

## GENERAL NOTES

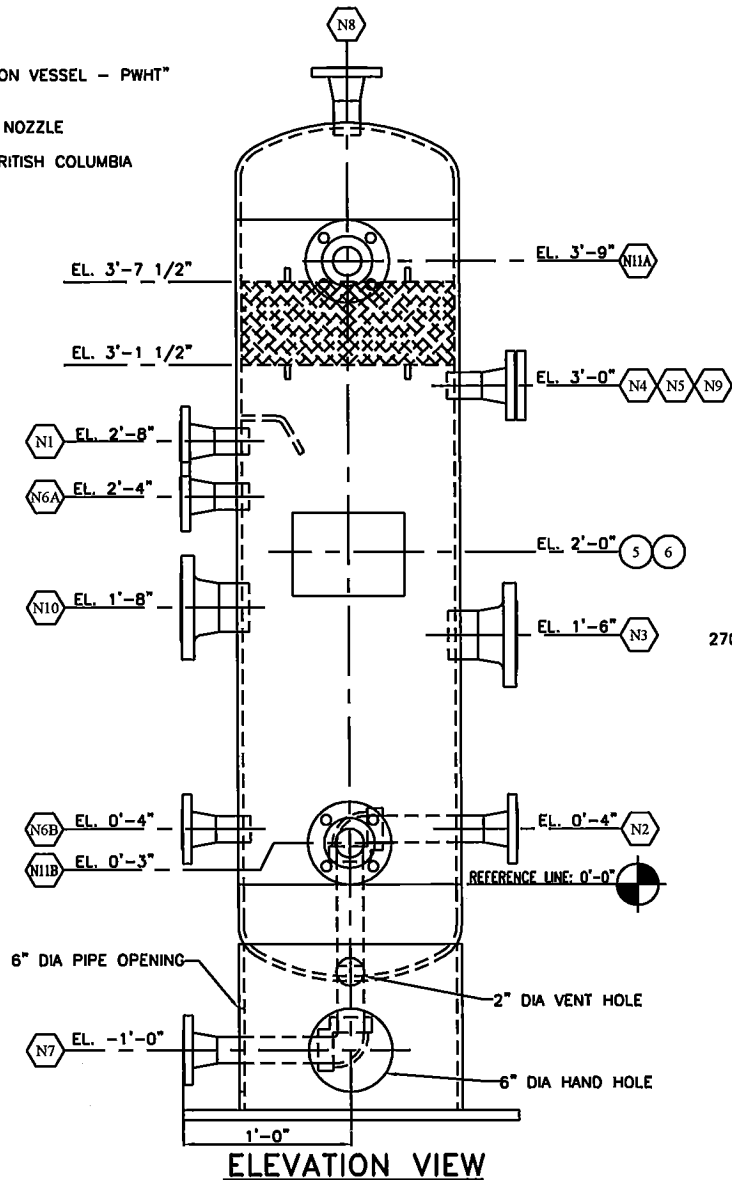
1. QUALITY CONTROL PROGRAM NUMBER: AQP-1317(S)
2. WELDING PROCEDURE REGISTRATION NUMBER: WP1970.2
3. ULTRASONIC TESTING: ALL CAT "D" WELDS PRIOR TO PWHT
4. MPI: INTERNAL CAT "D" FILLETS PRIOR TO PWHT ONLY  
& EXTERNAL CAT "D" FILLETS BEFORE AND AFTER PWHT
5. RT: 100% BEFORE AND AFTER PWHT
6. HARDNESS TEST: 210 HV MAX  
-5 POINT TRAVERSE ON LONG SEAM, (1) CIRC SEAM &  
(1) TEST EACH ON 10% OF NOZZLE CAT "C" & "D" WELDS
7. PWHT: ACCORDING TO UCS-56  
HEAT FROM AMBIENT TO 800°F AT A MODERATE RATE  
HEAT FROM 800°F TO 1150°F AT 400°F/Hr MAX  
SOAK AT 1150°F FOR 60 MIN  
COOL TO 800°F AT 500°F/Hr MAX  
FROM 800°F AIR COOL IN FURNACE
8. EXTERNAL SANDBLAST: SSPC-SP6 (COMMERCIAL)
9. EXTERNAL FINISH:  
PRIME: ONE COAT OF PRIMER  
FINISH: ONE COATS OF INDUSTRIAL ENAMEL (GREY)  
-PAINT IN VISIBLE AREA 3" HIGH LETTERS "DO NOT WELD ON VESSEL - PWHT"
10. ALL BOLT HOLES TO STRADDLE CENTERLINE
11. ALL OPENINGS TO BE COVERED PRIOR TO SHIPPING
12. ALL OUTSIDE PROJECTIONS MEASURED ALONG CENTERLINE OF NOZZLE
13. FABRICATION TOLERANCE AS PER BWML DWG: TOL2002
14. VESSEL TO BE REGISTERED IN ALBERTA, SASKATCHEWAN, & BRITISH COLUMBIA
15. VESSEL TO BE SUPPLIED WITH U-STAMP
16. VESSEL SERIAL NUMBER: 15234

## NOZZLE SCHEDULE

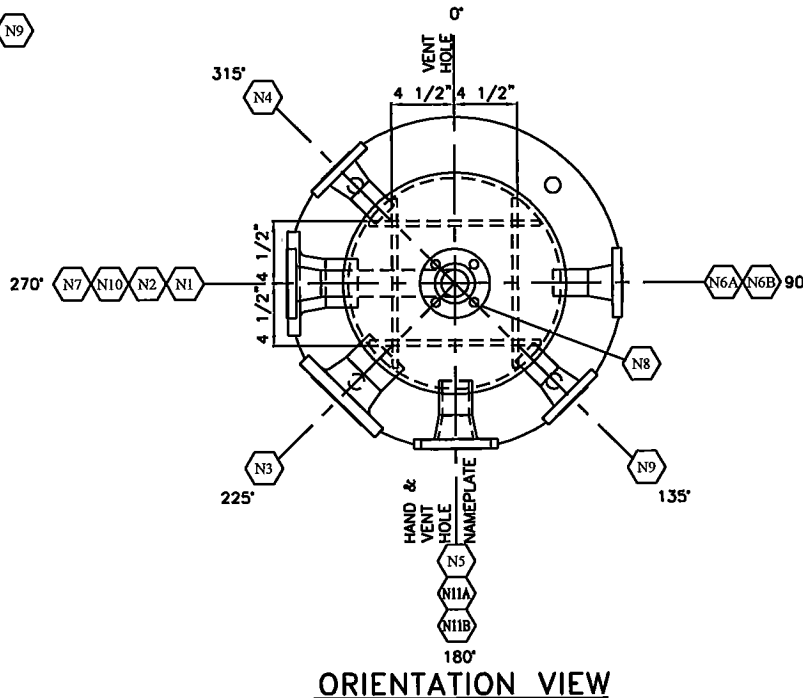
MARK	QTY	DESCRIPTION	NPS	CLASS	TYPE	PROJECTION		WELD	WELD				REPAD	BILL OF MATERIALS ITEM NUMBER
						INSIDE	OUTSIDE		A	B	C	D		
N1	1	INLET	1 1/2	150	RFWN	1/2"	4"	1	1/4	-	-	-	-	9,10,11
N2	1	GLYCOL OUTLET	1 1/2	150	RFWN	1/2"	4"	1	1/4	-	-	-	-	9,12,13,14
N3	1	LEVEL CONTROL	3	150	RFWN	1/2"	4"	1	1/4	-	-	-	-	15,16
N4	1	PSV	1 1/2	150	RFWN	1/2"	4"	1	1/4	-	-	-	-	9,10
N5	1	PI	1 1/2	150	RFWN	1/2"	4"	1	1/4	-	-	-	-	9,10,17,18,19,20
N6A/B	2	LG	1 1/2	150	RFWN	1/2"	4"	1	1/4	-	-	-	-	9,10
N7	1	DRAIN	1 1/2	150	RFWN	FLUSH	SHOWN	1	1/4	-	-	-	-	9,12,14,21
N8	1	GAS OUTLET	1 1/2	150	RFWN	1/2"	4"	1	1/4	-	-	-	-	9,10
N9	1	TI	1 1/2	150	RFWN	1/2"	4"	1	1/4	-	-	-	-	9,10
N10	1	LSH	3	150	RFWN	1/2"	4"	1	1/4	-	-	-	-	15,16
N11A/B	2	INSPECTION	2	150	RFWN	1/2"	4"	1	1/4	-	-	-	-	22,23,24,25,26,27

## BILL OF MATERIALS

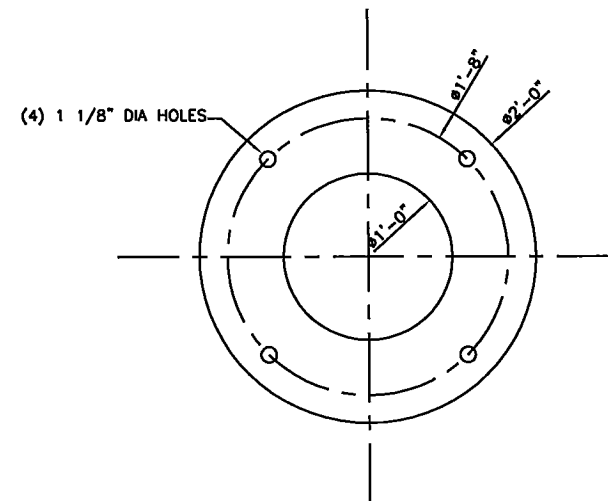
ITEM	QTY	REF.	PART No.	DESCRIPTION	MATERIAL	WEIGHT
1	2	HEAD	1-006800	16" x SCH STD (0.329" MIN) BW PIPE CAP	SA-234-WPB	84#
2	1	SHELL	1-003395	16" PIPE SCH STD x 4'-0" LG (BBE)	SA-106-B	283#
3	1	SKIRT	1-003395	16" PIPE SCH STD x 1'-0" LG (CBE)	SA-106-B	70#
4	1	BASERING	2-001067	3/4" THK x 24" OD x 12" ID c/w HOLES (SEE DETAIL)	SA-36	70#
5	1	NAMEPLATE	2-000219	6" x 8" NAMEPLATE BRACKET	SA-36	2#
6	1	NAMEPLATE	1-001701	6" x 8" ALUMINUM NAMEPLATE	ALUMINUM	-
7	1	MISTEX	1-008797	15 1/4" OD PETROMESH 5330 5#/10.8#/8" 2 PIECE MISTEX PAD	316SS	-
8	4	MISTEX	1-003925	3/8" THK x 1" FLATBAR x 12 1/4" LG	SA-240-316L	5#
9	9	N1,2,4,5,6,7,8,9	1-008798	1 1/2" x CLASS 150 RFWN FLG SCH XXH	SA-105-N	36#
10	7	N1,4,5,6,8,9	1-003355	1 1/2" PIPE SCH XXH x 2 1/2" LG (BOE,ROE)	SA-106-B	4#
11	1	N1	2-001068	3/8" THK x 3/4"-2" INLET DEFLECTOR	SA-516-70N	3#
12	2	N2,N7	1-003355	1 1/2" PIPE SCH XXH x 7 3/4" LG (BOE,COE)	SA-106-B	3#
13	1	N2	1-003355	1 1/2" PIPE SCH XXH x 8" LG (CBE)	SA-106-B	1#
14	2	N2,N7	1-008863	1 1/2" x CLASS 6000 SW 90° ELBOW	SA-105-N	2#
15	2	N3,N10	1-000898	3" x CLASS 150 RFWN FLG SCH XH	SA-105-N	20#
16	2	N3,N10	1-003364	3" PIPE SCH XH x 2 1/4" LG (BOE,ROE)	SA-106-B	2#
17	1	N5	1-008799	1 1/2" x CLASS 150 RF HUB BLIND, TAPPED TO 3/4" NPT	SA-105-N	4#
18	4	N5	1-003958	1/2" DIA X 2 3/4" LG STUDS	SA-193-B7M	-
19	8	N5	1-001865	1/2" DIA NUTS	SA-194-2HM	-
20	1	N5	1-003957	1 1/2" x CLASS 150 RF GRAPHITE FILLED "CG" FLEX GASKET B16.20	316SS	-
21	1	N7	1-003355	1 1/2" PIPE SCH XXH x 3 1/2" LG (CBE)	SA-106-B	1#
22	2	N11A/B	1-000882	2" x CLASS 150 RFWN FLG SCH 160	SA-105-N	12#
23	2	N11A/B	1-003359	2" PIPE SCH 160 x 2 1/2" LG (BOE,ROE)	SA-106-B	2#
24	2	N10A/B	1-001292	2" x CLASS 150 RF GRAPHITE FILLED "CG" FLEX GASKET B16.20	316SS	-
25	8	N11A/B	1-002627	5/8" DIA X 3 1/2" LG STUDS	SA-193-B7M	-
26	16	N11A/B	1-001868	5/8" DIA NUTS	SA-194-2HM	-
27	2	N11A/B	1-000869	2" x CLASS 150 RF BLIND FLG	SA-105-N	8#



ELEVATION VIEW



ORIENTATION VIEW



BASING DETAIL

## DESIGN SPECIFICATIONS





DESIGN & FABRICATE TO: 2007 ASME BOILER & PRESSURE VESSEL  
CODE, SEC VIII, DIV 1  
DESIGN PRESSURE & TEMPERATURE: 150 PSI [1034 kPa] @ 130°F [54°C]  
MINIMUM DESIGN METAL TEMP: -20°F [-29°C] @ 150 PSI [1034 kPa]  
IMPACT TESTS: EXEMPT AS PER UG-20(1)(1-5)  
RADIOGRAPHY: 100% AS PER UW-11(a)  
POST WELD HEAT TREATMENT: YES AS PER UCS-56  
HYDROSTATIC TEST PRESSURE: 1.5 x MAWP [2250 PSI] PREHEAT: 50°F [10°C]  
CORROSION ALLOWANCE: 1/8" [3.2mm] MAWP: 150 PSI [1034 kPa] @ 130°F [54°C]  
HEAD THK. MIN.: 0.3290" [8.356mm] VOLUME: 6.12 F13 [0.173 m<sup>3</sup>]  
WEIGHT EMPTY: 500 LBS [227 kg] WEIGHT FULL: 880 LBS [400 kg]

## HUSKY OIL OPERATIONS

PRODUCED WATER FLASH VESSEL - V-380  
16" OD x 4'-0" S/S - 150 PSI MAWP  
DATE: 06/02/09  
SHEET: 1 OF 1  
DRAWN BY: JAH  
PURCHASE ORDER: 08146-007  
LOCATION: b-49-C/93-P-12  
CRN DWG: BWM-289-09 RD APP'D: JAM  
CRN NUMBER: U9461.2  
JOB ORDER: D1034  
DRAWING NO.: C841-1  
REV. 1

WELO DETAIL NUMBER	REGISTERED WELDING PROCEDURE NUMBER			BACKWELD/GOUGE
	ROOT	HOT PASS	FILL & CAP	
1,2,5	BWM-5 (GMAW)	BWM-14 (SMAW)	BWM-14 (SMAW)	N/A
3	BWM-5 (GMAW)	BWM-6 (SAW)	BWM-6 (SAW)	N/A
6	BWM-12 (GMAW)	BWM-12 (GMAW)	BWM-12 (GMAW)	N/A

1	WELD NECK FLANGE	2	NOZZLE NECK	3	CIRC SEAM	4	ATTACH
 <p><math>\alpha=75^{\circ}(15^{\circ})</math> <math>0=1/8"(1/16")</math></p>	 <p>EXPOSED WELD COES SHALL BE COMFORMED AS PER US-706(c)</p> <p><math>\alpha=40^{\circ}(15^{\circ})</math> <math>0=1/8"(1/16")</math> <math>n=1/16"(1/16")</math></p>	 <p>WITHOUT BACKING <math>\alpha=80^{\circ}(15^{\circ})</math> <math>0=1/8"(1/16")</math> <math>h=3/32"</math></p>	 <p>VESSEL WALL <math>1/4"</math></p> <p>ATTACHMENT</p>				

REV. NO.	DATE	REVISION	BY	APP'D
A	06/25/09	ISSUED FOR APPROVAL	JAH	
B	07/02/09	REVISED AS PER CLIENT MARK-UPS	JAH	
C	07/08/09	ISSUED FOR FABRICATION	JAH	JAM
D	09/23/09	AS BUILT	JAH	

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