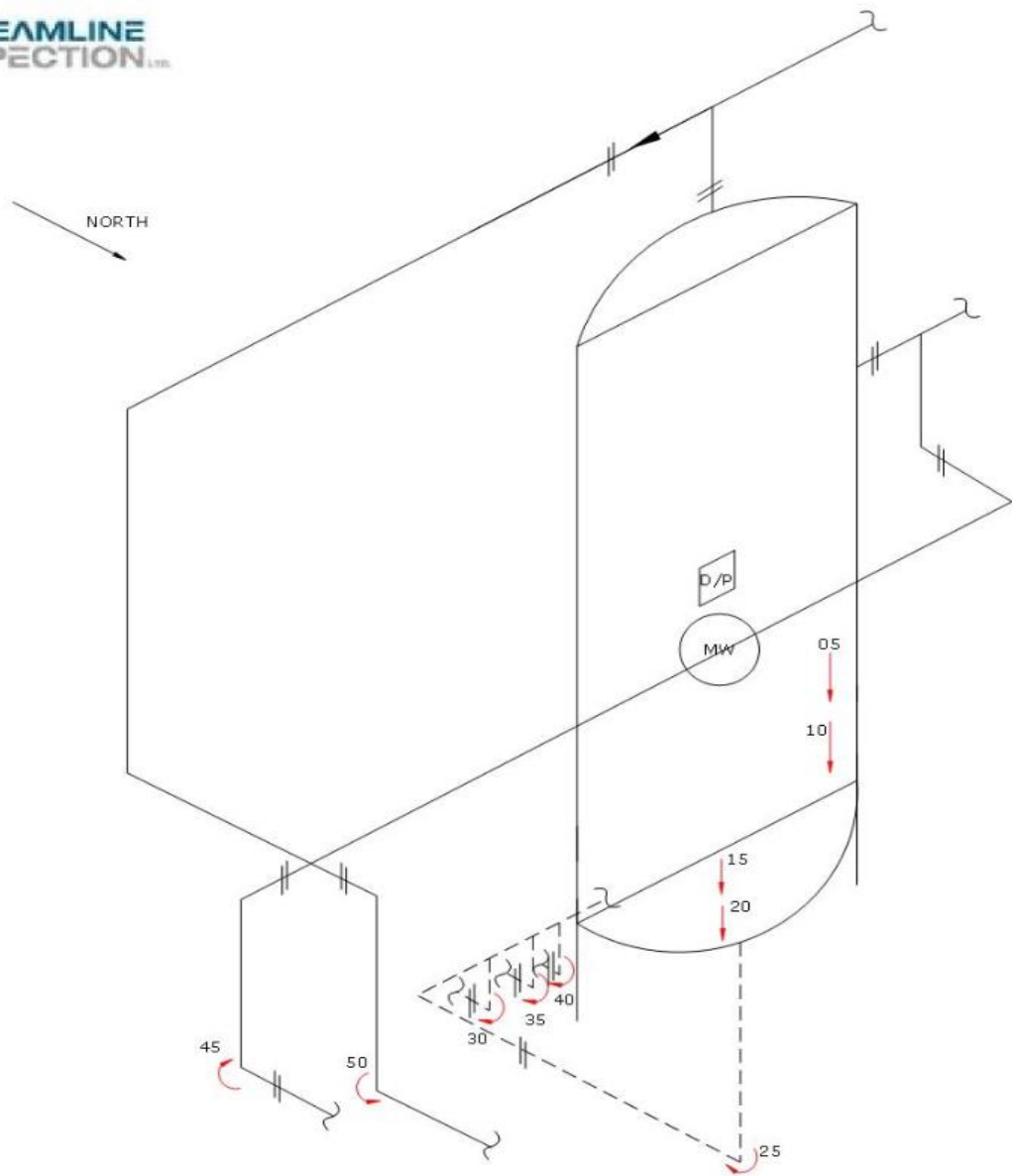




Location Name:	ANSELL	LSD:	07-27-051-19W5
Jur #:	A0436162	Equipment/Tag No.	66005383
Equipment Description:	SLUG CATCHER "B"		
Manufacturer:	CESSO		
Serial Number:	3625B	CRN:	X0170.2
Shell MAWP:	2758	KPA Shell Design Temp:	343 °C
Tube MAWP:		KPA Tube Design Temp:	°C
Shell Material:	SA-212-B	Head Material:	SA-212-B
Shell Thickness:	61.85	mm Head Thickness:	30.73 mm
Corrosion Allowance:		mm Date Built:	1997
Size:	1981	mm Pipe / Rolled Plate:	
RT:	1	Streamline Report #:	STL-19-0169-DMS 110

NOTES: NO ACCESS TO NAMEPLATE, photo taken from prev. report. UT done in 2015 not added as historical as it was not completed on the same areas.









Ultrasonic Corrosion Survey

*All values are in millimeters unless otherwise stated.

Survey Name: Husky Energy

Date: JUNE 16 2019

Streamline Report #: STL-19-0169-DMS 110

Inspector: DYLAN SUNDQUIST

LSD: 07-27-051-19W5	Area: ANSELL	Location: GAS PLANT
Jur #: A0436162	Tag Number: 66005383	Vessel Name: SLUG CATCHER "B"
CRN: X0170.2	Year Built: 1997	Serial Number: 3625B
RT: 1	Vessel CA: 0.000 mm	Manufacturer: CESSO
	Shell MAWP: 2758 KPA	Tube MAWP: MAWT: 343 °C
		MAWT: °C
		Pipe/Plate

CML Description	Baseline	Flange ANSI:	Material: SA-212-B
05 SHELL	2014 2019	CA Nominal	T Min
Shape: Cylindrical	Min 62.36 62.64	0.000 61.849	STCR mm/yr 0.000
OD: 1981.2	Avg 62.81 62.66		LTCR mm/yr 0.000
Spec: ASME VIII Div.1	Comments:		Remaining Life:
			Retirement Date:

CML Description	Baseline	Flange ANSI:	Material: SA-212-B
10 SHELL	2014 2019	CA Nominal	T Min
Shape: Cylindrical	Min 62.26 63.04	0.000 61.849	STCR mm/yr 0.000
OD: 1981.2	Avg 62.48 63.45		LTCR mm/yr 0.000
Spec: ASME VIII Div.1	Comments:		Remaining Life:
			Retirement Date:

CML Description	Baseline	Flange ANSI:	Material: SA-212-B
15 HEAD	2014 2019	CA Nominal	T Min
Shape: Hemispherical	Min 29.82 30.734	0.000 30.734	STCR mm/yr 5.964
OD: 1981.2	Avg 39.34		LTCR mm/yr 0.054
Spec: ASME VIII Div.1	Comments: NO ACCESS		Remaining Life:
			Retirement Date:

CML Description	Baseline	Flange ANSI:	Material: SA-212-B
20 HEAD	2014 2019	CA Nominal	T Min
Shape: Hemispherical	Min 38.13 30.734	0.000 30.734	STCR mm/yr 7.626
OD: 1981.2	Avg 38.71		LTCR mm/yr 0.000
Spec: ASME VIII Div.1	Comments: NO ACCESS		Remaining Life:
			Retirement Date:



Ultrasonic Corrosion Survey

*All values are in millimeters unless otherwise stated.

Survey Name: Husky Energy

Date: JUNE 16 2019

Streamline Report #: STL-19-0169-DMS 110

Inspector: DYLAN SUNDQUIST

LSD: 07-27-051-19W5	Area: ANSELL	Location: GAS PLANT
Jur #: A0436162	Tag Number: 66005383	Vessel Name: SLUG CATCHER "B"
CRN: X0170.2	Year Built: 1997	Serial Number: 3625B
RT: 1	Vessel CA: 0.000 mm	Manufacturer: CESSO
	Shell MAWP: 2758 KPA	MAWT: 343 °C
		Tube MAWP: KPA
		MAWT: °C
		Pipe/Plate 0

CML Description	Baseline	Flange ANSI:	Material: SA-234-WPB
25 NOZZLE	2014 2019	CA Nominal	T Min
Shape: 90° Elbow	Min 24.51	0.000 26.187	STCR mm/yr 4.902
OD: 406.4	Avg 28.74		LTCR mm/yr 0.099
Spec: ASME VIII Div.1	Comments: NO ACCESS, ASSUMED NOMINAL		Remaining Life:
			Retirement Date:

CML Description	Baseline	Flange ANSI:	Material: SA-234-WPB
30 PIPING	2014 2019	CA Nominal	T Min
Shape: 90° Elbow	Min 4.70	0.686 5.486	STCR mm/yr 0.000
OD: 88.9	Avg 4.98		LTCR mm/yr 0.031
Spec: ASME B31.3	Comments: ASSUMED NOMINAL		Remaining Life:
			Retirement Date:

CML Description	Baseline	Flange ANSI:	Material: SA-234-WPB
35 PIPING	2014 2019	CA Nominal	T Min
Shape: 90° Elbow	Min 5.11	0.686 5.486	STCR mm/yr 0.006
OD: 88.9	Avg 5.51		LTCR mm/yr 0.018
Spec: ASME B31.3	Comments: ASSUMED NOMINAL		Remaining Life:
			Retirement Date:

CML Description	Baseline	Flange ANSI:	Material: SA-234-WPB
40 PIPING	2014 2019	CA Nominal	T Min
Shape: 90° Elbow	Min 5.74	0.752 6.020	STCR mm/yr 0.051
OD: 114.3	Avg 6.17		LTCR mm/yr 0.024
Spec: ASME B31.3	Comments: ASSUMED NOMINAL		Remaining Life:
			Retirement Date:



Ultrasonic Corrosion Survey

*All values are in millimeters unless otherwise stated.

Survey Name: Husky Energy

Date: JUNE 16 2019

Streamline Report #: STL-19-0169-DMS 110

Inspector: DYLAN SUNDQUIST

LSD: 07-27-051-19W5	Area: ANSELL	Location: GAS PLANT
Jur #: A0436162	Tag Number: 66005383	Vessel Name: SLUG CATCHER "B"
CRN: X0170.2	Year Built: 1997	Serial Number: 3625B
RT: 1	Vessel CA: 0.000 mm	Manufacturer: CESSO
	Shell MAWP: 2758 KPA	Tube MAWP: KPA
	MAWT: 343 °C	MAWT: °C
		Pipe/Plate 0

CML Description	Baseline	Flange ANSI:	Material: SA-234-WPB
45 PIPING	2014 2019	CA Nominal	T Min STCR mm/yr LTCR mm/yr
Shape: 90° Elbow	Min 12.57 12.67	1.588 12.700	0.000 0.001
OD: 219.075	Avg 12.98 12.78		Remaining Life:
Spec: ASME B31.3	Comments: ASSUMED NOMINAL		Retirement Date:

CML Description	Baseline	Flange ANSI:	Material: SA-234-WPB
50 PIPING	2014 2019	CA Nominal	T Min STCR mm/yr LTCR mm/yr
Shape: 90° Elbow	Min 8.18 8.08	1.588 12.700	0.021 0.210
OD: 219.075	Avg 9.12 8.18		Remaining Life:
Spec: ASME B31.3	Comments: ASSUMED NOMINAL		Retirement Date:

(A) #: 436162

OWNER ID NO. _____

BOILERS AND PRESSURE VESSELS REPAIR ☐ or ALTERATION ☒ REPORT
Repair Procedure submitted to Alberta Boilers Safety Association Yes ☒ No ☐ Partial ☐ Final ☐

1. Name and Address of Organization doing Repair/Alteration Cessco Fab. & Eng. Ltd.
7310-99St. Edmonton, AB AQP Cert. No. & Expiry Date 1014-Sept. 30, 1999
Location of Installation ANSEL GAS PLANT
2. Name of Owner H.C.O. Energy c/o Darsi Engineering
Address #410-700-6Ave. S.W. Calgary, AB
3. Boiler/Pressure Vessel Description Dehydrator Slug Catcher CRN C6163-12 X-0170.2
Manufacturer's Name Vancouver Iron & Eng. Serial No. 77164-3/77164-4
4. Design Conditions _____
- a) Pressure Vessel/Boiler shell: Max Allowable Working Press. 400 Psi Min. & Max Design Temp. 650°F
- b) Pressure Vessel Tubeside/Jacket: Max Allowable Working Press. _____ Min. & Max Design Temp. 1
5. Repair/Alter. Description of Work. Step by step description of repair/alteration method, continue over (under item 13) or attach additional sheets as needed.
- Fabricate new skirt.
 - Replace N4 - 16" 600 lb RFWN c/w SA106-B neck.
 - Add N1 - 8" 600 lb RFWN c/w SA106-B SCH XH neck & repad.
 - Add N3 - 2" 600 lb RFWN c/w SA106-B SCH 160 neck.
 - Add N5, A,B,C - 2" 600 lb RFWN c/w SA106-B SCH 160 neck.
 - Add C2-A/B, C5 & C7 - 2" 6000 lb SA350-LF2 CPLGS.
 - Add C3, C4 - 2" 6000 lb SA350-LF2 CPLGS.
 - Add support ring.
 - Add vortex breaker to N4 inlet divertor to N1.
 - Add lift lugs. Add float protectors C2-A/B & C7.
6. Material - List material used in repair and any base material welded on:

Item	Mat'l Spec.	Thickness (Sch)	Diameter	Item	Mat'l Spec.	Thickness (Sch)	Diameter
Shell/Drums	SA212-B	2.435"	78"	Heads/Ends	SA212-B	1.21"	78"
Tubesheet				Tubes			
Nozzles				Flanges/Fittings	SA105-1	Rating 600lb	16" & 18"

7. Welding Procedure - Prov. Reg. No. 218.2 Repair Org. 218.2 Owners _____ W.P.S. No.s Used CWP-102/109/110
8. Heat Treatment: Bake Out (Temp Time) _____ Preheat Temp 175°F Post Weld HT (Temp & Time) 1150°F
9. Non Destructive Examination (Specify type and extent).

R.T. 100% all welds by Cessco.

(A) #: 436162 OWNER ID NO. _____

10. Pressure Test Boiler/PV Shell Tubeside/Jacket Press

a) Hydrostatic Test 600 Psi _____

b) Other Test _____ _____

11. Welded Replacement Parts: Attached are Manufacturer's Partial Data Reports or Repair Reports properly identified and signed by Authorized Inspectors for following items of this report: (Welded parts supplied by others).

12. Responsibility Owner/Client. Identify below items the owner/client has assumed responsibility for. Note (1)

a) Design Submission _____ b) Repair Proc. _____ c) Material Control _____

d) Welding Control _____ e) NDE _____ f) Heat Treatment _____ g) Pressure Test _____

Note (1) Owner/client must have a valid Q.C. program to assume responsibility for functions: c,d,e,f or g.

13. REMARKS: _____

Repad for N1 - 2 1/2" SA516-70N c/w LCVN 16/12 at 0°F

14. CERTIFICATION (to be made out after completion of work).

(a)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Report are correct and that all design, material, construction and workmanship on this repair/alteration conform to the requirements of the Safety Codes Act and regulations, thereunder.

Except for items identified in 12:

For items identified in 12 only:

Cessco Fab. & Eng. Ltd.

(Repair Organization Name)

1014-Sept. 30, 1999

(AQP Cert. No. & Expiry Date)

(Owner/Client Organization Name)

(AQP Number & Expiry Date)

(Signature & Date)

(Signature & Date)

(b)

CERTIFICATE OF INSPECTION

I have inspected the repairs and alterations described on this report. To the best of my knowledge this work has been done in accordance with the Safety Codes Act and Regulations.

Owner User/Inspector _____ Date _____ Owner/User AQP# _____ Expiry _____

Required when inspections are not performed by ABSA Safety Codes Officer and Owner has performed inspections under a valid Owner/User Certificate.

ABSA Safety Codes Officer L. HaganDate Sept 19/97**ABSA OFFICE USE ONLY**

Report Received by _____

Date _____