FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and Certified by **HIGH COUNTRY FABRICATION, INC. 1000 West First Street, CASPER, WY 82604**
(Name and address of Manufacturer)

2. Manufactured for ENCANA ENERGY
(Name and address of Purchaser)

3. Location of Installation Rifle, Colorado
(Name and address)

4. Type: Horizontal (Horiz,Vert,Sphere) | Heat Exchanger (Tank,Sep,Jkt,Vess,heat exch) | 2843 (Mfg's Ser.No) | -- (CRN) | 14726D-1R3,2R1,3R2 (Drawing No.) | 2112 (Nat'l.Bd.No.) | 2004 (Yr Built)

5. ASME Code, Section VIII, Div. 1 | 2001/2003 Edition & Addenda (date) | 2429 & 2053 Code case no. | -- Special Service per UG-120(d)

Items 6-11 incl. to be complete 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): 5 (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, Type	Nom	Corr	Type	Full, Spot, None	Eff	Type	Full, Spot, None	Eff	Temp	Time
2	48" I.D	8' 0"	SA516-70	.500	.0625	I	Spot	.85	I	Spot	.85	--	--
1	48" I.D.	4' 5 13/16"	SA516-70	.500	.0625	I	Spot	.85	I	Spot	.85	--	--
1	48" I.D.	0' 4"	SA516-70	.500	.0625	I	Spot	.85	I	Spot	.85	--	--
1	30" x 48" I.D.	2' 7"	SA516-70	.500	.0625	I	Full	1.0	I	Spot	.85	--	--

7. Heads: (a) SA516-70 (Mat'l Spec. No., Grade or Type) H.T.-Time & Temp (b) Flange—SA105N (Mat'l Spec. No., Grade or Type) H.T.- Time & Temp

	Location (Top Bottom, Ends)	Thickness Min	Thickness Corr	Radius Crown	Radius Knuckle	Elliptical Ratio	Conical ApexAngle	Hemispherical Radius	Flat Diameter	Side To Pressure Convex	Side To Pressure Concave	Category A Type	Category A Full, Spot, None	Category A Eff
(a)	End	.438"	.0625	--	--	2:1	--	--	--	--	Concave	--	--	--
(b)	End	.500"*	.0625	--	--	2:1	--	--	40 7/16"	--	--	--	--	--

*NOM

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: 300 (internal) -- (external) psi at max. temp 150 (internal) -- (external) °F Min. design metal temp. -20 °F at 300 psi

10. Impact Test No, all components per UG20(f) & UCS 66(a) at test temperature of --°F
Indicate yes or no and the components(s) impact tested)

11. Hydro.,Pneu.,or comb. test press. 390 Proof test --

Items 12 and 13 to be completed for tube sections.

12. Tubesheet: SA350-Lf2 [Stationy(Mat'lSpec.No.)] | 30" [Dia.,In.(Subject tp press.)] | 5.25" [Nom.thk.in.] | .125" [Corr.Allow.in.] | Bolted [Attachment(welded or bolted)]
-- [Floating(Mat'l Spec. No.)] | -- [Dia., in.] | -- [Nom.thk.,in.] | -- [Corr.Allow.in.] | -- [Attachment]

13. Tubes: SA179 [Mat'l Spec.No.,Grade or Type] | .750" [O.D. in.] | .083" [Nom.thk.,in. or gauge] | 366 [Number] | U [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) 1 (b) Overall length (ft & in.): 2' 0"

Course(s)			Material	Thickness		Long Joint (Cat. A)			Circum. Joint (Cat. A,B,&C)			Heat Treatment	
No	Diameter, in	Length (ft&in)	Spec/Grade, Type	Nom	Corr	Type	Full, Spot, None	Eff	Type	Full, Spot, None	Eff	Temp	Time
1	30" ID	2' 0"	SA516-70	1.0"	.0625	I	FULL	1.0	1	Spot-UW11(a)(5)(b)	.70	--	--

15. Heads: (a) Flanges SA105 N (Mat'l Spec. No., Grade or Type) H.T.-Time&Temp (b) Cover SA350-Lf2 (Mat'l Spec. No., Grade or Type) H.T.-Time&Temp

	Location (Top, Bottom, Ends)	Thickness Min	Thickness Corr	Radius Crown	Radius Knuckle	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side To Pressure Convex	Side To Pressure Concave	Category A Type	Category A Full, Spot, None	Category A Eff
(a)	Ends	1" *	.0625	--	--	--	--	--	40 7/16"	--	--	--	--	--
(b)	Ends	5 5/8"*	.0625	--	--	--	--	--	40 7/16"	--	--	--	--	--

* NOM

If removable, bolts used (describe other fastening) SA193-B7 1 5/8" x 15 1/2" x 32, 1 5/8" x 21 1/2" x 32
(Mat'l Spec. No, Grade, Size, No.)

FORM U-1 (BACK)

16. MAWP: 1200 (internal) -- (external) psi at max. temp 150 (internal) -- (external) °F Min. design metal temp. -20 °F at 1200 psi

17. Impact Test No, all components per UG20(f), UCS66(a) at test temperature of -- °F
(indicate yes or no and the components(s) impact tested)

18. Hydro.,Pneu.,or comb. test press. 1560 Proof test --

19. 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	
SS-Drain	1	3/4"	Scrd. Cpl.	SA105	--	6000#	.0625	Inherent	Full Pen, No NDE	--	--
TS-Future	1	2"	Scrd. Cpl.	SA105	--	6000#	.0625	Inherent	Full Pen, No NDE	--	--
SS-LG	2	2"	CL300WN	SA106B	SA105	.343	.0625	Inherent	Full, Pen, No NDE	Full, Pen, No NDE	--
SS-Boot	1	4"	B.W.	SA106B	--	.337	.0625	SA516-70	Full, Pen, No NDE	--	--
TS-NGL/IN	1	4"	CL600WN	SA106B	SA105	.337	.0625	--	Full, Pen, No NDE	Full, Pen, No NDE	--
SS-Liquid/IN	1	8"	CL300WN	SA106B	SA105	.500	.0625	SA516-70	Full, Pen, No NDE	Full, Pen, No NDE	--
TS-IN/OUT	2	10"	CL600WN	SA106B	SA105	.500	.0625	SA516-70	Full, Pen, No NDE	Full, Pen, No NDE	--
SS-Vapor OUT	1	12"	CL300WN	SA106B	SA105	.500	.0625	SA516-70	Full, Pen, No NDE	Full, Pen, No NDE	--

20. Supports: Skirt No (Yes or No) Lugs None (No.) Legs 2 (No.) Other -- (Describe) Attached Shell / welded (Where and How)

21. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: (List the name of part, item number, mfg's. name and identifying number)

22. Remarks: Inspection openings per UG46(f)(5). Pressure relief protection by others per UG125(a). Shell boot head = 4" xh-SA234-WPB weld cap.

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. 15652 Expires August 22, 2006

Date 1-7, 05 Name HIGH COUNTRY FABRICATION, INC. (Manufacturer) Signed Mike Mahoney (Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Illinois and employed by OneBeacon America Insurance Company of Boston, Massachusetts have inspected the pressure vessel described in this Manufacturers' Data Report on 1-4, 2005, 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 Manufacturers' 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 1-4-2005 Signed Michael Smith (Authorized Inspector) Commissions NB 9414AB IL 1226 (Nat'l Board incl.endorsement, State Province and No.)

180

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that the field assembly construction of all parts of this vessel conforms with the requirements of ASME Code, Section VIII, Division 1.

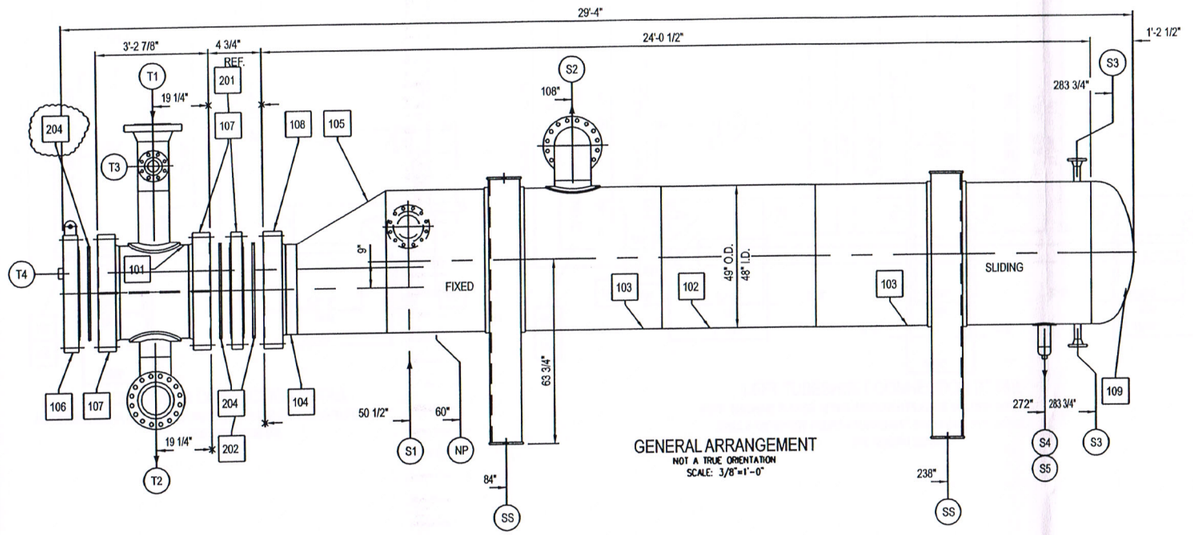
U Certificate of Authorization No. _____ Expires _____,

Date _____ Name _____ (Assembler) Signed _____ (Representative)

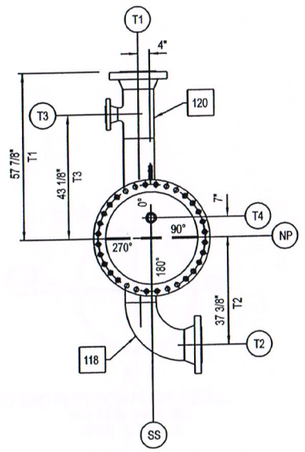
CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of _____ and employed by _____ of _____ have compared the statements in this Manufacturers' 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 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 Manufacturers' 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.

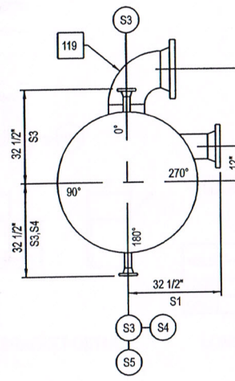
Date _____ Signed _____ (Authorized Inspector) Commissions _____ (Nat'l board incl. endorsement, State, Province, and No.)



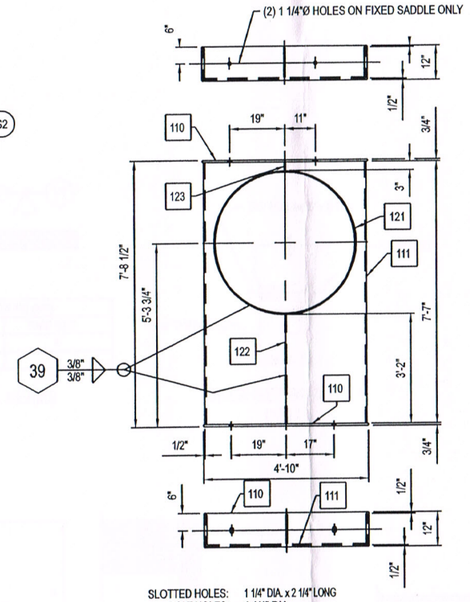
GENERAL ARRANGEMENT
NOT A TRUE ORIENTATION
SCALE: 3/8"=1'-0"



ORIENTATION
VIEWED FROM LEFT END
SCALE: 3/8"=1'-0"



ORIENTATION
VIEWED FROM RIGHT END
SCALE: 3/8"=1'-0"



SADDLE SUPPORT DETAIL

NOZZLE DATA

MK	SIZE	RATING	FACING	DESCRIPTION
S1	8"	300	RFWN	SHELLSIDE - LIQUID INLET
S2	12"	300	RFWN	SHELLSIDE - VAPOR OUTLET
S3	2"	300	RFWN	SHELLSIDE - LEVEL
S4	4"	---	---	SHELLSIDE - OIL BOOT
S5	3/4"	6000	FC	SHELLSIDE - OIL DRAIN
T1	10"	600	RFWN	TUBESIDE - INLET
T2	10"	600	RFWN	TUBESIDE - OUTLET
T3	4"	600	RFWN	TUBESIDE - INLET FROM NGL PREHEATER
T4	2"	6000	HC	TUBESIDE - FUTURE

DESIGN DATA

DESIGN CODE: ASME SECTION VIII, DIV. 1 (2001 EDITION, 2003 ADD.)		TEMA CLASS: 'C'
	SHELL SIDE	TUBE SIDE
DESIGN PRESSURE	300 PSI	1200 PSI
TEST PRESSURE	390 PSI	1560 PSI
DESIGN TEMPERATURE	150°F	150°F
MDMT	-20°F	-20°F
IMPACT TEST EXEMPT.	UG-20(f)& UCS-66(a)	UG-20(f)& UCS-66(a)
CORROSION ALLOWANCE	1/16"	1/16"
RADIOGRAPHY	SEE NOTES	100% LONG/SPOT GIRTH UW-11(a)(5)
JOINT EFFICIENCY	SEE NOTES	LONG 1.0 / GIRTH 0.7
NO. OF PASSES		2
EST. WEIGHT DRY 26253 LBS.	TEST 46489 LBS.	BUNDLE 11295 LBS.
MATERIALS:		
SHELLSIDE	C STL	
TUBESIDE	C STL	
BAFFLES, TIERODS AND SPACERS	C STL	
TUBESHEET	C STL	
TUBES	(366U) 3/4" x 0.083" TUBE x 20'-0" TANGENT LENGTH / SA-179 / 2875 SQ. FT.	

NOTES

1) ALL NOZZLE BOLT HOLES TO STRADDLE CENTERLINE, UNLESS NOTED.
2) CLEAN INSIDE THOROUGHLY AND PROTECT ALL OPENINGS.
3) MILL TEST REPORTS PER ASME CODE REQUIRED.
4) 100% LONG SEAM ON CONE, SPOT X-RAY REMAINING SHELLSIDE SEAMS PER UW-11(b).
5) SPOT X-RAY CONE & HEAD GIRTH SEAMS PER UW-11(a)(5).
6) JOINT EFFICIECIES:
   CONE LONG SEAMS: 1.0
   SHELL LONG SEAMS: .85
   SHELL HEAD: 1.0
   SHELL GIRTH SEAMS: 0.85
7) CODE CASE 2429
8) GAS/GAS EXCHANGERS ARE MOUNT ABOVE THIS EXCHANGER.

SURFACE PREPARATION / PAINT SPECIFICATION

1) COMMERCIAL BLAST ENTIRE EXCHANGER PER SP-6.
2) PRIME WITH ONE (1) COAT SHOP PRIMER.

NO.	REVISIONS	BY / DATE	BY / DATE
3	CHANGED GASKET BETWEEN 106 & 107 TO 204	SW 12/06	
2	CORRECTED NOZZLE DATA	SW 12/02	
1	APPROVED FOR FABRICATION	JBB 11/27	

NAT'L BD. NO.
CERTIFIED BY
HIGH COUNTRY FABRICATION, INC.
Casper, Wyoming

	SHELL MAWP	300	PSI	AT	150 °F
	SHELL MOMT	-20	°F	AT	300 PSI
W	TUBES MAWP	1200	PSI	AT	150 °F
SS RT4	TUBES MOMT	-20	°F	AT	1200 PSI
TS RT2	MFG.SER.NO.	2843			
	YEAR BUILT	2004			

TEST SHELL	390	PSI	TEST TUBES	1560	PSI
CORR. SS	1/16"		CORR. TS	1/16"	
ITEM NO.	E-4205		WEIGHT	26253	

ENCANA

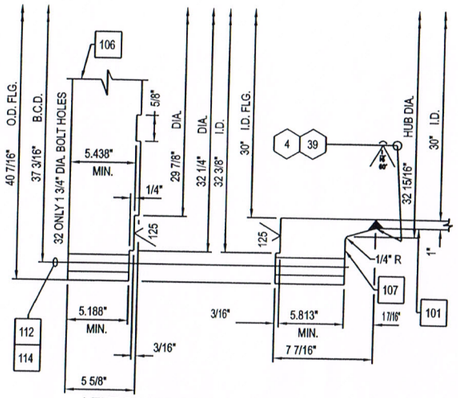
HIGH COUNTRY FABRICATION — HICO — CASPER, WYOMING

DWG NO.	REFERENCE DWGS.
14726D-1	SETTING PLAN
14726D-2	CHANNEL & SHELL DETAIL
14726D-3	TUBE BUNDLE DETAIL

ENCANA
RIFLE, COLORADO
#30/48-240 AKU ITEM E-4205
CHILLER
S/N 2843

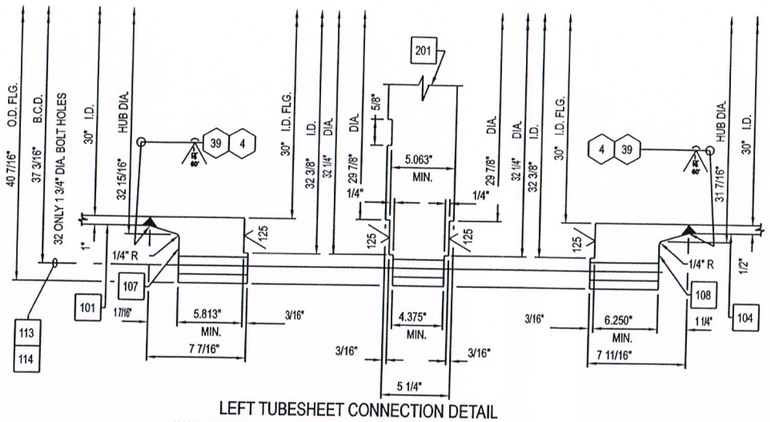
DRAWN JBB	CHK BY	DRAWING NO.	
DATE 11-27-04	DATE	14726D-1	
SCALE AS SHOWN	JOB 14726D		

...\Drawings 2-25-05\14726D-1.DWG 2/25/2005 9:32:27 AM



LEFT COVER CONNECTION DETAIL

NOTE: MACHINE FLANGE AFTER PARTITION PLATE IS WELDED IN PLACE
SEE NUBBIN DETAIL

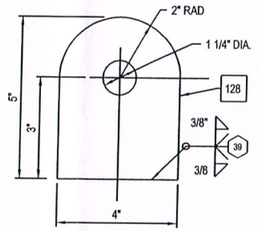


LEFT TUBESHEET CONNECTION DETAIL

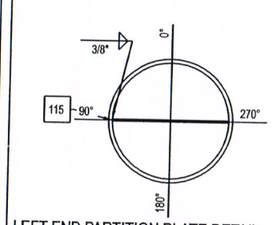
NOTE: MACHINE FLANGE AFTER PARTITION PLATE IS WELDED IN PLACE
DRILL & TAP EVERY FOURTH TUBESHEET BOLT HOLE PER DETAIL
SEE NUBBIN DETAIL

BILL OF MATERIALS

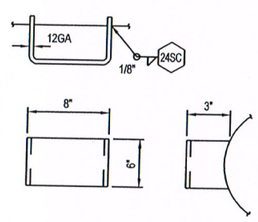
MK	QTY	DESCRIPTION	MATERIAL	PART
101	1	1" THK x 30" I.D. (8'-1 3/8" WD) x 24" LG	SA-516-70	CHANNEL
102	1	1/2" THK x 48" I.D. (12'-8 3/8" WD) x 4'-5 13/16" LG	SA-516-70	SHELL
103	2	1/2" THK x 48" I.D. (12'-8 3/8" WD) x 8'-0" LG	SA-516-70	SHELL
104	1	1/2" THK x 30" I.D. (7'-11 13/16" WD) x 4" LG	SA-516-70	STUB
105	1	1/2" THK x 30" I.D. x 48" I.D. x 2'-7" LG ECC CONE	SA-516-70	REDUCER
106	1	5 5/8" THK x 40 7/16" O.D.	SA-350-LF2	COVER
107	2	7 7/16" THK x 40 7/16" O.D. x 30" I.D. RING	SA-105	FLANGE
108	1	7 11/16" THK x 40 7/16" O.D. x 30" I.D. RING	SA-105	FLANGE
109	1	1/2" THK (0.438" MIN) x 48" I.D. 2:1 S.E., 2" S.F.	SA-516-70	HEAD
110	4	3/4" THK x 12" WD x 56" LG	SA-516-70	SADL SUPP BASE
111	2	1/2" THK x 77" WD x 91" LG	SA-516-70	SADL SUPP VERT
112	32	1 5/8" x 15 1/2" LG STUD	SA-193-B7	BOLT
113	32	1 5/8" x 21 1/2" LG STUD	SA-193-B7	BOLT
114	128	1 5/8" HEX NUT	SA-194-2H	BOLT
115	1	1/2" THK x 30" WD x 38 7/8" LG	SA-516-70	PART PL.
116	1	STD NAMEPLATE & BRACKET	SA-240-304	NP
117	1	4" XH WELD CAP	SA-234-WPB	BOOT
118	1	10" XH LR 90° WELD ELL	SA-234-WPB	T2
119	1	12" XH SR 90° WELD ELL	SA-234-WPB	S2
120	1	10" x 10" x 4" XH REDUCING OUTLET TEE	SA-234-WPB	S1/S3
121	1	1/2" THK x 14" WD x 155 1/2" LG (ROLL 49" ID)	SA-516-70	SADL PAD
122	2	1/2" THK x 10 1/2" WD x 38" LG	SA-516-70	SADL GUSSET
123	2	1/2" THK x 3" WD x 10 1/2" LG	SA-516-70	SADL GUSSET
124	4	1/2" WD x 14" WD x 102 1/8" LG (ROLL 32" ID)	SA-516-70	SADL BOLT
125	2	1/2" WD x 14" WD x 102 1/8" LG (ROLL 32" ID)	SA-516-70	SADL BOLT
126	2	10"-600# GASKET SPRIAL WOUND	304/GRAPH	T1
127	16	1 1/4" x 8 1/2" LG STUD W/ 2 NUTS EA. (SA-194-2H)	SA-193-B7	T1
128	16	1" THK x 4" WD x 5" LG	SA-516-70	LL



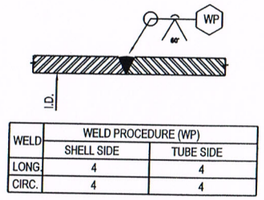
CHANNEL COVER LIFT LUG



LEFT END PARTITION PLATE DETAIL
VIEW FROM SHELL SIDE
SCALE: 1/2"=1'-0"

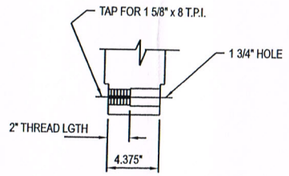


NAMEPLATE BRACKET DETAIL

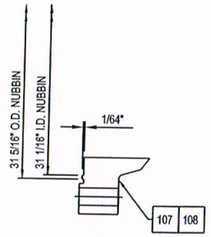


WELD	WELD PROCEDURE (WP)	
	SHELL SIDE	TUBE SIDE
LONG.	4	4
CIRC.	4	4

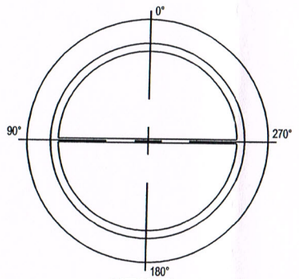
LONG. AND CIRC. SEAMS



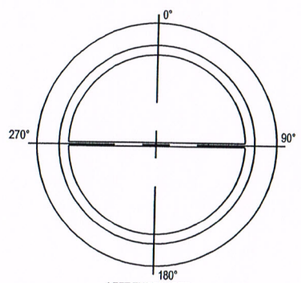
TUBESHEET BOLT HOLE DETAIL



NUBBIN DETAIL

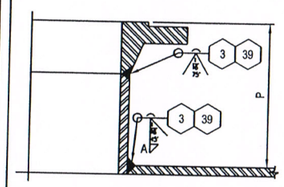


LEFT COVER

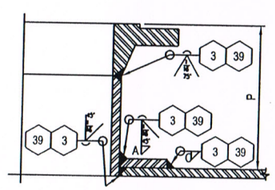


LEFT TUBESHEET

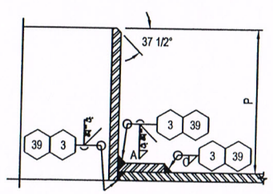
MACHINING DETAIL
VIEWED FROM MACHINED SIDE



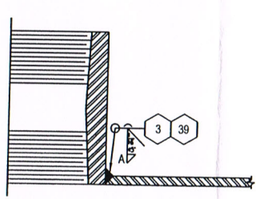
S3
WELD NECK NOZZLE



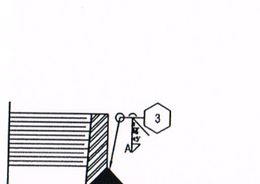
S1 S2 T1 T2
WELD NECK NOZZLE



S4
BUTT WELD NOZZLE



S5
FULL COUPLING DETAIL



T4
HALF COUPLING DETAIL

MK	QTY	SIZE	CONNECTION RATING	CONNECTION TYPE	CONNECTION BORE	CONNECTION CL PROJ	CONNECTION OS PROJ	NECK OD	NECK LENGTH	MATERIALS FLANGE	MATERIALS NECK	MATERIALS REPAD	REPAD WIDTH	REPAD THK	WELD SIZE A	WELD SIZE B	WELD SIZE C	REMARKS
T4	1	2"	6000	HC	---	---	---	---	---	SA-105	---	---	---	---	3/8"	---	---	---
T3	1	4"	600	RFWN	XH	11 1/2"	6 1/8"	4 1/2"	---	SA-105	---	---	---	---	---	---	---	---
T2	1	10"	600	RFWN	XH	---	---	10 3/4"	10 11/16"	SA-105	SA-106-B	SA-516-70	4 1/2"	1"	3/8"	---	5/8"	---
T1	1	10"	600	RFWN	XH	57 7/8"	41 7/8"	10 3/4"	22 15/16"	SA-105	SA-106-B	SA-516-70	4 1/2"	1"	3/8"	---	5/8"	---
S5	1	3/4"	6000	FC	---	---	---	---	---	SA-105	---	---	---	---	3/8"	---	---	---
S4	1	4"	---	B.W.	XH	32 1/2"	8"	4 1/2"	8 5/8"	---	SA-106-B	SA-516-70	2"	1/2"	3/8"	---	3/8"	---
S3	2	2"	300	RFWN	SCH160	32 1/2"	8"	2 3/8"	5 11/16"	SA-105	SA-106-B	---	---	---	3/8"	---	---	---
S2	1	12"	300	RFWN	XH	---	---	12 3/4"	3 7/8"	SA-105	SA-106-B	SA-516-70	3 1/8"	1/2"	3/8"	---	3/8"	---
S1	1	8"	300	RFWN	XH	32 1/2"	8"	8 5/8"	10 7/16"	SA-105	SA-106-B	SA-516-70	2"	1/2"	3/8"	---	3/8"	---

NOZZLE SCHEDULE

DRILL AND TAP FOR 1/4" PIPE SIZE HOLE IN EACH REINFORCING PAD SEGMENT

HIGH COUNTRY FABRICATION
HICO
CASPER, WYOMING

NO.	REVISIONS	BY	DATE	BY	DATE
1	APPROVED FOR FABRICATION	JBB	11/27		

DWG NO.	REFERENCE DWGS.
14726D-1	SETTING PLAN
14726D-2	CHANNEL & SHELL DETAILS
14726D-3	TUBE BUNDLE DETAILS

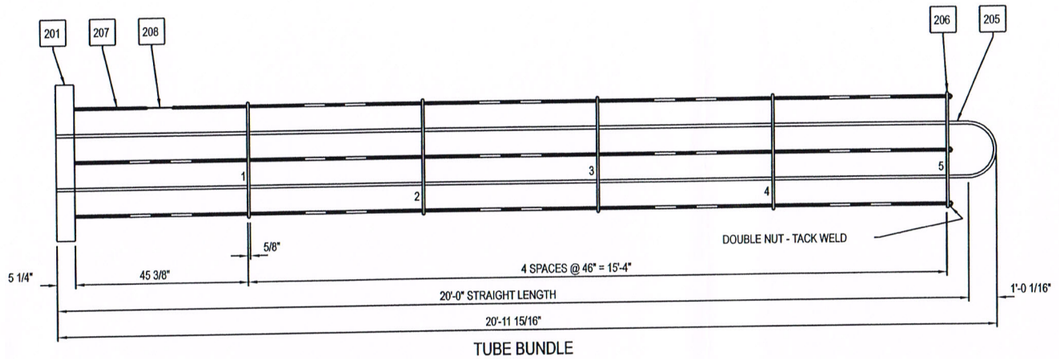
ENCANA
RIFLE, COLORADO
#30/48-240 AKU ITEM E-4205
CHILLER
S/N 2843

DRAWN JBB	CHK BY	DRAWING NO.
DATE 11-27-04	DATE	14726D-2
SCALE AS SHOWN	JOB 14726D	

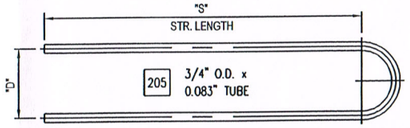
...\Drawings 2-25-05\14726D-2.DWG 2/25/2005 9:33:26 AM

BILL OF MATERIALS

MK	QTY	DESCRIPTION	MATERIAL	PART
201	1	5-1/4" THK x 40-7/16" O.D.	SA-350-LF2	TUBESHEET
202	2	1/8" THK x 32 3/16" I.D. x 30 1/4" O.D. GASKET	METALJACKETFIBER	GASKET
203	—	—	—	—
204	4	1/8" THK x 32 3/16" I.D. x 30 1/4" O.D. GASKET	METALJACKETFIBER	GASKET
205	366	3/4" x 0.083" TUBE x 20'-0" TANGENT LENGTH	SA-179	TUBE
206	5	5/8" THK x 29 13/16" O.D.	SA-36	SUPPORT
207	30	3/4" x 0.083" TUBE x 3'-9 3/8" LG	SA-214	SPACER
208	6	1/2" DIA RD. BAR x 19'-6" LG	SA-36	TIE ROD
209	12	1/2" HEX NUT	C STL	TIE ROD

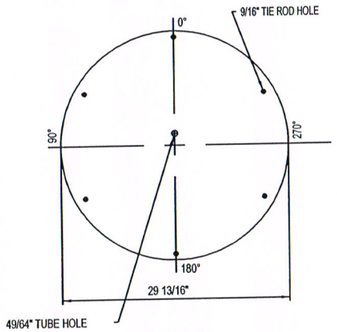


TUBE BUNDLE
SIDE VIEW

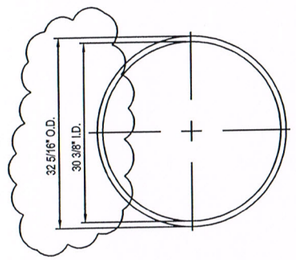


U TUBE BEND SCHEDULE

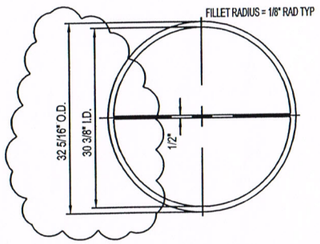
QTY REQ'D	"D"	"S"	DEV. LENGTH
31	2 1/4"	20'-0"	40'-3 9/16"
30	3 7/8"	20'-0"	40'-6 1/8"
31	5 1/2"	20'-0"	40'-8 11/16"
30	7 1/8"	20'-0"	40'-11 3/16"
29	8 3/4"	20'-0"	41'-1 3/4"
28	10 3/8"	20'-0"	41'-4 5/16"
25	12"	20'-0"	41'-6 7/8"
28	13 5/8"	20'-0"	41'-9 7/16"
27	15 1/4"	20'-0"	42'-0"
24	16 7/8"	20'-0"	42'-2 1/2"
23	18 1/2"	20'-0"	42'-5 1/16"
22	20 1/8"	20'-0"	42'-7 5/8"
21	21 3/4"	20'-0"	42'-10 3/16"
17	23 3/8"	20'-0"	43'-0 3/4"



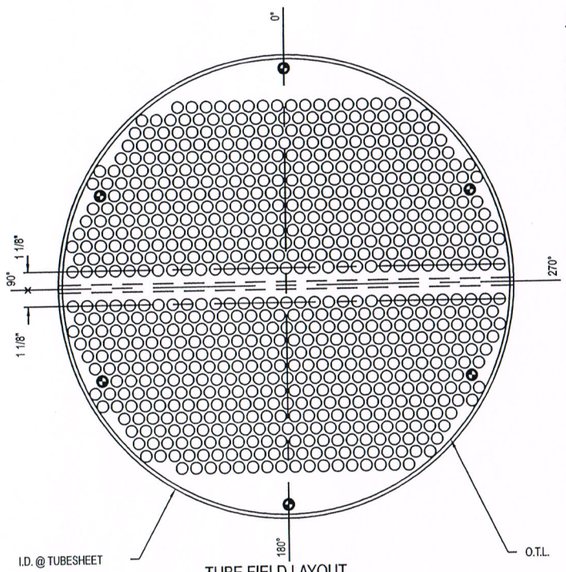
QUANTITY = 5
SUPPORT 206



GASKET DETAIL 202
QUANTITY = 2 (1 + 1 SPARE)
SCALE: 3/4"=1'-0"



GASKET DETAIL 204
QUANTITY = 4 (2 + 2 SPARE)
SCALE: 3/4"=1'-0"



TUBE FIELD LAYOUT
VIEW FROM SHELL SIDE OF TUBESHEET
SCALE: 2"=1'-0"

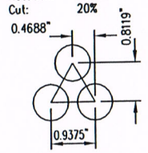
LAYOUT DATA

TUBE HOLES
Quantity: 732
Tube Dia.: 0.75"
Hole Dia.: 0.758"±0.002"
Pattern: TRI.
Pitch: 0.9375"
Passes: 2

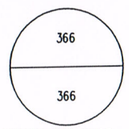
TIERODS
Quantity: 6
Diameter: 0.5"

LAYOUT
In. Dia. : 30"
Max OTL: 29.4973"

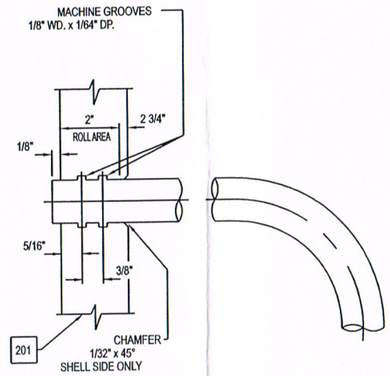
BAFFLES
Type: SGL. SEG.
Rotation: HORIZ.
Cut: 20%



TUBE PATTERN



TUBES PER PASS



TUBESHEET TUBE HOLE DETAIL

NO.	REVISIONS	BY	DATE	BY	DATE
2	CHANGED GASKET 202 & 204 DETAILS	SW	12/06		
1	APPROVED FOR FABRICATION	JBB	11/27		

DWG NO.	REFERENCE DWGS.
14726D-1	SETTING PLAN
14726D-2	CHANNEL & SHELL DETAILS
14726D-3	TUBE BUNDLE DETAILS

HIGH COUNTRY FABRICATION
HICO
CASPER, WYOMING

ENCANA
RIFLE, COLORADO
#30/48-240 AKU ITEM E-4205
CHILLER
S/N 2843

DRAWN JBB	CHK BY		DRAWING NO.
DATE 11-27-04	DATE		14726D-3
SCALE AS SHOWN	JOB 14726D		