


FIELD ELECTRICAL LIST

CUSTOMER: TBD
 GEOG JOB: TBD

REFERENCE:	
ELEC SCHEMATICS	MG129-00900
FIELD ELEC DIAGRAM	MG129-00903

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Revision Summary		

0	MKG	8/22/2014			MKG	8/22/2014	INITIAL RELEASE
REV	DR	DATE	CK	DATE	APP	DATE	DESCRIPTION OF CHANGE

 GE Oil & Gas	DR	MKG	8/22/2014	NAME	FIELD ELECTRICAL LIST		
	CK			CONTRACT			
	APP	MKG	8/22/2014	SHEET	PART NO	ISSUE	
			1/6	MG129-00902		0	

LIST, FIELD ELECTRICAL												
GENERAL NOTES:												
1	See Electrical Schematic.											
2	Need to separate circuit types: Comm., 24 vdc, 120 vac, 480 vac, 4160 vac											
3	Locate conduit seals near transistion to hazardous location											
4	Conduit size shown are MINIMUM, larger is allowed for easier install											
5	Electricians MUST PROTECT sensitive electronics from wire strands, metal shavings, debris, water, dirt, electro-static discharge (ESD)											
6	Every conductor gets a unique wire # labeled at BOTH ends within 1"-2" of terminal.											
7	Motor disconnect means MUST have lockout/tagout handles.											
8	Sealtite, IMC, and Rigid conduit allowed											
9	Prefer Belden communication cables											
10	Run # with letter ending (I.e. CP02A, CP02B) indicates shared conduit run with branches at the individual instruments.											
11	If it makes conduit runs easier, COMM and LOW POWER INSTRUMENT circuits <u>ONLY</u> may share conduit.											
12	Thoroughly deburr ALL conduit to prevent wire/cable damage durring pulling.											
13	All conduit runs will have a pulling rope running the longest length to allow for repairs and future pulls.											
14	Conduit size shown for SHARED runs are at largest point, branches may be smaller.											
15	Conductor size based on copper 75 deg C type THWN wire in Rigid Conduit in free air at 110 deg F.											
16	Conductor ampacity based on NEC Table 310-16 plus derating for ambient temperature AND >3 conductors if applicable.											
17	Wire numbers used: F0001-F0042, F0050-F0059, F0064-F0065, F0069, F0073, F0075, F0077-F0081, F0083-F0086, F0091-F0116											
18	Parallel conductors allowed if properly sized and derated per NEC.											
19	Other NEC Hazardous Location wiring methods allowed (i.e. multiconductor tray cable for control circuits).											
20	Color (GN) indicates addition of green OR green/yellow electrical tape required to mark wire as a ground (PE) wire.											
21	No penetrations on the top of ANY PANELS.											
22	All conduit seals (on skid & field installed by others) to be packed & poured AFTER Guild has approved I/O checkout.											
23	Run type legend: MV = Medium Voltage 4160V, LV = Low Voltage 460V, CP = Control Power 120V, IN - Instrumentation 24V, CM = Communications, GN = Ground											
24	Shields for instrumentation cable to be grounded at ONE END only closest to the power source. Shrink fit the drain wire NO CONNECT end to prevent short to chassis.											
25	Wiring methods for equipment in the hazardous location MUST to conform to NEC for Class 1 Division 2 Group D Methane.											
26	IF APPLICABLE, Intrisically safe (IS in yellow) MUST be labelled and run separate from Non-IS circuits per NEC.											
27	See also Electrical Schematic LAYOUTS for field conduit hole locations and wire routing.											
28	Electrical installer MUST follow conduit spacing guidelines from IEEE Std 518-1982 based on section 6.4.3 Cable Spacing.											
29	Field and skid wiring ground connection to be wired to conduit ground bushing then on to ground terminal.											
30	Liquid tite flexible connections on circuits > 10 amps require external bonding jumper wire.											
31	Electrical installer MUST follow manuf instructions for crimping compression lugs with approved crimper and die.											
32	RUN# 's with asterisk (*) indicate supplied by others.											
33	RUN# 's with bold tag name (i.e. M-330, H/N/G, etc) are supplied with equipment and only require making connection at one end as indicated in NOTES column.											

RUN #	SIZE (")	FROM	FROM TERMINAL	TO	TO TERMINAL	WIRE#	COLOR	TYPE	TEMP (C)	SIZE (AWG)	MFR	EST LG (ft)	NOTES	SCHEM SH
LOW VOLTAGE 460 VAC CIRCUITS														
LV01 *	3"	Switch Gear	GND (PE)	Remote Power Panel	TB04-GND (PE)	F0001	GN	THWN	75	1/0			* By OTHERS	6
			T1		CB-910 L1	F0002	BK	THWN	75	400 MCM				
			T2		CB-910 L2	F0003	BK	THWN	75	400 MCM				
			T3		CB-910 L3	F0004	BK	THWN	75	400 MCM				
LV02 *	3"	Switch Gear	GND (PE)	Remote Power Panel	TB04-GND (PE)	F0005	GN	THWN	75	1/0			* By OTHERS	6
			T1		CB-910 L1	F0006	BK	THWN	75	400 MCM				
			T2		CB-910 L2	F0007	BK	THWN	75	400 MCM				
			T3		CB-910 L3	F0008	BK	THWN	75	400 MCM				
LV08 *	1.25"	Remote Power Panel	FU-914 TO 916	DRYER REGEN 460	TBD	OTHERS	OTHERS	OTHERS	OTHERS	OTHERS			* By OTHERS. Conduit and conductor design, sizing, and labeling by others.	6
M-330		Remote Power Panel	GND (PE)	Compressor Container	TB04-GND (PE)	F0010	GN	G-GC	90	1/0			Field connections made in REMOTE POWER PANEL	6
			GND (PE)		TB04-GND (PE)	F0010	GN			1/0				
			RVSS-330 T1		M-330 L1	F0011	BK			350 MCM				
			RVSS-330 T2		M-330 L2	F0012	WH			350 MCM				
			RVSS-330 T3		M-330 L3	F0013	RD			350 MCM				
			WIRE NUT		WIRE NUT	-	YL			8				
M-330		Remote Power Panel	GND (PE)	Compressor Container	TB04-GND (PE)	F0014	GN	G-GC	90	1/0			Field connections made in REMOTE POWER PANEL	6
			GND (PE)		TB04-GND (PE)	F0014	GN			1/0				
			RVSS-330 T1		M-330 L1	F0015	BK			350 MCM				
			RVSS-330 T2		M-330 L2	F0016	WH			350 MCM				
			RVSS-330 T3		M-330 L3	F0017	RD			350 MCM				
			WIRE NUT		WIRE NUT	-	YL			8				
M-340		Remote Power Panel	GND (PE)	Junct Box #933	GND (PE)	F0019	GN	SOOW	90	8			Field connections made in JUNCTION BOX #933	6
			OL-340 T1		TB01-1	F0020	BK			8				
			OL-340 T2		TB01-2	F0021	WH			8				
			OL-340 T3		TB01-3	F0022	RD			8				
M-520		Remote Power Panel	GND (PE)	Junct Box #933	GND (PE)	F0040	GN	SOOW	90	14			Field connections made in JUNCTION BOX #933	6
			OL-520 T1		TB01-4	F0023	BK			14				
			OL-520 T2		TB01-5	F0024	WH			14				
			OL-520 T3		TB01-6	F0025	RD			14				
M-511		Remote Power Panel	GND (PE)	Junct Box #933	GND (PE)	F0041	GN	SOOW	90	14			Field connections made in JUNCTION BOX #933	6
			OL-511 T1		TB01-7	F0026	BK			14				
			OL-511 T2		TB01-8	F0027	WH			14				
			OL-511 T3		TB01-9	F0028	RD			14				
H-525		Remote Power Panel	GND (PE)	Junct Box #933	GND (PE)	F0042	GN	SOOW	90	14			Field connections made in JUNCTION BOX #933	6
			HC-525 T1		TB01-10	F0029	BK			14				
			HC-525 T2		TB01-11	F0030	WH			14				
			HC-525 T3		TB01-12	F0031	RD			14				

RUN #	SIZE (")	FROM	FROM TERMINAL	TO	TO TERMINAL	WIRE#	COLOR	TYPE	TEMP (C)	SIZE (AWG)	MFR	EST LG (ft)	NOTES	SCHEM SH
LOW VOLTAGE 460 VAC CIRCUITS (cont)														
H-350		Remote Power Panel	GND (PE)	Junct Box #933	GND (PE)	F0035	GN	SOOW	90	8			Field connections made in JUNCTION BOX #933	
			CB-350 T1		TB01-13	F0032	BK			8				6
			CB-350 T2		TB01-14	F0033	WH			8				
			CB-350 T3		TB01-15	F0034	RD			8				
M-36X		Remote Power Panel	GND (PE)	Junct Box #933	GND (PE)	F0039	GN	SOOW	90	14			Field connections made in JUNCTION BOX #933	6
			SC-360 T1		TB01-16	F0036	BK			14				
			SC-360 T2		TB01-17	F0037	WH			14				
			SC-360 T3		TB01-18	F0038	RD			14				
CONTROL POWER 120 VAC CIRCUITS														
CP03 * (optional)	1"	Remote Power Panel	TB02-11	DRYER REGEN	XXX	F0091	RD	THWN	75	14			* By OTHERS. 1" Seal Required	7
			TB02-12		XXX	F0092	RD	THWN	75	14			Recommend 45 deg liq tite elbow at Panel holes to jog over leg foot.	
			TB03-4	BEACON HORN	X1	F0108	RD	THWN	75	14				13
			TB02-N1		X2	F0109	WH	THWN	75	14				
CP04 * (optional)	1"	Remote Power Panel	GND (PE)	ESD-90X(s)	GND (PE)	F0110	GN	THWN	75	14			* By OTHERS. 1" Seal Required	7
			TB02-13		XXX	F0093	RD	THWN	75	14				
			TB02-14		XXX	F0094	RD	THWN	75	14			Recommend 45 deg liq tite elbow at Panel holes to jog over leg foot.	
			GND (PE)		XXX	F0095	GN	THWN	75	14				
			TB03-27	DISP-801/802	XXX	F0096	RD	THWN	75	12			1" Seal Required	7
			TB03-28		XXX	F0097	WH	THWN	75	12				
			GND (PE)		XXX	F0098	GN	THWN	75	12				
			TB03-29	DISP-803/804	XXX	F0114	RD	THWN	75	12			1" Seal Required	
			TB03-30		XXX	F0115	WH	THWN	75	12				
			GND (PE)		XXX	F0116	GN	THWN	75	12				
H/N/G		H/N/G Connector (outside bottom right Remote Power Panel)	PIN 7 (TB02-GND (PE))	Control Panel	TB01-GND (PE)	F0050	GN/YL	TC	90	14			GND. Field connections made at REMOTE POWER PANEL via bulkhead electrical connector located outside under bottom right area.	9
			PIN 1 (TB02-H1)		TB01-H1	F0051	BK(1)			14			H1	
			PIN 2 (TB02-H1SW)		TB01-H1SW	F0052	BK(2)			14			H1SW	
			PIN 3 (TB02-N1)		TB01-N1	F0053	BK(3)			14			N1	
			PIN 4 (TB03-H2)		TB05-1	F0054	BK(4)			14			H2	
			PIN 5 (TB03-N2)		TB05-N2	F0055	BK(5)			14			N2	
			PIN 6 (TB02-4)		TB01-4	F0059	BK(6)			14			spare	

