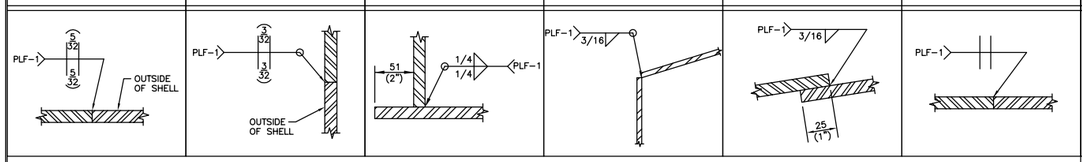
FOREMOST STANDARD TANK WELD DETAILS (N.T.S.)

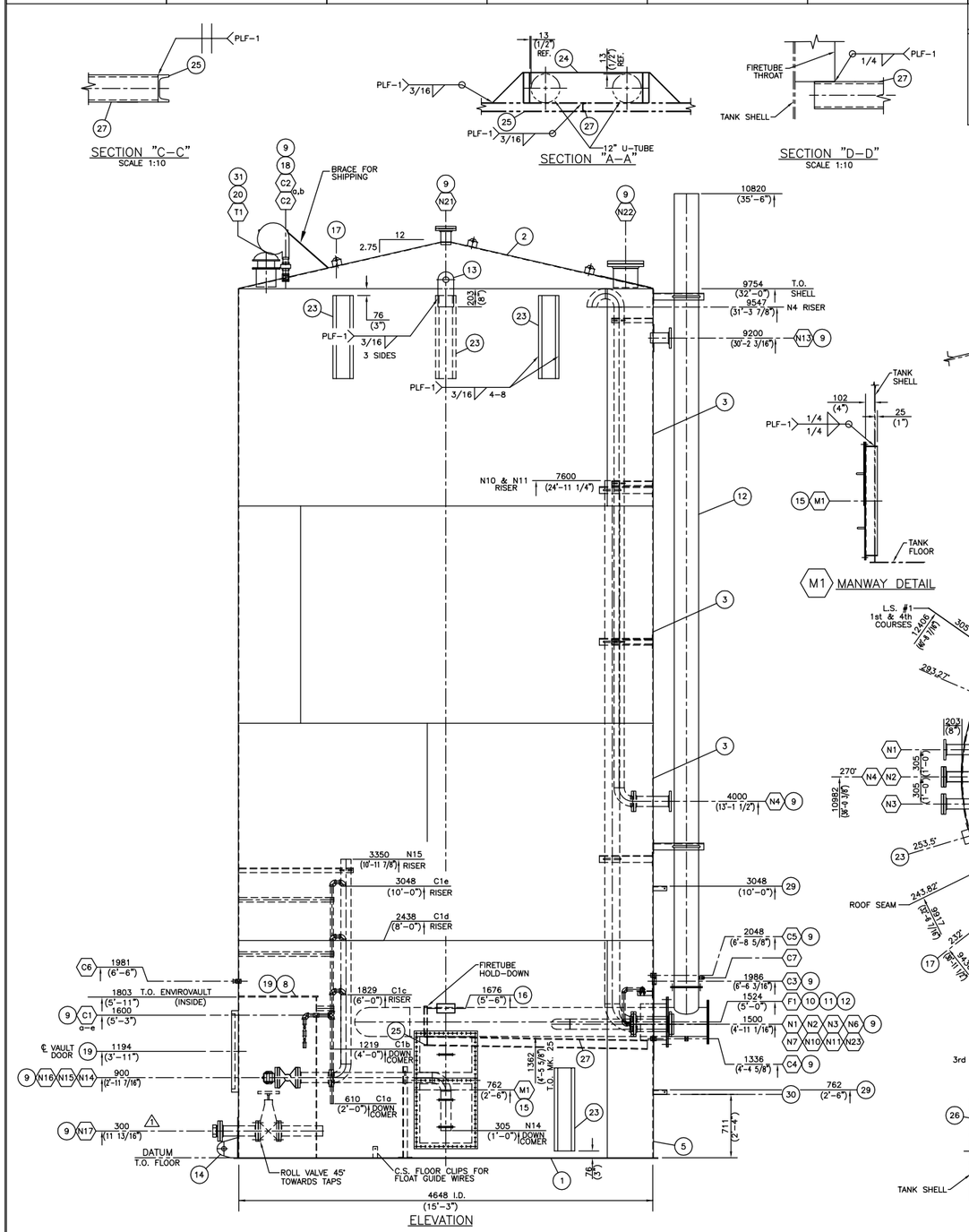


CUSTOMER SPECIFICATIONS

DESIGN CODE: API-650 (MODIFIED)
SERIAL NO: 06-061641-1 TO 8
DESIGN PRESSURE: 6.9 kPa (16.0 oz/in)/0.4 oz. VAC.
DESIGN TEMPERATURE: -13°C(8.6°F) TO 93°C(200°F)
OPERATING TEMPERATURE:
SERVICE: OIL, WATER, GAS (SOUR)
OPERATING LEVEL:
CORROSION ALLOWANCE: NIL
OTHER:

FINISHING

EXTERNAL: NONE
INTERNAL: NONE
TESTING: AIR SOAP TEST TO 16 oz.
SPOT RADIOGRAPHY
INSULATION: APPLY 51(2") SPRAY HIGH TEMP. URETHANE FOAM INSULATION C/W BLACK ELASTOMERIC SEALER TO SHELL & ROOF.



