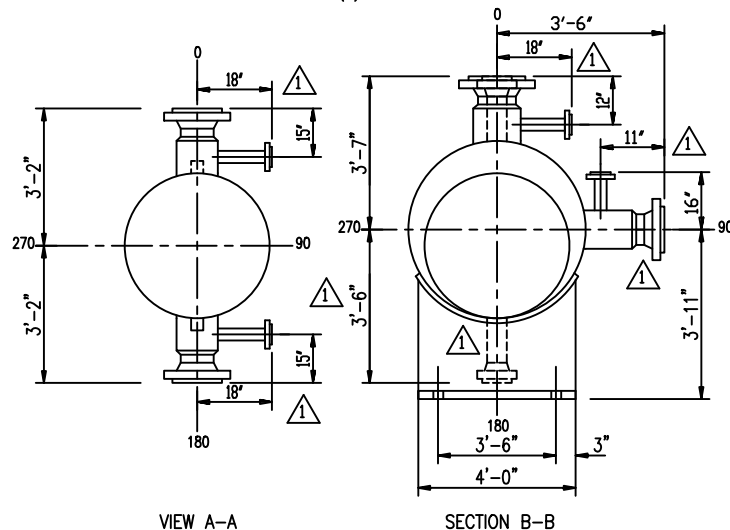
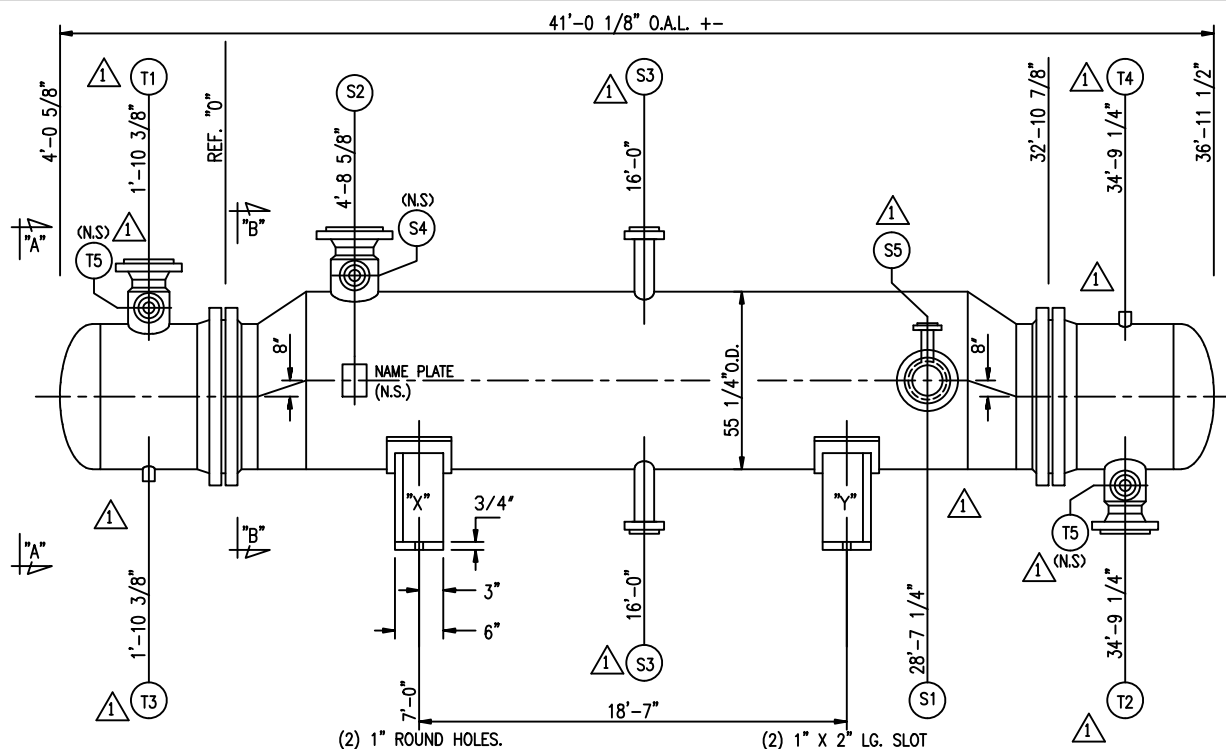


CERTIFIED FOR CONSTRUCTION

BY: _____ DATE: _____



NOZZLE SCHEDULE				
MK	QT	DESCRIPTION	PROCESS	AUXILIARIES
△ S1	1	12\"	300#RF WN	INLET
△ S2	1	18\"	300#RF WN	OUTLET
△ S3	2	2\"	300#RF LWN	LC
△ T1	1	14\"	600#RF WN	INLET
△ T2	1	14\"	600#RF WN	OUTLET
△ T3	1	3/4\"	6000#CPLG.	VENT
△ T4	1	3/4\"	6000#CPLG.	DRAIN
△ S4	1	1 1/2\"	300#RF LWN	AUX
△ S5	1	1 1/2\"	300#RF LWN	AUX
△ T5	2	1 1/2\"	600#RF LWN	AUX
6000# CPLGS.				

DESIGN DATA	SHELL	TUBE
DESIGN PRESSURE P.S.I.G.	300	1200
VACUUM PRESSURE P.S.I.G.	N/A	N/A
TEST PRESSURE P.S.I.G.	391	1561
DESIGN TEMP. Deg.F.	200	200
MDMT Deg. F.	-50	-50
CORROSION ALLOWANCE	1/16"	1/16"
NUMBER OF PASSES	1	1
RADIOGRAPHY	SPOT	FULL
HEAT TREAT REQUIRED	NO	NO

ESTIMATED WEIGHTS, LBS.	
DRY: 50000	WET: 85000

SPECIFICATIONS
 ASME CODE SECT. VIII DIV.1, 2010 ED., 2011a ADDENDA (STAMP YES)
 TEMA CLASS R
 NATIONAL BOARD REGISTRATION REQUIRED

MATERIAL	
CHANNEL:	SA-516-70N
SHELL:	SA-516-70N
TUBESHEETS:	SA-350LF2CL1
BAFFLES:	SA-36
TUBES:	SA-214
(1548)	5/8" O.D.X 0.060" (M.W.) x 33'-0" LG.
TUBE PITCH	13/16" SURFACE 8164 SQ.FT.

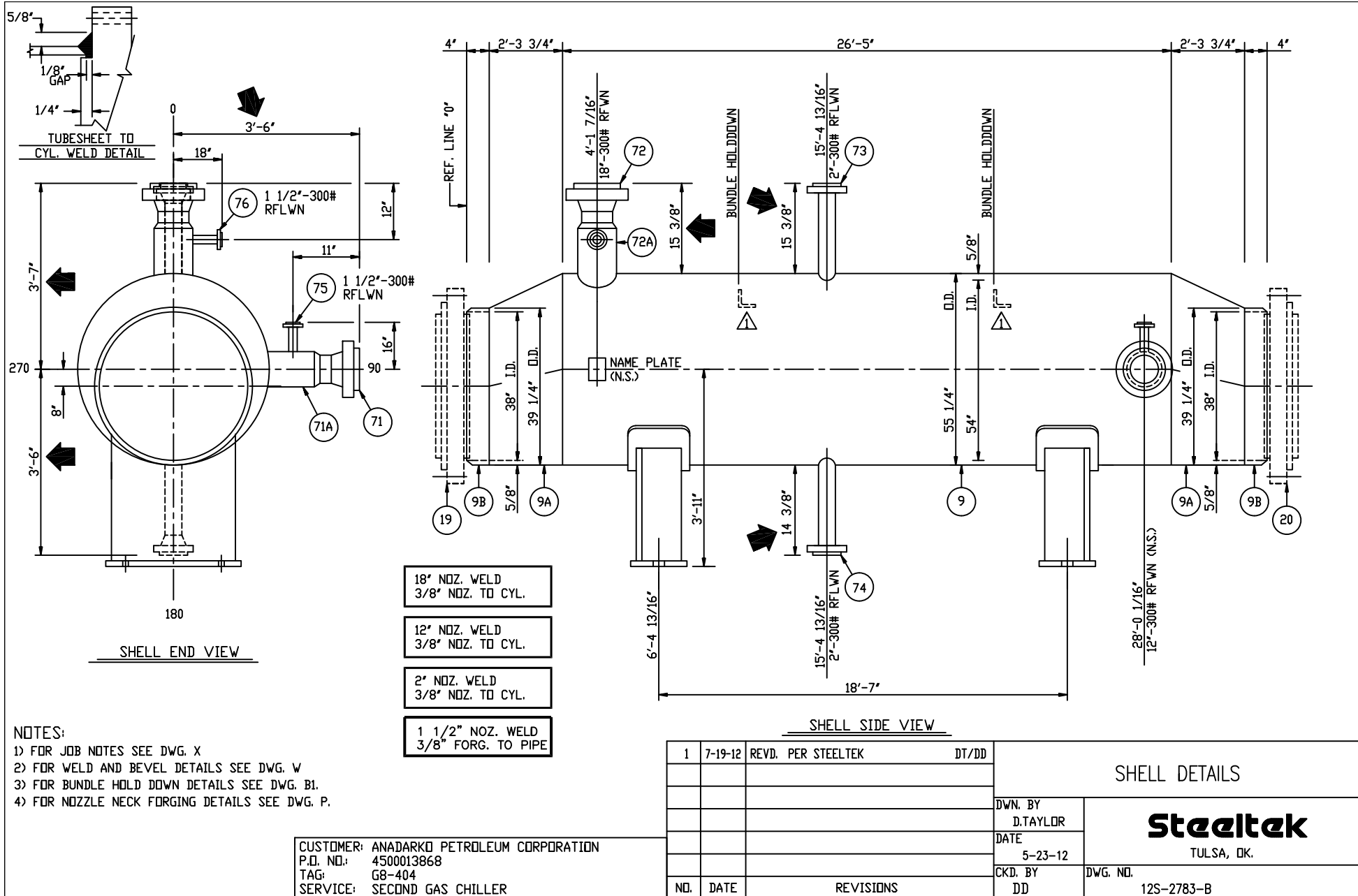
GENERAL NOTES
 ALL BOLT HOLES TO STRADDLE NATURAL CENTER LINES.
 PAINT: BLAST TO NEAR WHITE METAL PER SP-10 AND PAINT AS FOLLOWS:
 PRIME: EPOXY PHENOLIC (4 MILS D.F.T.)
 TOP: MIO 2 PACK EPOXY (5 MILS D.F.T.)
 TOP COAT COLOR: GREY CODE 00A05

