

Received
 JAN 05 2012
 SMCJ-DC

READ OPSCO WELD PROCEDURES TO CONFIRM
 CONFIRM IF 4 HRS DID WE DERIVE 4 HRS

NO FCAM
 NO FCGW
 NO FCGH

NO FCGI
 NO FCGJ
 NO FCGK
 NO FCGL
 NO FCGM
 NO FCGN
 NO FCGO
 NO FCGP
 NO FCGQ
 NO FCGR
 NO FCGS
 NO FCGT
 NO FCGU
 NO FCGV
 NO FCGW
 NO FCGX
 NO FCGY
 NO FCGZ

ITEM	QTY	SIZE	TYPE	RATING	SCM/ MTL SPEC	DESCRIPTION
100	1	96" ID	ROLLED PLATE	4"	SA-516-70N	96" ID x 10' LG
101	1	96" ID	ROLLED PLATE	4"	SA-516-70N	96" ID x 8' LG
102	1	96" ID	ROLLED PLATE	4"	SA-516-70N	96" ID x 8' LG
103	2	96" ID	FORMED PLATE	4"	SA-516-70N	21" SE. HEAD (3.117" FORMED DIA)
200	CONNECTIONS					
201	1	20"	RFV2	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
202	2	16"	RFV3	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
203	10	2"	RFV4	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
204	2	2"	RFV5	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
205	2	2"	RFV6	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
206	1	2"	RFV7	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
207	1	2"	RFV8	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
208	1	2"	RFV9	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
209	4	4"	RFV10	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
210	1	2"	RFV11	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
211	1	2"	RFV12	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
212	1	2"	RFV13	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
213	2	2"	RFV14	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
214	2	2"	RFV15	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
215	1	3"	RFV16	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
300	INTERNAL ASSEMBLIES					
301	2	3/4" x 4"		CLASS 3	SA-516-70N	ROUND BAR, 2'-1" LG. (BTS) (CIS)
302	4	1/2" THK	PLATE	CLASS 2	SA-516-70N	2' x 2' RING
400	EXTERNAL ASSEMBLIES					
401	1	7/8" x 4"	FLANGES	CLASS 2	SA-516-70N	MANUFACTURE BRACKET
402	2	3/8" THK	PLATE	CLASS 2	SA-516-70N	SOCKET BASE PLATE, 15" x 7'-8" 11/16" LG.
403	2	1/2" THK	PLATE	CLASS 2	SA-516-70N	SOCKET BASE PLATE, 15" x 7'-8" 11/16" LG.
404	2	1/2" THK	PLATE	CLASS 2	SA-516-70N	SOCKET BASE PLATE, 15" x 7'-8" 11/16" LG.
405	4	1/2" THK	PLATE	CLASS 2	SA-516-70N	SOCKET OUTSIDE SLEEVE, 12" x 5'-6" 13/16" LG.
406	8	1/2" THK	PLATE	CLASS 2	SA-516-70N	SOCKET BASE PLATE, 15" x 7'-8" 11/16" LG.
407	8	1/2" THK	PLATE	CLASS 2	SA-516-70N	SOCKET BASE PLATE, 15" x 7'-8" 11/16" LG.
408	1	20"	RF	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
409	1	20"	RF	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
410	1	15" x 11 1/2"	CLAS	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
411	1	15" x 11 1/2"	CLAS	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
412	1	15" x 11 1/2"	CLAS	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
413	1	15" x 11 1/2"	CLAS	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
414	1	15" x 11 1/2"	CLAS	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
415	1	15" x 11 1/2"	CLAS	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
416	1	15" x 11 1/2"	CLAS	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
417	1	15" x 11 1/2"	CLAS	CLASS 2	SA-350-473 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)

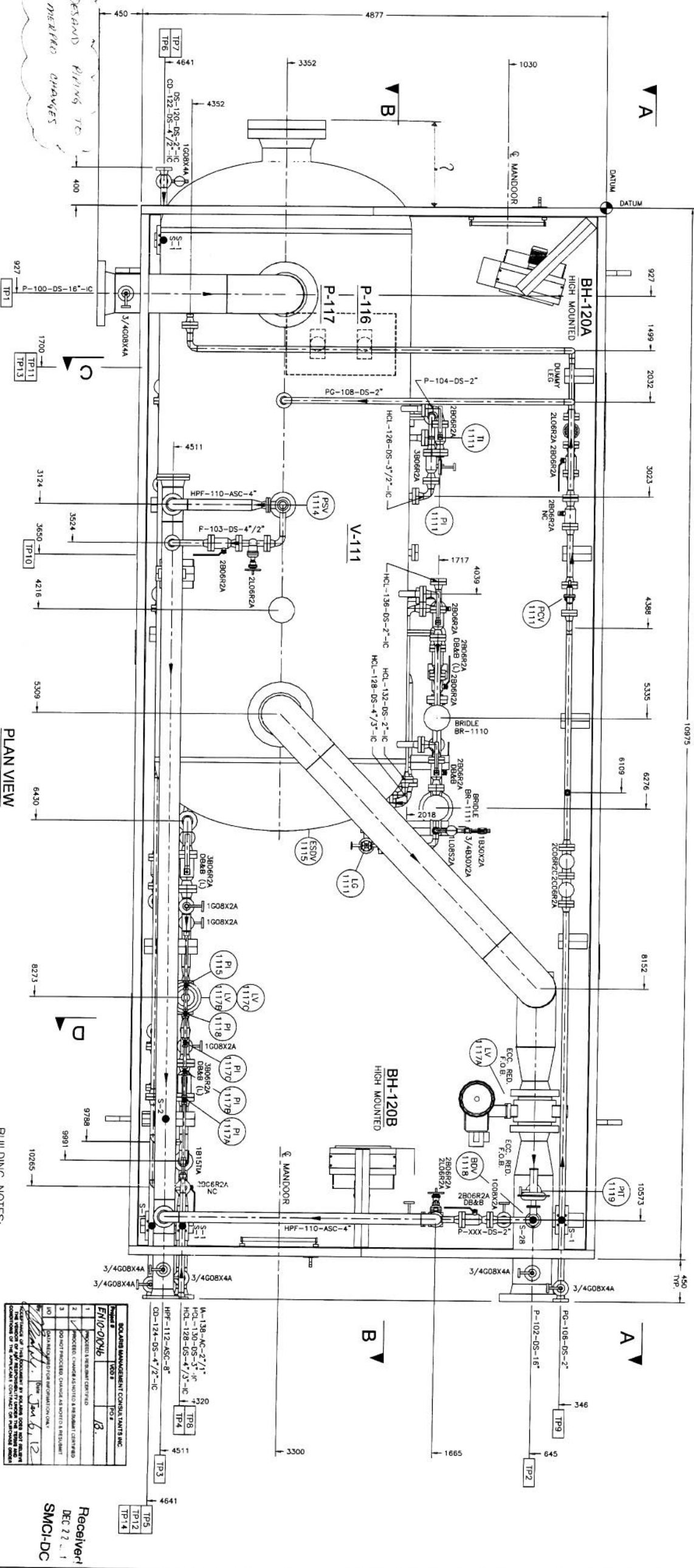
DESIGN & CONSTRUCTION: [Name]
 CHECKED BY: [Name]
 APPROVED BY: [Name]

DATE: [Date]

PROJECT: [Project Name]

CLIENT: [Client Name]

OPERATION: [Operation Name]



