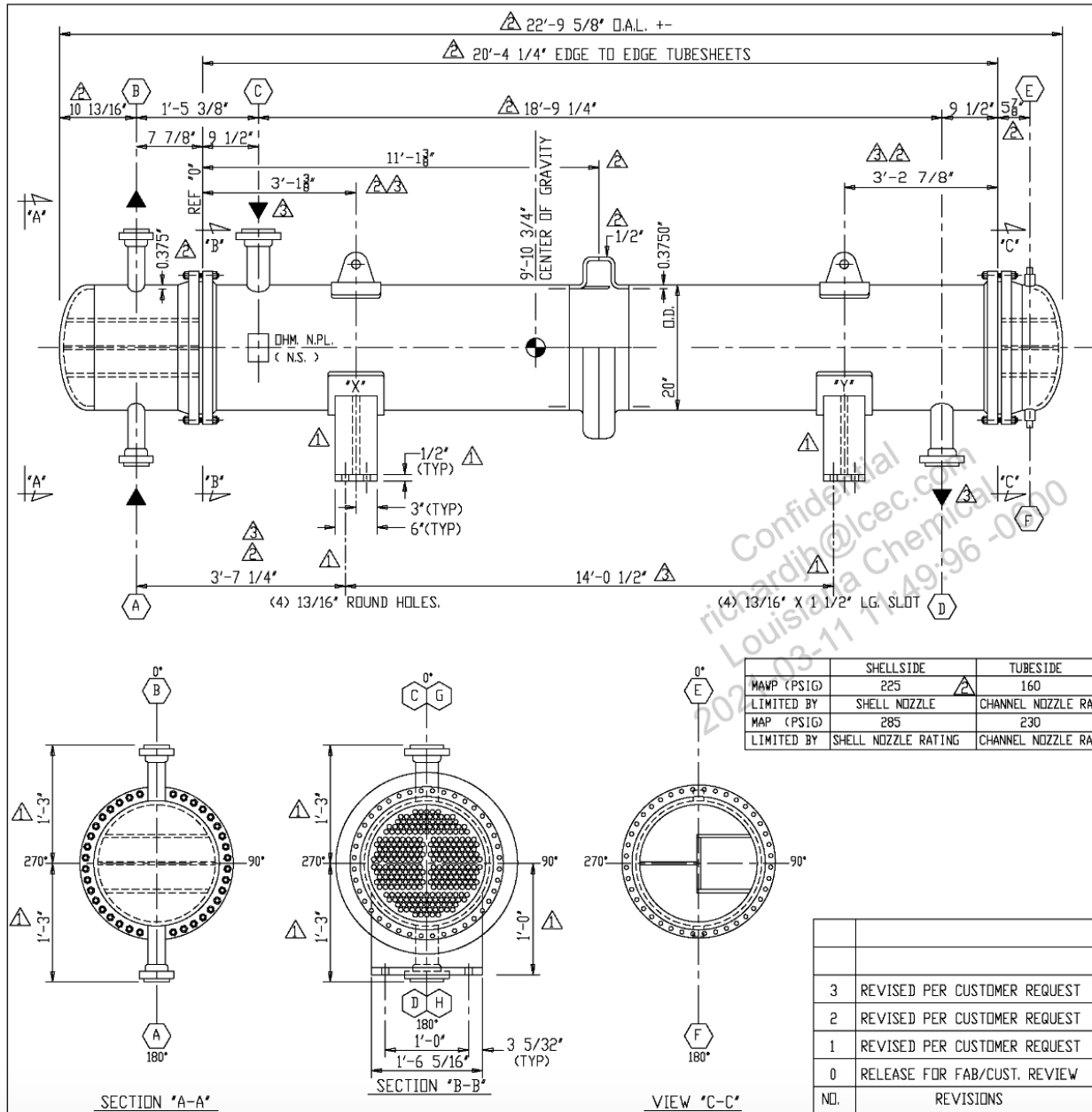




DESIGN DATA	SHELL	TUBE
DESIGN PRESSURE P.S.I.G.	150	150
VACUUM PRESSURE P.S.I.G.	N/A	N/A
TEST PRESSURE P.S.I.G.	371 SHOP, 293 FIELD	299 SHOP, 224 FIELD
DESIGN TEMP. Deg.F.	200	400
MDMT Deg. F.	15	15
CORROSION ALLOWANCE	1/8"	1/16"
NUMBER OF PASSES	1	6
RADIOGRAPHY	FULL	SPOT
HEAT TREAT REQUIRED	NO	NO
INSULATION (BY OTHERS)	N/A	N/A

ESTIMATED WEIGHTS, LBS.		
DRY:	7,000	BUNDLE: 3,800 WET: 9,500

SPECIFICATIONS	
ASME CODE SECT. VIII DIV.1, 2010 EDITION, 2011 ADDENDA (STAMP YES)	
TEMA CLASS B and API-660 APPLIES	
NATIONAL BOARD REGISTRATION REQUIRED	
IMPACT TEST EXEMPT PER UCS-66 & UHA-S1.	

MATERIAL	
CHANNEL:	SA-312TP304/L (DUAL CERT) Δ
SHELL:	SA-106-B
TUBESHEETS:	SA-240S31803/S32205 (DUAL CERT) Δ
BAFFLES:	SA-240-304/L (DUAL CERT) Δ
TUBES:	SA789S31803/S32205 (DUAL CERT) WELDED Δ
< 282 > 3/4" O.D.X 0.0650" THK. (MW) X 20'-5 1/2" LG.	
TUBE PITCH	15/16" SURFACE 1,135 SQ. FT.

GENERAL NOTES	
ALL BOLT HOLES TO STRADDLE NATURAL CENTER LINES.	
GASKETS: .1250" THK. FLEXICARB GRAPHITE (PSS-4001; GIS3)	
PAINT: SEE DRAWING SHEET #GN, PAINTING NOTE #1 AND #2.	
TUBES TO BE STRENGTH WELDED AND ROLLER EXPANDED INTO TUBESHEETS.	

NOZZLE SCHEDULE				
MK	QTY	DESCRIPTION	PROCESS	PIPE SCH. Δ
A	1	3" 150#RF SD Δ	CHANNEL INLET	SCH XH (.300")
B	1	3" 150#RF SD Δ	CHANNEL OUTLET	SCH XH (.300")
C	1	8" 150#RF SD Δ	SHELL INLET	SCH STD (.322")
D	1	8" 150#RF SD Δ	SHELL OUTLET	SCH STD (.322")
E	1	3/4" 6000#CPLG.	CHANNEL VENT W/PLUG	304 SS
F	1	3/4" 6000#CPLG.	CHANNEL DRAIN W/PLUG	304 SS

ONE	20-240	B E M
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CUSTOMER: INVISTA			
OHMSTEDE JOB NO.: 328446			
P. O. NO.: 3801214850/66416553 Δ			
ITEM NO.: 5001-7017-04			
SERVICE: SOUTH RECYCLE COLUMN BOTTOMS COOLER			

OUTLINE DRAWING			
OHMSTEDE		DRAWING NO. 328446-DL	

NO.	REVISIONS	BY	CHK.	DATE CHK.
3	REVISED PER CUSTOMER REQUEST	PI	CK	01/24/14
2	REVISED PER CUSTOMER REQUEST	BR	PI	01/02/14
1	REVISED PER CUSTOMER REQUEST	BR	PI	12/24/13
0	RELEASE FOR FAB/CUST. REVIEW	BR	PI	12/13/13