

**FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS**  
 (Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)  
 As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

① 485194

1. Manufactured and certified by Opisco Energy Industries Ltd., 2401 Centre Ave East, Calgary, AB T2A 2L1  
 (Name and address of manufacturer)

2. Manufactured for Enbridge Corporation, 150 9th Ave. SW, Calgary, AB T2P 3P9 c/o DP/II Engineering, Inc.  
 (Name and address of purchaser)

3. Location of installation Fortier, Alberta L5D 0E-06-042, 0 H:5M  
 (Name and address)

4. Type Flare Separator (Name of vessel) 01-3632-1 (Mfr's serial No) 18918.2 (Drawing) 1-02-3692-2220 R.2 (Year Built) 2002  
 Special service per UG-1 28(a) N/A

5. The chemical and physical properties of all parts met, the requirements of material specification of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1

6. Shell SA-516-70N Code Case Nos N/A Special service per UG-1 28(a) N/A  
 Min. Thickness 1.625" Cor Allow (in) 0.125" Diameter (overall) (ft & in) 15'-0"  
 Length (overall) (ft & in) 9'11"

7. Seams Full Type 1 (Spot or Full) Full H.T. Temp (F) 1150 Time (hr) 1.75 Type 1 1 Type 2 2  
 R.T. (Spot or Full) None ER (N) None Grain (Welded Dist. Singl. Lap Butt) SA-516-70N (Spec. No. Grade) SA-516-70N

8. Heads: (a) Mat'l SA-516-70N (Spec. No. Grade) SA-516-70N

if removable, bolts used (describe other fasteners)

Location (Top Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press (ft & in)
Both Ends	1.50"	0.125"			2:1				(Complete)

9. MAWP 1355 psi at max. temp Hydro., pneu., or comb. test (Mail Spec. No., Gr., Size, No.) 192

Min. Design Metal Temp. 0.20 °F at 1355 Psi

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet Outlet, Drain)	No	Diam or Size	Type	Material	Nom. Thk.	Reinforcement Mat'l	How Attached	Location
Inlet (Outlet)	2	8"	C1600 RFLWN	SA-105 N	1.38"	Integral	Fig. UW-16.1(c)	
Condensate Dump	1	4"	C1600 RFLWN	SA-105 N	1.00"	Integral	Fig. UW-16.1(c)	
PSV (Cold Recycle)	2	3"	C1600 RFLWN	SA-105 N	0.81"	Integral	Fig. UW-16.1(c)	
Vent	1	6"	C1600 RFLWN	SA-105 N	1.38"	Integral	Fig. UW-16.1(c)	
Drain BC FT LSHLLC	9	2"	C1600 RFLWN	SA-106B SA-105 N	0.43"	Integral	Fig. UW-16.1(c)	
Roof	1	16"	PIPE	SA-106B	1.031"	SA-516-70N	Fig. UW-16.1(a)	
Manway	1	18"	C1600 RFLWN	SA-105 N	2.60"	Integral	Fig. UW-16.1(c)	

11. Supports: Skirt N0 Lugs 2 Other Integral Saddle Attached Either End Welded  
 (No.) (No.) (Describe)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:

Impact Testing: \*\*Required as per UCS-66(a) and UCS-67(a) Radiography per: AS per UW-11(c) and UW-51  
 Tag No.: E-101 Volume: 168 Cu Ft (4.6 Cu M)  
 A No. CONSTRUCTION DWT. NO.: 1-02-3692-2220 R.3

**CERTIFICATE OF SHOP COMPLIANCE**

We certify that the statements made in this report are correct and that all details of design, material, construction and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. 'U' Certificate of Authorization No. 21,356 expires July 21, 2004

Date May 31, 2002 Co. Name Opisco Energy Industries Ltd Signed [Signature] (Manufacturer)  
 Vessel constructed by Opisco Energy Industries Ltd at Calgary, Alberta, Canada  
 I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and / or the State or Province of Alberta and employed by ASMA Alberta Builders' & P Association  
 have inspected the component described in the Manufacturer's Data Report on 653102 and state that to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed, or implied, concerning the pressure vessel described in the Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date May 31, 2002 Signed [Signature] (Inspector)  
 Commission Alberta S  
 (Inspector's No.) [Number]

**\* EDITED Aug 07/02** **FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS**  
 (Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)  
**As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1** **0285194**  
 Manufactured and certified by Opasco Energy Industries Ltd, 2601 Centre Ave East, Calgary, AB T2A 2L1

2. Manufactured for Encana Corporation, 150 9th Ave. SW, Calgary, AB T2P 3H9 c/DPH Engineering Inc.  
 3. Location of installation Ferrier, Alberta LSD: 02-06-042-10 WSM  
 4. Type Horizontal Separator (Name and address of manufacturer) Opasco (Name and address of purchaser) Opasco  
01-3692-1 (Mfg's serial No) 1-02-3692-2220 R.2 (Drawing No) N/A (Year built) 2002  
 5. The chemical and physical properties of all parts meet the requirements of material specification of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1

to N/A (Spec No Grade) N/A (Year)  
 6. Shell: SA-516-70N (Material) 1.625" (Wall) 0.125" (Corr Allow) 15'-0" (Length) 15'-0" (Special service per UG-120(d))  
 7. Seams: Full (Type 1) 1150 (H.T. Temp) 1.75 (Tens) 2 (No of Courses)  
 8. Heads: (a) SA-516-70N (Spec No Grade) (b) Matl

9. MAWP 1355 psi at max. temp 192 °F  
 Min. Design Metal Temp. 1355 °F at 1355 psi  
 10. Nozzles, inspection and safety valve openings:

Purpose	No.	Drum, or Size	Type	Matl	Non Thk	Reinforcement	How Attached	Location
(Inlet, Outlet, Drum)	2	8"	CI 600 RFLWN	SA-105 N	1.38"	Integral	Fig. UW-16.1(c)	
Inlet/Outlet	1	4"	CI 600 RFLWN	SA-105 N	1.00"	Integral	Fig. UW-16.1(c)	
Condensate Dump	2	3"	CI 600 RFLWN	SA-105 N	0.81"	Integral	Fig. UW-16.1(c)	
PSV/Cond. Recycle	1	6"	CI 600 RFLWN	SA-105 N	1.38"	Integral	Fig. UW-16.1(c)	
Vent	9	2"	CI 600 RFLWN	SA-105N	0.34"	Integral	Fig. UW-16.1(c)	
Drum BC/PITL/SH/ELC	1	16"	PIPE	SA-105B	1.031"	SA-516-70N	Fig. UW-16.1(b)	
Boat	1	18"	CI 600 RFLWN	SA-105 N	2.60"	Integral	Fig. UW-16.1(c)	
Manway								

11. Supports: 1 (No) 2 (No) 1 (No) 1 (No)  
 12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:

Impact Testing: \*\*Required as per UCS-66(a) and UCS-67(a) (Name of part, item number, Mfg's name and identifying stamp)  
 Tag No.: 1-101 Volume: 1600 Cu Ft. (460 Cu M) \*\*As per UW-11(c) and UW-51  
 A No.: CONSTRUCTION DWG. NO: 1-02-3692-2220 R.14 8/8/04

**CERTIFICATE OF SHOP COMPLIANCE**  
 We certify that the statements made in this report are correct and that all details of design, material, construction and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. 'U' Certificate of Authorization No. 21,556 expires July 21, 2004  
 Date May 31, 2002 Co. Name Opasco Energy Industries Ltd Signed [Signature] (Manufacturer)  
**CERTIFICATE OF SHOP INSPECTION**  
 Vessel constructed by Opasco Energy Industries Ltd at Calgary, Alberta, Canada  
 I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and I or the State or Province of Alberta and employed by ABSA, Alberta Boilers Safety Association  
 have inspected the component described in the Manufacturer's Data Report on 05/31/02 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed, or implied, concerning the pressure vessel described in the Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.  
 Date May 31, 2002 Signed [Signature] (Inspector)  
 Date May 31, 2002 Signed [Signature] (Commissioner)