



Client	Midstream Equipment	Inspection Date	Jun 6, 2025		
Prov. Reg. #	AB 0554389	Inspection Type	VE / UT / PSV		
Equipment Type	Blowcase	Location	27 DURUM DRIVE, AB (MIDSTREAM YARD)		
Tag/Equip.		LSD	AB		
Status	Not in Service	Downhole LSD			
Manufacturer	Sunwell Industries Inc	Area			
Serial Number	06-527	Year Built	2006		
CRN #	T0932.213	Service	Sour		
Comp/Unit Id	UNIT 1029	Manway	None		
Nat.Board #		Coating	Painted		
Interim Insp'n		Interim Type			
Next Thorough Insp	2030	Next Insp Type	VE / UT / PSV		
Length	16 in	Height			
Volume	10 ft³	Client Reference			
Owner	Midstream Equipment	RT	1	HT	YES
Foreman		RAE Job No.	PR0004444		
ABSA	Plant: R Vessel: P Process: W Special: Z		ASME	Sec. VIII div. 1	
History Log	Vessel relocated as per ESR - previously at Enerflex Yard - entered March 2, 2017. Certificate of Inspection - entered March 22, 2017. U1A - entered March 24, 2017. AB-10 - Unit 1029 - Midstream Ownership - 2017-02-13 AB-10 - Vessel Relocated and Returned to Service. Internal entry 2019-01-10 Inspection Report Complete - Inspection Date: 2025-June-06 Inspection Type: VE/UT/PSV				

Component	Shell				
MAWP	1649.9 PSI @ 350 °F		MDMT	0 °F @ 1650.0 PSI	
Material	SA-106C		Material Thickness	1.594 in	
Diameter	12.813 in		Length	60 in	
Corrosion Allowance	0.125 in				



Head Office: 4810 - 93 Street NW, Edmonton, Alberta, Canada T6E 5M4
Tel: 780-469-2401 Fax: 780-468-2422 www.raeengineering.ca

Report No: IG001262

Valve Tag No	1029 - BLOWCASE PSV	Relief Type	Pressure Safety Valve
Manufacturer	Mercer	Set Pressure	1200 PSI
Serial Number	261302	Capacity	4138 SCFM
Model	81-7151T15G11	Last Service	Oct 12, 2022
CRN	0G8841.5C	Next Service	2026
Service Co.	PIMM'S PRODUCTION EQUIPMENT	Service Interval	48 Months
Service Co. Tag	28350C	Inlet Size	1 in
ASME Stamp	UV	Outlet Size	1 in
NB Stamp	YES	Connection	Threaded
Relief Dest.	To Atmosphere	Valve Loc.	On Vessel
Comments		Client Reference	

Component	Left and Right 2:1 Concave		
Material	SA-516-70N	Material Thickness	1.35 in
Corrosion Allowance	0.125 in		

Comments

The following RAE Procedure(s) was/were used in inspecting this vessel:

INS-624B Unfired Pressure Vessels Procedure

INS-645B PRV Inspection Procedure

NDE Technical Manual

The unit was located at the Midstream Equipment yard located just east of Chestermere, AB.

The unit was not in-service at the time of inspection.



Building Observations

Number of Access Doors:1 Building Supported by: Skid
Gas test port: No Gas Detection: Yes
Fire eye: No Catalytic Heater: Yes
Lighting: Good Floors : Checker plate steel
Drainage/Condition: Acceptable
Equipment placed ergonomically: Yes

The vessel was located in a building identified with a place card "Rental Unit #8000353" attached to the building exterior.

The building was generally in good condition and well supported.

The building has one entry and a window to provide lighting. Both the door and window were functioning well and were in good condition

The building has adequate light which is a combination of natural light and lighting.

The building floor was a checkered steel plate that had paint damage and corrosion and was in overall good condition.

All items are placed economically, and operations can be performed safely.

The building structure was level and situated on a transportation skid.

The cladding was in good condition.

Overall, the building was in acceptable condition.

2025 Observations

Midstream unit number was written on the building door.

No additional comments since last inspection.

