

AIR COOLED HEAT EXCHANGER INSPECTION REPORT

LSD: 10-30-048-01W4 **Date:** 2015-01-14 **SAP Equipment ID** 62046545

AIR COOLED HEAT EXCHANGER STATIC DATA

Plant:	Blackfoot/Lloyd	OP Unit:		System:	
Prov. Insp . #:		CRN:	M-5200.23	Equip Tag#:	62046545
Equipment Description:	COOLER	Serial #:	01012-3	Vessel Class:	ACHE
Manufacturer:	AIR COOLED EXCHANGER INC.	Year Built:	2001	MDMT:	-29 C
Internal Access:	No	Description:		PWHT:	No
MAWP:	1724 kpa	At Temp	112 C	Orientation:	Vertical
Code:	N/S	Fluid Service:	Sweet: Sour:	Thickness:	0.00 12.7 mm
Dimension		Length:	610 mm (T/T): mm OAL: mm	Corr Allowance:	0.00 1.6 mm
SHELL	Mat'l: Unknown	Thickness:	0.00 12.7 mm	Corr Allowance:	0.00 1.6 mm
In/Outlet Nozzle	Mat'l: SA 106B	Thickness:	8.7 mm (2" SCH.160)	Capacity:	m3
Internal Coating:	No	Internal Clad:	No	Insulated:	No
Nozzle Rating:	150 lb ANSI	Painted:	Yes		

PROCESS DATA

Operating Pressure	kpa	Operating Temp:	C
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PSV STATIC DATA

Tag #	Serial No.	Location	Size(mm)		Set Press (kPa)	Capacity Imperial (SCFM)	Manufacturer	Model	Last Service	Service Company
			Inlet	Outlet						
N/S	78315-14	Piping	25.40	25.40	1379	761	TAYLOR	T-8200-1	2014/08/11	GUEST CONTROL SYSTEMS

PSV DETAILS

	Type(Thread/Flange)	ANSI Rating	Size(In/mm)
PRD Inlet	Threaded	150	25.40
PRD Outlet	Threaded	150	25.40

NDE Equipment Records

Procedure #	Description	Manufacturer	Model#	Serial#	Due Date
**** See Associated NDE Report					

INSPECTION SUMMARY

VESSEL FIT FOR SERVICE

RECOMMENDATIONS

NONCONFORMANCES/INSPECTION DEFICIENCIES



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INSPECTION PLANNING

Inspection Strategy		Availability		Inspection Interval	5 year
Inspection Date	2015/01/14	Date of Last Inspect		Date of Next Insp	2020/01/14

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	Jamey Tanasichuk		Cert #	000411	Date	2015/01/14
Reviewed and Approved by					Date	
Criticality Assessment Rerun		Inspection Planning Rerun				
Assessed Next Inspection Date	2020					

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DETAILED INSPECTION VISUAL EXTERNAL

ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)	N/A			
V2	General Corrosion	Accept			GOOD CONDITION
V3	General Leaks	Accept			NO VISIBLE LEAKS
V4	Vibration	Accept			MINOR VIBRATION NO ISSUES
V5	Dissimilar Flange Rating	N/A			
V6	Ladder/Stairway	N/A			
V7	Heads	N/A			
V9	Electrical Ground	Accept			BUILDING GROUNDED
V10	Painted Inactive Corrosion	N/A			
V11	Coating/Painting	Accept			GOOD CONDITION
V12	Expansion Joint or Bellows	N/A			
V13	Gauge/Site Glass	Accept			GOOD CONDITION
V14	Shell	Accept			GOOD CONDITION
V15	Jacket	N/A			
V21	Support Other (Please explain)	Accept			SECURED TO FOUNDATION
V22	Foundation	Accept			GOOD CONDITION
V23	Anchor Bolts	Accept			
V24	Saddle/Skirt	N/A			
V25	Davit	N/A			
V26	Fireproofing	N/A			
V31	Connections Other (Please explain)	N/A			
V32	Small Branches	N/A			
V33	Nozzles	Accept			GOOD CONDITION
V34	Manways	N/A			
V35	Reinforcing Pads	N/A			
V36	Inadequate Thread Engagement	N/A			
V37	Bolting	Accept			GOOD CONDITION
V38	Flanges	Accept			GOOD CONDITION
V39	Leak Clamps	N/A			
V41	Insulation Other (Please explain)	N/A			
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)	Accept			PSV GOOD CONDITION SEAL INTACT
V52	Corrosion	N/A			
V53	Leaks	N/A			
V54	Restricted Inlet/Outlet	N/A			
V55	Manual Operation Lever	N/A			

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DETAILED INSPECTION OTHER TECHNIQUES

ID	Location	Observation/Measurement	Acceptance Criteria	NCR	Comments


DETAILED INSPECTION TUBE INSPECTION

Tube #	Flaw Type	Flaw Length	Location on Tube	Wall Loss	NCR	Comments

DETAILED INSPECTION UT THICKNESS

CML	Nom. Thickness (mm)	CURRENT READINGS (mm)	short term corr rate (mm/y)	long term corr rate (mm/y)	remaining life (year)	Survey Date	Comments
05 (SHELL) SA 516-70	0.00 12.7	13.21	0.0000	0.0000	198.0	2015/01/14	
10 (SHELL) SA 516-70	0.00 12.7	13.08	0.0000	0.0000	198.0	2015/01/14	

15 (90L 2 XS) SA 106B	5.54	5.33	0.0144	0.0144	343.6	2015/01/14	WITHIN TOLERANCE
20 (90L 3 STD) SA 106B	5.49	5.16	0.0234	0.0234	196.2	2015/01/14	WITHIN TOLERANCE

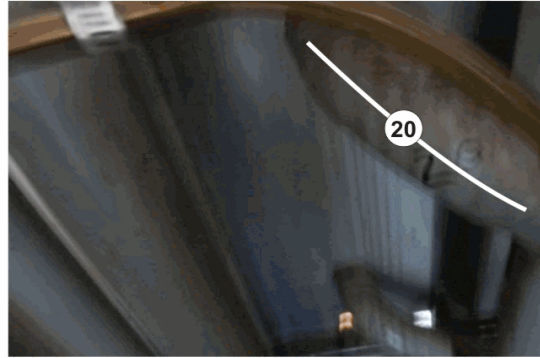
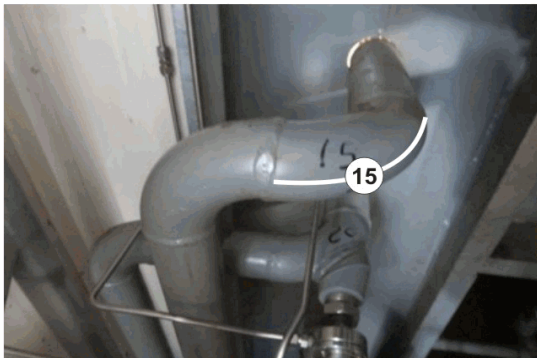
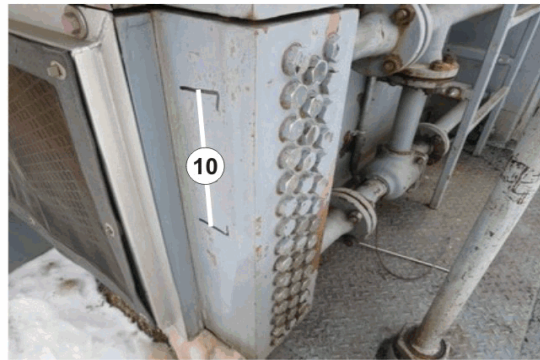
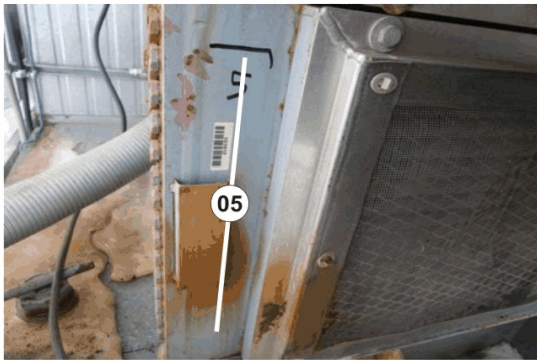
Inspected By	Signature	CGSB Level	CGSB No.	Survey Date	UT Equip	Due Date OF Calibration	NDE Procedure No.
Jamey Tanasichuk		1	11444	01/14/2015	109_81583903_EPOCH 4	06/17/2015	WQS UT-001



Client:
HUSKY ENERGY

EXAMINATION ILLUSTRATION

DISTRICT:	AN-ALB-NORTH	FACILITY:	BLACKFOOT/LLOYD	LOCATION/LSD:	10-30-048-01W4
EQUIP NAME:	HEAT EXCHANGER			PROV REG No.:	
SERIAL No.:	01012-3	Equip No.:	62046545	National Board No.:	



NOTES:

PHOTOGRAPHS

EQUIP NAME:	HEAT EXCHANGER		PROV REG No.:	
SERIAL No.:	01012-3	Equip No.:	62046545	National Board No.:



LSD



NAMEPLATE



OVERALL



PSV



PSV TAG



NOTES: