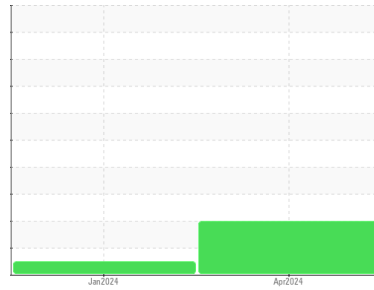


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
FURNACE MAIN
 Component
Hydraulic System
 Fluid
KOST ACHIEVAL FRH 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 pH level of this fluid is within the acceptable limits at 11.0. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0107869	PCA0107864	---
Sample Date	Client Info	04 Apr 2024	19 Jan 2024	---
Machine Age	days	Client Info	0	0
Oil Age	days	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	---
Sample Status		ABNORMAL	NORMAL	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	2	0
Chromium	ppm	ASTM D5185m >20	1	0
Nickel	ppm	ASTM D5185m >20	1	<1
Titanium	ppm	ASTM D5185m	<1	0
Silver	ppm	ASTM D5185m	0	0
Aluminum	ppm	ASTM D5185m >20	12	<1
Lead	ppm	ASTM D5185m >20	0	0
Copper	ppm	ASTM D5185m >20	1	0
Tin	ppm	ASTM D5185m >20	1	<1
Vanadium	ppm	ASTM D5185m	2	0
Cadmium	ppm	ASTM D5185m	<1	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	0
Barium	ppm	ASTM D5185m	0	<1
Molybdenum	ppm	ASTM D5185m	<1	0
Manganese	ppm	ASTM D5185m	<1	<1
Magnesium	ppm	ASTM D5185m	<1	1
Calcium	ppm	ASTM D5185m	3	1
Phosphorus	ppm	ASTM D5185m	8	<1
Zinc	ppm	ASTM D5185m	5	7
Sulfur	ppm	ASTM D5185m	0	0

CONTAMINANTS

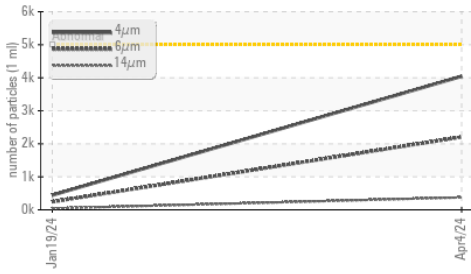
method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	3	0
Sodium	ppm	ASTM D5185m	41	0
Potassium	ppm	ASTM D5185m >20	7	<1
Water	%	ASTM D6304 >0.05	38.2	35.8
ppm Water	ppm	ASTM D6304 >500	382000	358000

FLUID CLEANLINESS

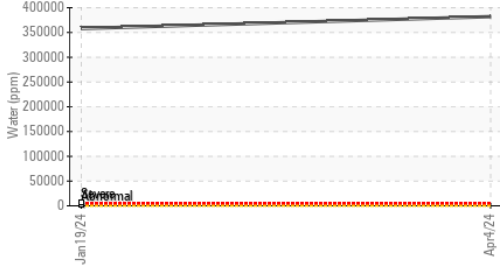
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	4045	444	---
Particles >6µm	ASTM D7647 >1300	▲ 2204	242	---
Particles >14µm	ASTM D7647 >160	▲ 375	41	---
Particles >21µm	ASTM D7647 >40	▲ 126	14	---
Particles >38µm	ASTM D7647 >10	▲ 20	2	---
Particles >71µm	ASTM D7647 >3	2	0	---
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 19/18/16	16/15/13	---

OIL ANALYSIS REPORT

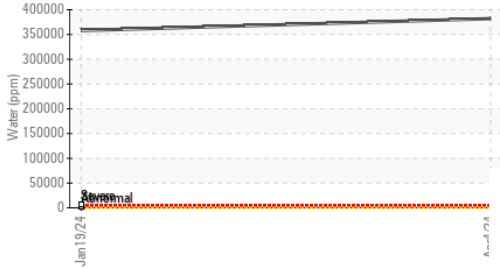
▲ Particle Trend



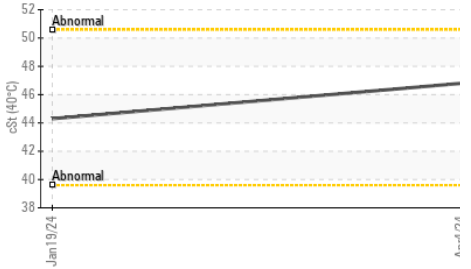
Water (KF)



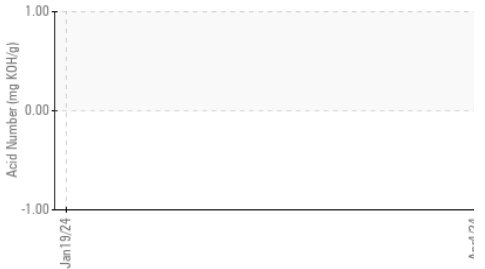
Water (KF)



Viscosity @ 40°C



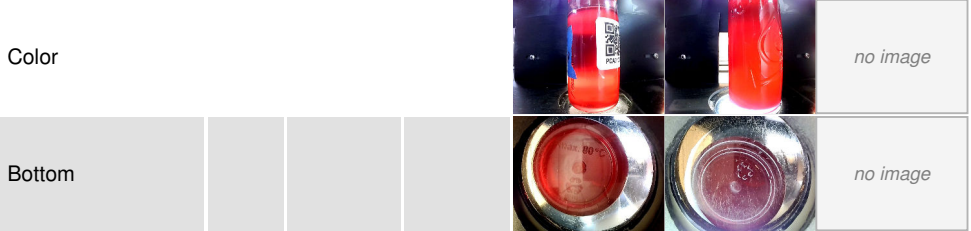
Acid Number



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	0.2%	---
Free Water	scalar	*Visual		NEG	---

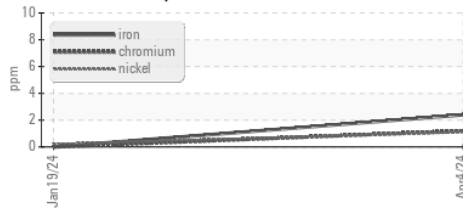
FLUID PROPERTIES	method	limit/base	current	history1	history2
pH	Scale 0-14	ASTM D1287	11.0	9.00	---
Visc @ 40°C	cSt	ASTM D445	46.8	44.3	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

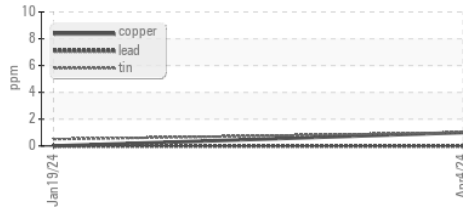


GRAPHS

Ferrous Alloys



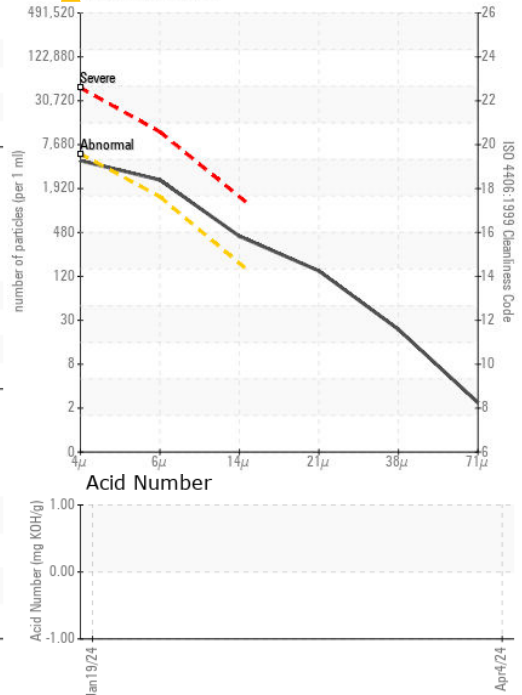
Non-ferrous Metals



Viscosity @ 40°C



▲ Particle Count



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0107869 **Received** : 22 Apr 2024
Lab Number : 06156084 **Tested** : 24 Apr 2024
Unique Number : 10991507 **Diagnosed** : 24 Apr 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, pH)

NUCOR STEEL KANKAKEE
 ONE NUCOR WAY
 BOURBONNAIS, IL
 US 60914
 Contact: NATHAN DUNNILL
 nathan.dunnill@nucor.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)

T:
F: