

Tracker entry. Jan.26/16 kh RBMI & UT Entry Jan.27/16 ph PRESSURE VESSEL & COLUMN INSPECTION REPORT

			LSD:	06-	<mark>25-046-</mark> 0	03W4		Date: 20	016-01-11	SAP Equi	oment ID	62045567		
						VES	SEL ST	ATIC DATA	<u> </u>					
lant:		Rivercourse					o	P Unit:			System:			
ov. Insp . #				NB#	#: N/S		С	RN:	N4059.32		Equip Tag#	: 62	2045567	
quipment De	scription:	SEP	ARATOR								Serial #:	01	96406	
anufacturer:	i	WATERFLOO	D								Vessel Class	s: ve	ssel	
Internal Access: No				D	escription	on:				Year Built:	2	001		
AWP:		1793	kpa	l	A	t Temp		93	С		MDMT:		-29 C	
ode:		N/S			R	T:	None	e			PWHT:	No)	
ameter: 2	19	mm Ler	gth: 1	143	mm (1	Г/Т):	mm	OAL:	mm		Orientation	: Ve	ertical	
SHE	LL	Mat'l:	Unknown	SA 106	6B T	hickness	: :	0.00	12.7 mm		Corr Allowa	nce:	0.00 1.6 mm	
HE	\D	Mat'l:	Unknown §	SA 234 '	WPB T	hickness	: :	0.00	12.7 mm		Corr Allowa	nce:	0.00 1.6 mm	
	Nozzle	Mat'l:			Т	hickness	; :				Corr Allowa	nce:		
iternal Coati	ng:				I	Internal Clad: Capacity:						m3		
Manway: No				I	nspectio	n Port:	Yes	3		Skirt X	Legs	Saddle		
ozzle Rating	1	150	lb AN	SI	P	ainted:		Yes	3		Insulated:	No		
						P	ROCES	S DATA						
oduction De	scription:				Ş	Sweet		Sour:						
perating Pre	ssure		kp	a	0	Operating Temp: C Status: Operating								
						PS\	STATI	C DATA						
				Size	(mm)	s	et Press	Capacity	Manufactur	er	No. del	Last	Service	
Tag #	Serial No	o. Locatio	on Ir	ılet	Out		(kPa)	Imperial (SCFM)			Model	Service	Company	
3237	82344-3	5 Piping	j 2!	5.40	25.4	40	414	262	Taylor Valve		T-8200-1	2015/10/27	POWELL	
						F	SV DE	TAILS				•		
		Туре	(Thread/	Flange	e)		AN	ISI Rating			Siz	ze(In/mm)		
PRD Inle	,	Thre	aded			+	1	50			2	5.40		
PRD Outl			aded					50			25.40			
					NI	DE Equ	ipment	t Records						
Proced	ure #	Des	cription		Mai	nufactur	er	Мс	del#		Serial# Due Date			
**** See Associated NDE Report								l .		1		I		

INSPECTION SUMMARY

MINOR SEEPAGE FOUND AT PRESSURE GAUGE. UT TESTING WAS PERFORMED AT APPROX 1 YR INTERVAL AND NO SIGNIFICANT ACTIVE CORROSION WAS FOUND. VESSEL FIT FOR SERVICE.

RECOMMENDATIONS

TIGHTEN THREADED CONNECTION AT PRESSURE GAUGE.

THIS VESSEL CAN BE PLACED ON A NORMAL INSPECTION INTERVAL AS PER HUSKY SPECS.

NONCONFORMANCES/INSPECTION DEFICIENCES



INSPECTION PLANNING

Inspection Strategy		Availability	Inspection Interval	5 year					
Inspection Date	2016/01/11	Date of Last Inspect	Date of Next Insp	2021/01/11					
	REPORT CERTIFICATION								
_	y that inspections/tests have be	en completed in accordance with the identified inspection s	trategy and that the						

The SignatureS below certify that inspections/tests have been completed in accordance with the identified inspection strategy and that the specified equipment is considered fit for service until the date of next inspection.									
Inspected by	Justin Orichowski		AB Cert #	758	SK PEI #	214	Date	2016/01/11	_
Reviewed and Approved by				_		Date			_
Criticality Assessment Rerun		Inspection Planning R	Inspection Planning Rerun						
Assessed Next Inspection D	ate <u>2021</u>								_



