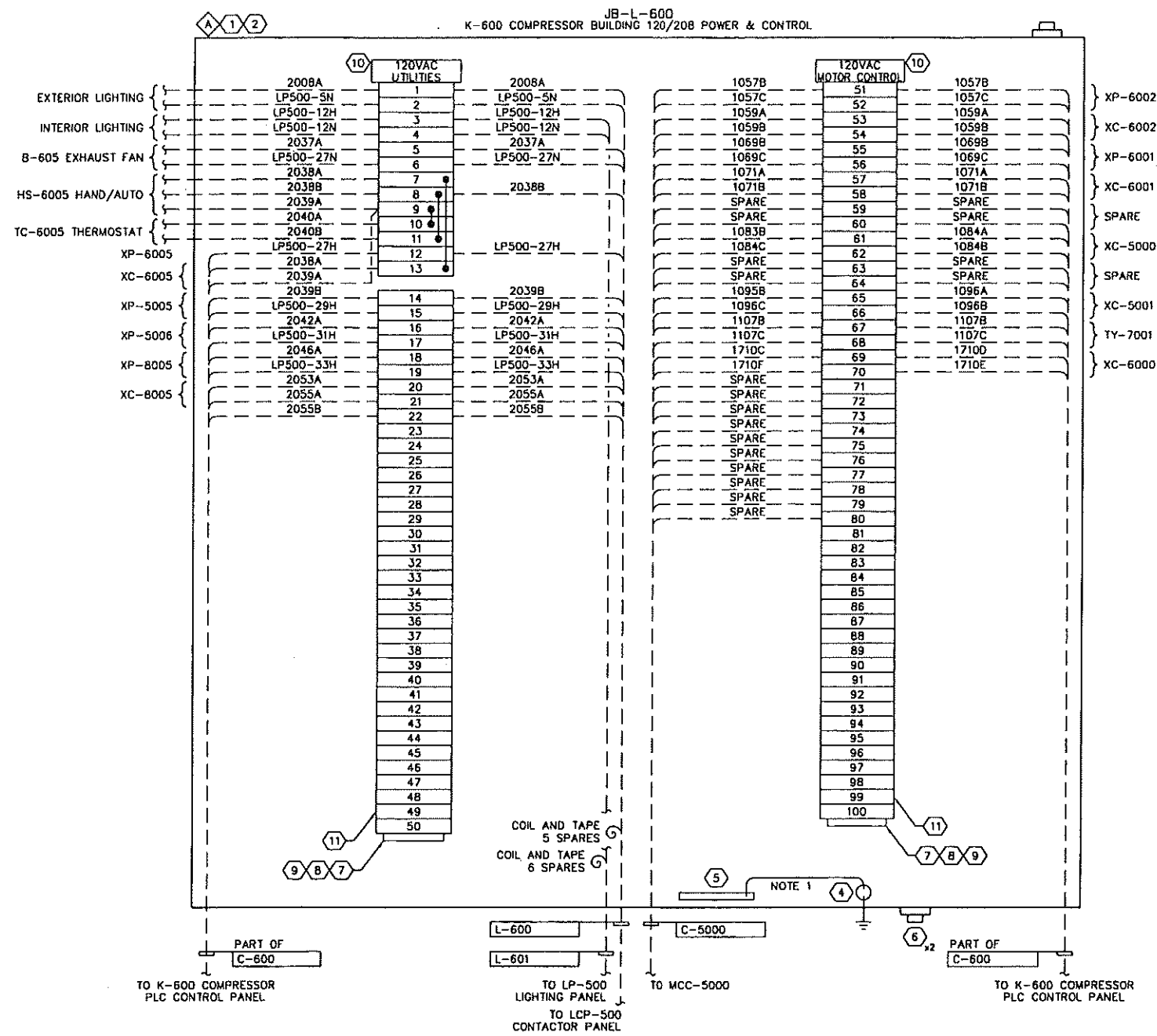
TRIDYNE PROJECTS CORPORATION

PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
S-300 SEPARATOR SKID
JUNCTION BOX LAYOUT

SCALE: NTS DWG. No. D-SWN-265-103 0



BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1	1	JUNCTION BOX NEMA 4X	HOFFMAN	A24H2008GQRLP	24"x20"x8"	CONTRACTOR
2	1	BACK PAN	HOFFMAN	A24P20	24"x20"	CONTRACTOR
3	40	GROUND BUS SCREWS	-	-	-	CONTRACTOR
4	1	GROUND LUG	BURNDY	K2A26U	-	CONTRACTOR
5	2	8" LONG GROUND BUS	ILSCO	N174	-	CONTRACTOR
6	2	BREATHER DRAIN	KILLARK	KDB-1	-	CONTRACTOR
7	AS REQ.	MOUNTING RAIL	WEIDMULLER	TS-35	-	CONTRACTOR
8	2	TERMINAL BLOCK END PLATE	WEIDMULLER	WAP2.5-10	-	CONTRACTOR
9	4	TERMINAL BLOCK END BRACKET	WEIDMULLER	EW35	-	CONTRACTOR
10	2	LABEL HOLDER	WEIDMULLER	ScH15	-	CONTRACTOR
11	100	TERMINAL BLOCK	WEIDMULLER	WDU6	-	CONTRACTOR

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	JB-L-600 120/208VAC	100mm x 150mm	25mm	BLACK ON WHITE

NOTES:
1. CONNECT GROUND BUS TO GROUND LUG WITH A GREEN INSULATED #10 AWG CONDUCTOR.

REFERENCE DRAWING	DESCRIPTION
D-SWN-261-105	ELECTRICAL AND INSTRUMENTATION LAYOUT

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST ENERGY TRUST

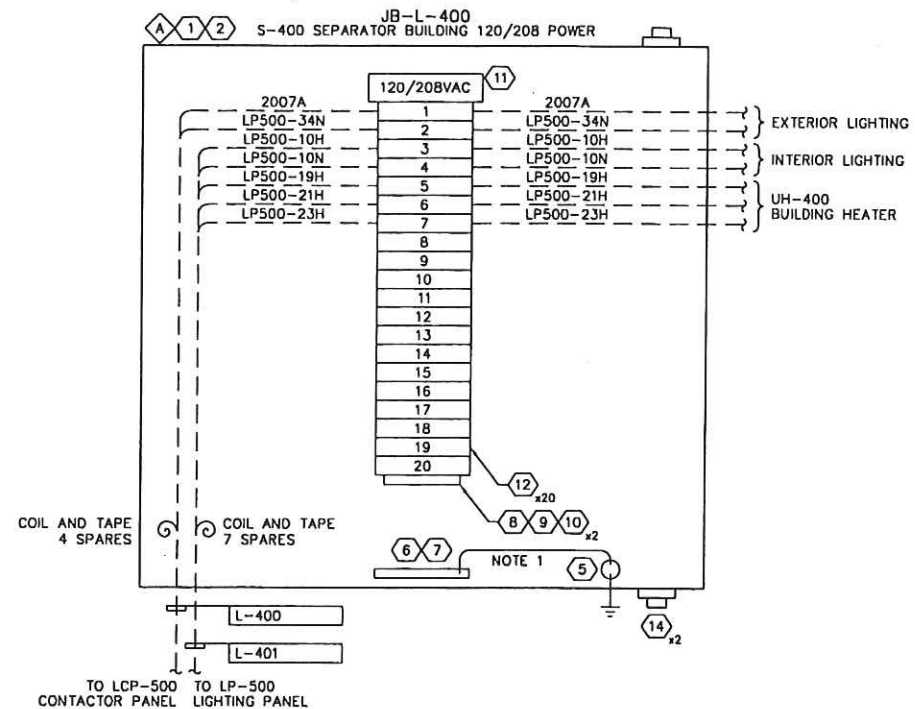
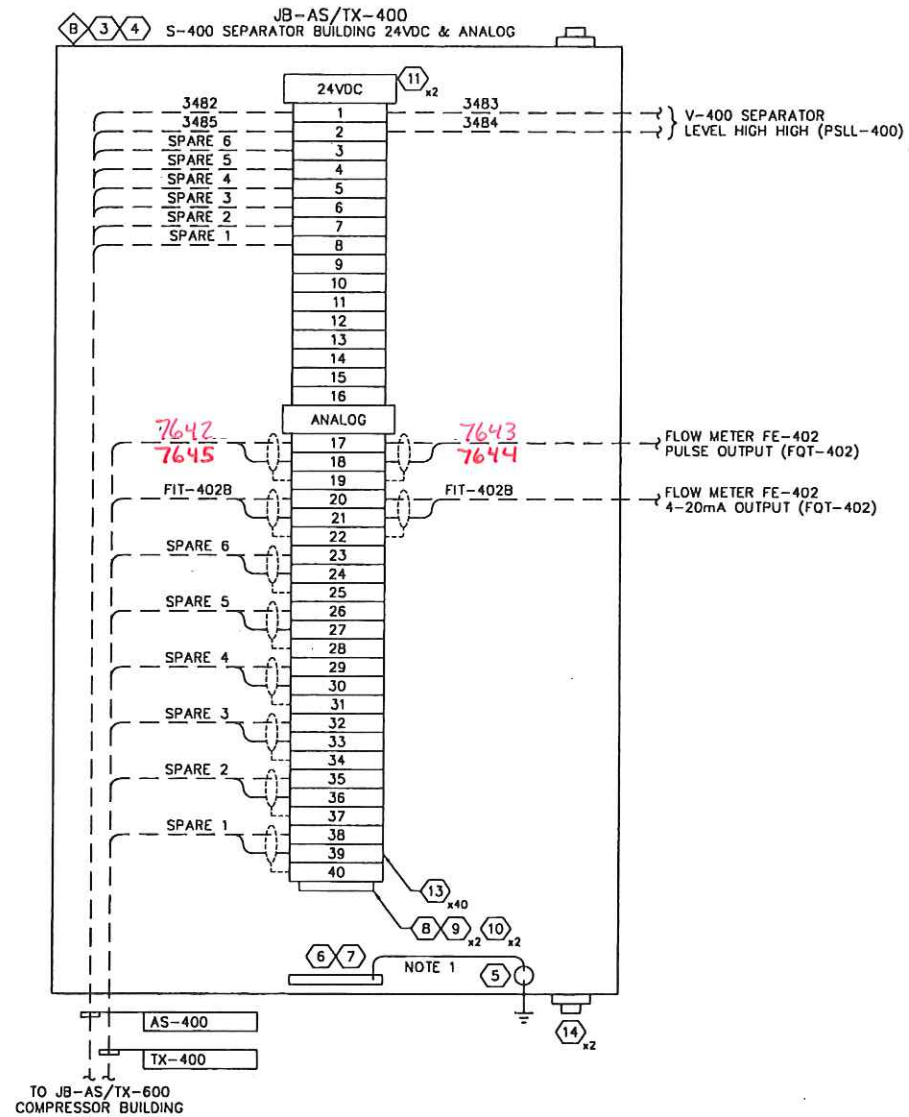
TRIDYNE PROJECTS CORPORATION

PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M
K-600 COMPRESSOR BUILDING
JUNCTION BOX LAYOUT

SCALE: HTS DWG. No. D-SWN-265-105 0




BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1	1	JUNCTION BOX NEMA 4X	HOFFMAN	A12106CHQRFG	12"x10"x6"	CONTRACTOR
2	1	BACK PAN	HOFFMAN	A12P10	12"x10"	CONTRACTOR
3	1	JUNCTION BOX NEMA 4X	HOFFMAN	A14128CHQRFG	14"x12"x8"	CONTRACTOR
4	1	BACK PAN	HOFFMAN	A14P12	14"x12"	CONTRACTOR
5	1	GROUND LUG	BURNDY	K2A26U		CONTRACTOR
6	2	8" LONG GROUND BUS	ILSCO	N174		CONTRACTOR
7	20	GROUND BUS SCREWS	ILSCO	E-153		CONTRACTOR
8	AS REQ	MOUNTING RAIL	WEIDMULLER	TS-35		CONTRACTOR
9	3	TERMINAL BLOCK END PLATE	WEIDMULLER	WAP2.5-10		CONTRACTOR
10	4	TERMINAL BLOCK END BRACKET	WEIDMULLER	EW35		CONTRACTOR
11	3	LABEL HOLDER	WEIDMULLER	SchT5		CONTRACTOR
12	20	TERMINAL BLOCK	WEIDMULLER	WDU6		CONTRACTOR
13	40	TERMINAL BLOCK	WEIDMULLER	WDU2.5		CONTRACTOR
14	4	BREATHER/DRAIN	KILLARK	KDB-1		CONTRACTOR

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	JB-AS/TX-400 24VDC & ANALOG	100mm x 150mm	25mm	BLACK ON WHITE
B	1	JB-L-400 120/208VAC	100mm x 150mm	25mm	BLACK ON WHITE

NOTES:
1. CONNECT GROUND BUS TO GROUND LUG WITH A GREEN INSULATED #10 AWG CONDUCTOR.

REFERENCE DRAWING	DESCRIPTION
D-SWN-261-104	ELECTRICAL AND INSTRUMENTATION LAYOUT

STAMPS & PERMITS



PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST

ENERGY TRUST

TRIDYNE PROJECTS

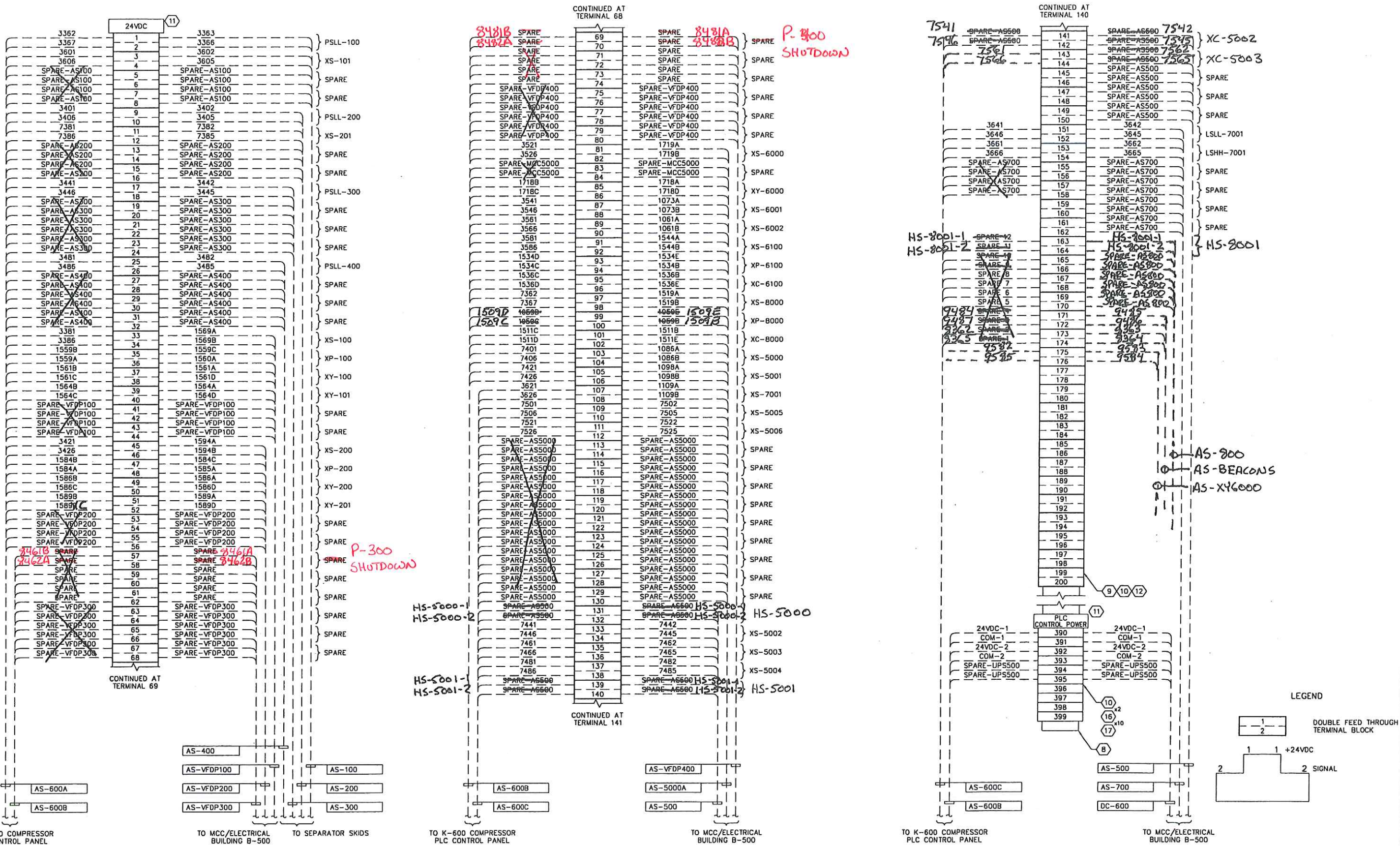
CORPORATION

PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M
S-400 SEPARATOR SKID
JUNCTION BOX LAYOUT

SCALE: NTS DWG. No. D-SWN-265-104 0



REFERENCE DRAWING	DESCRIPTION
D-SWN-261-105	ELECTRICAL AND INSTRUMENTATION LAYOUT
D-SWN-265-107	JUNCTION BOX JB-AS/TX-600 (PAGE 2 OF 3)
D-SWN-265-108	JUNCTION BOX JB-AS/TX-600 LAYOUT
D-SWN-265-113	JUNCTION BOX JB-AS/TX-600 (PAGE 3 OF 3)

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST

ENERGY TRUST

TRIDYNE PROJECTS

CORPORATION

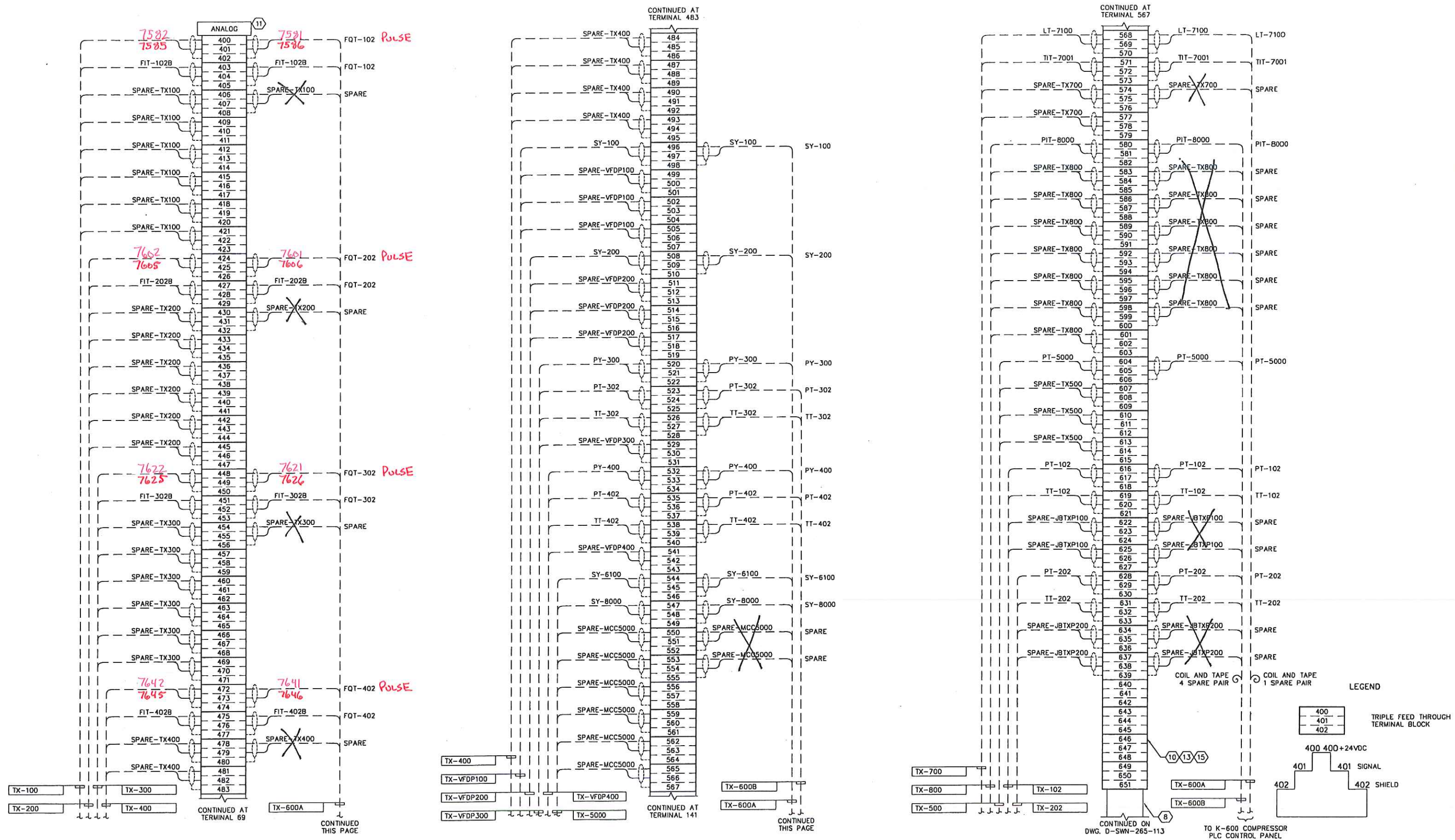
PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM


JB-AS/TX-600 COMPRESSOR BUILDING 24VDC & ANALOG
JUNCTION BOX (PAGE 1 OF 3)

SCALE: NTS DWG. No. D-SWN-265-106 0



REFERENCE DRAWING	DESCRIPTION
D-SWN-261-105	ELECTRICAL AND INSTRUMENTATION LAYOUT
D-SWN-265-106	JUNCTION BOX JB-AS/TX-600 (PAGE 1 OF 3)
D-SWN-265-108	JUNCTION BOX JB-AS/TX-600 LAYOUT
D-SWN-265-113	JUNCTION BOX JB-AS/TX-600 (PAGE 3 OF 3)

STAMPS & PERMITS



PROFESSIONAL ENGINEER
ALBERTA

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST

ENERGY TRUST

TRIDYNE PROJECTS

CORPORATION

PENN WEST ENERGY TRUST

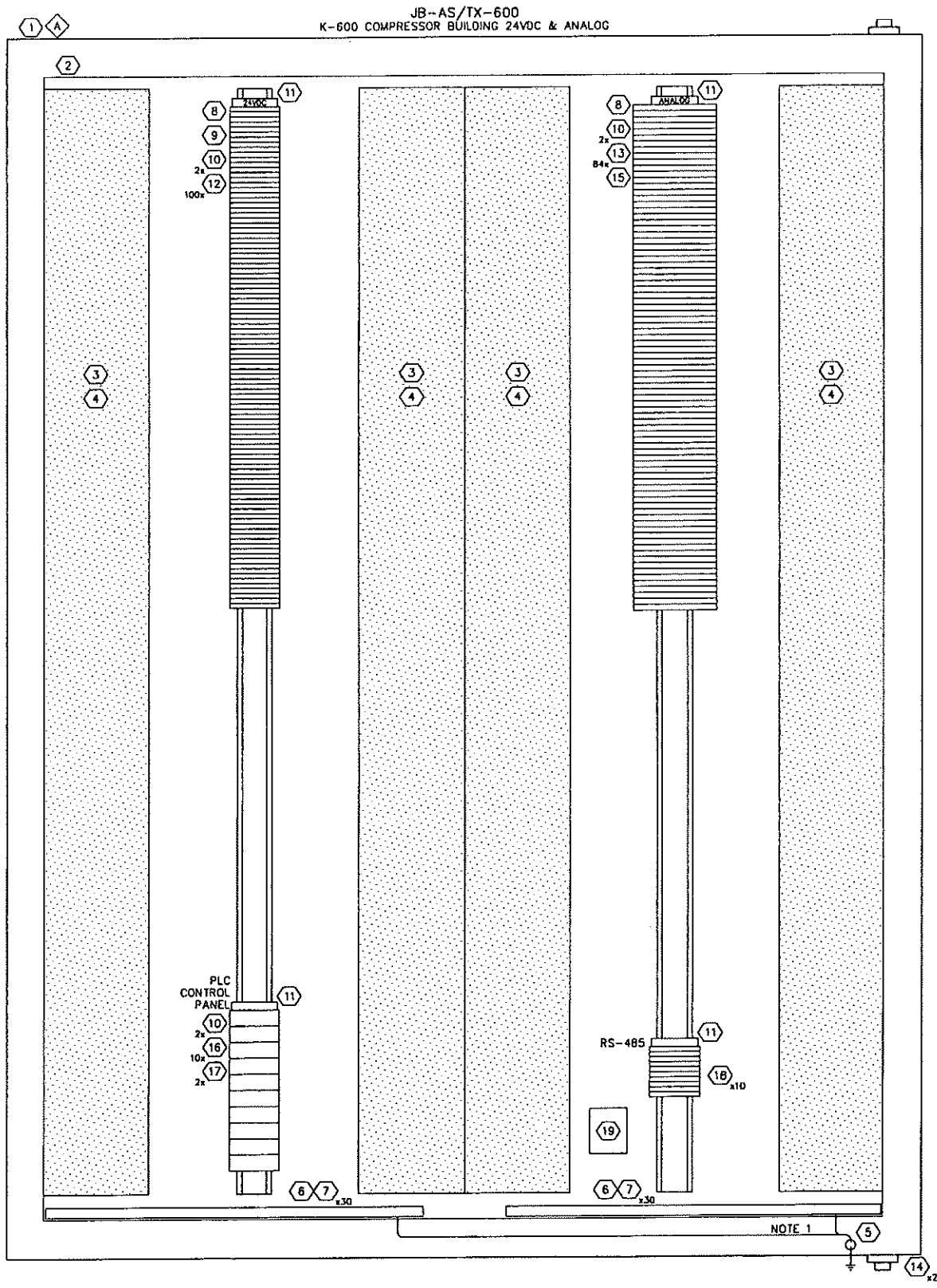
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 W5M

JB-AS/TX-600 COMPRESSOR BUILDING 24VDC & ANALOG
JUNCTION BOX (PAGE 2 OF 3)

SCALE: NTS DWG. No. D-SWN-265-107 0

Date: 2006.10.20 3:01pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-265-106.DWG By: SW



BILL OF MATERIALS					
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SUPPLIER
1	1	JUNCTION BOX 48" x 36" x 12"	HOFFMAN	A48H3612GORLP	CONTRACTOR
2	1	BACK PANEL 45" x 33"	HOFFMAN	A48P36	CONTRACTOR
3	AS REQ	4"W x 6"H WHITE PLASTIC WIRE DUCT	OPEN	-	CONTRACTOR
4	AS REQ	4" WHITE PLASTIC WIRE DUCT COVER	OPEN	-	CONTRACTOR
5	1	GROUND LUG	BURNODY	K2A26U	CONTRACTOR
6	2	12" LONG GROUND BUS	ILSCO	N174	CONTRACTOR
7	60	GROUND BUS SCREWS	ILSCO	E-153	CONTRACTOR
8	AS REQ	MOUNTING RAIL	WEIDMULLER	TS-35	CONTRACTOR
9	1	TERMINAL BLOCK END PLATE	WEIDMULLER	WAP-WDIC	CONTRACTOR
10	8	TERMINAL BLOCK END BRACKET	WEIDMULLER	EW35	CONTRACTOR
11	4	LABEL HOLDER	WEIDMULLER	ScHT5	CONTRACTOR
12	100	TERMINAL BLOCK	WEIDMULLER	WDK-2.5N	CONTRACTOR
13	84	TERMINAL BLOCK	WEIDMULLER	DLO-2.5	CONTRACTOR
14	2	BREATHER/DRAIN	KILLARK	XDB-1	CONTRACTOR
15	1	TERMINAL BLOCK END PLATE	WEIDMULLER	AP-DLD	CONTRACTOR
16	10	TERMINAL BLOCK	WEIDMULLER	WDU-35	CONTRACTOR
17	1	TERMINAL BLOCK END PLATE	WEIDMULLER	WAP-16-35	CONTRACTOR
18	10	TERMINAL BLOCK	WEIDMULLER	WDU-2.5	CONTRACTOR
19	1	RS-485 SURGE ARRESTOR	B&B ELECTRONICS	485HESP	OWNER

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	JB-AS/TX-600 24VDC & ANALOG	100mm x 150mm	25mm	BLACK ON WHITE

NOTES:
1. CONNECT GROUND BUS TO GROUND LUG WITH A GREEN INSULATED #10 AWG CONDUCTOR.

REFERENCE DRAWING	DESCRIPTION
D-SWN-261-105	ELECTRICAL AND INSTRUMENTATION LAYOUT
D-SWN-265-106	JUNCTION BOX JB-AS/TX-600 (PAGE 1 OF 3)
D-SWN-265-107	JUNCTION BOX JB-AS/TX-600 (PAGE 2 OF 3)
D-SWN-265-113	JUNCTION BOX JB-AS/TX-600 (PAGE 3 OF 3)

STAMPS & PERMITS

PROFESSIONAL ENGINEER
TRIDYNE PROJECTS CORP.

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature: _____
Date: _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST

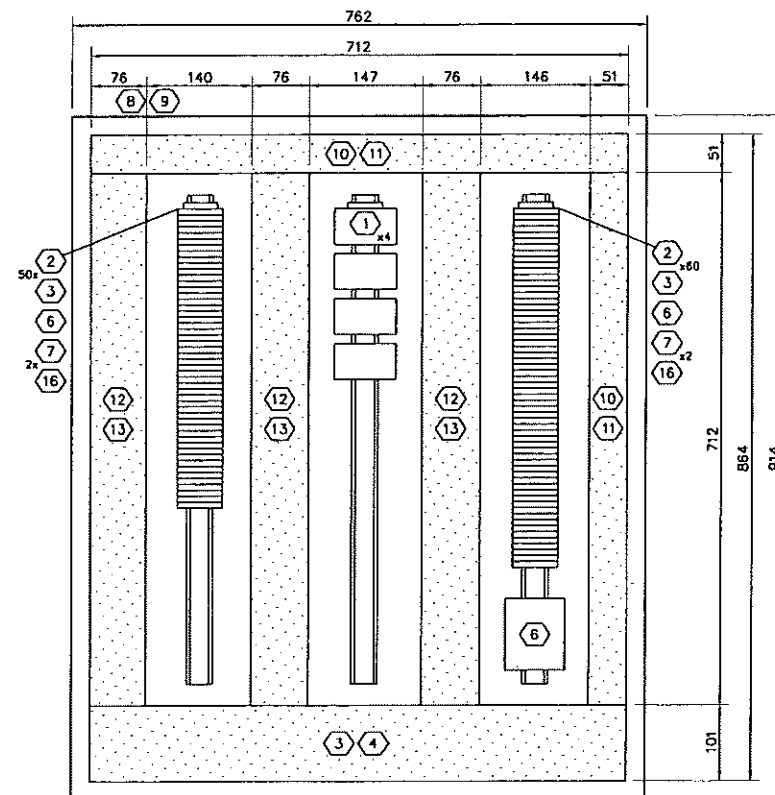
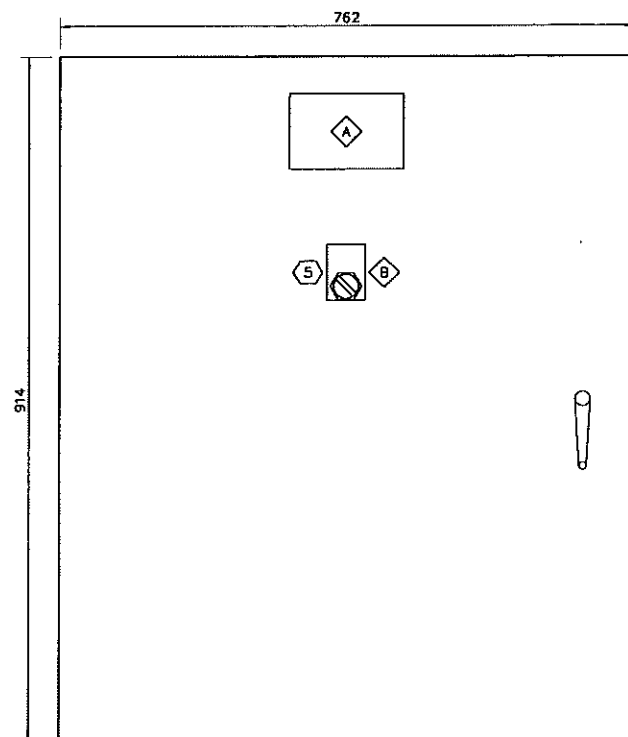
TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST

SOUTH SWAN HILLS - 4 WELL CBM PILOT

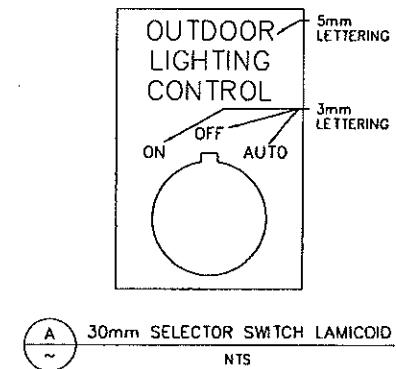
MULTI WELL COMPRESSOR STATION
LSD; 12-12-65-11 W5M
JB-AS/TX-600 COMPRESSOR BUILDING 24VDC & ANALOG
JUNCTION BOX LAYOUT

SCALE: 1:3 DWG. No. D-SWN-265-108 0



BILL OF MATERIALS					
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SUPPLIER
1	5	3 POLE 1/2HP CONTACTOR	ALLEN-BRADLEY	100-C12D10	CONTRACTOR
2	110	TERMINAL BLOCKS	WEIDMULLER	W0U6	CONTRACTOR
3	2	TERMINAL BLOCK END PLATES	WEIDMULLER	WAP2.5-10	CONTRACTOR
4	1	12 POLE LIGHTING CONTACTOR	ALLEN-BRADLEY	100C-C20ND12	CONTRACTOR
5	1	3 POSITION MAINTAINED SELECTOR SWITCH	ALLEN-BRADLEY	800T-J2A	CONTRACTOR
6	AS REQ	MOUNTING RAIL	WEIDMULLER	T5-35	CONTRACTOR
7	4	TERMINAL BLOCK END BRACKET	WEIDMULLER	EW35	CONTRACTOR
8	1	36" x 30" x 8" NEMA 12 ENCLOSURE	HAMMOND	EN4SDJ3630BGY	CONTRACTOR
9	1	ENCLOSURE BACKPAN	HAMMOND	EP3630	CONTRACTOR
10	AS REQ	2" x 4" GREY PLASTIC WIRE DUCT	PANDUIT	-	CONTRACTOR
11	AS REQ	2" WIDE GREY PLASTIC WIRE DUCT COVER	PANDUIT	-	CONTRACTOR
12	AS REQ	3" x 4" GREY PLASTIC WIRE DUCT	PANDUIT	-	CONTRACTOR
13	AS REQ	3" WIDE GREY PLASTIC WIRE DUCT COVER	PANDUIT	-	CONTRACTOR
14	AS REQ	4" x 4" GREY PLASTIC WIRE DUCT	PANDUIT	-	CONTRACTOR
15	AS REQ	4" WIDE GREY PLASTIC WIRE DUCT COVER	PANDUIT	-	CONTRACTOR
16	2	TERMINAL STRIP IDENTIFICATION HOLDER	WEIDMULLER	ScHT-5	CONTRACTOR
17	2	8" LONG GROUND BUS	ILSCO	N174	CONTRACTOR
18	40	GROUND BUS SCREWS	ILSCO	E-153	CONTRACTOR
19	1	GROUND LUG	BURNDY	K2A26U	CONTRACTOR

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	LCP-500 AC CONTACTOR PANEL	100mm x 150mm	25mm	BLACK ON WHITE
B	1	SEE DETAIL A	50mm x 75mm	5mm	BLACK ON WHITE

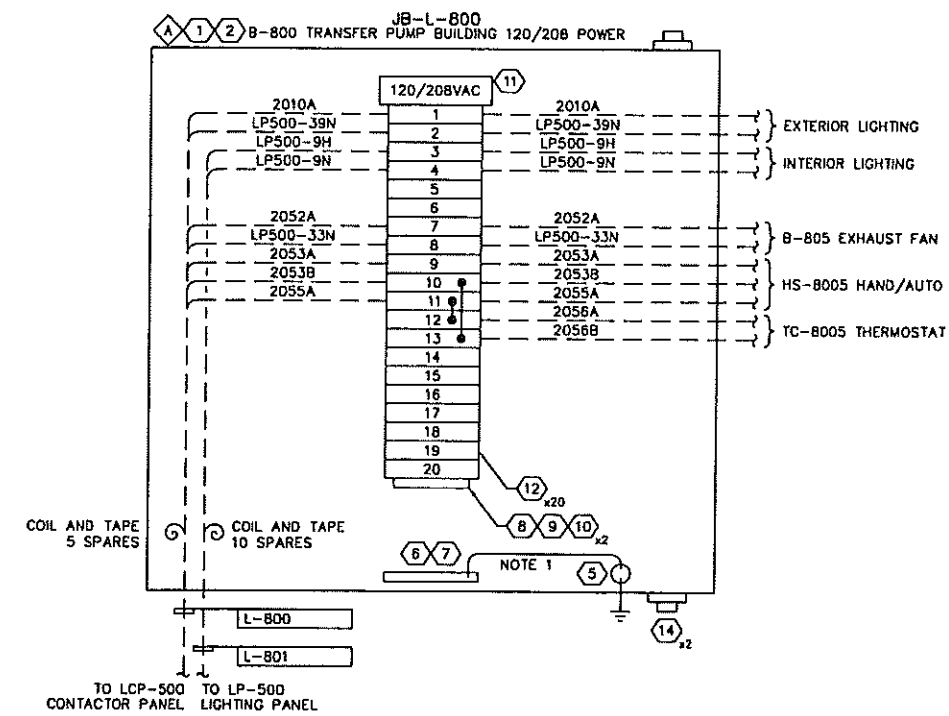
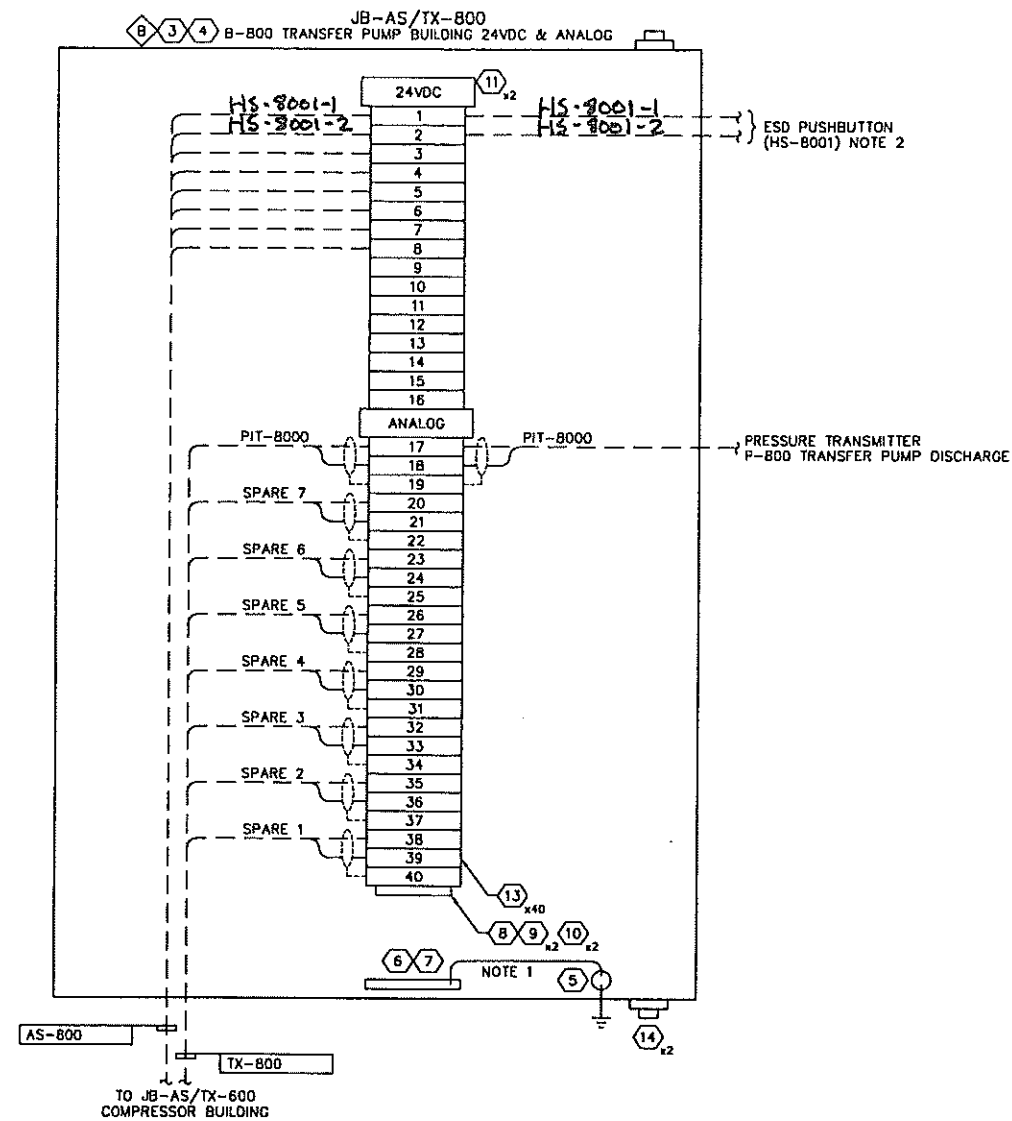


NOTES:
1. CONNECT GROUND BUS TO GROUND LUG WITH A GREEN INSULATED #10 AWG CONDUCTOR.

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
		<p>PERMIT TO PRACTICE TRIDYNE PROJECTS CORP. Signature _____ Date _____ PERMIT NUMBER: P 8630 The Association of Professional Engineers, Geologists and Geophysicists of Alberta</p>							
			2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SP	DMJ
			2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
			2006052	A	ISSUED FOR INFORMATION ONLY	05-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST
TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT
MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
LCP-500
CONTACTOR PANEL LAYOUT
SCALE: 1:2 DWG. No. D-SWN-265-109 0



BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1	1	JUNCTION BOX NEMA 4X	HOFFMAN	A12106CHORFG	12"x10"x6"	CONTRACTOR
2	1	BACK PAN	HOFFMAN	A12P10	12"x10"	CONTRACTOR
3	1	JUNCTION BOX NEMA 4X	HOFFMAN	A14128CHORFG	14"x12"x8"	CONTRACTOR
4	1	BACK PAN	HOFFMAN	A14P12	14"x12"	CONTRACTOR
5	1	GROUND LUG	BURNDY	K2A26U		CONTRACTOR
6	2	8" LONG GROUND BUS	ILSCO	N174		CONTRACTOR
7	20	GROUND BUS SCREWS	ILSCO	E-153		CONTRACTOR
8	AS REQ	MOUNTING RAIL	WEIDMULLER	TS-35		CONTRACTOR
9	3	TERMINAL BLOCK END PLATE	WEIDMULLER	WAP2.5-10		CONTRACTOR
10	4	TERMINAL BLOCK END BRACKET	WEIDMULLER	EW35		CONTRACTOR
11	3	LABEL HOLDER	WEIDMULLER	ScHT5		CONTRACTOR
12	20	TERMINAL BLOCK	WEIDMULLER	WOU6		CONTRACTOR
13	40	TERMINAL BLOCK	WEIDMULLER	WOU2.5		CONTRACTOR
14	4	BREATHING/DRAIN	KILLARK	KOB-1		CONTRACTOR

LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	JB-L-800 120/208 POWER	100mm x 150mm	25mm	BLACK ON WHITE
B	1	JB-AS/TX-800 24VDC & ANALOG	100mm x 150mm	25mm	BLACK ON WHITE

NOTES:
 1. CONNECT GROUND BUS TO GROUND LUG WITH A GREEN INSULATED #10 AWG CONDUCTOR.
 2. SEE TOROMONT DWG. 12235-601 SHT. 2

REFERENCE DRAWING	DESCRIPTION
D-SWN-261-109	ELECTRICAL EQUIPMENT LAYOUT

STAMPS & PERMITS

PERMIT TO PRACTICE
 TRIDYNE PROJECTS CORP.
 Signature _____
 Date _____
 PERMIT NUMBER: P 8630
 The Association of Professional Engineers,
 Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST

ENERGY TRUST

TRIDYNE PROJECTS

CORPORATION

PENN WEST ENERGY TRUST

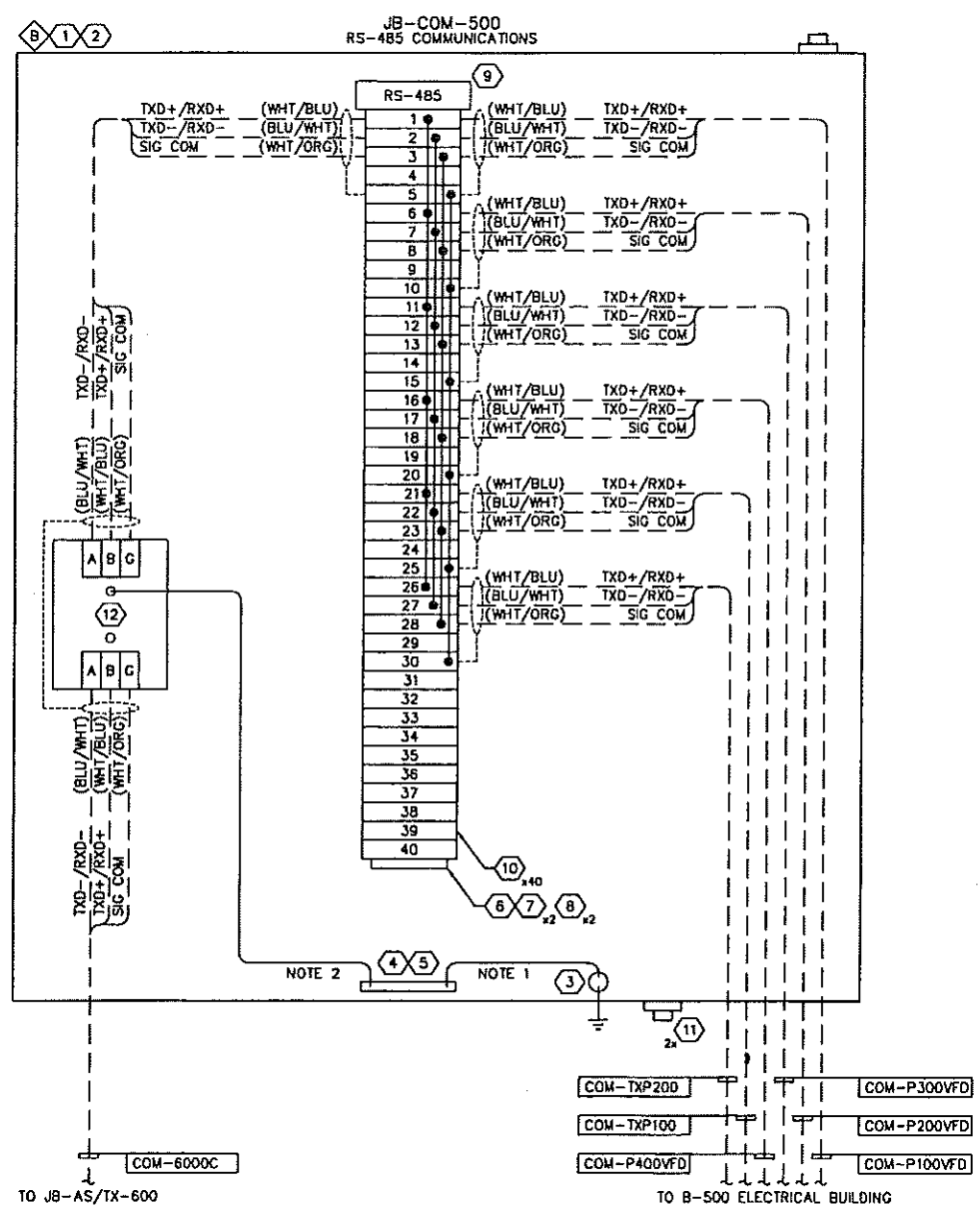
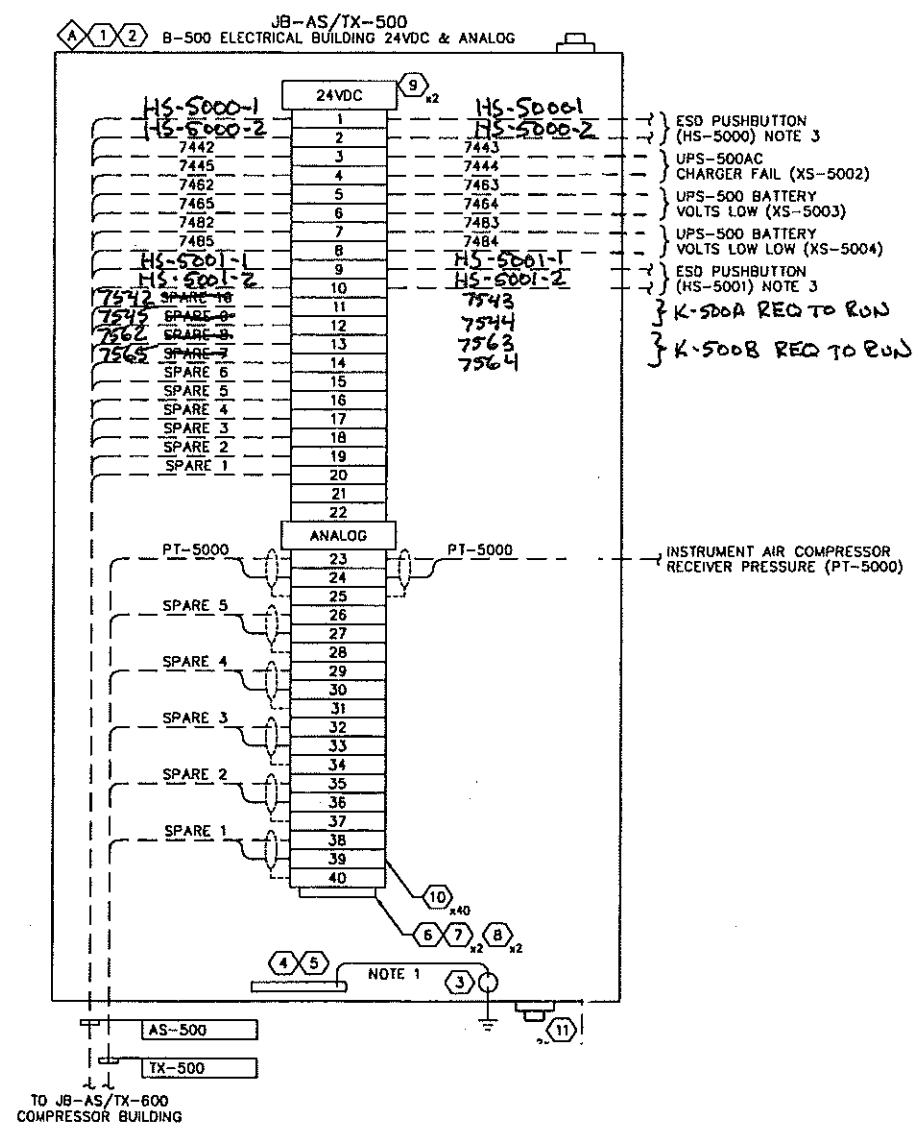
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
 LSD: 12-12-65-11 W5M
 B-800 TRANSFER PUMP BUILDING
 JUNCTION BOX LAYOUT

SCALE: NTS DWG. No. D-SWN-265-111 0

BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NO.	SIZE	SUPPLIER
1	2	JUNCTION BOX NEMA 4X	HOFFMAN	A1412BCHQRF	14"x12"x8"	CONTRACTOR
2	2	BACK PAN	HOFFMAN	A14P12	14"x12"	CONTRACTOR
3	2	GROUND LUG	BURNDY	K2A26U		CONTRACTOR
4	2	B" LONG GROUND BUS	ILSCO	N174		CONTRACTOR
5	40	GROUND BUS SCREWS	ILSCO	E-153		CONTRACTOR
6	AS REQ	MOUNTING RAIL	WEIDMULLER	TS-35		CONTRACTOR
7	4	TERMINAL BLOCK END PLATE	WEIDMULLER	WAP2.5-10		CONTRACTOR
8	4	TERMINAL BLOCK END BRACKET	WEIDMULLER	EW35		CONTRACTOR
9	3	LABEL HOLDER	WEIDMULLER	Sch15		CONTRACTOR
10	80	TERMINAL BLOCK	WEIDMULLER	WDU2.5		CONTRACTOR
11	4	BREATHER/DRAIN	KILLARK	KOB-1		CONTRACTOR
12	1	RS-485 SURGE PROTECTOR	B&B ELECTRONICS	4B5HESP		OWNER

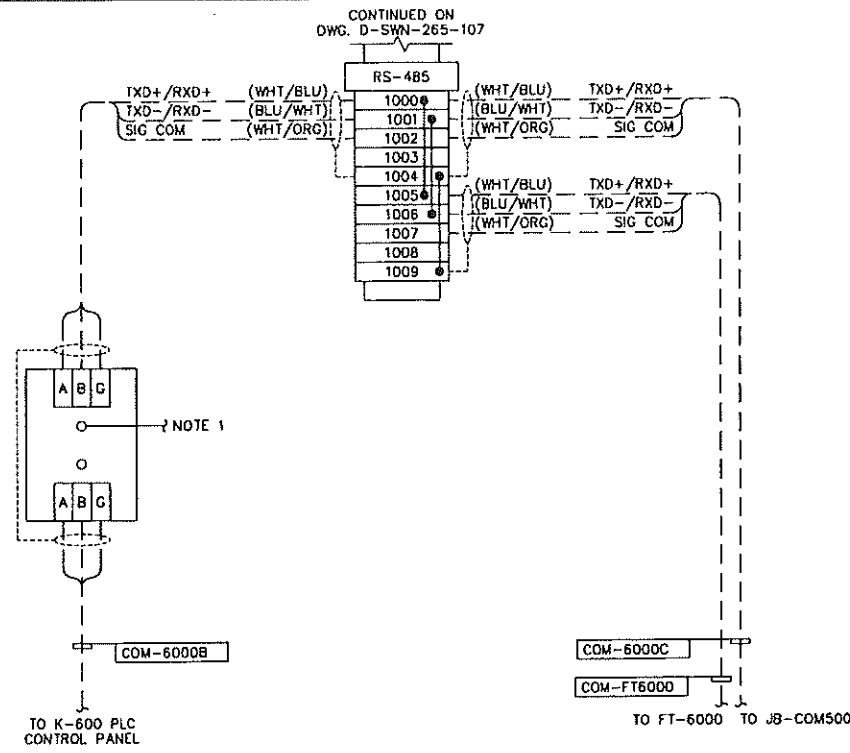
LAMICOID ENGRAVING SCHEDULE					
ITEM	QTY	DESCRIPTION	LAMICOID SIZE	LETTER SIZE	COLOR (LETTER/LAMICOID)
A	1	JB-AS/TX-500 24VAC & ANALOG	100mm x 150mm	25mm	BLACK ON WHITE
B	1	JB-COM-500 RS-485 COMMUNICATIONS	100mm x 150mm	25mm	BLACK ON WHITE



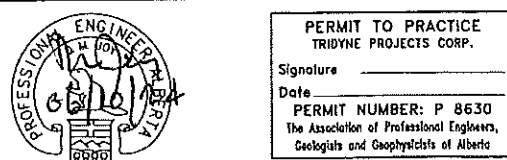
NOTES:
 1. CONNECT GROUND BUS TO GROUND LUG WITH A GREEN INSULATED #10 AWG CONDUCTOR.
 2. GROUND SURGE PROTECTOR TO GROUND BUS UTILIZING #10 AWG CONDUCTOR.
 3. SEE TOROMONT DWG. 12235-601 SHT. 2


REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS		PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D	PENN WEST ENERGY TRUST		
D-SWN-261-106	ELECTRICAL LAYOUT			2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ		SOUTH SWAN HILLS - 4 WELL CBM PILOT		
				2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP			MULTI WELL COMPRESSOR STATION LSD: 12-12-65-11 WSM	
				2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ		B-500 ELECTRICAL/INSTRUMENT AIR BUILDING JUNCTION BOX LAYOUTS	
												SCALE: NTS	DWG. No. D-SWN-265-112

TRIDYNE PROJECTS CORPORATION



NOTES:
1. GROUND SURGE PROTECTOR TO GROUND BUS UTILIZING #10 AWG CONDUCTOR.

REFERENCE DRAWING	DESCRIPTION	STAMPS & PERMITS	PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
D-SWN-261-105	ELECTRICAL AND INSTRUMENTATION LAYOUT								
D-SWN-265-106	JUNCTION BOX JB-AS/TX-600 (PAGE 1 OF 3)								
D-SWN-265-107	JUNCTION BOX JB-AS/TX-600 (PAGE 2 OF 3)								
D-SWN-265-108	JUNCTION BOX JB-AS/TX-600 LAYOUT								
			2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	[Signature]	DMJ
			2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
			2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

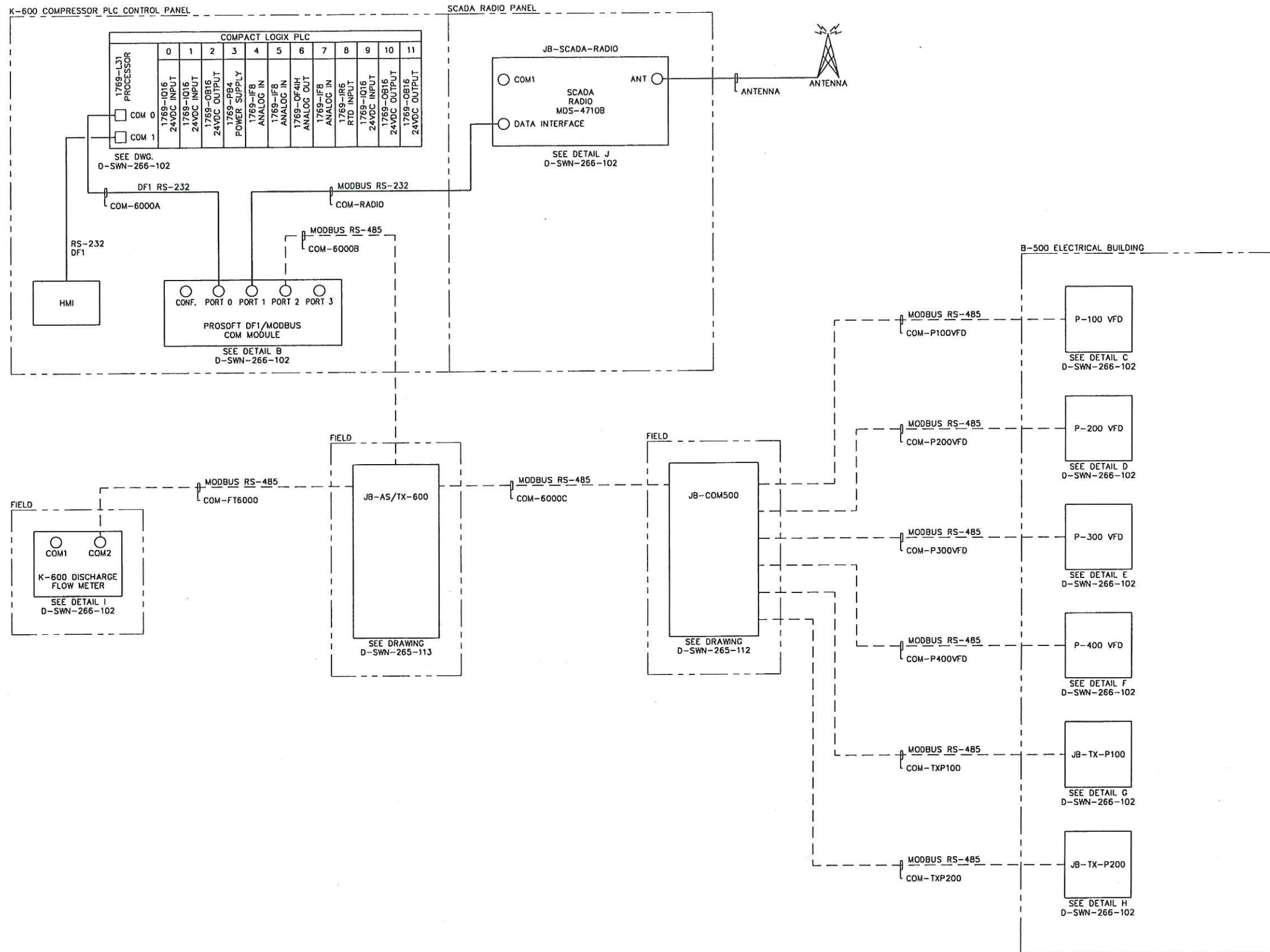


PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT
MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
JB-AS/TX-600 COMPRESSOR BUILDING 24VDC & ANALOG
JUNCTION BOX (PAGE 3 OF 3)

SCALE: NTS DWG. No. D-SWN-265-113 0



REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature _____

Date _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	
2006052	B	ISSUED FOR APPROVAL	05-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST

ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST

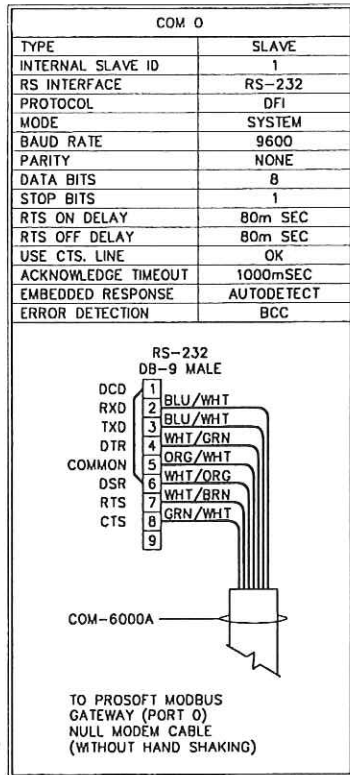
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
COMMUNICATION SYSTEM
CONFIGURATION & TERMINATION DETAILS

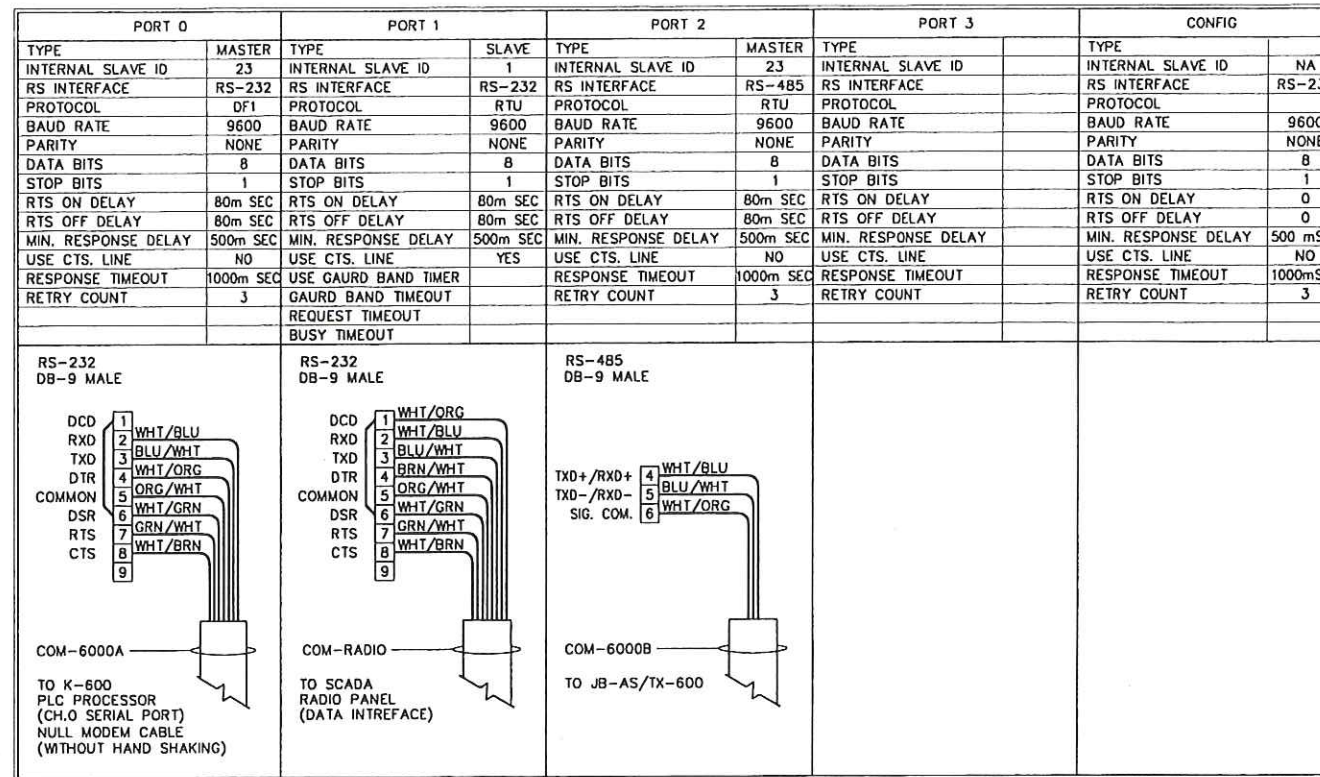
SCALE: NTS DWG. No. D-SWN-266-101 0

Date: 2006.10.20 3:01pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\D-SWN-266-102.DWG By: SW

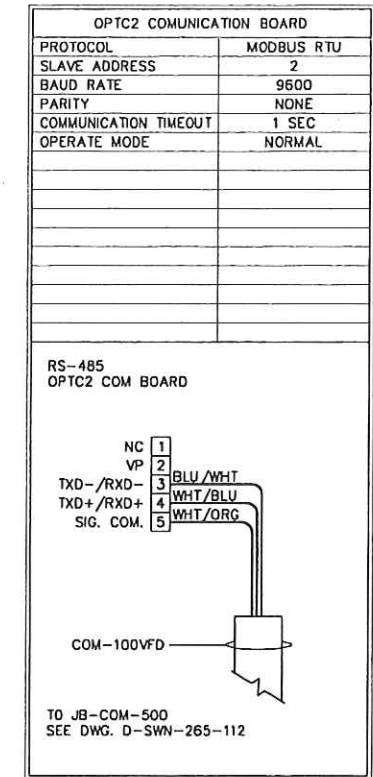
DETAIL A
COMPACT LOGIX PROCESSOR COM 0 CONFIGURATION



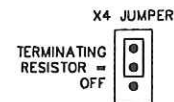
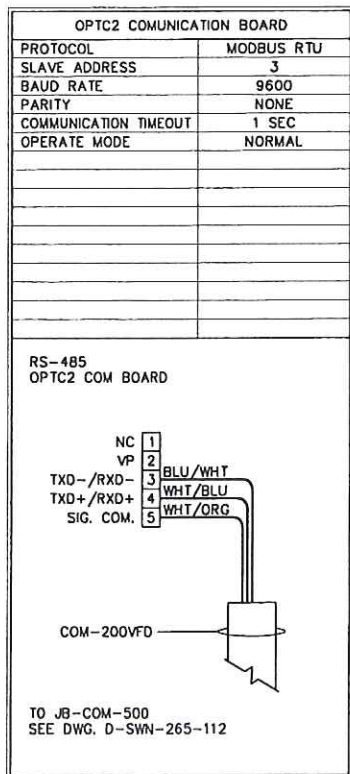
DETAIL B
PROSOFT 5102-MCM4-DFCM4 CONFIGURATION



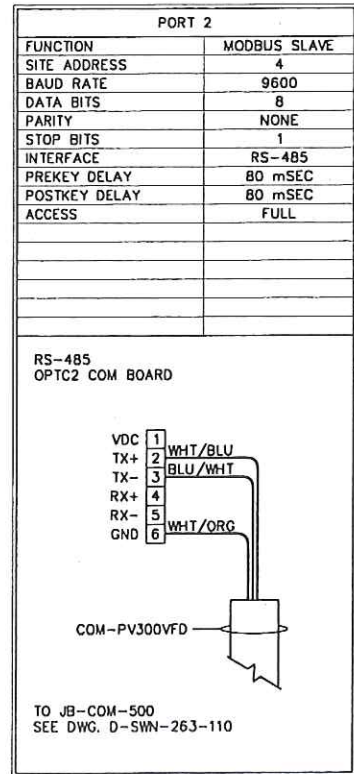
DETAIL C
CUTLER-HAMER SVX9000 MODBUS COMMUNICATION CONFIGURATION



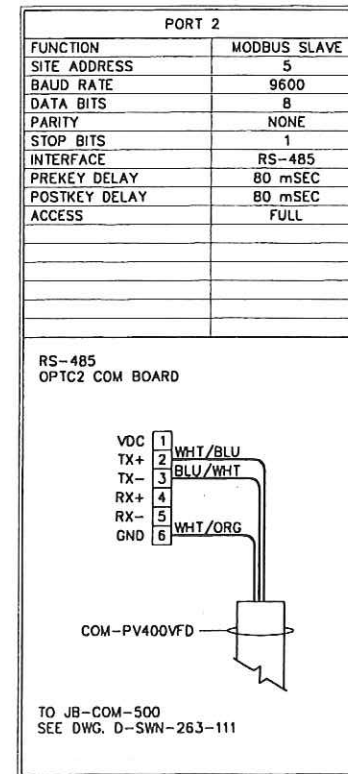
DETAIL D
CUTLER-HAMER SVX9000 MODBUS COMMUNICATION CONFIGURATION



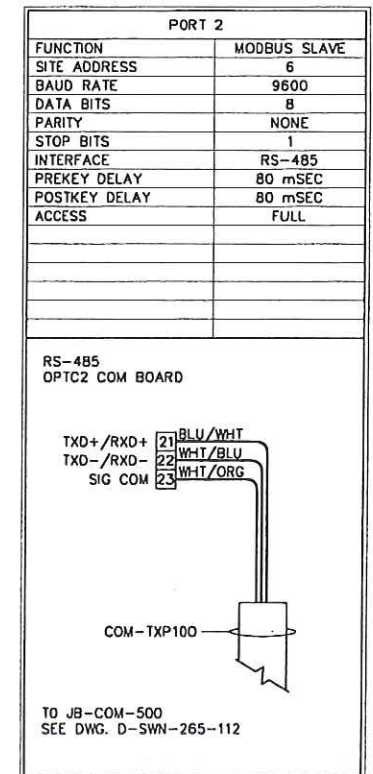
DETAIL E
UNICONN MODBUS COMMUNICATION CONFIGURATION



DETAIL F
UNICONN MODBUS COMMUNICATION CONFIGURATION



DETAIL G
UNICONN MODBUS COMMUNICATION CONFIGURATION



REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.

Signature: _____
Date: _____

PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	SJP	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST

TRIDYNE PROJECTS
CORPORATION

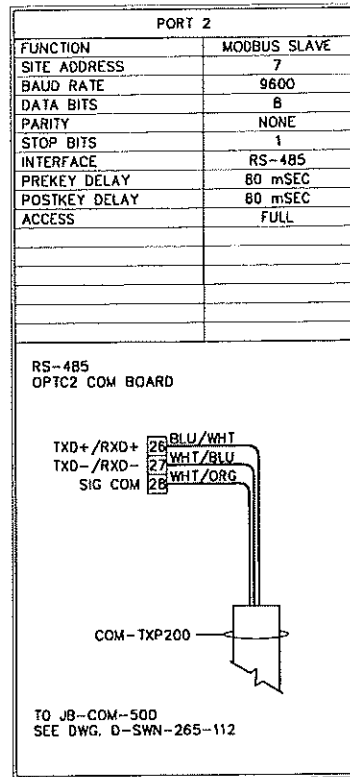
PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSD: 12-12-65-11 WSM
COMMUNICATION SYSTEM
CONFIGURATION & TERMINATION DETAILS

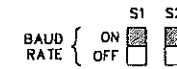
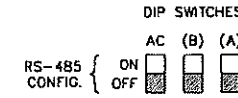
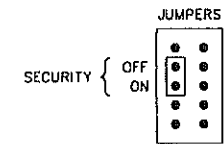
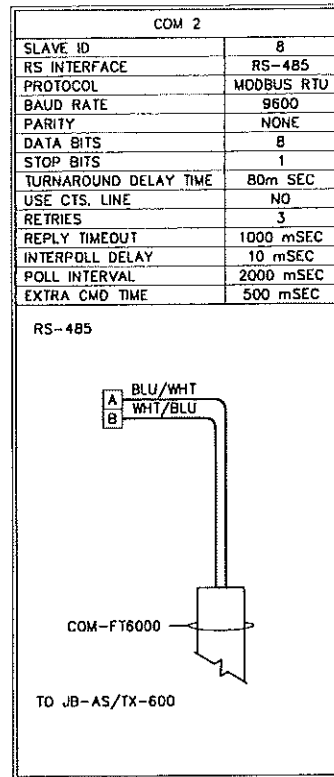
SCALE: NTS DWG. No. D-SWN-266-102 0

Date: 2006.10.20 3:01pm File Name: X:\PENN WEST\2006052 SOUTH SWAN HILLS - 4 WELL CBM PILOT\ELECTRICAL\0-SWN-266-103.DWG Df: SW

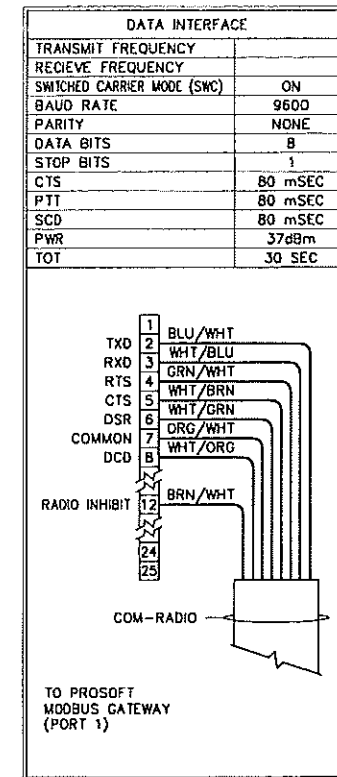
DETAIL H
UNICOMN MODBUS COMMUNICATION CONFIGURATION



DETAIL I
ROSEMOUNT 3095 FT MODBUS COMMUNICATION CONFIGURATION



DETAIL J
00G-4710B SCADA RADIO



REFERENCE DRAWING	DESCRIPTION

STAMPS & PERMITS

PERMIT TO PRACTICE
TRIDYNE PROJECTS CORP.
Signature _____
Date _____
PERMIT NUMBER: P 8630
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

PROJ. No.	No.	REVISION DESCRIPTION	DATE	BY	CHKD	APP'D
2006052	0	ISSUED FOR CONSTRUCTION	06-10-23	SCB	DMJ	DMJ
2006052	B	ISSUED FOR APPROVAL	06-10-17	KD	SJP	
2006052	A	ISSUED FOR INFORMATION ONLY	06-10-11	KD	SJP	DMJ

PENN WEST
ENERGY TRUST

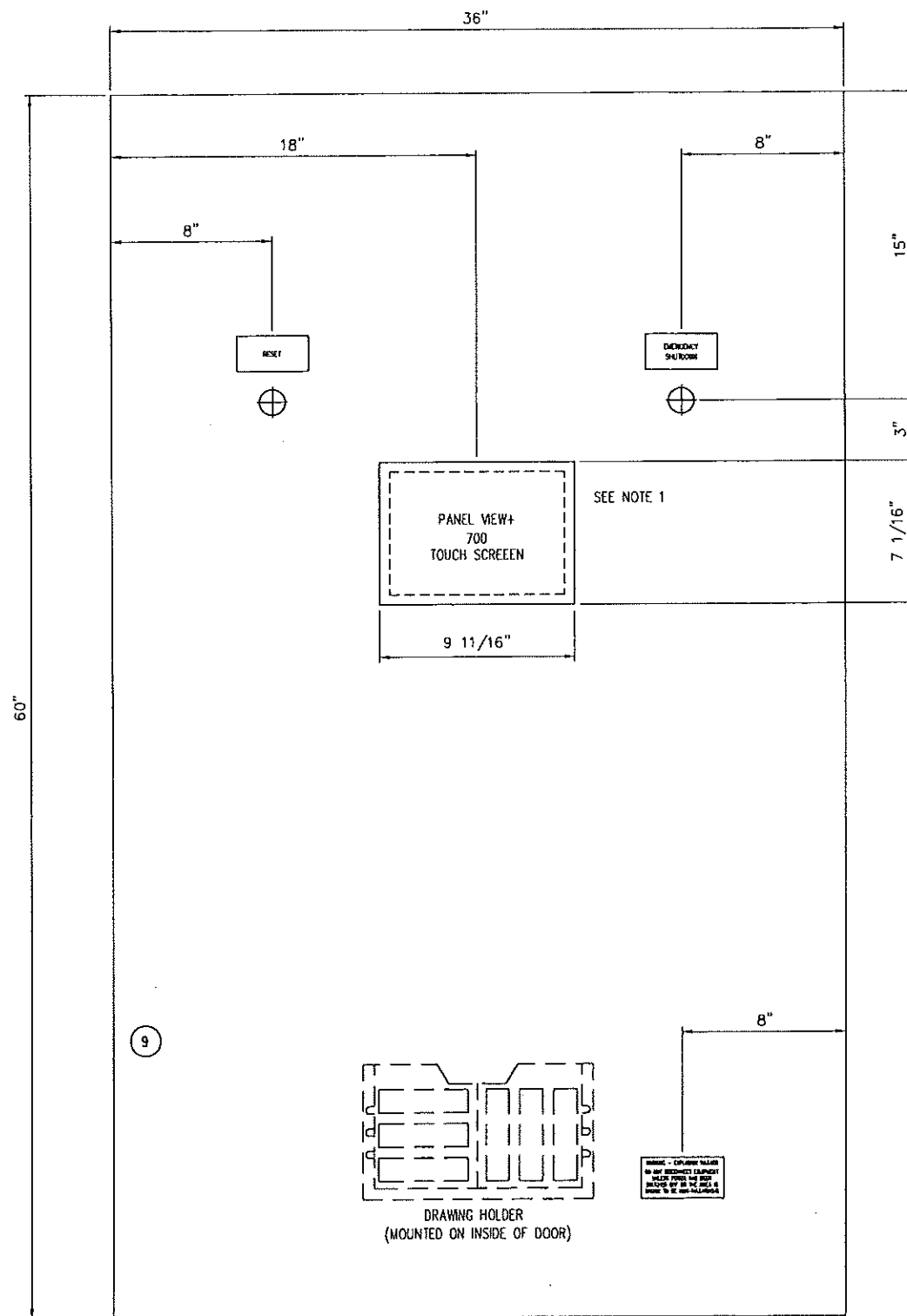
TRIDYNE PROJECTS
CORPORATION

PENN WEST ENERGY TRUST
SOUTH SWAN HILLS - 4 WELL CBM PILOT

MULTI WELL COMPRESSOR STATION
LSO: 12-12-65-11 WSM
COMMUNICATION SYSTEM
CONFIGURATION & TERMINATION DETAILS

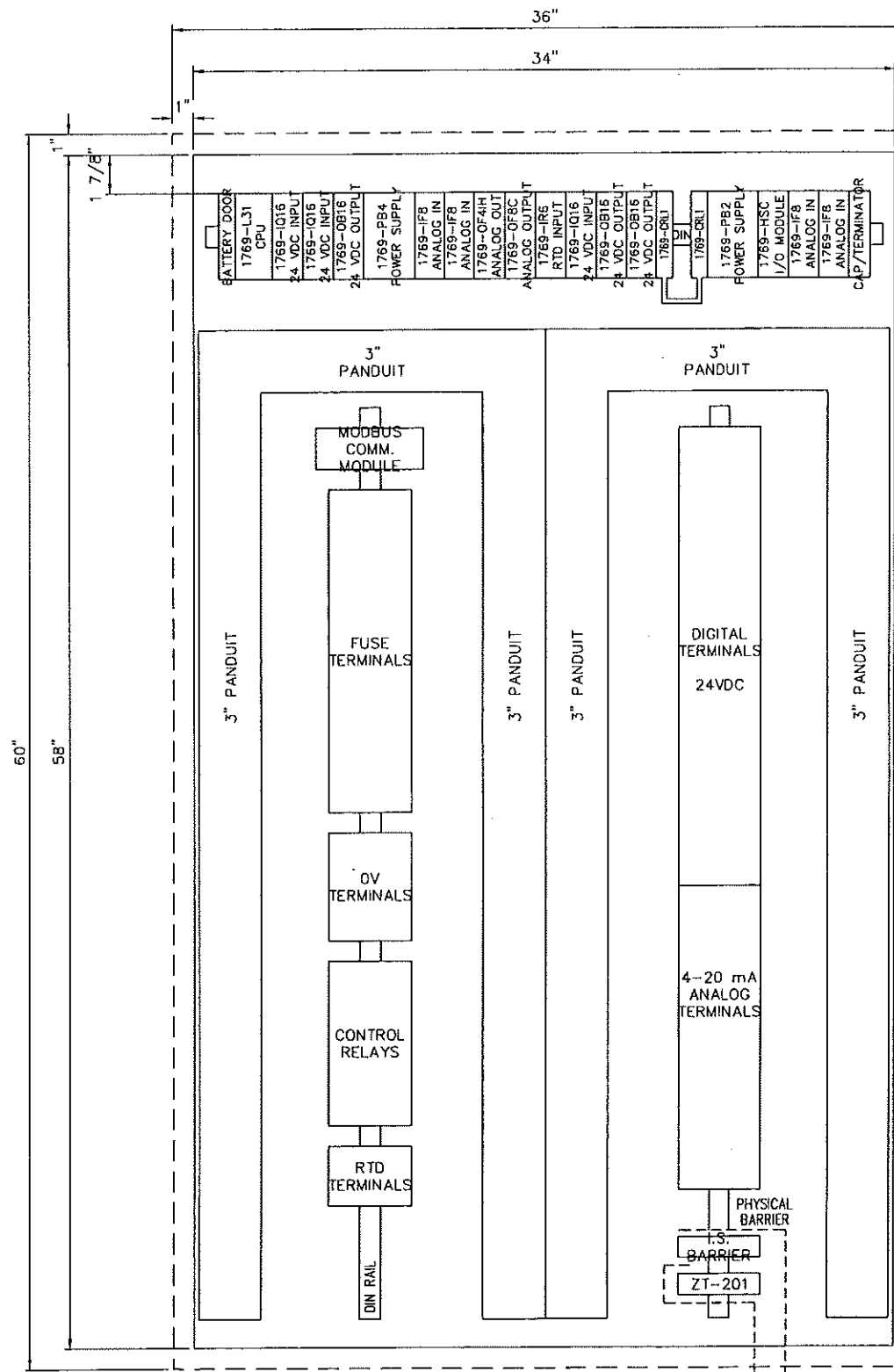
SCALE: NTS DWG. No. 0-SWN-266-103 0

THE INFORMATION CONTAINED HEREIN IS THE CONFIDENTIAL PROPERTY OF TOROMONT ENERGY SYSTEMS AND IS NOT FOR PUBLICATION AND NO PART THEREOF SHALL BE COPIED OR COMMUNICATED TO A THIRD PARTY WITHOUT AUTHORIZATION FROM TOROMONT ENERGY SYSTEMS.



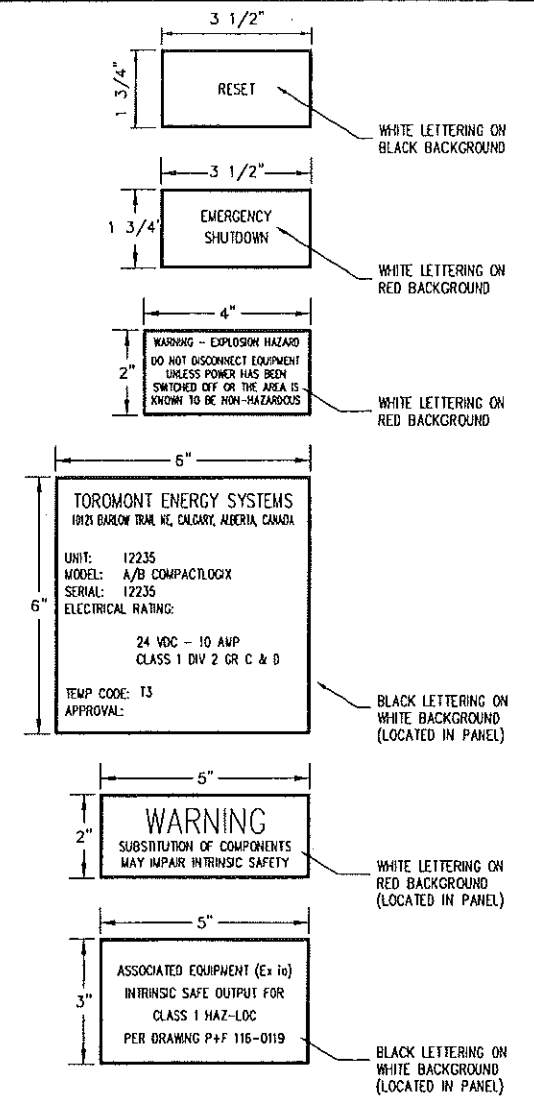
DOOR LAYOUT
PLC ENCLOSURE, NEMA4
EUROBEX 5412ES603612

NOTE 1:
MOUNTING HEIGHT FOR THE CENTRE OF THE
OPERATING INTERFACE DISPLAY IS TO BE
5'-4" FROM TOP OF THE SKID BASE



BACK PANEL LAYOUT

NOTE:
BRING IN CONDUIT FOR
I.S. CIRCUITS HERE.