Figure: 1



BUILDING

Figure: 2



UNIT NUMBER



Figure: 3



FLOOR

Piping Observations

General condition: Acceptable
Mechanical connections acceptable for service?: Acceptable
Clad: No Painted: Yes Insulated: No
Are there any dead legs: No
Support type: U-Bolt
Supported adequately: Yes

The piping was labeled and was well supported.
The attached piping was sufficiently support and was in good condition.
The piping was painted and there was no damage, distortion or stress evident on the piping.
There was no signs of external corrosion on the piping surfaces.
The piping had welded joints and flanged connections that showed no signs of leakage.
The flanged connections were fully bolted and appeared to be in good condition.
Overall the piping appeared to be in good condition.

2025 Observations

There was minor paint chips and minor external corrosion noted on the piping surfaces.



Figure: 4



OUTLET PIPING

Figure: 5



GAS INLET PIPING

Figure: 6



INLET PIPING



PSV Observations

Drainage : Acceptable Supports : Acceptable
Bolting : Acceptable Seal wire : Acceptable
Gasket : Acceptable Service tag : Acceptable
CRN : Acceptable Set pressure : Acceptable
Installation vertical : Yes Required Capacity : Not verified
PSV block valves : No
PSV service report available : Yes

The PSV was identified by the identification tag and nameplate.

There was a service tag attached to the PSV and a metal service company identification tag.

The nameplate was securely attached and legible.

The PSV was installed on the vessel piping and relieves outside the building.

The PSV had all the required seals and they were intact.

The was installed in a vertical position with the discharge line grading away from the valve complying with regulatory standards.

There were no valves on the PSV piping.

The PSV was last service on June 14, 2013 and the PSV shall be serviced prior to June 14, 2017.

The PSV service report shall be forwarded to the Chief Inspector for review.

2025 Observations

PSV was serviced in 2022.

No additional comments since last inspection.

Figure: 7



PSV

Figure: 8



NAMEPLATE



Figure: 9



REPAIR NAMEPLATE

Figure: 10



SERVICE TAG

External Observations

Installation : In Building	Support Structure : Saddles
Grounded : Yes	Securement Type : Welded
Drains : Automatic	Securement Condition : Acceptable
Attachments : Yes	Ladders/Platforms : N/A
CUI checked : N/A	External Covering : Coated
Vessel Orientation : Horizontal	
Manway : No	
Certificate of inspection permit : Yes	
Nameplate attached and legible : Yes	

The vessel was identified by the Alberta Registration Number stamped on the nameplate.

The nameplate was legible and securely mounted to the vessel.

The vessel was fully located inside the building was ergonomically placed.

The vessel was adequately supported on saddle supports and was welded to the skid floor.

The heads, shell, nozzles and bolting appeared to be in good condition.

There was no stress evident on piping or nozzle connections and there was no damage or distortion evident on the vessel surface.

The vessel was painted grey and is in acceptable condition.

The gauges were in good condition.

2025 Observations

No additional comments since last inspection.

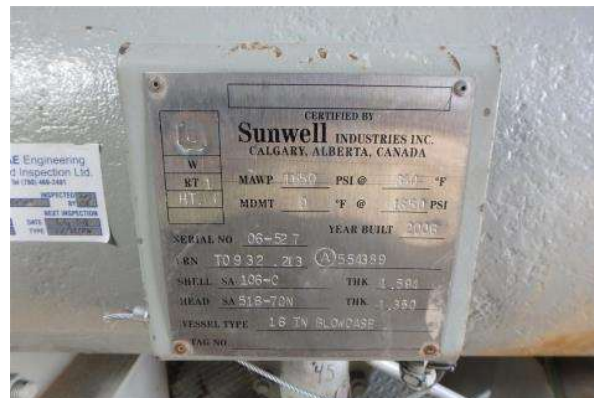


Figure: 11



VESSEL

Figure: 12



NAMEPLATE

Figure: 13



SUPPORT

Internal Observations

No internal inspection was performed during the time of inspection.

UT1 Observations

See attached UT Report. UT results were reviewed and found to be acceptable.

Recommendations

1. The vessel is fit-for-service.
2. A permanent Midstream unit label should be affixed to the building door.
4. There should be an installation inspection of the unit after being installed on site to ensure no damage occurred during shipping and to verify proper installation.



Head Office: 4810 - 93 Street NW, Edmonton, Alberta, Canada T6E 5M4
Tel: 780-469-2401 Fax: 780-468-2422 www.raeengineering.ca

Report No: IG001262


Irwin Garcia, P.Eng.
Alberta IPV #A-92199

ABSA ISI-PVPP# A-99351
API 510# 68250
CWB Level II# 12352
SNT UT1 MT2

Inspector: Bryce Motley

Inspector : Irwin Garcia

Reviewed By: Bryce Motley

	RAE Engineering and Inspection Ltd. www.raeengineering.ca Phone: (780) 469-2401 Fax: (780)-469-2401		Inspection Date:		June 06, 2025		<h1>UT Report</h1>								
			Report Number:		IG000070										
			Page:		1 of 5										
Client:		Midstream Equipment		Job Number:		PR0004444									
Facility:		Midstream Yard		Location/LSD:		Midstream Yard									
Equipment Number:		0554389		Client Representative:		Joe Davis									
Equipment Description:		Blowcase		Client Contact:		joe.davis@midstreamequipment.com									
Equipment Type:		Vessel+Pipe		Measurment Unit:		Inch									
JOB DESCRIPTION															
Procedure:		NDE Tech Manual Rev. 2025 (NDE - 701B)													
Acceptance Code:		ASME Sec. VIII Div. 1 / ASME B31.3		Surface Condition:		Painted									
Material:		Carbon Steel		Surface Temp:		0 - 120 °C									
EQUIPMENT, TECHNIQUE & CALIBRATION															
Instrument Mfr:		GE		Model:		DMS2		S/N:		01X121		Cal. Due:		2026-05-02	
Probe Model	Freq MHz	Angle	Dia. (In)	Probe Type	Manufacturer	Serial #	Cable Length	Vel. (m/sec)	Ref dB	Scan dB	Range (in)				
FH2E	7.5	0	0.250	Single	Stresstel	24E00NGM	6'	2369	60	As Needed	1				
Cal Block S/N			1 or 2 Point Cal		Calibration Range		Couplant		Block Material						
11-1200			2		0.100-1.500"		UTX		Carbon Steel						

Scope:

Conduct 0° straight beam ultrasonic testing on the blowcase looking for any signs of wall thinning due to corrosion, erosion, laminations or inclusions.

Result:

The measurements obtained from the inspection locations showed the thicknesses of all the components inspected to be at or around nominal. There were no signs of wall thinning, internal corrosion, erosion, laminations or inclusions at the time of inspection. All piping measurements were within the 12.5% mill tolerance, as per ASTM specifications.

Please see the following pages for the pictures of nameplate, the overall view, the isometric drawings, and the thickness measurements.

Conclusion:

No concerns noted at the time of inspection.



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	Report Number:	IG000070	
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Overall View



Nameplate



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June 06, 2025

Report Number:

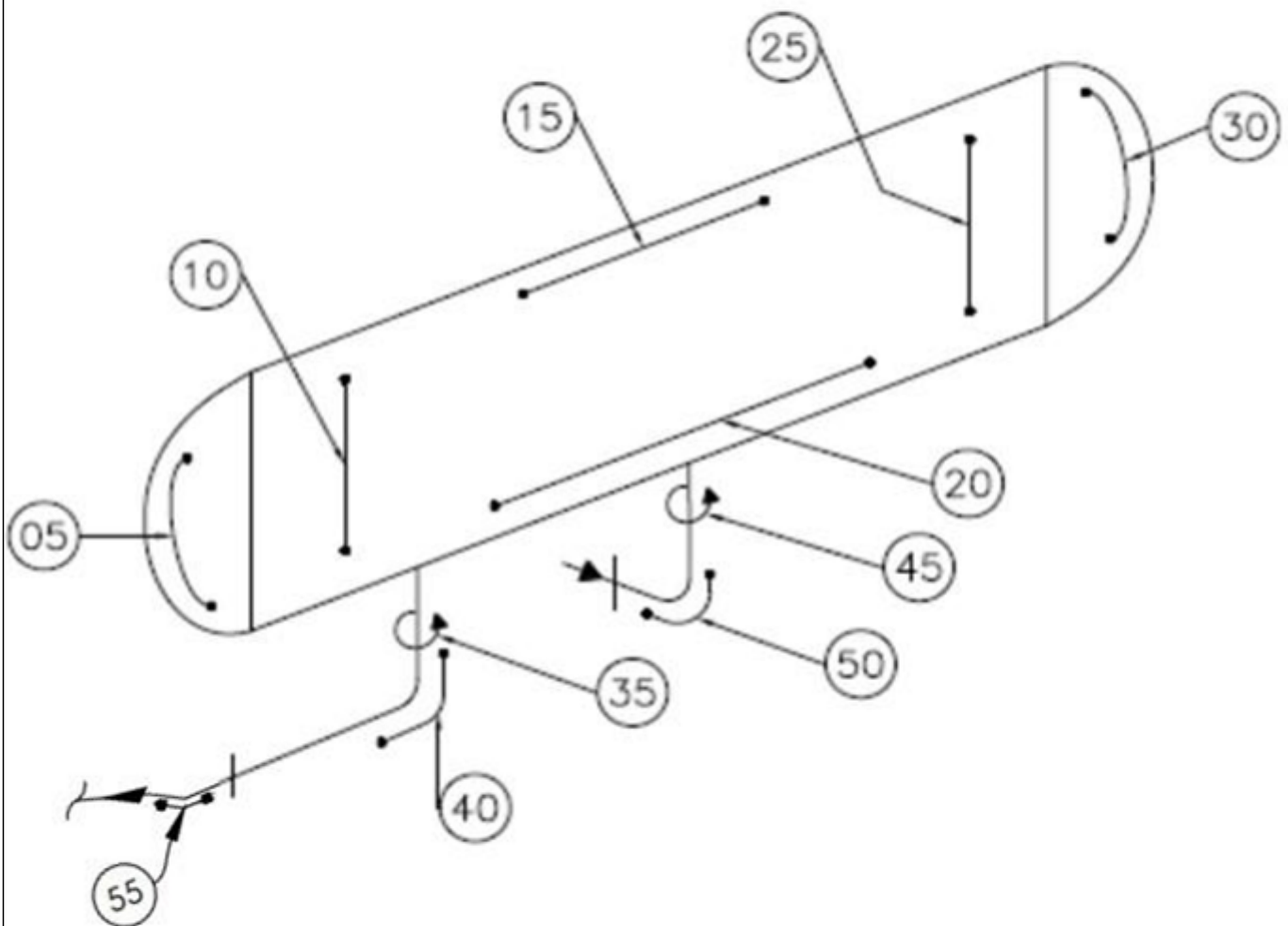
IG000070

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UT Report

ISO Drawing



ISO

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								Report Number:		IG000070				
								Page:		4 of 5				
UT Data														
#	01	02	03	04	05	06	07	08	09	10	11	12	Min & Avg	
5	Head						Nom	N/S	Mil	0.010	CA	0.125	Min:	1.475
	1.583	1.490	1.480	1.483	1.494	1.492	1.480	1.475	1.487	1.599			Avg:	1.506
10	Mid Shell						Nom	1.594	Mil	0.010	CA	0.125	Min:	1.618
	1.619	1.621	1.620	1.618	1.625	1.629	1.620	1.626	1.619	1.625			Avg:	1.622
15	Top Shell						Nom	1.594	Mil	0.010	CA	0.125	Min:	1.621
	1.634	1.644	1.640	1.635	1.638	1.641	1.630	1.643	1.646	1.621			Avg:	1.637
20	Bottom Shell						Nom	1.594	Mil	0.010	CA	0.125	Min:	1.597
	1.619	1.641	1.636	1.649	1.619	1.620	1.623	1.652	1.640	1.597			Avg:	1.630
25	Mid Shell						Nom	1.594	Mil	0.010	CA	0.125	Min:	1.592
	1.618	1.619	1.626	1.614	1.600	1.604	1.592	1.598	1.603	1.623			Avg:	1.610
30	Head						Nom	1.350	Mil	0.010	CA	0.125	Min:	1.420
	1.496	1.420	1.425	1.443	1.456	1.448	1.448	1.429	1.420	1.433			Avg:	1.442
35	2 XXH Nozzle						Nom	0.436	Mil	0.054	CA	N/S	Min:	N/A
													Avg:	N/A
	Were unable to take the measurements													
40	2 XXH 90° Elbow						Nom	0.436	Mil	0.054	CA	N/S	Min:	0.458
	0.487	0.462	0.458	0.459	0.464	0.460							Avg:	0.465
45	3 XXH Nozzle						Nom	0.600	Mil	0.075	CA	N/S	Min:	0.611
	0.621	0.626	0.627	0.611									Avg:	0.621
50	3 XXH 90° Elbow						Nom	0.600	Mil	0.075	CA	N/S	Min:	0.562
	0.563	0.569	0.569	0.575	0.600	0.562							Avg:	0.573
55	2 160 45° Elbow						Nom	0.344	Mil	0.043	CA	N/S	Min:	0.343
	0.343	0.345	0.353	0.361	0.356								Avg:	0.352





Irwin Garcia, P.Eng.
Alberta IPV #A-92199

Technician 1: Irwin Garcia

SNT RAE-710B-037 UT Level 1 (Expires Sep 30, 2029)
SNT RAE-710B-037 MT Level 2 (Expires Sep 30, 2029)



Method	Level	Expiry Date	 RAE Engineering and Inspection Ltd. Certification Record This is to certify that: Irwin Garcia <small>The above named employee has satisfactorily met the qualification requirements of the RAE Engineering and Inspection Ltd. written practice that meets the requirements of ASNT recommended practice SNT-TC-1A 2020 edition</small> Certification No.: RAE-710B-037
UT	1	30-Sep-29	
MT	2	30-Sep-29	
Corrective Lenses Required:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
By:	Zong Jun Wang		
Title:	NDE Level 3		
Signature:			
Date:	30-Sep-24		



MetTech

Material Testing Equipment and Supplies

A division of 1067113 Alberta Ltd.

1, 3610 - 29 St. N.E. Calgary, Alberta T1Y 5Z7

Measurement Readings for Calibration of Thickness Gauges

Company: RAE Engineering & Inspection Ltd. - Calgary

Instrument: GE DMS2 UTG

Serial Number: 01X121

Date: 5/2/2025

Range Check against stated reference listed:

Nominal measure	Measured reading	
	Block # 1	Block # 2
1.000"	1.002 "	1.000 "
0.750"	0.752 "	0.751 "
0.500"	0.500 "	0.500 "
0.250"	0.250 "	0.250 "

Allowable tolerance +/- 0.004"

These readings were produced against stated reference block in house and are within the allowable tolerances.

Reference Standards

4 Step 4340 Imperial Steel

Serial # 07-5839

Heat/Lot # G10975K06

ASTM specification E-797

4 Step Imperial Steel

Serial # 11-3909

Heat/Lot # 227L511

ASTM specification E-797

These reference standards have been manufactured in accordance with applicable specifications, and were inspected with instruments calibrated in accordance with ANSI/NCSL Z540-1-94 and traceable to NIST.

Signed by:

Temperature: 21.2 °C

On this date: 5/2/2025

Rel. Hum. : 28%

Calibration report MET-STEP01 Revision 3 Apr 11/22

Phone: 270-7778

Calgary

Fax: 283-3552

Edmonton

Toll free: 1-888-283-3552



MetTech

Material Testing Equipment and Supplies

A division of 1067113 Alberta Ltd.

1, 3610 - 29 St. N.E. Calgary, Alberta T1Y 5Z7

Certificate of Calibration of Thickness Gauges

Company: Rae Engineering - Calgary

Instrument: GE DMS2 UTG

Serial Number 01X121 :

Date: 5/2/2025

This is to certify that the above instrument meets or exceeds manufacturer's specifications for THICKNESS RESOLUTION, and has been calibrated to reference standards manufactured and inspected in accordance with ISO 902 with instruments calibrated to ANSI/NCSL Z540 and traceable to National Institute of Standards and Technology (NIST).

Reference Standard: 4 Step Imperial Steel

Serial # 07 - 5839

Block #1

Serial # 11 - 3909

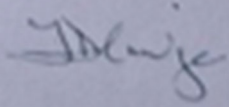
Block #2

These blocks have been manufactured in accordance with applicable specifications, and was inspected with instruments calibrated in accordance with ANSI/NCSL Z540 and traceable to NIST.

NIST certification reference # 11-83834 A & B

10-78221 A & B

Certificate of calibration is current for a period of 12 from date listed. Reference Standard Blocks are periodically cycled out of stock without notice.

Signed by: 

On this date: 5/2/2025