

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

1/3

1. Manufactured and certified by Process Equipment & Service Co., Inc. 5680 U.S. Hwy 64, Farmington, NM
 (Name and address of manufacturer)

2. Manufactured for Vastar Resources, Inc., 1816 Mojave, Farmington NM 87401
 (Name and address of purchaser)

3. Location of installation Unknown
 (Name and address)

4. Type: Horizontal 203414 NA A6401110 10682 1997
 (Horiz. or vert. tank) (Mfr's serial no.) (CRN) (Drawing no.) (Nat'l. Bd.No.) (Year built)

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: 1995
 Year

to A-96 NA -----
 Addenda (Date) Code Case Nos. Special Service per UG-120(d)

6. Shell: SA106B, SA106B 1.125", .843" 1/16" 23 3/4", 9" 12'-6", 5'-0"
 Matl. (Spec. No., Grade) Nom. Thk (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

7. Seams: Dbl. Butt, Seamless Full, None 100%, 85% NA NA Single Butt Spot (24") 2,2
 Long. (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) H.T. Temp. (F) Time (hr) Girth (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot, Partial, or Full) No. of Courses

8. Heads: (a) Matl. SA-516Gr.70 (b) Matl. SA-516Gr.70
 (Spec. No., Grade) (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 (Convex or Concave)
(a)	End	1.007"	1/16"			2:1				Concave
(b)	Ends	.758"	1/16"			2:1				Concave

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

9. MAWP: 1440 psi at max. temp. 130 °F
 Min design metal temp. -20 UG-20(f) of at 1440 psi. Hydro., pneu. or comb. test pressure 2160 psi.

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet Outlet, Drain)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Matl.	How Attached	Location
*Inlet & Outlet	2	6"	Pipe	SA106B	XH	SA-106Gr.C	Welded	24" Shell
Commun Pipes	3	4"	Pipe	SA106B	Sch. 160	**	Welded	24", 10" Shells
LLC's	2	4"	THD'DWL/DNK	SA106B	Sch. 160	Weld	Welded	10" Ends
Safety Valve	1	3"	THD'DCPLG	SA105	6000#	SA-516Gr.70	Welded	24" Shell

11. Supports: Skirt No Lugs -- Legs 2 Other ----- Attached Welded to 24" Shell
 (Yes or no) (No.) (No.) (Describe) (Where and How)

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

ANSI FIG. 500 Closure, SN KG-31, Modco Industries, U#17,142: 20" Cylindrical Shell, SN K120-03-1, LaBarge P & S. Co., U#11,876
 (Name of part, item number, Mfr's. name and identifying stamp)

Misc. 5,2 2", 1" THD'DCPLG SA105 3000# Weld Welded to Shells
 Pres. Ga. 3 1/2" THREDOLET SA105 3000# Weld Welded to 20" Shell

*Welded to 600# ANSI RFWN. ** 4" to 24" has SA106B reinforcement, 4" to 10" has weld reinforcement. Spot per UW-11(a)(5)(b).

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. 14946 expires 12/14, 1999
 Date 11-05-97 Co. name Process Equipment & Service Co., Inc. Signed A. Hallaway
 (Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by Process Equipment & Service Co., Inc. at 5680 U.S. Hwy 64, Farmington, NM
 I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of New Mexico and employed by Commercial Union Insurance Company of Boston MA have inspected the component described in this Manufacturer's Data Report on 11-05, 19 97 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 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 a loss of any kind arising from or connected with this inspection.
 Date 11-5, 19 97 Signed [Signature] Commissions N.B. 10302B, NM 10302
 (Authorized Inspector) (Nat'l Board (Incl. endorsements) State, Prov. and No.)

FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)
 A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer
 As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

PO# 1E+06

2/3

1 Manufactured and certified by MODCO INDUSTRIES RT. 21 B OX 1370 BEACH AIRPORT RD. CONROE, TX 77305

2 Manufactured for PROCESS EQUIPMENT & SERVICE 5680 HWY 64 FARMINGTON, NM 87401
 (Name and address of Purchaser)

3 Location of installation UNKNOWN
 (Name and address)

4 Type: MODCO FIGURE 500 CLOSURE (1) - 24" KG-31 NA
 (Description of vessel part (shell, two-piece head, tube bundle)) (Mfg's serial No.) (CRN)
NA 010 8020 -245 MODCO INDUSTRIES, INC 1997
 (Nat'l. Bd. No.) (Drawing No.) (Drawing prepared by) (Year built)

5 ASME Code, Section VIII, Div. 1 1995 A96 NA NA
 Edition and Addenda (date) Code case no. Special Service per UG-120(d)

(SUBS)

6 Shell (a) No. of course(s): 1 (b) Overall length (ft & in.): NA

No.	Course(s)		Material		Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)		Heat Treatment	
	Diameter, in	Length, ft & in	Spec./Grade or Type	Norm	Corr	Type	Full, Spot, None	Eff.	Full, Spot, None	Eff.	Temp	Time	
1	21.750	11"	SA350 LF2	1.125	NA	S	None	1	None	1	NA	NA	

(CAPS)

7 Heads SA516 70 (Mat'l Spec. No., Grade, or Type) H.T. -Time & Temp. (b) _____ (Mat'l Spec. No., Grade, or Type) H.T. -Time & Temp.

	Location (top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side To Pressure		Category A		
		Min	Corr	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)	End	1.300	NA	NA	NA	2:1					Concave	NA	None	NA
(b)														

If removable, bolts used (describe other fastening) NA
 (Mat'l Spec. No., Grade, Size, No.)

8 MAWP 1440 NA psi at max. temp. 250 NA *F. Min. design metal temp. -20 *F. 1440 psi
 (internal) (external) (internal) (external)

9 Impact test YES 6 & 7
 (Indicate yes or no and the component(s) impact tested)

10 Hydro., pneu., or comb. test press. IN FIELD Proof test UG-101 (O)

11 Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
PAV	1	1/2" NPT	NA	A-36	NA			NA	THREADED	NA	SIDE

12 Supports: Skirt NA Lugs NA Legs NA Others NA Attached NA
 (Yes or no) (No.) (No.) (Describe) (Where and how)

13 Remarks NO REINFORCING REQUIRED PER PARAGRAPH UG36 (c) (3A) NO CONNECTIONS OVER 2" PIPE SIZE
NONCORROSIVE AND NONLETHAL SERVICES
NO RADIOGRAPHY REQUIRED PER PARAGRAPH UW-11 & 12
DESIGN FUNCTIONS BY MODCO INDUSTRIES

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made in this report are correct and that all details of material, construction, and workmanship of this pressure vessel part conform to the ASME Code for Pressure Vessels, Section VIII, Division 1.

U Certificate of Authorization No. 17,142 Expires DECEMBER 03 19 99
 Date 10-3-97 Name MODCO INDUSTRIES, INC. Signed KENNY BROWN
 (Manufacturer) (Representative)

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State Province of TEXAS and employed by COMMERCIAL UNION INSURANCE COMPANY of BOSTON, MA have inspected the pressure vessel part described in this Manufacturer's Data Report on 10-03, 19 97, 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 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 connecting with inspection.

Date 10-03-97 Signed [Signature] Commissions TEX #985
 (Authorized Inspector) (Nat'l Board, incl. endorsement, State, Province and No.)

FORM U-2 MANUFACTURER'S PARTIAL DATA REPORT
A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

3/13

1. Manufactured and certified by LABARGE PIPE & STEEL COMPANY; 1300 N. LaBarge Ave.; Wagoner, OK 74467

2. Manufactured for Process Equipment; P. O. Box 929; Farmington, N. Mex. 87499 (Name and address of Manufacturer)

3. Location of installation Unknown (Name and address of Purchaser)

4. Type: Shell (Name and address) K120-03-1 N/A

(Description of vessel part (shell, two-piece head, tube bundle)) (Mfg's serial No.) (CRN)
N/A K120 LaBarge Pipe & Steel Company 1995

(Natl. Bd. No.) (Drawing No.) (Drawing prepared by) (Year built)
1995 1996 N/A N/A

5. ASME Code, Section VIII, Div. 1 1995 1996 N/A N/A
 Edition and Addenda (date) Code Case No. Special Service per UG-120(d)

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

6. Shell (a) No. of course(s): 2 (b) Overall length ft & in.: 1 @ 12' 6"

Course(s)			Material		Thickness		Long Joint (Cat. A)			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 O.D.	10 0	SA516GR70MT	1.125	0	1	FULL	100	1	FULL	100	N/A	N/A	
1	24 O.D.	2 6	SA516GR70MT	1.125	0	1	FULL	100	1	FULL	100	N/A	N/A	

7. Heads: (a) _____ (b) _____
 (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 Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A			
	Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.	
(a)														
(b)														

If removable, bolts used (describe other fastening) _____
 (Mat'l Spec. No., Grade, Size, No.)

8. Type of jacket _____ Jacket closure _____
 (Describe as ogee & weld, bar, etc.)

If bar, give dimensions _____
 If bolted, describe or sketch.

9. MAWP _____ psi at max. temp. _____ °F Min. design metal temp. _____ °F at _____ psi.
 (internal) (external) (internal) (external)

10. Impact test _____
 (Indicate yes or no and the component(s) impact tested)

11. Hydro., pneu., or comb. test press. _____ Proof test _____

Items 12 and 13 to be completed for tube sections.

12. Tubesheet: Stationary (Mat'l Spec. No.) Dia., in. (subject to press.) Nom. thk., in. Corr. Allow., in. Attachment (welded or bolted)

Floating (Mat'l Spec. No.) Dia., in. Nom. thk., in. Corr. Allow., in. Attachment

13. Tubes: Mat'l Spec. No., Grade or Type O.D., in. Nom. thk., in. or gauge Number Type (Straight or U)

Items 14 - 18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14. Shell (a) No. of course(s): _____ (b) Overall length (ft & in.): _____

Course(s)			Material		Thickness		Long Joint (Cat. A)			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	

