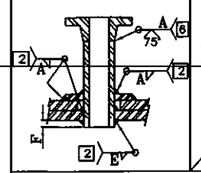
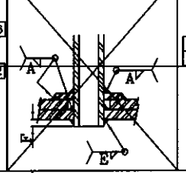
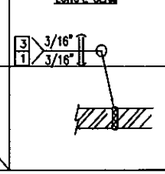
DETAIL "A"
TYPICAL NOZZLE DETAIL



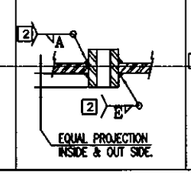
DETAIL "B"
TYPICAL NOZZLE DETAIL



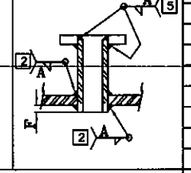
DETAIL "C"
TYPICAL CIRC. & LONG'L SEAM



DETAIL "D"
ROOF COUPLING DETAIL



DETAIL "E"
ROOF FLANGE DETAIL



MARK	QTY	SIZE	TYPE	RATING	DETAIL	MATERIAL	SERVICE	EXT. PROJ.	F	A	E
N1	1	10"	ANSI	–	E	–	VENT	5"	1/2"	3/16"	3/16"
N2	1	3"	RFWN	150#	A	SA-105N	PUMPOUT/DRAIN	6"	1/2"	3/16"	3/16"
N3	1	3"	RFWN	150#	A	SA-105N	SPARE	6"	3/8"	3/16"	3/16"
N4	1	3"	RFWN	150#	A	SA-105N	INLET	6"	3/8"	3/16"	3/16"
N5	1	4"	RFWN	150#	A	SA-105N	LEVEL CONTROLLER	6"	3/8"	3/16"	3/16"
N6	1	4"	RFWN	150#	A	SA-105N	SPARE	6"	3/8"	3/16"	3/16"
N7	1	8"	ANSI	–	E	–	THIEF HATCH	–	1/2"	3/16"	3/16"
N8	1	1/4"	HALF	3000#	–	–	VACUUM GAUGE CONNECTION	–	–	3/16"	3/16"
N9	1	4"	RFWN	150#	A	SA-105N	SPARE	6"	3/8"	3/16"	3/16"
N10	1	2"	RFWN	150#	A	SA-105N	SENSOR	6"	3/8"	3/16"	3/16"

WELD PROCEDURES

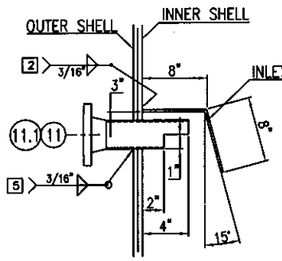
1	WPS-B2-A1A
2	WPS-F9-A3
3	WPS-B2-A4
4	WPS-F8-H1
5	WPS-F21-A2
6	WPS-B8-B7

NAME PLATE DATA.

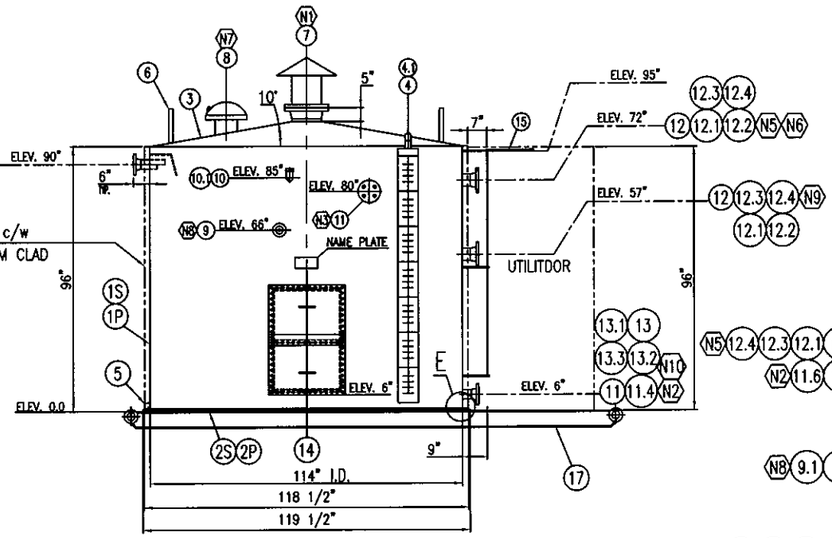
BUILT TO:	API 12F
MANUFACTURE	~~Clemmer~~
SERIAL NUMBER	
MONTH/YEAR BUILT	01/2003
NOMINAL DIAMETER	114 IN
NOMINAL HEIGHT	96 IN
NOMINAL CAPACITY	100 BBL
MAX. OPERATING TEMP.	°C
PRIMER SHELL THICKNESS	3/16 IN
SECONDARY SHELL THICKNESS	3/16 IN
PRIMER BOTTOM THICKNESS	1/4 IN
SECONDARY BOTTOM THICKNESS	1/4 IN
DECK THICKNESS	3/16 IN
DESIGN PRESSURE	16 OZ.

BILL OF MATERIALS

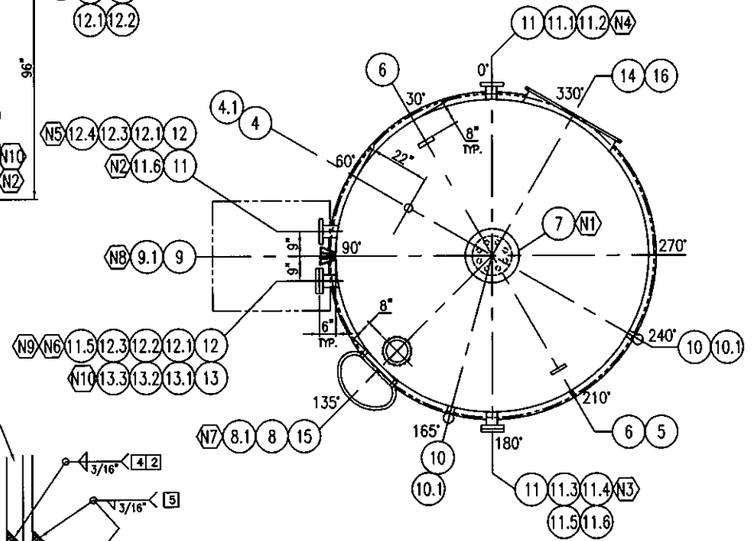
KEY	ITEM NO.	QTY	DESCRIPTION		MATERIAL
1P		1	PRIMER SHELL PLATE 3/16"x95-1/2"x358"		SA-36
1S		1	SECONDARY SHELL 3/16"x95-1/4"x362"		SA-36
~~2P~~		~~1~~	~~PRIMER TANK BOTTOM ø121" x 1/4" THK.~~		~~SA-36~~
2S		1	SECONDARY BOTTOM ø123" x 1/4" THK.		SA-36
3		1	TANK ROOF 3/16" THK.(ANOTHER DRAWING)		SA-36
4		1	3/4" 3000# COUPLER FULL		SA-105N
4.1		1	GAUGE BOARD		
5		1	INTERSTITIAL MONITORING WELL		SA-36
6		2	LIFT LUG VERT 7"x5"x1/2"		SA-36
7		2	10"-ANSI FLANGE		SA-36
7.1		1	10" SCH40 SMLS PIPE 4" LG.		SA-106B
7.2		1	10" SCH40 SMLS PIPE 10" LG.		SA-106B
7.3		1	10" O.D. 5" HIGH BIRD SCREEN ASSEMBLY		
7.4		1	10"-150# NEOPRENE GASKET		
7.5		12	7/8" x 4 1/2" STUD BOLTS c/w HEX NUTS		B7/2H
8		1	8" THIEF HATCH		
8.1		1	8" CS ANSI FLANGE		SA-105N
9	PBSHPILOT0D	1	BUSHING PILOT 1/4" PHOENIX		
9.1	MNVM300000XX	1	MONITOR VM-3 VAC GAUGE ASSY		
10	PELBS309020	2	KIT- INTERSTITIAL VENT FLUSH 2" ELB		A234 GR. WPB
10.1	PGFL256300X	2	PLUG FLAT FOR 2" SOC ELB URETHA		
11		3	3"-150# FLANGE RFWN		SA-105N
11.1		1	3" SCH40 PIPE 10"LG. CTS. (SEE DETAIL)		SA-106B
11.2		1	DEFLECTOR PLATE 1/4"x7"x16"(SEE DETAIL)		SA-36
11.3		1	3"-150# FLANGE BLIND		SA-105N
11.4		2	3"-150# GASKET SPIRAL WOUND		
11.5		8	5/8"x3-3/4" STUD BOLTS c/w HEX NUTS		B7/2H
11.6		2	3" SCH40 SMLS PIPE 4 1/2" LG.		SA-106B
11.7		1	3" PLASTIC FLANGE COVER		
12		3	4"-150# FLANGE RFWN		SA-105N
12.1		3	4" SCH40 SMLS PIPE 4 1/2" LG.		SA-106B
12.2		2	4"-150# FLANGE BLIND		SA-105N
12.3		3	4"-150# GASKET SPIRAL WOUND		
12.4		1	4"-150# FLANGE BLIND c/w 2" NPT TAP		SA-105N
13		1	2"-150# FLANGE RFWN		SA-105N
13.1		1	2" SCH40 SMLS PIPE 4 1/2" LG.		SA-106B
13.2		1	2"-150# FLANGE BLIND		SA-105N
13.3		1	2"-150# GASKET SPIRAL WOUND		
14		1	24" x 36" SPLIT MANWAY SEE DETAIL		SA-36
15		1	LADDER & SAFETY HOOP		SA-36
16		1	NAME PLATE		
17		1	SKID		44W/SA-36
17.1		1	CHECK PLATE 3/16" x 40" x 43"		A36
		1	PNEUMATIC LEVEL SWITCH 2" NPT	*	
		1	24" x 24" 24,000 BTU CATADYNE HEATER	*	
			SHIP LOOSE	*	



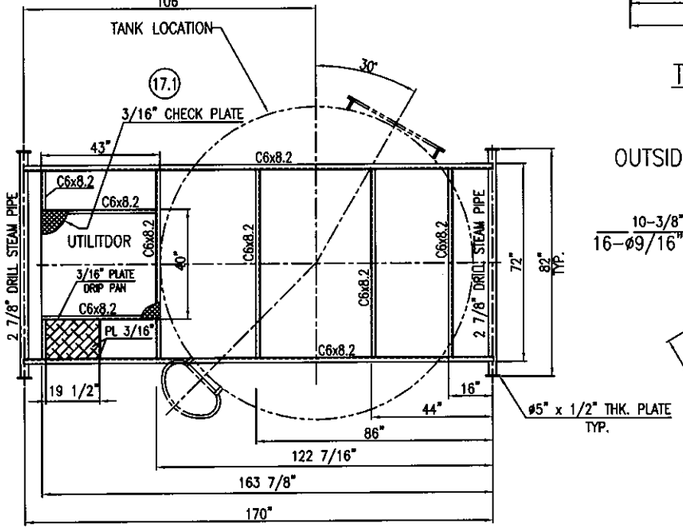
N4 DETAIL



TANK ELEVATION VIEW

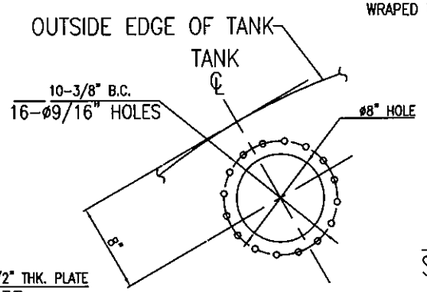


TANK TOP VIEW
TRUE ORIENTATION

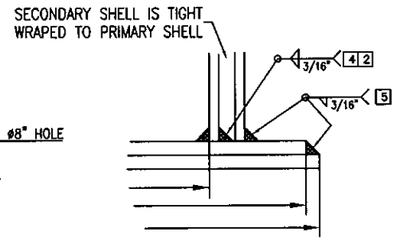


SKID DETAIL (17)

ALL STRUCTRUAL IS WELDED UNDER CWB APPROVED TO CSA W47.1 , # LC-FCA-F1 , #LC-SA-B4

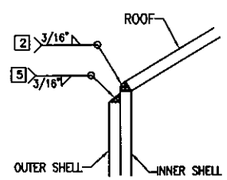


THIEF HATCH CUTOUT DETAIL

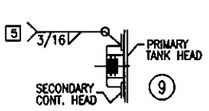


E

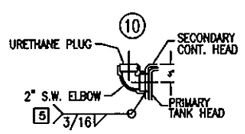
SHELL BOTTOM CONNECTION DETAIL



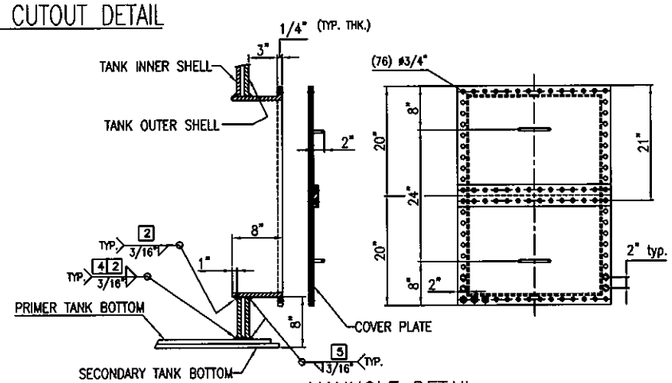
ROOF CONNECTION DETAIL



1/4" VACUUM FITTING DETAIL



INTERSTITIAL EMERG. VENT



MANHOLE DETAIL

NOTES

1. SKID 1 COAT ZINC PRIMER, 1 COAT EPOXY WHITE PAINT.
2. EXTERIOR FINISH: 1 COAT ZINC RICH EPOXY PRIMER.
3. EXTERNAL INSULATION /w 0.02" ALUMINUM CLAD.
4. INTERNAL COATING: 20-25 MILS ENVIROLINE 376 ON FLOOR & 1 FOOT UP WALL. 12-15MILS ENVIROLINE 376 ON REMAINDER OF INTERIOR OF TANK.
5. FLANGE BOLT HOLES TO STRADDLE C/R LINE.
6. FOR CIRC. & LONG'L (IF APPLIC.) SEAMS, SEE WELD DETAIL "C"
6. ESTIMATED SHIPPING WEIGHT: 3182Kg (7000lbs)

MK	DESCRIPTION	BY	DATE
0	ISSUED FOR APPROVAL	JH	19/12/02

REVISIONS

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Clemmer
CLEMMER TECHNOLOGIES INC., WATERLOO , ONTARIO

100BBL VERTICAL D/W TANK
CUSTOMER: HUSKY ENERGY
PROJECT: HUSKY 2003 PROJECTS

ITEM NO.:	DRN.: JH 17/12/02	SCALE: 1:60	2
JOB NO.: D01268/1	DWG. NO.: D01268-100BBL		