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

A Madelline by this provide of the Manual Code Relief Code and Code Code Code Code Code Code Code Cod													
1. Manufactured and certified by IPS Manufacturing Limited, LSD: 1-16-40-16-W4M, Alberta Canada (Box 24, Halkirk, AB T0C 1M0)													
(Name and address of Manufacturer) 2. Manufactured for Husky Energy Inc. 707 - 8th Ave. S.W. Calgary AB. T2P 3G7													
3. Location of installation LSD: 09-17-31-28-W4M													
4 T	(Name and address) 4. Type Horizontal Sep. V-3196-001 T0343.2 IPS-48H-720-B-125 Rev.0 N/A 2005										2005		
4. Type Horizontal Sep. V-3196-001 (Mfgr's serial No.)					T0343.2 IPS-48H-720-B-125 Rev.0 (Orawing No.)					-	(Year 80%)		
5 The c	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 conforms to ASME Rules, Section VIII, Division 1													
000	·									Year			
to		N/A						N/A Special Service per UG-1					
Addenda (Date) 6. Shell: SA-516-70N				Code Case Nos. 1.125" 0.125" 48" ID					•	16' 0" S/S			
o. onen.	Mati. (Spec. No., Grade)			Nom. Thk. (in.) Corr. Allow. (in.)			Diam, I.D. (It. &	in.)	Length (overall) (It. & i	n.)			
7. Seams Type 1			Full	100%	1150 ⁰ F		85 Min.	Type 1	Full	2			
Long. (Welded, Dbl., R.T. (Spot or Full)			Eff. (%)					Girth (Welded, Db Singl., Lap, Butt)	F.T. (Spot. Partial or Full)	No. of Courses			
Sn _b , Lap, Butt) 8. Heads: (a) Material SA-516				6-70N	5-70N (b) Material					SA-516-70N			
o. Heads	. (a) maionai			. No., Grade)						(Spec. No., Grade)			
	Location (Top		Minimum	Corrosion	Crown	1	Elliptical		Hemispherical	Flat	Side to Pressure		
(0)	Bottom, Ends	·	Thickness	Allowance		Radius	Ratio	Apex Angle	Radius N/A	Diameter N/A	(Consex or Concave)		
(a) (b)	END(MNW	+	1.0625" 1.0625"	0.125" 0.125"	N/A N/A	N/A N/A	2:1 2:1	N/A N/A	N/A N/A	N/A N/A	Concave Concave		
(0)		S USEC	d (describe other faste		INA	N/A	<u> </u>	IVA	19/7	IVA	Oordave		
					·				, Spec. No., Gr., Size,	No.)			
9. MAW F	·		720		_psi at r	пах. тетр		100°F					
Min. de	sign metal temp.		- 20°F		F at	720	psi Hydro), pneu., or co	omb. test pressure_	1080	psi.		
10. Nozz	els, inspection and	safet	y valve opening:						_				
· · · · · · · · · · · · · · · · · · ·	Purpose	No.	Diam.	Туре		Material		Nominal	Reinforcement	How	Location		
(inlet, Outlet, Drain)			or Size					Thickness	Materials	Attached			
			2" 300#	RFWN	SA-105N/SA-106B		0.344"	N/A	Fig. UW-16.1(c)	Shell			
(**=/ **********************************		1	6" 300#	RFLWN	SA-105N			1.06"	N/A	Fig. UW-16.1(c)	Shell		
	B)GAS OUTLET 1 6" 300#		RFLWN				1.06"	N/A	Fig. UW-16.1(c)	Shell			
(N4) P		1.	2" 300#		RFWN SA-105N/SA-106-B				N/A	Fig. UW-16.1(c)	Shell		
11. Supp	oorts: Skirt	_ <u>N</u>	O Lugs	Two	Legs	Two		N/A Describe	Attached	Welded 1 (Where as			
12. Rem	arks: Manufacture		•		and sig				nave been furnished	*	•		
12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: N/A													
(Name of part, item number, Mfg's name and identifying stamp) Capacity: 223 Cu. Ft. Continued on U-4 Supplementary Sheet													
Construction drawing # V-3196-001 Rev.2 **Charpy Impact testing is not required as per UCS-66 & FIG 66.1 UCS-66(b)(1)(b), UCS-66(b)(2), & UG-20f(1-5) , UCS-66(b)(3), UCS-68(c)													
	Charpy impact to	esung	is not required as p				OP COMPL	•)(2), & UG-20i(1	-5) ,UC3-00(D)(3),(JCS-96(C)		
Wed	ertify that the state	ements	made in this report a						ction, and workman	ship of this vessel co	nkovm		
to th	e ASME Code for	Pressi	re Vessels, Section \	/III, Divison 1.	'U" Certi	ficate of A	uthorization	n No. <u>31.24</u>	expires Audus	st 20 . 2005.			
Date	Janırary 26, 2	005	Co.name IPS Man				16-W4M	Signed	KS	(Representative)			
(Manufacturer) (Representative) CERTIFICATE OF SHOP INSPECTION													
Vessel constructed by IPS Manufacturing Limited. LSD: 1-16-40-16-W4M at Halkirk, 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 Alberta Boilers Safety Association													
have inspected the component described in this Manufacturer's Data Report on													
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 January 26, 2005 Signed Commissions AB# 130AB Authorized Inspector Nat'l Board (Incl. Engarsements) State. Prov.													
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FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET @527838 As Required by the Provisions of the ASME Code Rules, Section VIII, Divison 1

Manufactured and ce	ertified by	IPS Manufa	IPS Manufacturing Limited, LSD: 1-16-40-16-W4M, Alberta Canada (Box 24, Halkirk, AB TOC 1M0) (Name and address of Manufacturer)									
2. Manufactured for	Husky Ener	ray Inc. 707	- 8th Ave	S.W. Calgary AB		oracia es j						
E. Manaradarca for	Tradity Error	97 1110. 707	041740.		d address of Purchaser)							
3. Location of installation	ก	LSD: 09-	17-31-28-W									
. <u>-</u>	11			(Na	V-3196-001							
4. Type:	Horizontal ontal, vertical or shoet	·a)	Cank ser	Separator parator, heat exh., etc.)	(Mig's serial No.)							
(HONZ	T0343.2	٠,		720-B-125 Rev.0	N/A	2005						
(22.1	(CRN)			Drawing No.)	ari. Bd. No.)	(Yesr Built)						
Data Report												
Item Number				Remai	rks							
(N5) TI	1 2" 300#	RFWN SA-	105N Flange	/2" Sch 160 (0.344	") SA-106B Pipe	Fig.UW-16.1 (c)	Shell					
(N6) LSHH	1 3" 300#	RFLWN SA	-105N FVC	Flange(0.81")Wall		Fig.UW-16.1 (c)	Sheil					
(N7) PSV	1 3" 300#	RFLWN SA	-105N FVC I	Flange(0.81")Wall		Fig.UW-16.1 (c)	Shell					
(N8) H2O OUT	1 2" 300#	RFWN SA-	105N/Flange	/2" SCH 160 (0.344	4") SA 106B Pipe	Fig.UW-16.1 (c)	Boot Head					
(N9) HC OUT	1 2" 300#	RFWN SA-	105N Flange	/2" Sch. 160 (0.344	1") SA-106B Pipe	Fig.UW-16.1 (c)	Shell					
(N10) LSLL	1 3" 300#	RFLWN SA	-105N FVC	lange(0.81")Wall		Fig.UW-16.1 (c)	Sheli					
(N11) H DRAIN	1 2" 300#	RFWN SA-	105N Flange	/2" Sch. 160 (0.344	1") SA-106B Pipe	Fig.UW-16.1 (c)	Shell					
(N12a) H2O LG	1 2" 300#	RFWN SA-	105N Flange	/2" Sch. 160 (0.344	1") SA-106B Pipe	Fig.UW-16.1 (c)	Shell					
(N12b) H20 LC	1 2" 300#	RFWN SA-	105N Flange	/2" Sch. 160 (0.344	1") SA-106B Pipe	Fig.UW-16.1 (c)	Shell					
(N13) H2O LG	1 3" 300#	RFLWN SA	-105N FVC	Flange(0.81")Wall		Fig.UW-16.1 (c)	Shell					
(N14a/b) HC LG	1 2" 300#	RFWN SA-	105N Flange	/2" Sch. 160 (0.344	4") SA-106B Pipe	Fig.UW-16.1 (c)	Shell					
(N15) HC LC				lange(0.81")Wall		Fig.UW-16.1 (c)	Shell					
(M1) Manway/Insp.	1 18" 300	# RFHB SA-	105N FVC	lange(2.375")Wall		Fig.UW-16.1 (c)	Head					
(B1)Boot			B Pipe (0.902			Fig.UW-16.1 (c)	Shell					
	Boot Reinford	ement Mate	rial SA 516-7	ON. 24" OD x 1" Tr	nk.							
												
Certificate of Authorizati	on: Type	U	No.	31,246	_ Expires	August 20, 2005						
Date Januar	y 26, 2005	Name	IPS Many	facturing Limited.	Signed	(Representation	tim)					
Date January	y 26, 2005	Name	<u> 25</u> E	rized Inspector)	Commission	AB# 130AB (NatT board inct, sn	•					