

FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS (A) 437417
 As Required by the Provisions of the ASME Code Rules, Sec. VIII, Division 1

1. Manufactured and certified by **THERMOTEC ENERGY SYSTEMS, Div. of PREMETALCO INC** 5010 - 76 AVE., S.E., CAL, AB. T2E 2X2

Manufactured for **ANDERSON EXPLORATION C/O COLT ENGINEERING 400. 10201 SOUTHPORT RD. S.W. CALGARY, AB. T2N 4X9**
 (Name and address of Manufacturer)

Location of installation **LSD 15-3-81-4 W6M DUNVEGAN**
 (Name and address of Purchaser)

4. Type **HORIZONTAL** **HEAT EXCHANGER** **983266 A**
 (Horiz., vert., or sphere) (Mfg's serial No.)

L 0762.2 **983266 V REV 3** **N/A** **1998**
 (CRN) (Drawing No.) (Nat'l. Bd No.) (Year Built)

5. ASME Code, Section VIII, Div 1 **1995 ADD 96** **N/A** **N/A**
 Edition and Addenda (date) Code Case No. Special Service per UG-120(d)

Items 6-11 to be completed for single wall vessel, jacket of jacketed vessel, shells of heat exchanger, or chamber of multi-chambered vessel.

6. Shell (a) No. of Course(s): **4** (b) Overall length (ft & in.): **31'-6.5**

Course(s)			Material		Thickness		Long. Joint (CatA)			Circum. Joint (Cat. A,B. & C)			Heat Treatment	
No.	Diameter, in.	Length (ft & in.)	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	23.5	31'-6.5	SA516-70N		.375	.063	1	SPOT	85	1	SPOT	85	NR	

7. Heads: (a) **NA** (b) **NA**
 (Mat'l Spec. No. Grade or Type) H.T Time & Temp. (Mat'l Spec. No. Grade or Type) H.T Time & Temp.

	Location (Top Bottom, Ends)	Thickness		Radius		Elliptical	Conical	Hemispherical	Flat	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle	Ratio	Apex Angle	Radius	Diameter	Convex	Concave	Type	Full, Spot, None	Eff.
(a)														
(b)														

if removable, bolts used (describe other fasteners)

Type of Jacket **NA** Jacket Closure **NA**
 (Mat'l Spec. No. Grade, size No.) (Describe as Ogee & weld, bar, etc)

if bar, give dimensions **NA** if bolted, describe or sketch

9. M.A.W.P.: **375** **NA** psi at max. temp. **150** **NA** °F Min. design metal temp. **-40** °F at **375** psi
 (internal) (external) (internal) (external)

10. Impact test **NO EXEMPT PER UG -20 F & UCS 66 A**
 (Indicate yes or no and the component(s) impact tested) Proof test

11. Hydro...test press. **563 P.S.I. **** **NA**

Items 12-13 to be completed tube sections.

12 Tubesheet **SA516-70N** **22.5625** **2.6875** **.125** **WELDED**
 Stationary (Mat'l Spec. No.) Dia., in. (subject to press.) Nom. thk. in. Corr. Allow., in. Attachment (Welded or Bolted)

13. Tubes: **SA179** **.750** **14 BWG** **452** **STRAIGHT**
 Floating (Mat'l Spec. No.) Dia., in. Nom. thk. in. Corr. Allow., in. Attachment
 Mat'l Spec. No., Grade or Type O.D., in. Nom. thk. in. or gauge Number Type (Straight or U)

Items 14-17 incl. to be completed for inner chamber of jacketed vessels or channels of heat exchangers.

14. Shell (a) No. of Course(s): **2** (b) Overall length (ft & in.): **3'-1"**

Course(s)			Material		Thickness		Long. Joint (CatA)			Circum. Joint (Cat. A,B. & C)			Heat Treatment	
No.	Diameter, in.	Length (ft & in.)	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	24.75	1'-6.5	SA516-70N		1.00	.063	1	SPOT	85	1	SPOT	85	NR	
2	24.75	1'-6.5	SA516-70N		1.00	.063	1	SPOT	85	1	SPOT	85	NR	

15. Heads: (a) **SA516-70N NONE** (b) **SA516-70N NONE**
 (Mat'l Spec. No. Grade or Type) H.T Time & Temp. (Mat'l Spec. No. Grade or Type) H.T Time & Temp.

	Location (Top Bottom, Ends)	Thickness		Radius		Elliptical	Conical	Hemispherical	Flat	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle	Ratio	Apex Angle	Radius	Diameter	Convex	Concave	Type	Full, Spot, None	Eff.
(a)	END	4.25	.063			RF	FLAT	COVER	30.75		FLAT			
(b)	END	4.25	.063			RF	FLAT	COVER	30.75		FLAT			

if removable, bolts used (describe other fasteners)

SA320 L7 1.125 X 10.75 64
 (Mat'l Spec. No. Grade, size No.)

MO		EN		SYS	
W.P.		375		150	PF
M.T.		-40		375	SI
TUE					
W.P.		1000		150	PF
M.T.		-40		1000	SI
YE	1998	SE	983		A
F1227		C43741			
L0762.2					