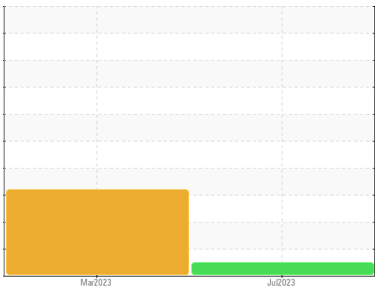
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
329 - EFFECT 4 RECINE EVAP 2
Component
Pump
Fluid
MOBIL SHC 626 (1 GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. Analytical Ferrography: Results are normal with typical amounts of ferrous rubbing wear and contamination present.

Wear
All component wear rates are normal. The analytical ferrographic results are normal indicating no abnormal wear in the system.

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

Oil Condition
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0824330**	WC0783648	---
Sample Date		Client Info		**19 Jul 2023**	24 Mar 2023	---
Machine Age	mths	Client Info		**0**	0	---
Oil Age	mths	Client Info		**3**	0	---
Oil Changed		Client Info		**Not Changd**	N/A	---
Sample Status				**NORMAL**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**7**	12	---
Iron	ppm	ASTM D5185m	>90	**<1**	2	---
Chromium	ppm	ASTM D5185m	>5	**0**	0	---
Nickel	ppm	ASTM D5185m	>5	**0**	0	---
Titanium	ppm	ASTM D5185m	>3	**0**	0	---
Silver	ppm	ASTM D5185m	>3	**<1**	0	---
Aluminum	ppm	ASTM D5185m	>7	**0**	<1	---
Lead	ppm	ASTM D5185m	>12	**0**	0	---
Copper	ppm	ASTM D5185m	>30	**<1**	0	---
Tin	ppm	ASTM D5185m	>9	**0**	0	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

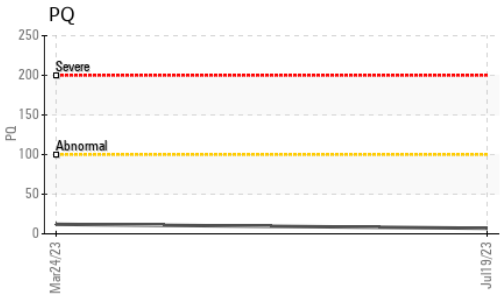
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	---
Barium	ppm	ASTM D5185m		**<1**	0	---
Molybdenum	ppm	ASTM D5185m		**0**	0	---
Manganese	ppm	ASTM D5185m		**0**	<1	---
Magnesium	ppm	ASTM D5185m		**0**	0	---
Calcium	ppm	ASTM D5185m		**0**	7	---
Phosphorus	ppm	ASTM D5185m		**486**	442	---
Zinc	ppm	ASTM D5185m		**0**	0	---
Sulfur	ppm	ASTM D5185m		**0**	0	---

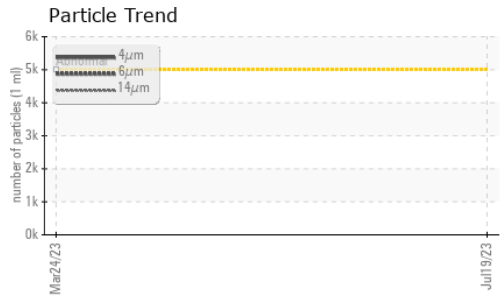
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	**5**	2	---
Sodium	ppm	ASTM D5185m		**0**	0	---
Potassium	ppm	ASTM D5185m	>20	**<1**	<1	---

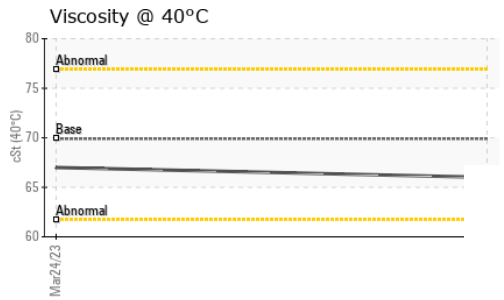
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	**4009**	---	---
Particles >6µm	ASTM D7647	>1300	**464**	---	---
Particles >14µm	ASTM D7647	>160	**23**	---	---
Particles >21µm	ASTM D7647	>40	**4**	---	---
Particles >38µm	ASTM D7647	>10	**0**	---	---
Particles >71µm	ASTM D7647	>3	**0**	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	**19/16/12**	---	---

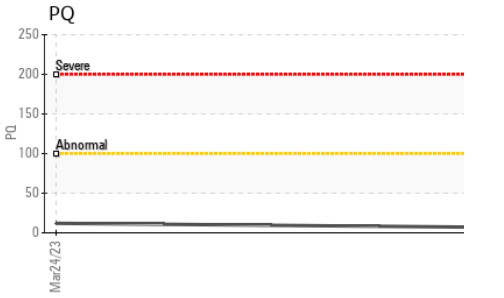
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.63**	0.51	---

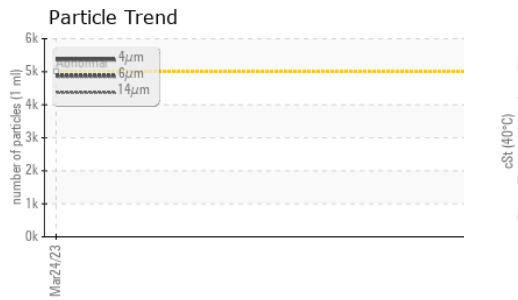
OIL ANALYSIS REPORT





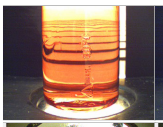
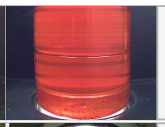
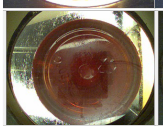
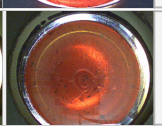




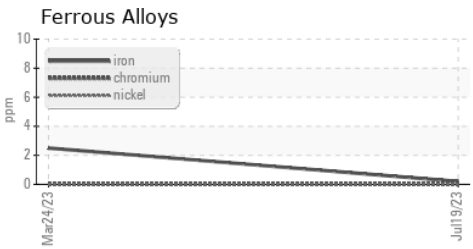


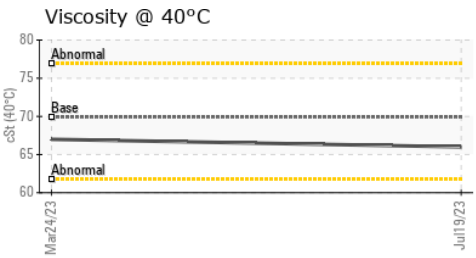
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	▲ MODER	---
Sand/Dirt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

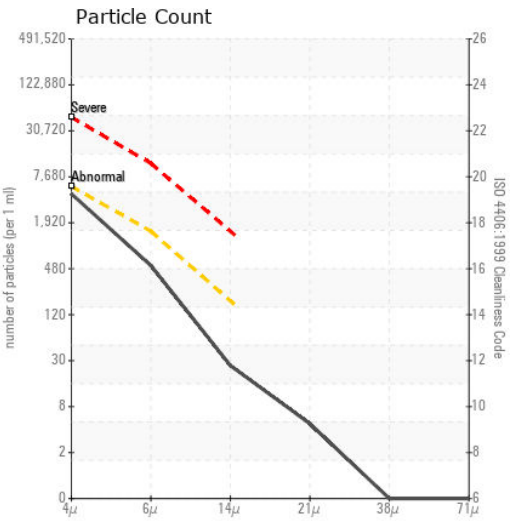
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	69.9	**66.0**	67.0	---

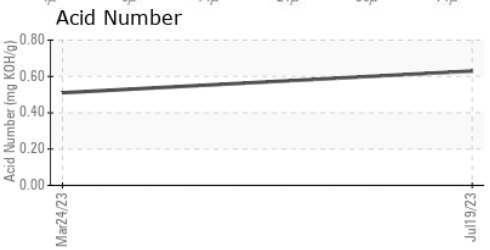
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS









Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0824330 **Received** : 21 Jul 2023
Lab Number : 05904978 **Diagnosed** : 03 Aug 2023
Unique Number : 10566334 **Diagnostician** : Aaron Black
Test Package : PLANT (Additional Tests: A-FERR)

Certificate L2367

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

GRAPHIC PACKAGING INTERNATIONAL
100 GRAPHIC PACKAGING INTERNATIONAL
MACON, GA
US 31206
Contact: DARYL SPRINGER
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T: (478)784-3677
F:

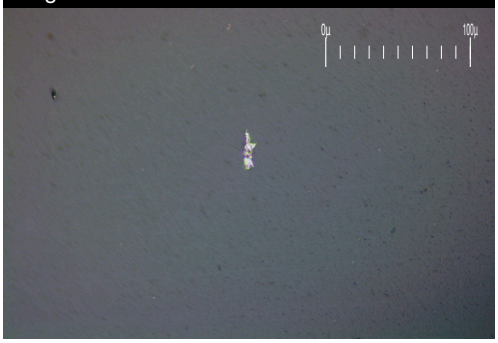
Report Id: GRAMAC [WUSCAR] 05904978 (Generated: 08/04/2023 03:12:22) Rev: 1

Submitted By: DARYL SPRINGER

FERROGRAPHY REPORT

Machine Id
329 - EFFECT 4 RECINE EVAP 2
Component
Pump
Fluid
MOBIL SHC 626 (1 GAL)

Magn: 500x Illum: RW



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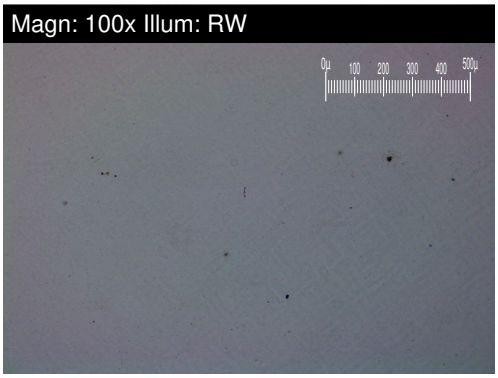

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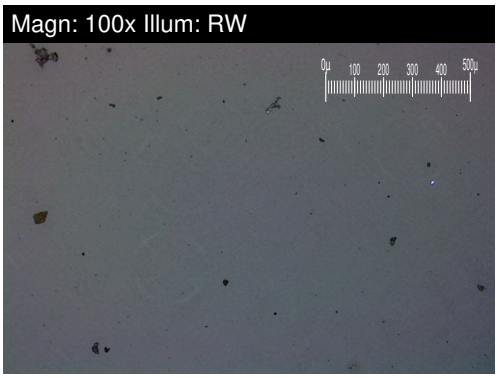
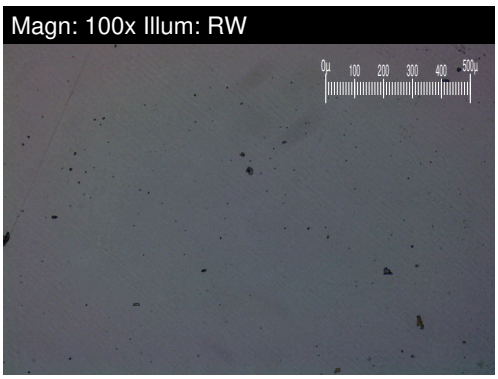


Magn: 100x Illum: RW



FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	*ASTM D7684		2	3	
Ferrous Sliding	Scale 0-10	*ASTM D7684			4	
Ferrous Cutting	Scale 0-10	*ASTM D7684				
Ferrous Rolling	Scale 0-10	*ASTM D7684			2	
Ferrous Break-in	Scale 0-10	*ASTM D7684				
Ferrous Spheres	Scale 0-10	*ASTM D7684				
Ferrous Black Oxides	Scale 0-10	*ASTM D7684				
Ferrous Red Oxides	Scale 0-10	*ASTM D7684				
Ferrous Corrosive	Scale 0-10	*ASTM D7684				
Ferrous Other	Scale 0-10	*ASTM D7684				
Nonferrous Rubbing	Scale 0-10	*ASTM D7684				
Nonferrous Sliding	Scale 0-10	*ASTM D7684			2	
Nonferrous Cutting	Scale 0-10	*ASTM D7684				
Nonferrous Rolling	Scale 0-10	*ASTM D7684				
Nonferrous Other	Scale 0-10	*ASTM D7684				
Carbonaceous Material	Scale 0-10	*ASTM D7684				
Lubricant Degradation	Scale 0-10	*ASTM D7684				
Sand/Dirt	Scale 0-10	ASTM D7684				
Fibres	Scale 0-10	*ASTM D7684				
Spheres	Scale 0-10	*ASTM D7684				
Other	Scale 0-10	*ASTM D7684		2	5	

WEAR

All component wear rates are normal. The analytical ferrographic results are normal indicating no abnormal wear in the system.

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