



OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Area
Plant US1 Greenville
 Machine Id
MAF2 - Extruder
 Component
Gearbox
 Fluid
SHELL OMALA 320 (--- GAL)



DIAGNOSIS

- Recommendation**
No corrective action is recommended at this time. Resample at the next service interval to monitor.
- Wear**
Gear wear is indicated. All other component wear rates are normal.
- Contamination**
There is no indication of any contamination in the oil.
- Fluid 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		TLC0001437	---	---
Sample Date	Client Info		19 Feb 2024	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		241	---	---
Iron	ppm	ASTM D5185m >200	▲ 336	---	---
Chromium	ppm	ASTM D5185m >15	1	---	---
Nickel	ppm	ASTM D5185m >15	<1	---	---
Titanium	ppm	ASTM D5185m	0	---	---
Silver	ppm	ASTM D5185m	0	---	---
Aluminum	ppm	ASTM D5185m >25	<1	---	---
Lead	ppm	ASTM D5185m >100	0	---	---
Copper	ppm	ASTM D5185m >200	<1	---	---
Tin	ppm	ASTM D5185m >25	<1	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5.5	6	---	---
Barium	ppm	ASTM D5185m 0.4	0	---	---
Molybdenum	ppm	ASTM D5185m 0.5	0	---	---
Manganese	ppm	ASTM D5185m	2	---	---
Magnesium	ppm	ASTM D5185m 23	4	---	---
Calcium	ppm	ASTM D5185m 13	24	---	---
Phosphorus	ppm	ASTM D5185m 450	276	---	---
Zinc	ppm	ASTM D5185m 9.9	7	---	---
Sulfur	ppm	ASTM D5185m 8181	15213	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	6	---	---
Sodium	ppm	ASTM D5185m	2	---	---
Potassium	ppm	ASTM D5185m >20	1	---	---

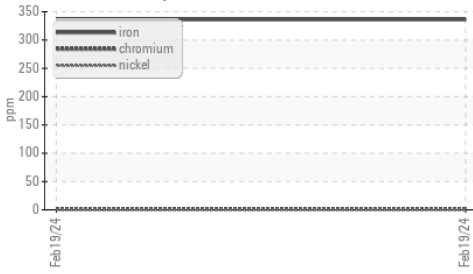
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.60	---	---



OIL ANALYSIS REPORT

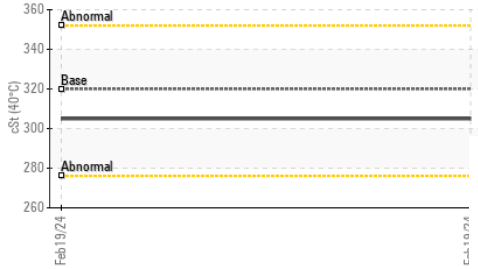
▲ Ferrous Alloys



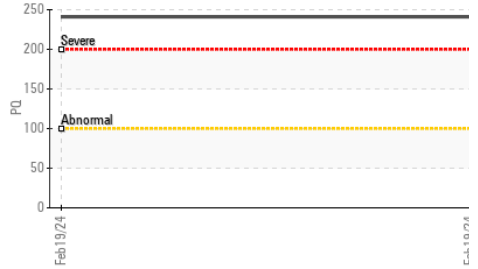
Acid Number



Viscosity @ 40°C



PQ



PARAMETER	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	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

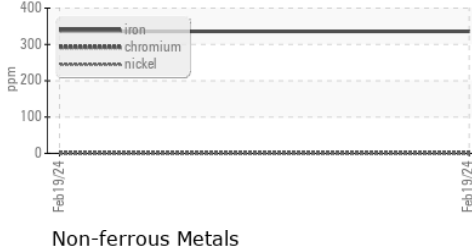
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	320	305	---

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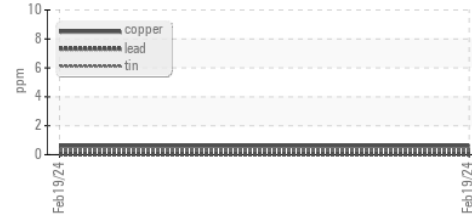
Color				no image	no image
Bottom				no image	no image

GRAPHS

▲ Ferrous Alloys



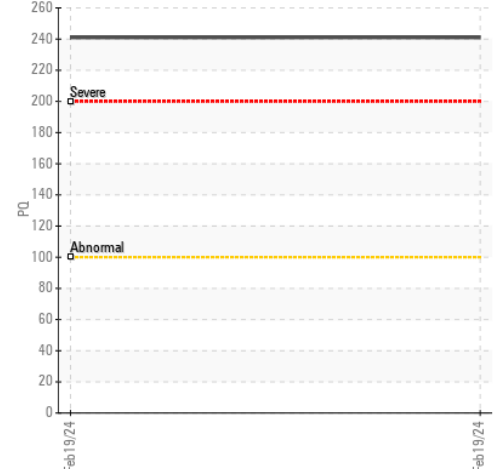
Non-ferrous Metals



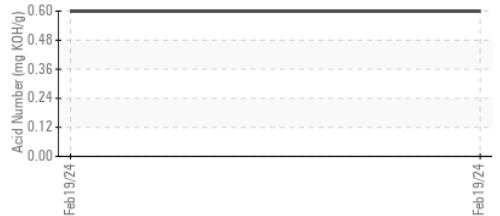
Viscosity @ 40°C



PQ



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : TLC0001437
 Lab Number : 06098581
 Unique Number : 10896811
 Test Package : PLANT

Received : 23 Feb 2024
 Tested : 26 Feb 2024
 Diagnosed : 26 Feb 2024 - Don Baldrige

MICHELIN TIRE-GRENVILLE US 1 JN DOCK
 1401 ANTIOCH CHURCH ROAD
 Greenville, SC
 US 29605
 Contact: Nicolas Jackson
 nicolas.jackson@michelin.com

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)

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F: