

FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS Item # E-1254
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1 **A 233572**

- Manufactured and certified by Exchanger Industries Ltd, 5105-54 Ave, SE Calgary Alberta.
- Manufactured for Anderson Exploration 2500, 700 9 Avenue S.W. Calgary, Alberta
- Location of installation Anderson Exploration, Dunvegan, Fairview, Alberta
- Type Horiz. 86-1767 B F8392.2 86-1767 B N.A. 1986

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME Boiler and Pressure Vessel Code. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 1983

W-85 Address (Name) Code Case No. Special service per UG 120(d)

Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, or sheets of heat exchangers

6. Shell: SA-106-B 375 1/16 13 1/2" 31' 8"

7. Seams: SMIS Pipe N.A. 100 N.A.

N.A. Single Spot 1

8. Heads: (a) Matl. N.A. (b) Matl. (Spec. No., Grade)

Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Concave or Convex)
(a)									
(b)									

If removable, bolts used (describe other fastenings) (Matl., Spec. No., Gr., Size, No)

9. Type of Jacket Proof Test

10. Jacket Closure (Describe as cage & weld, bar, etc) If bar, give dimensions If bolted, describe or sketch

11. MAWP 375 psi at max. temp. 350 °F Min. temp. (when less than -20°F) °F

Hydro., pneu., or comb. test press. 563 psi

Items 12 and 13 to be completed for tube sections

12. Tubesheet: SA-516-70N 13 1/8" 1 5/8" 1/8" Welded

Stationary Matl (Spec. No., Gr.) Matl (Spec. No., Gr.) Corr Allow (in) Corr Allow (in)

13. Tubes: SA-179 3/4" OD (in) 14 BWG M/W 120 Number

Items 14-17 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers Tube Length = 32' Lg.

14. Shell: SA-106-B 375 1/16" 13 1/2" 8"

Matl (Spec. No., Grade) Matl (Spec. No., Grade) Corr Allow (in) Corr Allow (in)

15. Seams: SMIS Pipe N.A. 100 N.A.

N.A. Single Spot 1 ea. end

16. Heads: (a) Matl. SA-234-WPB (b) Matl. (Spec. No., Grade)

Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Concave or Convex)
(a) End	.375	1/16			Weld Cap				Concave
(b) End	.375	1/16			Weld Cap				Concave

If removable, bolts used (describe other fastenings) 12 - 3/4" x 4 1/2" SA-193-B7 studs each end.

17. MAWP 150 psi at max. temp. 350 °F Min. temp. (when less than -20°F) °F

Hydro., pneu., or comb. test press. 225 psi

(12/82) This form (E00108) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

18. Nozzles, Inspection and Safety Valve Openings:

Purpose (Insert Outlet Dimensions)	No.	Dim. or Size	Type	Mat'l	Thk.	Reinforcements Mat'l	How Attached	Location
Chan Inlet	1	3" 150#	RFWN	SA-106-B	.300	NONE	WELDED	Top
Chan Outlet	1	3" 150#	RFWN	SA-106-B	.300	NONE	WELDED	Bottom
Shell Inlet	1	4" 300#	RFWN	SA-106-B	.337	NONE	WELDED	Bottom
Shell Outlet	1	6" 300#	RFWN	SA-106-B	.432	NONE	WELDED	Top
Vent	1	1" 6000#	CPLG	SA-105	.555	NONE	WELDED	Top
Drain	1	1" 6000#	CPLG	SA-105	.555	NONE	WELDED	Bottom
Drain	1	2" 300#	RFWN	SA-106-B	.343	NONE	WELDED	Bottom
Draw Off	1	1" 6000#	CPLG	SA-105	.555	NONE	WELDED	Bottom

19. Supports: Skirt (Yes or No) _____ Legs (No.) _____ Other Saddles Attached Welded to bottom of shell (Where and how)

20. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: _____ (Name of part, item number, origin's name and identifying stamp)

Service: De-ethanizer Glycol Reboiler

Tube Surface Area = 747 sq. ft.

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. 5983 expires 30 March 1988
 Date SEP 16/86 Co. name Exchanger Industries Ltd Signed _____ (Manufacturer)

Vessel constructed by Exchanger Industries Ltd at 5105-54 Ave, SE Calgary Alberta.
 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 _____ Boilers Branch

of Alberta SEP 16, 1986, 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 loss of any kind arising from or connected with this inspection.

Date SEP 16-86 Signed _____ (Authorized Inspector) Commissions _____ (Not a Board, State, Province and No.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the field assembly construction of all parts of this vessel conforms with the requirements of Section VIII, Division 1 of the ASME Boiler and Pressure Vessel Code.

"U" Certificate of Authorization No. _____ expires _____, 19 _____ Signed _____ (By Representative)
 Date _____ (Manufacturer that certified and constructed field assembly)

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 _____ and employed by _____

of _____ have compared the statements in this Manufacturer's Data Report with the described pressure vessel and state that parts referred to as Data Items _____, not included in the certificate of shop inspection, have been inspected by me and that, to the best of my knowledge and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance with ASME Code, Section VIII, Division 1. The described vessel was inspected and subjected to a hydrostatic test of _____ psi. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this 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 loss of any kind arising from or connected with this inspection.

Date _____ Signed _____ Commissions _____ Alberta (Not a Board, State, Province and No.)