CONNECTION SCHEDULE

MARK	SIZE	RATING	TYPE	DESCRIPTION	Ø ELEVATION
TP1	16"	600#	RF	GAS INLET	4871 mm
TP2	16"	600#	RF	GAS OUTLET	687 mm
TP3	8"	150#	RF	HP FLARE	4201 mm
TP4	4"	600#	RF	HYDROCARBON LIQUIDS	541 mm
TP5	2"	600#	RF	CLOSED DRAIN	814 mm
TP6	2"	600#	RF	DE-SAND WATER OUTLET	293 mm
TP7	2"	600#	RF	DE-SAND WATER INLET	784 mm
TP8	2"	150#	RF	INST. AIR SUPPLY	2145 mm
TP9	2"	600#	RF	PURGE GAS INLET	1394 mm
TP10	2"	3000#	NPT	SKID FLOOR DRAIN	-123 mm
TP11	1/2"	TUBING	THRD	CORROSION INHIBITOR SUCTION	600 mm
TP12	1/2"	TUBING	THRD	CORROSION INHIBITOR DISCH.	500 mm
TP13	1/2"	TUBING	THRD	METHANOL SUCTION	500 mm
TP14	1/4"	TUBING	THRD	METHANOL DISCHARGE	400 mm

SHIP DIMENSION

LENGTH	12324 mm
WIDTH	4877 mm
HEIGHT	~ 6786 mm

PACKAGE WEIGHT (kg)

	EMPTY	FLOODED
V-111 SEPARATOR	24696	38504
PIPING + VALVES	8688	10770
SKID + SUPPORTS	11315	11315
BUILDING	4990	4990
OTHER	-	-
TOTAL (KGS)	49889	65579
TOTAL (LBS)	109985	144575

PLAN VIEW

GENERAL NOTES:

- No of Units req'd: ONE (1)
- Unit to be commercially sandblasted to SSPC-SP-6 and shop-primed with: ONE (1) coat ZINC PHOSPHATE
- Finish Paint: ONE (1) coat INDUSTRIAL ENAMEL (TAUPE)
- Under-skid insulation: 3" Thk. Fire Retardant industrial grade urethane foam on underside of floor within building limits.
- Radiography on Piping welding to be: See Line Specs on P&ID
- Unless specified otherwise, all projections beyond building wall to be: 6"
- Dimensions may change to reflect customer requests, layout changes, accessibility and non-conformity of OEM supplied components.
- Stress Relieving Details: See Line Specs on P&ID
- Electrical Work: By Torpon.
- Building Vents, Fans & Louvers to be located by building manufacturer.

BUILDING NOTES:

4877 (16'-0") wide x 10975 mm (36'-0") long WARRICK STANDARD building with:
 ROOF TYPE : GABLE EAVE HEIGHTS: 5534 mm (17'-6")
 EXTERIOR : 22 g. Pre-painted steel Color: Ton with Metro Brown Trim
 INTERIOR : 24 g Aluminum (White)
 INSULATION : R12 Batt type f/glass for Walls (R35 for roof)
 VAPOR BARRIER: 6 MIL
 WINDOWS : TWO (2) 40" x 40" double glazed c/w half screen.
 SINGLE DOOR : TWO (2) 3' x 7' insulated steel mandoor c/w panic H/more check chain & lock set.
 DOOR CLOSURE : Yes
 DOOR WINDOW : Yes
 ALUM THRESHOLD: Yes
 CANOPY : Yes
 AIR INTAKE LOUVERS : FOUR (4) SIZE 18" x 18" stamped louver c/w sliders & bird screen
 RIDGEVENT : 229 mm (9") wide x 10975 mm (40'-0") long c/w bird screen, chain operator.
 EVESTHROUGH: Both eaves
 DOWNSPOUTS: One each on both eaves
 BUILDING FAN: TWO (2), 12 ACPH, 1 Phase/80 Hz

OPSCO STANDARD WELDED PRELINE DESIGNATION SYSTEM
 OPTIONAL: LEAVE OUT UNLESS WELDED
 EXAMPLE: 48 - 40 - 108 - HI - OTHER NOT
 LINE SIZE (INCH) - WALL THICKNESS (INCH) - HEIGHT (INCH) - OTHER NOT
 AVG CLASS - OTHER NOT
 B-100 - 100 - 100 - HI - OTHER NOT
 C-100 - 100 - 100 - HI - OTHER NOT
 PPE SCHEDULE

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No.	DATE	REVISIONS	BY	CHK	REV	APP	No.	DATE	REVISIONS	BY	CHK	REV	APP
1	11-09-15	ISSUED FOR APPROVAL	SB										
2	11-09-15	ISSUED FOR CONSTRUCTION	SB										

ENGINERS RECORD	DATE
SHAWN BROOKE	11-09-15
DEREK CLASON	

ENGINEERS RECORD	DATE
SHAWN BROOKE	11-09-15
DEREK CLASON	

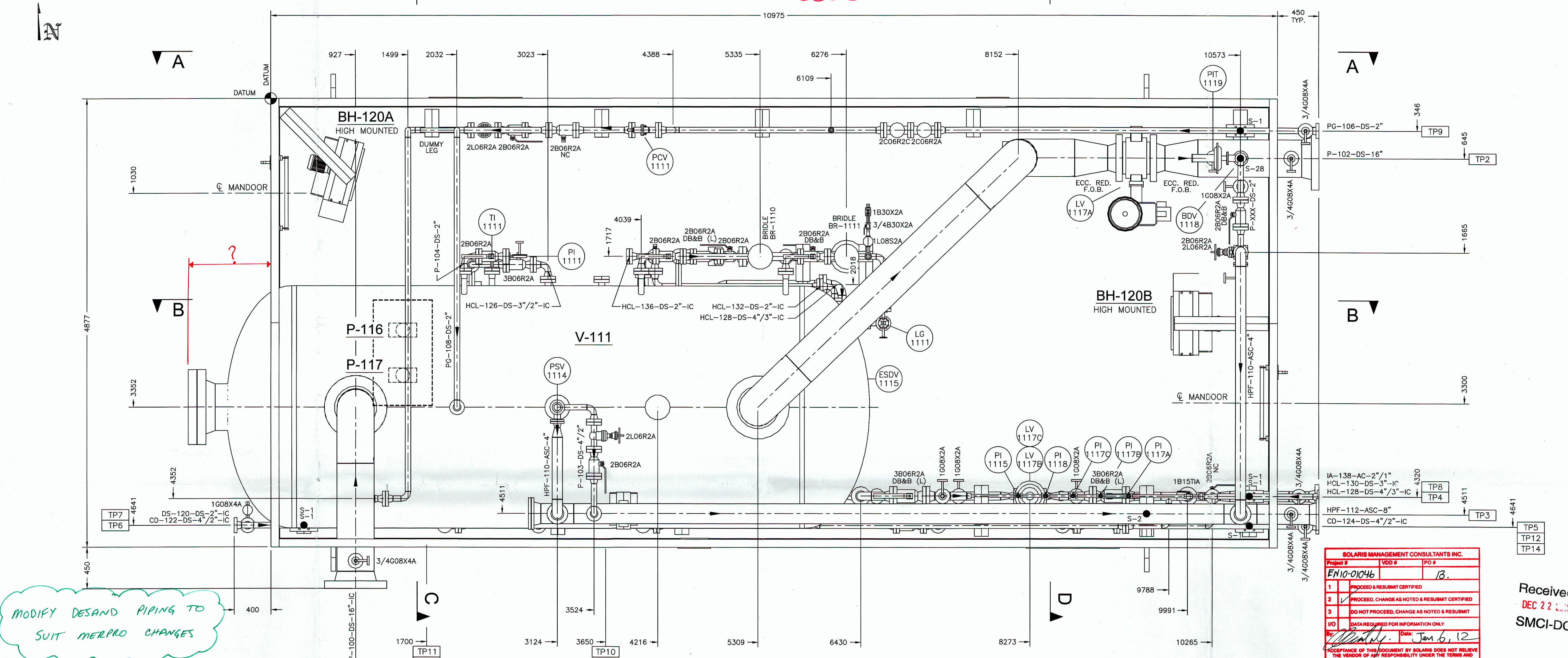
ENSGN Opso Manufacturing
 CLIENT: ENCANNA CORPORATION
 PROJECT: C/O SOLARIS MANAGEMENT CONSULTANTS INC.
 PROJECT NO: 10-X-18-0-SOLARIS MANAGEMENT CONSULTANTS INC. (M-110)
 DRAWN BY: SHAWN BROOKE
 CHECKED BY: SHAWN BROOKE
 APPROVED BY: DEREK CLASON
 DATE: 11-09-15
 P&ID No: MFG02-0780-01
 Scale: 1:20
 Title: PIPING PLAN
 Rev: 9

NO.	DESCRIPTION	DATE
1	ISSUED FOR APPROVAL	11-09-15
2	ISSUED FOR CONSTRUCTION	11-09-15

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 SMC-DC

FABRICATION NORTH

LOCATE VENT FANS & LOUVRES



MODIFY DESAND PIPING TO SUIT MERPRO CHANGES

SOLARIS MANAGEMENT CONSULTANTS INC.		
Project #	VDD #	PO #
EN10-01046		13
1	PROCEED & RESUBMIT CERTIFIED	
2	PROCEED, CHANGE AS NOTED & RESUBMIT CERTIFIED	
3	DO NOT PROCEED, CHANGE AS NOTED & RESUBMIT	
4	DATA REQUIRED FOR INFORMATION ONLY	
Date: Jan 6, 12 Signature: [Signature]		

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PLAN VIEW

BUILDING NOTES:

4877 (16'-0") wide x 10975 mm (36'-0") long WARWICK STANDARD building with:
 ROOF TYPE : GABLE EAVE HEIGHTS: 5334 mm (17'-6")
 EXTERIOR : 22 g. Pre-painted steel Color: Tan with Metro Brown Trim
 INTERIOR : 24 g Aluminum (White)
 INSULATION: R12 Batt type f/glass for Walls (R35 for roof)
 VAPOR BARRIER: 6 MIL
 WINDOWS : TWO (2) 40" x 40" double glazed c/w half screen.
 SINGLE DOOR : TWO (2) 3' x 7' Insulated steel mandoor c/w panic H/ware check chain & lock set.
 DOOR CLOSURE :Yes
 DOOR WINDOW :Yes
 ALUM THRESHOLD:Yes
 CANOPY :Yes
 AIR INTAKE LOUVRES : FOUR (4) SIZE 18" x 18" stamped louver c/w sliders & bird screen
 RIDGEVENT : 229 mm (9") wide X 10975 mm (40'-0") long c/w bird screen, chain operator.
 EAVESTHROUGH: Both eaves DOWNSPOUTS: One each on both eaves
 ICE RAKES: Both eaves (Painted Black)
 BUILDING FAN: TWO (2), 12 ACPH, 1 Phase/60 Hz

CONNECTION SCHEDULE

MARK	SIZE	RATING	TYPE	DESCRIPTION	CL ELEVATION
TP1	16"	600#	RF	GAS INLET	4871 mm
TP2	16"	600#	RF	GAS OUTLET	687 mm
TP3	8"	150#	RF	HP FLARE	4201 mm
TP4	4"	600#	RF	HYDROCARBON LIQUIDS	541 mm
TP5	2"	600#	RF	CLOSED DRAIN	814 mm
TP6	2"	600#	RF	DE-SAND WATER OUTLET	293 mm
TP7	2"	600#	RF	DE-SAND WATER INLET	784 mm
TP8	2"	150#	RF	INST. AIR SUPPLY	2145 mm
TP9	2"	600#	RF	PURGE GAS INLET	1394 mm
TP10	2"	3000#	NPT	SKID FLOOR DRAIN	-123 mm
TP11	1/2"	TUBING	THRD	CORROSION INHIBITOR SUCTION	600 mm
TP12	1/4"	TUBING	THRD	CORROSION INHIBITOR DISCH.	500 mm
TP13	1/2"	TUBING	THRD	METHANOL SUCTION	500 mm
TP14	1/4"	TUBING	THRD	METHANOL DISCHARGE	400 mm

SHIP DIMENSION

LENGTH	12324 mm
WIDTH	4877 mm
HEIGHT	~ 6786 mm

PACKAGE WEIGHT (kg)

	EMPTY	FLOODED
V-111 SEPARATOR	24896	38504
PIPING + VALVES	8688	10770
SKID + SUPPORTS	11315	11315
BUILDING	4990	4990
OTHER	-	-
TOTAL (KGS)	49889	65579
TOTAL (LBS)	109985	144575

GENERAL NOTES:

- No of Units req'd: ONE (1)
- Unit to be commercially sandblasted to SSPC-SP-6 and shop-primed with: ONE (1) coat ZINC PHOSPHATE
- Finish Paint: ONE (1) coat INDUSTRIAL ENAMEL (TAUPE)
- Underskid Insulation: 3" Thk. Fire Retardant industrial grade urethane foam on underside of floor within building limits.
- Radiography on Piping welding to be: See Line Specs on P&ID
- Unless specified otherwise, all projections beyond building wall to be: 6"
- Dimensions may change to reflect customer requests, layout changes, accessibility and non-conformity of OEM supplied components.
- Stress Relieving Details: See Line Specs on P&ID
- Electrical Work: By Tarpon.
- Building Vents, Fans & Louvres to be located by building manufacturer.

SKID NOTES:

OPSCO STANDARD skid c/w 1/4" checker plate within building limits
 SIZE: 4877 mm (16'-0") wide x 10975 mm (36'-0") long, Four (4) removable lifting lugs.

OPSCO STANDARD WELDED PIPELINE DESIGNATION SYSTEM

OPTIONAL: LEAVE OUT UNLESS NEEDED

EXAMPLE: 6B - 40 - 10% - 106B - HT - [Symbol] - OTHER NDT

LINE SIZE (NPS) A=150 B=300 C=600 D=900 E=1500 F=2500

PIPE SCHEDULE X-RAY MATERIAL SPEC. STRESS REL.

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No.	DATE	REVISIONS	BY	CHK	REW	APP	No.	DATE	REVISIONS	BY	CHK	REW	APP
A	11/18/2011	ISSUED FOR APPROVAL	SB										
0	12/21/2011	ISSUED FOR CONSTRUCTION	SB										

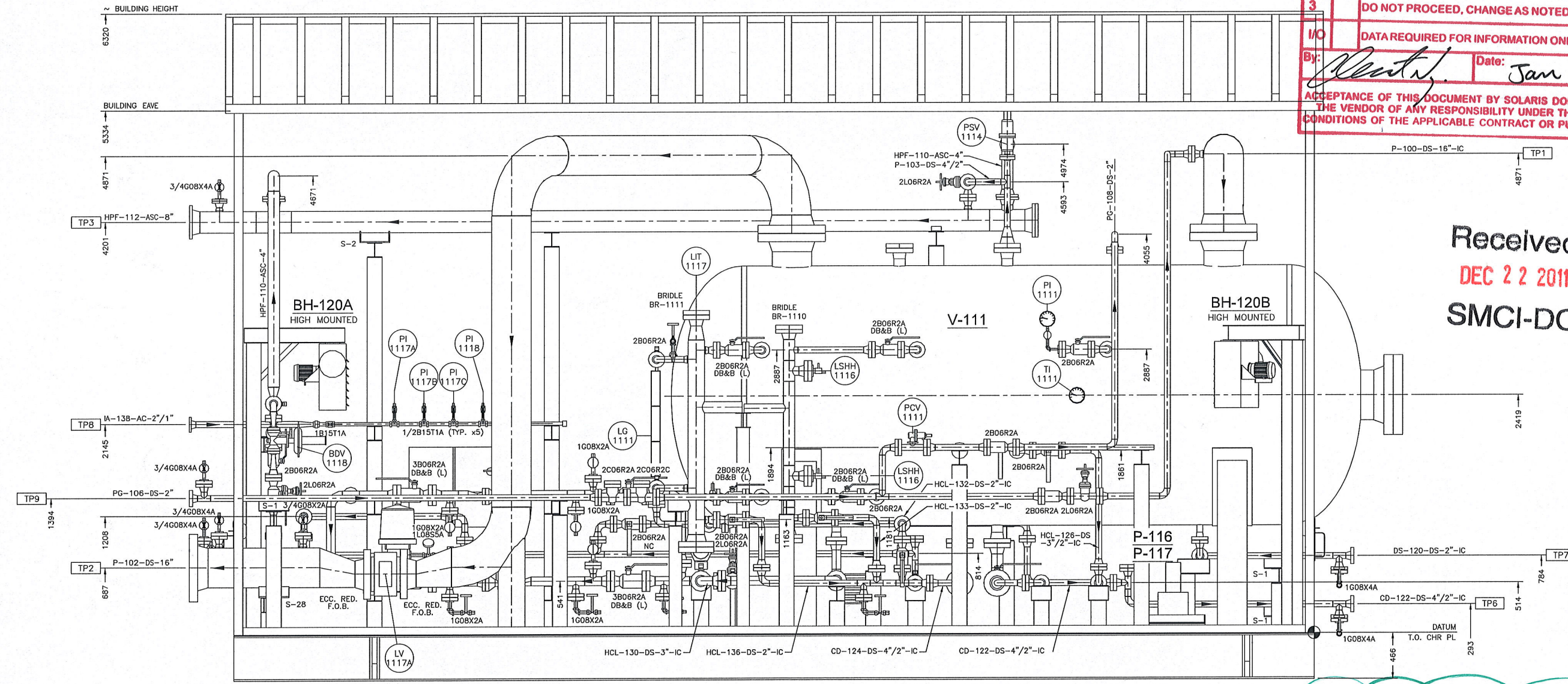
ENGINEERS RECORD		DATE
DRAWN BY	SHAWN BRODIE	11-09-15
CHECKED BY	-	-
REVIEWED BY	-	-
APPROVED BY	DEREK CLASON	-
Q.C. APPD.		

ENSIGN Opsco Manufacturing	CLIENT	ENCANA CORPORATION
	C/O SOLARIS MANAGEMENT CONSULTANTS INC.	
	PROJECT	96" LD. X 18'-0" S/S INLET 2-PHASE SEPARATOR PACKAGE (M-110) SWAN COMPRESSOR STATION
	TITLE	PIPING PLAN
P.O.# EN10-01046-13	Scale	1:20
	JOB No.	MFG02-0780-01
	DWG. No.	L-02-0780-01-001
	REV.	0

SOLARIS MANAGEMENT CONSULTANTS INC.

Project #	VDD #	PO #
EN10-01046		13
1	PROCEED & RESUBMIT CERTIFIED	
2	PROCEED, CHANGE AS NOTED & RESUBMIT CERTIFIED	
3	DO NOT PROCEED, CHANGE AS NOTED & RESUBMIT	
I/O	DATA REQUIRED FOR INFORMATION ONLY	
By:	Date: Jan 6, 12	

ACCEPTANCE OF THIS DOCUMENT BY SOLARIS DOES NOT RELIEVE THE VENDOR OF ANY RESPONSIBILITY UNDER THE TERMS AND CONDITIONS OF THE APPLICABLE CONTRACT OR PURCHASE ORDER



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ELEVATION VIEW 'A-A'

MODIFY DESAND
PIPING TO SUIT MERPRO
CHANGES.

Q:\OPSC-786\Piping\1-02-0780-01-002 R0.dwg

OPSCO STANDARD WELDED PIPELINE DESIGNATION SYSTEM

OPTIONAL: LEAVE OUT UNLESS NEEDED

EXAMPLE: 6B - 40 - 10X - 106B - HT - OTHER NDT

LINE SIZE (NPS) ANSI CLASS X-RAY MATERIAL SPEC. STRESS REL.

A=150 D=900 E=1500 F=2500

B=300 G=1500 H=2500

C=600 I=2500

PIPE SCHEDULE

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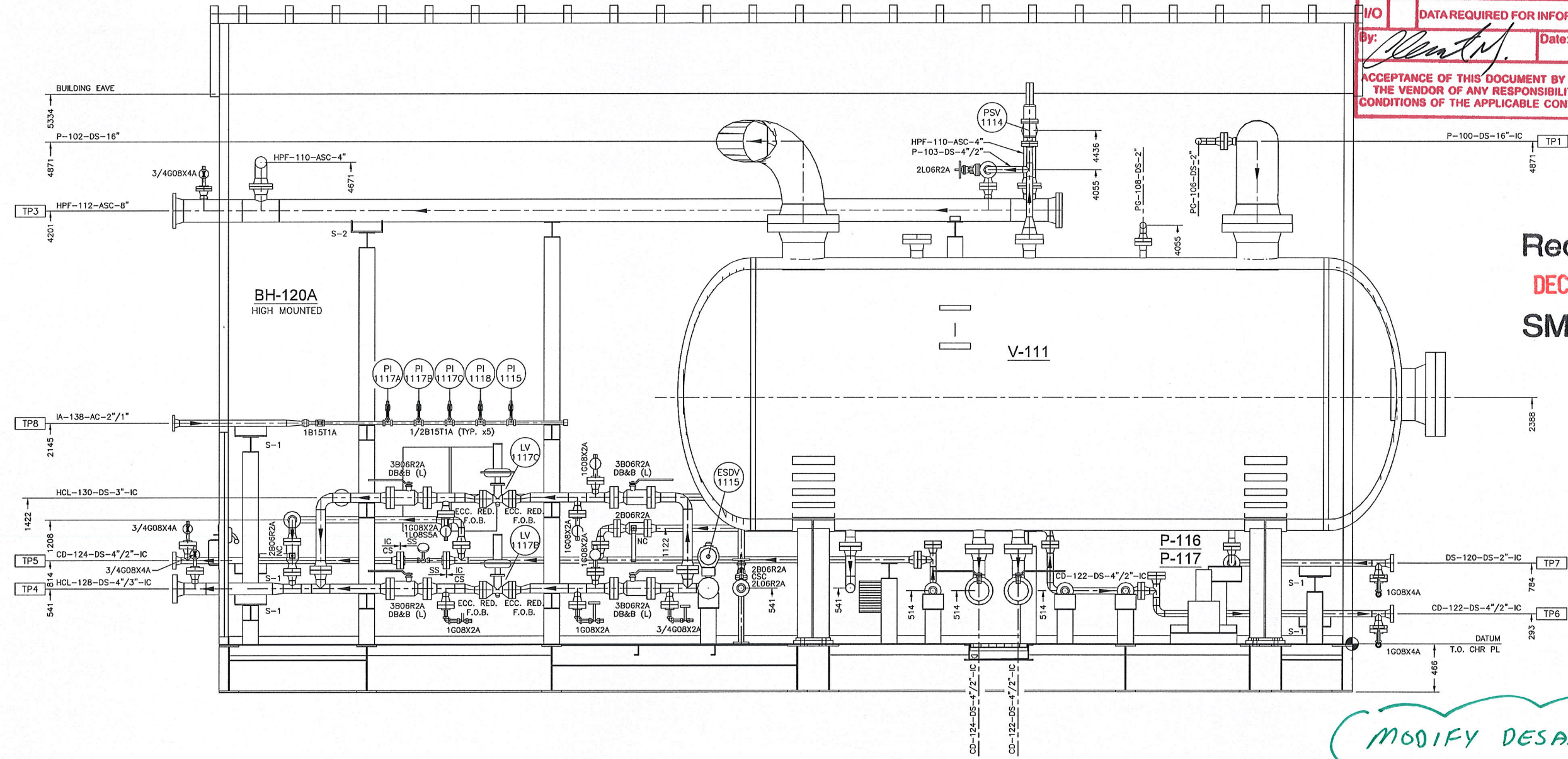
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A	11/18/2011	ISSUED FOR APPROVAL	SB										
0	12/21/2011	ISSUED FOR CONSTRUCTION	SB										

ENGINEERS RECORD		DATE
DRAWN BY	SHAWN BRODIE	11-09-15
CHECKED BY	-	-
REVIEWED BY	-	-
APPROVED BY	DEREK CLASON	-
Q.C. APPD.	-	-

ENSIGN
Opcco Manufacturing

CLIENT	ENCANA CORPORATION C/O SOLARIS MANAGEMENT CONSULTANTS INC.		
PROJECT	96" I.D. X 18'-0" S/S INLET 2-PHASE SEPARATOR PACKAGE (M-110) SWAN COMPRESSOR STATION LSD: c-12-B/93-P-9		
TITLE	PIPING SECTION		
P.O.#	EN10-01046-13	JOB No.	MFG02-0780-01
Scale	1:20	DWG. No.	L-02-0780-01-002
REV.	0		

SOLARIS MANAGEMENT CONSULTANTS INC.		
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EN10-01046		13
1	PROCEED & RESUBMIT CERTIFIED	
2	✓ PROCEED, CHANGE AS NOTED & RESUBMIT CERTIFIED	
3	DO NOT PROCEED, CHANGE AS NOTED & RESUBMIT	
I/O	DATA REQUIRED FOR INFORMATION ONLY	
By:	<i>[Signature]</i>	Date: Jan 6, 12
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ELEVATION VIEW 'B-B'

MODIFY DESAND PIPING
 TO SUIT MERPRO
 CHANGES.

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OPSC STANDARD WELDED PIPELINE DESIGNATION SYSTEM

OPTIONAL: LEAVE OUT UNLESS NEEDED

EXAMPLE: 6B - 40 - 10X - 10BB - HT - [Symbol] - [Symbol]

LINE SIZE (NPS) | ANSI CLASS | X-RAY | MATERIAL SPEC. | STRESS REL. | OTHER NDT

A=150 D=900 | B=300 E=1500 | C=600 F=2500

PIPE SCHEDULE

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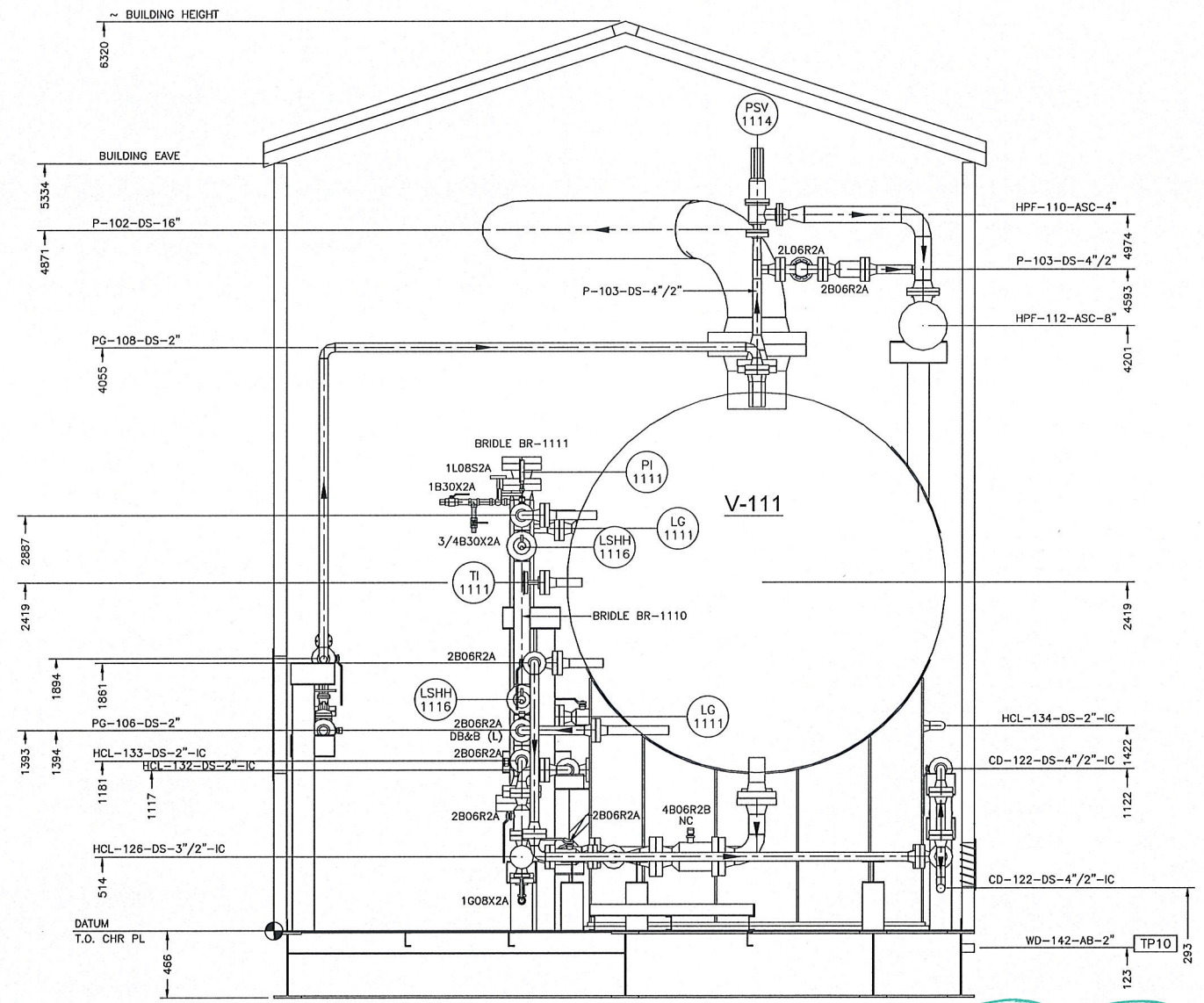
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0	12/21/11	ISSUED FOR CONSTRUCTION	SB										

ENGINEERS RECORD				DATE
DRAWN BY	SHAWN BRODIE			11-09-15
CHECKED BY				
REVIEWED BY				
APPROVED BY	DEREK CLASON			
G.C. APPD.				

ENSIGN
 Opsco Manufacturing

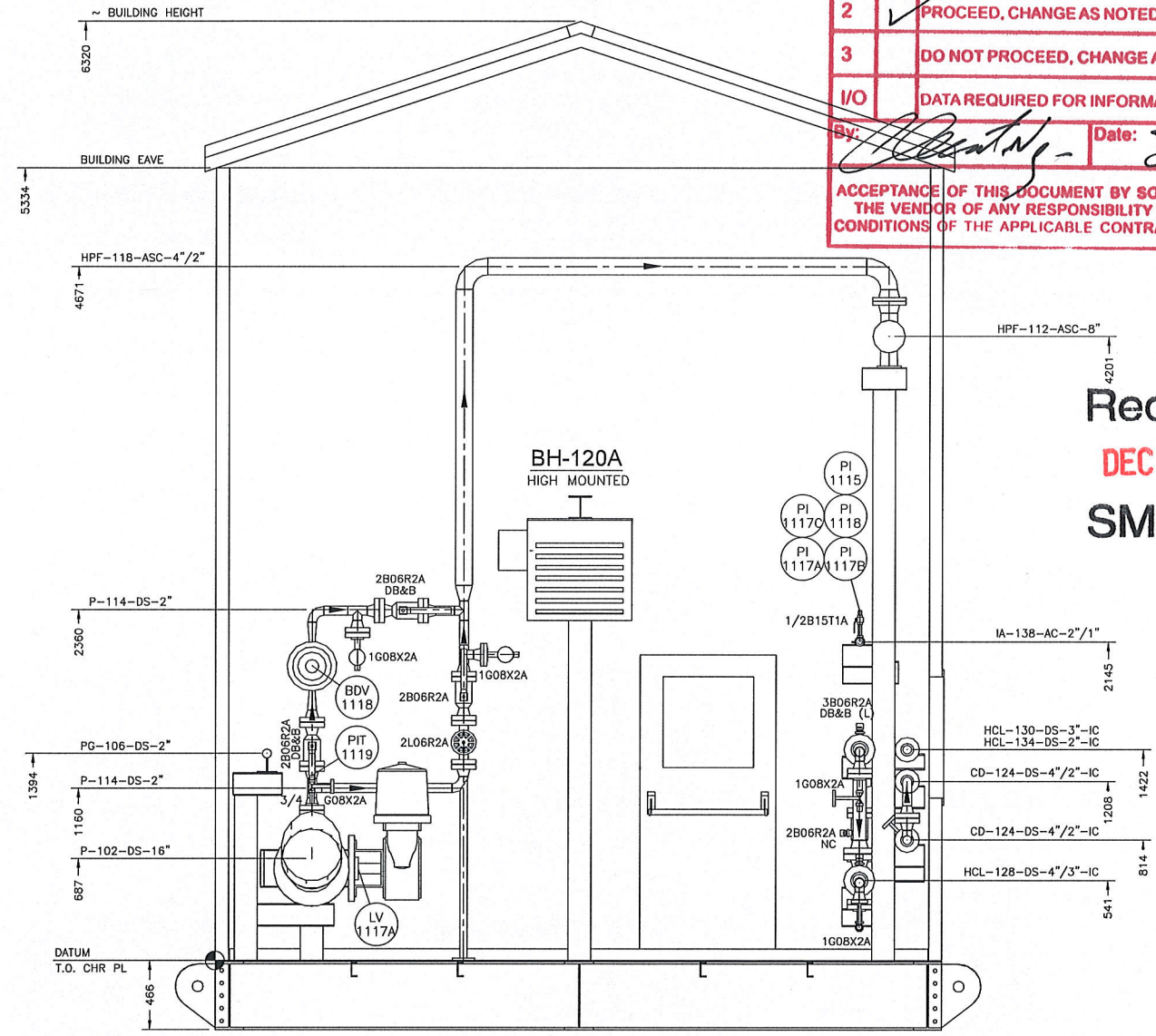
CLIENT	ENCANA CORPORATION		
	C/O SOLARIS MANAGEMENT CONSULTANTS INC.		
PROJECT	96" I.D. X 18'-0" S/S INLET 2-PHASE SEPARATOR PACKAGE (M-110) SWAN COMPRESSOR STATION LSD: c-12-B/93-P-9		
TITLE	PIPING SECTION		
P.O.#	EN10-01046-13	Scale	1:20
JOB No.	MFG02-0780-01	DWG. No.	L-02-0780-01-003
REV.	0		

SOLARIS MANAGEMENT CONSULTANTS INC.		
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I/O	DATA REQUIRED FOR INFORMATION ONLY	
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ELEVATION VIEW 'C-C'

MODIFY DESAND PIPING
 TO SUIT MERPRO
 CHANGES



ELEVATION VIEW 'D-D'

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OPSCO STANDARD WELDED PIPELINE DESIGNATION SYSTEM

OPTIONAL: LEAVE OUT UNLESS NEEDED

EXAMPLE: 6B - 40 - 10X - 108B - HT - OTHER NOT

LINE SIZE (NPS) | X-RAY | MATERIAL SPEC. | STRESS REL.

ANSI CLASS | PIPE SCHEDULE

A=150 D=900
 B=300 E=1500
 C=600 F=2500

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No.	DATE	REVISIONS	BY	CHK	REW	APP	No.	DATE	REVISIONS	BY	CHK	REW	APP
A	11/18/2011	ISSUED FOR APPROVAL	SB										
D	12/21/2011	ISSUED FOR CONSTRUCTION	SB										

ENGINEERS RECORD		DATE
DRAWN BY	SHAWN BRODIE	11-09-15
CHECKED BY	-	-
REVIEWED BY	-	-
APPROVED BY	DEREK CLASON	-
Q.C. APPD.		

ENSIGN
 Opcco Manufacturing

CLIENT	ENCANA CORPORATION		
	C/O SOLARIS MANAGEMENT CONSULTANTS INC.		
PROJECT	98" I.D. X 18'-0" S/S INLET 2-PHASE SEPARATOR PACKAGE (M-110) SWAN COMPRESSOR STATION		
	LSD: c-12-B/93-P-9		
TITLE	PIPING SECTION		
Scale	JOB No.	DWG. No.	REV.
1:20	MFG02-0780-01	L-02-0780-01-004	0

P.O.# EN10-01046-13

11 CIRCS. & LONG SEAMS
TRANSITION AS REQUIRED
3:1 MINIMUM AS PER UW-13

12 CIRCS. & LONG SEAMS
TRANSITION AS REQUIRED
3:1 MINIMUM AS PER UW-13

3 NOZZLE
INT. PROJ. (M)

7 TACK WELD

8A STRAIGHT BORE NOZZLE

9B NOZZLE (HILLSIDE) C/W
INT. PROJ. (M)

