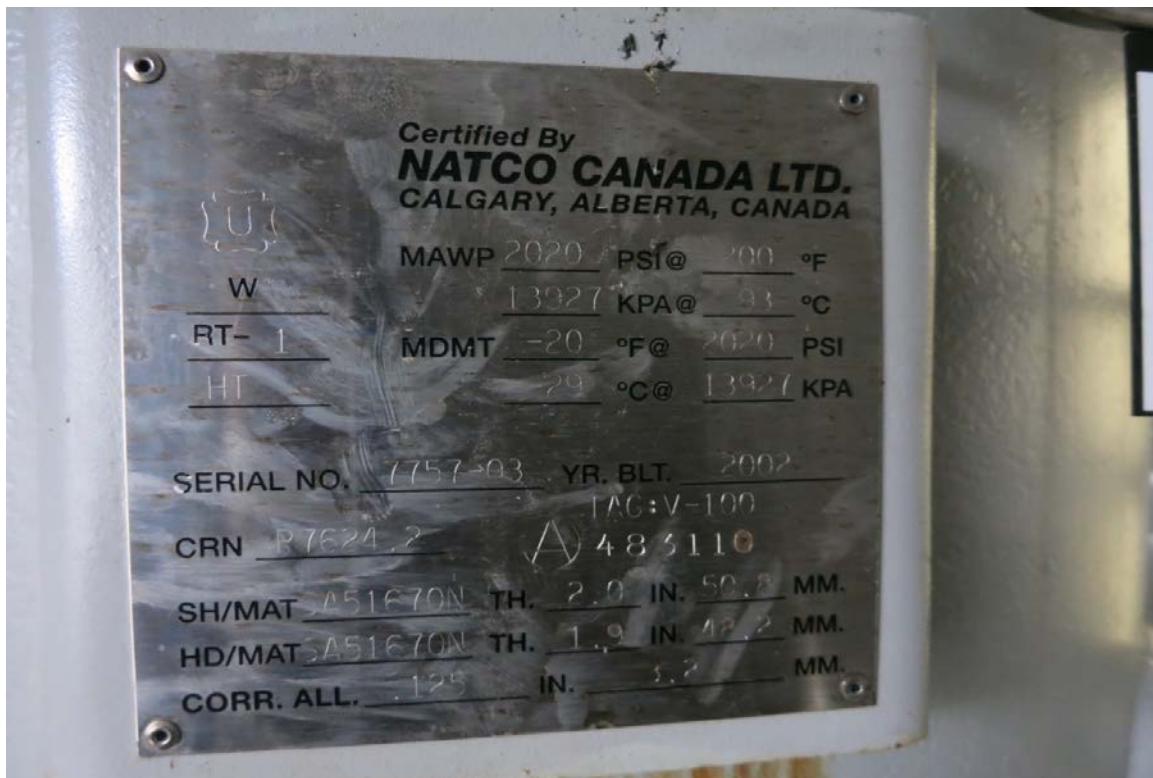
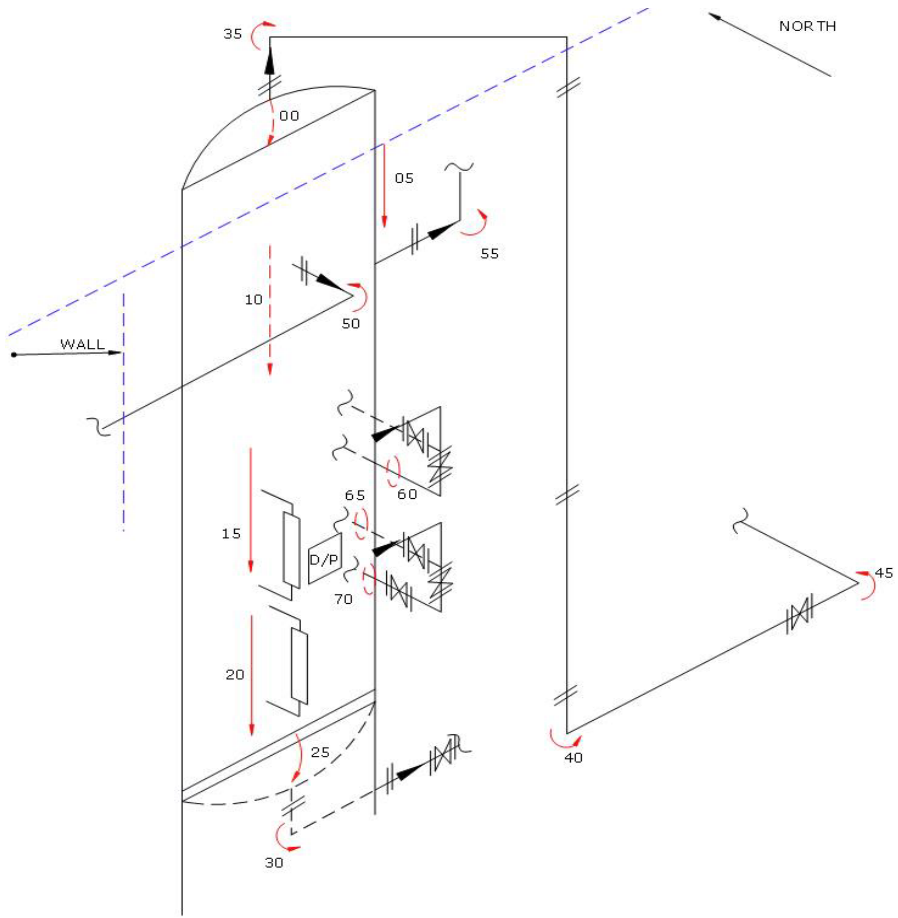


<b>Location Name:</b>	EDSON	<b>LSD:</b>	
<b>A#:</b>	483110	<b>Equipment/Tag No.</b>	V-100
<b>Equipment Description:</b>	VERTICAL SEPARATOR		
<b>Manufacturer:</b>	NATCO CANADA LTD.		
<b>Serial Number:</b>	7757-03	<b>CRN:</b>	P7624.2
<b>Shell MAWP:</b>	2020	<b>PSI</b>	<b>Shell Design Temp:</b> 200 °F
<b>Tube MAWP:</b>		<b>PSI</b>	<b>Tube Design Temp:</b> °F
<b>Shell Material:</b>	SA-516-70N	<b>Head Material:</b>	SA-516-70N
<b>Shell Thickness:</b>	50.80	<b>mm</b>	<b>Head Thickness:</b> 48.26 mm
<b>Corrosion Allowance:</b>	3.1750	<b>mm</b>	<b>Date Built:</b> 2002
<b>Size:</b>	914	<b>mm</b>	<b>Pipe / Rolled Plate:</b> PLATE
<b>RT:</b>	1		

**NOTES:** SAP # 66172334. S/N 7757-03. LOCATED AT CARREY SHOP OUTSIDE OF EDSON.









# Ultrasonic Corrosion Survey

\*All values are in millimeters unless otherwise stated.

Survey Name: Husky Energy

Date: Mar 27, 2015

Inspector: W. Gill

<b>LSD:</b>	<b>Area:</b>	EDSON	<b>Location:</b>	CAR REY YARD
<b>A #:</b> 483110	<b>Tag Number:</b>	V-100	<b>Vessel Name:</b>	VERTICAL SEPARATOR
<b>CRN:</b> P7624.2	<b>Year Built:</b>	2002	<b>Serial Number:</b>	7757-03
<b>RT:</b> 1	<b>Vessel CA:</b>	3.175 mm	<b>Manufacturer:</b>	NATCO CANADA LTD.
	<b>Shell MAWP:</b>	2020 PSI	<b>Tube MAWP:</b>	
			<b>MAWTF:</b>	
				<b>Pipe/Plate</b>
				<b>PLATE</b>

<b>TML Description</b>		Baseline				<b>Material:</b>	SA-516-70N	
<b>00 HEAD</b>		<b>2015</b>	<b>Flag</b>	<b>CA</b>	<b>Nominal</b>	<b>T Min</b>	<b>STCR mm/yr</b>	<b>LTCR mm/yr</b>
<b>Shape:</b> Ellipsoidal	<b>Min</b>	49.50	45.085	3.175	48.260		0.000	0.000
<b>OD:</b> 914	<b>Avg</b>	50.01					<b>Remaining Life:</b>	
<b>Spec:</b> ASME VIII Div.1	<b>Comments:</b>						<b>Retirement Date:</b>	

<b>TML Description</b>		Baseline				<b>Material:</b>	SA-516-70N	
<b>05 SHELL</b>		<b>2015</b>	<b>Flag</b>	<b>CA</b>	<b>Nominal</b>	<b>T Min</b>	<b>STCR mm/yr</b>	<b>LTCR mm/yr</b>
<b>Shape:</b> Cylindrical	<b>Min</b>	51.79	47.625	3.175	50.800		0.000	0.000
<b>OD:</b> 914	<b>Avg</b>	51.92					<b>Remaining Life:</b>	
<b>Spec:</b> ASME VIII Div.1	<b>Comments:</b>						<b>Retirement Date:</b>	

<b>TML Description</b>		Baseline				<b>Material:</b>	SA-516-70N	
<b>10 SHELL</b>		<b>2015</b>	<b>Flag</b>	<b>CA</b>	<b>Nominal</b>	<b>T Min</b>	<b>STCR mm/yr</b>	<b>LTCR mm/yr</b>
<b>Shape:</b> Cylindrical	<b>Min</b>	51.74	47.625	3.175	50.800		0.000	0.000
<b>OD:</b> 914	<b>Avg</b>	51.94					<b>Remaining Life:</b>	
<b>Spec:</b> ASME VIII Div.1	<b>Comments:</b>						<b>Retirement Date:</b>	

<b>TML Description</b>		Baseline				<b>Material:</b>	SA-516-70N	
<b>15 SHELL</b>		<b>2015</b>	<b>Flag</b>	<b>CA</b>	<b>Nominal</b>	<b>T Min</b>	<b>STCR mm/yr</b>	<b>LTCR mm/yr</b>
<b>Shape:</b> Cylindrical	<b>Min</b>	52.04	47.625	3.175	50.800		0.000	0.000
<b>OD:</b> 914	<b>Avg</b>	52.15					<b>Remaining Life:</b>	
<b>Spec:</b> ASME VIII Div.1	<b>Comments:</b>						<b>Retirement Date:</b>	



# Ultrasonic Corrosion Survey

\*All values are in inches unless otherwise stated.

Survey Name: Canadian Natural

Date: Mar 27, 2015

Inspector: W. Gill

<b>LSD:</b>	<b>Area:</b>	EDSON	<b>Location:</b>	CAR REY YARD
<b>A #:</b> 483110	<b>Tag Number:</b>	V-100	<b>Vessel Name:</b>	VERTICAL SEPARATOR
<b>CRN:</b> P7624.2	<b>Year Built:</b>	2002	<b>Serial Number:</b>	7757-03
<b>RT:</b> 1	<b>Vessel CA:</b>	3.175 mm	<b>Manufacturer:</b>	NATCO CANADA LTD.
	<b>Shell MAWP:</b>	2020 PSI	<b>Tube MAWP:</b>	MAWTF: °F
				<b>MAWTF:</b> °F
				<b>Pipe/Plate</b>
				PLATE

<b>TML Description</b>		Baseline				<b>Material:</b>	SA-516-70N	
<b>20 SHELL</b>		<b>2015</b>	<b>Flag</b>	<b>CA</b>	<b>Nominal</b>	<b>T Min</b>	<b>STCR mm/yr</b>	<b>LTCR mm/yr</b>
<b>Shape:</b> Cylindrical	<b>Min</b>	51.46	47.625	3.175	50.800		0.000	0.000
<b>OD:</b> 914	<b>Avg</b>	52.07					<b>Remaining Life:</b>	
<b>Spec:</b> ASME VIII Div.1	<b>Comments:</b>						<b>Retirement Date:</b>	

<b>TML Description</b>		Baseline				<b>Material:</b>	SA-516-70N	
<b>25 HEAD</b>		<b>2015</b>	<b>Flag</b>	<b>CA</b>	<b>Nominal</b>	<b>T Min</b>	<b>STCR mm/yr</b>	<b>LTCR mm/yr</b>
<b>Shape:</b> Ellipsoidal	<b>Min</b>	49.58	45.085	3.175	48.260		0.000	0.000
<b>OD:</b> 914	<b>Avg</b>	49.94					<b>Remaining Life:</b>	
<b>Spec:</b> ASME VIII Div.1	<b>Comments:</b>						<b>Retirement Date:</b>	

<b>TML Description</b>		Baseline				<b>Material:</b>	A-234-WPB	
<b>30 PIPING</b>		<b>2015</b>	<b>Flag</b>	<b>CA</b>	<b>Nominal</b>	<b>T Min</b>	<b>STCR mm/yr</b>	<b>LTCR mm/yr</b>
<b>Shape:</b> 90° Elbow	<b>Min</b>	8.43	7.623	1.089	8.712		0.000	0.021
<b>OD:</b> 60	<b>Avg</b>	8.66					<b>Remaining Life:</b>	
<b>Spec:</b> ASME B31.3	<b>Comments:</b>	ASSUMED NOM.					<b>Retirement Date:</b>	

<b>TML Description</b>		Baseline				<b>Material:</b>	A-234-WPB	
<b>35 PIPING</b>		<b>2015</b>	<b>Flag</b>	<b>CA</b>	<b>Nominal</b>	<b>T Min</b>	<b>STCR mm/yr</b>	<b>LTCR mm/yr</b>
<b>Shape:</b> 90° Elbow	<b>Min</b>	8.23	7.490	1.070	8.560		0.000	0.025
<b>OD:</b> 114	<b>Avg</b>	8.46					<b>Remaining Life:</b>	
<b>Spec:</b> ASME B31.3	<b>Comments:</b>						<b>Retirement Date:</b>	



# Ultrasonic Corrosion Survey

\*All values are in inches unless otherwise stated.

Survey Name: Canadian Natural

Date: Mar 27, 2015

Inspector: W. Gill

<b>LSD:</b>	<b>Area:</b>	EDSON	<b>Location:</b>	CAR REY YARD
<b>A #:</b>	<b>Tag Number:</b>	V-100	<b>Vessel Name:</b>	VERTICAL SEPARATOR
<b>CRN:</b>	<b>Year Built:</b>	2002	<b>Serial Number:</b>	7757-03
<b>RT:</b>	<b>Vessel CA:</b>	3.175 mm	<b>Manufacturer:</b>	NATCO CANADA LTD.
	<b>Shell MAWP:</b>	2020 PSI	<b>Tube MAWP:</b>	MAWTF: °F
				<b>Pipe/Plate</b>
				PLATE

<b>TML Description</b>		Baseline				<b>Material:</b>	A-234-WPB	
<b>40 PIPING</b>		<b>2015</b>	<b>Flag</b>	<b>CA</b>	<b>Nominal</b>	<b>T Min</b>	<b>STCR mm/yr</b>	<b>LTCR mm/yr</b>
<b>Shape:</b>	90° Elbow	<b>Min</b>	7.490	1.070	8.560		0.000	0.002
<b>OD:</b>	114	<b>Avg</b>					<b>Remaining Life:</b>	
<b>Spec:</b>	ASME B31.3	<b>Comments:</b>	ASSUMED NOM.				<b>Retirement Date:</b>	

<b>TML Description</b>		Baseline				<b>Material:</b>	A-234-WPB	
<b>45 PIPING</b>		<b>2015</b>	<b>Flag</b>	<b>CA</b>	<b>Nominal</b>	<b>T Min</b>	<b>STCR mm/yr</b>	<b>LTCR mm/yr</b>
<b>Shape:</b>	90° Elbow	<b>Min</b>	7.490	1.070	8.560		0.000	0.057
<b>OD:</b>	114	<b>Avg</b>					<b>Remaining Life:</b>	
<b>Spec:</b>	ASME B31.3	<b>Comments:</b>	ASSUMED NOM.				<b>Retirement Date:</b>	

<b>TML Description</b>		Baseline				<b>Material:</b>	A-234-WPB	
<b>50 PIPING</b>		<b>2015</b>	<b>Flag</b>	<b>CA</b>	<b>Nominal</b>	<b>T Min</b>	<b>STCR mm/yr</b>	<b>LTCR mm/yr</b>
<b>Shape:</b>	90° Elbow	<b>Min</b>	7.490	1.070	8.560		0.000	0.045
<b>OD:</b>	114	<b>Avg</b>					<b>Remaining Life:</b>	
<b>Spec:</b>	ASME B31.3	<b>Comments:</b>					<b>Retirement Date:</b>	

<b>TML Description</b>		Baseline				<b>Material:</b>	A-234-WPB	
<b>55 PIPING</b>		<b>2015</b>	<b>Flag</b>	<b>CA</b>	<b>Nominal</b>	<b>T Min</b>	<b>STCR mm/yr</b>	<b>LTCR mm/yr</b>
<b>Shape:</b>	90° Elbow	<b>Min</b>	4.445	0.635	5.080		0.000	0.047
<b>OD:</b>	48	<b>Avg</b>					<b>Remaining Life:</b>	
<b>Spec:</b>	ASME B31.3	<b>Comments:</b>					<b>Retirement Date:</b>	



# Ultrasonic Corrosion Survey

\*All values are in inches unless otherwise stated.

Survey Name: Canadian Natural

Date: Mar 27, 2015

Inspector: W. Gill

<b>LSD:</b>	<b>Area:</b> EDSON	<b>Location:</b> CAR REY YARD
<b>A #:</b> 483110	<b>Tag Number:</b> V-100	<b>Vessel Name:</b> VERTICAL SEPARATOR
<b>CRN:</b> P7624.2	<b>Year Built:</b> 2002	<b>Serial Number:</b> 7757-03
<b>RT:</b> 1	<b>Vessel CA:</b> 3.175 mm	<b>Manufacturer:</b> NATCO CANADA LTD.
	<b>Shell MAWP:</b> 2020 PSI	<b>Tube MAWP:</b> PSI
	<b>MAWTF:</b> 200 °F	<b>MAWTF:</b> °F
		<b>Pipe/Plate</b> PLATE

<b>TML Description</b>	Baseline	<b>Material:</b> SA-106-B
<b>60 PIPING</b>	<b>2015</b>	<b>Flag CA Nominal T Min</b>
<b>Shape:</b> 360° Circ	<b>Min</b> 6.15	5.556 0.794 6.350
<b>OD:</b> 33	<b>Avg</b> 6.40	<b>STCR mm/yr</b> 0.000
<b>Spec:</b> ASME B31.3	<b>Comments:</b> ASSUMED NOM.	<b>LTCR mm/yr</b> 0.016
		<b>Remaining Life:</b>
		<b>Retirement Date:</b>

<b>TML Description</b>	Baseline	<b>Material:</b> SA-106-B
<b>65 PIPING</b>	<b>2015</b>	<b>Flag CA Nominal T Min</b>
<b>Shape:</b> 360° Circ	<b>Min</b> 6.27	5.556 0.794 6.350
<b>OD:</b> 33	<b>Avg</b> 6.55	<b>STCR mm/yr</b> 0.000
<b>Spec:</b> ASME B31.3	<b>Comments:</b> ASSUMED NOM.	<b>LTCR mm/yr</b> 0.006
		<b>Remaining Life:</b>
		<b>Retirement Date:</b>

<b>TML Description</b>	Baseline	<b>Material:</b> SA-106-B
<b>70 PIPING</b>	<b>2015</b>	<b>Flag CA Nominal T Min</b>
<b>Shape:</b> 360° Circ	<b>Min</b> 6.02	5.556 0.794 6.350
<b>OD:</b> 33	<b>Avg</b> 6.35	<b>STCR mm/yr</b> 0.000
<b>Spec:</b> ASME B31.3	<b>Comments:</b> ASSUMED NOM.	<b>LTCR mm/yr</b> 0.025
		<b>Remaining Life:</b>
		<b>Retirement Date:</b>

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

A 483110

1 Manufactured and certified by NATCO CANADA LTD. 9423 SHEPARD RD. SE CALGARY, AB T2H 1X6  
(Name and address of manufacturer)

2 Manufactured for EXYON MOBIL CANADA 201.1100 - 8 AVE SW. CALGARY, AB T2P 3T9  
(Name and address of purchaser)

3 Location of installation MOBIL STOCK  
(Name and address)

4 Type: VERTICAL 7757-03 P7624.2 CVRD-036SX-2020-200-00 REV 0 2002  
(Horiz. or Vert. Tank) (Mfr.'s Serial No.) (CRN) (Dwg. 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 1998  
Year

to '00 N/A N/A  
Addenda (Date) Code Case No. Special Service per UG-120(f)

6 Shell SA 516-70N 2.000" 0.125" 2'-8" 7'-6"  
Matl. (Spec. No., Grade) Nom. Thk. (in.) Corv. Allow. (in.) Diam. I.D. (ft & in.) Length (overall) (ft & in.)

7 Seams TYPE 1 FULL 100% 1150 2  
Long (Welded, Dbl., Singl., Lap, Butt) R.T. (Spot or Full) Eff. (%) H.T. Temp. (°F) Time (hr)

TYPE 1 FULL 1  
Grth (Welded, Dbl., Singl., Lap, Butt) R.T. (Spot, Partial or Full) No. of Courses

8 Heads (a) Matl. SA 516-70N (b) Matl. SA 516-70N  
(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)	TOP	1.900"	0.125"			2:1 SE				CONCAVE
b)	BOTTOM	1.900"	0.125"			2:1 SE				CONCAVE

If removable, bolts used (describe other fastenings) \_\_\_\_\_  
(Mat'l., Spec. No., Gr., Size, No.)

9 MAWP 2020 psi at max. temp. 200 °F  
 Min. design metal temp. -20 °F at 2020 psi. Hydro., pneu., or comb. test pressure 2626 psi.

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Material	How Attached	Location
SEE ATTACHED U-4 FORM								

11. Supports: Skirt YES Lugs NIL Legs NIL Other N/A Attached BOTTOM HEAD WELDED  
(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 the report:

(Name of part, item number, Mfr.'s name and identifying stamp)

V-100 3-PHASE VERTICAL SEPARATOR VOLUME: 48.71 Cu.Ft.  
SHELLS & HEADS TO BE CIT TESTED @ -20 F PER UG-84(c). REMAINDER OF VESSEL IMPACT TEST EXEMPT PER UG-20(f) 1.5 & UCS-66(a)(c)(g)  
DWG. NO.: D-7757-03 REV 0

**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. 11313 Expires SEPT. 9, 2004

Date: Jan 16, 2002 Co. Name: NATCO CANADA LTD. Signed: [Signature]  
(Manufacturer) (Representative)

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**CERTIFICATE OF SHOP INSPECTION**

Vessel constructed by: NATCO CANADA LTD at CALGARY, ALBERTA

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 Boiler Safety Association, have inspected the component described in this Manufacturer's Data Report on JAN 16 2002 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: JAN 16 2002 Signed: [Signature] Commissions: ALBERTA  
(Authorized Inspector) (Nat'l Board (incl. endorsements), State, Prov. and No.)



FORM U-4 MANUFACTURES' DATA REPORT SUPPLEMENTARY SHEET  
As Required by the Provisions of the ASME Code Rules, Section VIII, Division I

**A483110**

1. Manufactured and Certified by Natco Canada Ltd. 9423 Shepard Rd. S.E. Calgary, AB. T2C 1E2  
(Name and address of manufacturer)
2. Manufactured for EXXON MOBIL CANADA 201, 1100 - 8 AVE SW, CALGARY, AB T2P 3T9  
(Name and address of purchaser)
3. Location of Installation \_\_\_\_\_  
(Name and address)
4. Type VERTICAL SEPARATOR 7757-03  
(Horiz., Vert., or Sphere) (Tank, separator, heat exh., etc.) (Mfg's. serial no.)  
P7624.2 CVRD-036SX-2020-200-00 REV 0 -- 2002  
(CRN) (Drawing No.) (Nat'l Bld. No.) (Year built)

Data Report Item Number	Purpose	No.	Size	Remarks		Mat'l	Attached	Reinforc. Material	How Attached	Where
				Nozzles Type	Rate					
	HLSD	C12	2"	CPLG	6000#	SA 105N	--	SA 516-70N	UW 16.1(g)	SHELL
	INSPECTION	C10 a,b	2"	TOL	3000#	SA 105N	--	--	UW 16.1(a)	SHELL
	T.I.	C9	1"	BOSSET	6000#	SA 105N	--	--	UW 16.1(a)	SHELL
	P.I.	C8,	3/4"	BOSSET	6000#	SA 105N	--	--	UW 16.1(a)	SHELL
	WATER L.G.	C7 a,b	3/4"	BOSSET	6000#	SA 105N	--	--	UW 16.1(a)	SHELL
	CONDENSATE LG	C6 a,b	3/4"	BOSSET	6000#	SA 105N	--	--	UW 16.1(a)	SHELL
	WATER LC	C5	2"	TOL	3000#	SA 105N	--	--	UW 16.1(a)	SHELL
	CONDENSATE LC	C4	2"	TOL	3000#	SA 105N	--	--	UW 16.1(a)	SHELL
	WATER OUTLET	C2	2"	TOL	3000#	SA 105N	--	--	UW 16.1(a)	SHELL
	COND. OUTLET	C1	2"	TOL	3000#	SA 105N	--	--	UW 16.1(a)	SHELL
	PSV	N4	2"	RFLWN	900#	--	SA 350 LF2	1.06"	UW 16.1(e)	SHELL
	DRAIN	N3	2"	RFLWN	900#	--	SA 350 LF2	1.06"	UW 16.1(e)	BTM HEAD
	OUTLET	N2	6"	RFLWN	900#	--	SA 350 LF2	1.63"	UW 16.1(e)	TOP HEAD
	INLET	N1	6"	RFLWN	900#	--	SA 350 LF2	1.63"	UW 16.1(e)	SHELL

Certificate of Authorization: Type: "U" No. 11,313 Expires: SEPT. 9, 2004  
 Date: Jan. 16, 2002 Name: Natco Canada Ltd. Signed: \_\_\_\_\_  
 Date: IAN 16 2002 Name: \_\_\_\_\_ Commission \_\_\_\_\_  
 (Manufacturer) (Authorized Inspector) (Representative) (Nat'l. Board incl. endorsements, State, Prov. and No.)  
 Shop Order #: 7757-03