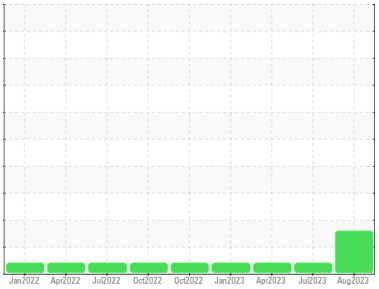
OIL DIAGNOSTICS

PROBLEM SUMMARY

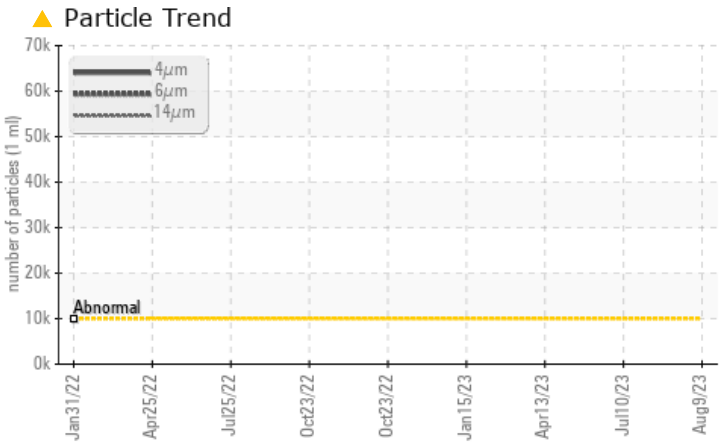
Sample Rating Trend

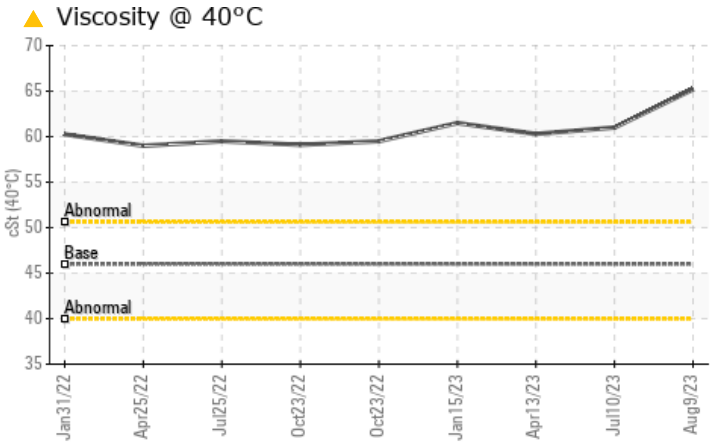


VISCOSITY

Area
[98272597]
Machine Id
KR-GR-003067 - TUMBLER 2 (S/N TUMBLE ROOM - 11513090)
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (10 GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ATTENTION	ATTENTION
Particles >4µm		ASTM D7647	>10000	▲ **62773**	---	---
Particles >6µm		ASTM D7647	>2500	▲ **6229**	---	---
Oil Cleanliness		ISO 4406 (c)	>20/18/16	▲ **23/20/13**	---	---
Visc @ 40°C	cSt	ASTM D445	46	▲ **65.2**	▲ 61.0	▲ 60.3

Customer Id: KRAKIR
Sample No.: PCA0103743
Lab Number: 05924822
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component if applicable.

HISTORICAL DIAGNOSIS

10 Jul 2023 Diag: Don Baldridge

VISCOSITY

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 68 range, advise investigate. Confirm oil type.

view report

13 Apr 2023 Diag: Don Baldridge

VISCOSITY

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 68 range, advise investigate. Confirm oil type.

view report

15 Jan 2023 Diag: Don Baldridge

VISCOSITY

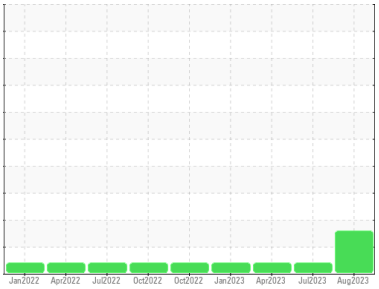
No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 68 range, advise investigate. Confirm oil type.

view report

OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Area
[98272597]
Machine Id
KR-GR-003067 - TUMBLER 2 (S/N TUMBLE ROOM - 11513090)
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (10 GAL)

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 silt (particulates < 14 microns in size) present in the oil.

Fluid Condition
Viscosity of sample indicates oil is within ISO 68 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0103743**	PCA0096624	PCA0092417
Sample Date		Client Info		**09 Aug 2023**	10 Jul 2023	13 Apr 2023
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**	ATTENTION	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**3**	5	8
Chromium	ppm	ASTM D5185m	>20	**<1**	1	2
Nickel	ppm	ASTM D5185m	>20	**<1**	<1	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	<1	0
Aluminum	ppm	ASTM D5185m	>20	**<1**	1	0
Lead	ppm	ASTM D5185m	>20	**<1**	<1	3
Copper	ppm	ASTM D5185m	>20	**3**	7	8
Tin	ppm	ASTM D5185m	>20	**0**	0	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	**0**	0	0
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	5	**0**	0	<1
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m	25	**<1**	0	2
Calcium	ppm	ASTM D5185m	200	**3**	16	32
Phosphorus	ppm	ASTM D5185m	300	**379**	313	393
Zinc	ppm	ASTM D5185m	370	**40**	230	303
Sulfur	ppm	ASTM D5185m	2500	**1082**	3730	3676

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**5**	2	5
Sodium	ppm	ASTM D5185m		**0**	<1	0
Potassium	ppm	ASTM D5185m	>20	**<1**	<1	2

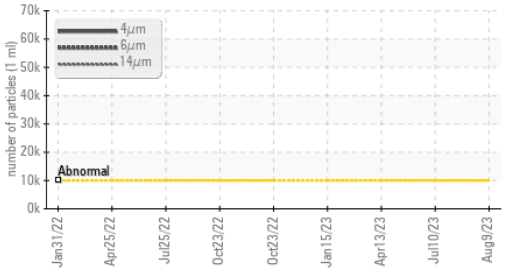
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **62773**	---	---
Particles >6µm		ASTM D7647	>2500	▲ **6229**	---	---
Particles >14µm		ASTM D7647	>640	**67**	---	---
Particles >21µm		ASTM D7647	>160	**13**	---	---
Particles >38µm		ASTM D7647	>40	**1**	---	---
Particles >71µm		ASTM D7647	>10	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>20/18/16	▲ **23/20/13**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	**0.21**	---	---

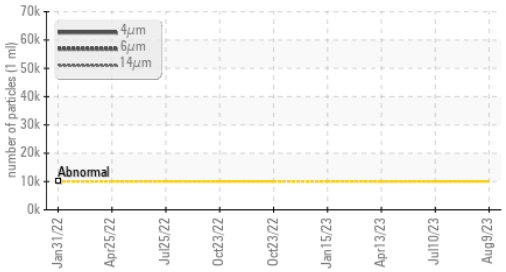
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

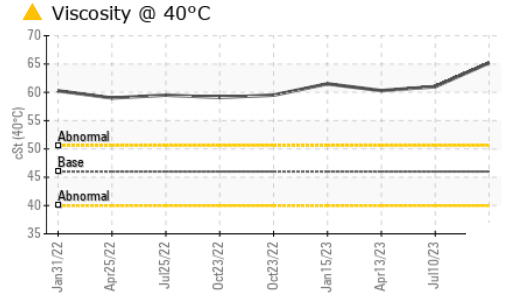
Particle Trend



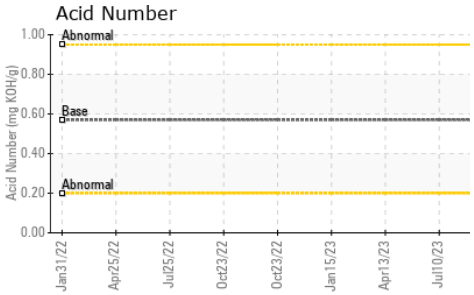
Particle Trend



Viscosity @ 40°C



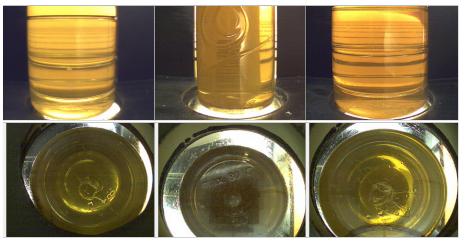
Acid Number



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	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**	NONE	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

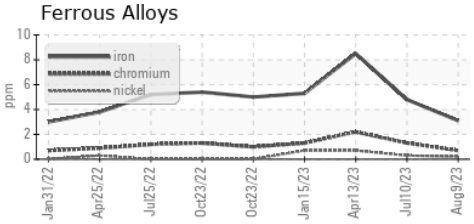
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	▲ **65.2**	▲ 61.0	▲ 60.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

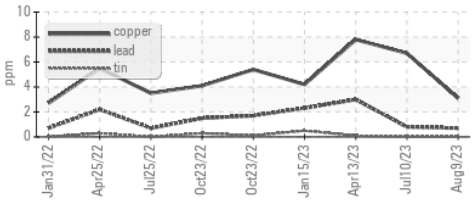


GRAPHS

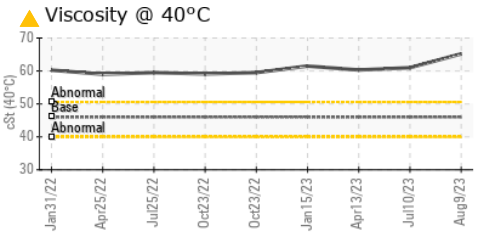
Ferrous Alloys



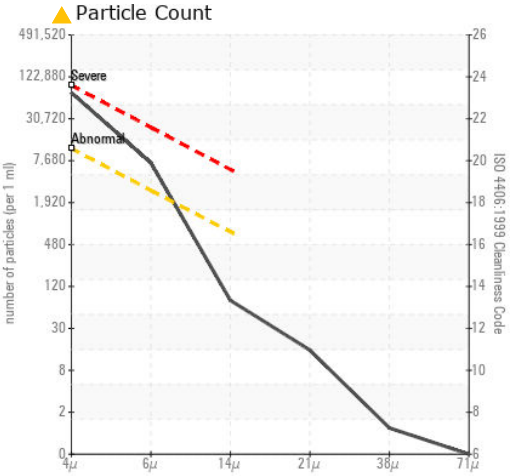
Non-ferrous Metals



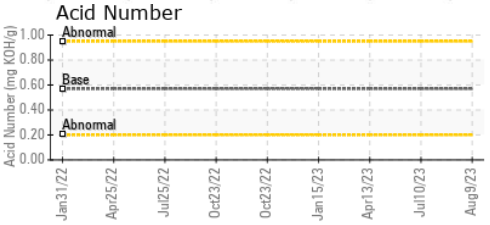
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0103743
Lab Number : 05924822
Unique Number : 10604769
Test Package : IND 2

Received : 15 Aug 2023
Diagnosed : 16 Aug 2023
Diagnostician : Jonathan Hester

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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