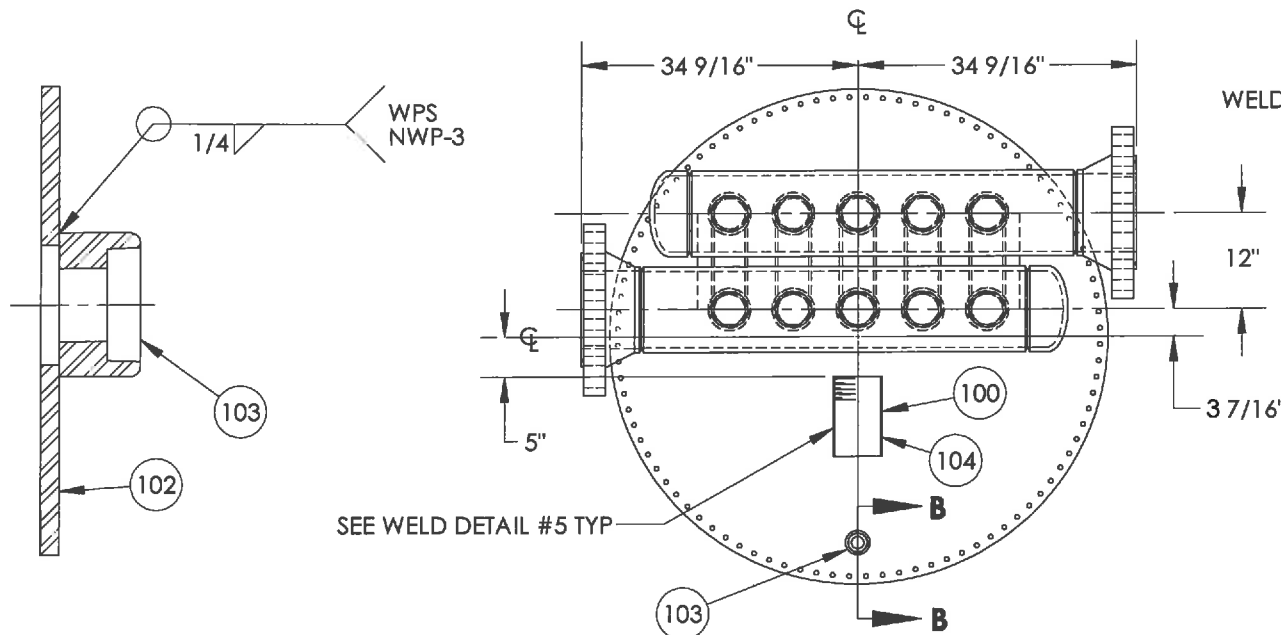
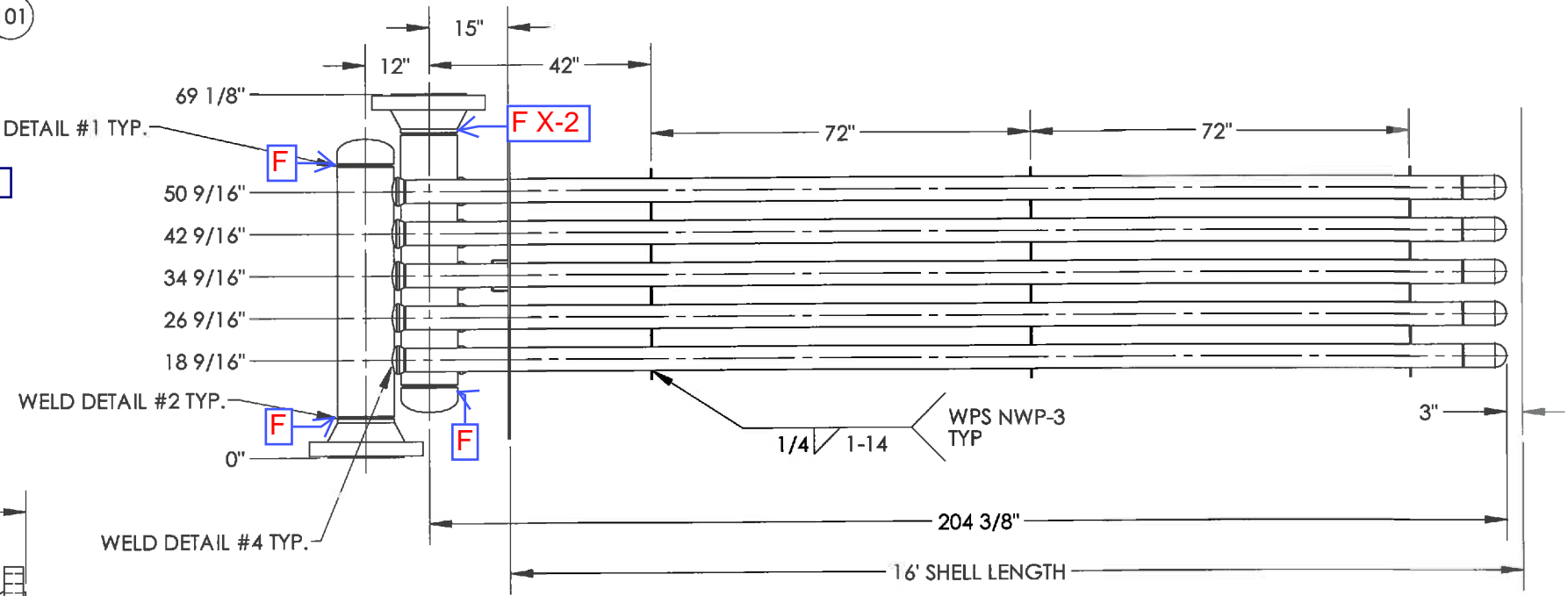
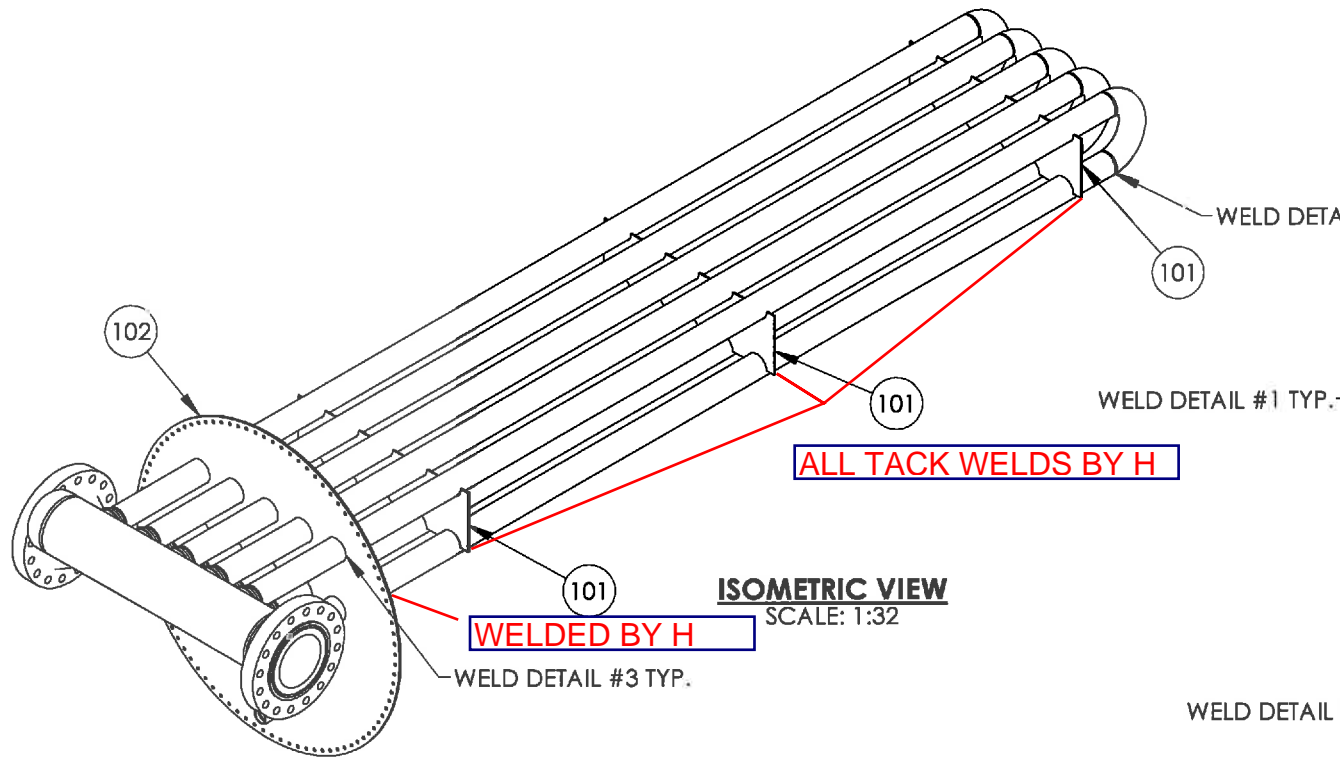


ITEM	PART #	DESCRIPTION	MTR #	LENGTH	QTY.
100	BRACKET-NAME-3	COIL NAME PLATE BRACKET SA36/44W			1
101	BUY	TUBESHEET - PLATE 1/4" - 40" x 12" - SA-36/44W		-	3
102	BUY	END PLATE - PLATE 3/8" - 62" DIA. - SA-36/44W		-	1
103	COH2GYEE	Coupling Half 2" 3M THRD SA105N			1
104	COIL-NAMEPLATE-1	COIL NAME PLATE BLACK/SILVER DEEP ETCHED			1



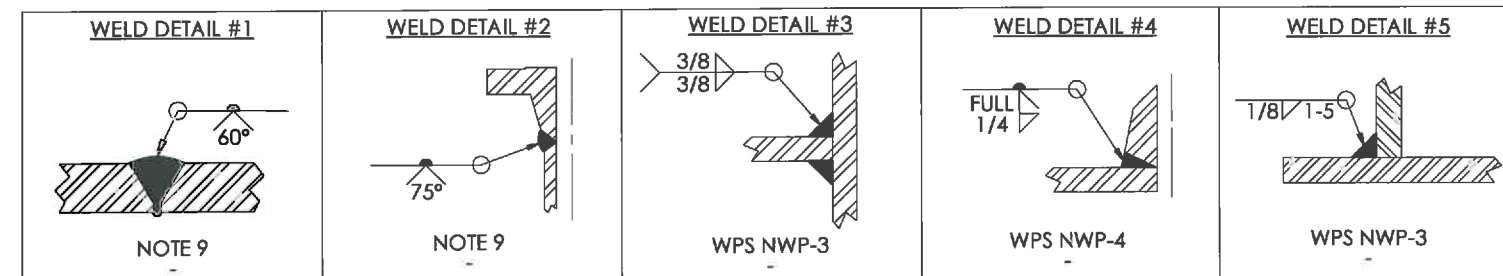
**SECTION B-B**  
SCALE: 1:4

**FRONT VIEW**  
SCALE: 1:24

**PLAN VIEW**  
SCALE: 1:32

**ORIGINAL**

- NOTES**
1. ALL DIMENSIONS SHALL HAVE A TOLERANCE OF  $\pm 1/8$ " UNLESS OTHERWISE SPECIFIED.
  2. DIMENSIONS INCLUDE  $1/8$ " ROOT GAP.
  3. ALL BOLT HOLES STRADDLE COMMON CENTER LINE.
  4. CUT LENGTHS FOR PIPE ARE FOR REFERENCE ONLY.
  5. COIL TO BE CLEANED BEFORE SHIPMENT.
  6. USE WELD PROCEDURE NWP-3 OR NWP-1 FOR ALL TACK WELDS.
  7. APPROXIMATE WEIGHT: 3,800 LBS.
  8. ROLL WELDS TO BE NWP-3, POSITION WELDS TO BE NWP-1. REFERENCE WELD DETAILS 1 & 2.



DOCUMENT NO.	DESCRIPTION	REV.	DATE	BY:	CHK:	APP:	DESCRIPTION
08582-001-B-101	BATH ASSEMBLY						
08582-001-S-001	SKID ASSEMBLY						
08582-001-F-101	FIRETUBE AND STACK						
08582-1	P&ID						
08582-001-G-001	GENERAL ARRANGEMENT	0	DEC 3/12	MJH			ISSUED FOR CONSTRUCTION

REV.	DATE	BY:	CHK:	APP:	DESCRIPTION
0	DEC 3/12	MJH			ISSUED FOR CONSTRUCTION

**ISSUED FOR CONSTRUCTION**

SIGNED: \_\_\_\_\_

DATE: \_\_\_\_\_

W.O.: \_\_\_\_\_

S.N.: \_\_\_\_\_

ALL DIMENSIONS IN INCHES

**NWP INDUSTRIES INC.**  
Total oilfield supply.

P.O. BOX 6280, INNISFAIL, AB T4G 1S9  
PH: (403) 227-4100 FAX: (403) 227-4102

SCALE: AS NOTED

**HUSKY ENERGY**

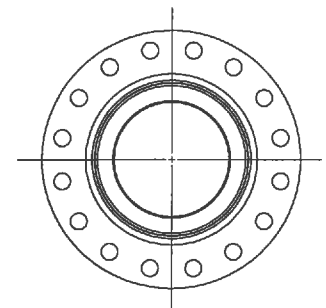
1.5 MMBTU LINE HEATER PACKAGE  
54" OD X 16' LG @ LINE HEATER LH100  
c/w 10" 900# HEADER AND 5 PIPE COIL  
ASSEMBLY DETAILS

DWN: MJH    CHK: *[Signature]*    APP: *[Signature]*

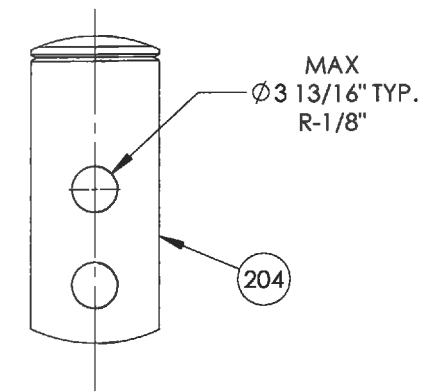
DATE: DEC 3/12    DATE: **DEC 13 2012**    DATE: **DEC 13 2012**

SHEET: 1 OF 3    DWG: 08582-001-C-001    REV: 0

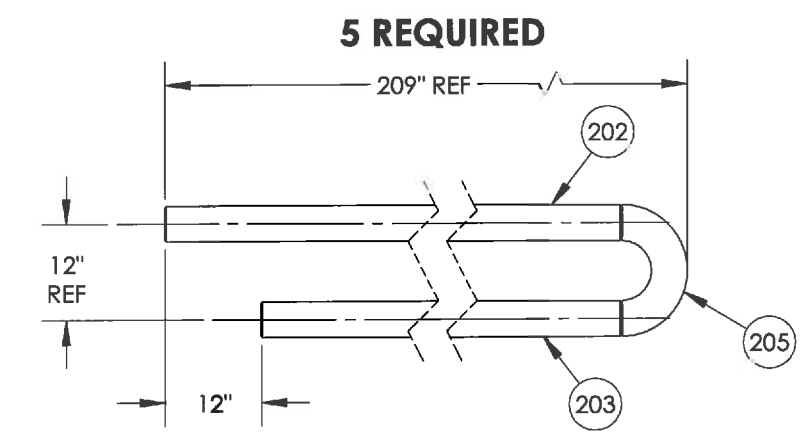
ITEM	PART #	DESCRIPTION	MTR #	LENGTH	QTY.
200	CAP10Y80GC	WELD CAP 10" SCH 80 BW SA234-WPB			2
201	FLA10D80BE	FLANGE 10" 900 ANSI SCH 80 RTJ SA-105N			2
202	PIP480A	PIPE 4" SCH XH/80 SA106B BE		200 3/4"	5
203	PIP480A	PIPE 4" SCH XH/80 SA106B BE		188 3/4"	5
204	PIP1080A	PIPE 10" SCH 80 SA106B BE		48"	2
205	RET4L80GC	Return 180 Deg 4" LR S/XH BW SA234WPB			5
206	WOL41080GE	WELDOLET 4" S/80 (10") SA-105		-	10



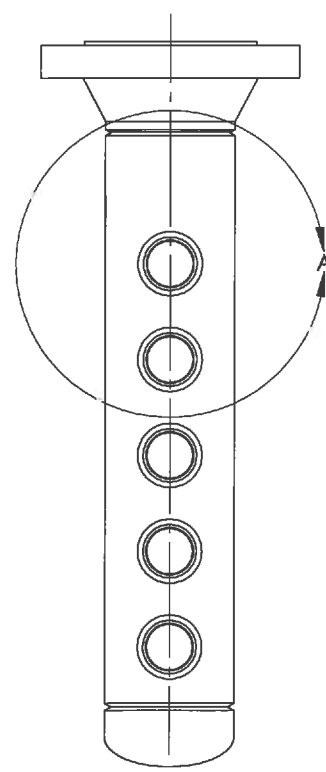
**PLAN VIEW  
HEADER SUBASSEMBLY**  
SCALE: 1:16



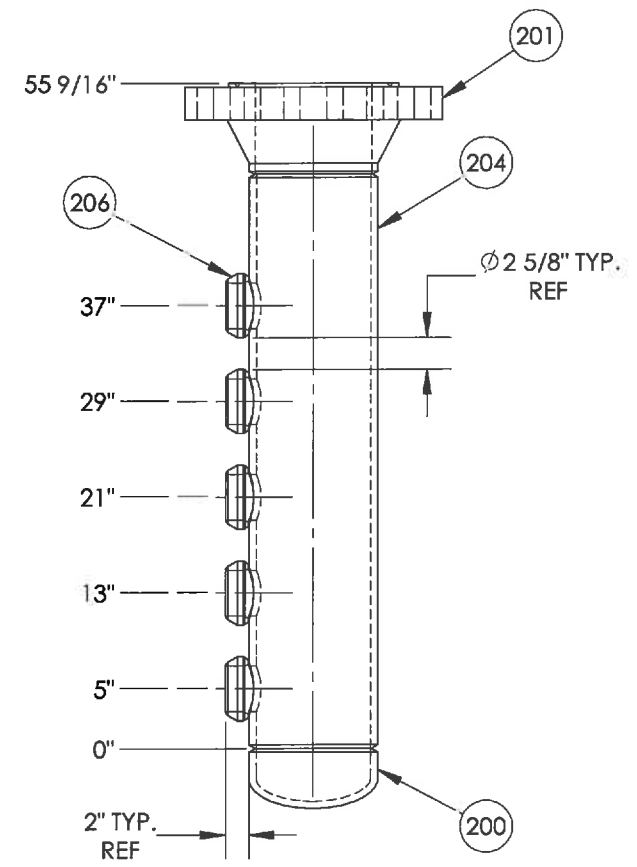
**DETAIL A**  
SCALE: 1:16



**PLAN VIEW  
COIL TUBE SUBASSEMBLY**  
SCALE: 1:24

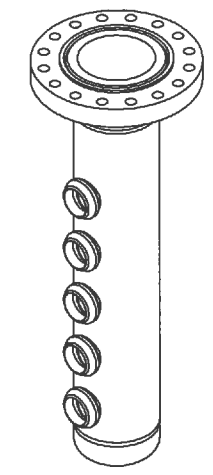


**FRONT VIEW  
HEADER SUBASSEMBLY**  
SCALE: 1:16



**RIGHT VIEW  
HEADER SUBASSEMBLY**  
SCALE: 1:16

**2 REQUIRED**



**ISOMETRIC VIEW  
HEADER SUBASSEMBLY**  
SCALE: 1:24

**ORIGINAL**

PS-100 COIL DESIGN DATA	
DESIGN AND FABRICATE TO:	ANSI/ASME B31.3 NFS 2010 EDITION
CLIENT SPECIFICATION:	N/A
DESIGN PRESSURE:	1480 PSIG
MAX. DESIGN METAL TEMPERATURE:	200 °F
MIN. DESIGN METAL TEMPERATURE:	-20 °F
IMPACT TEST:	EXEMPT PER TABLE 323.2.2 COLUMN A
RADIOGRAPHY:	10%
OTHER NDE:	NONE
POST WELD HEAT TREATMENT:	NONE
HYDROSTATIC TEST PRESSURE:	2220 PSIG
CORROSION ALLOWANCE:	1/8"
PRE-HEAT:	50 °F
WEIGHT EMPTY:	APROX. 3800 LBS.
WEIGHT FULL:	APROX. 5000 LBS.
CAPACITY:	18.7 CU FT
SURFACE AREA:	186.6 SQ FT
QUALITY CONTROL PROGRAM:	AQP-1253
WELDING PROCEDURE REGISTRATION NO.:	1604.2
WELD PROCEDURES:	NWP-1 Rev.4, NWP-3 Rev.3
SERVICE:	HYDROCARBONS
CRN NO.:	V9651.2
DESIGN REGISTRATION DRAWINGS:	3985 Rev.1
REFERENCE CALCULATIONS:	3985 Rev.0

08582-001-B-101	BATH ASSEMBLY
08582-001-S-001	SKID ASSEMBLY
08582-001-F-101	FIRETUBE AND STACK
08582-1	P&ID
08582-001-G-001	GENERAL ARRANGEMENT
DOCUMENT NO.	DESCRIPTION
REFERENCE DRAWINGS	

<b>AS BUILT</b>						
0	DEC 3/12	MJH	<i>D</i>	<i>B</i>	ISSUED FOR CONSTRUCTION	
REV.	DATE	BY:	CHK:	APP:	DESCRIPTION	
DRAWING REVISIONS						

**ISSUED FOR CONSTRUCTION**

SIGNED: \_\_\_\_\_

DATE: \_\_\_\_\_

W.O.: \_\_\_\_\_

S.N.: \_\_\_\_\_

ALL DIMENSIONS IN INCHES

**NWP**  
INDUSTRIES INC.  
Total oilfield supply.

P.O. BOX 6280, INNISFAIL, AB T4G 1S9  
PH: (403) 227-4100 FAX: (403) 227-4102

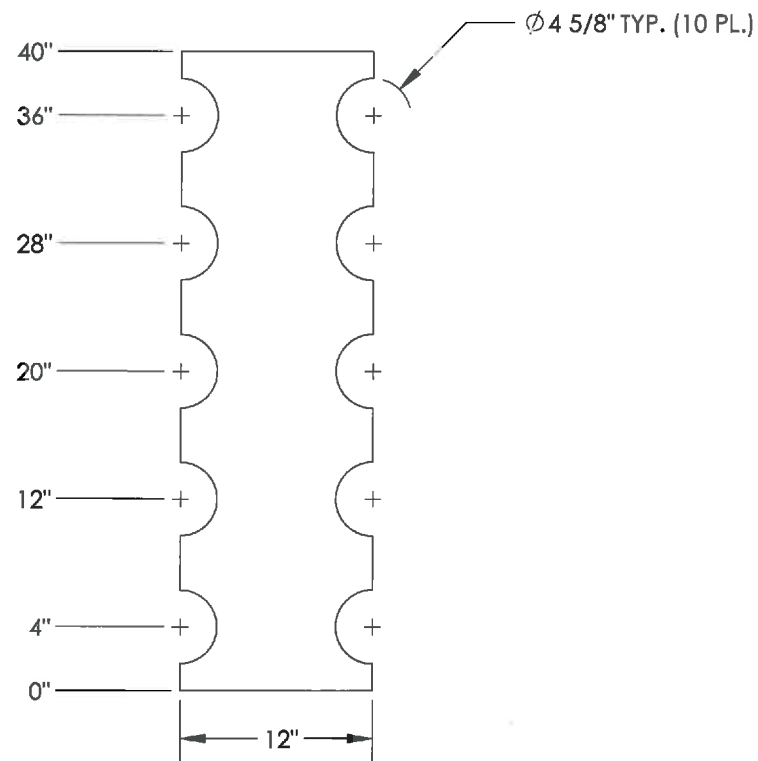
SCALE: AS NOTED

HUSKY ENERGY  
1.5 MMBTU LINE HEATER PACKAGE  
54" OD X 16' LG @ LINE HEATER LH100  
c/w 10"-900# HEADER AND 5 PIPE COIL  
ASSEMBLY DETAILS

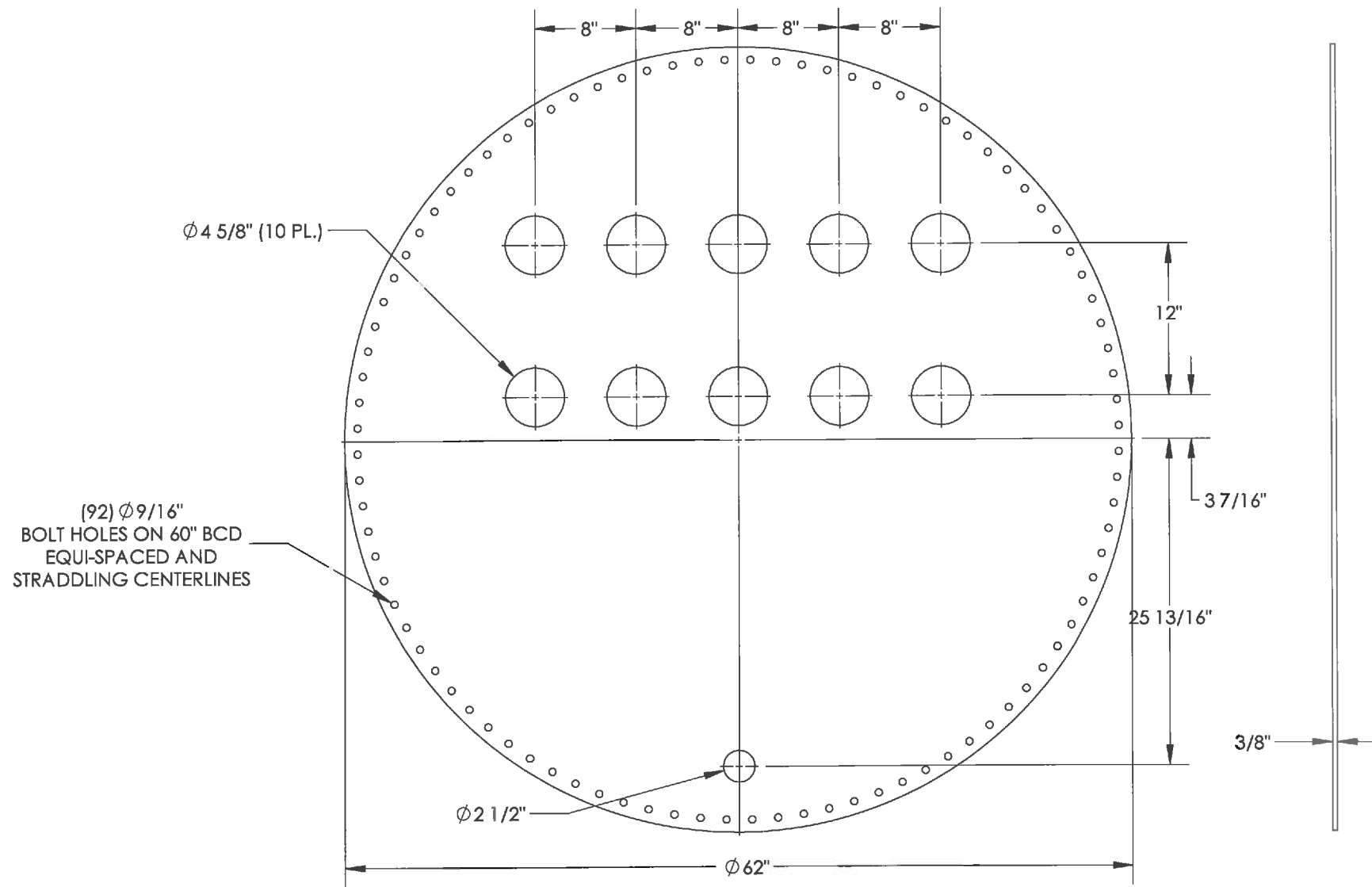
DWN: MJH    CHK: *D*    APP: *B*

DATE: DEC 3/12    DATE: **DEC 13 2012**    DATE: **DEC 13 2012**

SHEET: 2 OF 3    DWG: 08582-001-C-001    REV: 0



**DETAIL ITEM #100**  
**FLAT PATTERN**  
SCALE: 1:12



**DETAIL ITEM #101**  
**FLAT PATTERN**  
SCALE: 1:12

ORIGINAL

08582-001-B-101 BATH ASSEMBLY		<b>AS BUILT</b>					<b>ISSUED FOR CONSTRUCTION</b>		 <b>NWP</b> INDUSTRIES INC. Total oilfield supply. P.O. BOX 6280, INNISFAIL, AB T4G 1S9 PH: (403) 227-4100 FAX: (403) 227-4102		HUSKY ENERGY 1.5 MMBTU LINE HEATER PACKAGE 54" OD X 16'LG @ LINE HEATER LH100 c/w 10"-900# HEADER AND 5 PIPE COIL PLATE PART DETAILS			
08582-001-S-001 SKID ASSEMBLY														
08582-001-F-101 FIRETUBE AND STACK														
08582-1 P&ID														
08582-001-G-001 GENERAL ARRANGEMENT		0	DEC 3/12	MJH	<i>D</i>	<i>S</i>	ISSUED FOR CONSTRUCTION	SIGNED: _____		DWN: MJH		CHK: <i>D</i>	APP: <i>S</i>	
DOCUMENT NO.	DESCRIPTION	REV.	DATE	BY:	CHK:	APP:	DESCRIPTION	DATE: _____	W.O.: _____	DATE: DEC 3/12		DATE: <b>DEC 13 2012</b>	DATE: <b>DEC 13 2012</b>	
REFERENCE DRAWINGS		DRAWING REVISIONS					ALL DIMENSIONS IN INCHES		S.N.: _____		SCALE: AS NOTED	SHEET: 3 OF 3	DWG: 08582-001-C-001	REV: 0