NOZZLE SCHEDULE

MK	NO	SIZE	SCH	RATE	TYPE	PROJECTION INT.	PROJECTION EXT.	REPAD YES	REPAD NO	DESCRIPTION
N1	1	114 / 4"	STD	CLASS 150	RFSO	215 / 8 7/16"	223 / 8 13/16"	✓		PRODUCED EMULSION INLET C/W INTERNAL PIPE
N2	1	114 / 4"	STD	CLASS 150	RFSO	215 / 8 7/16"	203 / 8"	✓		FUEL GAS PRE–HEAT INLET C/W HUB BLIND
N3	1	114 / 4"	STD	CLASS 150	RFSO	215 / 8 7/16"	223 / 8 13/16"	✓		SPARE C/W BLIND
N4	1	114 / 4"	STD	CLASS 150	RFSO	215 / 8 7/16"	203 / 8"	✓		GAS VENT C/W FRP INTERNAL RISER & GOOSENECK
N6	1	168 / 6"	STD	CLASS 150	RFSO	208 / 8 3/16"	210 / 8 1/4"	✓		OVERFLOW C/W INTERNAL FLANGE
N7	1	168 / 6"	STD	CLASS 150	RFSO	208 / 8 3/16"	210 / 8 1/4"	✓		OVERFLOW C/W INTERNAL FLANGE
N10	1	168 / 6"	STD	CLASS 150	RFSO	208 / 8 3/16"	210 / 8 1/4"	✓		OVERFLOW C/W INTERNAL RISER
N11	1	168 / 6"	STD	CLASS 150	RFSO	208 / 8 3/16"	210 / 8 1/4"	✓		OVERFLOW C/W INTERNAL RISER
N13	1	114 / 4"	STD	CLASS 150	RFSO	25 / 1"	203 / 8"	✓		LSHH–KAYDEN TYPE
N14	1	114 / 4"	STD	CLASS 150	RFSO	215 / 8 7/16"	203 / 8"		✓	WATER OUTLET C/W EXTENDED DOWNCOMER (INSIDE ENVIRO–VAULT)
N15	1	114 / 4"	STD	CLASS 150	RFSO	215 / 8 7/16"	203 / 8"		✓	EMULSION OUTLET C/W RISER (INSIDE ENVIRO–VAULT)
N16	1	114 / 4"	STD	CLASS 150	RFSO	215 / 8 7/16"	203 / 8"		✓	FUTURE SKIMMER CONNECTION (INSIDE ENVIRO–VAULT)
N17	1	114 / 4"	XS	CLASS 150	RFSO	67 / 2 5/8"	419 / 16 1/2"	✓		STINGER CONNECTION C/W GATE VALVE (INSIDE ENVIRO–VAULT)
N21	1	114 / 4"	STD	CLASS 150	RFSO	25 / 1"	152 / 6"		✓	VENT C/W BLIND
N22	1	273 / 10"	STD	CLASS 150	RFSO	25 / 1"	203 / 8"	✓		LSHH–DIRECT DATA TYPE C/W BLIND
N23	1	114 / 4"	STD	CLASS 150	RFSO	190 / 7 1/2"	259 / 10 3/16"	✓		FUEL GAS OUTLET C/W HUB BLIND
C1 a	1	25 / 1"	–	3000#	FULL CPLG	–	HALF		✓	SAMPLE CONNECTION C/W DOWNCOMER, BALL VALVES (ONE SPRING LOADED) (IN VAULT WALL)
C1 b	1	25 / 1"	–	3000#	FULL CPLG	–	HALF		✓	SAMPLE CONNECTION C/W DOWNCOMER, BALL VALVES (ONE SPRING LOADED) (IN VAULT WALL)
C1 c	1	25 / 1"	–	3000#	FULL CPLG	–	HALF		✓	SAMPLE CONNECTION C/W RISER, BALL VALVES (ONE SPRING LOADED) (IN VAULT WALL)
C1 d	1	25 / 1"	–	3000#	FULL CPLG	–	HALF		✓	SAMPLE CONNECTION C/W RISER, BALL VALVES (ONE SPRING LOADED) (IN VAULT WALL)
C1 e	1	25 / 1"	–	3000#	FULL CPLG	–	HALF		✓	SAMPLE CONNECTION C/W RISER, BALL VALVES (ONE SPRING LOADED) (IN VAULT WALL)
C2	1	51 / 2"	–	3000#	FULL CPLG	–	HALF		✓	LEVEL GAUGE (HAWKEYE – REDTAIL)
C2 a,b	2	32 / 1 1/4"	–	3000#	FULL CPLG	–	HALF		✓	FLOAT GUIDE WIRES
C3	1	51 / 2"	–	3000#	HALF CPLG	6 / 1/4"	AS SHOWN		✓	LLSD
C4	1	25 / 1"	–	3000#	FULL CPLG	–	HALF		✓	TEMPERATURE INDICATOR
C5	1	25 / 1"	–	3000#	FULL CPLG	–	HALF		✓	TEMPERATURE CONTROLLER
C6	1	25 / 1"	–	3000#	FULL CPLG	–	HALF		✓	FLOATING SUCTION LUBRICATION CONNECTION C/W PLUG
C7	1	19 / 3/4"	–	3000#	FULL CPLG	–	FULL		✓	FIRETUBE PERFORMANCE MONITOR C/W PLUG REF. DWG. W06–061641–B104
T1	1	219 / 8"	LW	–	FAB'D	25 / 1"	152 / 6"		✓	THIEF HATCH NOZZLE (MARSH HAWK)
M1	1	610x1219 / 2'x4'	–	–	FAB'D		102 / 4"		✓	SHELL MANWAY C/W 60/40 SPLIT COVER
F1	1	324 / 12"	–	–	FAB'D		152 / 6"	✓		THROAT NOZZLE FOR 12" DIA. U–TUBE

ITEM	ANGLE	CIRC. DISTANCE
N11	4.38°	178 (7")
N23	12.59°	512 (1'–8 3/16")
F1	40°	1627 (5'–4 1/16")
C5	42°	1708 (5'–7 1/4")
MK. 14 & MK. 23	52°	2115 (6'–11 1/4")
C3	60°	2440 (8'–0 1/16")
C4	62.5°	2542 (8'–4 1/16")
LG & MK. 18	126.15°	5131 (16'–10")
N13	137°	5572 (18'–3 3/8")
MK. 13	142°	5776 (18'–11 3/8")
T1	143.22°	5825 (19'–1 5/16")
MK. 25 & MK. 26	146.72°	5968 (19'–6 15/16")
MK. 17	150°	6101 (20'–0 3/16")
N22	158.22°	6435 (21'–1 3/8")
N7	175.62°	7143 (23'–5 1/4")
N6	184.38°	7499 (24'–7 1/4")
MK. 23	210.5°	8562 (28'–1 1/16")
MK. 23	253.5°	10311 (33'–9 15/16")
N3	262.48°	10677 (35'–0 3/8")
N2 & N4	270°	10982 (36'–0 3/8")
N1	277.52°	11287 (37'–0 3/8")
MK. 25 & MK. 26	293.27°	11928 (39'–1 5/8")
MK. 13	322°	13097 (42'–11 5/8")
M1	330°	13422 (44'–0 7/16")
MK. 29	343°	13951 (45'–9 1/4")
N10	355.62°	14465 (47'–5 1/2")

MATERIAL LIST

MATERIAL REQUIREMENTS

M (MTR's): MTR's REQUIRED AND MATERIAL IDENTIFIED AS PER Q.C. MANUAL
I (IMPACT TESTING): NONE
C (CHEMISTRY): NONE

MK	QTY	PART NO.	DESCRIPTION	REF. DWG.	MATERIAL	WT	MAT REQ
1	2	2425	FLOOR HALF: PLATE 1/4" THK. x 15'–7 1/2" DIA.	–	G40.21–44W	1958	M
2	2	6996	ROOF HALF: PLATE 3/16" THK. x 15'–9 1/8" FLAT DIA.	–	G40.21–44W	1496	M
3	3	2939	SHELL: PLATE 3/16" THK. x 8'–0" x 47'–11 1/2" LG.	–	G40.21–44W	8814	M
4							
5	1	2959	SHELL: PLATE 1/4" THK. x 8'–0" x 47'–11 11/16" LG.	–	G40.21–44W	3917	M
6							
7							
8	1	–	ENVIRO–VAULT WALL/ROOF FOR 6' x 6' VAULT	A103	–	848	–
9	1	–	NOZZLE DETAILS	D102	–	2458	–
10	1	–	BURNER RUN	–	–	22	–
11	1	–	BURNER (BY OTHERS)	–	–	90	–
12	1	–	FIRETUBE REMOVABLE U–TUBE 12" SCH STD. 750,000 BTU/HR. C/W THROAT AND STACK	B104	–	2563	–
13	2	4273	LIFTING LUG	–	–	15	–
14	1	4276	TAILING LUG C/W REPAD	–	–	5	–
15	1	1221	SHELL MANWAY 2'–0" x 4'–0" C/W 1/4" SPLIT COVER	B112	–	239	–
16	1	1478 2896	NAMEPLATE BRACKET C/W NAMEPLATE	–	–	5	–
17	3	2533	TANK ROOF SAFETY HARNESS LUG	–	–	3	–
18	1	–	HAWKEYE REDTAIL LEVEL INDICATOR ASS'Y C/W GAUGE HEAD, METRIC BOARD, PVC FLOAT, GUIDE WIRES, FLOOR CLIPS, CABLE TIGHTENERS & MISC. HARDWARE	B105	–	75	–
19	1	16763	ENVIRO–VAULT DOOR DETAIL (3' x 5')	–	–	105	–
20	1	2769	THIEF HATCH NOZZLE 8"	–	–	21	–
21							
22							
23	5	1494	TANK HAULING PAD	–	–	120	–
24	1	6993	FIRETUBE HOLD–DOWN FOR 12" U–TUBE	–	–	8	–
25	1	2151	CHANNEL C4 x 5.4# x 14'–6 5/8" LG.	–	G40.21–44W	78	–
26	2	5948	REPAD PLATE 1/4" THK. x 6" DIA.	–	G40.21–44W	2	–
27	1	2151	CHANNEL C4 x 5.4# x 9'–7 11/16" LG.	–	G40.21–44W	51	–
28							
29	2	–	PIPE SUPPORT	B106	–	5	–
30	1	11058	BURNER CONTROL BOX	–	–	–	–
31	1	19192	MARSH HAWK THIEF HATCH 8" API SET @ 16oz PRESS./0.4oz VAC. STD SEAL	–	(SOUR SERVICE)	25	–
32	1	△1	GAS PRE–HEAT LINE DETAILS	C107	–	161	–
33							
34							
35							
					INSULATION	1500	
					SUBTOTAL	22923	
					× 1.06		
					△1 TOTAL (lbs.)	25798	

NOTES:

1. ALL DIMENSIONS ARE IN S.I. AND IMPERIAL UNITS. DIMENSIONS IN BRACKETS ARE IMPERIAL HARD CONVERSIONS FOR SHOP REFERENCE ONLY.
2. ALL FLANGE RATINGS TO BE ASME B16.5 – 2013.
3. DRILL 1/4" TELLTALE HOLE IN REINFORCING PADS, & ADD 1/4" HALF CPLG & NIPPLE TO EXTEND BEYOND INSULATION.
4. FLANGE AND BOLT HOLES TO STRADDLE PRINCIPAL CENTERLINES OF TANK.
5. ALL NOZZLE PROJECTIONS GIVEN ARE ALONG THE NOZZLE CENTERLINE.
6. TANK INSPECTION LEVEL 2.
7. TANK FABRICATOR IS NOT RESPONSIBLE FOR ENVIRO–VAULT DESIGN, BUT ARE RESPONSIBLE FOR ITS INTEGRATION INTO THE TANK. THE ENTIRE TANK, INCLUDING THE ENVIRO–VAULT, IS TO MEET THE DESIGN PRESSURE/VACUUM CONDITIONS SPECIFIED ABOVE.
8. MINIMUM OF 23" FLUID LEVEL MUST BE MAINTAINED TO OFFSET PRESSURE.
9. GAUGEBOARD TO HAVE A STENCIL THAT READS "LOW LEVEL" ABOVE THE BURNER.
10. MARK HIGH LEVEL AT 40 m^3

NO.	DATE (d/m/y)	REVISIONS	BY	APPD
△2	21/11/17	AS–BUILT, NO CHANGE	GLB	JK
△1	24/05/17	ADDED N17 & PRT NO. FOR MK#31 AND CHANGED NO. REQ'D	RR	JK
△0	20/03/17	ISSUED FOR CONSTRUCTION	RR	BS

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FOREMOST

CLIENT
PennWest ENERGY
GL CODE: 335.1600

DWG TITLE
1000 BBL BRIDGE TANK
GENERAL ARRANGEMENT

NO. REQ'D	VOLUME	SIZE	WO NO.	LEG NO.
8 △1	160 CU. METERS (1000 Bbl) NOM.	4648mm I.D. x 9754mm HIGH (15'–3" I.D. x 32'–0" HIGH)	06–061641	
SCALE 1:30	DWN BY R. RANASINGHE	DWG NO. W06–061641–D101	SHEET NO. 1 of 1	REV. NO. △2
DATE (d/m/y) 18/03/17	CHKD RTK 21/11/17	APPD JK 21/11/17		