

CEL Quality Services Ltd.

VISUAL INSPECTION

Tel: (403) 845-5881 • (403) 844-3341



Pressure Equipment Inspection

REPORT

Report#: SN 2011-8267-04-VE,UT-2022-03-28

Type of Inspection: <input type="checkbox"/> INSTALLATION <input checked="" type="checkbox"/> EXTERNAL <input type="checkbox"/> INTERNAL <input type="checkbox"/> IN SERVICE <input checked="" type="checkbox"/> OUT OF SERVICE <input type="checkbox"/> INVENTORY																
Date:	28/Mar/2022		Job #:		*all measurements are in inches unless otherwise stated *ns-not stated *na-not applicable											
Inspected By:	Ben Piers		CEL Job #:													
Client:	Pipestone Energy Corp.				Pre Purchase Inspection											
Owner:	Pipestone Energy Corp.				PO# E22-191-PO-01											
Region:	Alberta				Thief Hatch present on Still Column, no PSV present.											
Area:	Sunchild	Location/	Surface:	01-04-044-11w5												
Facility:	Compressor	LSD:	UWI/DH:													
Service:	Sweet	if other describe:														
Description:	<input checked="" type="checkbox"/> Vessel <input type="checkbox"/> Exchanger <input type="checkbox"/> Tank <input type="checkbox"/> Furnace <input type="checkbox"/> Boiler															
Unit #:	BU-640		Equip #:	H-305												
Equip. Name:	Glycol Reconcinator		Equip. Type:	Glycol Reboiler												
Jurisdiction #:	ns		CRN:	Non-Code												
Manufacturer:	Alco Gas & Oil Production Equipment LTD.										Diameter OD (in):	48/42		Height/Length (in):	144/120	
Serial No.:	2011-8267-04		Year Built:	2012		<input type="checkbox"/> PSV on Vessel <input type="checkbox"/> Piping										
Volume:	ns		PSV Data:	<input type="checkbox"/> Isolation Valve(s) Installed <input type="checkbox"/> Car-sealed <input type="checkbox"/> CRN:												
Zones:	MAWP	Des. T	MDMT	Op.P	Op.T	Set P	Tag #	Manufacturer	Serial No.	In	Out	Capacity	Serv. Co.	Serv. Date		
Shell Side:	14.9	ns	ns	0	50											
Coil Side:	na	na	na													
Units	PSI	F	F	PSI	F	PSI						GPM				
Components:	Material	Nominal (in)	Sgl./Dbl/ Weld	Calc. Trim	Retire t	CA (in)	UT TML	Lowest t	Acc.	Ret.	Dia. (OD),(in)	RT	HT			
Shell:	SA-36	0.25				0	25	0.245	<input checked="" type="checkbox"/>	<input type="checkbox"/>	42	ns	ns			
Head:	SA-36	0.250/0.375				0	40	0.371	<input checked="" type="checkbox"/>	<input type="checkbox"/>	42					
Tube/Coil:									<input type="checkbox"/>	<input type="checkbox"/>						
Channel:									<input type="checkbox"/>	<input type="checkbox"/>						
Other									<input type="checkbox"/>	<input type="checkbox"/>						
Manway/Port:	Manway Size (in): 48/42		<input type="checkbox"/> Davit Arm Present <input type="checkbox"/> Davit Arm Greased <input type="checkbox"/> Double Nitted Condition:													
Nozzles:	<input type="checkbox"/> Reinforcement pads used <input type="checkbox"/> Weep Holes Present Comment: None															
	<input checked="" type="checkbox"/> Piping well supported <input checked="" type="checkbox"/> Joining as per code Comment: Secure and intact															
Piping:	<input checked="" type="checkbox"/> PSV Piping <input checked="" type="checkbox"/> Drains properly <input checked="" type="checkbox"/> Well coated Comment: Secure															
	<input checked="" type="checkbox"/> Inlet Piping <input checked="" type="checkbox"/> Free from leaks <input checked="" type="checkbox"/> Well coated Comment: Secure															
	<input checked="" type="checkbox"/> Outlet Piping <input checked="" type="checkbox"/> Free from leaks <input checked="" type="checkbox"/> Well coated Comment: Secure															
	<input checked="" type="checkbox"/> Drain Piping <input checked="" type="checkbox"/> Free from leaks <input checked="" type="checkbox"/> Well coated Comment: Secure															
	<input checked="" type="checkbox"/> Instrumentation Piping <input checked="" type="checkbox"/> Free from leaks/kinks Comment: Secure and intact															
	<input checked="" type="checkbox"/> Process Fluid Identified <input checked="" type="checkbox"/> Flow direction marked Comment: Triethylene Glycol															
Valves:	<input checked="" type="checkbox"/> Manual Isolation Valve <input checked="" type="checkbox"/> Free from leaks Comment: Acceptable, no leaks noted															
	<input type="checkbox"/> Automated Control Valve <input type="checkbox"/> Free from leaks Comment: None															
	<input checked="" type="checkbox"/> Vents and Drains Plugged Comment: Acceptable, no leaks noted															
Gauges:	<input checked="" type="checkbox"/> Pressure Condition: Clear and intact x1															
	<input checked="" type="checkbox"/> Temperature Condition: Clear and intact x1															
Sight Glass:	<input checked="" type="checkbox"/> Fluid Level Condition: Clear and intact x2															
Orientation:	Horizontal		Foundation:	<input type="checkbox"/> Concrete <input type="checkbox"/> Gravel <input type="checkbox"/> Timber <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Other:		Condition: Skid secure and level on piles										
Support:	<input checked="" type="checkbox"/> Saddle <input checked="" type="checkbox"/> Seal-welded <input checked="" type="checkbox"/> Free to move		Condition: Bolted to skid floor, secure and level													
	<input type="checkbox"/> Skirt <input type="checkbox"/> Free of debris		Condition:													
	<input type="checkbox"/> Hangers <input type="checkbox"/> Secure		Condition:													
	<input type="checkbox"/> Other Specify:		Electrical Grounding: <input type="checkbox"/> Direct <input checked="" type="checkbox"/> Indirect <input type="checkbox"/> None													
Overall:	General condition:		Suitable for continued service										Condition: Acceptable			
Ext. Surface:	<input checked="" type="checkbox"/> Painted <input type="checkbox"/> Insulated <input type="checkbox"/> Fire-proofed <input checked="" type="checkbox"/> Cladded <input type="checkbox"/> Other:		Condition: Paint and cladding are acceptable													
Ext. Fixtures:	<input type="checkbox"/> Ladder <input type="checkbox"/> Platform(s) <input type="checkbox"/> Other:		Condition: None													
Int. Surface:	<input type="checkbox"/> Coated <input type="checkbox"/> Lined <input type="checkbox"/> Thermal sprayed <input type="checkbox"/> Cladded <input type="checkbox"/> Welded overlay		Condition: External Inspection Only													
Int. Fixtures:	<input type="checkbox"/> Baffle <input type="checkbox"/> Float <input type="checkbox"/> Impingement <input type="checkbox"/> Weir <input type="checkbox"/> Vortex Breaker		Condition: External Inspection Only													
Recommended Actions:																
NCR#:																
Summary Comment:		Vessel found to be acceptable for service.						Inspection interval:		Set by Chief Inspector						
Additional notes on continuation page: <input checked="" type="checkbox"/>		Report No.		See next page		Quality Check:										
Equipment is suitable for continued service: <input checked="" type="checkbox"/>						Signature of Inspector: Ben Piers										
Inspector Certificate No:						Received by: (print)										
Terms and Conditions: Refer to "Scope of Services" and "Standard of Care"						Received by: (sign)										

ULTRASONIC SURVEY REPORT

Report #: SN 2011-8267-04-VE,UT-2022-03-28						
<input type="checkbox"/> New Equipment UT Survey		<input checked="" type="checkbox"/> Existing Equipment UT Survey		<input type="checkbox"/> In-Service <input checked="" type="checkbox"/> Out of Service		
Client Job #:			CEL Job #:			
Client:	Pipestone Energy Corp.	Location:	Surface:	01-04-044-11w5		
Date:	28/Mar/2022		UW/DH:			
Region:	Alberta	Access Considerations:		Year-Round Access		
Area:	Sunchild	Scope of Inspection	<input type="checkbox"/> Inventory	<input checked="" type="checkbox"/> External	<input checked="" type="checkbox"/> UT	
Facility:	Compressor					
Static Data						
Equipment Name:	Glycol Reconcentrator	MAWP Shell (PSI):	0	Pre/Post 1999:	Post	
Equipment #:	H-305	MAWP Tube (PSI):	na	Diameter (in):	42	
Jurisdiction #:	ns	MAWT Shell (F):	ns	CA Head (in):	0	
Manufacturer:	Alco Gas & Oil Production Equipment LTD.	MAWT Tube (F):	na	CA Shell (in):	0	
Year Built:	2012	Shell Material:	SA-36	Nominal (in):	0.25	
SN #:	2011-8267-04	Head Material:	SA-36	Nominal (in):	0.250/0.375	
CRN #:	Non-Code				RT (Joint Eff):	ns
Acceptance Criteria & Specifications:		Client Evaluation				
Method						
Procedure:	USB-001, Rev 01	Mode:	<input checked="" type="checkbox"/> Zero Degree	<input type="checkbox"/> Shear Wave		
Equipment Type:	DMS Go	Serial No:	12105442	Last Calibration:	Jan 3, 2022	
Transducer:	0.250"	Serial No:	90849	Type/Frequency:	Duel / 5.0 MHZ	
Cable Length (in):	72"	Couplant:	Echo Mix - water based powder mix			
Surface Condition:	<input type="checkbox"/> Clean Base Metal <input type="checkbox"/> As Ground <input type="checkbox"/> Machined <input type="checkbox"/> Sand Blast <input checked="" type="checkbox"/> Painted <input type="checkbox"/> Other:					
Cal Block(s):	SN#: 17-4164	Type:	1" 4 step Block			
Notes:						
Interval:	Set by Chief Inspector after review					

*NS=Not Stated

**NA=Not Applicable



CEL Quality Services Ltd.



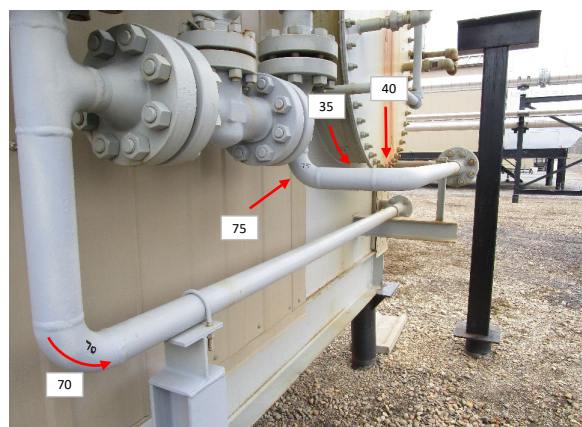
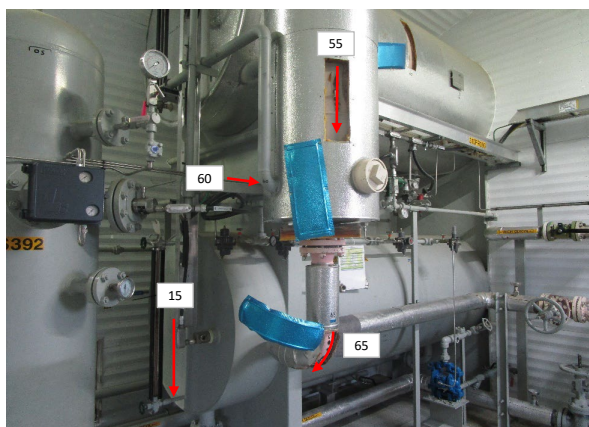
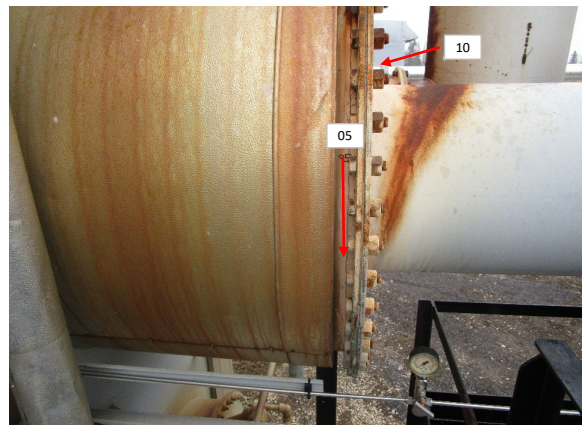
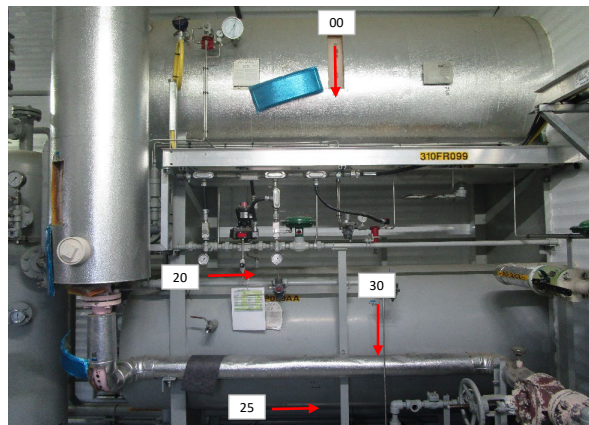
Pressure Equipment Inspection

PHOTOS PAGE

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A#: ns	S/N#: 2011-8267-04	or Other: H-305
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Signature of Inspector:

Ben Piers

ULTRASONIC SURVEY REPORT

UT Corrosion Survey Readings									
Date:	28-Mar-22	Area:	Sunchild	Equipment Name:	Glycol Reconcentrator	Equipment #:	H-305		
Client:	Pipestone Energy Corp.	LSD:	01-04-044-11w5	Jurisdiction #:	ns	SN #:	2011-8267-04	Job #:	

Vessel TML Readings															
	Baseline	# of Years	Previous	# of Years	Actual		MAWP (PSI)		Shell OD (in)	Shell Nom	Head Nom	Shell Stress	Head Stress	Joint Efficiency	Comments
	2012	10	2012	10	2022		14.9		42	0.250	0.250/0.375	16600	16600	0.70	
TML ID	Baseline		Low	High	Low	High	OD (in)	ID (in)	STCR (in/YR)	LTCR (in/YR)	T min (in)	RL (YRS)	% Loss	Component	
0	0.250		0.250	0.255	0.250	0.255	48.000	47.500	0.0000	0.0000	0.0305	50+	0.00%	Shell	
5	0.250		0.249	0.257	0.249	0.257	48.000	47.500	0.0000	0.0001	0.0305	50+	0.40%	Shell	
10	0.375		0.372	0.377	0.372	0.377	48.000	47.250	0.0000	0.0003	0.0303	50+	0.80%	Head	
15	0.375		0.377	0.385	0.377	0.385	42.000	41.250	0.0000	0.0000	0.0265	50+	0.00%	Head	
20	0.250		0.246	0.256	0.246	0.256	42.000	41.500	0.0000	0.0004	0.0266	50+	1.60%	Shell	
25	0.250		0.245	0.250	0.245	0.250	42.000	41.500	0.0000	0.0005	0.0266	50+	2.00%	Shell	
30	0.250		0.252	0.258	0.252	0.258	42.000	41.500	0.0000	0.0000	0.0266	50+	0.00%	Shell	
35	0.250		0.247	0.251	0.247	0.251	42.000	41.500	0.0000	0.0003	0.0266	50+	1.20%	Shell	
40	0.375		0.371	0.379	0.371	0.379	42.000	41.250	0.0000	0.0004	0.0265	50+	1.07%	Head	

Vessel Attachment Piping TML Readings																		
TML ID	Baseline	# of Years	Previous	# of Years	Actual		MAWP (PSI)		Shell OD (in)			Stress		Joint Efficiency				
	2012	10	2012	10	2022		14.9		42			17100		1.00				
	Baseline		Low	High	Low	High	OD (in)	ID (in)	STCR (/YR)	LTCR (/YR)	T min (in)	RL (YRS)	% Loss	SCH	Nominal (in)	Attached Component	Type	Shape
45	0.216		0.200	0.240	0.200	0.240	3.500	3.068	0.0000	0.0016	0.0013	50+	7.41%	STD	0.216	Shell	Piping	90
50	0.216		0.188	0.205	0.188	0.205	3.500	3.068	0.0000	0.0028	0.0013	50+	12.96%	STD	0.216	Shell	Piping	90
55	0.250		0.218	0.223	0.218	0.223	16.000	15.500	0.0000	0.0032	0.0068	50+	12.80%	SCH10	0.250	Shell	Piping	90
60	0.200		0.190	0.209	0.190	0.209	1.900	1.500	0.0000	0.0010	0.0007	50+	5.00%	XS	0.200	Shell	Piping	90
65	0.216		0.190	0.211	0.190	0.211	3.500	3.068	0.0000	0.0026	0.0013	50+	12.04%	STD	0.216	Shell	Piping	90
70	0.218		0.208	0.235	0.208	0.235	2.375	1.939	0.0000	0.0010	0.0008	50+	4.59%	XS	0.218	Shell	Piping	90
75	0.218		0.307	0.335	0.307	0.335	2.375	1.939	0.0000	0.0000	0.0008	50+	0.00%	XS	0.218	Shell	Piping	90

* All readings are in inches.



Inspector:	Ben Piers	Certifications:
Signature:	BEN PIERS	ASNT Level 2 UT(SB); CGSB UT Level 1 #18240



Scope of Services

The agreement of CEL Quality Services Ltd. to perform services extends only to those services provided for in writing. Under no circumstance shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of CEL Quality Services Ltd. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. CEL Quality Services Ltd. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by CEL Quality Services Ltd. In no event shall, CEL Quality Services Ltd., liability in respect of the services referred to herein exceed the amount paid for such services.

Standard of Care

In performing the services provided, CEL Quality Services Ltd. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by CEL Quality Services Ltd.