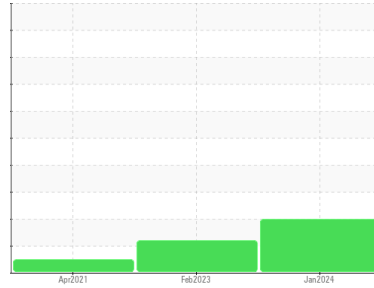




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
CURING
Machine Id
[CURING] LINE 1 HYDRAULIC CURING PRESS
Component
Hydraulic System
Fluid
{not provided} (500 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. 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		WC0849599	WC0755640	WC0551659
Sample Date	Client Info		25 Jan 2024	05 Feb 2023	15 Apr 2021
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			ABNORMAL	ABNORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	6	9	<1
Chromium	ppm	ASTM D5185m >20	2	<1	<1
Nickel	ppm	ASTM D5185m >20	0	0	<1
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	0	0	<1
Aluminum	ppm	ASTM D5185m >20	0	0	0
Lead	ppm	ASTM D5185m >20	0	0	<1
Copper	ppm	ASTM D5185m >20	5	5	5
Tin	ppm	ASTM D5185m >20	<1	0	<1
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	<1
Manganese	ppm	ASTM D5185m	<1	<1	0
Magnesium	ppm	ASTM D5185m	0	0	<1
Calcium	ppm	ASTM D5185m	93	102	119
Phosphorus	ppm	ASTM D5185m	424	424	488
Zinc	ppm	ASTM D5185m	31	50	50
Sulfur	ppm	ASTM D5185m	1579	2199	1764

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	2	4	0
Sodium	ppm	ASTM D5185m	1	2	2
Potassium	ppm	ASTM D5185m >20	0	0	<1
Water	%	ASTM D6304 >0.05	NEG	NEG	NEG

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 18085	▲ 35551	1051
Particles >6µm	ASTM D7647	>1300	▲ 2140	▲ 4790	227
Particles >14µm	ASTM D7647	>160	▲ 213	95	23
Particles >21µm	ASTM D7647	>40	▲ 51	12	5
Particles >38µm	ASTM D7647	>10	1	1	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/18/15	▲ 22/19/14	17/15/12

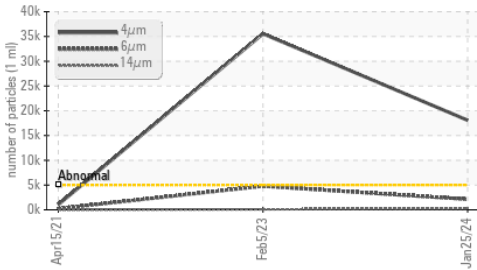
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.12	0.12	0.171

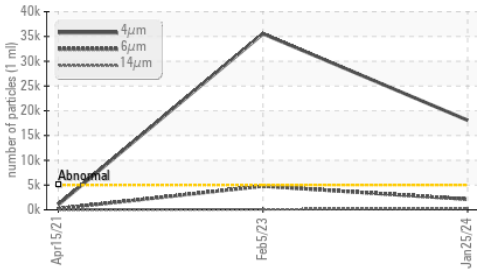


OIL ANALYSIS REPORT

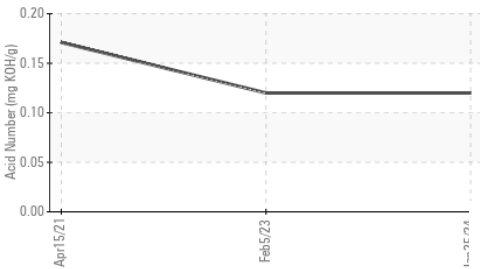
▲ Particle Trend



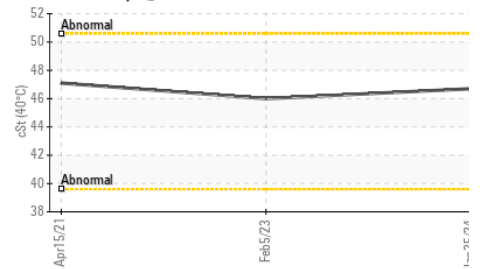
▲ Particle Trend



Acid Number



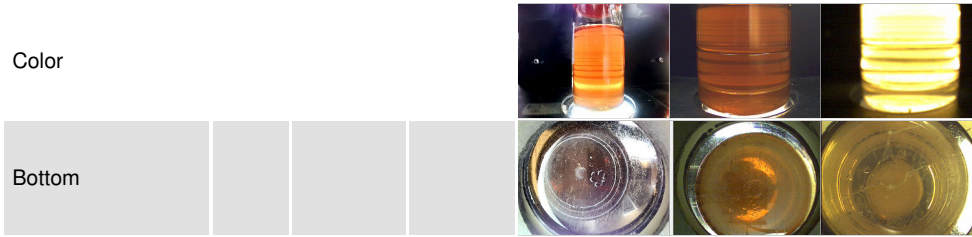
Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	LIGHT	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	VLITE	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	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

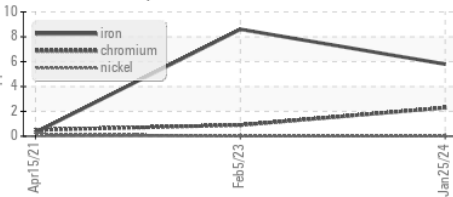
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.7	46.0	47.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
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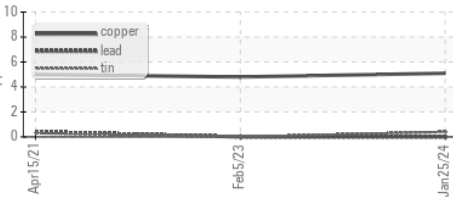


GRAPHS

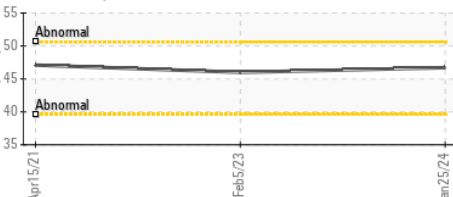
Ferrous Alloys



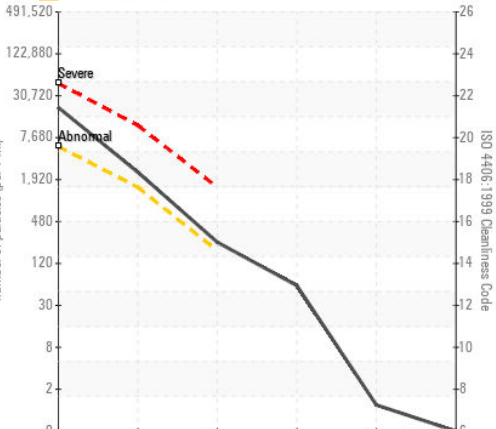
Non-ferrous Metals



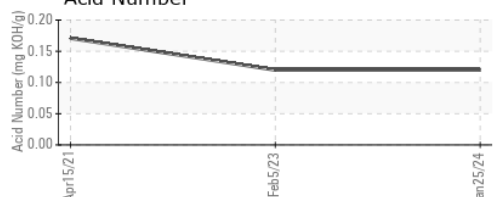
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0849599 **Received** : 31 Jan 2024
Lab Number : 06075674 **Tested** : 01 Feb 2024
Unique Number : 10857765 **Diagnosed** : 01 Feb 2024 - Don Baldrige
Test Package : PLANT

NOKIAN TYRES US OPERATIONS LLC
 520 NOKIAN TYRES DRIVE
 DAYTON, TN
 US 37321
 Contact: Chris Randolph
 christopher.randolph@nokiantyres.com
 T: (423)457-3121
 F:

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)