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Insp. Co. Job #: 123844

Cr	iticality D	esignation:					Gr	een		
In	sp. Comp:	Matrix_Insp	ection	District:	Slave	Lake	_	Field:	North	n Britnell
	· -	06-26-082-		nit / Skid #:	Pad # 24		•	LSD:	06-26-0)82-20 W4
Juri	sdiction #:	A05108	82 E	quip Tag #:	N/A	Ą	Se	rial #:	34	197-1
	CRN #:	R5736	.2	Nat'l Bd #:	N/A	Ą	Year	Built:	2	2004
Mar	nufacturer: N	MOSS FABRIC	ATION LTD.	E	quipment Des	scription:	FILTER	-		
	Status: I	n Service -		Equi	p. Type: Ves	sel: Filter			Service:	Sweet
MA	WP Shell:	720 Psi	@ 130	°F	Volume:			Co	de Stamp:	\boxtimes Y \square N
MA	WP Tube:		@	Heig	ght/Length:	40	in.		Insulated:	\square Y \boxtimes N
	MDMT:	-20 °F	RT: RT-2		/Diameter.:		O.D.		PWHT:	\square Y \boxtimes N
	Support	Legs	Ves	ssel on Origi	nal CNRL Inv	entory List:	\square Y \square N		Manway:	\boxtimes Y \square N
	C.A.:	N/A	Coated: No	o C	Clad: No	J.E.:	N/A Remote	Acces	s: 🗌	
	Compo	nent	Mat	erial	Nomina	al Thk	Diameter OD	ID T	ube Side	Shell Side
1	Main - Shel	I	NOT S	TATED		3	34.000 O)		\boxtimes
2	Top - Head		NOT S	TATED		3	34.000 O)		\boxtimes
3	Bottom - He	ead	NOT S	TATED		3	34.000 O)		\boxtimes
4	-									
5	-									
Stat	ic Data: Co	nfirmed 🛛	Changed (See	Comments)			·			
Con	nments:		<u> </u>							
		hed and legible	e							
		nation stated.	0.							
7100	quate illioiti	idion oldiodi								
501/4										
	Static Data									
	PSV –1 Tag			Serial #:				I: <u>N/A</u>		
		#: N/A		Capacity:	N/A		Set Pressure			
	Manufactur						Service Company			
	Inlet Size 8		-	_ ;			Last Service Date	e: <u>N/A</u>		
1	Outlet Size 8	· · · — — —	-	=		Bloc	k Valve: N/A -	-		
	Carseal			_ ;			Code Stamp			
	Shell Side /	Tube Side:		Out for S	ervice During	Insp.:	Location of PS\	/:		
	PSV –2 Tag	#: N/A		Serial #:	N/A		CRN	I: N/A		
	_	#: N/A		Capacity:			Set Pressure			
	Manufactur			_ • • • • • • • • • • • • • • • • • • •	, .		Service Company			
	Inlet Size 8		_				Last Service Date			
	Outlet Size 8	· · · — — —	_	=		Bloc	k Valve: N/A -	-		
	Carseal			_		Віоо	Code Stamp).		
	Shell Side /			Out for S	ervice During	Insp ·	Location of PS\			
DO) / /		1 450 0140.						<u> </u>		
	Comments									
NO	ACCESS TO	PSV. INSULA	ATED.							



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Insp. Company: Mat	trix_Ir	nspection	LSD:	06-26-082-20 W4	Jurisdic	tion #:	A05	10882
External Inspection Results -	– VE	External Ins	spection Pe	erformed				
Item	N/A	Condition		Comment (Check Status Bar or Press F1 for Help)		NCR	Action Item Integrity	Action Item Maintenance
Nameplate		Accept		te attached and legible				
Foundation and Supports		Accept		n, and supports good condition				
Anchor Bolts	$\overline{\sqcap}$	Accept		olts in good condition, and tight		П		
Grounding	Ē	Accept		ire clean and tightly attached to s	skid			
Insulation Condition	\boxtimes		Not applic	<u></u>				
PSV	\boxtimes		No access					
Shell Heads & Nozzles	Ħ	Accept	In good co			Ħ		
Metal Surfaces (Paint)	Ħ	Accept	_	ood condition		Ē		
Aux Equipment	$\overline{\boxtimes}$		Not applic			П		
Cathodic Protection	\boxtimes		Not applic					
Alignment		Accept	Alignment					
Flange Connections		Accept	-	re tight, bolts good condition		Ħ		
Pressure Gauge		Accept		auge clean and functional		Ħ		
Temperature Gauge	\boxtimes	7.000p1	Not applic			Ē		
Sight Glass			Not applic			H		
Ladder / Platform			Not applic			H		
Leaks		No		ce of leakage				
Piping from Vessel		Accept		good condition, well supported, n	o evidenc	o of lea	kane	
Previous UT Survey	H	No	,	us inspection		ompan		
1						J		
External Visual Observations	3							
Pressure gauge functional. Overall good conditionPiping well supported and clean No evidence of product leakage *No access to PSV Paint in good condition Anchor bolts in good condition, and tight Foundation, and supports good condition Flanges are tight, bolts good condition Piping in good condition, well supported, no evidence of leakage								
Recommendations:								
No problems noted								



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Insp. Co. Job #: 123844 06-26-082-20 W4 A0510882 Matrix_Inspection LSD: Jurisdiction #: Insp. Company: Internal Inspection Results - VI N/A (Not Applicable) Action Item Action Item Comment NCR N/A Condition Item (Check Status Bar or Press F1 for Help) Integrity Maintenance $\overline{\boxtimes}$ Shell No Internal Inspection Carried Out Heads \boxtimes No Internal Inspection Carried Out П П Manway \boxtimes No Internal Inspection Carried Out **Gasket Surfaces** \boxtimes No Internal Inspection Carried Out \boxtimes Welds No Internal Inspection Carried Out П Refractory \boxtimes No Internal Inspection Carried Out **Heating Coils** \boxtimes No Internal Inspection Carried Out Demister Pad \boxtimes No Internal Inspection Carried Out П П П \boxtimes Vane Pack No Internal Inspection Carried Out Baffles \boxtimes No Internal Inspection Carried Out Trays \boxtimes No Internal Inspection Carried Out П П П Filter \boxtimes No Internal Inspection Carried Out Internal Coating \boxtimes No Internal Inspection Carried Out Tubesheet \boxtimes No Internal Inspection Carried Out П П Tube Bundle \boxtimes No Internal Inspection Carried Out Internal Visual Observations No Internal Inspection Carried Out Recommendations: No Internal Inspection Carried Out



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Insp. Co. Job #: 123844 Matrix_Inspection 06-26-082-20 W4 A0510882 Insp. Company: LSD: Jurisdiction #: Firetube Static Data N/A (Not Applicable) Diameter: Not Applicable Nom Thickness: Not Applicable Bend: Not Applicable Firetube Description: Not Applicable Length: Not Applicable UT 🗌 Report#: Not Applicable ET 🗌 Report#: Not Applicable Firetube NDE MT \square RT 🗌 Report#: Not Applicable Report#: Not Applicable Performed: PT 🗌 Report#: Not Applicable Other Report#: Not Applicable Firetube Inspection Results Action Item Action Item Comment N/A Condition **NCR** Item (Check Status Bar or Press F1 for Help) Integrity Maintenance \boxtimes No Firetube Inspection Carried Out Burner \boxtimes No Firetube Inspection Carried Out Stack Flange (Throat) \boxtimes No Firetube Inspection Carried Out Ш **Tube Sheet** \boxtimes No Firetube Inspection Carried Out П П Hot Side \boxtimes No Firetube Inspection Carried Out Miter \boxtimes No Firetube Inspection Carried Out Return Bend \boxtimes No Firetube Inspection Carried Out \boxtimes Supports No Firetube Inspection Carried Out \boxtimes **Butt Welds** No Firetube Inspection Carried Out Fillet Welds \boxtimes No Firetube Inspection Carried Out Firetube Visual Observations No Firetube Inspection Carried Out Recommendations: No Firetube Inspection Carried Out



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Insp. Company:	Matrix_Ir	nspection	LSD:	06-26-082-2	20 W4		Jurisdiction #:	A0510882
Vessel NDE and Final	Summar	v:						
7000011102 4114 1 11141). ⊠	Report#:		ET		Report#:	
NDE Performe	d: MT		Report#:		RT		Report#:	_
	PT		Report#:		Other		Report#:	
Maxi-Trak Observations	Summa	ry (Summa	arize inspection re	esults Max 255	Characters	s):		
Vessel is in good exte	ernal cond	dition.						
		- (0			0:			
Maxi-Trak Recommend								
I his vessel and the c intervals.	omponen	its associa	ted with it are in (good external d	ondition. No	o acc	ess to psv. Continu	e to reinspect at regular
Actions Corrected at T	ime of Ins	spection: (I	f actions were correct	ed at the time of Ins	spection – note	the co	rrected actions here.)	
Not applicable								
Additional Visual Obser	vations							
Vessel is in good con	dition ext	ernally.						
Any other safety concer	ns or obs	servations	from associated	equipment: (fo	r example a	assoc	iated piping, buildin	gs, pumps etc)
Minor fouling on top f					· ·			
3 1								



Matrix_Inspection

PRESSURE VESSEL VISUAL INSPECTION **REPORT**

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Jurisdiction #:

Thickness and Remaining Life Evaluation

" Must be Completed"

06-26-082-20 W4

MUST BE COMPLETED AND RESOLVED WITH CNRL IMMEDIATELY UPON DISCOVERY OF LOW WALL THICKNESS AREAS

Step 1: Was any thickness measurement location found to be less than (Nominal WT - Corrosion Allowance)?: No

If YES, proceed to Step 2; if NO, proceed to "Crack Evaluation" and "CNRL Criticality Designation".

LSD:

Step 2: Which component(s) were found below (Nominal WT - Corrosion Allowance)?

Components found below Nom - CA:

Insp. Company:

Components				
N/A - N/A				
N/A - N/A				
N/A - N/A				
N/A - N/A				
N/A - N/A				

Perform Steps 3 – 8 for each component with actual thickness less than (Nominal WT – Corrosion Allowance).

Step 3: Describe Location and Extent of Corrosion:

Components

Location and Extent of Corrosion

N/A - N/A	Not Applicable for this Inspection
N/A - N/A	Not Applicable for this Inspection
N/A - N/A	Not Applicable for this Inspection
N/A - N/A	Not Applicable for this Inspection
N/A - N/A	Not Applicable for this Inspection

Notes:

Not Applicable for this Inspection

Step 4:

- For shells and nozzles, calculate minimum required thickness (T-min) as per ASME Section VIII UG-27.
- For heads, calculate minimum required thickness (T-min) as per ASME Section VIII UG-32.

Components	T-Min
N/A - N/A	N/A



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Insp. Company: Matrix_Inspection LSD: 06-26-082-20 W4 Jurisdiction #: A0510882

Thickness and Remaining Life Evaluation (Continued)

Step 5: Is any measured thickness less than calculated minimum required thickness (T-min)? N/A

If YES, complete Step 6
If NO, proceed to Step 7..

Step 6: Is nature and extent of pitting acceptable as per API 510? N/A

Step 7: Calculate Remaining Life as per API 510. How? (Find last reading; use nominal thickness if nothing available). Short Term Corrosion Rates and Long Term Corrosion Rates.

Components	Remaining Life (Yrs)
N/A - N/A	N/A

Step 8: Contact CNRL Integrity Coordinator to discuss above results.

- Name of CNRL contact: Not Applicable for this Inspection
- Date and time of conversation: Not Applicable for this Inspection

Summary/results of conversation:

Not Applicable for this Inspection

Crack Evaluation by Magnetic Particle or Alternative Inspection "Must be Completed"

MUST BE COMPLETED AND RESOLVED WITH CNRL IMMEDIATELY UPON DISCOVERY OF CRACK-LIKE INDICATIONS

Were any indications found to suggest the vessel contained cracks? No

If NO, proceed to "CNRL Criticality Designation".

If YES, Contact CNRL Integrity Coordinator to discuss results.

- Name of CNRL contact: Not Applicable for this Inspection
- Date and time of conversation: Not Applicable for this Inspection

Summary/results of conversation:

Not Applicable for this Inspection



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CNRL Criticality Evaluation – "MUST BE COMPLETED"

The CNRL In-Service Pressure Vessel Inspector MUST answer all the following questions

- Is the vessel fit-for-service? : Yes 1.
- 2. Was the measured thickness less than the calculated minimum required thickness (T-min) for any component?: **No**
- Were MT indications found?: **N/A** 3.
- Was the remaining life less than 6 years for sour service vessels or less than 10 years for sweet service vessels?: No 4.
- Were NCR's or Action Items generated as a result of the inspection? : **No** 5.
- Were UT readings below (Nominal WT Corrosion Allowance) found? : **No**

Information on CNRL Owner User Program - Criticality Designation and Required Review

RED – Vessel Inspection Results are deemed RED if one of the following occurred:

- The measured thickness was less than the calculated minimum required thickness (T-min) for any component.
- MT indications were found.
- The remaining life was calculated to be less than 6 years for sour-service vessels or less than 10 years for sweet-service vessels.

RED inspection reports must be signed off by the CNRL Chief Inspector.

YELLOW - Vessel Inspection Results are deemed YELLOW if one or more of the following occurred:

- The vessel was declared NOT fit-for-service by the 3rd Party In-Service PV Inspector.
- NCR's or Action Items were generated as a result of the inspection.
- UT readings below (Nominal WT Corrosion Allowance) were found.

YELLOW inspection reports must be signed off by the CNRL Pressure Equipment Integrity Coordinator.

GREEN - Vessel Inspection Results are deemed GREEN if <u>all</u> of the following are true:

- The vessel was declared fit-for-service by the 3rd Party In-Service PV Inspector.
- UT readings below (Nominal WT Corrosion Allowance) were NOT found.
- MT indications were NOT found.
- NCR's or Action Items were NOT generated as a result of the VE inspection.

GREEN inspection reports must be signed off by the 3rd Party In-Service Pressure Vessel Inspector.

Critical	lity Designation	Gr	een
Vehicle #:	321 Kms:	Inspector (Name): DENNIS BOWLBY	PESL:
Time In:	00:00 Time Out: 00:00 Hrs	Inspector (Signature):	API: 34104
Time In:	00:00 Time Out: 00:00 Hrs	CNRL Coordinator (Name):	
Personnel:		CNRL Coordinator (Signature):	
Billing Info:	:	CNRL Chief Inspector (Signature):	ment with report contents)
		(I am in full agree	ment with report contents)



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Equipment Photographs:



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