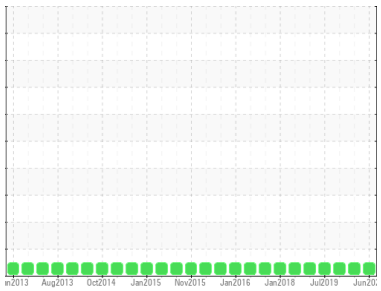
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
Turret [63682]
Machine Id
527-2 Primary System (WH-167809) (S/N Sample Tag NC-23602 WH-167809)
Component
Heat Transfer Fluid
Fluid
SHELL THERMIA B (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Lubritest recommends using HTTFL sample kits for heat transfer fluids. Please contact us at 1-800-268-2131 and provide a purchase order for $245 + HST in order to conduct additional testing (boiling points @ 10%, 50%, and 90%, percent boiling < 335°C, and solids) to determine the suitability for continued use. Please contact your representative for information regarding the proper sampling kits for your service.

Wear
All component wear rates are normal.

Contamination
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the fluid is acceptable for the time in service (unconfirmed).

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0080668**	PC0080213	PC
Sample Date		Client Info		**23 Jun 2024**	27 May 2024	18 Dec 2019
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**NORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.0601	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>200	**0**	0	0
Chromium	ppm	ASTM D5185(m)	>21	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>21	**<1**	0	0
Titanium	ppm	ASTM D5185(m)	>21	**0**	0	0
Silver	ppm	ASTM D5185(m)	>21	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>21	**<1**	0	0
Lead	ppm	ASTM D5185(m)	>21	**0**	0	0
Copper	ppm	ASTM D5185(m)	>21	**<1**	0	<1
Tin	ppm	ASTM D5185(m)	>21	**0**	0	0
Antimony	ppm	ASTM D5185(m)	>21	**0**	0	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

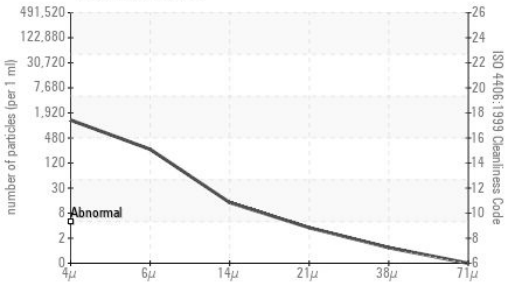
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**<1**	0	<1
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)		**0**	<1	<1
Calcium	ppm	ASTM D5185(m)		**<1**	0	<1
Phosphorus	ppm	ASTM D5185(m)		**257**	271	247
Zinc	ppm	ASTM D5185(m)		**2**	1	2
Sulfur	ppm	ASTM D5185(m)		**676**	689	591
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**0**	0	0
Sodium	ppm	ASTM D5185(m)	>21	**<1**	1	0
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	<1

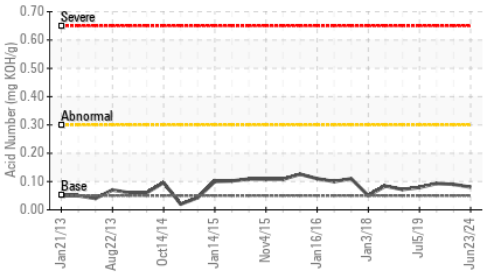
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**1133**	2110	1493
Particles >6µm		ASTM D7647	>10240000	**226**	317	173
Particles >14µm		ASTM D7647	>10240000	**12**	10	7
Particles >21µm		ASTM D7647	>2560000	**3**	2	3
Particles >38µm		ASTM D7647	>640000	**1**	0	0
Particles >71µm		ASTM D7647	>160000	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>--/30/30	**17/15/11**	18/15/10	18/15/10

OIL ANALYSIS REPORT

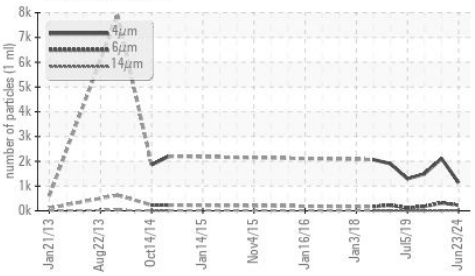
Particle Count



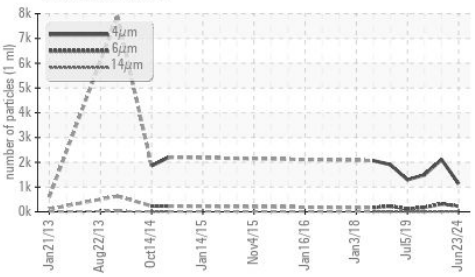
Acid Number



Particle Trend



Particle Trend

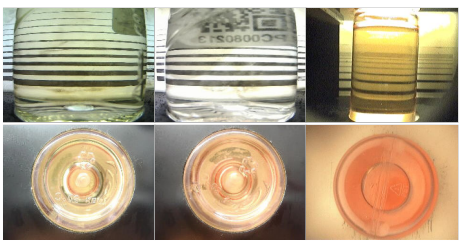


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.05	**0.08**	0.09	0.093

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.0601	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

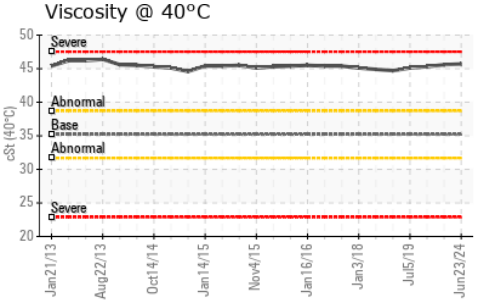
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	35.2	**45.7**	45.6	45.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



GRAPHS

Viscosity @ 40°C



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080668 **Received** : 24 Jun 2024
Lab Number : 02643736 **Tested** : 27 Jun 2024
Unique Number : 5801275 **Diagnosed** : 27 Jun 2024 - Kevin Marson
Test Package : MAR 2 (Additional Tests: PRTCOUNT, TAN Man)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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