9K NOZZLE (HILLSIDE)
SQ. FLUSH

14 EXPOSED INTERNAL EDGES

NOZZLE
RADIUS
BEVEL

PREPARE ALL INSIDE EDGES OF
SQUARE CUT HOLES, NOZZLES &
CLOS. AS SHOWN

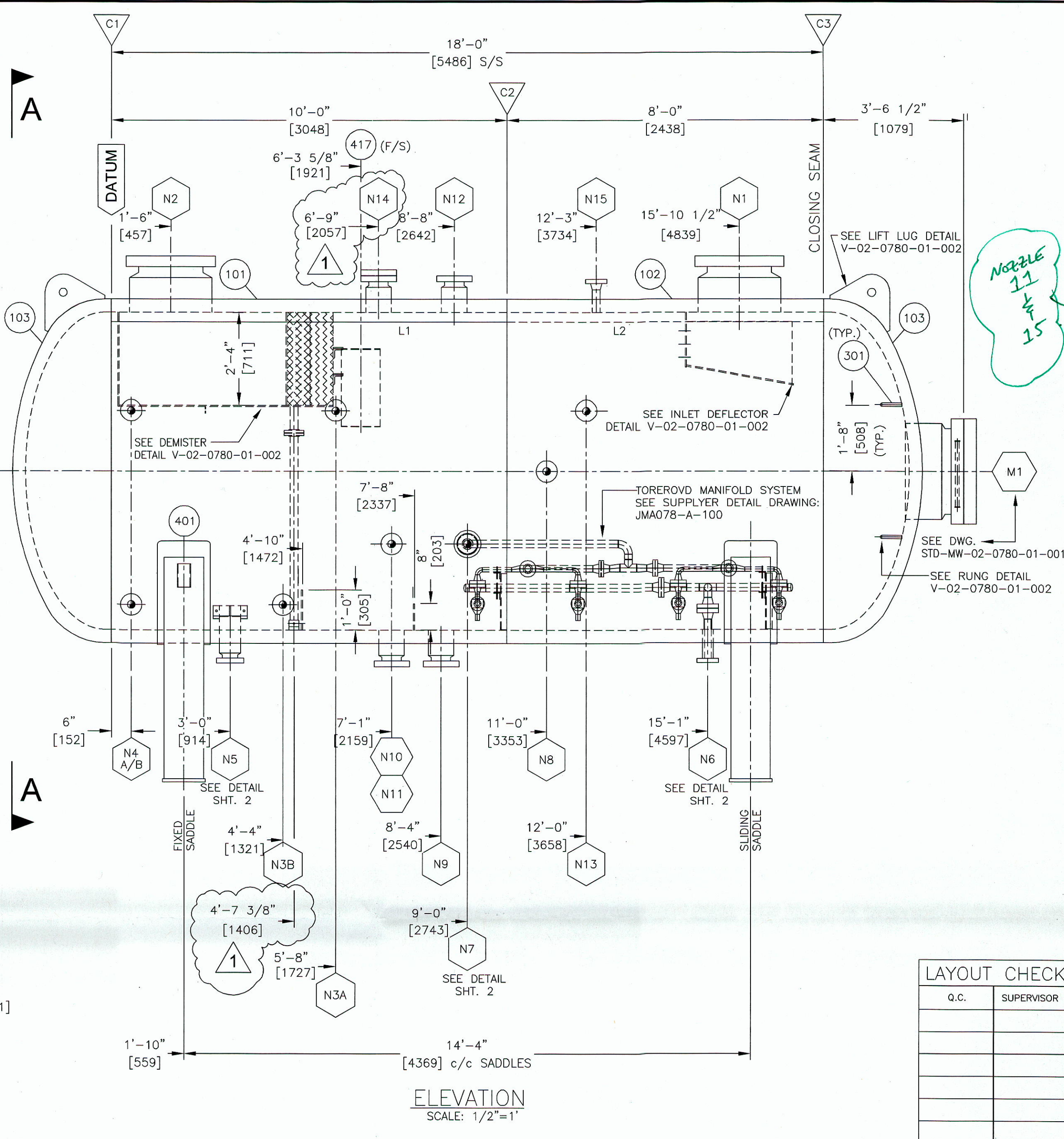
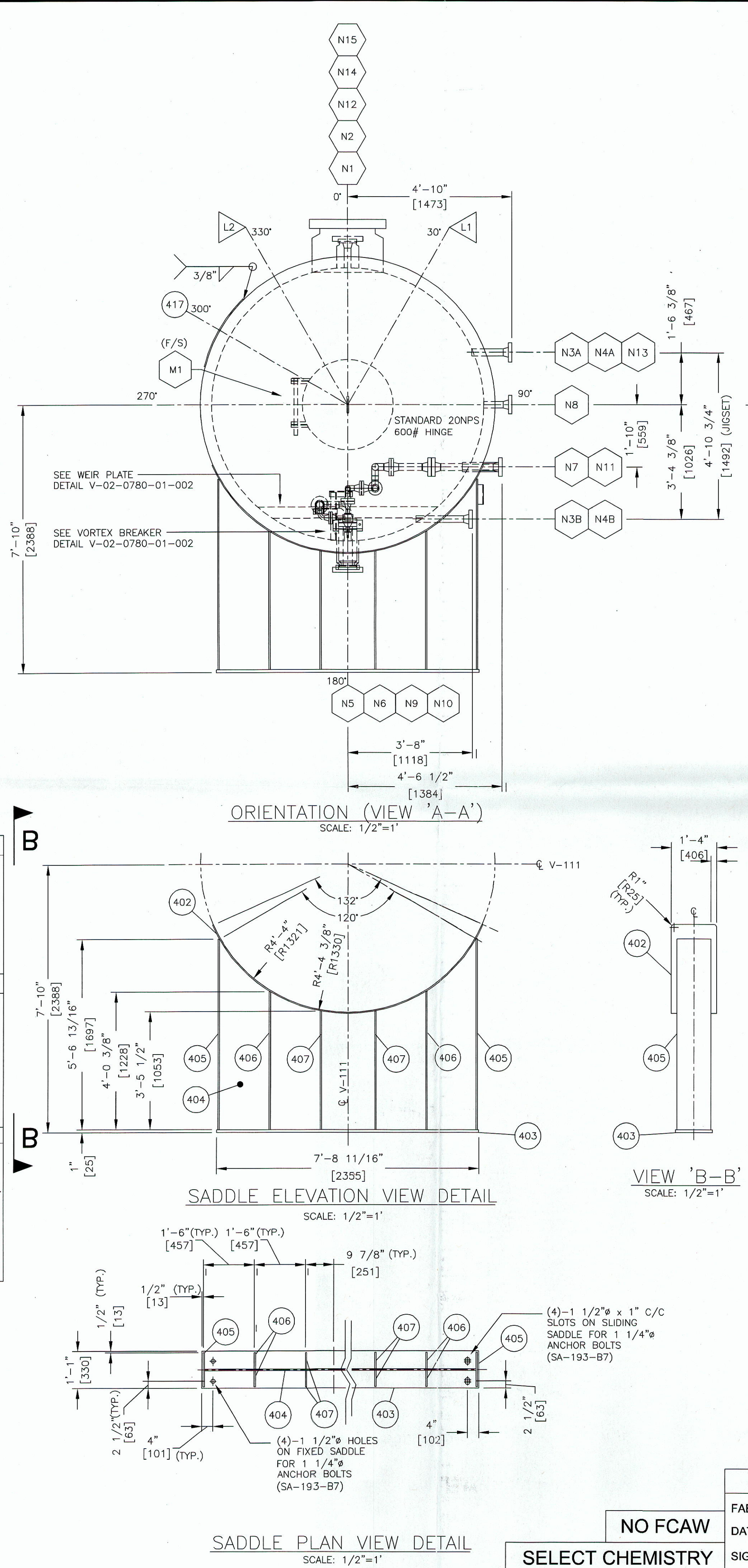
18B ALL EXTERNAL
ATTACHMENTS

(UNLESS SHOWN
OTHERWISE)

18C ALL INTERNAL
ATTACHMENTS

(UNLESS SHOWN
OTHERWISE)

OPS-WP1-CVN-PWHT
OPS-WP6-CVN-PWHT
FULL PENETRATION



BILL OF MATERIAL

ITEM	QTY.	SIZE	TYPE	RATING	SCH./W.T.	MAT'L SPEC	DESCRIPTION
100. VESSEL							
101	1	96" I.D.	ROLLED PLATE		4"	SA-516-70N	96" I.D. x 10' LG
102	1	96" I.D.	ROLLED PLATE		4"	SA-516-70N	96" I.D. x 8' LG
103	2	96" I.D.	FORMED PLATE		4"	SA-516-70N	96" I.D. x 4" NOM THK, 2:1 S.E. HEAD (3.613" FORMED MIN.)
200. CONNECTIONS							
201	1	20"	RFV2	CL600	4.625"	SA-350-LF2 CL1	ANSI FLANGE, 18" LG. (NUT RELIEF)
202	2	16"	RFV3	CL600	4.5"	SA-350-LF2 CL1	ANSI FLANGE, 19" LG. (NUT RELIEF)
203	10	2"	RFLWN	CL600	SCH160	SA-350-LF2 CL1	ANSI FLANGE
204	2	2"	PIPE	SCH160		SA-333-GR.6	SMLS PIPE, 11" LG.
205	2	2"	PIPE	SCH160		SA-333-GR.6	SMLS PIPE, 16-1/4" LG.
206	1	3"	RFV1	CL600	1.74"	SA-350-LF2 CL1	ANSI FLANGE, 14" LG. (NUT RELIEF)
207	2	2"	PIPE	SCH160		SA-333-GR.6	SMLS PIPE, 10" LG.
208	1	2"	PIPE	SCH160		SA-333-GR.6	SMLS PIPE, 11" LG.
209	4	4"	RFV1	CL600	1.96"	SA-350-LF2 CL1	ANSI FLANGE, 12" LG. (NUT RELIEF)
210	1	2"	RFLWN	CL600	0.66"	SA-350-LF2 CL1	ANSI FLANGE, 14" LG. (NUT RELIEF)
211	1	2"	PIPE	SCH160		SA-333-GR.6	SMLS PIPE, 7" LG.
212	1	2"	RFLWN	CL600	0.66"	SA-350-LF2 CL1	ANSI FLANGE, 10" LG. (NUT RELIEF)
213	2	2"	PIPE	SCH 80		SA-333-GR.6	SMLS PIPE, 3" LG.
214	2	2"	PIPE	SCH 80		SA-333-GR.6	SMLS PIPE, 7 11/16" LG.
215	1	3"	PIPE	SCH 40		SA-333-GR.6	SMLS PIPE, 3 1/8" LG.
300. INTERNAL ASSEMBLIES							
301	2	3/4"	-	-	-	CS	ROUND BAR, 2'-1" LG. (BTS) (CTS)
302	4	1/2" THK.	PLATE	-	-	SA-516-70N	2' x 2' RUNG
400. EXTERNAL ASSEMBLIES							
401	1	7" x 4"	-	-	-	SA-36	NAMEPLATE BRACKET
402	2	3/8" THK	ROLLED PLATE	-	-	SA-516-70N	SADDLE WEAR PLATE C/W 1/4" NPT WEEP HOLE @ LOWEST POINT 16" W x 10"-1" LG. (ROLL EASY WAY TO 104° I/D)
403	2	1" THK	PLATE	-	-	SA-516-70N	SADDLE BASE PLATE: 13" x 7'-8 11/16" LG.
404	2	1/2" THK	PLATE	-	-	SA-516-70N	SADDLE WEB PLATE: 5'-6 13/16" x 7'-6 11/16" LG. (CUT TO SUIT)
405	4	1/2" THK	PLATE	-	-	SA-516-70N	SADDLE OUTSIDE PLATE: 12" x 5'-6 13/16" LG.
406	8	1/2" THK	PLATE	-	-	SA-516-70N	SADDLE RIB PLATE: 5 3/4" x 4'-0 3/8" LG.
407	8	1/2" THK	PLATE	-	-	SA-516-70N	SADDLE RIB PLATE: 5 3/4" x 3'-5 1/2" LG.
408	1	20"	RF	CL600	-	SA-350-LF2 CL1	BLIND FLANGE
409	1	20"	-	-	-	-	GASKET 1/8" PSI LINEBACKER c/w G10 RETAINER & TEFLON SEAL ELEMENT
410	1 SET	1 5/8" x 11 1/2" LG.	STUDS	-	-	SA-193-B7M SA-194-2HM	STUDS (24 Nos.) & NUTS (48 Nos.)
411	1	2"	-	-	-	-	GASKET 1/8" PSI LINEBACKER c/w G10 RETAINER & TEFLON SEAL ELEMENT
412	1 SET	5/8" x 4 1/4" LG.	STUDS	-	-	SA-193-B7M SA-194-2HM	STUDS (24 Nos.) & NUTS (48 Nos.)
413	1	4"	-	-	-	-	GASKET 1/8" PSI LINEBACKER c/w G10 RETAINER & TEFLON SEAL ELEMENT
414	1 SET	7/8" x 5 3/4" LG.	STUDS	-	-	SA-193-B7M SA-194-2HM	STUDS (24 Nos.) & NUTS (48 Nos.)
415	1	2"	RF	CL600	-	SA-350-LF2 CL1	BLIND FLANGE
416	1	4"	RF	CL600	-	SA-350-LF2 CL1	BLIND FLANGE
417	1	3/8" THK.	-	-	-	SA-516-70N	FILOLET PAD: 12" x 28", ROLLED EASY WAY TO 104° I.D.

UPDATE LENGTH SHOULD BE:
6" EXT. PROS.
4" WALL THICK.
4" INT. PROS.
14" LONG!

SOLARIS MANAGEMENT CONSULTANTS INC.
Project # EN10-01046 VDD # 13 PO #
1 PROCESSED & SUBMITTANT CERTIFIED
2 PROCESSED, CHANGE AS NOTED & SUBMITTANT CERTIFIED
3 DO NOT PROCEED, CHANGE AS NOTED & SUBMITTANT CERTIFIED
4 NO DATA REQUIRED FOR INFORMATION ONLY
5 DATE: JAN 17, 12
ACCEPTANCE OF THIS DOCUMENT BY SOLARIS DOES NOT RELIEVE THE VENDOR OF ANY RESPONSIBILITY UNDER THE TERMS AND CONDITIONS OF THE APPLICABLE CONTRACT OR PURCHASE ORDER

Received
JAN 05 2012
SMCI-DC

REQ'D OPSCO WELD PROCEDURES TO CONFIRM

CONFIRM IF 4 HRS IS CORRECT, HOW DID WE DERIVE A HRS?

FABRICATION NOTES:
1. MATERIALS, FABRICATION AND NDE SHALL MEET THE REQUIREMENTS OF ECA-VESL-S-01 PARA 11.0
2. FULL PENETRATION WELDS TO BE GOUNGED BEFORE FILLING.
3. SURFACE PREP: SSPC-SP-10
4. PRIMER: POLYAMIDE EPOXY 4-6 m/s
5. PAINT:
6. INTERNALLY COATED - DEVCO 253, 12-14 MILS DFT (HOLIDAY FREE)
7. GMAW WIRE E70T-S2
8. PREHEAT TO 250° F PRIOR TO WELDING
9. FOR FABRICATION TOLERANCES REFER TO "STANDARD FABRICATION TOLERANCES FOR UNFIRED PRESSURE VESSELS. (REV.0)"
10. RETURN DWG. TO QC AFTER FABRICATION

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
2. ALL BOLT HOLES TO STRADDE NATURAL VESSEL CENTER LINES UNLESS OTHERWISE NOTED.
3. CORNER RADIUS 1/8" MINIMUM FOR NOZZLES AND 1/8" MINIMUM FOR MANWAYS.
4. STENCIL VESSEL WITH 'POST WELD HEAT TREATED - DO NOT WELD'

INSPECTION NOTES:
1. CUT PHASED ARRAY UT ON LONG AND CIRC SEAMS (PER UWS1.4)
2. 100% X-RAY ON ALL BUTT WELDED NOZZLES.
3. UT ON CATEGORY D WELDS BEFORE AND AFTER PWHT
3. HARDNESS TEST PER ECA-VESL-S-01 (7.0)
4. CHART RECORDER FOR HYDROTEST REQUIRED
5. ALL PRESSURE RETAINING FILLET WELDS REQUIRE MPI BEFORE PWHT AND AFTER HYDROTEST. (WMP). SEE JOE ABOUT MPI BEFORE HYDROTEST.

DWG. RELEASE					
No.	DATE	REVISIONS	BY	CHK	REW
A	Aug. 26 2011	ISSUED FOR APPROVAL		N.G.	
B	Nov. 16 2011	RE-ISSUED FOR APPROVAL		N.G.	
0	DEC 22 2011	ISSUED FOR CONSTRUCTION		PL	GAS
1	JAN 17 2012	N14 HOLD REMOVED/CLIP LOCATION CHG		PL	

ENGINERS RECORD		DATE
DRAWN BY	CHECKED BY	DATE
NAIDAN GUO		AUG. 24, 2011
GAS		DEC 22/11
JL		DEC 22/11

DESIGN & CONSTRUCTION MDMT

DESIGN DATA

Vessel to be designed and constructed in accordance with ASME Boiler and Pressure Vessel Code Section VIII Div. I. User Date: 2010 Addenda: N/A

PRODUCTION IMPACT TESTING REQUIRED AS PER UCS-66(a) & UCS-67(f) AVERAGE FOR (3) SPECIMENS: 18 ft-lbs. MINIMUM FOR (1) SPECIMEN: 12 ft-lbs

MATERIAL IMPACT TESTING REQUIRED PER UCS-64 FOR ITEMS 101, 102, 103. ALL OTHER MATERIAL EXEMPT PER UCS-66(g)

MAWP	1440 PSIG	9928 kPaq	SERIAL No.	02-0780-01-001
DESIGN TEMP	100°F	38°C		
HYDROTEST PRESS.	2160 PSIG	14892 kPaq	TAG No.	V-111
CORR. ALLOWANCE	3.2mm	0.125 inch	YEAR BUILT	2011
VOLUME	1056 Cu.F	30 Cu. M	INSPECTION BY	ABSA
RADIOGRAPHY + CRN DRAWING No.	UT (100%) SEE INSPECTION NOTE V-02-0780-01-001 Rev.0	APPROX. SHIPPING WT.	121,000 lbs (54,885 kg)	
STRESS RELIEVE	YES FOR 4 HRS MIN @ 1150°F	FINAL JOINT EFF.	100%	
		MAEWP @ 0.8 C (F)	103 kPaq @ 38°C (15 PSIG @ 100°F)	

CLIENT ENCANIA CORPORATION
C/O SOLARIS MANAGEMENT CONSULTANTS INC.
PROJECT 96" I.D. X 18'-0" S/S INLET 2-PHASE SEPARATOR PACKAGE (M-110)
SNAY COMPRESSOR STATION
TITTLE 96" I.D. X 18'-0" S/S INLET 2-PHASE SEPARATOR
Scale AS NOTED Job No. MFG02-0780-01 DWG. No. V-02-0780-01-001 REV. 1

NO FCAW
SELECT CHEMISTRY

DO NOT EXCEED 80 KM/H
50 MPH

DO NOT EXCEED 80 KM/H
50 MPH

