SSURE VESSELS

1

(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)

As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1.	Manufactured and certif	ied by			Cough	lin Equi	pment Co			OW. Var	ndament, Yu	ikon,	Ok 730	99	
2.	Manufactured for						(Nan	S	tock						
3.	Location of installation						(Nan	ι	Inknow	n					
4.	Type Horizor			Y-11-U0			O RN)		Drawing in	REV-2	(National Board number) (Year 6				
5.	The chemical and physic					ζ-	,	cations				E VESS	EL	(Tea	Builty
	CODE. The design, con	structio	n, and workma	nship confo	orm to ASN	AE Rules, So	ection VIII, D	ivision .	·		· · · · · · · · · · · · · · · · · · ·	201 Yea			
	to(Add		-O- pplicable (date)}				(Code Cas	0 e Number	6)			[Speci	0 ial Service per	UG-120(d)]	
6.	Shell SA-51				1.75" inal thickness	<u> </u>		O Allow.)			3'- 8 1/2" (Inner diameter)		. <u></u>	15'-0	
7.	Seams Type 1	dbi.,	Full [R.T. (spot or ful	100	0%	(H.T. temp.)	1 3/	14		Fype 1 Sect, dbl., singl., kep,		Full (spot or fu		0%	2 No. of courses)
8.	sngl., lap, butt Heads: (a) Material	11			516-70				(b) Mat	erial			-516-70		
	Location (Top,	Τ	Minimum	Corrosi	ion	Crown	Knuckie	Ellip	- I	Conical	Hemisphe	rical	Flat	Side to	Pressure
(a)	Bottom, Ends) Top		Thickness 1.6229"	Aliowar 0	nce	Radius 0	Radius 0	Ra (2:		Apex Angle 0	Radiu:	s	Diameter 0		or Concave)
(b)	Bottom		1.6229"	0		0	0	(2:	1)	0	0		0	CO	NCAVE
	If removable, bolts used	(descr	ibe other faster	nings) -	<u></u>				(Material s	pec. number, g	grade, size, number)	·			
9.	MAWP	1440				/A emal)	at m	ax. temp	o	13 (Inter				130 (External)	<u> </u>
	Min. design metal temp.		, -12	at			Hydro., pnue	9., OF CO	mb. test p				1872	(2.46.7.67)	
	Proof test		·											·····	
10.	Nozzles, inspection and Purpose	safety					Material		Nerrie T	hielensen	Deinforcoment		tachment I	Dotaile	Location
(1)	nlet, Outlet, Drain etc.)	No.	Diamete of Size		Туре	Nozzle	Flan	ge	Nozzle T Nom.	Corr.	Reinforcement Material			Flange	(Insp. Open)
D	ump,drain,relief	3	2"		Cplg	SA-105	N/A		3000#	N/A	Inherent	UW-16		N/A	Shell
	LLC	1	2" 6"		lozzie	SA-106-8		-	Sch 100	N/A N/A	Inherent	UW-16		N/A Velded	Head Shell
	Outlet		6"		Pipe Pipe	SA-106-C SA-106-C			ХХН ХХН	N/A	SA-36 Inherent	UW-16		Velded	Head
11.	Supports: Skirt	IO or No)	Lugs (Num)Leg	······	2 Othe		N/ (Desc		Att	ached	N	Velded t		
12.	Remarks: Manufacturer	s Partia	al Data Reports	s properly id	dentified ar	nd signed by	/ Commissio	ned Insp	ectors ha	ve been fur	nished for the fol	lowing i	tems		
	of the report:		· · ·			-1 & 1278	801-2 For	t Wor	th F & I	D Head	CopanyX-				
	Horizontal 2 Phas	e Sep	aratorCha	rpy Impa	ct Test E		part, item numbe r UCS-66(c				,				
See	attached "U-4" Sheet			RVICE. *P	SV flow n	ot to excee	d 12,102 @ 1	1440# P	SI. *Radio	ograph per					
	U						SHOP/F						ala af this	waaaal	
	Ve certify that the state onform to the ASME E							-					-	,379	
	xpires 2/16/1	-						101011				1			
C	ate 12/28/11	Co.	name	Coug		uipment anufacturer)	Company	y	Sign	ed	MS	(Repres	entative)		
			-				F SHOP/F	FIELD		CTION					
	Vessel constructed by the undersigned, hold					ent Com		ler and	at	e Vessel I	Yukon,			Province	·
۰,	the undersigned, not	ing a	Oklahoma		su by the	National D	and emp			-	neBeacon A		-		
h	ave inspected the con	npone	· · · · · · · · · · · · · · · · · · ·		nufacture	r's Data Re			1.		8-1)				,
a	nd state that, to the be	est of r	ny knowledge	e and belie	ef, the Ma	anufacture	r has const	ructed	this pres			e with	ASME B	DILER	
	ND PRESSURE VES										,	-			. [
	xpressed or implied, c mployer shall be liable														
	nate 12:28-11								issions		NB# 10302	AB O	klahom	a# 986	
		•		(Auth	horized Inspec	tor)	eq	2		[Na	tional Board (incl. end	orsements), State, Provi	nce, and Num	ber]

114

Manufactured and certified by	Coughlin Equipment Comps	any, 1600 W. Vand me and address of Manufacturer)	ament, Yukon, Ok 7309	9
Manufactured for		Stock		
	(Name and a	uddress of Purchaser)		
ocation of installation		Unknown Name and address)		
Type Horizontal (Horizontal, vertical, or Sphere)	(Tank, separator, heat		CEY-11 (Manufacturer's	and the second
	-			
-0- (CRN)	10-U76-REV-2 (Drawing Number)	(Natio	083 mai Board number)	2011 (Year Built)
	-			
Data Report Item Number		Remark	s	
10	TICplt	.SA-1053000#	InherentUW16.1(bb)	Shell
10	Supply Gas11/2"C			
10	Access2	SA-1053000#	InherentUW16.1-(a)	.Shell
ulangan yang miga ipan, aliyo mang minang minang ang ang ang ing ing ing ing ing ing ing ing ing i	• • • • • • • • • • • • • • • • • • •			
· · · · · · · · · · · · · · · · · · ·				
· · · · · · · · · · · · · · · · · · ·				
	A		······	
	······································			
	······································	<u></u>	·····	
	<u> </u>			
·····				· · · · · · · · · · · · · · · · · · ·
······································				
<u>,</u>	<u> </u>			
			af an	
	"U" No.	40.350		201
ificate of Authorization: Type		40,379	Expires 2/16	,,,,,
10/			110	11
te 12/28/// Name	Coughlin Equipment Company	Signed	MD	71
te <u>[2-28-1]</u> Name	(Manufacturer).		(Representa	uve)
				dahoma# 986

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET

As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

. Ma	nufactured and	certified by	FC	DRT WO	RTH F &	D HEAD	<u>) CO.</u>	3040 E. PE	DEN R	FORT	WOR	<u>ТН, ТЕ</u>	XAS 7617	9			
. Ma	nulactured for							(Name and add BUILT FOR)						
Loc	ation of install:	ation						(Neme and add	ress of put								
								(Name and add	(1955)	1.1							
. Туј	pe <u>(5) 48" (</u>				10'-0" LO two-piece he		undie))	<u></u>		12		1 THRU				XXX (CRM)
		xxx			127800												-
	(N	at'l 8d. No.)				rawing No.)	<u> </u>		(Drawin		/A red by)			1	2011 Year built	,
i. ASI	ME Code Secti	on VIII, Div.	1		10 EDITI						N/A		·····			NA	*****
She	li a) No. of cou	rses.		10.010	1	ciiua (uato)	,	ы	Oursellie		Case I				(Special	Service p	rr UG-120 (d))
								U)	Overali le		· in.)		10'-0" (OA	<u>L)</u>			
No	Course(s		- Case	taterial		oness in.		Long. Join					int (Cat. A. B	T		leat Treat	ment
1	Diameter in. 48° O.D.	Length ft& in 10'-0"		Туре	Nom.	Corr.	Туре	Full, Spot,		Eff.	Туре	Full, S	pot, None	Eff,	Ten 165		Time 300 MIN
· · · · ·			NOR			. <u> </u>	<u> </u>		-						103	·	SOU IVIIN
	I		<u> </u>										-	-	• •		
. Hea	eds: (a)(Mat'l.Spec. N	o., Grade o	r Type) H T	Time & 1	emp		(b)		(14-	I'l See	No. Or	ide or Type)	UT T'	8 Tam-		
	Location (Top	Thick	ness in.		adius]					Τ	• • • • • • •		Pressure	e remp.	Catego	
(8)	Bottom, Ends) <u>MIN</u>	Corr.	Crown	Knuckie	Elliptic Ratio		Conical Apex Angle		spherical adius		Flat Imeter	Convex	Concave	Туре	Full, Spo None	t, Eff.
•	-			-	+			-			+	-	•	-	+		
remo	wable, bolts us	ed (describ	e other fa	stening)			1			XXX c. No., Gr				L	- <u>4-</u>]		
-	dro., pneu., or	comb. test p		•	the component		nternal) sted))	<u>N/A</u> (exterr	al) at te	st temp	erature -		p N. VA	/A °Fa — ———	°F	psi.
D. Hy	dro., pneu., or zzles, inspectio	•	NO (Indicate ye ressure by valve op		Υ <u>Α</u>	t(s) impact te	sted)	-	(extern	al) at te Proof t	st temp est	erature	of <u>N</u> /A	I/A		°F	
0. Hy 1. No	dro., pneu., or	on, and safe	NO (Indicate ye ressure by valve of Diam	s or no) and N/ Denings: eter Fi		t(s) impact te		-	(exterr Nozzie Ti Norn.	al) At te Proof t ickness in Corr.	st temp est	erature inforceme Material	of <u>N</u> /A	I/A How Attache	d lozzie	°F	cation . Open.)
0. Hy 1. No	dro., pneu., or zzles, inspectio Purpose let, Outlet, Orain,	on, and safe	NO (Indicate ye ressure y valve op or S	oenings;	Iange Fype	t(s) impact ter	sted)	u Nozzie	(exterr Nozzie Ti Nom.	al) Proof t nickness ir Corr.	st temp est	inforceme	of <u>N</u> /A	I/A How Attache		°F	calion
0. Hy 1. No (In	dro., pneu., or zzles, inspectio Purpose let, Oulet, Orain, NONE	on, and safe etc.) No - -	NO (Indicate ye ressure y valve of Diam or Si	oenings;	lange Fype	t(s) impact tes	sted)	u Nozzie	(exterr Nozzie Ti Norn.	al) At te Proof t ickness in Corr.	st temp est	erature inforceme Material	of <u>N</u> /A N/A nt 1 Nozz	I/A How Attache	d lozzia	°F	calion , Open.)
0. Hy 1. No (In	dro., pneu., or zzles, inspectio Purpose let, Outlet, Orain, NONE	on, and safe etc.) No - - - - - - - - - - - - - - - - - - -	NO (Indicate ye ressure y valve op or S	se of no) and N/ Denings: eter Fi ze 1	Alange Fype	t(s) Impact tes	sted) Materia	u Nozzie - - - - Mfr's. Identifi	(extern	al) At te Proof f lickness ir Corr. -	st temp est	erature inforcema Material	nt 1 N/A	How Attache		°F	cation . Open.) -
0. Hy 1. No (In	dro., pneu., or zzłes, inspectio Purpose let, Oullet, Orain, NONE	on, and safet etc.) No - - - - - - - - - - - - - - - - - - -	NO (Indicate ye ressure y valve op or S	es or no) and N/ Denings: eter Fi ze 1	Alange Fype	t(s) impact ter	sted) Materia	ij Nozzie - -	(extern	al) At te Proof f lickness ir Corr. -	est Re	erature inforcema Material	nt N/A	How Attache		°F	calion (. Open.)
0. Hy 1. No (In 2. Ide	dro., pneu., or o zztes, inspectio Purpose let, Outlet, Drain, NONE ntification of pe Name XX	on, and safe etc.) No - - - - - - - - - - - - - - - - - - -	NO (Indicate ye ressure y valve op or S	se of no) and N/ Denings: eter Fi ze 1	Alange Fype	I(s) Impact ter Nozzle - Line No XXX	sted) Materia	U Nozzle - - - - - - - - - - - - - - - - - - -	(extern	al) At te Proof f lickness ir Corr. -	est Re	erature inforcema Material	nt N/A	How Attache	d lozzle - - nal Board XXX	°F	calion . Open.) - - Year Built
0. Hy 1. No (In 2. Ide	dro., pneu., or zzles, inspectio Purpose let, Oulet, Drain, NONE ntification of pe Name XX Sports: Skirt(on, and safe etc.) No - - - - - - - - - - - - - - - - - - -	NO (Indicate ye ressure y valve op Diam) or S	Serings: Serings: Seter File Seter 2 Quan X - -	Iange	(s) Impact ter	Alteria	Mozzie	(extern	al) at te Proof f 	est Re Drawin XXX	inforceme Material	nt N/A nt N/A CRN CRN XXX	How Attache	nal Board XXX	°F	cation . Open.) - - - - - - - - - - - - - - - - - - -
0. Hy 1. No (In 2. Ide	dro., pneu., or zzles, inspectio Purpose let, Oulet, Drain, NONE ntification of pe Name XX Sports: Skirt(in, and safe etc.) Ni 	NO (Indicate ye ressure by valve of b) or Si - - - - - - - - - - - - - - - - - - -	Quen Quen XX 0.)	Iange	((s) Impact ter Nozzle - - - - - - - - - - - - -	Aleria Al	Mfr's. Identifi XXX - - - - - - - - - - - - - - - - -	(extern	al) et te Proof f ickness ir Corr. - - - - - - - - - - - - -	Est temp est Drawin XXX	inforceme Material	nt N/A N/A nt Nozz CRN XXX Attac	How Attache Ja N Natio	nal Board XXX	°F	cation . Open.) - - - - - - - - - - - - - - - - - - -
0. Hy 1. No (In 2. Ide	dro., pneu., or zzles, inspectio Purpose let, Oulet, Drain, NONE ntification of pe Name XX Sports: Skirt(in, and safe etc.) Ni 	NO (Indicate ye ressure by valve of b) or Si - - - - - - - - - - - - - - - - - - -	Quen Quen XX 0.)	lange ype	(s) Impact ter Nozzle - - - Line No XXX - - - - - - - - - - - - -	Materia Materia	Mfr's. Identifi 	(extern	al) et te Proof f Corr. - - - - - - - - - - - - -	L Crawin Re Crawin XXX Crawin Re Crawin Re Crawin Cra	inforceme Material	nt N/A N/A nt Nozz CRN XXX Attac	How Attache Ja N Natio	nal Board XXX	°F	cation . Open.) - - - - - - - - - - - - - - - - - - -
0. Hy (In (In 2. Ide 3. Sup	dro., pneu., or o zztes, inspectio Purpose let, Ouilet, Drain, NONE 	nn, and safer etc.) Ni 	NO (Indicate ye ressure y valve op or Si or Si - - - - - - - - - - - - - - - - - - -	Quan	A lange rype - - - - - - - - - - - - - - - - - - -	(s) Impact ter Nozzle - Line No XXX No.) RESSURE RMED	Asted)	Mfr's. Identifi Mfr's. Identifi XXX Dithers PERFORMED N SQUALIFIED	(extern	al) Proof t ickness ir Corr. - - Mtr's N/A (Desc ED AFTEI NUWITH	Drawin XXX Drawin XXX Court F	inforceme Material	nt N/A N/A NI NOZ NOZ NOZ NOZ NOZ NO NORMAN NORMAN	How Attache Jae N Natio	nal Board XXX 56. PWH NDITIO	No.	cation . Open.) - - - - - - - - - - - - - - - - - - -
0. Hy 1. No (In 2. Ide 3. Sup 5. Rer Wather	dro., pneu., or o zztes, inspectio Purpose let, Outlet, Drain, NONE 	nn, and safer etc.} Ni - - - - - - - - - - - - -	NO (Indicate ye ressure y valve op or S or S or S - - - - - - - - - - - - - - - - - - -	Quan XX 	Iange Iype Itags NO P N PERFO	(s) Impact ter Nozzle - Line No XXX No.) RESSURE RMED CERTIFIC col and the	Ateria Materia A	Mfr's. Identifi Mfr's. Identifi XXX - - - - - - - - - - - - -	(extern Nozzie Ti Nom - - - - - - - - - - - - - - - - - - -	al) Proof t ickness ir Corr. - - Mtr's N/A (Desc ED AFTEI NUWITH	Drawin XXX Drawin XXX Court F	inforceme Material	nt N/A N/A NI NOZ NOZ NOZ NOZ NOZ NO NORMAN NORMAN	How Attache Jae N Natio	nal Board XXX 56. PWH NDITIO	No.	cation . Open.) - - - - - - - - - - - - - - - - - - -
0. Hyn 1. No (In 2. Ide 3. Sup 4. Ren Wi the "U	dro., pneu., or o zztes, inspectio Purpose let, Outlet, Drain, NONE Name Name XX Poorts: Skirt	nn, and safer etc.} Ni - - - - - - - - - - - - -	NO (Indicate ye ressure y valve op or S or S or S 	Quan XX 	Alange Type Type Legs NO P N PERFO Rt are correction VIII, D625	(s) Impact terms Nozzle Line No XXX No.) RESSURE RMED CERTIFIC cd and the Division 1. expir	Materia Materia Context F WP CATE at all do	Mfr's. identifi - - - - - - - - - - - - -	(extern Nozzie Ti Nom - - - - - - - - - - - - - - - - - - -	al) Proof t ickness ir Corr. - - Mtr's N/A (Desc ED AFTEI NUWITH	Drawin XXX Drawin XXX Court F	inforceme Material	nt N/A N/A NI NOZ NOZ NOZ NOZ NOZ NO NORMAN NORMAN	How Attache Jae N Natio	nal Board XXX 56. PWH NDITIO	No.	cation . Open.) - - - - - - - - - - - - - - - - - - -
0. Hyn 1. No (In 2. Ide 3. Sup 4. Ren Wr the "U	dro., pneu., or o zztes, inspectio Purpose let, Outlet, Drain, NONE 	nn, and safer etc.} Ni - - - - - - - - - - - - -	NO (Indicate ye ressure y valve op or S or S or S - - - - - - - - - - - - - - - - - - -	Quan XX 	Alange Type Type Legs NO P N PERFO Rt are correction VIII, D625	(s) Impact terms Nozzle Line No XXX No.) RESSURE - RMED CERTIFIC sct and the Division 1. expir DRT WO	Alteria Materia Materia S C TEST F C C TEST F C C T EST F C C C C C C C C C C C C C C C C C C C	Mfr's. Identifi - - - - - - - - - - - - -	(extern Nozzie Ti Nom - - - - - - - - - - - - - - - - - - -	al) Proof t ickness ir Corr. - - Mtr's N/A (Desc ED AFTEI NUWITH	Drawin XXX Drawin XXX Court F	inforceme Material	nt N/A N/A NI NOZ NOZ NOZ NOZ NOZ NO NORMAN NORMAN	How Attache Jae N Lined MEET UCS LIZED CC	nal Board 	No.	cation . Open.) - - - - - - - - - - - - - - - - - - -
0. Hyn 1. No (In 2. Ide 3. Sup 4. Ren Wi the "U	dro., pneu., or o zztes, inspectio Purpose let, Outlet, Drain, NONE Name Name XX Poorts: Skirt	nn, and safer etc.} Ni - - - - - - - - - - - - -	NO (Indicate ye ressure y valve op or S or S or S 	Quan XX 	Alange Type Type Legs NO P N PERFO Rt are correction VIII, D625	(s) Impact terms Nozzle - - Line No XXX - - - - - - - - - - - - -	Alteria Materia A A C TEST F WP C A TEST F C A TEST F C A TEST F C A TEST F C A TEST F C A TEST F C A TEST F A A A A A A A A A A A A A A A A A A A	Mfr's. Identifi 	(extern Nozzle T Nozzle T Nozzle T Nozzle T Nozzle T S S S S S S S S S S S S S S S S S S S	al) at te Proof t 	est temp est Drawin XXX - ibe) R WELL OUT F E nd wor	inforceme Material	nt N/A N/A NI NOZ NOZ NOZ NOZ NOZ NO NORMAN NORMAN	How Attache Jae N Lined MEET UCS LIZED CC	nal Board XXX 56. PWH NDITIO	No.	cation . Open.) - - - - - - - - - - - - - - - - - - -
0. Hy 1. No (In 2. Ide 3. Sup 4. Rer W the "U" Date 	dro., pneu., or o zztes, inspectio Purpose let, Outlet, Drain, NONE ntification of pe Name XX 	n, and safe etc.) Ni rt(s) of Part X 	NO (Indicate ye ressure y valve op or S or S or S or S or S or S or S or S	Quan Quan XX 	A lange ype	(s) Impact terms Nozzle Line No XXX No.) RESSURE - XXX No.) RESSURE - CERTIFIC cd and the Division 1. expir DRT WO (Mai CERTIFIC	Alteria Materia Materia Materia Contector WP Contector WP Contector RTH	Mfr's. Identifi - - - - - - - - - - - - -	(extern Nozzie Ti Nom - - - - - - - - - - - - - - - - - - -	al) al te Proof f Corr. - - - - - - - - - - - - -	The section of the se	inforceme Material 	ofN/A	tow Attache lae N Natio Aned MEET UCS ALIZED CC	nal Board 	No.	cation . Open.) - - - - - - - - - - - - - - - - - - -
0. Hyı 1. No (In 2. Iden 3. Sup 4. Rer Wvi the "U" Date uthe u and er	dro., pneu., or zztes, inspectio Purpose let, Outlet, Drain, NONE Name Name Name Saturna Structure Name Saturna Name Saturna S	nn, and safer etc.} NN rt(s) of Part X XXX L res or no) NO NO NO NO NO NO NO NO NO NO	NO (Indicate ye ressure y valve op or S or S or S or S or S or S or S or S	America	A lange (ypo	(s) Impact terms Nozzle Line No XXX No.) RESSURE RMED CERTIFIC certain the Division 1. PRESURE CERTIFIC CERTIFIC CERTIFIC CERTIFIC CERTIFIC CERTIFIC	Alteria Materia Materia Materia Contection Contection RTH anufact Contection RTH anufact Contection Co	Mr's. Identifi Mfr's. Identifi XXX Mfr's. Identifi XXX 	(extern Nozzie Ti Nom - - - - - - - - - - - - - - - - - - -	al) al te Proof f Corr. - - - - - - - - - - - - -	Drawin Dr	inforceme Material 	ofN/A	How Attache How Attache How Attache Net I have I have MEET UCS MEET UCS MEET UCS MEET UCS MEET UCS (Re Province of	nal Board 	No.	cation . Open.) - - - - - - - - - - - - - - - - - - -
0. Hyu 1. No (In 2. Idee 2. Idee 3. Sup 4. Ren Wu the "U" Date ave ir nowle	dro., pneu., or or zztes, inspection Purpose let, Outlet, Drain, NONE Name Name Name Name Skirt oports: Skirt marks Certificate of 8/8/11 ndersigned, hor mployed by	nn, and safer etc.) Ni rtt(s) of Pari X XXX Li (es or no) NO NO NO NO NO NO NO NO NO NO	NO (Indicate ye ressure y valve op or S or S or S or S or S or S or S or S	eter Fi Quan Quan XX 	A lange ypp	(s) Impact terms (s) Impact terms I Nozzle - - - Line No XXX No.) RESSURE - XXX No.) RESSURE - CERTIFIC CERTIFIC CERTIFIC CERTIFIC CERTIFIC Attional Boo CO. (Mathematical Social CO.	Materia Materia Materia Materia Materia TEST F WP CATE CATE anufact CATE and of i of Data fi Ssel pa	Mr's. Identifi Mfr's. Identifi XXX 	(extern Nozzle TI Nom - - - - - - - - - - - - - - - - - - -	al) al te Proof f Corr. - - - Mfr's - - - - - - - - - - - - -	E Crawin Draw	inforceme Material 	ofN/A		nal Board nal Board XXX 56. PWH DNDITIO sel part of presenta	NO.	vear Built vear B
0. Hyu 1. No (In 2. Iden 3. Sup 4. Ren Wu the "U" Date ave ir nowle igning	dro., pneu., or or zztes, inspection Purpose let, Outlet, Drain, NONE Name Name Name Name Skirt oports: Skirt marks Certificate of 8/8/11 ndersigned, hor mployed by spected the pr dge and belief this certificate	nn, and safer etc.) Ni rtt(s) of Pari X XXX Li (es or no) NO NO NO NO NO NO NO NO NO NO	NO (Indicate ye ressure y valve op or S or S or S or S or S or S or S or S	eter Fi ze f no) and NU penings: eter Fi ze 1 N Quan XX - - - XX - - - - XX - - - - - - - -	A lange fype	(s) Impact termination (see the second secon	Materia Materia Materia Materia Materia Carte Carte Carte anufact of Opta fi ssel pa any we	Mr's. Identifi Mfr's. Identifi XXX 	(extern Nozzle TI Nom 	al) alt te Proof f Corr. - - - Mfr's - - - - - - - - - - - - -	E Crawin Control Control Cont	inforceme Material 	ofN/AN/AN/A		nal Board nal Board XXX 56. PWH DNDITIO sel part of presenta	NO.	reation . Open.)
0. Hyn 1. No (In 2. Iden 3. Sup 3. Sup 4. Ren Withe "U" Date "U" Date ave in nowle igning galanufe	dro., pneu., or of zztes, inspection Purpose let, Outlet, Drain, NONE Name (Name (Name (XX) ports: Skirt	In, and safe etc.) NU of Part X XXX L (es or no) NO NO NO NO NO NO NO NO NO NO	NO (Indicate ye ressure y valve op Diam or S or S or S or S or S or S or S or S	So of no) and So of no) and Nu Denings: eter Fi ze 1 Quan X Quan X X C So this repo Code , Se 10 Son issue America scribed in s construc nor his / h neither the	A lange fype	(s) Impact termination (see the second secon	Materia Materia Materia Materia Materia Carte Carte Carte anufact of Opta fi ssel pa any we	Mr's. Identifi Mfr's. Identifi XXX 	(extern Nozzle TI Nom 	al) alt te Proof f Corr. - - - Mfr's - - - - - - - - - - - - -	E Crawin Control Control Cont	inforceme Material 	ofN/AN/AN/A		nal Board nal Board XXX 56. PWH DNDITIO sel part of presenta	NO.	reation . Open.)
0. Hyi 1. No (In 2. Iden 2. Iden 3. Sup 4. Rer Wi the "U" Date under ave ir nowle igning lanufa	dro., pneu., or or zztes, inspection of parent or the purpose let. Outlet, Orain, NONE intification of parent of parent of the p	In, and safe etc.) Ni int(s) of Part X X XXX L (res or no) NO NO NO NO NO NO NO NO NO NO	NO (Indicate ye ressure y valve op Diam or S or S or S or S or S or S or S or S	So of no) and So of no) and Nu Denings: eter Fi ze 1 Quan X Quan X X C So this repo Code , Se 10 Son issue America scribed in s construc nor his / h neither the	A lange fype	(s) Impact termination (see the second secon	Materia Materia Materia Materia Materia Carte Carte Carte anufact of Opta fi ssel pa any we	Mr's. Identifi Mfr's. Identifi XXX 	(extern Nozzle TI Nom 	al) al te Proof f Corr. - - - Mfr's - - - - - - - - - - - - -	E Crawin Control Control Cont	inforceme Material 	ofN/AN/AN/A		nal Board nal Board XXX 56. PWH DNDITIO sel part of presenta	NO.	reation . Open.)
0. Hyu 1. Noo (In 2. Idee 3. Sup 3. Sup 4. Ren Wu the "U" Date ave in nowle igning lanufe	dro., pneu., or of zztes, inspection Purpose let, Outlet, Drain, NONE Name Name XX Purports: Skirt	In, and safe etc.) Ni int(s) of Part X X XXX L (res or no) NO NO NO NO NO NO NO NO NO NO	NO (Indicate ye ressure y valve op Diam or S or S or S or S or S or S or S or S	So of no) and So of no) and Nu Denings: eter Fi ze 1 Quan X Quan X X C So this repo Code , Se 10 Son issue America scribed in s construc nor his / h neither the	A lange fype	(s) Impact termination (see the second secon	Materia Materia Materia Materia Materia Carte Carte Carte anufact of Opta fi ssel pa any we	Mr's. Identifi Mfr's. Identifi XXX 	(extern Nozzle T Nozzle T Nozzle T Nozzle T Nozzle T Nozzle T Set S Control T Nozzle T S Control T Nozzle T Nozzle T S Control T Nozzle T Nozle	al) al te Proof f Corr. - - - Mfr's - - - - - - - - - - - - -	Drawing Dra	inforceme Material 	ofN/AN/AN/A		nal Board nal Board XXX 56. PWH DNDITIO sel part of presenta	NO.	reation . Open.)

6 0 M Tes

.

07 November 2005

314

			As R	A Pa	art of a F	ressur	e Vessel	Fabri	t'S PARTIAI cated by Or ME Boiler a	e Man	ufacture	r for	Anothe	r Manufa	cturer	on 1		
1. Man	ufactured an	d certifie	dby	FC	ORT WO	RTHF	& D HEA	D CO.	3040 E. PE				TH, TE	XAS 7617	'9			
2. Мал	ufactured for								(Name and add BUILT FOR (Name and add	<u> </u>		}						
3. Loca	ation of instal	ation							U	KNOV								
4. Typ	e <u>(5)48</u> "						NG head, tube t		(Name and add	055) 	12		1 THRU serial No.)				XXX (CRN	i)
		xxx				127801							/A				2011	•
	(1	Vat'i Bd. h					(Drawing No).}			(Drawin	g prepa					(Year built)
S. ASN	IE Code Sect	ion VIII.	Div. 1			10 EDIT	ION denda (date		<u>. </u>	. <u></u>	(Cod	N/A e Case I	No			(Special	NA Senice of	er UG-120 (d))
.Shell	a) No. of cou	irses:			•	1			b)	Overall I	ength (ft a			5'-0" (OAL		(000000	0011100 pt	51 0 0-120 (0))
					Aaterial		ckness in.		······································						······································			
No	Course(Diameter in.	Length	68 in		./Grade or	Norr	····	Туре	Long. Join Full, Spot,		EĦ.	Туре		int (Cat. A, B	Eff.	Ter	Heat Treat	Time
1	48" O.D.	5'-0"		SA51 NORI		1.75		1	FUL		E.II.	туре			-	165	·	300 MIN
		1					-							-	-			-
'. Hea	ds: (a)								(b)								d	
		· · · · ·	ec. No., hickne		or Type) H.1	r. – Time 8 adius	Temp.				(M	at I.Spe	c. No., Gra	ade or Type)		& Temp.		
(a)	Location (To Bottom, End XXX	ip.	IN.,	Corr.	Crown	Knuckl	Ellipt e Rat		Conical Apex Angle		lispherical Redius	ы	Flat ameter	Convex	Pressure Cancave	Туре	Catego Full, Spo None	et, Eff.
-			-	-	+	+			-	+			•	-	-	+		
(in	Purpose et, Outlet, Drail NONE	n, etc.)	No.	Dian or S	Size	lange Type -	Nozzie -	Materia	Nozzle	Nozzie Nom.	Corr.		einforceme Material	ent Noz		d lozzle		ocation p. Open.)
	-		ŀ			·			-		<u> </u> .							
2. Idei		art(s) of Part XX			Qua		Line N XXX		Mfr's, Identii XX		o. Mfr	s. Drawi XXX		CRN	Natio	nal Boar XXX	d No.	Year Built XXX
	·····	- -			-		-					-						
3. Sup 4. Rer	oports: Skirt narks	XXX (Yes cr m		(E TEST	Others PERFORMED		IZED AFT	cribe) ER WEL		Atta		(M 56. PW		
	e certifiy that		ments	made	in this rep	ort are co	CERTIF prrect and t	FICATE	OF SHOP/ Fidetails of mate	ELD CO	MPLIAN	CE						to
	* Certificate o	of Author	ization	No	1	0625		pires	9/07/2						1/100	A0 .	et.	0
Date -	8/8/11			Nam	8			(ORTH	IF&DHEA	D CO.				Signed	/// <u>//</u>		tative)	7
and e lave i nowle	mployed by nspected the edge and beli	pressure ef, the M	On vesse lanufac	eBeaco el part d cturer h	n America lescribed i as constru	a insurand in this Ma ucted this	CERTI National E ce Co. nufacturer pressure v	FICATE Board of S Data Vessel p	E OF SHOP/ F f Boiler and Pr of Report on part in accorda	essure \	ASME B	pectors MA -/2 oiler an	-//	and	Province of I state that, Code, Secti	to the t	TEXAS pest of my Division	
Manuf	g this certifica ecturer's Dat rising from o	a Report	. Furth	ermore	, neither ti	he inspec	tor nor his	/ heren	varranty, expr roployer shall i	essed o ne liable	implied, in any ma	concer anner fo	ning the por any pe	pressurė ve rsonal injur	essel part d y or proper	escribed ly dame	d in this ge or a lo	ss of any
	8-12		,		_	10	011-	$\widetilde{}$		1						69 ⁸		

F:\QA\U2A'S\127801.doc

z, T.

07 November 2005

414



		FORM R-2 R	EPORT OF ALTERA	ΓΙΟΝ		49
		In accordance with pro	visions of the National Boa	d Inspection Code		"R" Registration N N/A No., Job No., etc.
a.	DESIGN PERFORMED BY:	Big Iron Oilfield Service (Name of "R" organization respo				
	22650 Highway 29, Elmore (address)	City, Oklahoma, 73433,	USA			
).	CONSTRUCTION PERFORM					
			nization responsible for constru-	ction)		
	22650 Highway 29, Elmore (address)	City, Oklahoma, 73433,	USA			
•	OWNER OF PRESSURE RE	ETAINING ITEM: Big Iro	on Oilfield Services, Ind			
	22650 Highway 29, Elmore	City, Oklahoma, 73433,	USA			
	(address)					
	LOCATION OF INSTALLATI	ON: Unknown				
		(name)				
	Unknown					
	(address)					
	ITEM IDENTIFICATION:	Pressure Vessel	NAME OF ORIGINAL	MANUFACTURER:	Coughlin Equipmen	t Company
	(1	boiler, pressure vessel or piping)				
	IDENTIFYING NOS:	CEY-11-U096	083	N/A	N/A	2011
		(mfg. serial no.)	(National Board No.)	(Jurisdiction No.)	(other)	(year built)
	IDENTIFYING NOS: NBIC EDITION / ADDENDA:	(mfg. serial no.) 2015	(National Board No.)	(Jurisdiction No.)		
	NBIC EDITION / ADDENDA:	(mfg. serial no.) 2015 (edition)	(National Board No.)	(Jurisdiction No.)	(other)	(year built)
		(mfg. serial no.) 2015 (edition)	(National Board No.)	(Jurisdiction No.) I/ A enda)		(year built)
	NBIC EDITION / ADDENDA:	(mfg. serial no.) 2015 (edition) tion for Item:	(National Board No.) (National Board No.) (add ASME/8/1 (name/ section/ divis	(Jurisdiction No.) I/ A enda)	(other)	(year built) A-0/ Idenda)
	NBIC EDITION / ADDENDA: Original Code of Construc Construction Code Used f	(mfg. serial no.) 2015 (edition) etion for Item: For Alteration Performed	(National Board No.) (National Board No.) (add ASME/8/1 (name/ section/ divis	(Jurisdiction No.) //A enda)	(other) 2010/J (edition/ ac	(year built) A-0/ Idenda)
a.	NBIC EDITION / ADDENDA: Original Code of Construc	(mfg. serial no.) 2015 (edition) etion for Item: For Alteration Performed	(National Board No.) (National Board No.) (add ASME/8/1 (name/ section/ divis	(Jurisdiction No.) I/A enda) sion) IE/8/1	(other) 2010// (edition/ ac 2015/N	(year built) A-0/ Idenda)

Using WPS 200N, added one 2" 6000# CPLG; SA-105, one 3" x Sch 160; SA-106-B; with 1/2"; SA-516-70 repad. Welded nozzels and couplings with calculated weld sizes from calcs.

Yes Pressure Test, if applied 1872 psi

MAWP 1440 psi

R2-7 Page 1 of 2

PKEY 2762605 *exe: v6.3.133*

A blank version of this form may be obtained from the National Board of Boiler and Pressure Vessel Inspectors • 1055 Crupper Avenue, Columbus, Ohio 43229-1183



49 (Form "R" Registration No.)

Page 2 of 2

R2-7

N/A

(PO No., Job No., etc.)

8. REPLACEMENT PARTS: Attached are Manufacturer's Partial Data Reports or Form R-3's properly completed for the following items of this report: N/A

(name of part, item number, data report type or Certificate of Compliance, mfg's name and identifying stamp)

9. REMARKS:

Vessel sent to Post Weld Heat Treat after construction.

Post Weld Heat Treat calculated in with calcs.

		DESI	GN CERTIFICATION	N		
l,	Matthew S	impson	, certify that to the l	pest of my know	wledge and belief the	statements in this report
are correct	and that the Design Ch	nange described in this r	report conforms to the	National Boa	rd Inspection Code	
National Bo	oard "R" Certificate of A	uthorization No.	9358		expires on	03/24/2020
Date	05/16/2017	Big Iron Oil	field Services, Inc.	Signed	MHS	51 -
		(name of d	esign organization)		(authorized	representative)
		CERTIFICATE	OF DESIGN CHANG	E REVIEW		
I,	Chris G. Gillum	n , holdir	ng a valid Commission i	ssued by The	National Board of Boi	ler and Pressure Vessel
Inspectors a	and certificate of compe	etency, where required,	issued by the jurisdicti	on of	TX, OK	and
employed b	oy One	CIS Insurance Company	y of	Ly		have reviewed the
	nge as described in this ts of the <i>National Board</i>	s report and state that to d Inspection Code.	the best of my knowle	dge and belief	such change complie	es with the applicable
Bv sianina t	this certificate. neither t	he undersigned nor my	emplover makes any w	arrantv. expre	ssed or implied. conc	erning the work
described ir	n this report. Furtherme	ore, neither the undersig	gned nor my employer s	shall be liable i		
property da	mage or loss of any kir	nd arising from or conne	cted with this inspection	n.		
		0/	A			
Date	05/18/2017	Signed	Commission		11223R, TX1446,	OK 663
Date		- Hun hered	than on the		(National Board and juri	isdiction no.)
					(National Board and Jun	isuiciion no.)
		CONSTR	UCTION CERTIFICA			
I,	Everett	Heuer	, certify that to the	best of my kno	owledge and belief th	e statements in this
I, report are	Everett correct and that all ma		, certify that to the	best of my kno	owledge and belief th	e statements in this
	Everett correct and that all ma board "R" Certificate of J	terial, construction, and	, certify that to the	best of my kno Iteration confo	owledge and belief th	e statements in this
National B	correct and that all ma board "R" Certificate of .	terial, construction, and Authorization No.	, certify that to the workmanship on this A 9358	best of my kno Iteration confo expir	owledge and belief th rms to the National Be	e statements in this
	correct and that all ma	t <mark>Heuer</mark> terial, construction, and Authorization No. Big Iron Oil t	, certify that to the workmanship on this A	best of my kno Iteration confo	owledge and belief th rms to the National Be	e statements in this
National B	correct and that all ma board "R" Certificate of .	terial, construction, and Authorization No. Big Iron Oilf (name of alt	, certify that to the workmanship on this A 9358 field Services, Inc.	best of my kno Iteration confor expir Signed	owledge and belief th rms to the National Be	e statements in this
National B	correct and that all ma soard "R" Certificate of 05/19/2017	terial, construction, and Authorization No. Big Iron Oilf (name of alt CERTIF	, certify that to the workmanship on this A 9358 field Services, Inc. eration organization)	best of my kno Iteration confor expir Signed	owledge and belief th rms to the National Be es on <u>03/24/2020</u> دauthorized	e statements in this oard Inspection Code.
National B Date	correct and that all ma loard "R" Certificate of 05/19/2017 Chris G. Gille	terial, construction, and Authorization No. Big Iron Oilf (name of alt CERTIF	, certify that to the workmanship on this A 9358 field Services, Inc. eration organization) ICATE OF INSPECT ding a valid Commissic	best of my kno Iteration confor expir Signed ION	owledge and belief the rms to the National Bo es on <u>03/24/2020</u> <u>(authorized</u> ne National Board of E	e statements in this oard Inspection Code.
I,	correct and that all ma soard "R" Certificate of a 05/19/2017 Chris G. Gilli nspectors and certificate	terial, construction, and Authorization No. Big Iron Oilf (name of alt CERTIF um, hol e of competency, where	, certify that to the workmanship on this A 9358 field Services, Inc. eration organization) ICATE OF INSPECT ding a valid Commissic required, issued by th	best of my kno Iteration confoi expir Signed	owledge and belief the rms to the National Bo es on <u>03/24/2020</u> <u>(authorized</u> ne National Board of E f TX, OK	e statements in this oard Inspection Code.
I, Vessel Ir employed	correct and that all ma soard "R" Certificate of a 05/19/2017 Chris G. Gillo nspectors and certificate d by	terial, construction, and Authorization No. Big Iron Oilf (name of alt CERTIF um, hol e of competency, where OneCIS Insurance C	, certify that to the workmanship on this A 9358 field Services, Inc. eration organization) ICATE OF INSPECT ding a valid Commission required, issued by the ompany	best of my kno Iteration confor expir Signed ION on issued by The jurisdiction o	owledge and belief the rms to the National Bo es on <u>03/24/2020</u> (authorized ne National Board of E f <u>TX, OK</u> Lynn, MA	e statements in this oard Inspection Code.
I, Vessel Ir employed inspected	correct and that all ma board "R" Certificate of a 05/19/2017 Chris G. Gillo spectors and certificate d by d the work described in	terial, construction, and Authorization No. Big Iron Oilf (name of alt CERTIF um, hol e of competency, where	, certify that to the workmanship on this A 9358 field Services, Inc. eration organization) ICATE OF INSPECT ding a valid Commission required, issued by the company pril 27, 2017 and s	best of my kno Iteration confoi expir Signed TION on issued by The jurisdiction o of	owledge and belief the rms to the National Bo es on <u>03/24/2020</u> (authorized ne National Board of E f <u>TX, OK</u> Lynn, MA	e statements in this oard Inspection Code.
I, Vessel In employed inspected complies	correct and that all ma board "R" Certificate of a 05/19/2017 Chris G. Gille by d the work described in with the applicable rec	terial, construction, and Authorization No. Big Iron Oilf (name of alt CERTIF um, hol e of competency, where OneCIS Insurance C this report onA quirements of the Nation	, certify that to the workmanship on this A 9358 field Services, Inc. eration organization) ICATE OF INSPECT ding a valid Commission required, issued by the company pril 27, 2017 and s ial Board Inspection Co	best of my kno Iteration confoi expir Signed TON on issued by The jurisdiction o of of state that to the ide.	owledge and belief the rms to the National Bo es on <u>03/24/2020</u> (authorized f <u>TX, OK</u> Lynn, MA e best of my knowledge	e statements in this oard Inspection Code.
I, Vessel Ir employed inspected complies By signin	correct and that all ma board "R" Certificate of a 05/19/2017 Chris G. Gille spectors and certificate d by d the work described in with the applicable rec g this certificate, neithe	terial, construction, and Authorization No. Big Iron Oilf (name of alt CERTIF um, hol e of competency, where OneCIS Insurance C this report onA quirements of the Nation	, certify that to the workmanship on this A 9358 field Services, Inc. eration organization) ICATE OF INSPECT ding a valid Commissic required, issued by th ompany pril 27, 2017 and s al Board Inspection Co	best of my kno lteration confoi expir Signed GION on issued by The jurisdiction o of state that to the ide.	bowledge and belief the rms to the National Bo es on 03/24/2020 (authorized f TX, OK Lynn, MA e best of my knowledge ressed or implied, co	e statements in this oard Inspection Code.
I, Vessel Ir employed inspected complies By signin described	correct and that all ma board "R" Certificate of a 05/19/2017 Chris G. Gille by d the work described in with the applicable rec g this certificate, neither d in this report. Further	terial, construction, and Authorization No. Big Iron Oilf (name of alt CERTIF um, hol e of competency, where OneCIS Insurance C this report onA quirements of the Nation er the undersigned nor n more, neither the under	, certify that to the workmanship on this A 9358 field Services, Inc. eration organization) ICATE OF INSPECT ding a valid Commissic required, issued by th ompany pril 27, 2017 and s al Board Inspection Co ny employer makes any signed nor my employer	best of my kno Iteration confoi expir Signed TION on issued by Th e jurisdiction o of state that to the ide. warranty, exp er shall be liable	bowledge and belief the rms to the National Bo es on 03/24/2020 (authorized f TX, OK Lynn, MA e best of my knowledge ressed or implied, co	e statements in this oard Inspection Code.
I, Vessel In employed inspected complies By signin described	correct and that all ma board "R" Certificate of a 05/19/2017 Chris G. Gille by d the work described in with the applicable rec g this certificate, neither d in this report. Further	terial, construction, and Authorization No. Big Iron Oilf (name of alt CERTIF um, hol e of competency, where OneCIS Insurance C this report onA quirements of the Nation	, certify that to the workmanship on this A 9358 field Services, Inc. eration organization) ICATE OF INSPECT ding a valid Commissic required, issued by th ompany pril 27, 2017 and s al Board Inspection Co ny employer makes any signed nor my employer	best of my kno Iteration confoi expir Signed TION on issued by Th e jurisdiction o of state that to the ide. warranty, exp er shall be liable	bowledge and belief the rms to the National Bo es on 03/24/2020 (authorized f TX, OK Lynn, MA e best of my knowledge ressed or implied, co	e statements in this oard Inspection Code.
I, Vessel Ir employed inspected complies By signin described	correct and that all ma board "R" Certificate of a 05/19/2017 Chris G. Gille by d the work described in with the applicable rec g this certificate, neither d in this report. Further	terial, construction, and Authorization No. Big Iron Oilf (name of alt CERTIF um, hol e of competency, where OneCIS Insurance C this report onA quirements of the Nation er the undersigned nor n more, neither the under	, certify that to the workmanship on this A 9358 field Services, Inc. eration organization) ICATE OF INSPECT ding a valid Commissic required, issued by th ompany pril 27, 2017 and s al Board Inspection Co ny employer makes any signed nor my employer	best of my kno Iteration confor expir Signed TON on issued by The jurisdiction o of of of of warranty, experised warranty, experised ion.	bowledge and belief the rms to the National Bo es on 03/24/2020 (authorized f TX, OK Lynn, MA e best of my knowledge ressed or implied, co	e statements in this oard Inspection Code.