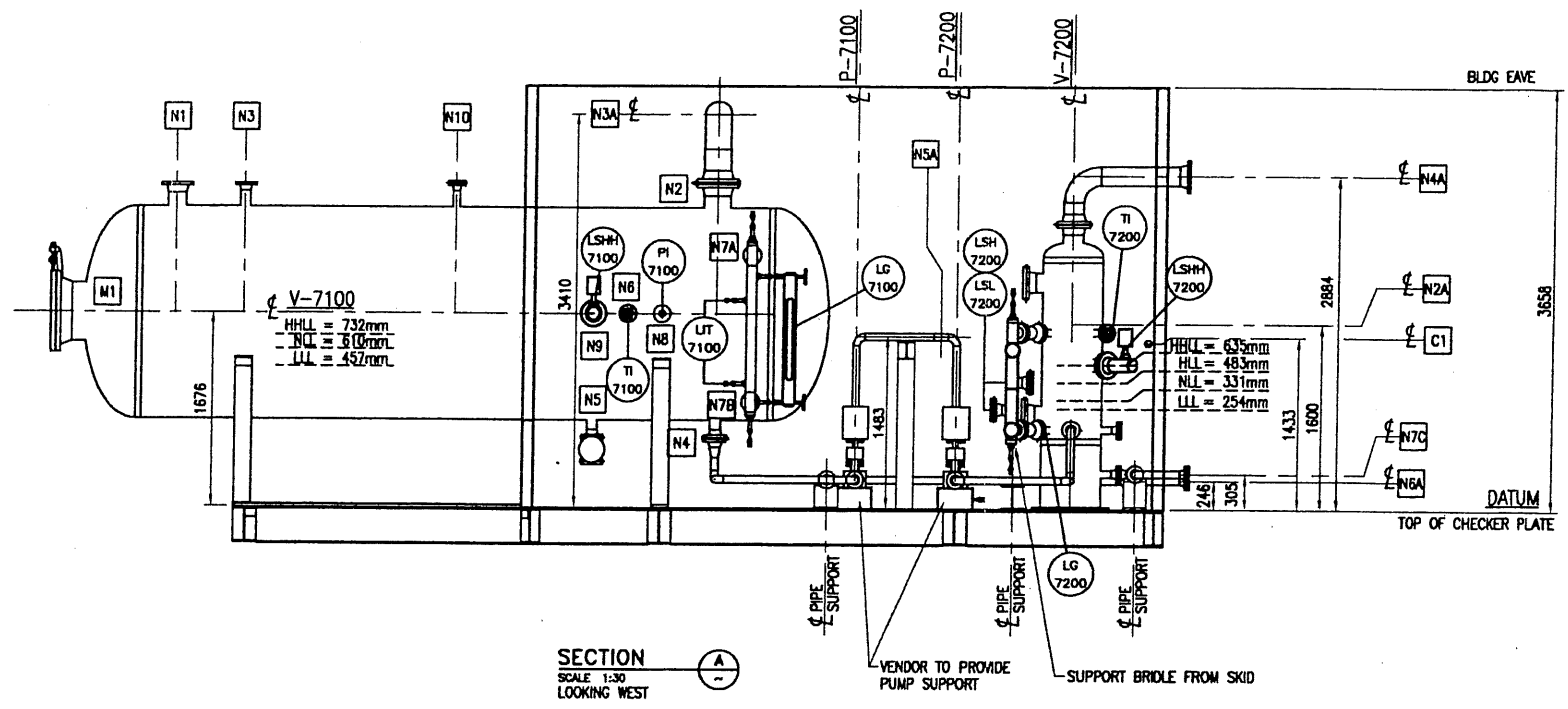


PLAN  
SCALE 1:30



SECTION  
SCALE 1:30  
LOOKING WEST

EQUIP. NO.	NOZZLE NUMBER	SIZE & RATING	SERVICE
BU-700	N2A	6"-150#RF	LP FLARE INLET
	N3A	6"-150#RF	HP FLARE OUTLET
	N4A	6"-150#RF	LP FLARE OUTLET
	N5A	2"-150#RF	CMD DRAIN OUTLET
	N6A	2"-150#RF	V-7100 CMD TRUCKOUT
	N7C	2"-150#RF	V-7200 CMD TRUCKOUT
	C1	1"-3000#NPT	W SUPPLY

**FOR REFERENCE ONLY**

**NOTE TO FABRICATOR:**

- SKID LAYOUT IS PROVIDED AS A REFERENCE ONLY!
- FINAL DESIGN OF SKID TO BE IN ACCORDANCE WITH APPLICABLE CODES & PRACTICES.
- FABRICATOR TO MAINTAIN SKID EDGE CONNECTION LOCATIONS AS CLOSE AS POSSIBLE TO SUGGESTED LAYOUT.
- PIPING WITHIN SKID LIMITS MAY BE ADJUSTED BY FABRICATOR AS REQUIRED FOR CONSTRUCTABILITY.

**NOTES:**  
1. ALL OPENINGS COVERED PRIOR TO SHIPPING.

NO	REVISION	BY	DATE	CHKD	APP
0	ISSUED FOR FABRICATION - DPH FOCUS #9703	VC	06.10.10		
A	ISSUED FOR INFORMATION - DPH FOCUS #9703	DP	06.05.20		

PERMIT STAMP

ENGINEER'S STAMP

**DPH FOCUS**

BY	VC	CHECKED	APPROVED DSGN. ENG.	APPROVED PROJ. ENG.
DATE	06.04.30			
DPH PROJECT No.	9703	DWG. SIZE	A1 (841x594)	

**SWAN HILLS SYNFUELS LTD.**

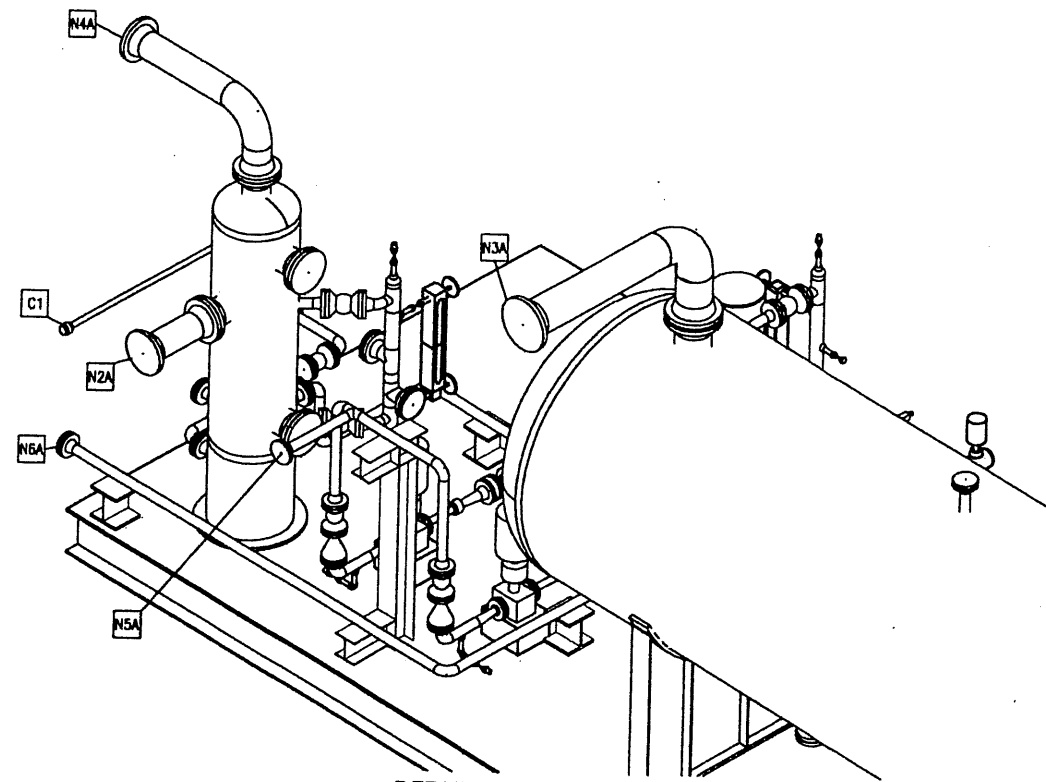
SWAN HILLS ISCG PRODUCTION FACILITY  
BU-700 - HP & LP FLARE KO BLDG.  
PIPING PLAN & ELEVATION

SCALE	1:30	DRAWING NUMBER	SW-K201-05A	REV	0
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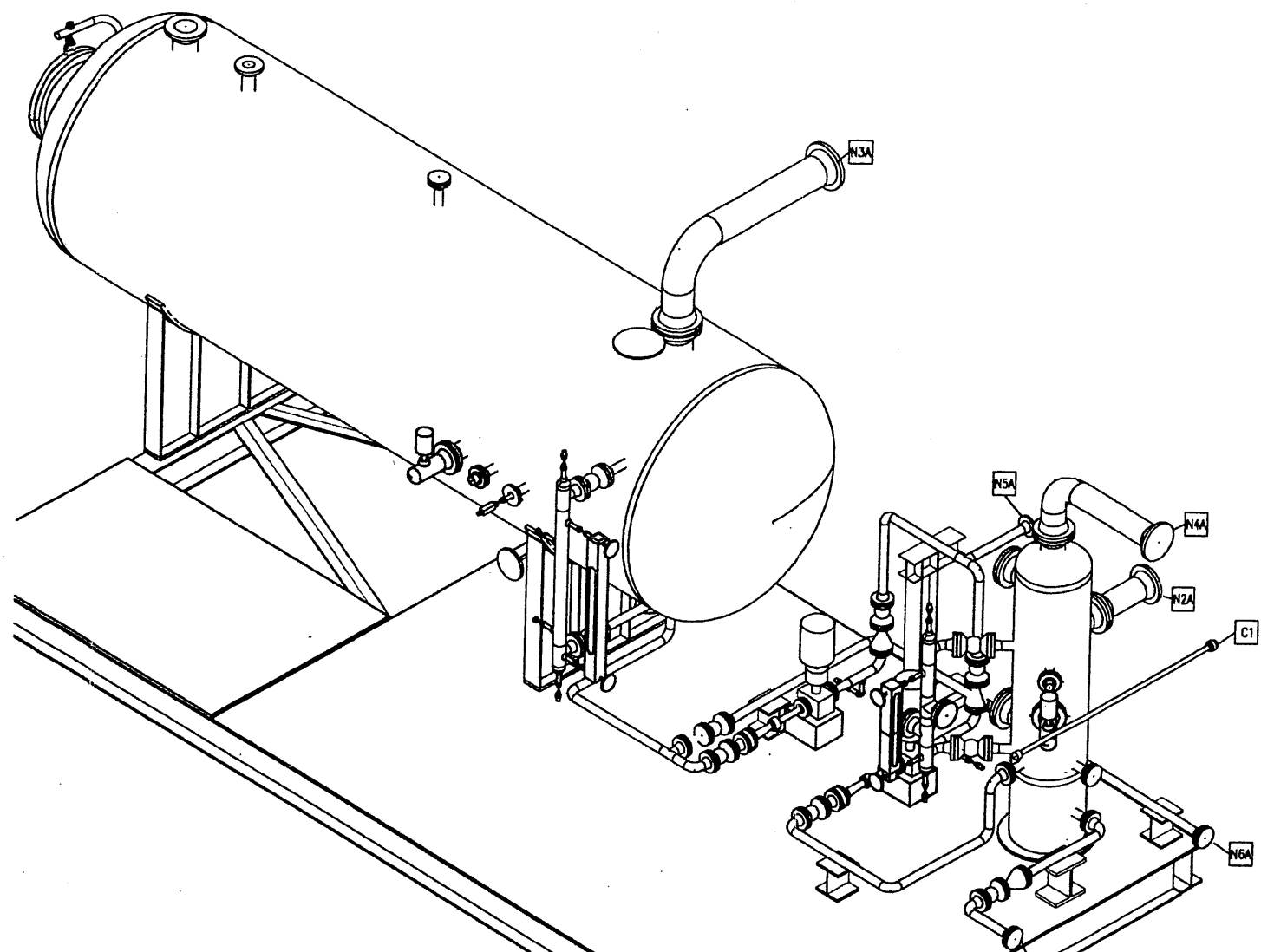
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Drawing: D:\PROD\SYNTHESIS\9703\PPING\MODEL\EQUIPMENT\PRODUCTION WELL\BU-700.DWG TAB NAME: LAYOUTS  
June

DPHAI-M

CE  
19



DETAIL 1  
SCALE: NTS  
LOOKING FROM SW  
V-7100 REMOVED

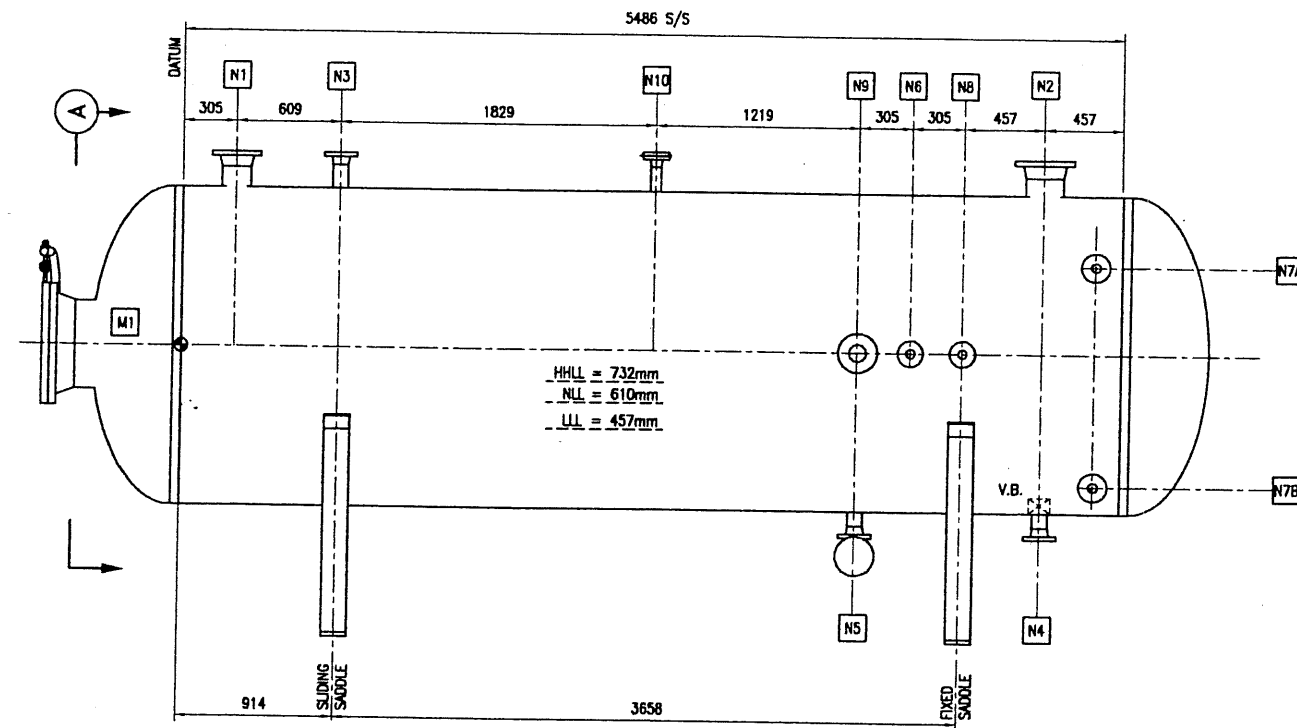


DETAIL 2  
SCALE: NTS  
LOOKING FROM NE  
V-7200 REMOVED

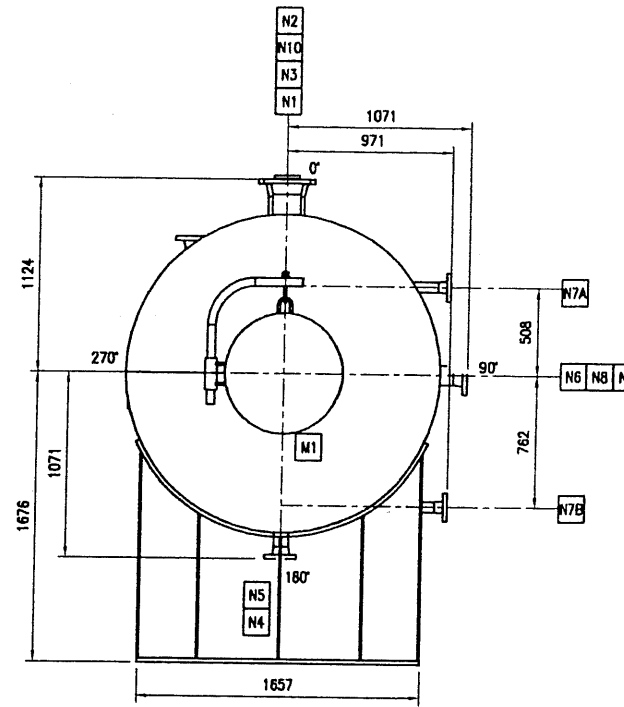
FOR REFERENCE ONLY

NOTES:						PERMIT STAMP	ENGINEER'S STAMP	<b>DPH FOCUS</b>		SWAN HILLS SYNFUELS LTD.												
								<table border="1"> <tr> <td>DRAWN</td> <td>CHECKED</td> <td>APPROVED DSGN. ENG.</td> <td>APPROVED PROJ. ENG.</td> </tr> <tr> <td>BY VC</td> <td></td> <td></td> <td></td> </tr> <tr> <td>DATE 08.04.30</td> <td></td> <td></td> <td></td> </tr> </table>	DRAWN	CHECKED	APPROVED DSGN. ENG.	APPROVED PROJ. ENG.	BY VC				DATE 08.04.30				SWAN HILLS ISCG PRODUCTION FACILITY BU-700 - HP & LP FLARE KO BLDG. ISOMETRIC VIEWS	
DRAWN	CHECKED	APPROVED DSGN. ENG.	APPROVED PROJ. ENG.																			
BY VC																						
DATE 08.04.30																						
		0	ISSUED FOR FABRICATION - DPH FOCUS #9703	VC	08.10.10			SCALE	DRAWING NUMBER	REV												
		A	ISSUED FOR INFORMATION - DPH FOCUS #9703	DP	08.05.20			1:30	SW-K201-05B	0												
NUMBER	TITLE	NO	REVISION	BY	DATE	CKD	APP	DPH PROJECT No. 9703		DWG. SIZE A1 (841x594)												
REFERENCE DRAWINGS																						

Handwritten initials: CC, LS

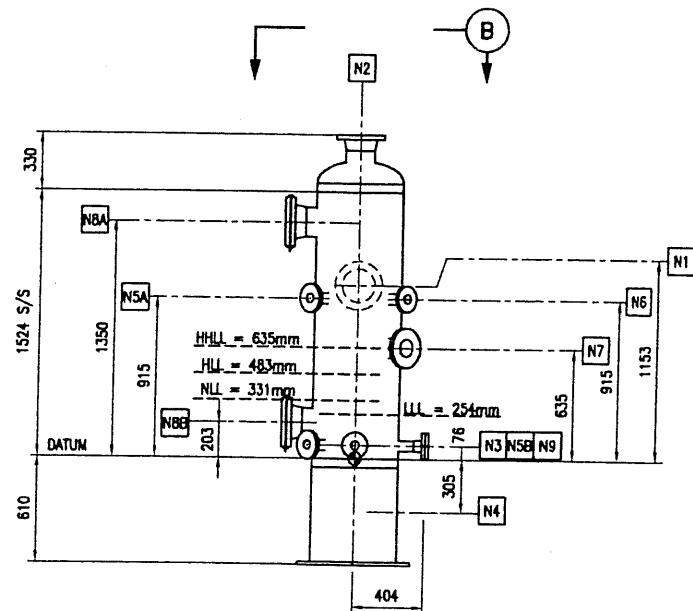


ELEVATION VIEW V-7100  
SCALE: 1:20

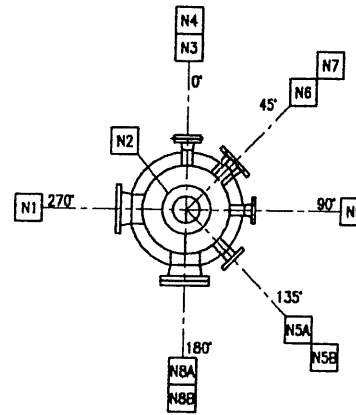


END VIEW 'A-A'  
SCALE: 1:20

EDUP. NO.	NOZZLE NUMBER	SIZE & RATING	SERVICE
V-7100	N1	6"-150#RF	HP FLARE INLET
	N2	6"-150#RF	HP FLARE OUTLET
	N3	3"-150#RF	CWD DRAIN INLET
	N4	3"-150#RF	CWD DRAIN OUTLET
	N5	3"-150#RF	DRAIN
	N6	2"-150#RF	TI
	N7A	2"-300#RF	BRIDLE
	N7B	2"-300#RF	BRIDLE
	N8	2"-150#RF	PI
	N9	4"-150#RF	LSH
	N10	2"-150#RF	VENT C/W BLIND
M1	20"-150#RF	MANWAY C/W DMVT	



ELEVATION VIEW V-7200  
SCALE: 1:20



TOP VIEW 'B-B'  
SCALE: 1:20

EDUP. NO.	NOZZLE NUMBER	SIZE & RATING	SERVICE
V-7200	N1	6"-150#RF	LP FLARE INLET
	N2	6"-150#RF	LP FLARE OUTLET
	N3	2"-150#RF	SPARE
	N4	2"-150#RF	DRAIN OUTLET
	N5A	2"-300#RF	BRIDLE
	N5B	2"-300#RF	BRIDLE
	N6	2"-150#RF	TI
	N7	2"-150#RF	LSH
	N8	6"-150#RF	INSPECTION
N9	2"-150#RF	CWD DRAIN OUTLET	

**FOR REFERENCE ONLY**

**NOTE TO FABRICATOR:**

- VESSEL LAYOUTS ARE PROVIDED AS A REFERENCE ONLY.
- FINAL DESIGN OF VESSELS TO BE IN ACCORDANCE WITH APPLICABLE CODES & PRACTICES.
- FABRICATOR TO KEEP V-7100 NOZZLE M1, N1, N3 AND N2 LOCATIONS AS CLOSE AS POSSIBLE TO SUGGESTED LAYOUT.
- FABRICATOR TO KEEP V-7200 NOZZLE N1 AND N2 LOCATIONS AS CLOSE AS POSSIBLE TO SUGGESTED LAYOUT.

- NOTES:**
- FULL INTERNAL COATING OF DEVCO 253 BOTH VESSELS.
  - V-7100 38mm INSUL. O/S ONLY.

NUMBER	TITLE	DATE	BY	CHKD	APP
0	ISSUED FOR FABRICATION - DPH FOCUS #9703	08.10.10	VC		
NO	REVISION				

PERMIT STAMP

ENGINEER'S STAMP

**DPH FOCUS**

SWAN HILLS SYNFUELS LTD.

BY	DATE	APPROVED DSGN. ENG.	APPROVED PROJ. ENG.
VC	08.04.30		

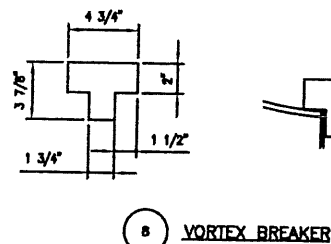
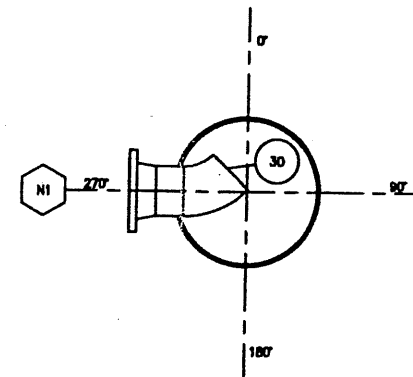
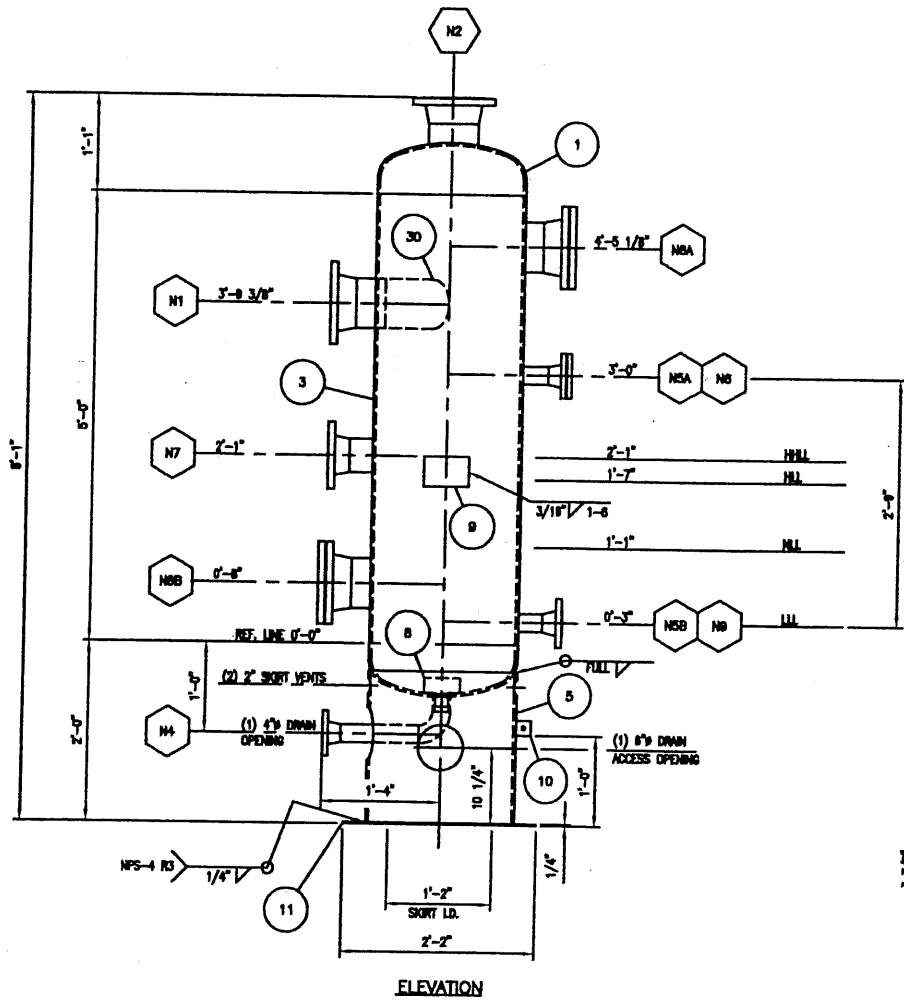
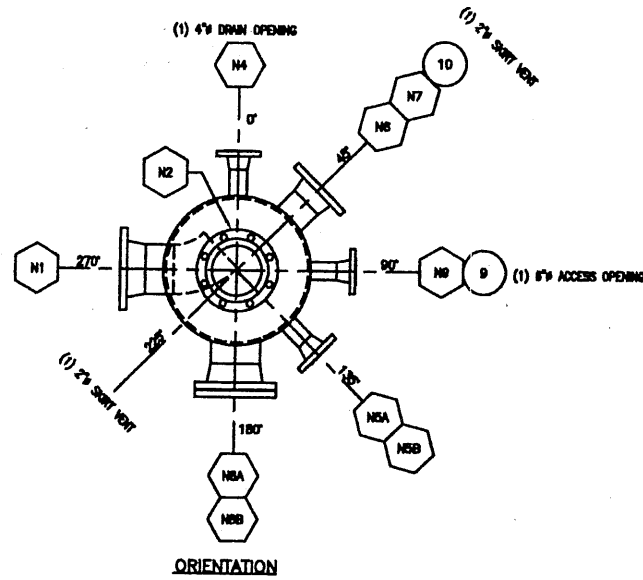
SWAN HILLS ISCG PRODUCTION FACILITY  
V-7100 & V-7200  
HP & LP FLARE KNOCKOUT DRUM

SCALE	DRAWING NUMBER	REV
1:20	SW-K201-05C	0

Handwritten initials/signature.

NOZZLE SCHEDULE

TAG	SIZE	RATING	TYPE		SERVICE	NOZZLE BORE	REPAD	PROJECTION		ITEM NUMBER
			EXTERNAL	INTERNAL				V/S	O/S	
N1	8"	CL 150	RFRW	-	LP FLAME GAS INLET	SCH STD	10 5/8" OD x 3/8" THK	-	0"	7,13,21,30
N2	8"	CL 150	RFRW	-	LP FLAME GAS OUTLET	SCH STD	N/A	-	SHOWN	13,22
N4	2"	CL 150	RFRW	-	DRWN c/w EXTENSION	SCH XH	N/A	-	0"	16,26,27,31
N5A	2"	CL 300	RFRW	-	INSTRUMENT BRIDLE	SCH XH	N/A	-	0"	16,26
N5B	2"	CL 300	RFRW	-	INSTRUMENT BRIDLE	SCH XH	N/A	-	0"	16,26
N6	2"	CL 150	RFRW	-	TI c/w BLIND	SCH XH	N/A	-	0"	16,17,25,34,37
N7	4"	CL 150	RFRW	-	LSRH	SCH STD	N/A	-	0"	15,24,32,37
N8A	8"	CL 150	RFRW	-	INSPECTION c/w BLIND	SCH STD	N/A	-	0"	13,14,23,33,36
N8B	8"	CL 150	RFRW	-	INSPECTION c/w BLIND	SCH STD	N/A	-	0"	13,14,23,33,36
N9	2"	CL 150	RFRW	-	PUMP OUT	SCH XH	N/A	-	0"	16,25



NOTES:

- IMPACT TESTING: NO; PER UG-20(f) (1 TO 5), UCS-86(a), UCS-86(c).
- ALL FLANGES DESIGNED TO ASME B16.5.
- USE WELDING PROCEDURE NPS-4 R3 FOR ATTACHMENT WELDS WITH A 3/16" FILLET WELD UNLESS OTHERWISE NOTED.
- SA/CSA 90M21-4W MAY BE SUBSTITUTED FOR SA-38.
- ANODIZING 100% OF BURY WELDS.
- RADIUS ALL INTERNAL SHARP EDGES.
- WELD TOLERANCES:  
BEVEL ANGLE AS LISTED ± 5°  
ROOT OPENING 1/8" ± 1/6"  
LAND 1/16" ± 1/16"
- ULTRASONICALLY TEST ALL CATEGORY D WELDS PRIOR TO HYDROTESTING. ACCEPTANCE AS PER ASME SECTION VIII DIVISION 1 APPENDIX 12.
- HARDNESS TESTING: THREE (3) SETS FOR EACH WELD PROCEDURE. A TEST SET CONSISTING OF ONE (1) SAMPLE TAKEN AT THE WELD AND BOTH SIDES OF WELD IN THE MAX. MAXIMUM HARDNESS OF 225 BRINELL.
- HEAT TREATMENT: 80 MIN. @1150°F ± 25°F
- SEE PDL FOR SPECIAL MATERIAL CHEMISTRY REQUIREMENTS.

DESIGN DATA

CRN — IN THE PROVINCE OF ALBERTA  
 CODE: ASME SECTION VIII, DIV 1 2007 EDITION.  
 MAWP: 50 PSIG MAX. DESIGN TEMP: 300°F  
 MDEWP: 14.8 PSIG  
 RADIOGRAPHY: FULL (RT-1) PER UG-11(a) NOTE 5 STRESS RELIEF: YES, NOTE: 10  
 HYDROTEST: 75 PSIG SHIPPING WEIGHT: 1060 LBS  
 HYDROTEST WEIGHT: 1800 LBS VOLUME: 11.7 CU. FT.  
 HEAD TYPE: 2:1 SE CORROSION ALLOW: 1/8"  
 HEAD JOINT EFF'CY: 1.0 SHELL JOINT EFF'CY: 1.0  
 HEAD MATERIAL: SA-516-70M MAX. ALLOW. STRESS: 20,000  
 SHELL MATERIAL: SA-516-70M MAX. ALLOW. STRESS: 20,000  
 HEAD DIAMETER: 20" OD HEAD THICK. (MIN): 0.375" (0.3125")  
 SHELL DIAMETER: 20" OD SHELL THICK.: 0.375"  
 MOUNT: -207 @ 50 PSIG SERVICE: SOUR  
 SURFACE PREP. - EXTERNAL: SANDBLAST CLEANING PER SSPC-SP10  
 EXTERNAL COATING: ONE (1) COAT DEVICE OUTWADY 303V (EACH COAT 2-4 MILS DFT)  
 ONE (1) COAT DEVICE DEWHAVE 309 (EACH COAT 4-8 MILS DFT)

MATERIAL LIST

ITEM	QTY.	PART	DESCRIPTION	MATERIAL
1	2	HEAD	20" OD x 3/8" NOM THK 2:1 SE HEAD c/w 2" SF (NOT FORMED) 30 DEG O/S BEVEL, NO LAND	SA-516-70M
3	1	SHELL	20" OD x 3/8" THK x 5'-0" LA, CIRC. 30 DEG O/S BEVEL	SA-516-70M
4			LONGR. 30 DEG O/S BEVEL, NO LAND, 1/8" GAP	
5	1	SOOT	20" SCH STD SMLS PIPE x 1'-0 1/4" LG (SHOP CHECK)	SA-106-B
7	1	REPAD	10 5/8" OD x 3/8" PL x 8 3/4" D	SA-516-70M
8	1	VORTEX BREAKER	3 7/8" OD x 3/8" PL x 4 3/4" WIDE (SEE DETAIL)	SA-516-70M
9	1	NAME PLATE	MUSCO STD NAME PLATE BRACKET c/w NAME PLATE	SA-36
10	1	GROUND LUG	2" x 1/4" PL x 2" LG (STD. DIM. CLIP-C)	SA-36
11	1	BASE PLATE	20" OD x 1/4" PL x 14" D	SA-36
13	4	FLANGE	8" CL. 150 SCH STD RFRW FLANGE	SA-105H
14	2	FLANGE	8" CL. 150 RF BLIND FLANGE	SA-105H
15	1	FLANGE	4" CL. 150 SCH STD RFRW FLANGE	SA-105H
16	3	FLANGE	2" CL. 150 SCH XH RFRW FLANGE	SA-105H
17	1	FLANGE	2" CL. 150 RFRW BLIND FLANGE TAPPED 3/4" NPT	SA-105H
18	2	FLANGE	2" CL. 300 SCH XH RFRW FLANGE	SA-105H
21	1	PIPE	8" SCH STD SMLS PIPE x 4" LG	SA-106B
22	1	PIPE	8" SCH STD SMLS PIPE x 3 3/8" LG	SA-106B
23	2	PIPE	8" SCH STD SMLS PIPE x 3 5/8" LG	SA-106B
24	1	PIPE	4" SCH STD SMLS PIPE x 3 3/4" LG	SA-106B
25	2	PIPE	2" SCH XH SMLS PIPE x 4 1/8" LG	SA-106B
26	1	PIPE	2" SCH XH SMLS PIPE x 2 1/2" LG	SA-106B
27	1	PIPE	2" SCH XH SMLS PIPE x 10 1/2" LG	SA-106B
28	2	PIPE	2" SCH XH SMLS PIPE x 3 7/8" LG	SA-106B
30	1	ELBOW	8" SCH STD LWRW 45° ELBOW	SA-234 WPB
31	1	ELBOW	2" SCH XH LWRW 90° ELL	SA-234 WPB
32	1	GASKET	4" CL. 150 x 1/8" THK FLEX. GASKET	318 SS
33	2	GASKET	8" CL. 150 x 1/8" THK FLEX. GASKET	318 SS
34	1	GASKET	2" CL. 150 x 1/8" THK FLEX. GASKET	318 SS
36	18	BOLTING	3/4" x 4 1/4" LG STUD c/w (2) NUTS EACH	
37	12	BOLTING	5/8" x 3 1/2" LG STUD c/w (2) NUTS EACH	

MUSCO MANUFACTURING

SWAN HILLS SYN FUEL L.P.  
 c/o DPH FOCUS CORPORATION  
 SOUR LP VERT. FLARE KNOCKOUT DRUM(V-7200)  
 20" OD x 5'-0" S/S 50 PSIG @300°F

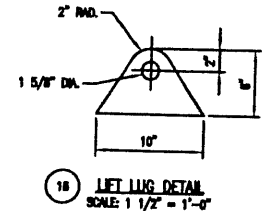
9703-D002 REV.0  
 ED107-08-12-001-R3

REV.	DATE	BY	APP.	REVISIONS
A	12-NOV-08	NCS		ISSUED FOR APPROVAL

12-NOV-08 22485-200  
 12-NOV-08 22485-200  
 12-NOV-08 22485-200

**GENERAL NOTES**

- 1) ALL FLANGES DESIGNED TO ASME B16.5
- 2) FINISH ALL INTERNAL SHARP EDGES.
- 3) ULTRASONICALLY TEST ALL CATEGORY D WELDS PRIOR TO HYDROTESTING. ACCEPTANCE AS PER ASME SECTION VIII DIVISION 1 APPENDIX 12.
- 4) HARDNESS TESTING: THREE (3) SETS FOR EACH WELD PROCEEDING. A TEST SET CONSISTING OF ONE (1) SAMPLE TAKEN AT THE WELD AND BOTH SIDES OF WELD IN THE MAX. MAXIMUM HARDNESS OF 225 BRINELL.
- 5) WELD JOINT TOLERANCES:  
BEVEL ANGLE AS LISTED ± 5°  
ROOT OPENING 1/16" ± 1/32"  
LAND 1/16" ± 1/32"
- 6) USE WELD PROCEDURE WPS-4 RS FOR ATTACHMENT WELDS WITH A 3/16" FILLET WELD UNLESS OTHERWISE NOTED.
- 7) IMPACT TESTING: 50 PER UG-200 (1 TO 5), UCS-40(c).
- 8) HEAT TREATMENT: 80 MIN @ 1100°F ± 25°F
- 9) SEE PDL FOR SPECIAL MATERIAL CHEMISTRY REQUIREMENTS.
- 10) VESSEL SURFACES SUCH AS THE INSULATED SHELL THAT ARE NOT VISIBLE WILL NOT HAVE THE SECOND COAT.
- 11) INSULATION ONLY ON THE PORTION OF THE VESSEL THAT IS OUTSIDE THE BUILDING. NOZZLES, ATTACHMENTS OR SUPPORTS ARE NOT TO BE INSULATED.



**MATERIAL LIST**

ITEM	QTY.	PART	DESCRIPTION	MATERIAL
40	1	PIPE	2" SCH 100 SMLS PIPE x 8 5/8" LG	SA-333-B
41	1	PIPE	2" SCH 100 SMLS PIPE x 1'-8 3/4" LG	SA-333-B
42	1	PIPE	2" SCH 180 SMLS PIPE x 6" LG	SA-333-B
43	2	PIPE	2" SCH 180 SMLS PIPE x 3 3/4" LG	SA-333-B
44				
45				
46				
47	1	GASKET	20" CL 150 RF x 1/8" THK FLEX GASKET	316 SS
48	1	GASKET	4" CL 150 RF x 1/8" THK FLEX GASKET	316 SS
49	3	GASKET	2" CL 150 RF x 1/8" THK FLEX GASKET	316 SS
50				
51	20	BOLTING	1 1/8" x 8 1/4" LG STUD c/w (2) NUTS EACH	SA-307
52	20	BOLTING	5/8" x 3 1/2" LG STUD c/w (2) NUTS EACH	SA-307
53				
54				
55	2	INSUL./BLDG RING	7'-5 1/4" OD x 1/4" PL x 7'-1 1/4" ID (CUT IN 3 PCS)	SA-518 Gr. 70 N
56	1	GROUND LUG	2" x 1/4" PL x 2" LG (STD DRG. CLIP-0)	SA-36

**NOZZLE SCHEDULE**

TAG	SIZE	RATING	TYPE		SERVICE	NOZZLE SCH	REFAD	PROJECTION		ITEM NUMBER
			EXTERNAL	INTERNAL				V/S	O/S	
N1	8"	CL 150	RFWN	-	ONS INLET	SCH 101	N/A	5/8"	7 5/8"	24,38
N2	8"	CL 150	RFWN	-	ONS OUTLET	SCH 101	N/A	5/8"	7 5/8"	24,35
N3	3"	CL 150	RFWN	-	CRD INLET	SCH 180	N/A	-	7 5/8"	27,38
N4	3"	CL 150	RFWN	-	CRD INLET	SCH 180	N/A	FLUSH	5 3/8"	27,38
N5	3"	CL 150	RFWN	-	LIQUID DRAIN	SCH 180	N/A	FLUSH	5 3/8"	27,38
N6	2"	CL 150	RFWN	-	TI c/w 3/4" NPT TAPPED BLIND	SCH 180	N/A	-	5 3/8"	28,32,43,48,52
N7A	2"	CL 300	RFWN	-	INSTRUMENT BRIDLE	SCH 301	N/A	-	SHOWN	28,40
N7B	2"	CL 300	RFWN	-	INSTRUMENT BRIDLE	SCH 301	N/A	-	SHOWN	28,41
N8	2"	CL 150	RFWN	-	PI c/w 1/2" NPT TAPPED BLIND	SCH 180	N/A	-	5 3/8"	28,31,43,48,52
N9	4"	CL 150	RFWN	-	LSH	SCH 180	N/A	-	5 3/8"	28,37,48,52
N10	2"	CL 150	RFWN	-	VENT c/w BLIND	SCH 180	N/A	-	7 5/8"	28,30,42,48,52
M1	20"	CL 150	RFWN	-	MANNING c/w BLIND & DWT	SCH STD	-	-	SHOWN	17,21,22,34,47,51

**DESIGN DATA**

CRN IN THE PROVINCE OF ALBERTA  
 CODE: ASME SECTION VIII, DIV. 1, 2007 EDITION

**MADE UP:** 50 PSIG  
 14.8 PSIG  
 14.8 PSIG

**MAX. DESIGN TEMP:** 672°F

**STRESS RELIEF:** YES

**WELDING:** FULL (RT-1)  
 PER UG-11(a)  
 (100% OF BUTT WELDS)

**SHIPPING WEIGHT:** 14,100 LBS.

**VOLUME:** 876.5 CU FT

**HYDROTEST:** 75 PSIG

**HYDROTEST WEIGHT:** 80,100 LBS.

**HEAD TYPE:** 2:1

**HEAD JOINT EFFICIENCY:** 1.0

**SHELL MATERIAL:** SA-518 Gr. 70 N

**HEAD MATERIAL:** SA-518 Gr. 70 N

**HEAD DIAMETER:** 72" ID

**SHELL DIAMETER:** 72" ID

**INSULATION:** 2" MIN. MINERAL WOOL INSULATION c/w .020 ALUMINUM AND PAINTED VAPOR BARRIER (NOTE 11)

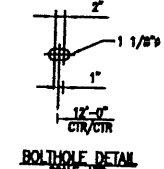
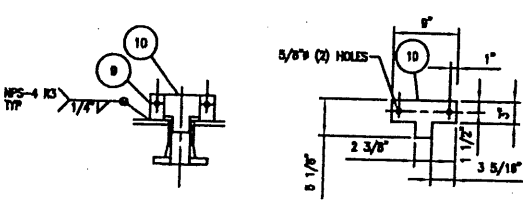
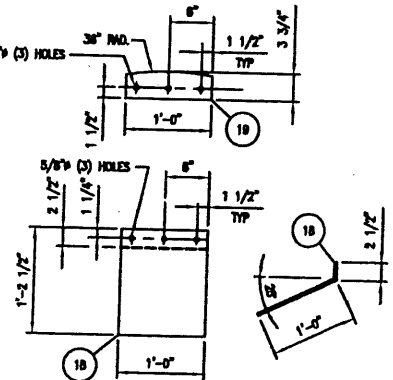
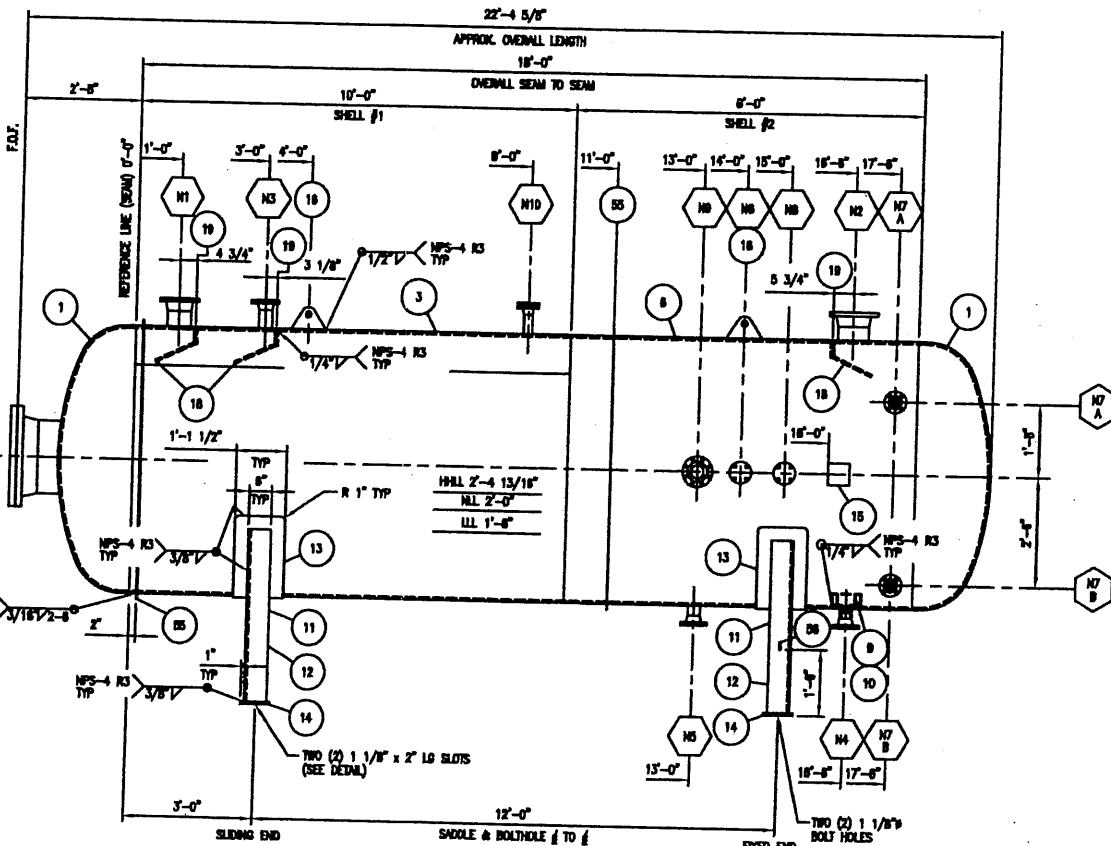
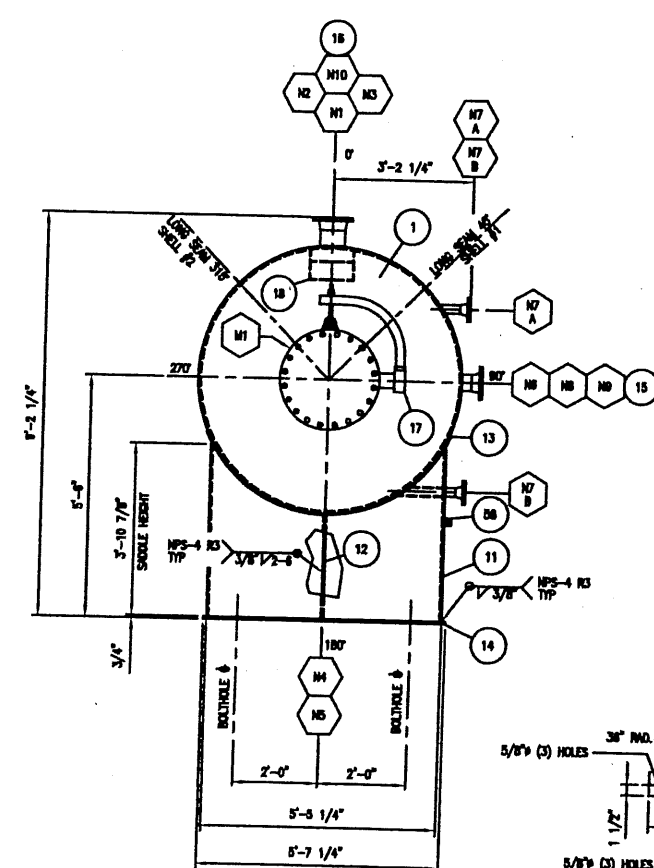
**INTERNAL COATING:** SANDBLAST CLEANING PER SSPC-SP5  
 TWO (2) COATS OF DEVEGE DENTON 253 (EACH COAT 4-8 MILS DFT)

**EXTERNAL COATING:** SANDBLAST CLEANING PER SSPC-SP5  
 ONE (1) COAT DEVEGE DENTON 253 (EACH COAT 2-4 MILS DFT)  
 ONE (1) COAT DEVEGE DENTON 309 (EACH COAT 4-8 MILS DFT) (NOTE 10)

**INSULATION:** 2" MIN. MINERAL WOOL INSULATION c/w .020 ALUMINUM AND PAINTED VAPOR BARRIER (NOTE 11)

**MATERIAL LIST**

ITEM	QTY.	PART	DESCRIPTION	MATERIAL
1	2	HEAD	72" ID x 5/8" THK 2:1 SE HEAD c/w 2" SF (NOT FORMED) (307 O/S BEVEL, NO LAND)	SA-518 Gr. 70 N
3	1	SHELL #1	72" ID x 5/8" THK x 10'-0" LG CIRC: 307 O/S BEVEL, NO LAND LONG: 307 O/S BEVEL, NO LAND, 1/8" GAP	SA-518 Gr. 70 N
6	1	SHELL #2	72" ID x 5/8" THK x 8'-0" LG CIRC: 307 O/S BEVEL, NO LAND LONG: 307 O/S BEVEL, NO LAND, 1/8" GAP	SA-518 Gr. 70 N
8	2	CLIP	2" x 3/8" PL x 3 1/2" LG (SEE DETAIL)	SA-518 Gr. 70 N
10	1	VORTEX BREAKER	5 1/8" x 3/8" PL x 6" LG (SEE DETAIL)	SA-36
11	2	SADDLE	3'-10 7/8" x 1/2" PL x 6'-3 1/4" LG (FILE: 10486)	SA-36
12	2	SADDLE STIFFENER	5 1/2" x 1/2" PL x 2'-4 1/4" LG	SA-36
13	2	WEAR PLATE	13 1/2" x 3/8" PL x 7'-2 LG	SA-518 Gr. 70 N
14	2	NAME PLATE	8" x 3/4" PL x 5'-7 1/4" LG	SA-36
15	1	NAME PLATE	STD NAME PLATE BRACKET c/w NAME PLATE	SA-36
16	2	LIFT LUG	8" x 3/4" THK x 10" LG (FILE: 2846)	SA-518 Gr. 70 N
17	1	MANNING DWT	20" CL 150 MANNING DWT (DRG. W22485-32-201)	SA-36
18	3	INLET DEFLECTOR	1'-0" x 3/8" PL x 1'-2 1/2" LG (REND AS PER DETAIL)	SA-36
19	3	INLET DEF. CLIP	3 3/4" x 3/8" PL x 1'-0" LG (FILE: 10487)	SA-518 Gr. 70 N
20				
21	1	FLANGE	20" CL 150 RF BLIND FLANGE	SA-360-LF2 CL.1
22	1	FLANGE	20" CL 150 SCH 5SD RFWN FLANGE	SA-360-LF2 CL.1
23	1	FLANGE	8" CL 150 SCH 101 RFWN FLANGE	SA-360-LF2 CL.1
24	1	FLANGE	8" CL 150 SCH 101 RFWN FLANGE	SA-360-LF2 CL.1
25	1	FLANGE	4" CL 150 SCH 180 RFWN FLANGE	SA-360-LF2 CL.1
26				
27	3	FLANGE	3" CL 150 SCH 180 RFWN FLANGE	SA-360-LF2 CL.1
28	3	FLANGE	2" CL 150 SCH 180 RFWN FLANGE	SA-360-LF2 CL.1
29	2	FLANGE	2" CL 300 SCH 101 RFWN FLANGE	SA-360-LF2 CL.1
30	1	FLANGE	2" CL 150 RF BLIND FLANGE	SA-360-LF2 CL.1
31	1	FLANGE	2" CL 150 RF x 1/2" NPT BLIND FLANGE	SA-360-LF2 CL.1
32	1	FLANGE	2" CL 150 RF x 3/4" NPT BLIND FLANGE	SA-360-LF2 CL.1
33				
34	1	PIPE	20" SCH STD SMLS PIPE x 7 1/2" LG	SA-333-B
35	1	PIPE	8" SCH 101 SMLS PIPE x 5 1/4" LG	SA-333-B
36	1	PIPE	8" SCH 101 SMLS PIPE x 5 5/8" LG	SA-333-B
37	1	PIPE	4" SCH 180 SMLS PIPE x 3 1/4" LG	SA-333-B
38	1	PIPE	3" SCH 180 SMLS PIPE x 3 3/4" LG	SA-333-B
39	2	PIPE	5" SCH 180 SMLS PIPE x 3 1/2" LG	SA-333-B



**MUSCO MANUFACTURING**

SWAN HILLS SYNFUELS L.P.  
 c/o DPH FOCUS CORPORATION  
 SOUR HP HORIZONTAL 2 PHASE FLARE KNOCK OUT (V-7100)  
 72" ID x 18'-0" SEAM/SEAM x 50 PSIG @ 572°F

REV.	DATE	BY	APP.	REVISIONS
1	7-NOV-08	KCS		ISSUED FOR APPROVAL

ED107-08-12-001-R3  
 22485-200  
 W22485-32-200A