LSD: 06-25-046-03W4 **Date:** 2016-01-11 **SAP Equipment ID** 62045567

DETAILED INSPECTION VISUAL EXTERNAL

			VISUAL EXTERN		
ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)	Accept		No	GOOD CONDITION.
V2	General Corrosion	Accept		No	NO VISIBLE ISSUES.
V3	General Leaks	Concern		No	MINOR SEEPAGE ON PRESSURE GAUGES.
V4	Vibration	N/A		No	
V5	Dissimilar Flange Rating	Accept		No	NO ISSUES.
V6	Ladder/Stairway	N/A		No	
V7	Heads	Accept		No	NO ISSUES.
V8	Guy Wires	N/A		No	
V9	Electrical Ground	Accept		No	NO ISSUES.
V10	Painted Inactive Corrosion	N/A		No	
V11	Coating/Painting	Accept		No	PAINTED.
V12	Expansion Joint or Bellows	N/A		No	
V13	Gauge/Site Glass	Accept		No	GOOD CONDITION.
V14	Shell	Accept		No	GOOD CONDITION.
V15	Jacket	N/A		No	
V21	Support Other (Please explain)	Accept		No	PIPING SUPPORTS IN GOOD CONDITION.
V22	Foundation	Accept		No	METAL.
V23	Anchor Bolts	N/A		No	
V24	Saddle/Skirt	Accept		No	SKIRT.
V25	Davit	N/A		No	
V26	Fireproofing	N/A		No	
V31	Connections Other (Please explain)	Accept		No	FLANGED AND THREADED CONNECTIONS IN GOOD CONDITION.
V32	Small Branches	Accept		No	GOOD CONDITION.
V33	Nozzles	Accept		No	NO ISSUES.
V34	Manways	N/A		No	
V35	Reinforcing Pads	N/A		No	
V36	Inadequate Thread Engagement	N/A		No	
V37	Bolting	Accept		No	BOLTING NO ISSUES.
V38	Flanges	Accept		No	NO ISSUES.
V39	Leak Clamps	N/A		No	
V41	Insulation Other (Please explain)	N/A		No	
V42	Damage	N/A		No	
V43	Penetrations	N/A		No	
V44	Insulation Jacket	N/A		No	
V45	Banding	N/A		No	
V46	Seals/Joints	N/A		No	
V51	Relief Devices Other (Please explain)	Accept		No	GOOD CONDITION.
V52	Corrosion	N/A		No	
V53	Leaks	Accept		No	NO LEAKS.
V54	Restricted Inlet/Outlet	N/A		No	
		•			



		LSD:	06-25-046	5-03W4	Date: 20	16-01-1	1 SAP Equipment ID	62045567	
V5.	Manual Operation Lever		N/A			No			

DETAILED INSPECTION OTHER TECHNIQUES

ID	ID Location Observa		Observation/Measurement	Acceptance Criteria	NCR	Comments

DETAILED INSPECTION UT THICKNESS

	CML	Nom. Thickness (mm)	CURRENT READINGS (mm)	short term corr rate (mm/y)	long term corr rate (mm/y)	remaining life (year)	Survey Date	Comments
10	(SHELL) 12.7 mm	0.00	12.34	0.0000	0.0000	198.0	2016/01/11	NO COMMENTS within C/A
	(SHELL) 12.7 mm	0.00	12.34	0.0000	0.0000		2015/01/20	within C/A
15	(SHELL) 12.7 mm	0.00	12.32	0.2794	0.2794	38.3	2016/01/11	NO COMMENTS within C/A
	(SHELL) 12.7 mm	0.00	12.60	0.2794	0.2794		2015/01/20	within C/A
20	(SHELL) 12.7 mm	0.00	12.83	0.0762	0.0762	147.1	2016/01/11	NO COMMENTS
	(SHELL) 12.7 mm	0.00	12.90	0.0762	0.0762		2015/01/20	
25	(HEAD) 12.7 mm	0.00	10.49	0.0762	0.0762	116.6	2016/01/11	NO COMMENT Within Manufacturers tolerance + C/
	(HEAD) 12.7 mm	0.00	10.57	0.0762	0.0762		2015/01/20	within Manufacturers tolerance + C/A
05	(BAND 2 XS)	5.54	5.21	0.0508	0.0508	94.8	2016/01/11	NO COMMENTS
	(BAND 2 XS)	5.54	5.26	0.0508	0.0508		2015/01/20	
30	(90L 1 STD)	3.40	3.25	0.0000	0.0000	198.0	2016/01/11	NO COMMENTS
	(90L 1 STD)	3.40	3.25	0.0000	0.0000		2015/01/20	
35	(BAND 2 XS)	5.54	4.93	0.0000	0.0000	198.0	2016/01/11	NO COMMENTS
	(BAND 2 XS)	5.54	4.93	0.0000	0.0000		2015/01/20	
40	(90L 2 80)	5.54	5.00	0.0000	0.0000	198.0	2016/01/11	NO COMMENTS
	(90L 2 80)	5.54	5.00	0.0000	0.0000		2015/01/20	
45	(90L 2 80)	5.54	4.17	0.0000	0.0000	198.0	2016/01/11	LOW RDG IS MORE THAN 10% BELOW NOM-CA
	(90L 2 80)	5.54	4.17	0.0000	0.0000		2015/01/20	

Inspected By	Signature	CGSB Level	CGSB No.	Survey Date	UT Equip	Due Date OF Calibration	NDE Procedure No.
Justin Orichowski	10-C-	1	16325	01/11/2016	104_91638503_EPOCH4	06/27/2016	WQS UT-001



LSD: 06-25-046-03W4

Date: 2016-01-11 **SAP Equipment ID** 62045567



Client:

HUSKY ENERGY

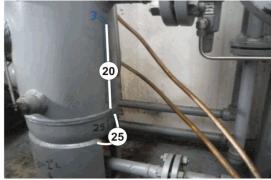
EXAMINATION ILLUSTRATION

DISTRICT:	ALBERTA SOUTH	FACILITY:	RIVERCOURSE	LOCATION/LSD:	06-25-046-03W4
EQUIP NAME:	SEPARATOR		PROV REG No.:		
SERIAL No.:	0196406	Equip No.:	62045567	National Board No.:	













Client:

HUSKY ENERGY

PHOTOGRAPHS

EQUIP NAME:	SEPARATOR		PROV REG No.:		
SERIAL No.:	0196406	Equip No.:	62045567	National Board No.:	



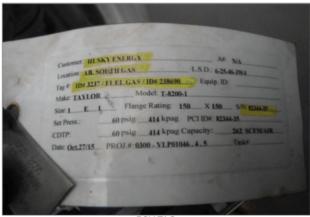
NAMEPLATE



OVERALL



PSV



PSV TAG



SEEPAGE



SEEPAGE