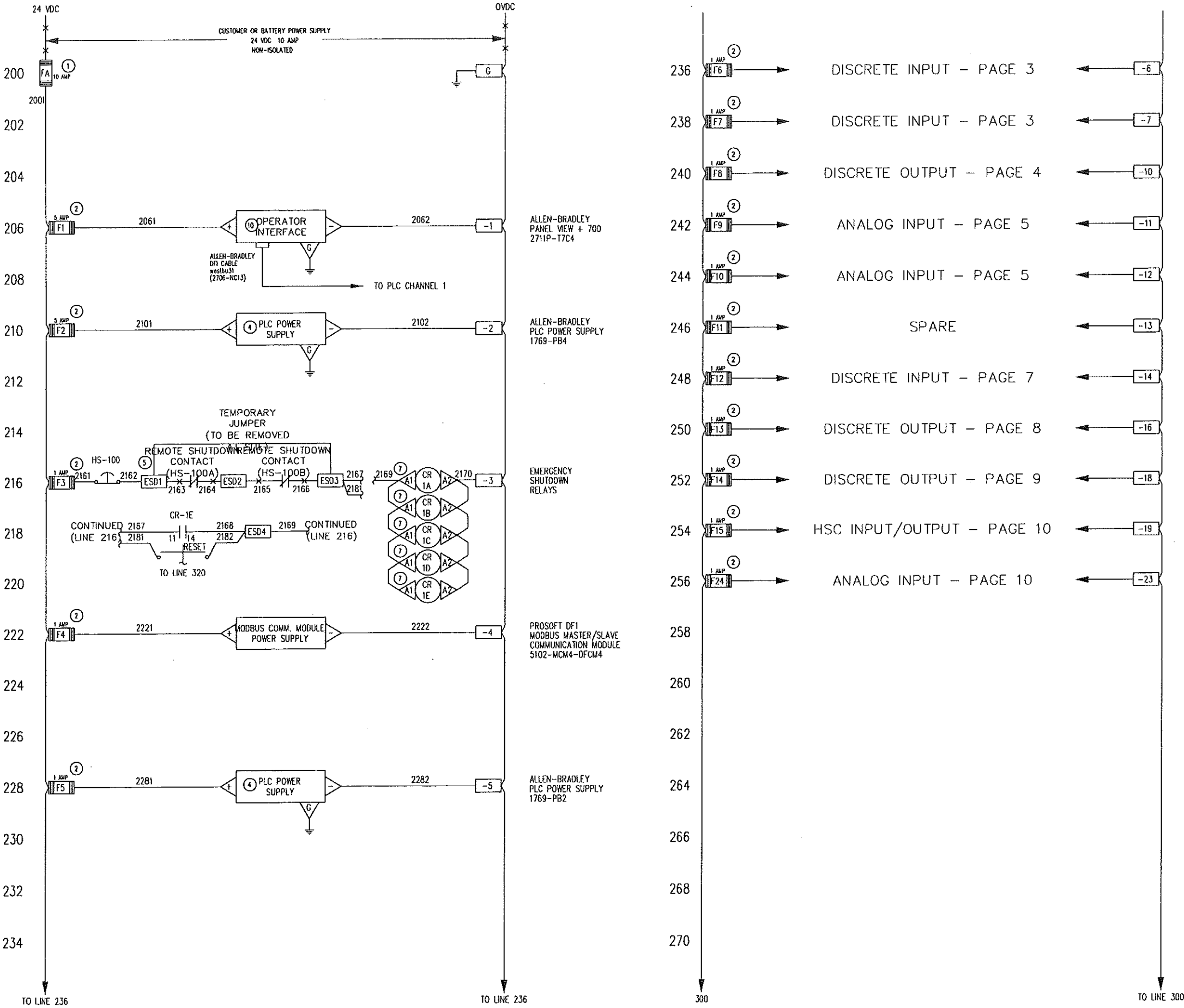
LAMICOID DETAILS

10	CUSTOMER REVISION	OCT 16/06	CB
9	CUSTOMER REVISION	OCT 06/06	CB
8	CUSTOMER REVISION	SEP 28/06	CB
7	AS BUILT	SEP 11/06	CB
6	REVISION - ADD BYPASS, REMOVE FIRE/GAS	SEP 06/06	CB
5	REVISION	AUG 21/06	DE
4	REVISION	AUG 14/06	DE
3	REVISION	JUL 31/06	DE
2	REVISION	JUL 13/06	CB
1	ISSUED FOR CONSTRUCTION	JUL 10/06	CB

REV.	DESCRIPTION	DATE	BY	APPR.
ISSUED FOR CONSTRUCTION OCT 16 2006 PER C. BOHNET				
				ENGINEER STAMP

		TITLE: CONTROL PANEL SCHEMATIC	
DRAWN BY: C. BOHNET	DATE: JUN 26, 2006	FOR: TESI UNIT #12235 PENN WEST 350 HP ELECTRIC DRIVE BOOSTER COMPRESSOR	
CHECKED BY: G. McLEAN	SCALE: N.T.S.		
APPR. BY: G. McLEAN	W.D. No: 12235601		
CUST. PO No:	DWG. No: 12235-601	SHEET No: 1 OF 11	REV: 10

THE INFORMATION CONTAINED HEREIN IS THE CONFIDENTIAL PROPERTY OF TOROMONT ENERGY SYSTEMS AND IS NOT FOR PUBLICATION, AND NO PART THEREOF SHALL BE COPIED OR COMMUNICATED TO A THIRD PARTY WITHOUT AUTHORIZATION FROM TOROMONT ENERGY SYSTEMS.



LEGEND
WIRING DESCRIPTION

- CONTROL PANEL WIRING BY TOROMONT ENERGY SYSTEMS
- - - SKID WIRING BY TOROMONT ENERGY SYSTEMS
- X-X- WIRING BY OTHERS
- TERMINAL INTERCONNECTING STRIP

- SKID WIRING TO BE STRANDED COPPER #14 AWG T-90.
- PANEL WIRING TO BE STRANDED COPPER #18 AWG TEW.
- 4 TO 20 mA ANALOG CABLE BELDEN 8760
- 1 PAIR 18 AWG/TWISTED/SHIELDED/BLACK & WHITE
- THERMOCOUPLES TO BE WIRED USING THERMOCOUPLE EXTENSION WIRE
- RTD/POTENTIOMETER ANALOG CABLE BELDEN 8770
- 3 CONDUCTOR 18 AWG/TWISTED/SHIELDED/BLACK, RED AND WHITE.
- CONTROL PANEL WIRING COLOUR CODING :
D/C POSITIVE - WHITE D/C LOGIC - WHITE
D/C NEGATIVE - BLACK GROUND - GREEN
- CONNECT ALL INSTRUMENT GROUNDS TO THE INSTRUMENT GROUND BAR.

TERMINAL AND ITEM DESCRIPTION

- TERMINALS ON TERMINAL STRIP IN THE CONTROL PANEL
- ⊞ FUSE TERMINALS ON TERMINAL STRIP IN THE CONTROL PANEL
- △ TERMINALS ON EQUIPMENT
- BOM REFERENCE NUMBERS

F - 24 VDC POSITIVE FUSE
G - INSTRUMENT GROUND
+M } 4-20 MA LOOP
-M }
T - TEMPERATURE ELEMENT
Z - POTENTIOMETER
HS - HAND SWITCH
CR - CONTROL RELAY

TERMINAL SPECIFICATIONS

- TERMINALS T1 TO T18 ARE WEIDMULLER TYPE WDU 2.5N CAT. NO. 104080
- TERMINAL G IS WDU10 CAT. NO. 102030; ALL OTHER OV TERMINALS ARE WEIDMULLER TYPE WDU 4N CAT. NO. 104260
- TERMINALS ARE WEIDMULLER TYPE WDK 2.5N CAT. NO. 104460 UNLESS OTHERWISE NOTED

REV.	DESCRIPTION	DATE	BY	APPR.
10	CUSTOMER REVISION	OCT 16/06	CB	
9	CUSTOMER REVISION	OCT 06/06	CB	
8	CUSTOMER REVISION	SEP 28/06	CB	
7	AS BUILT	SEP 11/06	CB	
6	REVISION - ADD BYPASS, REMOVE FIRE/GAS	SEP 06/06	CB	
5	REVISION	AUG 21/06	DE	
4	REVISION	AUG 14/06	DE	
3	REVISION	JUL 31/06	DE	
2	REVISION	JUL 13/06	CB	
1	ISSUED FOR CONSTRUCTION	JUL 10/06	CB	

TOROMONT ENERGY SYSTEMS INC.

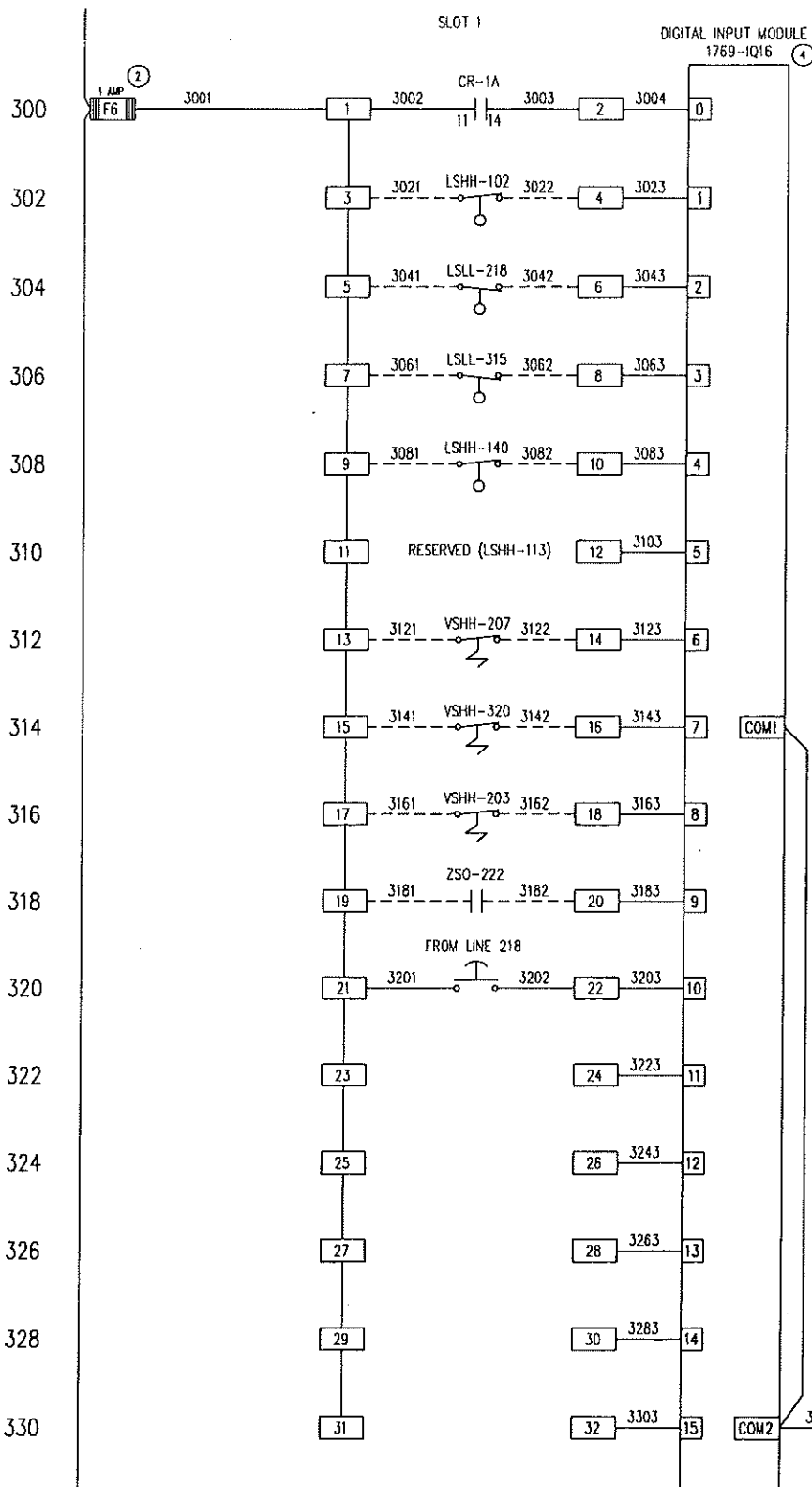
ISSUED FOR CONSTRUCTION

OCT 16 2006

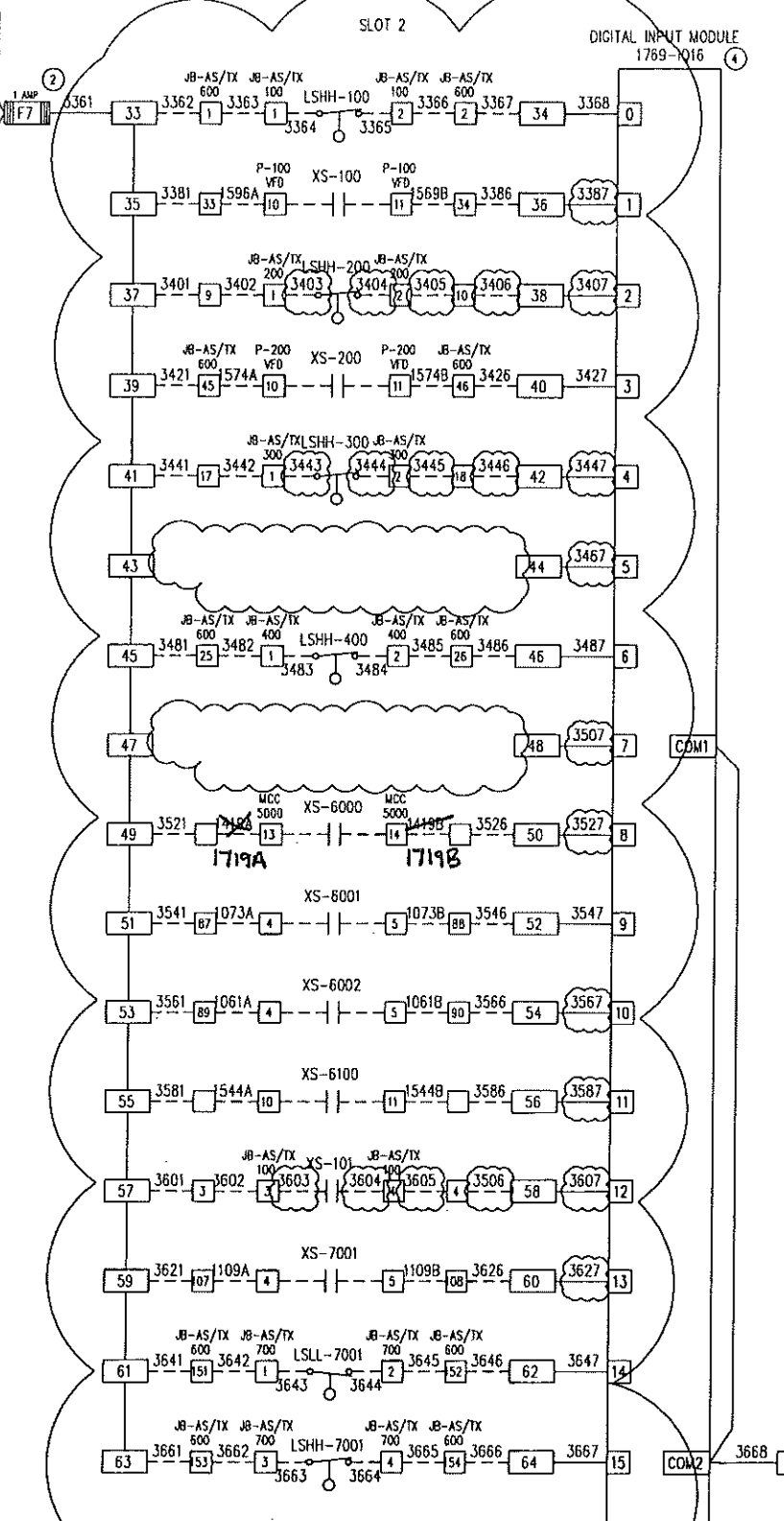
PER **C. BOHNET**

TOROMONT ENERGY SYSTEMS		TITLE: CONTROL PANEL SCHEMATIC	
FOR: TESI UNIT #12235 PENN WEST 350 HP ELECTRIC DRIVE BOOSTER COMPRESSOR	DATE: JUN 26, 2006	SCALE: N.T.S.	W.O. No: 12235601
DRAWN BY: C. BOHNET	CHKD. BY: G. McLEAN	APPR. BY: G. McLEAN	CUST. PO No:
DWC. No: 12235-601		SHEET No: 2 OF 11	REV: 10

THE INFORMATION CONTAINED HEREIN IS THE CONFIDENTIAL PROPERTY OF TOROMONT ENERGY SYSTEMS AND IS NOT FOR PUBLICATION AND NO PART THEREOF SHALL BE COPIED OR COMMUNICATED TO A THIRD PARTY WITHOUT AUTHORIZATION FROM TOROMONT ENERGY SYSTEMS.



- EMERGENCY SHUTDOWN
- COMPRESSOR SUCTION SCRUBBER HIGH LEVEL SHUTDOWN SWITCH (PRE-FILTERS)
- OIL SEPARATOR LOW LEVEL SHUTDOWN SWITCH
- GLYCOL TANK LOW LEVEL SHUTDOWN SWITCH
- COMPRESSOR SUCTION SCRUBBER HIGH LEVEL SHUTDOWN SWITCH (POST-FILTERS)
- OIL SEPARATOR HIGH LEVEL SHUTDOWN SWITCH (RESERVED)
- COMPRESSOR MOTOR HIGH VIBRATION SHUTDOWN SWITCH
- COOLER FAN HIGH VIBRATION SHUTDOWN SWITCH
- COMPRESSOR HIGH VIBRATION SHUTDOWN SWITCH
- COMPRESSOR MOTOR AUX. RUN CONTACT
- EMERGENCY SHUTDOWN RESET
- SPARE
- SPARE
- SPARE
- SPARE
- SPARE
- SPARE



- V-100 SEPARATOR HIGH LEVEL SHUTDOWN SWITCH
- P-100 SUBMERSIBLE PUMP VFD RUN STATUS
- V-200 SEPARATOR HIGH LEVEL SHUTDOWN SWITCH
- P-200 SUBMERSIBLE PUMP VFD RUN STATUS
- V-300 SEPARATOR HIGH LEVEL SHUTDOWN SWITCH
- SPARE
- V-400 SEPARATOR HIGH LEVEL SHUTDOWN SWITCH
- SPARE
- K-600 COMPRESSOR RUN STATUS
- P-601 GLYCOL CIRCULATION PUMP RUN STATUS
- P-602 PRE-LUBE PUMP RUN STATUS
- C-610 COOLER FAN RUN STATUS
- LDS-100 P-100 LOCAL DISCONNECT STATUS
- HRT-705 STORAGE TANK HEATER ON STATUS
- T-700 WATER TANK LOW LEVEL SHUTDOWN SWITCH
- T-700 WATER TANK HIGH LEVEL SHUTDOWN SWITCH

REV.	DESCRIPTION	DATE	BY	APPR.
10	CUSTOMER REVISION	OCT 16/06	CB	
9	CUSTOMER REVISION	OCT 06/06	CB	
8	CUSTOMER REVISION	SEP 28/06	CB	
7	AS BUILT	SEP 11/06	CB	
6	REVISION - ADD BYPASS, REMOVE FIRE/GAS	SEP 06/06	CB	
5	REVISION	AUG 21/06	DE	
4	REVISION	AUG 14/06	DE	
3	REVISION	JUL 31/06	OE	
2	REVISION	JUL 13/06	CB	
1	ISSUED FOR CONSTRUCTION	JUL 10/06	CB	

TOROMONT ENERGY SYSTEMS INC.

ISSUED FOR CONSTRUCTION

OCT 16 2006

PER **C. BOHNET**

TOROMONT ENERGY SYSTEMS INC.		TITLE: CONTROL PANEL SCHEMATIC	
FOR: TESI UNIT #12235 PENN WEST 350 HP ELECTRIC DRIVE BOOSTER COMPRESSOR	DATE: JUN 26, 2006	SCALE: N.T.S.	W.D. No: 12235601
DRAWN BY: C. BOHNET	CHKD. BY: G. McLEAN	APPR. BY: G. McLEAN	CUST. PO No:
TOROMONT ENERGY SYSTEMS INC.		DRG. No: 12235-601	SHEET No: 3 OF 11

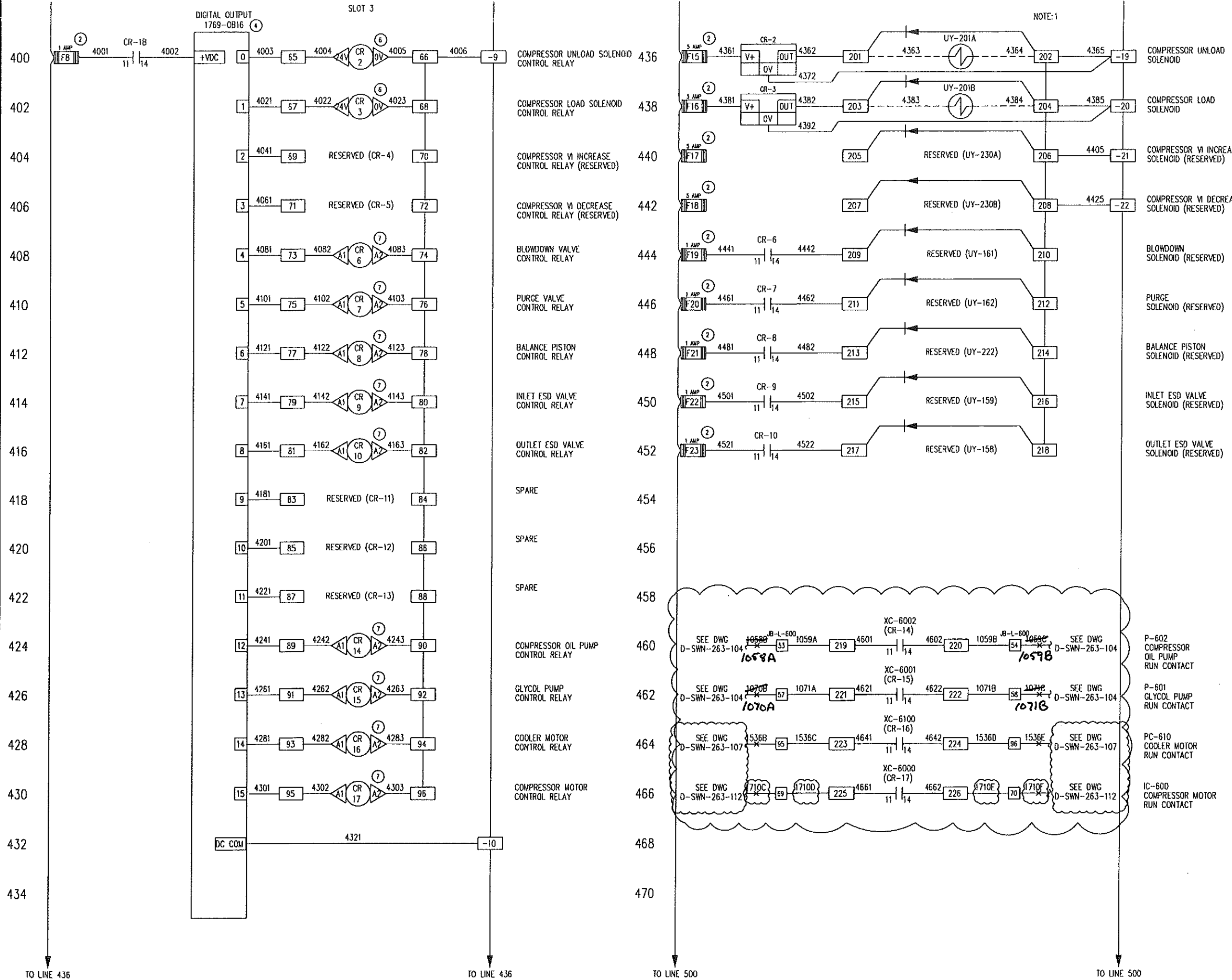
TO LINE 336

TO LINE 336

TO LINE 400

TO LINE 400

THE INFORMATION CONTAINED HEREIN IS THE CONFIDENTIAL PROPERTY OF TOROMONT ENERGY SYSTEMS AND IS NOT FOR PUBLICATION, AND NO PART THEREOF SHALL BE COPIED OR COMMUNICATED TO A THIRD PARTY WITHOUT AUTHORIZATION FROM TOROMONT ENERGY SYSTEMS.



NOTE:1 TERMINALS 201 TO 218 ARE WEIDMULLER TYPE WDK 2.5D CAT. NO. 102340

REV.	DESCRIPTION	DATE	BY	APPR.
10	CUSTOMER REVISION	OCT 16/06	CB	
9	CUSTOMER REVISION	OCT 06/06	CB	
8	CUSTOMER REVISION	SEP 28/06	CB	
7	AS BUILT	SEP 11/06	CB	
6	REVISION - ADD BYPASS, REMOVE FIRE/GAS	SEP 06/06	CB	
5	REVISION	AUG 21/06	DE	
4	REVISION	AUG 14/06	DE	
3	REVISION	JUL 31/06	DE	
2	REVISION	JUL 13/06	CB	
1	ISSUED FOR CONSTRUCTION	JUL 10/06	CB	

ENGINEER STAMP

TOROMONT ENERGY SYSTEMS INC.

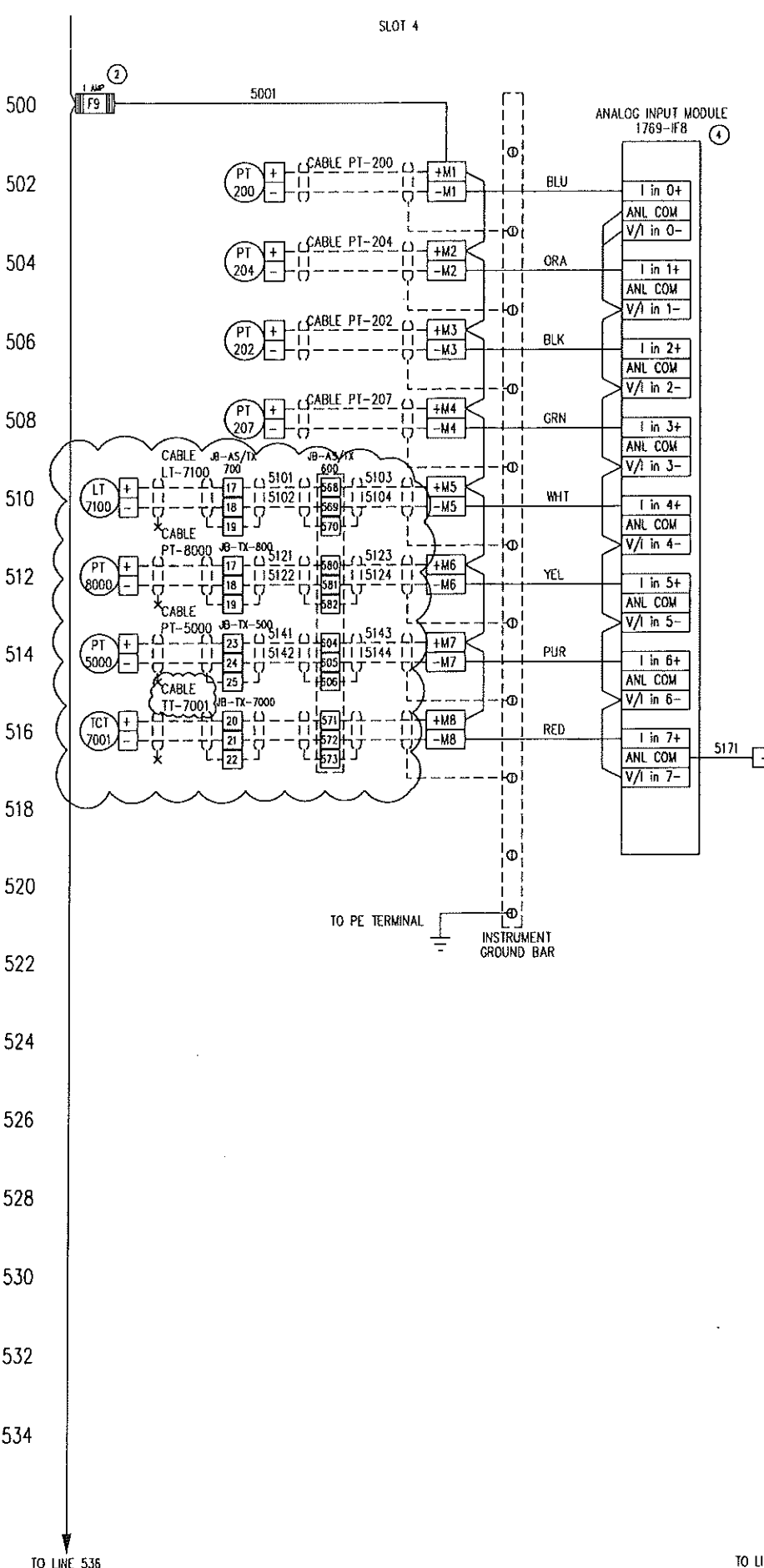
ISSUED FOR CONSTRUCTION

OCT 16 2006

PER **C. BOHNET**

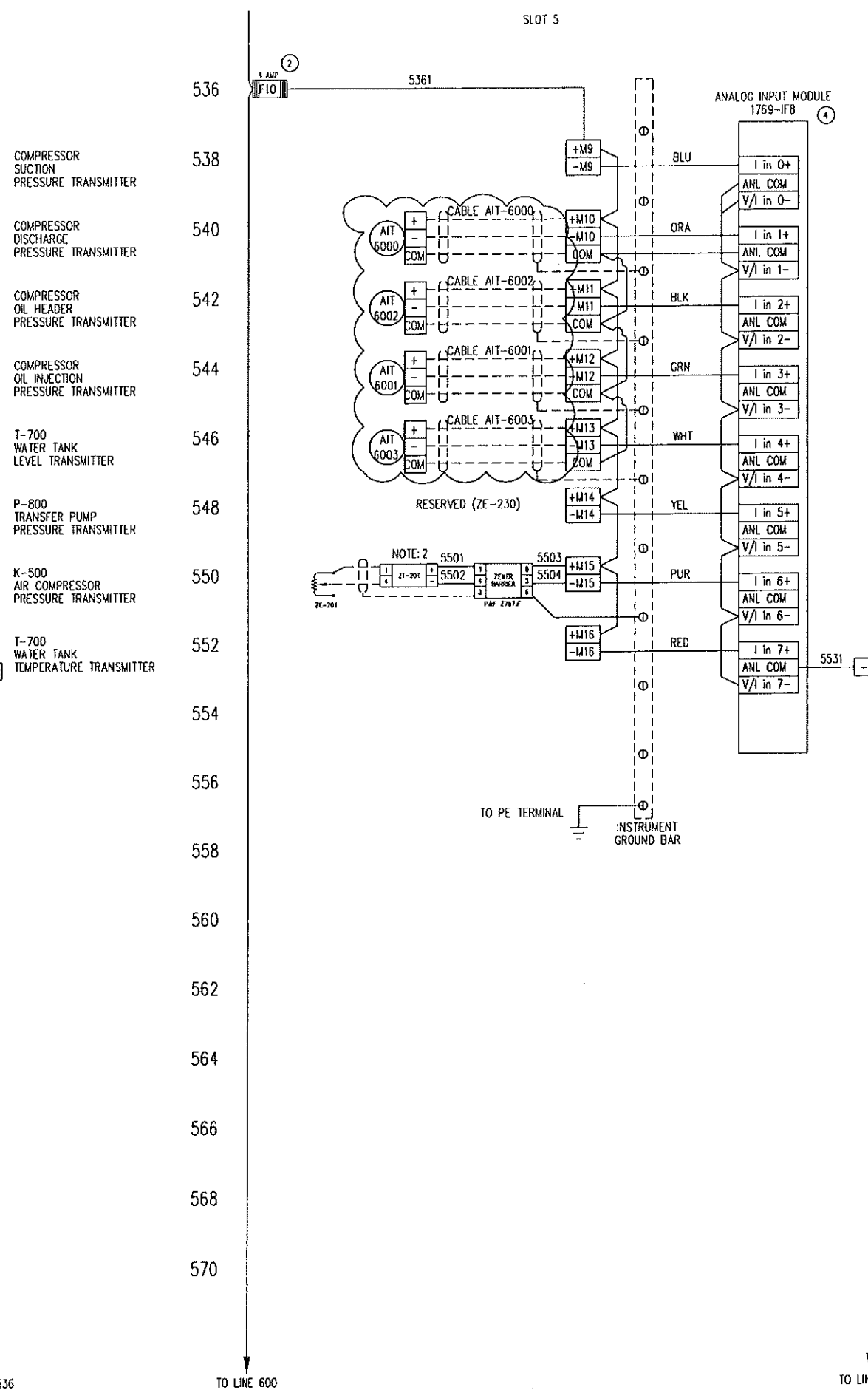
TOROMONT ENERGY SYSTEMS		TITLE: CONTROL PANEL SCHEMATIC	
FOR:	TESI UNIT #12235 PENN WEST 350 HP ELECTRIC DRIVE BOOSTER COMPRESSOR		
DRAWN BY: C. BOHNET	DATE: JUN 26, 2006	SCALE: N.T.S.	
CHKD. BY: G. McLEAN	W.D. No.: 12235601		
APPR. BY: G. McLEAN			
CUST. PO No.:	DWG. No.: 12235-601	SHEET No.:	REV. No.:
		4 OF 11	10

THE INFORMATION CONTAINED HEREIN IS THE CONFIDENTIAL PROPERTY OF TOROMONT ENERGY SYSTEMS AND IS NOT FOR PUBLICATION, AND NO PART THEREOF SHALL BE COPIED OR COMMUNICATED TO A THIRD PARTY WITHOUT AUTHORIZATION FROM TOROMONT ENERGY SYSTEMS.



- 500 502 COMPRESSOR SUCTION PRESSURE TRANSMITTER
- 504 504 COMPRESSOR DISCHARGE PRESSURE TRANSMITTER
- 506 506 COMPRESSOR OIL HEADER PRESSURE TRANSMITTER
- 508 508 COMPRESSOR OIL INJECTION PRESSURE TRANSMITTER
- 510 510 T-700 WATER TANK LEVEL TRANSMITTER
- 512 512 P-800 TRANSFER PUMP PRESSURE TRANSMITTER
- 514 514 K-500 AIR COMPRESSOR PRESSURE TRANSMITTER
- 516 516 T-700 WATER TANK TEMPERATURE TRANSMITTER

TO LINE 536 TO LINE 536 TO LINE 600 TO LINE 600



- 536 538 SPARE
- 540 540 AIT-6000 COMPRESSOR BLDG. LEL DETECTOR
- 542 542 AIT-6002 COMPRESSOR BLDG. FIRE DETECTOR
- 544 544 AIT-6001 COMPRESSOR BLDG. LEL DETECTOR
- 546 546 AIT-6003 COMPRESSOR BLDG. FIRE DETECTOR
- 548 548 COMPRESSOR V VALVE POSITION POTENTIOMETER (RESERVED)
- 550 550 COMPRESSOR SLIDE VALVE POSITION POTENTIOMETER
- 552 552 SPARE

TO LINE 536 TO LINE 600 TO LINE 600 TO LINE 600

NOTE:1 COM TERMINALS ARE RESERVED FOR FIRE AND GAS 3 WIRE DEVICES AND ARE LOCATED BELOW TERMINAL M16

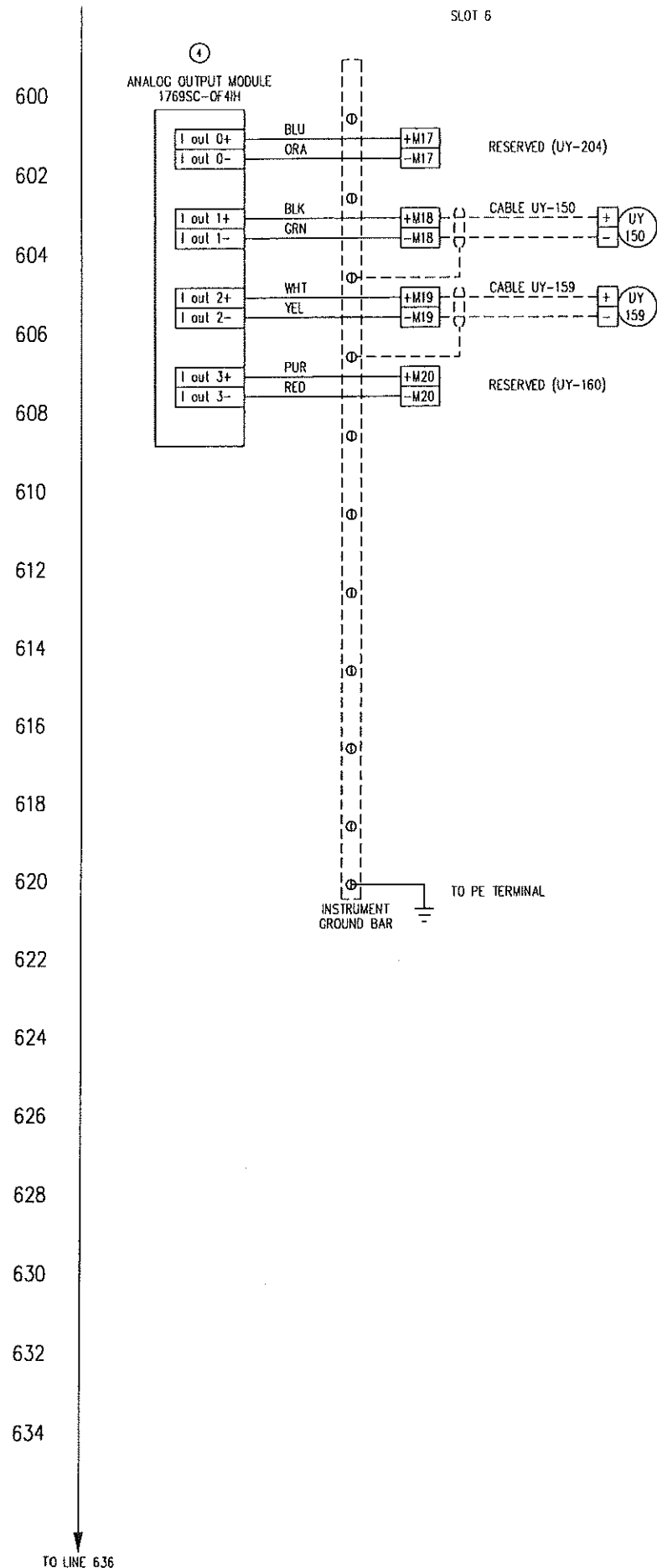
NOTE:2 TRANSMITTER IS WIKA T12-30.006 TRANSMITTER LOCATED IN THE CONTROL PANEL

REV.	DESCRIPTION	DATE	BY	APPR.
10	CUSTOMER REVISION	OCT 16/06	CB	
9	CUSTOMER REVISION	OCT 06/06	CB	
8	CUSTOMER REVISION	SEP 28/06	CB	
7	AS BUILT	SEP 11/06	CB	
6	REVISION - ADD BYPASS, REMOVE FIRE/GAS	SEP 06/06	CB	
5	REVISION	AUG 21/06	DE	
4	REVISION	AUG 14/06	DE	
3	REVISION	JUL 31/06	DE	
2	REVISION	JUL 13/06	CB	
1	ISSUED FOR CONSTRUCTION	JUL 10/06	CB	

TOROMONT ENERGY SYSTEMS INC.
ISSUED FOR CONSTRUCTION
OCT 16 2006
 PER **C. BOHNET**

		TITLE: CONTROL PANEL SCHEMATIC	
		FOR: TESI UNIT #12235 PENN WEST 350 HP ELECTRIC DRIVE BOOSTER COMPRESSOR	
DRAWN BY: C. BOHNET DATE: JUN 26, 2006	SCALE: N.T.S.	W.O. No: 12235601	SHEET No: 5 OF 11
APPR. BY: G. McLEAN	W.O. No: 12235601	DRG. No: 12235-601	REV. No: 10

THE INFORMATION CONTAINED HEREIN IS THE CONFIDENTIAL PROPERTY OF TOROMONT ENERGY SYSTEMS AND IS NOT FOR PUBLICATION, AND NO PART THEREOF SHALL BE COPIED OR COMMUNICATED TO A THIRD PARTY WITHOUT AUTHORIZATION FROM TOROMONT ENERGY SYSTEMS.



SPEED CONTROL (RESERVED)

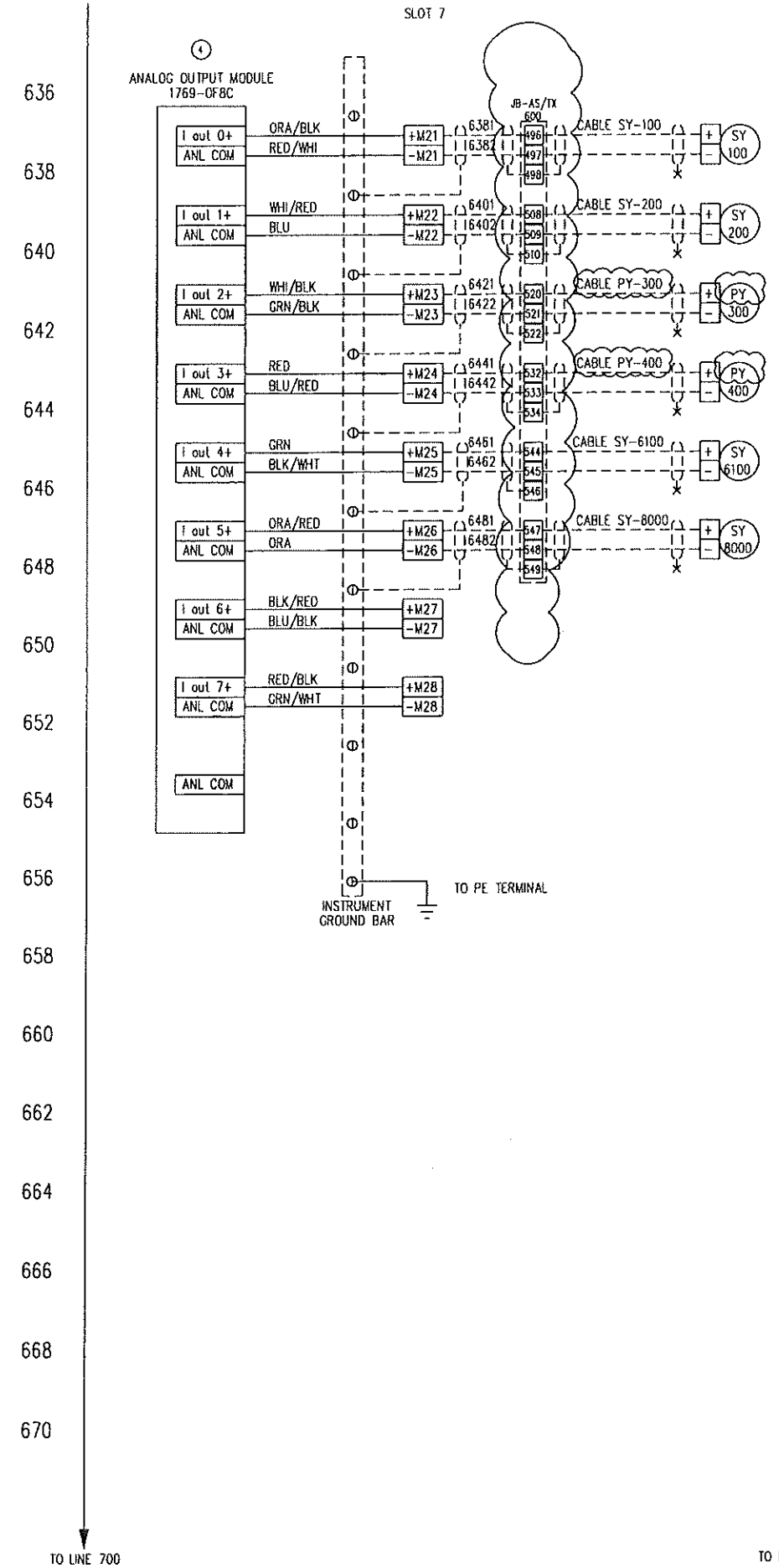
BYPASS VALVE CONTROL

SUCTION VALVE CONTROL

DISCHARGE VALVE CONTROL (RESERVED)

TO LINE 636

TO LINE 700



P-100 DOWNHOLE PUMP VFD SPEED CONTROL

P-200 DOWNHOLE PUMP VFD SPEED CONTROL

P-300 DOWNHOLE PUMP PRESSURE SETPOINT

P-400 DOWNHOLE PUMP PRESSURE SETPOINT

C-610 COOLER FAN VFD SPEED CONTROL

P-800 TRANSFER PUMP VFD SPEED CONTROL

SPARE

SPARE

TO LINE 700

10	CUSTOMER REVISION	OCT 16/06	CB	
9	CUSTOMER REVISION	OCT 06/06	CB	
8	CUSTOMER REVISION	SEP 28/06	CB	
7	AS BUILT	SEP 11/06	CB	
6	REVISION - ADD BYPASS, REMOVE FIRE/GAS	SEP 06/06	CB	
5	REVISION	AUG 21/06	DE	
4	REVISION	AUG 14/06	DE	
3	REVISION	JUL 31/06	DE	
2	REVISION	JUL 13/06	CB	
1	ISSUED FOR CONSTRUCTION	JUL 10/06	CB	
REV.	DESCRIPTION	DATE	BY	APPR.

TOROMONT ENERGY SYSTEMS INC.

ISSUED FOR CONSTRUCTION

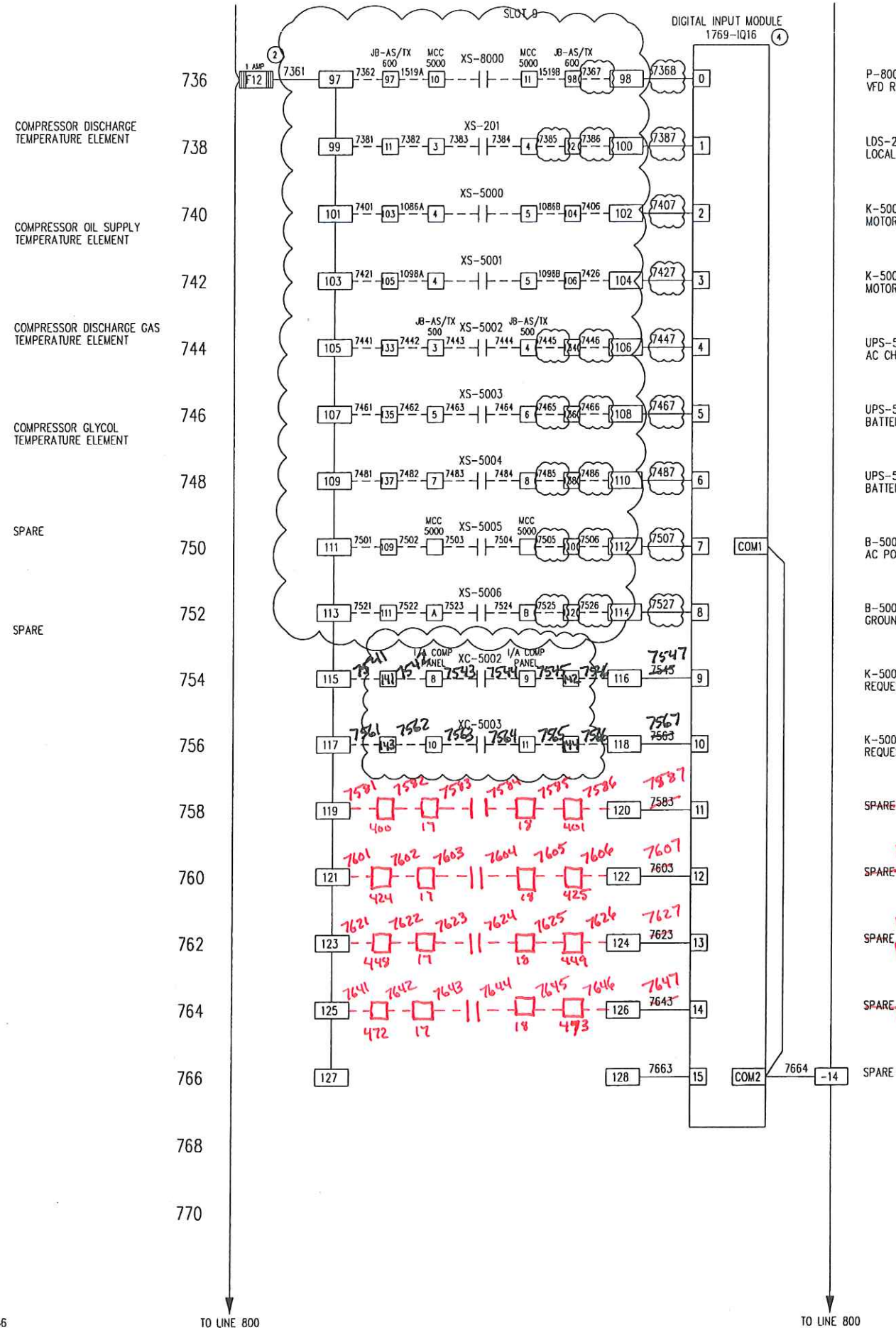
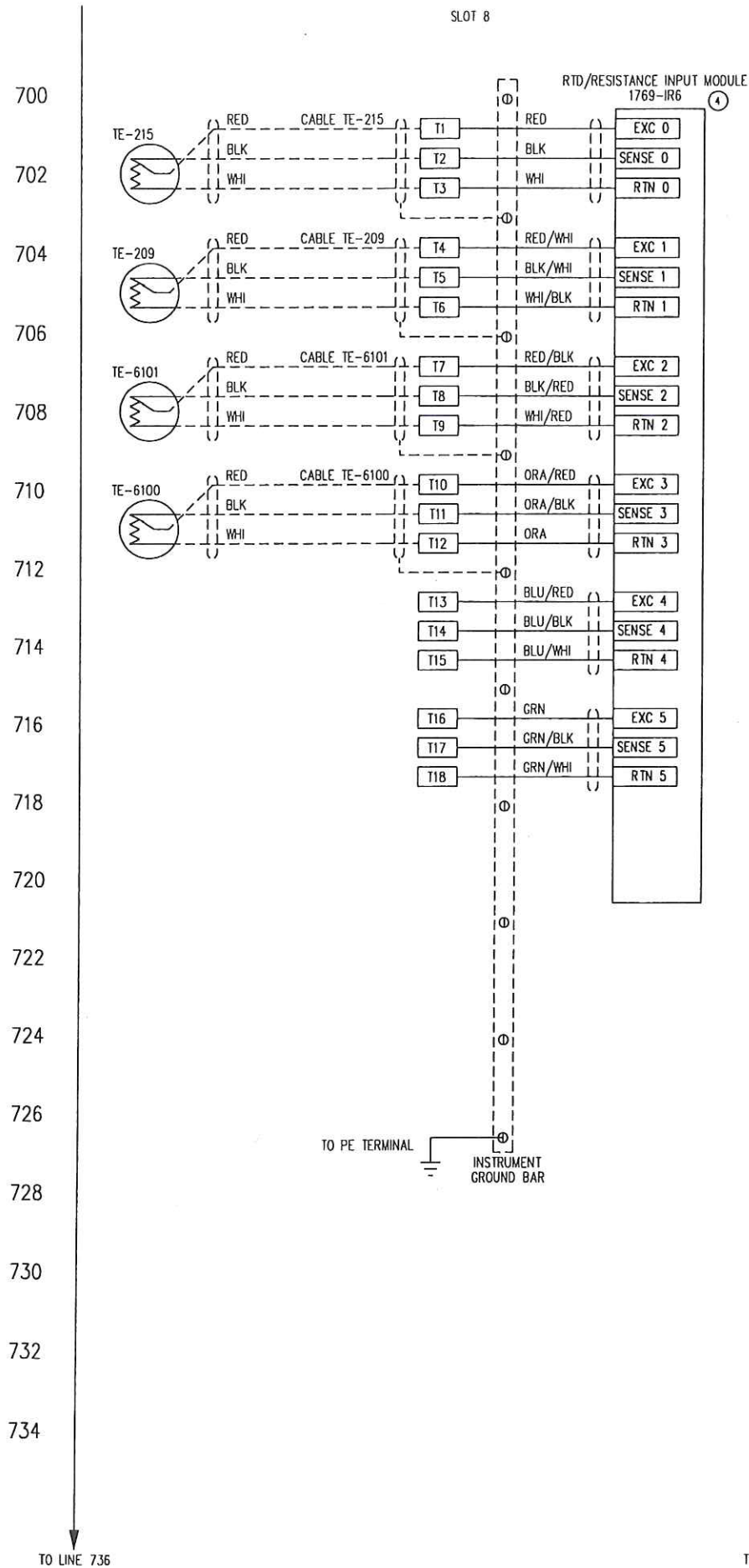
OCT 16 2006

PER **C. BOHNET**

ENGINEER STAMP

TOROMONT ENERGY SYSTEMS		TITLE: CONTROL PANEL SCHEMATIC	
DRAWN BY: C. BOHNET	DATE: JUN 26, 2006	FOR: TESI UNIT #12235 PENN WEST 350 HP ELECTRIC DRIVE BOOSTER COMPRESSOR	
CHKD. BY: C. McLEAN	SCALE: N.T.S.		
APPR. BY: C. McLEAN	W.O. No.: 12235601		
DWG. No.: 12235-601	SHEET No.: 6 OF 11	REV. No.: 10	

THE INFORMATION CONTAINED HEREIN IS THE CONFIDENTIAL PROPERTY OF TOROMONT ENERGY SYSTEMS AND IS NOT FOR PUBLICATION, AND NO PART THEREOF SHALL BE COPIED OR COMMUNICATED TO A THIRD PARTY WITHOUT AUTHORIZATION FROM TOROMONT ENERGY SYSTEMS.



- P-800 TRANSFER PUMP VFD RUN
- LDS-200 P-200 LOCAL DISCONNECT STATUS
- K-500A AIR COMPRESSOR MOTOR #1 RUN
- K-500B AIR COMPRESSOR MOTOR #2 RUN
- UPS-500 AC CHARGER FAIL
- UPS-500 BATTERY VOLTS LOW
- UPS-500 BATTERY VOLTS LOW LOW
- B-500 MCC AC POWER FAIL
- B-500 MCC GROUND FAULT ALARM
- K-500A I/A COMPRESSOR REQUEST TO RUN
- K-500B I/A COMPRESSOR REQUEST TO RUN

SPARE **Fit-100 PULSE OUT**

SPARE **Fit-200 PULSE OUT**

SPARE **Fit-300 PULSE OUT**

SPARE **Fit-400 PULSE OUT**

REV.	DESCRIPTION	DATE	BY	APPR.
10	CUSTOMER REVISION	OCT 16/06	CB	
9	CUSTOMER REVISION	OCT 06/06	CB	
8	CUSTOMER REVISION	SEP 28/06	CB	
7	AS BUILT	SEP 11/06	CB	
6	REVISION - ADD BYPASS, REMOVE FIRE/GAS	SEP 06/06	CB	
5	REVISION	AUG 21/06	DE	
4	REVISION	AUG 14/06	DE	
3	REVISION	JUL 31/06	DE	
2	REVISION	JUL 13/06	CB	
1	ISSUED FOR CONSTRUCTION	JUL 10/06	CB	

TOROMONT ENERGY SYSTEMS INC.

ISSUED FOR CONSTRUCTION

OCT 16 2006

PER **C. BOHNET**

ENGINEER STAMP

TITLE: CONTROL PANEL SCHEMATIC

FOR: TESI UNIT #12235
PENN WEST
350 HP ELECTRIC DRIVE
BOOSTER COMPRESSOR

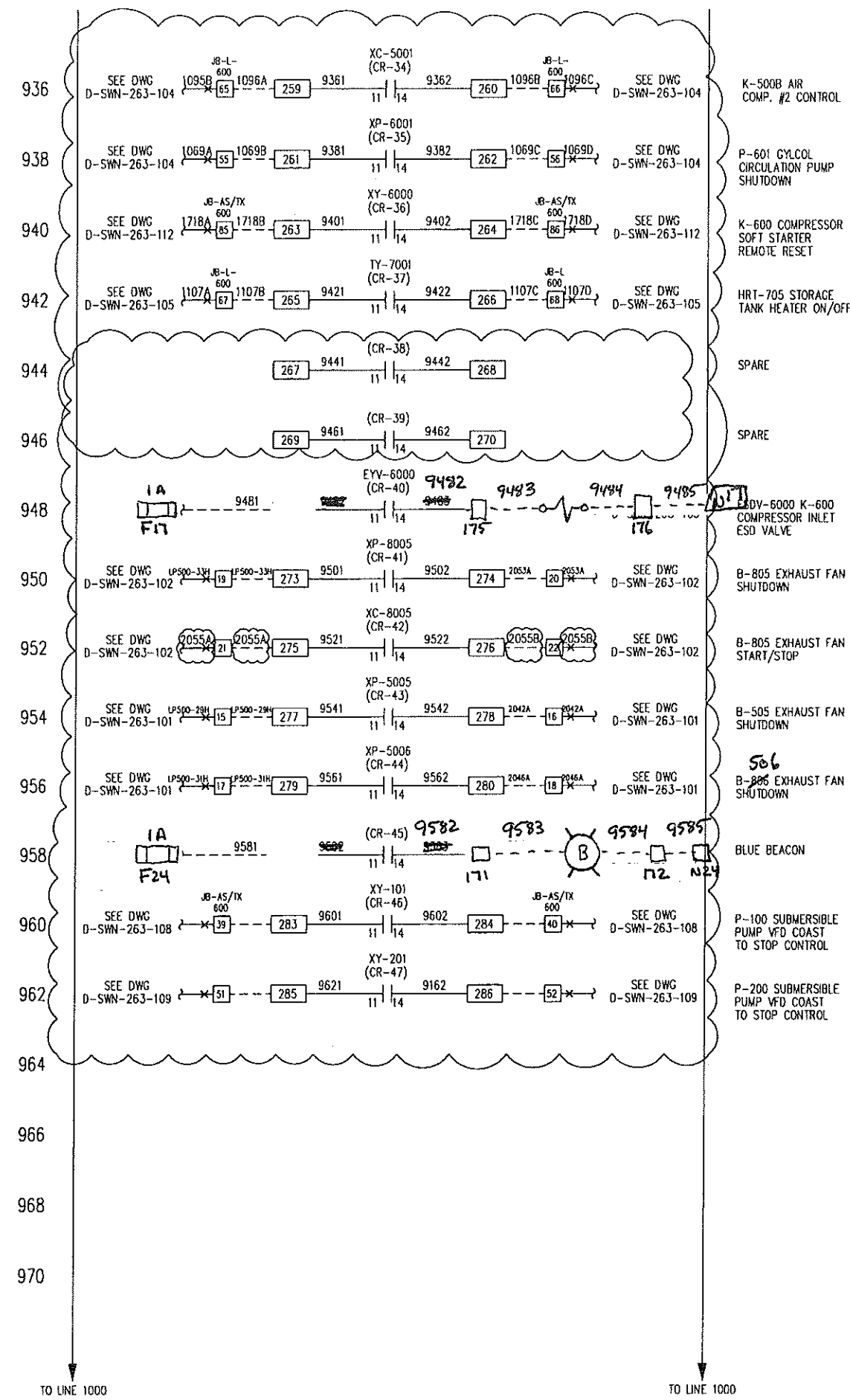
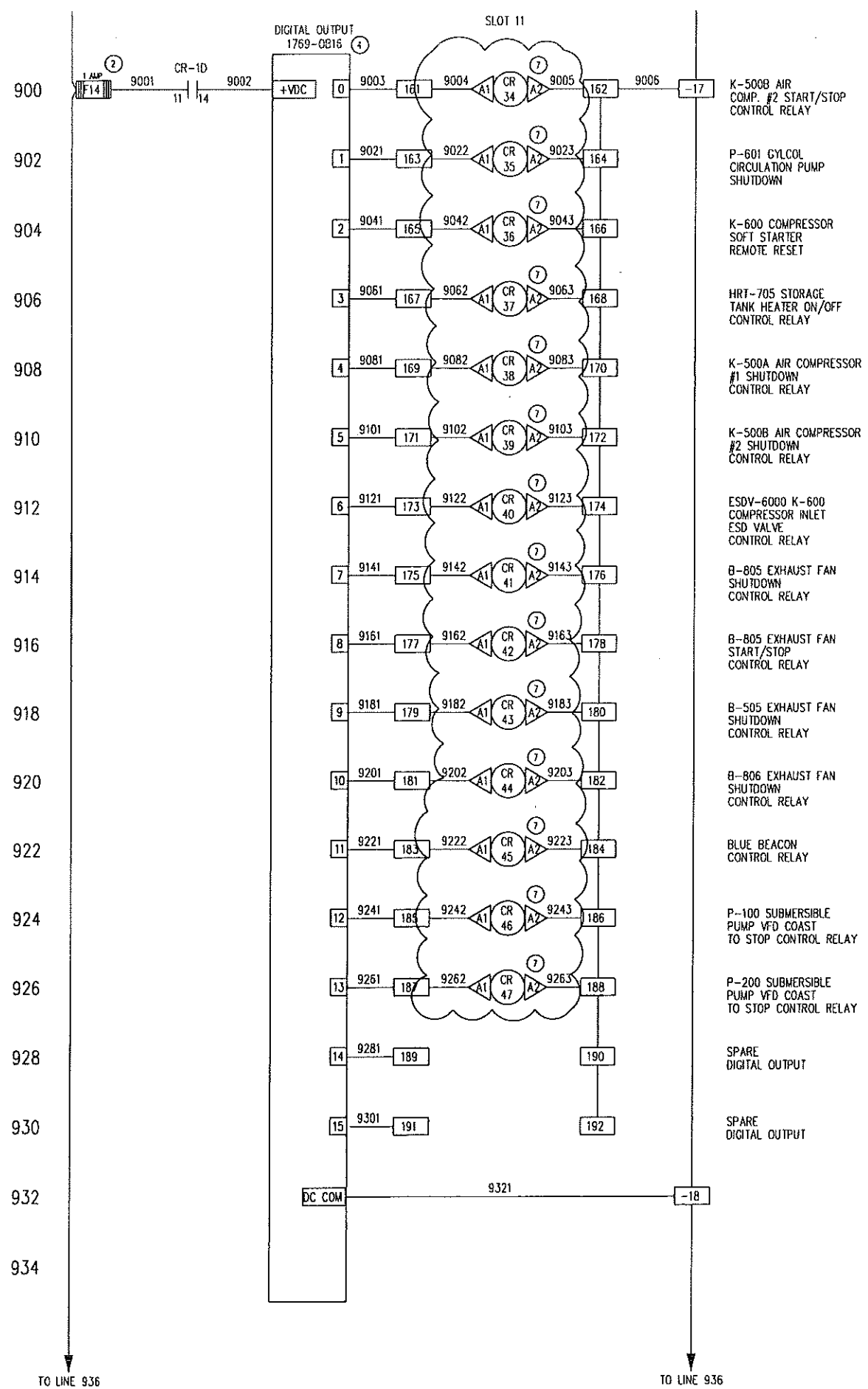
DRAWN BY: C. BOHNET DATE: JUN 26, 2006

CHKD. BY: G. McLEAN SCALE: N.T.S.

APPR. BY: G. McLEAN W.O. No: 12235601

CUST. PO No: DWG. No: 12235-601 SHEET No: 7 OF 11 REV: 10

THE INFORMATION CONTAINED HEREIN IS THE CONFIDENTIAL PROPERTY OF TOROMONT ENERGY SYSTEMS AND IS NOT FOR PUBLICATION AND NO PART THEREOF SHALL BE COPIED OR COMMUNICATED TO A THIRD PARTY WITHOUT AUTHORIZATION FROM TOROMONT ENERGY SYSTEMS.

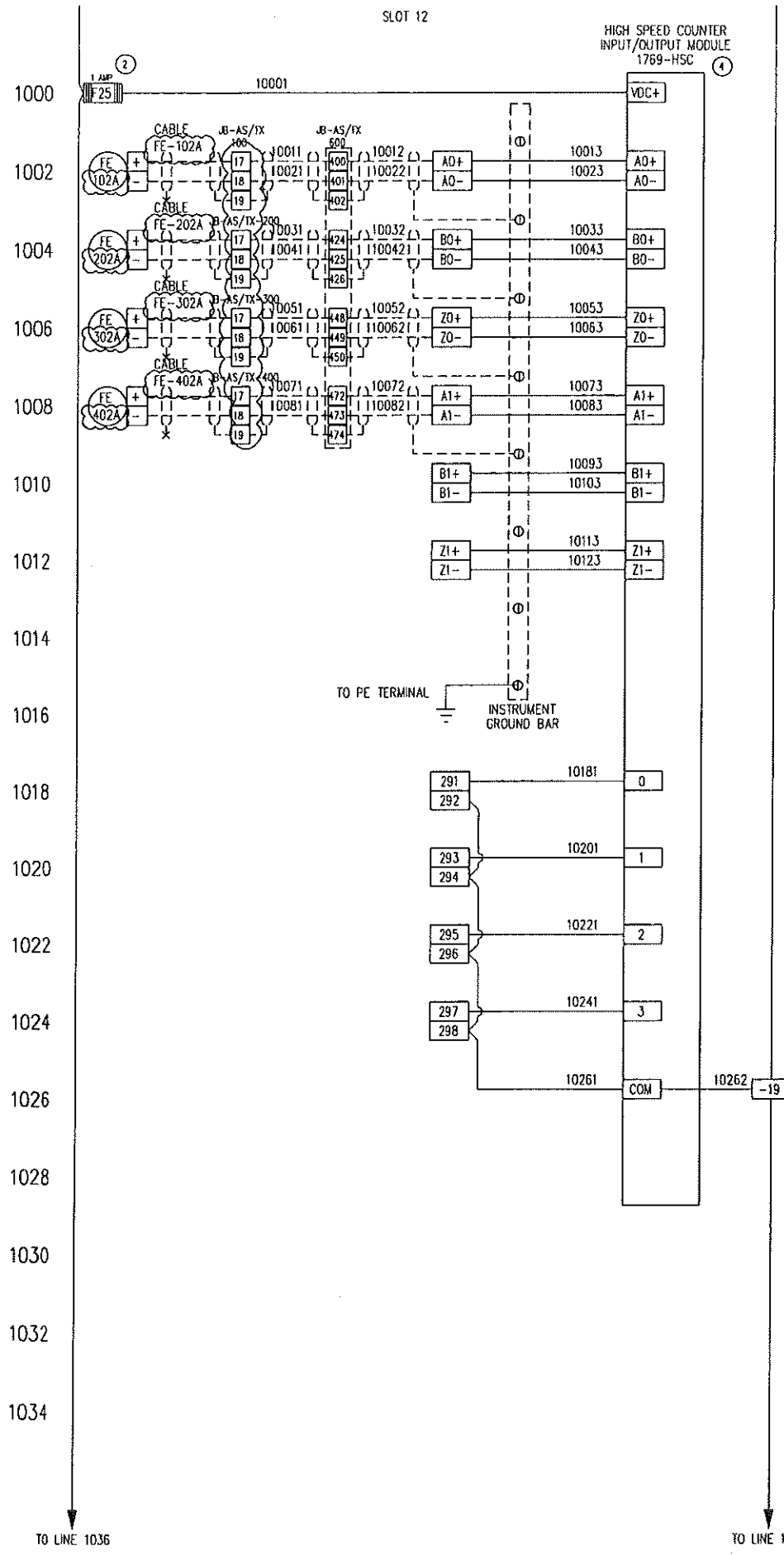


10	CUSTOMER REVISION	OCT 16/06	CB
9	CUSTOMER REVISION	OCT 06/06	CB
8	CUSTOMER REVISION	SEP 28/06	CB
7	AS BUILT	SEP 11/06	CB
6	REVISION - ADD BYPASS, REMOVE FIRE/GAS	SEP 06/06	CB
5	REVISION	AUG 21/06	DE
4	REVISION	AUG 14/06	DE
3	REVISION	JUL 31/06	DE
2	REVISION	JUL 13/06	CB
1	ISSUED FOR CONSTRUCTION	JUL 10/06	CB

REV.	DESCRIPTION	DATE	BY	APPR.
ISSUED FOR CONSTRUCTION OCT 16 2006 PER C. BOHNET				
				ENGINEER STAMP

		TITLE: CONTROL PANEL SCHEMATIC	
DRAWN BY: C. BOHNET CHD. BY: G. McLEAN APPR. BY: G. McLEAN CUST. PO No:	DATE: JUN 26, 2006 SCALE: N.T.S. W.O. No: 12235601	FOR: TESI UNIT #12235 PENN WEST 350 HP ELECTRIC DRIVE BOOSTER COMPRESSOR	
		DWC. No: 12235-601	SHEET No: 9 OF 11

THE INFORMATION CONTAINED HEREIN IS THE CONFIDENTIAL PROPERTY OF TOROMONT ENERGY SYSTEMS AND IS NOT FOR PUBLICATION, AND NO PART THEREOF SHALL BE COPIED OR COMMUNICATED TO A THIRD PARTY WITHOUT AUTHORIZATION FROM TOROMONT ENERGY SYSTEMS.



P-100 SUBMERSIBLE PUMP
FLOW TRANSMITTER (TOTAL)

P-200 SUBMERSIBLE PUMP
FLOW TRANSMITTER (TOTAL)

P-300 SUBMERSIBLE PUMP
FLOW TRANSMITTER (TOTAL)

P-400 SUBMERSIBLE PUMP
FLOW TRANSMITTER (TOTAL)

SPARE
ANALOG INPUT

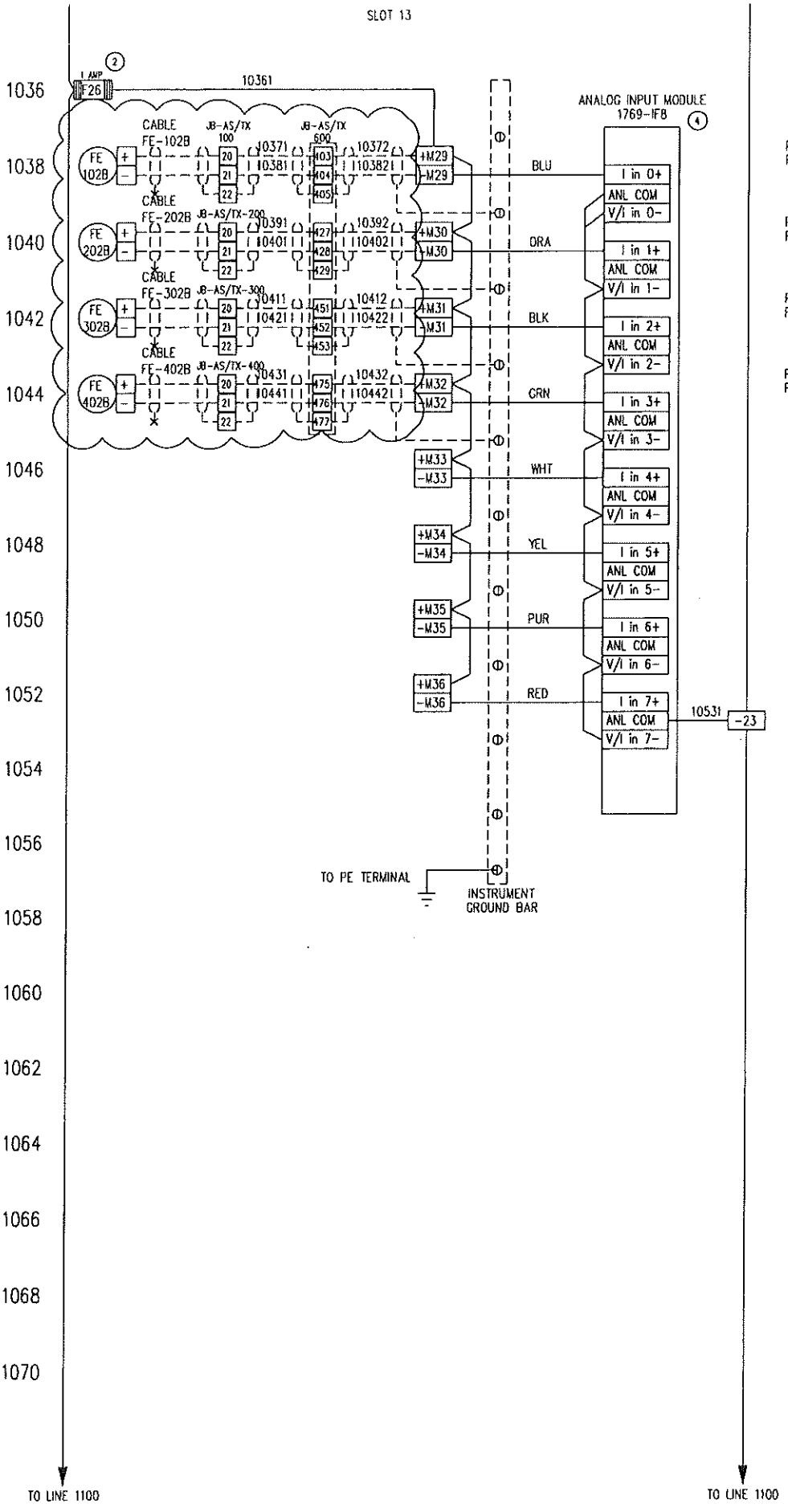
SPARE
ANALOG INPUT

SPARE
DIGITAL OUTPUT

SPARE
DIGITAL OUTPUT

SPARE
DIGITAL OUTPUT

SPARE
DIGITAL OUTPUT



P-100 SUBMERSIBLE PUMP
FLOW TRANSMITTER (RATE)

P-200 SUBMERSIBLE PUMP
FLOW TRANSMITTER (RATE)

P-300 SUBMERSIBLE PUMP
FLOW TRANSMITTER (RATE)

P-400 SUBMERSIBLE PUMP
FLOW TRANSMITTER (RATE)

REV.	DESCRIPTION	DATE	BY	APPR.
10	CUSTOMER REVISION	OCT 16/06	CB	
9	CUSTOMER REVISION	OCT 06/06	CB	
8	CUSTOMER REVISION	SEP 28/06	CB	
7	AS BUILT	SEP 11/06	CB	
6	REVISION - ADD BYPASS, REMOVE FIRE/GAS	SEP 06/06	CB	
5	REVISION	AUG 21/06	DE	
4	REVISION	AUG 14/06	DE	
3	REVISION	JUL 31/06	DE	
2	REVISION	JUL 13/06	CB	
1	ISSUED FOR CONSTRUCTION	JUL 10/06	CB	

TOROMONT ENERGY SYSTEMS INC.

ISSUED FOR CONSTRUCTION

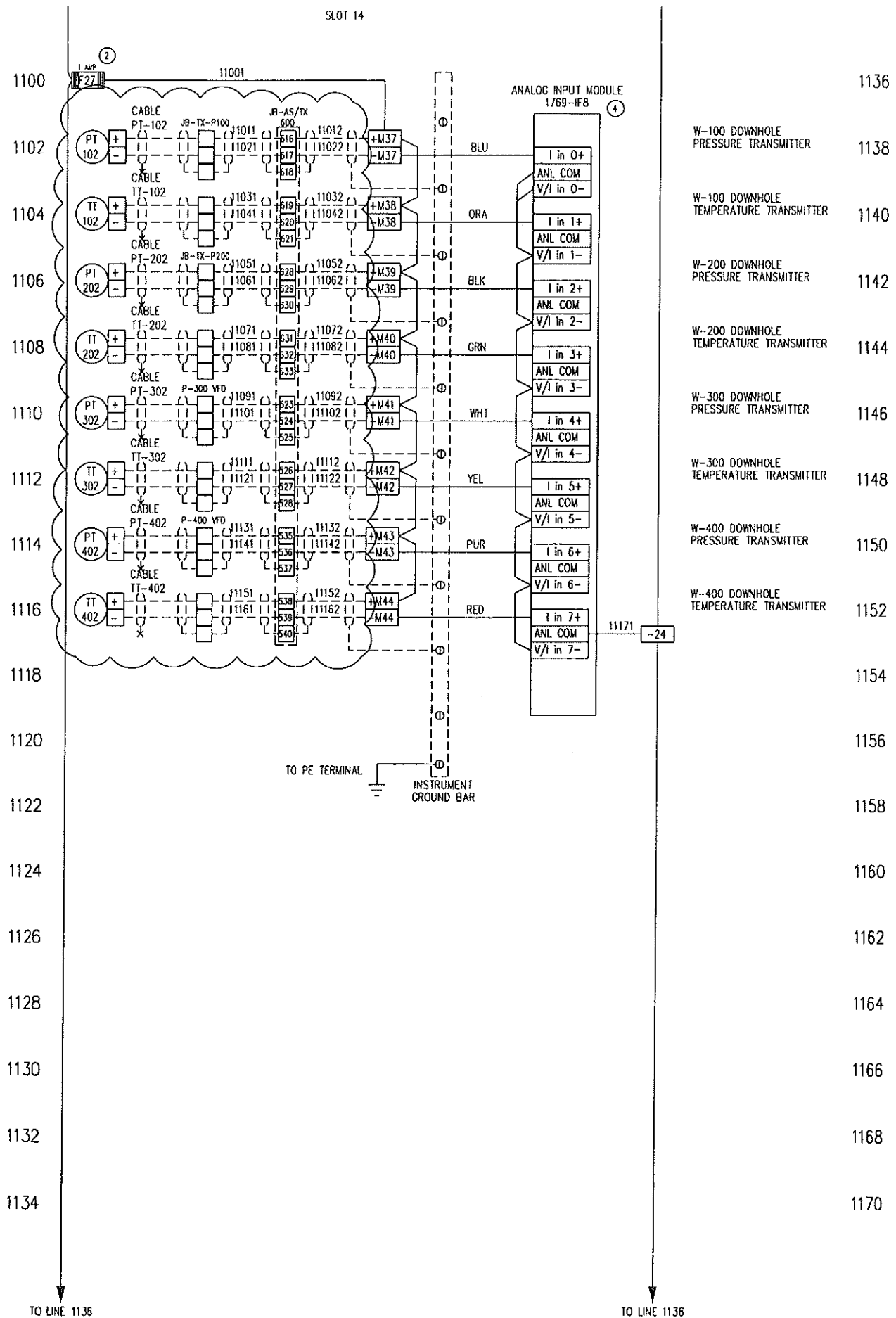
OCT 16 2006

PER **C. BOHNET**

ENGINEER STAMP

DRAWN BY: C. BOHNET		DATE: JUN 26, 2006		TITLE: CONTROL PANEL SCHEMATIC	
CHKD. BY: G. McLEAN		SCALE: N.T.S.		FOR: TESI UNIT #12235 PENN WEST 350 HP ELECTRIC DRIVE BOOSTER COMPRESSOR	
APPR. BY: G. McLEAN		W.D. No: 12235601		DWC. No: 12235-601	
CUST. PO No:		SHEET No: 10 OF 11		REV: 10	

THE INFORMATION CONTAINED HEREIN IS THE CONFIDENTIAL PROPERTY OF TOROMONT ENERGY SYSTEMS AND IS NOT FOR PUBLICATION, AND NO PART THEREOF SHALL BE COPIED OR COMMUNICATED TO A THIRD PARTY WITHOUT AUTHORIZATION FROM TOROMONT ENERGY SYSTEMS.



TO LINE 1136

TO LINE 1136

- 1136
- 1138 W-100 DOWNHOLE PRESSURE TRANSMITTER
- 1140 W-100 DOWNHOLE TEMPERATURE TRANSMITTER
- 1142 W-200 DOWNHOLE PRESSURE TRANSMITTER
- 1144 W-200 DOWNHOLE TEMPERATURE TRANSMITTER
- 1146 W-300 DOWNHOLE PRESSURE TRANSMITTER
- 1148 W-300 DOWNHOLE TEMPERATURE TRANSMITTER
- 1150 W-400 DOWNHOLE PRESSURE TRANSMITTER
- 1152 W-400 DOWNHOLE TEMPERATURE TRANSMITTER
- 1154
- 1156
- 1158
- 1160
- 1162
- 1164
- 1166
- 1168
- 1170

REV.	DESCRIPTION	DATE	BY	APPR.
10	CUSTOMER REVISION	OCT 16/06	CB	
9	CUSTOMER REVISION	OCT 06/06	CB	
8	CUSTOMER REVISION	SEP 28/06	CB	
7	AS BUILT	SEP 11/06	CB	
6	REVISION - ADD BYPASS, REMOVE FIRE/GAS	SEP 06/06	CB	
5	REVISION	AUG 21/06	DE	
4	REVISION	AUG 14/06	DE	
3	REVISION	JUL 31/06	DE	
2	REVISION	JUL 13/06	CB	
1	ISSUED FOR CONSTRUCTION	JUL 10/06	CB	

TOROMONT ENERGY SYSTEMS INC.
ISSUED FOR CONSTRUCTION
OCT 16 2006
 PER C. BOHNET

ENGINEER STAMP

TOROMONT ENERGY SYSTEMS		TITLE: CONTROL PANEL SCHEMATIC	
FOR: TESU UNIT #12235 PENN WEST 350 HP ELECTRIC DRIVE BOOSTER COMPRESSOR	DRAWN BY: C. BOHNET DATE: JUN 26, 2006		
APPR. BY: G. McLEAN W.D. No: 12235601	SCALE: N.T.S.		
CUST. PO No:	DWG. No: 12235-601	SHEET No: 11 OF 11	REV: 10

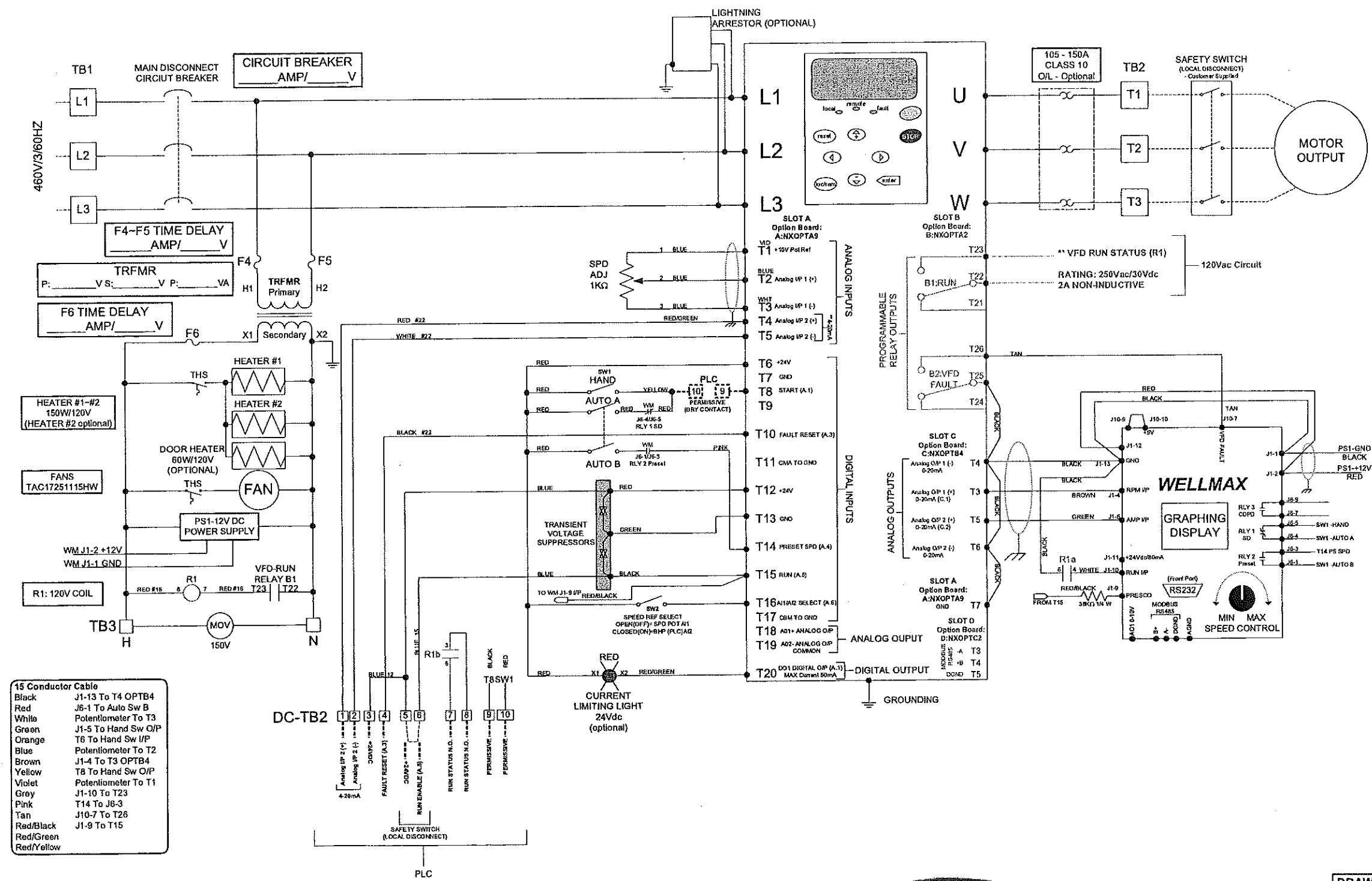
Cutler-Hammer - SVX9000

SW VERSION: SVCHC002V104.vcn

VFD Terminals	
T8	Start Signal
T9	Unused
T10	Fault Reset
T14	Pre-set Speed Select
T15	Run Enable
T16	Speed Reference Select
T2	Speed Adjust Potentiometer Input
T4/T5	Analog I/P 2 (BHP from PLC)
B:T21/T22/T23	Relay 1 RUN
B:T24/T25/T26	Relay 2 VFD FAULT
C:T3/T4	Analog Output 1
C:T5/T6	Analog Output 2

**4-20mA on Analog I/P 2 must be configured via jumpers setting on X2 Block on A:NXOPTA9 Option card

WELLMAX FAULT: HIGH PRESSURE (PRESKO) WILL NOW INDICATE THE SAFETY SWITCH (LOCAL DISCONNECT) HAS BEEN TRIPPED.



15 Conductor Cable	
Black	J1-13 To T4 OPTB4
Red	J6-1 To Auto Sw B
White	Potentiometer To T3
Green	J1-5 To Hand Sw O/P
Orange	T6 To Hand Sw I/P
Blue	Potentiometer To T2
Brown	J1-4 To T3 OPTB4
Yellow	T8 To Hand Sw O/P
Violet	Potentiometer To T1
Grey	J1-10 To T23
Pink	T14 To J6-3
Tan	J10-7 To T26
Red/Black	J1-9 To T15
Red/Green	
Red/Yellow	



DRAWING NO.: 06-0011-01-06 DATE: Oct 3, 2006
 DESCRIPTION: WELLMAX, PRESET SPD & SHUTDOWN, Current Limit Option, Presco
STELLAR TECH ENERGY SERVICES INC.
 #4, 6160 - 40st S.E. Voice: (403) 279-8367
 Calgary, Alberta T2C 1Z3 Fax: (403) 279-8368

Information contained in this drawing is the sole property of Stellar Tech Energy Services Inc. Any reproduction in part or in whole without written permission of Stellar Tech Energy Services Inc., is prohibited