



OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

Plant US1 Greenville

Machine Id

BD-7 - Hydraulic

Component

Hydraulic System

Fluid

SHELL TELLUS S2 M 46 (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

There is a high amount of particulates present 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		TLC0001548	---	---
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	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	2	---	---
Chromium	ppm	ASTM D5185m >20	<1	---	---
Nickel	ppm	ASTM D5185m >20	<1	---	---
Titanium	ppm	ASTM D5185m	<1	---	---
Silver	ppm	ASTM D5185m	<1	---	---
Aluminum	ppm	ASTM D5185m >20	<1	---	---
Lead	ppm	ASTM D5185m >20	1	---	---
Copper	ppm	ASTM D5185m >20	7	---	---
Tin	ppm	ASTM D5185m >20	<1	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	<1	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	---	---
Barium	ppm	ASTM D5185m	5	---	---
Molybdenum	ppm	ASTM D5185m	<1	---	---
Manganese	ppm	ASTM D5185m	<1	---	---
Magnesium	ppm	ASTM D5185m	27	---	---
Calcium	ppm	ASTM D5185m	35	---	---
Phosphorus	ppm	ASTM D5185m	234	---	---
Zinc	ppm	ASTM D5185m	314	---	---
Sulfur	ppm	ASTM D5185m	1290	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	2	---	---
Sodium	ppm	ASTM D5185m	0	---	---
Potassium	ppm	ASTM D5185m >20	1	---	---
Water	%	ASTM D6304 >0.05	NEG	---	---

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 12246	---	---
Particles >6µm	ASTM D7647	>1300	▲ 3976	---	---
Particles >14µm	ASTM D7647	>160	▲ 352	---	---
Particles >21µm	ASTM D7647	>40	▲ 60	---	---
Particles >38µm	ASTM D7647	>10	1	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/19/16	---	---

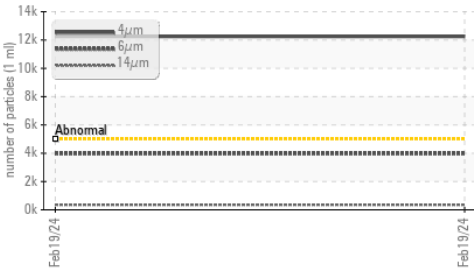
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.32	---	---

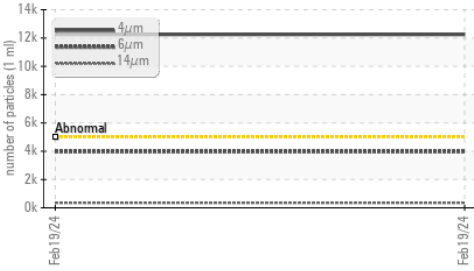


OIL ANALYSIS REPORT

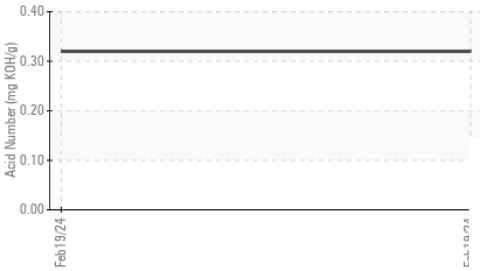
Particle Trend



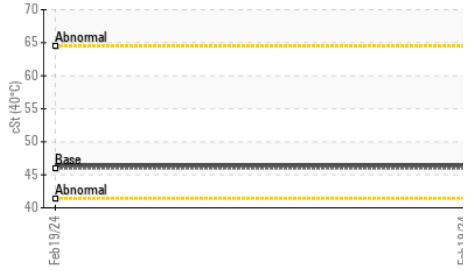
Particle Trend



Acid Number



Viscosity @ 40°C



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	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.0	46.4	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color



no image

no image

Bottom



no image

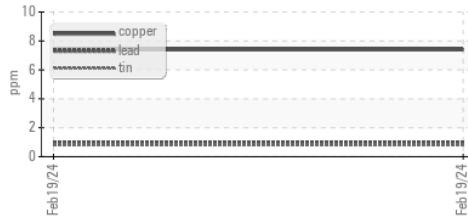
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GRAPHS

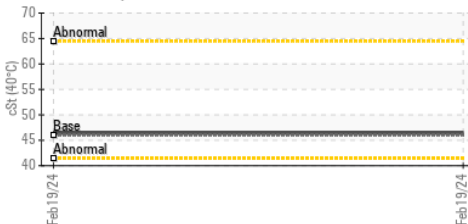
Ferrous Alloys



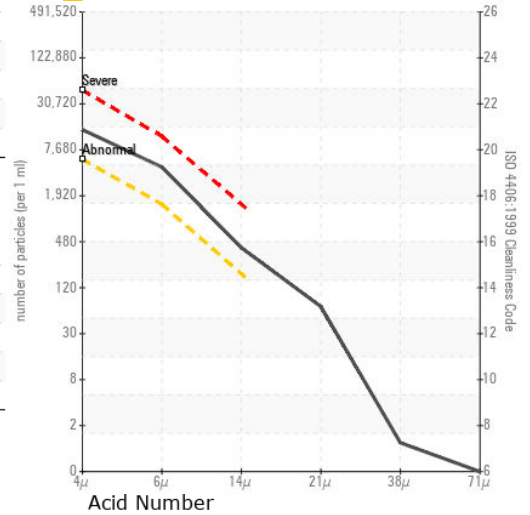
Non-ferrous Metals



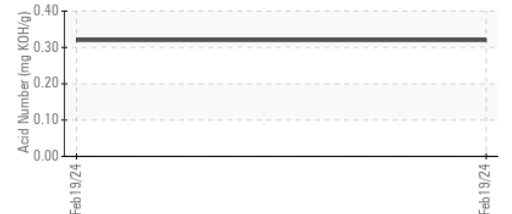
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : TLC0001548
 Lab Number : 06098335
 Unique Number : 10896565
 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: