

PRESSURE VESSEL & COLUMN INSPECTION REPORT

LSD 7-27-59-19W5

Date 9-22-17

SAP Equipment ID 66130670

Report # JM22092017A

VESSEL STATIC DATA							
Plant ANSELL				Op Unit		System FLARE	
Prov. Insp. #		NB#		CRN		Equip Tag #	
Equipment Description FLARE STACK						Serial # 7-3077	
Manufacturer TORANADO						Vessel Class	
Internal Access NO		Description				Year Built N/A	
MAWP @						MDMT	
CODE			RT			PWHT	
Diameter 10"		Length 1200 in		OAL			
Shell Mat'l	SA333		Thickness			Corr Allowance mm	
Head Mat'l			Thickness			Corr Allowance	
Nozzle Mat'l			Thickness			Corr Allowance	
Internal Coating:			Internal Clad			Capacity m ³	
Manway			Inspection Port				
Nozzle Rating	150	lb ANSI	Painted YES		Insulated		
PROCESS DATA							
Product Description							
Operating Pressure				Operating Temperature			
PROTECTED BY PRD or OPPSD							
PRD STATIC DATA							
Serial No.	Location	Set Pressure	Capacity	Manufacturer	Model / Type	Last Service Date & Company	
PRD DETAILS							
	Type			ANSI Rating		Size	
PRD Inlet							
PRD Outlet							

INSPECTION SUMMARY

FLARE STACK WAS INSPECTED ON 9-22-17
 -BASE IS SET ON PILINGS, SECURED AND APPEAR TO BE IN ACCEPTABLE CONDITION
 -ALL GUY WIRES ARE ATTACHED TO PILINGS AND APPEAR TO BE IN ACCEPTABLE CONDITION
 -SHELL OF STACK IS PAINTED WITH NO SIGNS OF CORROSION NOTED AT TIME OF INSPECTION
 -REGULATORS, VALVES AND PRESSURE GAUGES APPEAR TO BE ALL IN ACCEPTABLE WORKING CONDITION
 -A LIMITED INSPECTION COMPLETED TO ABOUT 7' IN HEIGHT
 -IGNITOR TIP (TPMR-AF5120VAC)

RECOMMENDATIONS

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NONCONFORMANCES / INSPECTION DEFICIENCIES

NONCONFORMANCES / INSPECTION DEFICIENCIES

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	Jerrad Morosoff _____	Date	2017-09-22
Company	Streamline Inspection Ltd. _____	PESL #	404
		API #	32933
Reviewed and Approved by	_____	Date	_____
	_____	PESL #	_____
		API #	_____
Criticality Assessment Rerun	_____	Inspection Planning Rerun	_____
Optional Rule Group Confirmed		Assessed Next Inspection Date	_____

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DETAILED INSPECTION VISUAL EXTERNAL

ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)				
V2	General Corrosion	N/A			
V3	General Leaks	ACCEPTABLE			No concerns noted.
V4	Vibration	N/A			
V5	Dissimilar Flange Rating	ACCEPTABLE			No concerns noted.
V6	Ladder/Stairway	N/A			
V7	Heads	N/A			
V8	Guy Wires	ACCEPTABLE			No concerns noted.
V9	Electrical Ground	ACCEPTABLE			No concerns noted.
V10	Painted Inactive Corrosion	ACCEPTABLE			No concerns noted.
V11	Coating/Painting	ACCEPTABLE			No concerns noted.
V12	Expansion Joint or Bellows	N/A			
V13	Gauge/Site Glass	ACCEPTABLE			No concerns noted.
V14	Shell	ACCEPTABLE			No concerns noted.
V15	Jacket	N/A			
V21	Support Other (Please explain)				
V22	Foundation	ACCEPTABLE			No concerns noted.
V23	Anchor Bolts	ACCEPTABLE			No concerns noted.
V24	Saddle/Skirt	ACCEPTABLE			No concerns noted.
V25	Davit	N/A			
V26	Fireproofing	N/A			
V31	Connections Other (Please explain)				
V32	Small Branches	ACCEPTABLE			No concerns noted.
V33	Nozzles	ACCEPTABLE			No concerns noted.
V34	Manways	N/A			
V35	Reinforcing Pads	N/A			
V36	Inadequate Thread Engagement	ACCEPTABLE			No concerns noted.
V37	Bolting	ACCEPTABLE			No concerns noted.
V38	Flanges	ACCEPTABLE			No concerns noted.
V39	Leak Clamps	N/A			
V41	Insulation Other (Please explain)				
V42	Damage	N/A			
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			No concerns noted.
V53	Leaks	ACCEPTABLE			No concerns noted.
V54	Restricted Inlet/Outlet	N/A			
V55	Manual Operation Lever	N/A			

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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/Weir				
V24	Sparger				
V25	Thermowells				
V26	Metallic Linings				
V27	Nonmetallic Linings				
V28	Trays				
V29	Tray Rings				
V30	Other Welded Attachments				

Magnetic Particle Equipment records

Procedure #	Description			
Manufacturer	Model	Serial #	Current Type	Mag Part Type
Lighting	Material + Grade	Thickness	Cal Block SN	Cal Due Date

Liquid Penetrant Equipment records

Procedure #	Description				
Penetrant	Solvent	Developer	Cleaner	Lighting	Material Grade + Thickness

DETAILED INSPECTION OTHER TECHNIQUES

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

Ultrasonic Equipment records

Procedure #	Description			
Test Unit	Instrument Mfr	Model #	Serial #	Cal Due Date
Probe	Frequency	Probe SN	Probe Diameter	Couplant
Cal Block	Cal Block Size	Cal Block SN	Cal Block Mtl	

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DETAILED INSPECTION UT THICKNESS

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

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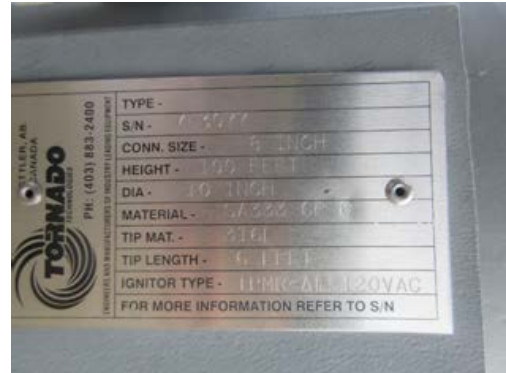
SAP Equipment ID 66130670

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PHOTOS



LSD Sign



Dataplate



Overall View lower part of stack



Overall View upper part of stack



Guy Wire supports



Guy Wire turnbuckles and support


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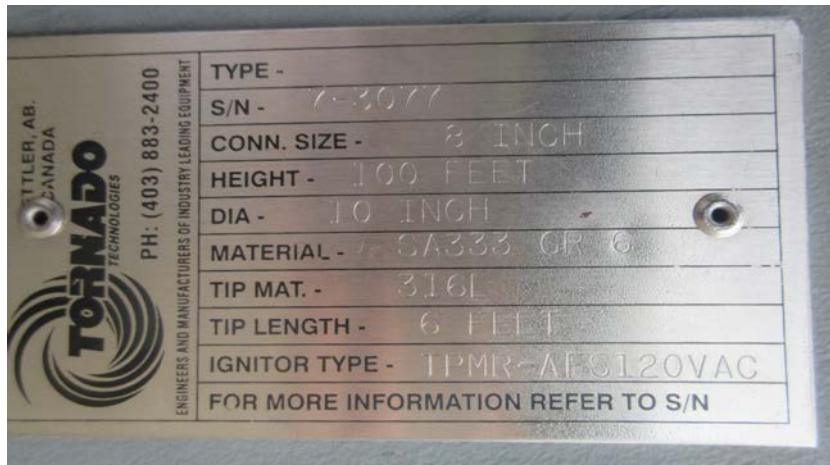
Report # JM22092017A

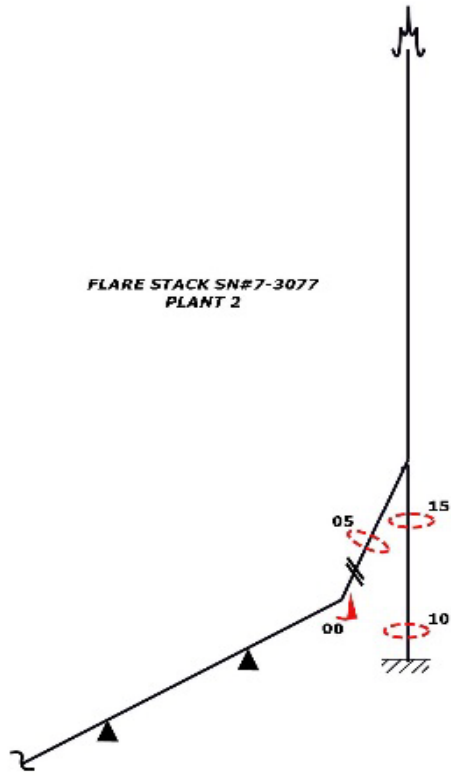
	
<p>Pressure Gauge</p>	



Location Name:	Ansell	LSD:	
Jur #:	7-27-51-19 W5	Equipment/Tag No.	
Equipment Description:	flare stack		
Manufacturer:	Tornado		
Serial Number:	7-3077	CRN:	
Shell MAWP:		PSI	Shell Design Temp: °F
Tube MAWP:		PSI	Tube Design Temp: °F
Shell Material:	A-333-6		Head Material:
Shell Thickness:		mm	Head Thickness: mm
Corrosion Allowance:		mm	Date Built:
Size:	168.275	mm	Pipe / Rolled Plate:
RT:			

NOTES: SAP # 66130670







Ultrasonic Corrosion Survey

*All values are in millimeters unless otherwise stated.

Survey Name: Husky Energy

Date: Sep 26, 2017

Inspector: 0

LSD:	Area:	Location:	Tube MAWP:	MAWTF:	Pipe/Plate
Jur #: 7-27-51-19 W5	Area: Ansell	Location: Plant	Tube MAWP: PSI	MAWTF: °F	
CRN:	Tag Number:	Vessel Name: flare stack			
RT:	Year Built:	Serial Number: 7-3077			
	Vessel CA: 0.000 mm	Manufacturer: Tornado			
	Shell MAWP: PSI				
TML Description	Baseline	Flange ANSI: Unknown	Material: SA-234-WPB		
0 PIPING	2017	CA	Nominal	T Min	STCR mm/yr LTCR mm/yr
Shape: 45° Elbow	Min	6.223	0.889	7.112	0.000 0.004
OD: 168.275	Avg				Remaining Life:
Spec: ASME B31.3	Comments: INSULATION/NEED INPSECTION PORT INSTALL				Retirement Date:
TML Description	Baseline	Flange ANSI: Unknown	Material: SA-106-B		
05 PIPING	2017	CA	Nominal	T Min	STCR mm/yr LTCR mm/yr
Shape: 360° Circ	Min	6.223	0.889	7.112	0.000 0.000
OD: 168.275	Avg				Remaining Life:
Spec: ASME B31.3	Comments: ASSUMED NOMINAL				Retirement Date:
TML Description	Baseline	Flange ANSI: Unknown	Material: SA-106-B		
10 PIPING	2017	CA	Nominal	T Min	STCR mm/yr LTCR mm/yr
Shape: 360° Circ	Min	6.223	0.889	7.112	0.000 0.000
OD: 168.275	Avg				Remaining Life:
Spec: ASME B31.3	Comments: ASSUMED NOMINAL				Retirement Date:
TML Description	Baseline	Flange ANSI: Unknown	Material: SA-106-B		
15 PIPING	2017	CA	Nominal	T Min	STCR mm/yr LTCR mm/yr
Shape: 360° Circ	Min	6.223	0.889	7.112	0.000 0.000
OD: 168.275	Avg				Remaining Life:
Spec: ASME B31.3	Comments: ASSUMED NOMINAL				Retirement Date: