

PRESSURE VESSEL & COLUMN INSPECTION REPORT

LSD: 3-6-49-18W5

Date: May 1, 2018

SAP Equipment ID:

VESSEL STATIC DATA					
Plant Ansell Galloway			Op Unit		System
Prov. Insp. #			CRN		Equip Tag # 66177219
Equipment Description Flare Stack			Serial # 11170		
Manufacturer Tornado			Vessel Class Pressure Vessel		
Internal Access: Description: No Access			Year Built		
MAWP		PSI	@	°F	MDMT °F
CODE :		RT :			PWHT : No
Diameter 12"	Length	(T/T) 95 in	OAL 95 in	Vertical	
Shell Mat'l	SA 106 B	Thickness	in	Corr Allowance	in
Head Mat'l	304L SS	Thickness	in	Corr Allowance	in
Nozzle Mat'l		Thickness	mm / in	Corr Allowance	mm
Internal Coating: NO		Internal Clad : NO		Capacity	NS m ³
Manway : NO		Inspection Port : NO		Skirt	
Nozzle Rating	lb ANSI	Painted : YES		Insulated	NO

PROCESS DATA			
Product Description		Natural Gas	Sweet
Operating Pressure	0	PSI	Operating Temperature 60 °F

PSV STATIC DATA						
Serial No.	Location	Set Pressure	Capacity SCFM	Manufacturer	Model / Type	Service Date / Company

PSV DETAILS			
	Type (Thread/Flange)	ANSI Rating	Size (inches)
PRD Inlet		NS	
PRD Outlet		NS	

NDE Equipment Records					
Procedure#	Description	Manufacturer	Model#	Serial#	Due Date

INSPECTION SUMMARY

The Flare Stack associated nameplate is secure, The Flare Stack is found in acceptable condition.

RECOMMENDATIONS

None noted

NONCONFORMANCES / INSPECTION DEFICIENCIES

None noted

INSPECTION PLANNING

Inspection Strategy	Availability	Inspection Interval
Inspection Date	Date of Last Inspect	Date of Next Inspect

REPORT CERTIFICATION

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 Greg Cook  Date May 1, 2018

Company Streamline Inspection Ltd PESL # 000423 API # 31769

Reviewed and Approved by _____ Date _____

PESL # _____ API # _____

Criticality Assessment Rerun _____ Inspection Planning Rerun _____

Assessed Next Inspection Date

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DETAILED INSPECTION VISUAL EXTERNAL

ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)	Acceptable			
V2	General Corrosion	Acceptable			No corrosion concerns noted
V3	General Leaks	Acceptable			No active leaks present
V4	Vibration	Acceptable			None noted
V5	Dissimilar Flange Rating	Acceptable			None noted
V6	Ladder/Stairway	Acceptable			
V7	Heads	Acceptable			No concerns noted
V8	Guy Wires	Acceptable			Secure
V9	Electrical Ground	Acceptable			Indirect Ground
V10	Painted Inactive Corrosion	Acceptable			None Found
V11	Coating/Painting	Acceptable			No significant failures observed
V12	Expansion Joint or Bellows	N/A			
V13	Gauge/Site Glass	N/A			
V14	Shell	Acceptable			No concerns noted
V15	Jacket	N/A			
V21	Support Other (Please explain)	N/A			
V22	Foundation	Acceptable			No concerns noted
V23	Anchor Bolts	Acceptable			Securely in place
V24	Saddle/Skirt	Acceptable			Securely in place
V25	Davit	N/A			
V26	Fireproofing	N/A			
V31	Connections Other (Please explain)				
V32	Small Branches	Acceptable			No significant sign of strain or concerns
V33	Nozzles	Acceptable			No stresses, corrosion or misalignment
V34	Manways	N/A			
V35	Reinforcing Pads	N/A			
V36	Inadequate Thread Engagement	N/A			
V37	Bolting	Acceptable			Intact with no missing bolts or short bolting
V38	Flanges	Acceptable			No active leaks
V39	Leak Clamps	N/A			
V41	Insulation Other (Please explain)	N/A			
V42	Damage	Acceptable			None noted
V43	Penetrations	N/A			
V44	Insulation Jacket	N/A			
V45	Banding	N/A			
V46	Seals/Joints	N/A			
V51	Relief Devices Other (Please explain)	N/A			
V52	Corrosion	Acceptable			None noted
V53	Leaks	Acceptable			None noted
V54	Restricted Inlet/Outlet	Acceptable			None noted
V55	Manual Operation Lever	Acceptable			

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Date: May 1, 2018

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DETAILED INSPECTION VISUAL INTERNAL

ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)				
V2	Corrosion (depth, length, width)				
V3	Erosion				
V4	Distortion				
V5	Blisters				
V6	Deposits				
V7	Heads				
V8	Welds				
V9	Nozzles				
V10	Shell				
V11	Gasket Surfaces				
V21	Internals Other (Please explain)				
V22	Demister				
V23	Baffle/Wier				
V24	Sparger				
V25	Thermowells				
V26	Metallic Linings				
V27	Nonmetallic Linings				
V28	Trays				
V29	Tray Rings				
V30	Other Welded Attachments				

DETAILED INSPECTION OTHER TECHNIQUES

ID	Location	Observation/Measurement	Acceptance Criteria	NCR	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

DETAILED INSPECTION UT THICKNESS

CML	Nom. Thk	Current Reading	Short Term Corr Rate	Long Term Corr Rate	Remaining Life	Comments

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PHOTOS



LSD



Nameplate



Overview



Overview



Foundation

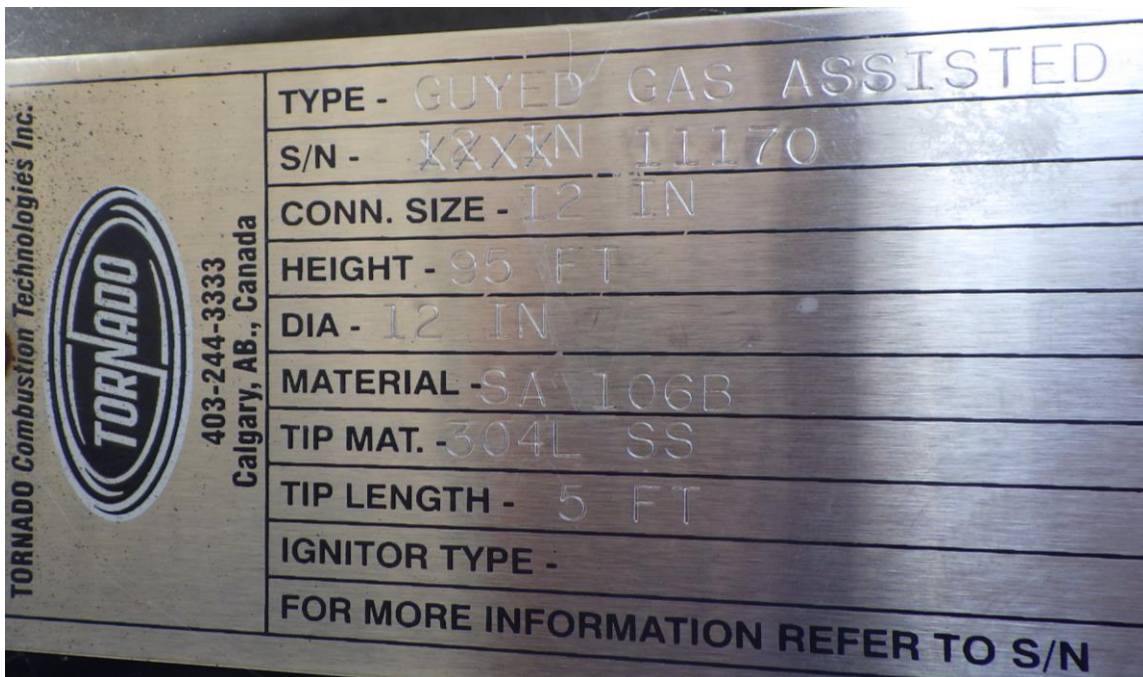


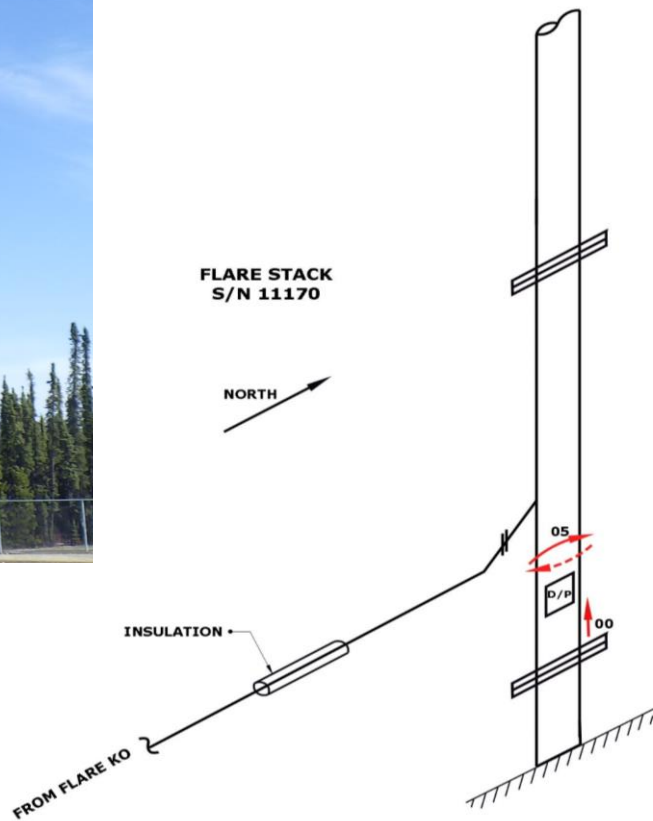
Guy Wire Secure



Location Name:	MINEHEAD	LSD:	03-06-49-18W5
Jur #:		Equipment/Tag No.	
Equipment Description:	FLARE STACK		
Manufacturer:	TORNADO		
Serial Number:	11170	CRN:	
Shell MAWP:		PSI	Shell Design Temp: °F
Tube MAWP:		PSI	Tube Design Temp: °F
Shell Material:	SA-106-B	Head Material:	
Shell Thickness:		in	Head Thickness: in
Corrosion Allowance:		in	Date Built:
Size:	12	in	Pipe / Rolled Plate: PIPE
RT:			Streamline Report #: STL-18-273-DMS 4

NOTES: HEIGHT 95FT, cannot do Tmin or end of life calculations with missing information.
SAP#66177219







Ultrasonic Corrosion Survey

*All values are in millimeters unless otherwise stated.

Survey Name: Husky Energy

Date: May 18, 2002

Streamline Report #: STL-18-273-DMS 4

Inspector: E. Legare

LSD: 03-06-49-18W5	Area: MINEHEAD	Location: PLANT
Jur #:	Tag Number:	Vessel Name: FLARE STACK
CRN:	Year Built:	Serial Number: 11170
RT:	Vessel CA: 0.000 in	Manufacturer: TORNADO
	Shell MAWP: PSI	Tube MAWP: PSI
	MAWT: °F	MAWT: °F
		Pipe/Plate PIPE

CML Description	Baseline	Flange ANSI:	Material: SA-106-B
00 SHELL	2018	CA	T Min
Shape: Straight Pipe	Min 9.58	0.000	STCR mm/yr 0.000
OD: 323.85	Avg 9.65		LTCR mm/yr 0.000
Spec: ASME VIII Div.1	Comments: ASSUMED NOMINAL		Remaining Life:
			Retirement Date:

CML Description	Baseline	Flange ANSI:	Material: SA-106-B
05 SHELL	2018	CA	T Min
Shape: 360° Circ	Min 9.63	0.000	STCR mm/yr 0.000
OD: 323.85	Avg 10.03		LTCR mm/yr 0.000
Spec: ASME VIII Div.1	Comments: ASSUMED NOMINAL		Remaining Life:
			Retirement Date: