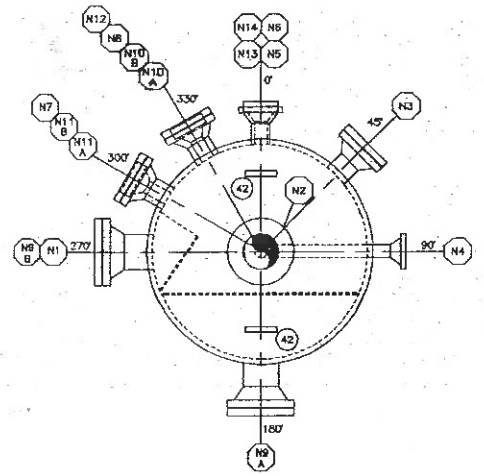
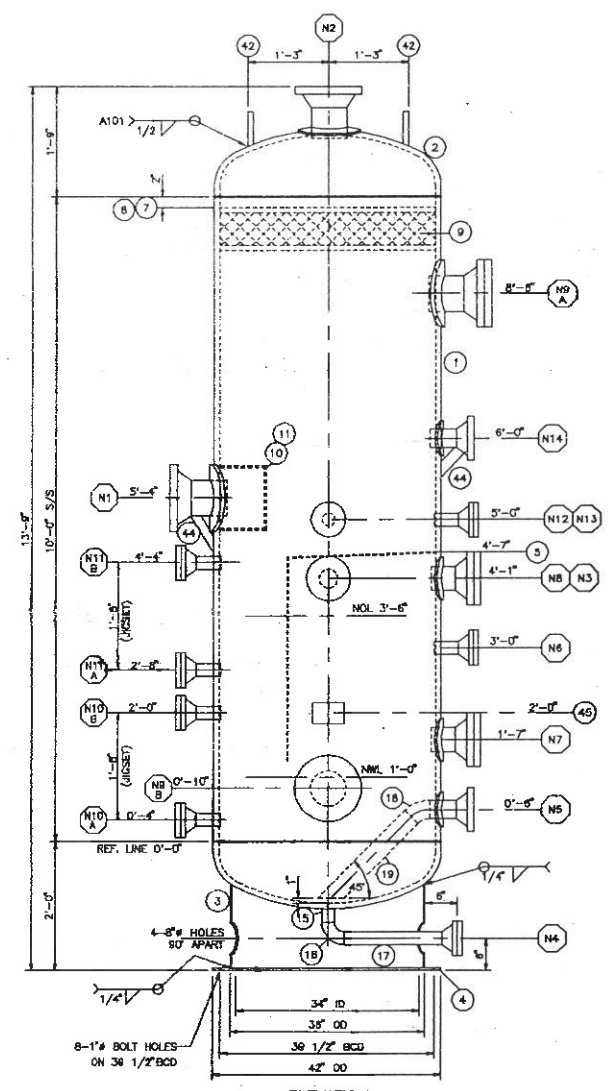
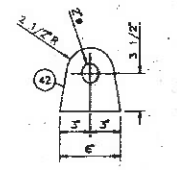


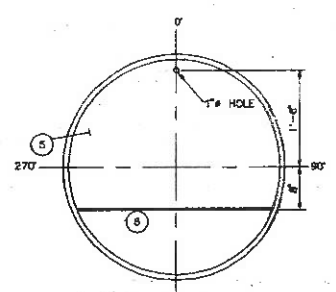
⚠ ORIENTATION
SCALE 3/4" = 1'-0"



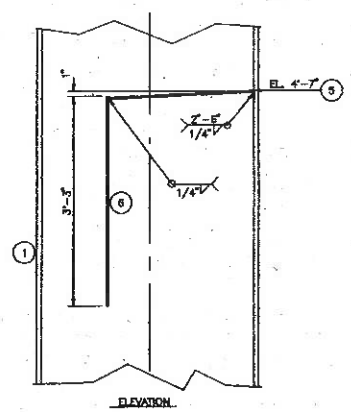
ELEVATION
SCALE 3/4" = 1'-0"



LIFT LUG DETAIL
SCALE 1" 1/2" = 1'-0"

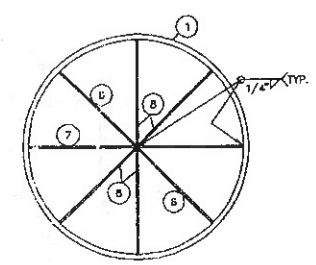


⚠ PLAN VIEW

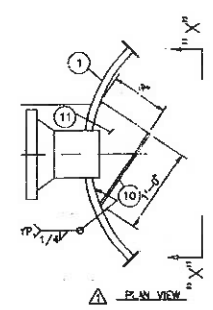


ELEVATION

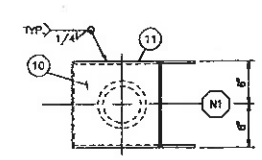
FLOAT BAFFLE DETAIL
SCALE 3/4" = 1'-0"



MIST-EX SUPPORT DETAIL
SCALE 3/4" = 1'-0"



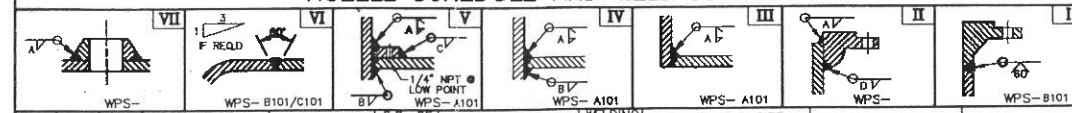
⚠ PLAN VIEW



SECTION "X-X"

INLET DIVERTER DETAIL
SCALE 1" = 1'-0"

NOZZLE SCHEDULE AND WELD DETAILS



MARK No.	No. REQ'D	SIZE	ANSI RATING & FACING	SERVICE	O.D. OF NOZZLE NECK	PROJECTION OUTSIDE	PROJECTION INSIDE	WELDING DETAIL NUMBER	FILLET WELD SIZE A	FILLET WELD SIZE B	FILLET WELD SIZE C	FILLET WELD SIZE D	BILL OF MATERIALS ITEM NUMBER	REMARKS
N1	1	6"	300 ANSI RFWN	INLET	6 5/8"	8"	1"	I,V	5/8"	1/2"	5/8"		12,37,43	
N2	1	6"	300 ANSI RFWN	GAS OUT/INSP.	6 5/8"	SHOWN	FLUSH	I,V	1/2"		5/8"		13,22,43	
N3	1	4"	300 ANSI RFWN	LSH/INSP.	4 1/2"	8"	1 1/4"	I,V	3/8"	3/8"	1/2"		25,26,27,28,38,41	C/W 2"NPT REDUCING FLG
N4	1	2"	300 ANSI RFWN	DRAIN	2 3/8"	8"	FLUSH	I,III	3/8"				15,16,17,30	
N5	1	3"	300 ANSI RFWN	WATER OUT	3 1/2"	8"	1"	I,V	1/2"	3/8"	1/2"		14,18,19,20,29	
N6	1	2"	300 ANSI RFWN	OIL OUT	2 3/8"	8"	1/4"	I,IV	3/8"				21,30,31,32,33	C/W BLIND
N7	1	4"	300 ANSI RFWN	LG(WATER)/INSP.	4 1/2"	8"	1 1/4"	I,V	3/8"	3/8"	1/2"		25,26,27,28,38,41	C/W 2"NPT REDUCING FLG
N8	1	4"	300 ANSI RFWN	LG(OIL)/INSP.	4 1/2"	8"	1 1/4"	I,V	3/8"	3/8"	1/2"		26,27,28,38,39,41	C/W BLIND
N9A/B	2	6"	300 ANSI RFWN	HANDHOLE	6 5/8"	8"	1"	I,V	5/8"	1/2"	5/8"		12,23,36,37,40,43	C/W BLIND
N10A/B	2	2"	300 ANSI RFWN	LG(WATER)	2 3/8"	6"	1/4"	I,IV	3/8"				30,21,34,32,33	C/W 3/4"NPT REDUCING FLG
N11A/B	2	2"	300 ANSI RFWN	LG(OIL)	2 3/8"	6"	1/4"	I,IV	3/8"				30,21,31,32,33	C/W BLIND
N12	1	2"	300 ANSI RFWN	PI	2 3/8"	8"	1/4"	I,IV	3/8"				30,21,35,32,33	C/W 1/2"NPT REDUCING FLG
N13	1	2"	300 ANSI RFWN	TI	2 3/6"	6"	1/4"	I,IV	3/8"				30,21,34,32,33	C/W 3/4"NPT REDUCING FLG
N14	1	3"	300 ANSI RFWN	PSV	3 1/2"	8"	1"	I,V	1/2"	3/8"	1/2"		14,24,29	

⚠ NOTE:
- WHERE ATTACHMENT FILLET WELD SIZES OR THEIR PROCEDURES ARE NOT SHOWN ON DWG., USE 1/4" FILLET WELD WITH A101 WELD PROCEDURE. FOR A-36 OR 44W MATERIAL WELDED TO PRESSURE BOUNDARY, USE 1/4" FILLET WELD AND A105 WELD PROCEDURE. IF NOT OTHERWISE NOTED.

BILL OF MATERIALS

ITEM	QTY	DESCRIPTION	MATERIAL
1	1	SHELL: 42"OD X 10'-0"LG X 1"THK	SA-516-70MT
2	2	HEAD: 42"OD X 1 1/8"THK X 2:1 SE W/2" S.F. (MIN. 0.990")	SA-516-70MT
3	1	SKIRT: 36"OD X 3/8"THK X 1'-3 1/2" LG.	SA-516-70MT
4	1	BASE PLATE: 42"OD X 34"ID X 3/4"THK	A-36
5	1	FLOAT BAFFLE: 3/8"THK X 40"OD (SEE DETAIL)	SA-516-70MT
6	1	FLOAT BAFFLE: 3/8"THK X 3'-0 5/8"WD X 3'-3" LG. (SEE DETAIL)	SA-516-70MT
7	2	MIST-EX. SUPPORT: 3/8" X 1"FB X 3'-4" LG.	SA-516-70MT
8	12	MIST-EX. SUPPORT: 3/8" X 1"FB X 1'-7 13/16" LG.	SA-516-70MT
9	1	MIST-EX. PAD: 40"OD X 6"THK X 9LB/CU.FT.	318 SS
10	1	INLET DIVERTER: 3/8"THK X 12" X 12"PL (SEE DETAIL)	SA-516-70MT
11	2	INLET DIVERTER: 3/8"THK X 8" X 12" PL. (SEE DETAIL)	SA-516-70MT
12	3	REPAD: 3/4"THK X 6 3/4"ID X 12 1/2"OD (ROLL TO 42"ID)	SA-516-70MT
13	1	REPAD: 3/4"THK X 6 3/4"ID X 12 1/2"OD (FORM TO HEAD)	SA-516-70MT
14	2	REPAD: 5/8"THK X 3 5/8"ID X 6 5/8"OD (ROLL TO 42"ID)	SA-516-70MT
15	1	2"-SCH.160 SMLS PIPE X 3 3/8" LG.	SA-106-B
16	1	2"-SCH.160 LR 90° BW ELL	SA-234-WPB
17	1	2"-SCH.160 SMLS PIPE X 1'-8 1/4" LG.	SA-106-B
18	1	3"-SCH.160 45° ELL	SA-234-WPB
19	1	3"-SCH.160 SMLS PIPE X 1'-11 1/16" LG.	SA-106-B
20	1	3"-SCH.160 SMLS PIPE X 5" LG.	SA-106-B
21	7	2"-SCH.160 SMLS PIPE X 4 9/16" LG.	SA-106-B
22	1	6"-SCH.80 SMLS PIPE X 5 1/2" LG.	SA-106-B
23	24	STUDS: 3/4"ø X 4 3/4"LG C/W 2 HEX NUTS EACH	SA-193-B7M SA-194-2HM
24	1	3"-SCH.160 SMLS PIPE X 5" LG.	SA-106-B
25	2	4"-300 ANSI RF X 2"NPT REDUCING FLG (HUB)	SA-105N
26	3	4"-300 ANSI RFWN FLANGE W/ SCH.160 BORE	SA-105N
27	3	4"-SCH.160 SMLS PIPE X 5" LG.	SA-106-B
28	3	REPAD: 5/8"THK X 4 5/8"ID X 8"OD (ROLL TO 42"ID)	SA-516-70MT
29	2	3"-300 ANSI RFWN FLANGE W/ SCH.160 BORE	SA-105N
30	6	2"-300 ANSI RFWN FLANGE W/ SCH.160 BORE	SA-105N
31	3	2"-300 ANSI RF BLIND FLANGE	SA-105N
32	7	2"-300 ANSI SPIRAL WOUND, FLEX CG GASKET.	316 SS
33	56	STUDS: 5/8"ø X 3 1/4" LG C/W 2 HEX NUTS EACH	SA-193-B7M SA-194-2HM
34	3	2"-300 ANSI RF X 3/4"NPT REDUCING FLG (REGULAR BLIND)	SA-105N
35	1	2"-300 ANSI RF X 1/2"NPT REDUCING FLG (REGULAR BLIND)	SA-105N
36	2	6"-300 ANSI SPIRAL WOUND, FLEX, STYLE CG GASKET	316 SS
37	3	6"-SCH.80 SMLS PIPE X 6 1/2" LG.	SA-106-B
38	3	4"-300 ANSI SPIRAL WOUND, FLEX, STYLE CG GASKET	316 SS
39	1	4"-300 ANSI RF BLIND FLANGE	SA-105N
40	2	6"-300 ANSI RF BLIND FLANGE	SA-105N
41	24	STUDS: 3/4"ø X 4 1/4"LG C/W 2 HEX NUTS EACH	SA-193-B7M SA-194-2HM
42	2	LIFT LUG: 1"THK X 6" X 6" (SEE DETAIL)	SA-516-70MT
43	4	6"-300 ANSI RFWN FLANGE W/ SCH.80 BORE	SA-105N
44	2	GUSSET: 3/8"THK X 2" (CUT AS REQ'D.)	SA-516-70MT
45	1	NAMEPLATE: WELLS-HALL STD. C/W BRACKET	SA-516-70

GENERAL NOTES

- CONSTRUCTION IN ACCORDANCE WITH ASME CODE SEC.VIII DIV 1. 1995 ADD. _____
- INSPECTION BY PROVINCIAL BOILER INSPECTOR.
- DESIGN PRESSURE 720 psig, 4964 kPa,@ 130° F, 54° C
- MDMT: -20° F, -29° C @ 720 psig, 4964 kPa.
- CORROSION ALLOWANCE 1/8 in., 3.18 mm.
- HYDROTEST 1000 psig, 7447 kPa, (LT'D BY FLANGE)
- STRESS RELIEVE: YES, (60 MINUTES @ 1150°F)
- RADIOGRAPH: 100%
- ALL DIMENSIONS ARE TO REF. LINE UNLESS OTHERWISE NOTED.
- ALL BOLT HOLES ARE TO STRADDLE VESSEL CENTER LINES UNLESS OTHERWISE NOTED.
- VESSEL TO BE THOROUGHLY CLEANED INSIDE AND OUT.
- PROTECT ALL OPENINGS FOR SHIPMENT.
- PAINT: COMMERCIAL SANDBLASTED TO SSPC-SP6; 1 S/C ZINC CHROMATE PRIMER; 2 S/C WARM GREY FINISH ENAMEL
- ESTIMATED SHIPPING WT. 7800 lbs., 3538 kg.
- VOLUME: 96.8 CUBIC FEET, 2.74 CUBIC METERS.
- SERIAL No: 95-8059-0
- CIRC. AND LONG SEAM SEE WELD DETAIL VI.
- CRN: M7114.2, REG. DWG. 37-A-7813-2
- IMPACT TESTING: EXEMPT PER UG-20(f) & UCS-68
- LSD: 5-5-A/94-A-14
- REGISTERED WITH ALBERTA AND BRITISH COLUMBIA BOILERS BRANCH

WELLS-HALL FABRICATION & CONSTRUCTION LTD.

REV	DESCRIPTION	BY	APP	DATE
2	UPDATE WELD PROCEDURES, ADD WELD NOTE	RL		95 05-08
1	AS SHOWN	RL		95 03-18

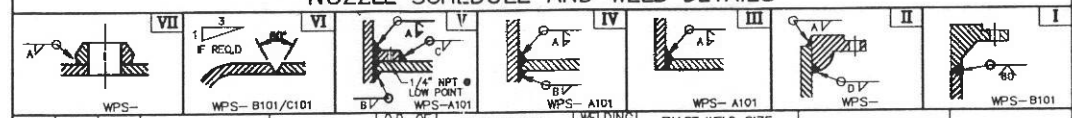
CHK'D BY: DATE:

CUSTOMER: CANADIAN NATURAL RESOURCES
SHOP ORDER: 95-8059 TAG No. V-110 CUST. No. F95P012

42"OD X 10'-0"S/S X 720 PSIG DP + 1/8" CA
3-PHASE VERTICAL SEPARATOR
SOUTH BUICK CREEK SATELLITE #1
SOUR TEST / GROUP SEPARATOR PKG.

DWN.BY: [illegible] DATE: 95-12-5 SCALE: AS SHOWN
APP.BY: DATE: 96-01-11 DWG.#: 37-A-8059-2

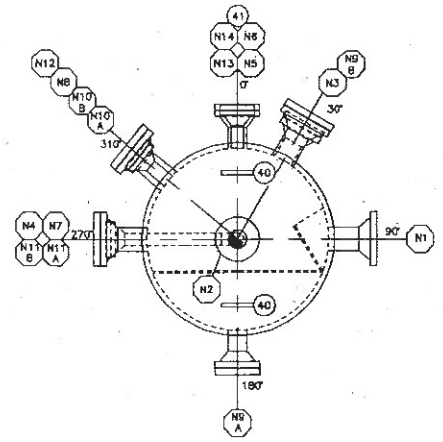
NOZZLE SCHEDULE AND WELD DETAILS



MARK No.	No. REQ'D	SIZE	ANSI RATING & FACING	SERVICE	O.D. OF NOZZLE NECK	PROJECTION OUTSIDE	PROJECTION INSIDE	WELDING DETAIL NUMBER	FILLET WELD SIZE A	FILLET WELD SIZE B	FILLET WELD SIZE C	FILLET WELD SIZE D	BILL OF MATERIALS ITEM NUMBER	REMARKS
N1	1	4"	300 ANSI RFWN	INLET	4 1/2"	8"	1"	I,V	1/2"	3/8"	1/2"		12,24,28	
N2	1	3"	300 ANSI RFWN	GAS OUT/INSP.	3 1/2"	SHOWN	FLUSH	I,V	5/8"		1/2"		13,22,29	
N3	1	4"	300 ANSI RFWN	LSHH	4 1/2"	8"	1"	I,V	1/2"	3/8"	1/2"		12,24,25,28,33,37	C/W 2"NPT REDUCING FLG
N4	1	2"	300 ANSI RFWN	DRAIN	2 3/8"	6"	FLUSH	I,III	3/8"				16,17,21,30	
N5	1	3"	300 ANSI RFWN	WATER OUT	3 1/2"	6"	1"	I,V	5/8"	3/8"	7/16"		14,18,19,20,29	
N6	1	2"	300 ANSI RFWN	OIL OUT	2 3/8"	6"	1/4"	I,IV	3/8"				15,30,31,36,39	C/W BLIND
N7	1	4"	300 ANSI RFWN	LG(WATER)/INSP.	4 1/2"	8"	1"	I,V	1/2"	3/8"	1/2"		12,24,25,28,33,37	C/W 2"NPT REDUCING FLG
N8	1	4"	300 ANSI RFWN	LSH/INSP.	4 1/2"	8"	1"	I,V	1/2"	3/8"	1/2"		12,24,27,28,33,37	C/W BLIND
N9A/B	2	3"	300 ANSI RFWN	INSP.	3 1/2"	6"	7/8"	I,V	5/8"	3/8"	7/16"		14,23,26,29,32,38	C/W BLIND
N10A/B	2	2"	300 ANSI RFWN	LG(WATER)	2 3/8"	5"	1/4"	I,IV	3/8"				15,30,34,36,39	C/W 3/4"NPT REDUCING FLG
N11A/B	2	2"	300 ANSI RFWN	LG(OIL)	2 3/8"	5"	1/4"	I,IV	3/8"				16,30,31,36,39	C/W BLIND
N12	1	2"	300 ANSI RFWN	PI	2 3/8"	5"	1/4"	I,IV	3/8"				15,30,35,36,39	C/W 1/2"NPT REDUCING FLG
N13	1	2"	300 ANSI RFWN	TI	2 3/8"	5"	1/4"	I,IV	3/8"				15,30,34,36,39	C/W 3/4"NPT REDUCING FLG
N14	1	2"	300 ANSI RFWN	PSV	2 3/8"	6"	1/4"	I,IV	3/8"				15,30	

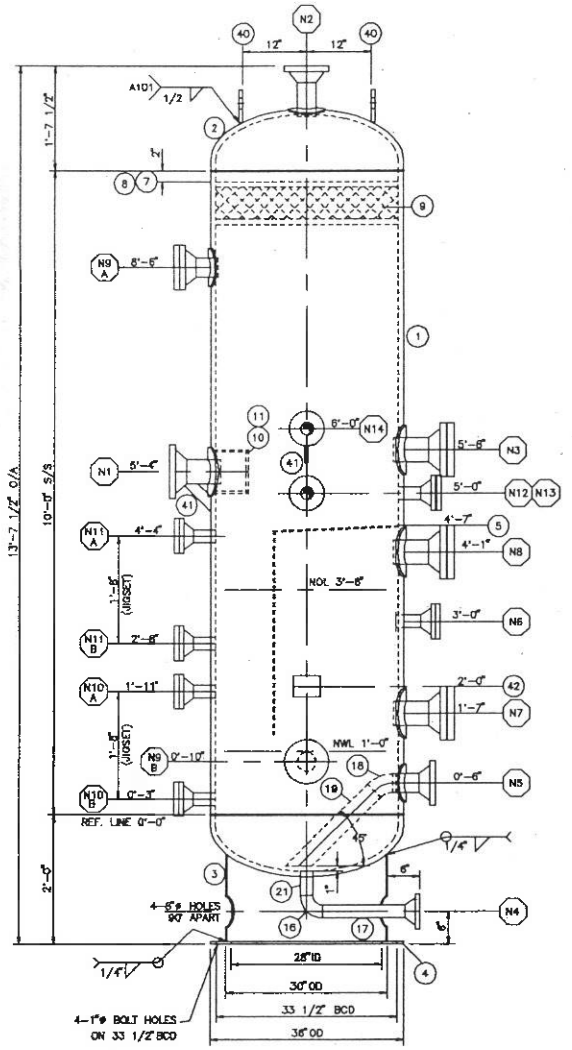
BILL OF MATERIALS

ITEM	QTY	DESCRIPTION	MATERIAL
1	1	SHELL: 36"OD X 10'-0"LG X 7/8"THK	SA-516-70MT
2	2	HEAD: 36"OD X 1"THK X 2:1 SE W/2"SF (MIN. 0.865")	SA-516-70MT
3	1	SKIRT: 36"OD X 1/4"THK X 1'-4 3/8" LG.	SA-516-70MT
4	1	BASE PLATE: 36"OD X 28"ID X 1/2"THK	A-36
5	1	FLOAT BAFFLE: 3/8"THK X 34"OD (SEE DETAIL)	SA-516-70MT
6	1	FLOAT BAFFLE: 3/8"THK X 2'-7 3/4"WD X 3'-3" LG. (SEE DETAIL)	SA-516-70MT
7	2	MIST-EX SUPPORT: 3/8" X 1"FB X 2'-10" LG.	SA-516-70MT
8	12	MIST.EX. SUPPORT: 3/8" X 1"FB X 1'-4 7/8" LG.	SA-516-70MT
9	1	MIST-EX. PAD: 34"OD X 8"THK X 9LB/CU.FT.	316 SS
10	1	INLET DIVERTER: 3/8"THK X 8" X 10"PL (SEE DETAIL)	SA-516-70MT
11	2	INLET DIVERTER: 3/8"THK X 6" X 10" PL. (SEE DETAIL)	SA-516-70MT
12	4	REPAD: 1/2"THK X 4 5/8"ID X 8 1/4"OD (ROLL TO 36"ID)	SA-516-70MT
13	1	REPAD: 1/2"THK X 3 5/8"ID X 6 5/8"OD (FORM TO HEAD)	SA-516-70MT
14	3	REPAD: 1/2"THK X 3 5/8"ID X 6 5/8"OD (ROLL TO 36"ID)	SA-516-70MT
15	8	2"-SCH.160 SMLS PIPE X 4 1/2" LG.	SA-106-B
16	1	2"-SCH.160 LR 90° BW ELL	SA-234-WPB
17	1	2"-SCH.160 SMLS PIPE X 1'-3 1/4" LG.	SA-106-B
18	1	3"-SCH.160 45° ELL	SA-234-WPB
19	1	3"-SCH.160 SMLS PIPE X 1'-9 11/16" LG.	SA-106-B
20	1	3"-SCH.160 SMLS PIPE X 4 7/8" LG.	SA-106-B
21	1	2"-SCH.160 SMLS PIPE X 4 3/4" LG.	SA-106-B
22	1	3"-SCH.160 SMLS PIPE X 6 13/16" LG.	SA-106-B
23	2	3"-SCH.160 SMLS PIPE X 4 3/4" LG.	SA-106-B
24	4	4"-SCH.160 SMLS PIPE X 6 11/16" LG.	SA-106-B
25	2	4"-300 ANSI RF X 2"NPT REDUCING FLG (HUB)	SA-105N
26	2	3"-300 ANSI RF BLIND FLG	SA-105N
27	1	4"-300 ANSI RF X 2"NPT REDUCING FLG (HUB)	SA-105N
28	4	4"-300 ANSI RFWN FLANGE W/ SCH.160 BORE	SA-105N
29	4	3"-300 ANSI RFWN FLANGE W/ SCH.160 BORE	SA-105N
30	9	2"-300 ANSI RFWN FLANGE W/ SCH.160 BORE	SA-105N
31	3	2"-300 ANSI RFWN BLIND FLANGE	SA-105N
32	2	3"-300 ANSI SPIRAL WOUND, FLEX, STYLE CG GASKET	316 SS
33	3	4"-300 ANSI SPIRAL WOUND, FLEX, STYLE CG GASKET	316 SS
34	3	2"-300 ANSI RF X 3/4"NPT REDUCING FLG (REGULAR BLIND)	SA-105N
35	1	2"-300 ANSI RF X 1/2"NPT REDUCING FLG (REGULAR BLIND)	SA-105N
36	7	2"-300 ANSI SPIRAL WOUND, FLEX CG GASKET.	316 SS
37	24	3/4"ø X 4 1/4"LG STUDS C/W NUTS	SA-193-B7M SA-194-2HM
38	18	3/4"ø X 4"LG STUDS C/W NUTS	SA-193-B7M SA-194-2HM
39	56	5/8"ø X 3 1/4" LG STUDS C/W NUTS	SA-193-B7M SA-194-2HM
40	2	LIFTING LUGS 6" X 5" 3/4" THK PL	SA-516-70MT
41	2	GUSSET: 3/8"THK X 2" (CUT AS REQ'D.)	SA-516-70MT
42	2	NAMEPLATE: WELLS-HALL STD C/W BRACKET	SA-516-70

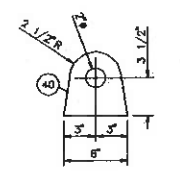


⚠ ORIENTATION
SCALE 3/4" = 1'-0"

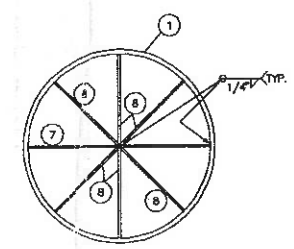
⚠ NOTE:
* WHERE ATTACHMENT FILLET WELD SIZES OR THEIR PROCEDURES ARE NOT SHOWN ON DWG., USE 1/4" FILLET WELD WITH A101 WELD PROCEDURE. FOR A-36 OR 44W MATERIAL WELDED TO PRESSURE BOUNDARY, USE 1/4" FILLET WELD AND A105 WELD PROCEDURE. IF NOT OTHERWISE NOTED.



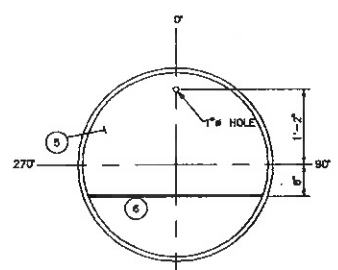
ELEVATION
SCALE 3/4" = 1'-0"



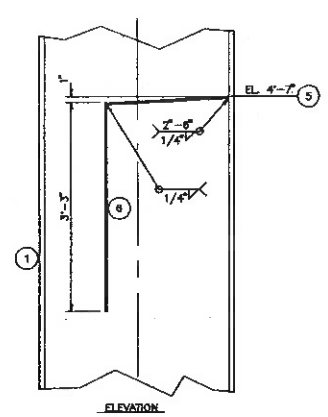
LIFT LUG DETAIL
SCALE 1 1/2" = 1'-0"



MIST-EX SUPPORT DETAIL
SCALE 3/4" = 1'-0"

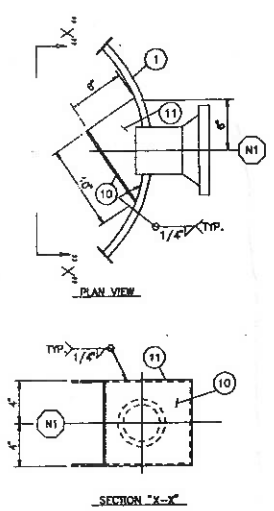


PLAN VIEW



ELEVATION

FLOAT BAFFLE DETAIL
SCALE 3/4" = 1'-0"



INLET DIVERTER DETAIL
SCALE N.T.S.

GENERAL NOTES

* CONSTRUCTION IN ACCORDANCE WITH ASME CODE SEC.VIII DIV 1. 1995 ADD.
* INSPECTION BY PROVINCIAL BOILER INSPECTOR.
* DESIGN PRESSURE 720 psig, 4964 kPa, @ 130° F, 54° C
* MDMT: -20° F, -29° C @ 720 psig, 4964 kPa.
* CORROSION ALLOWANCE 1/8 in., 3.18 mm.
* HYDROTEST 1080 psig, 7447 kPa, (LT'D BY FLANGE)
* STRESS RELIEVE: YES, (60 MINUTES @ 1150°F)
* RADIOGRAPH: 100%
* ALL DIMENSIONS ARE TO REF. LINE UNLESS OTHERWISE NOTED.
* ALL BOLT HOLES ARE TO STRADDLE VESSEL CENTER LINES UNLESS OTHERWISE NOTED.
* VESSEL TO BE THOROUGHLY CLEANED INSIDE AND OUT.
* PROTECT ALL OPENINGS FOR SHIPMENT.
* PAINT: COMMERCIAL SANDBLASTED TO SSPC-SP6; 1 S/C ZINC CHROMATE PRIMER; 2 S/C WARM GREY FINISH ENAMEL
* ESTIMATED SHIPPING WT. 5700 lbs., 2586 kg.
* VOLUME: 63.6 CUBIC FEET, 1.8 CUBIC METERS.
* SERIAL No: 95-8058-0
* CIRC. AND LONG SEAM SEE WELD DETAIL VI.
* CRN: W 2318.213
* IMPACT TESTING: EXEMPT PER UG-20(f)
* LSD: b-5-A/94-A-14

REGISTERED WITH ALBERTA AND BRITISH COLUMBIA BOILERS BRANCHES.: REF. DWG. #37-A-7006-3

WELLS-HALL FABRICATION & CONSTRUCTION LTD.

REV	DESCRIPTION	BY	APP	DATE
2	UPDATE WELD PROCEDURES, ADD WELD NOTE	RL		96 05-08
1	AS SHOWN	RL		93 03-18

CHK'D BY: DATE:

CUSTOMER: CANADIAN NATURAL RESOURCES
SHOP ORDER: 95-8058 | TAG No. V-100 | CUST. No. F96P012

36"OD X 10'-0"S/S X 720 PSIG DP + 1/8" CA
3-PHASE VERTICAL SEPARATOR
SOUTH BUCK CREEK SATELLITE #1
SOUR TEST / GROUP SEPARATOR PACKAGE

DWN.BY: [illegible] | DATE: 95-12-08 | SCALE: AS SHOWN
APP.BY: | DATE: 96-01-11 | DWG.#: 37-A-8058-2