

01-18-017-18W4M

FUEL GAS SCRUBBER #1

FV-6-7-1006-2C65696

REPORT # FV-6-7-1006-2\_GRADY INSPECTION LTD VE UT INSP\_1APR2022

DATE

4/1/2022

CLIENT

CNRL

Phone: 403-793-7697

8 Sarah King Crt E Brooks, Alberta, T1R 0J8  
grady.rustebakke@gmail.com

**GRADY**  
INSPECTION LTD



#### RESULTS OF INSPECTION:

VE Inspection:  
Fit For Service. NCR. Check valve located on PSV discharge piping causing restriction.  
Vessel is not secured to foundation  
UT Inspection:  
No corrosion was found with the ultrasonic inspection.

#### PRESSURE EQUIPMENT

DISTRICT				SHELL		TUBE							
FACILITY				MAWT		100		F					
A#		YR		1984		MAWP		720		psi			
SERIAL #		FV-6-7-1006-2				PSV		150		psi			
CRN		E1345.2				PSV CRN		0G8841.5C					
EQUIP#						SERVICED		6/7/2017					
STATUS		IN SERVICE <th colspan="2">UNIT</th> <td colspan="6">Refridge</td>		UNIT		Refridge							
MANUFACTURER		OPSCO '92 INDUSTRIES LTD.											
DH LSD				L		4.2		Ft		OD .5		Ft	
REPAD		0 <th colspan="2">UNIQUE ID</th> <td colspan="6">C65696</td>		UNIQUE ID		C65696							

#### AB-506 INTERVAL

Fuel gas scrubbers

GRADE	YEARS			REG
	Equip	PSV	UT	
3	10	6	10	X

#### INSPECTION TYPE

VE	VI	MT	PT	ET	UT
X					X

#### INSPECTION RESULT:

NCR-OPERATIONS X

NCR-REGULATORY/ADMIN

ACTION ITEM RAISED

REPAIR REQUIRED

SUITABLE FOR SERVICE X

#### RECOMMENDATIONS:

VE Inspection:  
Remove check valve from PSV discharge piping  
Ensure vessel is secured to foundation

#### SIGN OFF

API 510

EXP.

IPV

EXP.

INSPECTOR - PRIMARY

INSPECTOR - REVIEW

CLIENT SIGN OFF

INSPECTED BY ToddM Mckenzie


97445 12/31/202

00133 7/13/2026


REVIEWED BY Ashley Rustebakke


60285 7/31/2024

966 6/16/2026

<b>Ultrasonic Report</b>		<b>Date</b>	3/30/2022	Phone: 403-793-7697  8 Sarah King Crt E Brooks, Alberta, T1R 0J8 grady.rustebakke@gmail.com	
<b>LSD</b>	01-18-017-18W4M	<b>Facility</b>	Armada Gas Plant		
<b>DH-LSD</b>		<b>Field</b>	Red Deer District		
<b>Jurisdiction #</b>					
<b>Serial #</b>	FV-6-7-1006-2				
<b>Ultrasonic Report #:</b> FV-6-7-1006-2_GRADY INSPECTION LTD VE UT INSP_1APR2022					

ULTRASONIC SET			COMPONENT DETAILS				CODE					
EQUIPMENT	CALIBRATION DUE	SERIAL NUMBER	MATERIAL GRADE	SURFACE PREP	TEMP	THICKNESS	CALIBRATION	EVALUATION				
EPOCH 600	2/25/2023	120388107	Carbon Steel	Painted	0C		ASME V	ASME VIII Div 1				
CALIBRATION BLOCK		PROBE							COUPLING		METHOD	
TYPE	SERIAL#	REF dB	SCAN dB	FREQ.	SIZE.	ANGLE	SERIAL #	TYPE	COUPLANT	CABLE	TECHNIQUE	PROCEDURE
10 Step Metric	14-2065	60	66	5 Mhz	0.25 "	0	15B00DU3	Dual	UT-X	6' BNC to Micro	LW Dual	UT01T1R4
SCOPE		As requested by Dustin Rumohr an ultrasonic inspection was completed on the fuel gas scrubber										
LIMITATIONS		None.										
RESULTS		No corrosion was found with the ultrasonic inspection.										

<b>Technician Name</b>	<b>Certification Body</b>	<b>Certification #</b>	<b>Expiry</b>	Technician Signature			
3    ToddM	CGSB	9234					
				Client Name			
				Client Signature			

<b>External Inspection - (Vessel)</b>		<b>Date</b>	3/30/2022		Phone: 403-793-7697			
<b>LSD</b>	01-18-017-18W4M	<b>Facility</b>	Armada Gas Plant		8 Sarah King Crt E Brooks, Alberta, T1R 0J8			
<b>DH-LSD</b>		<b>Field</b>	Red Deer District		grady.rustebakke@gmail.com			
<b>Jurisdiction #</b>								
<hr/>								
<b>Fit For Service:</b>		Fit For Service.						
<hr/>								
<b>Inspection Summary:</b>		NCR. Check valve located on PSV discharge piping causing restriction. Vessel is not secured to foundation						
<hr/>								
<b>Recommendations:</b>		Remove check valve from PSV discharge piping Ensure vessel is secured to foundation						
<hr/>								
<b>External Inspection Items</b>		<b>G/F/P</b>	<b>Comments</b>					
<b>General Condition:</b>		Good	No notable mechanical damage, areas of wear/fretting, distortion, misalignment, or visible weld defects.					
<b>External Coating:</b>		Good	Vessel is in good visual condition. Vessel is painted. Vessel is indoors.					
<b>Insulation / Cladding:</b>		N/A	Non insulated vessel					
<b>Nozzles, Piping and Connections:</b>		Good	Number of nozzles repaded: 0 Number of nozzles without repad: 2 Nozzles and piping in good visual condition No attached drain pipping					
<b>Buried Vessels:</b>		N/A	Above Ground					
<b>Ladders, Platforms and Walkways:</b>		N/A	No attached ladder or platform					
<b>Foundations and Supports:</b>		Fair	Building is secure on concrete pilings Vessel is not secured to foundation Concrete pilings are intact with no visible deficiencies					
<b>Shell:.</b>		Good	No notable mechanical damage, areas of wear/fretting, distortion, misalignment or visible weld defects.					
<b>Saddles / Skirts:</b>		Good	Skirt is in good visual condition.					
<b>Grounding:</b>		Good	Ground Wire is secure Grounded through piping system					
<b>Gauges and Instrumentation:</b>		Good	<div>Shell Gauge ( - @ )      Temp Gauge ( - @ )</div> Pressure gauge is not suitable for MAWP, is suitable for PSV set pressure.					
<b>Pressure Protection:</b>		Poor	The PSV Set Pressure ( 150 psi) is suitable for the MAWP ( 720 psi) Check valve located on PSV discharge piping causing restriction.					
<b>NDE Summary:</b>		Good	No corrosion was found with the ultrasonic inspection.					
<b>Manway Davits/Quick Closure:</b>		N/A	No Manway					
<b>Nameplate:</b>		Good	Nameplate is legible and readily accessible and securely affixed					

## PSV Data

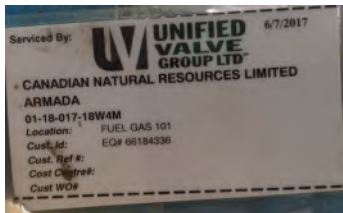
LSD

01-18-017-18W4M

FACILITY Armada Gas Plant

FIELD Red Deer District

Phone: 403-793-7697

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## ASSOCIATED PRESSURE EQUIPMENT DATA

PV JUR/SER FV-6-7-1006-2

SHELL TUBE

MAWP 720 psi

## PSV FIT FOR SERVICE STATEMENT

Not Fit For Service.

## PSV STATIC DATA

MODEL 91-23F51V09U1

SERIAL 699145

MANUFACTURER MERCER

TAG 38071B

CRN 0G8841.5C

SEAL Y

SET PRES 150 psi

CAPACITY 908 Scfm

SERVICE DATE 6/7/2017

SERVICE COMPANY Unified Valve Group

T/F UV NB

T UV NB

SIZE B VALVE CARSEAL

INLET 1 N

OUTLET 1.5 N

## PSV COMMENTS

Check valve on PSV discharge piping. Located in Ajax / K101 compressor building.



Overview Photo

LSD 01-18-017-18W4M  
Jur #  
Serial # FV-6-7-1006-2

Date	4/1/2022
FACILITY	Armada Gas Plant
FIELD	Red Deer District

Phone: 403-793-7697

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Nameplate



Overview



C Number



Drain Elbow

Overview Photo

**LSD** 01-18-017-18W4M  
**Jur #**  
**Serial #** FV-6-7-1006-2

**Date**

4/1/2022

**FACILITY**

Armada Gas Plant

**FIELD**

Red Deer District

Phone: 403-793-7697

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Pressure Gauge



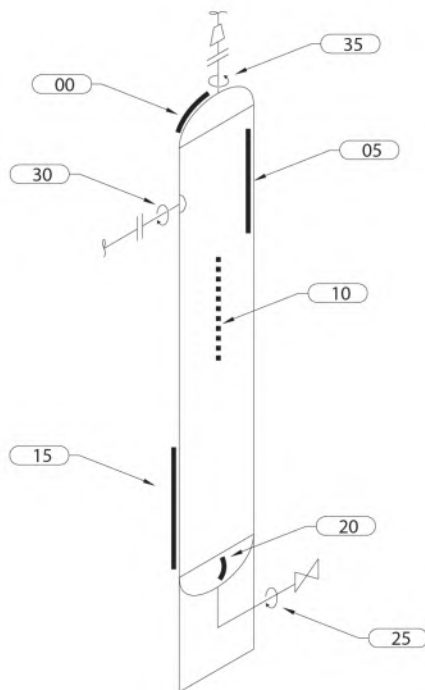
Temperature Gauge

Phone: 403-793-7697

**FACILITY** Armada Gas Plant

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[illegible]

REPORT # FV-6-7-1006-2 GRADY INSPECTION LTD VE UT INSP\_1APR2022  
LSD 01-18-017-18W4M FACILITY Armada Gas Plant  
DH-LSD FIELD Red Deer District  
Jur # DWG 1 Location:  
Ser # FV-6-7-1006-2

Phone: 403-793-7697

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Ser #		FV-6-7-1006-2		Inspection Dates and Thickness Values (mm)																									
CML#	Nom	CA/Tol	SFlag	STmin	PTmin	> Tmin	Comp Type	Pipe Size	Code	MOP	Baseline			3rd Last		2nd Last		Last		# of Insp	% Nom Wall Loss	Corrosion Rates			Rem Life Date	Rem Life (yrs)	Next Insp Date	Insp Int (yrs)	Inspection Comments
											Date	Min	Ave	Date	Min	Ave	Date	Min	Ave			ST	LTn	LTi					
00	11.0	11.0	4.5	4.5	4.5	Head		UG32HeadElli	720	3/1/12	9.1	9.7				4/1/22	9.1	10.0	2	17%					3/29/2032	10.0			
05	11.0	11.0	9.4	4.7	4.7	Shell		UG27ShellInt	720	3/1/12	10.7	11.4				4/1/22	10.6	11.0	2	4%	0.01		9/16/2619		3/29/2032	10.0			
10	11.0	11.0	9.4	4.7	4.7	Shell		UG27ShellInt	720	3/1/12	11.7	12.1				4/1/22	11.3	12.0	2	-3%	0.04				3/29/2032	10.0			
15	11.0	11.0	9.4	4.7	4.7	Shell		UG27ShellInt	720	3/1/12	10.4	11.0				4/1/22	10.4	10.8	2	5%					3/29/2032	10.0			
20	11.0	11.0	4.5	4.5	4.5	Head		UG32HeadElli	720	3/1/12	9.2	10.3				4/1/22	9.0	10.0	2	18%	0.02		6/19/2248		3/29/2032	10.0			
25	4.5	3.9	2.0	1.8	0.6	1.8	Pipe	1" XS 80-- (4.5mm)	API570	720	4/1/22	4.9	5.3						1	-9%					3/29/2032	10.0			
30	3.9			3.4		3.4	Nozzle	2" STD 40-- (3.9mm)	UG45Nozzle	720	3/1/12	5.6	5.9						1	-44%					2/27/2022	10.0			
35	3.9			3.4		3.4	Nozzle	2" STD 40-- (3.9mm)	UG45Nozzle	720	3/1/12	5.7	5.9						1	-46%					2/27/2022	10.0			