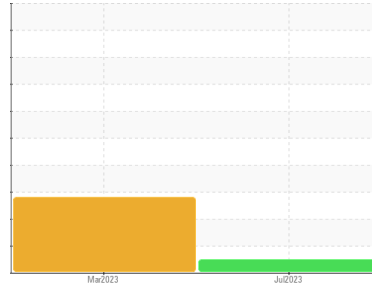




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
331 - EFFECT 6 RECIRCULATION

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		WC0824327	WC0783651	---
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 Chngd	N/A	---
Sample Status			NORMAL	ABNORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		12	12	---
Iron	ppm	ASTM D5185m >90	<1	<1	---
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	0	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	0	---
Phosphorus	ppm	ASTM D5185m	460	448	---
Zinc	ppm	ASTM D5185m	0	0	---
Sulfur	ppm	ASTM D5185m	0	0	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	4	16	---
Sodium	ppm	ASTM D5185m	0	0	---
Potassium	ppm	ASTM D5185m >20	<1	<1	---

FLUID CLEANLINESS

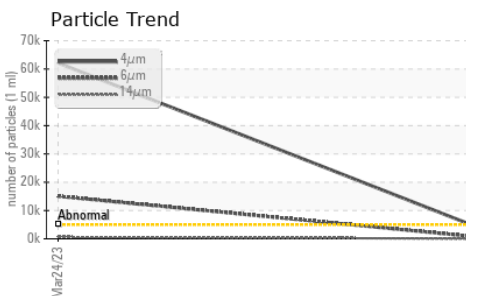
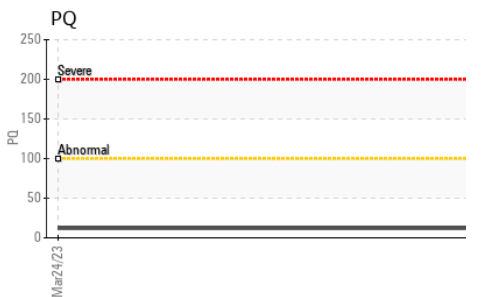
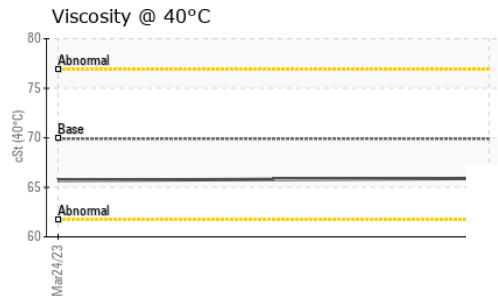
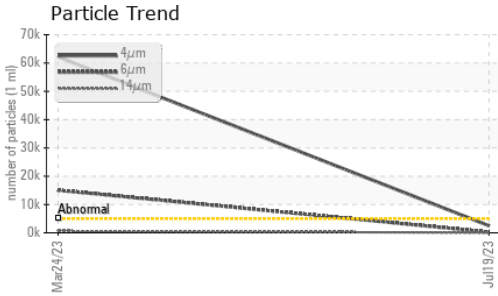
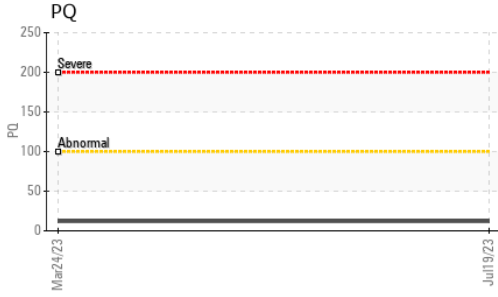
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	2476	▲ 62151	---
Particles >6µm	ASTM D7647	>1300	258	▲ 15056	---
Particles >14µm	ASTM D7647	>160	13	▲ 641	---
Particles >21µm	ASTM D7647	>40	4	▲ 117	---
Particles >38µm	ASTM D7647	>10	0	8	---
Particles >71µm	ASTM D7647	>3	0	1	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	18/15/11	▲ 23/21/17	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.66	0.55	---



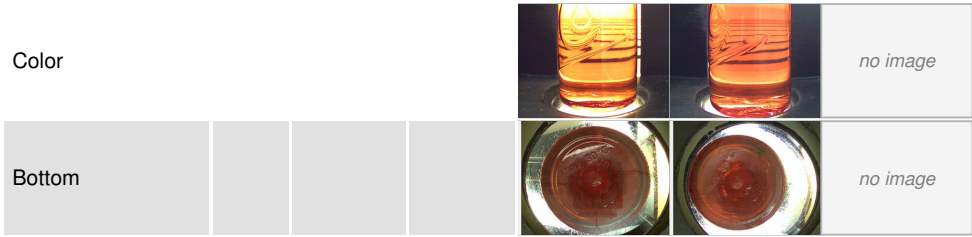
OIL ANALYSIS REPORT



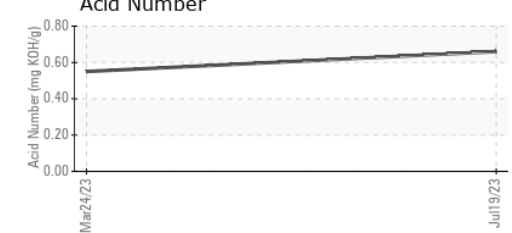
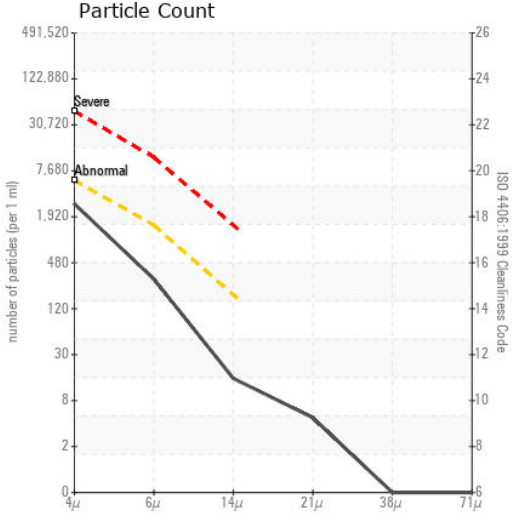
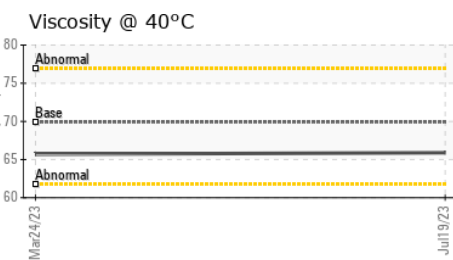
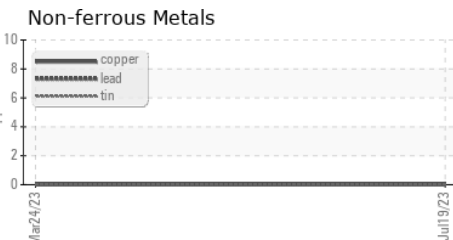
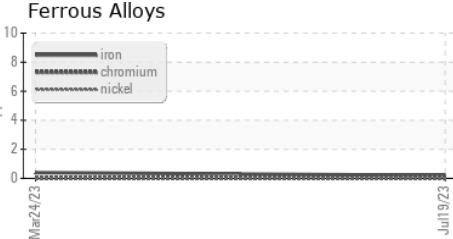
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	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	65.9	65.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0824327 **Received** : 21 Jul 2023
Lab Number : 05904975 **Diagnosed** : 03 Aug 2023
Unique Number : 10566331 **Diagnostician** : Aaron Black
Test Package : PLANT (Additional Tests: A-FERR)

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

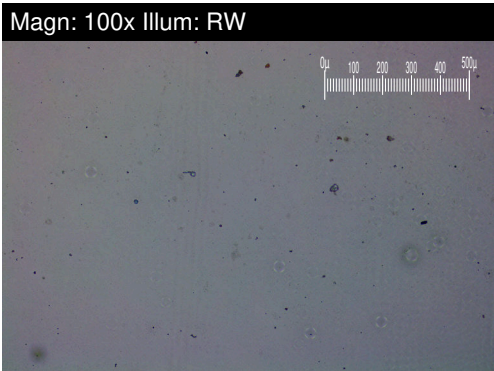
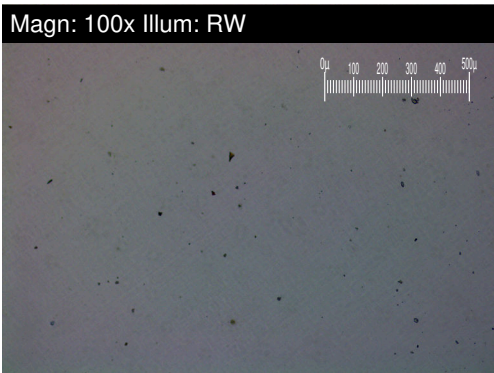
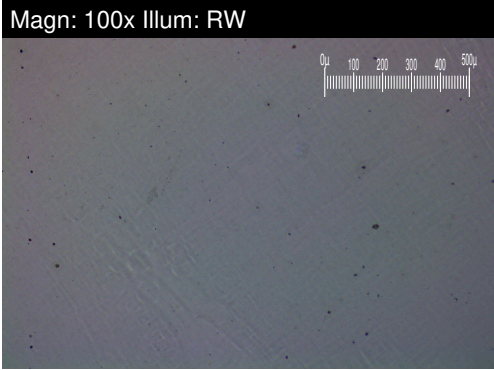
Contact: DARYL SPRINGER
 daryl.springer@graphicpkg.com

T: (478)784-3677

F:

FERROGRAPHY REPORT

Machine Id
331 - EFFECT 6 RECIRCULATION
 Component
Pump
 Fluid
MOBIL SHC 626 (1 GAL)



FERROGRAPHY	method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	*ASTM D7684	■ 2	■ 2	
Ferrous Sliding	Scale 0-10	*ASTM D7684		■ 2	
Ferrous Cutting	Scale 0-10	*ASTM D7684			
Ferrous Rolling	Scale 0-10	*ASTM D7684			
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			
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	▲ 4	

WEAR

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

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