GASKETS: .1750" THK. 304 SS/GRAFOIL SPIRAL WOUND

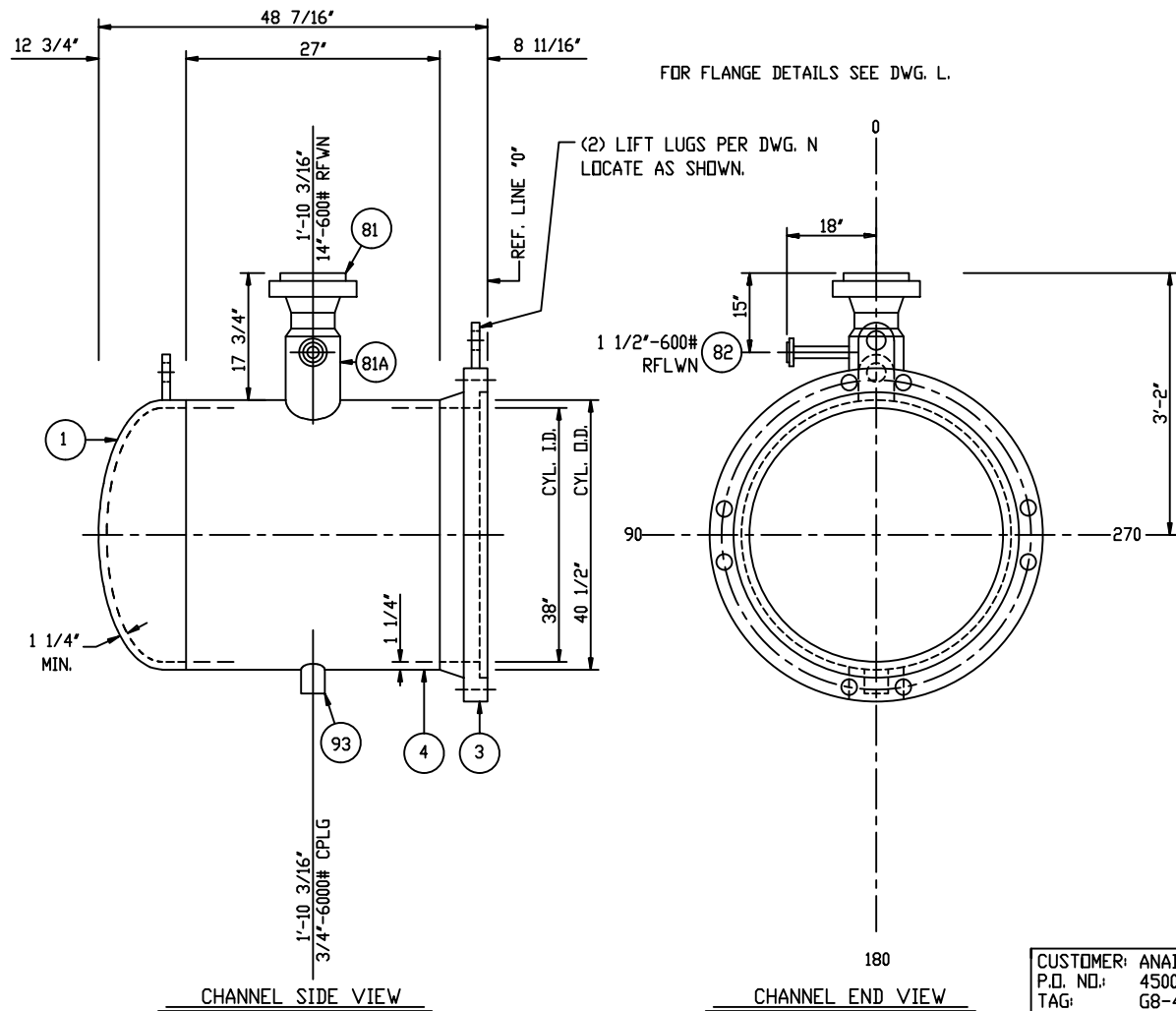
INSULATION THK. (BY OTHERS): SHELL - "LATER" CHANNELS - "LATER"
 CUST: ANADARKO PETROLEUM CORPORATION

P.O. NO.: 4500013868
 ITEM NO.: G8-404
 SERVICE: SECOND GAS CHILLER

1	6-13	REVISED PER CUST. COMMENTS	ASSEMBLY AND SPECIFICATIONS FOR ONE 38/ 54-396 B K M	
			DWN. BY SK	Steeltek TULSA, OK.
			DATE 5-17-12	
			CKD. BY SEK	
NO.	DATE	REVISIONS	DWG.NO.	12S-2783-A



- 14" NOZ. WELD
3/8" NOZ. TO CYL.
- 3/4" CPLG. WELD
3/8" CPLG. TO CYL.
- 1 1/2" NOZ. WELD
3/8" FORG. TO FORG.

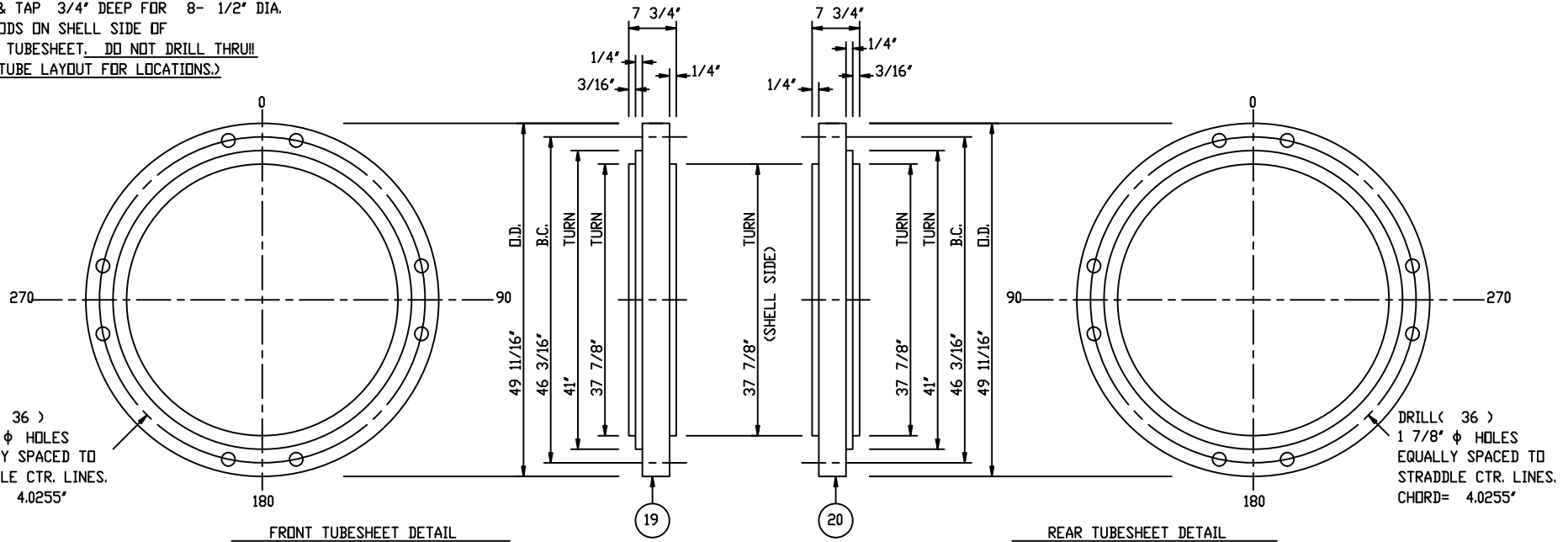


- NOTES:
- 1) FOR JOB NOTES SEE DWG. X.
- 2) FOR WELD AND BEVEL DETAILS SEE DWG. W.
- 3) FOR NOZZLE FORGING DETAILS SEE DWG. P.

			CUSTOMER: ANADARKO PETROLEUM CORPORATION	
			P.O. NO.: 4500013868	
			TAG: G8-404	
			SERVICE: SECOND GAS CHILLER	
			FRONT CHANNEL DETAILS	
			DWN. BY	Steeltek TULSA, OK.
			D.TAYLOR	
			DATE	
			5-23-12	
			CKD. BY	DWG. NO.
			DD	12S-2783-D
NO.	DATE	REVISIONS		

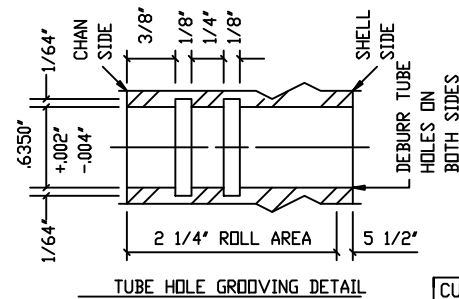
			SERVICE: SECOND CHS CHILLER	
			REAR CHANNEL DETAILS	
			DWN. BY D.TAYLOR	 TULSA, OK.
			DATE 5-23-12	
			CKD. BY DD	
NO.	DATE	REVISIONS	DWG. NO. 12S-2783-E	

DRILL(36)
1 7/8" ϕ HOLES
EQUALLY SPACED TO
STRADDLE CTR. LINES.
CHORD= 4.0255'

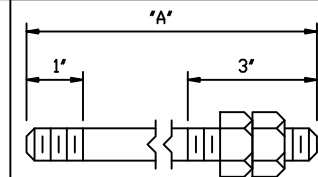
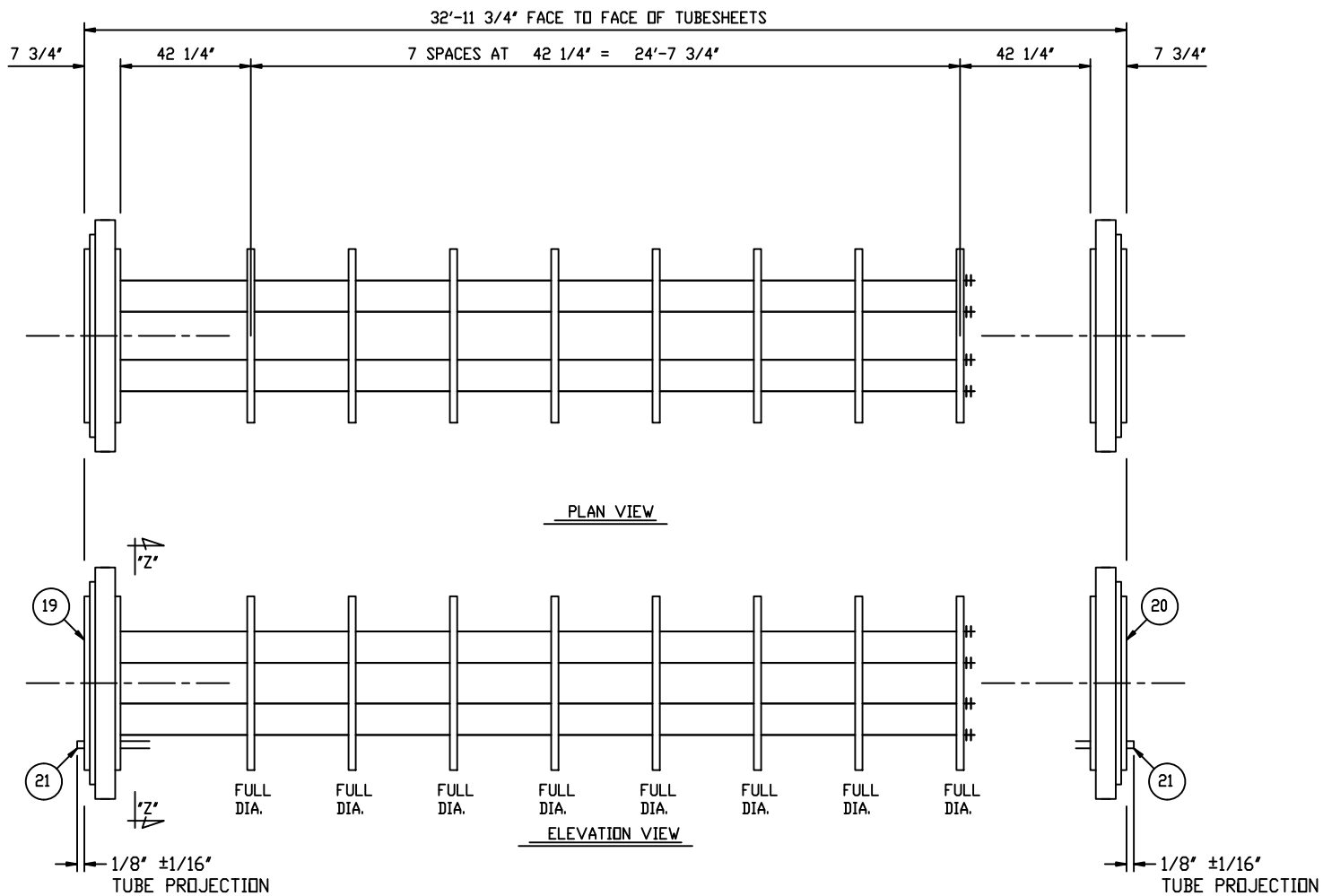


NOTES:

- 1) MACHINE ALL SURFACES TO 250 RMS
EXCEPT GASKET FACES TO BE 125 RMS.
- 2) FOR JOB NOTES SEE DWG. X.

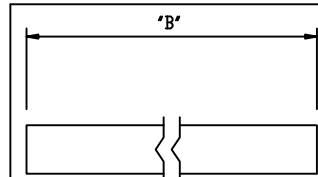


			SERVICE RECORD AND CHANGE	
			TUBESHEET DETAILS	
			DWN. BY D.TAYLOR	 TULSA, OK.
			DATE 5-23-12	
			CKD. BY DD	
NO.	DATE	REVISIONS	DWG. NO. 12S-2783-F	



1/2" O.D. TIE RODS (23)

REQ'D.	'A'
(A) 8	28'-4 1/2"
(B)	
(C)	
(D)	



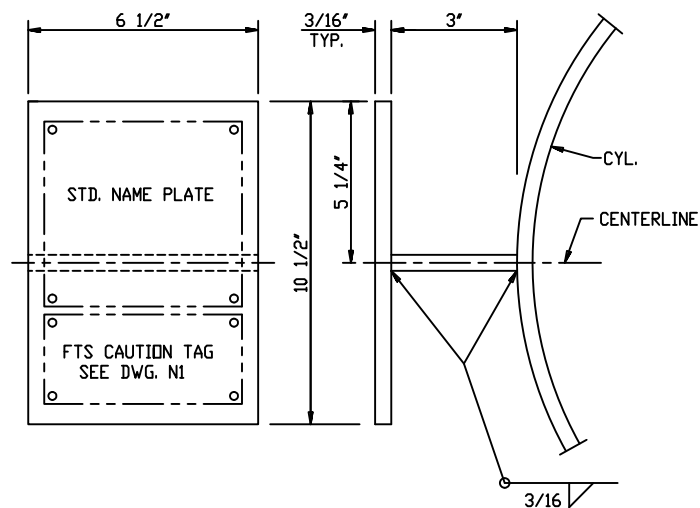
3/4" O.D. SPACER TUBING (23A)

REQ'D.	'B'
(1) 8	42 1/16"
(2) 56	41 7/8"
(3)	
(4)	
(5)	
(6)	
(7)	

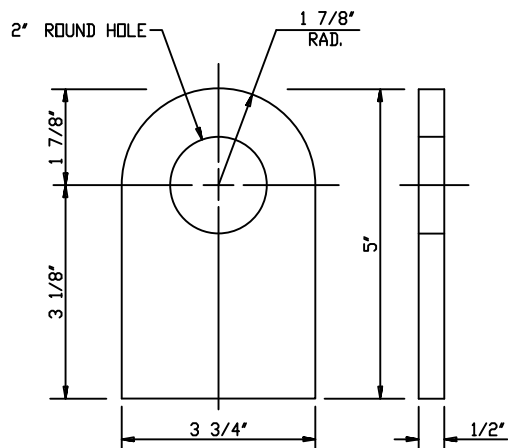
NOTES:
1) FOR SECTION AND VIEW DETAILS SEE DWG. H
2) FOR JOB NOTES SEE DWG. X

CUSTOMER: ANADARKO PETROLEUM CORPORATION
P.O. NO.: 4500013868
TAG: G8-404
SERVICE: SECOND GAS CHILLER

			BUNDLE DETAILS	
			DWN. BY	Steeltek TULSA, OK.
			D.TAYLOR	
			DATE	
			5-23-12	
			CKD. BY	DWG. NO.
			DD	12S-2783-J
NO.	DATE	REVISIONS		



NAME PLATE W/ FTS CAUTION TAG BRACKET DETAIL



LIFTING LUG DETAIL

NB	CERTIFIED BY		
	Steeltek		
	TULSA, OKLA.		
U W RT3-S RT1-T	MAWP PSI	300	1200
	AT °F	200	200
	MAEWP		
	AT °F		
	MDMT	-50	-50
	AT PSI	300	1200
YEAR BUILT		2012	
SERIAL NO.		12S-2783	
P.O. NO.		4500013868	
ITEM NO.		G8-404	

➔ NATIONAL BOARD NUMBER IS REQUIRED
NUMBER WILL BE ASSIGNED AT TIME OF SHIPMENT

CUSTOMER: ANADARKO PETROLEUM CORPORATION
P.O. NO.: 4500013868
TAG: G8-404
SERVICE: SECOND GAS CHILLER

NAME PLATE, BRACKET AND LIFT LUG DETAILS

DWN. BY
D.TAYLOR

DATE
5-23-12

CKD. BY
DD

Steeltek
TULSA, OK.

DWG. NO.

12S-2783-N

NO.	DATE	REVISIONS

GENERAL NOTES:

- 1. ALL BOLT HOLES TO STRADDLE NATURAL CENTERLINES.
- 2. MATCH MARKS REQUIRED AT ALL BOLTED JOINTS.
- 3. GRIND INSIDE WELDS FLUSH WITH SHELL PORT I.D. & BOTTOM 1/3 OF SHELL.
- 4. GRIND INSIDE WELDS SMOOTH WITH CHANNEL I.D.
- 5. BOLTING TO BE COATED WITH A SUITABLE THREAD LUBE.
- 6. HYDROTEST TO BE HELD FOR 1 HOUR. (MIN.)
- 7. SHELLSIDE & TUBESIDE PRODUCTION IMPACT TESTS REQUIRED AT -50° F. WITH MINIMUM IMPACT VALUES OF 15/12 FT./LBS. USE PRODUCTION IMPACT TEST FROM 12S-2752.



WELDING NOTES:

- 1. FOR WELD PROCEDURES SEE WELD MAP DWG. WM

RADIOGRAPHY NOTES:

- 1. SHELL TO BE SPOT RADIOGRAPHED.
- 2. CHANNELS TO BE FULL RADIOGRAPHED.

SHIPPING PREPARATION NOTES:

- 1. ALL NOZZLE FLANGE GASKET SURFACES SHALL BE COATED WITH AN EASILY REMOVABLE RUST PREVENTATIVE PRIOR TO INSTALLATION OF SHIPPING COVERS.
- 2. NOZZLE FLANGES TO HAVE WIRED-ON WOOD COVERS WITH RUBBER GASKETS.

CUSTOMER: ANADARKO PETROLEUM CORPORATION
P.O. NO.: 4500013868
TAG: G8-404
SERVICE: SECOND GAS CHILLER

1	7-25-12	REVD. PER CUST. COMMENTS	DT/DD	JOB NOTES	
				DWN. BY D.TAYLOR	Steeltek TULSA, OK.
				DATE 5-23-12	
				CKD. BY DD	
NO.	DATE	REVISIONS		DWG. NO. 12S-2783-X	

MK.NO.	QUAN.	DESCRIPTION	MATERIAL	DUE	P.O. NO.	RCV'D	PRICE
21	1548	TUBES 5/8" O.D.X .060" (M.W.) X 33'-0" LG.	SA-214				
		FORGED RING MATERIAL					
3	1	FLG 49 11/16" O.D.X 38" I.D.X 8 11/16" THK (f)	SA-350LF2CL1				
16	1	FLG 49 11/16" O.D.X 38" I.D.X 8 11/16" THK (f)	SA-350LF2CL1				
		TUBESHEETS					
19	1	TUBESHEET 49 11/16" O.D.X 7 3/4" THK (f)	SA-350LF2CL1				
20	1	TUBESHEET 49 11/16" O.D.X 7 3/4" THK (f)	SA-350LF2CL1				
		BAFFLES					
22	8	BAFFLES 38 3/16" B.O.D.X 3/8" THK	SA-36				
		HEADS					
1	1	ELLIP HD. 38" I.D.X 1 1/4" THK(min) W/2" SF	NOTE 1				
18	1	ELLIP HD. 38" I.D.X 1 1/4" THK(min) W/2" SF	NOTE 1				
		NOTE 1: SA-516-70N WITH IMPACT TEST AT -50°F WITH MINIMUM IMPACT VALUES OF 15/12 FT/LBS.					
		CYLINDERS					
9	1	R&W CYL 54" I.D.X 5/8" THK X 26'-5" LG.					
		(171 3/4" WRAP) 2-CYL 10'-0" 1-CYL 6'-5"	NOTE 2				
4	1	R&W CYL 38" I.D.X 1 1/4" THK X 2'-3" LG.					
		(123 7/16" WRAP) X 1 1/4" THK X 27" LG.	NOTE 2				
17	1	R&W CYL 38" I.D.X 1 1/4" THK X 2'-3" LG.					
		(123 7/16" WRAP) X 1 1/4" THK X 27" LG.	NOTE 2				
9B	2	R&W CYL 38" I.D.X 5/8" THK X 4" LG.					
		(121 1/2" WRAP) X 5/8" THK X 4" LG.	NOTE 2				
9A	2	38" I.D. X 54" I.D. X 5/8" THK					
		30deg. ECC. CONE X 2'-3 3/4" LG.(FINISHED LENGTH)					
		NOTE: LONG SEAMS TO BE NS & FS.	NOTE 2				
		NOTE 2: SA-516-70N WITH IMPACT TEST AT -50°F WITH MINIMUM IMPACT VALUES OF 15/12 FT/LBS.					
		PRODUCTION IMPACT TEST COUPON					
9A	1	12" x 12" x 5/8" THK.	NOTE 3				
		NOTE 3: SAME MATERIAL & HEAT NO. AS PART NUMBER 9.					
		BEVELS					
		PART NUMBERS 1 AND 18: TYPE H					
		PART NUMBER 9: LONG SEAMS AND INTERMEDIATE ROUND SEAMS					
		TYPE E; ENDS TYPE D					
		PART NUMBERS 4 AND 17: ALL SEAMS TYPE H					
		PART NUMBER 9B: LONG SEAM TYPE E; ONE END TYPE E; ONE					
		END TYPE B					
		PART NUMBER 9A: LONG SEAMS TYPE E; ENDS TYPE A					
		(f) DENOTES FINISHED DIMENSION					
		COLD FORMED HEADS TO BE HEAT TREATED AFTER FORMING.					
		ALL HOT FORMED HEADS TO BE NORMALIZED DURING OR AFTER FORMING					

CUSTOMER: ANADARKO PETROLEUM CORPORATION
P.D. NO.: 4500013868
TAG: G8-404
SERVICE: SECOND GAS CHILLER

BILL OF MATERIAL

DWN. BY
SK
DATE
5/18/12
CKD. BY
SEK

Steeltek
TULSA, OK.

DWG.NO. 12S-2783-Y

SQUARE CUT	TYPE A
45° D.S.	TYPE B
30° D.S.	TYPE C
1/8" LAND	TYPE D
30° I.S.	TYPE E
37 1/2° D.S.	TYPE F
37 1/2° D.S.	TYPE G
30° W / 1/8" LAND	TYPE H
BEVEL NOTES:	
D.S. = OUTSIDE / I.S. = INSIDE	
L.G. = LEFT SIDE END SEAM	
R.G. = RIGHT SIDE END SEAM	
AS = ALL SEAMS	

1	5-31-12	REV'D. PER CUST. COMMENTS	DT/DD
2	7-25-12	REV'D. PER CUST. COMMENTS	DT/DD
NO.	DATE	REVISIONS	