RUN #	SIZE (")	FROM	FROM TERMINAL	TO	TO TERMINAL	WIRE#	COLOR	TYPE	TEMP (C)	SIZE (AWG)	MFR	EST LG (ft)	NOTES	SCHEM SH
CONTROL POWER 120 VAC CIRCs (cont)														
HEAT/ESD		HEAT/ESD Connector (outside bottom right Remote Power Panel)	PIN 1 (TB02-1)	Control Panel	TB01-1	F0056	BK(1)	TC	90	14			ESD. Field connections made at REMOTE POWER PANEL via bulkhead electrical connector located outside under bottom right area.	7, 9
			PIN 2 (TB02-2)		TB01-2	F0057	BK(2)			14			ESD	
			PIN 3 (TB02-3)		TB01-3	F0058	BK(3)			14			H-330	
			PIN 4 (TB02-9)		TB01-9	F0064	BK(4)			14			Heat Trace	
			PIN 5 (TB02-10)		TB01-10	F0065	GN/YL (WH)			14			N2	
STARTS		STARTS Connector (outside bottom right Remote Power Panel)	PIN 1 (TB03-4)	Control Panel	CRLT-915-14	F0069	BK(1)	TC	90	18			LT-915. Field connections made at REMOTE POWER PANEL via bulkhead electrical connector located outside under bottom right area.	13
			PIN 2 (TB03-8)		CRY-330-14	F0073	BK(2)			18			M-330	
			PIN 3 (TB03-10)		CRY-340-14	F0075	BK(3)			18			M-340	
			PIN 4 (TB03-12)		CRY-520-14	F0077	BK(4)			18			M-520	
			PIN 5 (TB03-13)		TB10-GND (PE)	F0078	BK(5)			18			SPARE	
			PIN 6 (TB03-14)		CRY-511-14	F0079	BK(6)			18			M-511	
			PIN 7 (TB03- GND (PE))		TB10-GND (PE)	F0113	GN/YL			18				
STATUS'		STATUS' Connector (outside bottom right Remote Power Panel)	PIN 6 (TB03-15)	Control Panel	TB02-46	F0080	GN/YL (RD)	TC	90	18			H1. Field connections made at REMOTE POWER PANEL via bulkhead electrical connector located outside under bottom right area.	12
			PIN 1 (TB03-16)		CRJSL-901-A1	F0081	BK(1)			18			JSL-901	
			PIN 2 (TB03-18)		CRYS-330-A1	F0083	BK(2)			18			YS-330	
			PIN 3 (TB03-19)		CRYS-340-A1	F0084	BK(3)			18			YS-340	
			PIN 4 (TB03-20)		CRYS-520-A1	F0085	BK(4)			18			YS-520	
			PIN 5 (TB03-21)		CRYS-511-A1	F0086	BK(5)			18			YS-511	

RUN #	SIZE (")	FROM	FROM TERMINAL	TO	TO TERMINAL	WIRE#	COLOR	TYPE	TEMP (C)	SIZE (AWG)	MFR	EST LG (ft)	NOTES	SCHEM SH
COMMUNICATION CIRCUITS RS-485 ETHERNET														
CM03 * (optional)	1"	Remote Power Panel	RVSS-330 RS485 D-	DISP-801/802	RS485 (-)	F0102	BK	PLTC	105	20			* By OTHERS. Link "G".	7
			RVSS-330 RS485 D+		RS485 (+)	F0103	RD	PLTC	105	20				
			RVSS-330 RS485 SG		RS485 (G)	F0104	SH	PLTC	105	20				
CM04 * (optional)	TBD	DISP-801/802	RS485 (-)	DISP-803/804	RS485 (-)	F0105	BK	PLTC	105	20			* By OTHERS. Link "H".	7
			RS485 (+)		RS485 (+)	F0106	RD	PLTC	105	20				
			RS485 (G)		RS485 (G)	F0107	SH	PLTC	105	20				7
RS-485		RS-485 Connector (outside bottom right Remote Power Panel)	RVSS-330 RS485 D-	Control Panel	HMI-921 RS485 (-)	F0099	BK	PLTC	105	20			Link "C". RS-485. Field connections made at REMOTE POWER PANEL via bulkhead electrical connector located outside under bottom left area.	7
			RVSS-330 RS485 D+		HMI-921 RS485 (+)	F0100	RD							
			RVSS-330 RS485 SG		HMI-921 RS485 (G)	F0101	SH							
ENET		ENET Connector (outside bottom right Remote Power Panel)	SC 360	Control Panel	SWITCH-921-3	C	NA	PLTC (CAT5e)					Link "C". Ethernet. Field connections made at REMOTE POWER PANEL via bulkhead electrical connector located outside under bottom left area.	
GROUNDING CIRCUITS														
GN01 *	NA	Compressor Container	GND tab 1	Grounding Grid *	GND (PE) *	F0111	GN			1/0			* By OTHERS.	6
	NA		GND tab 2		GND (PE) *	F0112	GN			1/0				