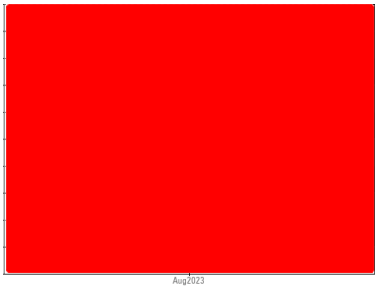
PROBLEM SUMMARY

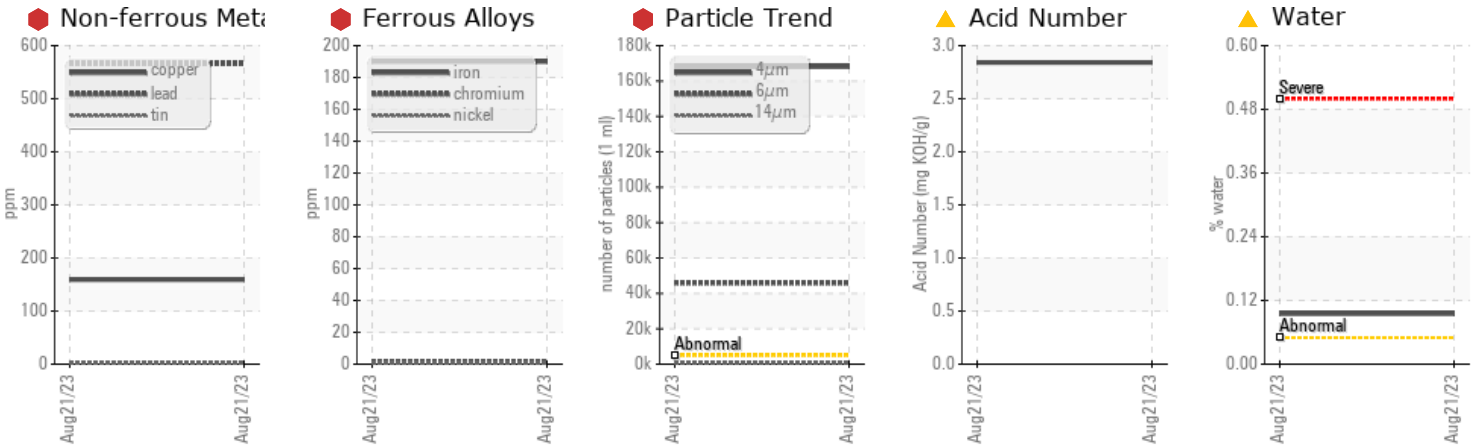
Sample Rating Trend



WEAR

Machine Id
7038
Component
Hydraulic System
Fluid
NOT GIVEN (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample. Corrected for adding COC Flash Point.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	---	---
Iron	ppm	ASTM D5185m	>20	**190**	---	---
Lead	ppm	ASTM D5185m	>20	**566**	---	---
Copper	ppm	ASTM D5185m	>20	**159**	---	---
Water	%	ASTM D6304	>0.05	**0.095**	---	---
ppm Water	ppm	ASTM D6304	>500	**951.1**	---	---
Particles >4µm		ASTM D7647	>5000	**168112**	---	---
Particles >6µm		ASTM D7647	>1300	**45871**	---	---
Particles >14µm		ASTM D7647	>160	**595**	---	---
Particles >21µm		ASTM D7647	>40	**63**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**25/23/16**	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		**2.84**	---	---

Customer Id: METYOU
Sample No.: WC05932761
Lab Number: 05932761
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

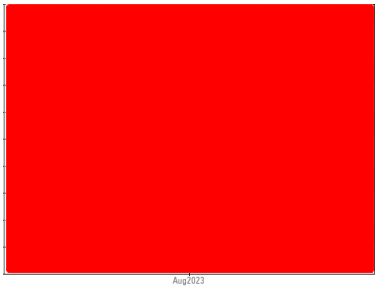
RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Water Access	---	---	?	We advise that you check for the source of water entry.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
7038
Component
Hydraulic System
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample. Corrected for adding COC Flash Point.

Wear

Copper, iron and lead ppm levels are severe. Cylinder or oil pump wear indicated. Bearing wear is indicated. Oil cooler core leaching or motor piston wear is indicated.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. There is a moderate concentration of water present in the oil.

Fluid Condition

The AN level is above the recommended limit. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC05932761**	---	---
Sample Date		Client Info		**21 Aug 2023**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**SEVERE**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	● **190**	---	---
Chromium	ppm	ASTM D5185m	>20	**2**	---	---
Nickel	ppm	ASTM D5185m	>20	**<1**	---	---
Titanium	ppm	ASTM D5185m		**0**	---	---
Silver	ppm	ASTM D5185m		**0**	---	---
Aluminum	ppm	ASTM D5185m	>20	**9**	---	---
Lead	ppm	ASTM D5185m	>20	● **566**	---	---
Copper	ppm	ASTM D5185m	>20	● **159**	---	---
Tin	ppm	ASTM D5185m	>20	**2**	---	---
Vanadium	ppm	ASTM D5185m		**<1**	---	---
Cadmium	ppm	ASTM D5185m		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	---	---
Barium	ppm	ASTM D5185m		**0**	---	---
Molybdenum	ppm	ASTM D5185m		**0**	---	---
Manganese	ppm	ASTM D5185m		**110**	---	---
Magnesium	ppm	ASTM D5185m		**9**	---	---
Calcium	ppm	ASTM D5185m		**7**	---	---
Phosphorus	ppm	ASTM D5185m		**39**	---	---
Zinc	ppm	ASTM D5185m		**225**	---	---
Sulfur	ppm	ASTM D5185m		**20495**	---	---

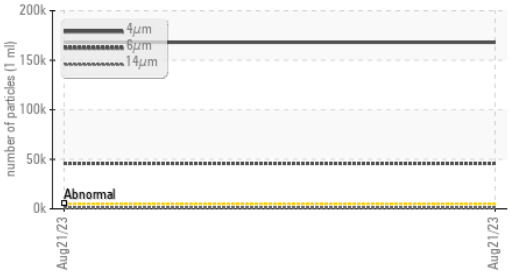
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**1**	---	---
Sodium	ppm	ASTM D5185m		**12**	---	---
Potassium	ppm	ASTM D5185m	>20	**7**	---	---
Water	%	ASTM D6304	>0.05	▲ **0.095**	---	---
ppm Water	ppm	ASTM D6304	>500	▲ **951.1**	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	● **168112**	---	---
Particles >6µm		ASTM D7647	>1300	● **45871**	---	---
Particles >14µm		ASTM D7647	>160	▲ **595**	---	---
Particles >21µm		ASTM D7647	>40	▲ **63**	---	---
Particles >38µm		ASTM D7647	>10	**1**	---	---
Particles >71µm		ASTM D7647	>3	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	● **25/23/16**	---	---

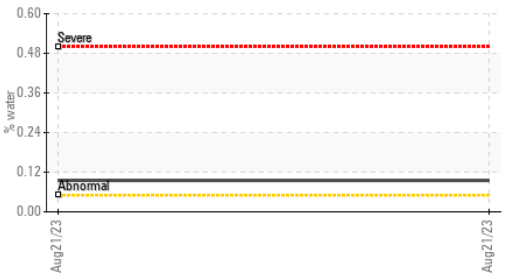
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		▲ **2.84**	---	---

OIL ANALYSIS REPORT

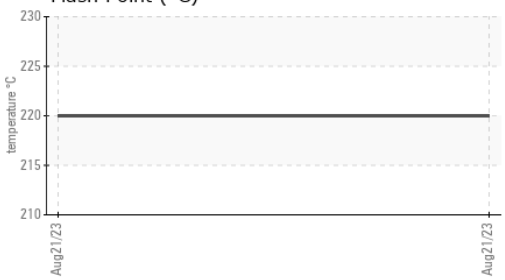
Particle Trend



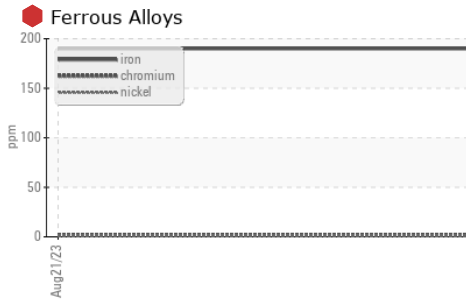
Water



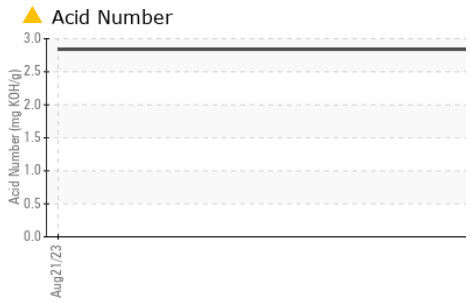
Flash Point (°C)



Ferrous Alloys

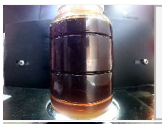


Acid Number



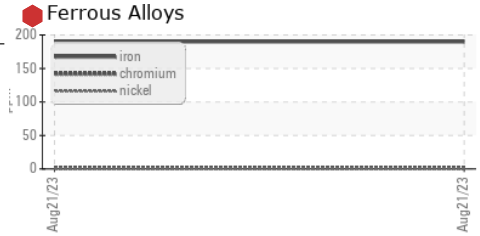
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	---	---
Appearance	scalar	*Visual	NORML	**NORML**	---	---
Odor	scalar	*Visual	NORML	**NORML**	---	---
Emulsified Water	scalar	*Visual	>0.05	**NEG**	---	---
Free Water	scalar	*Visual		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**63.4**	---	---
COC Flash Point	°C	ASTM D92		**220**	---	---

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

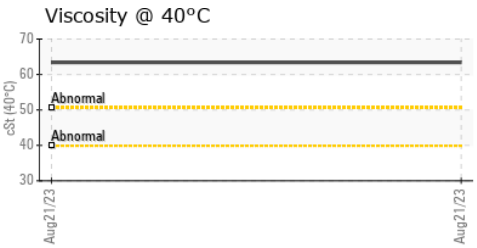
GRAPHS

Ferrous Alloys

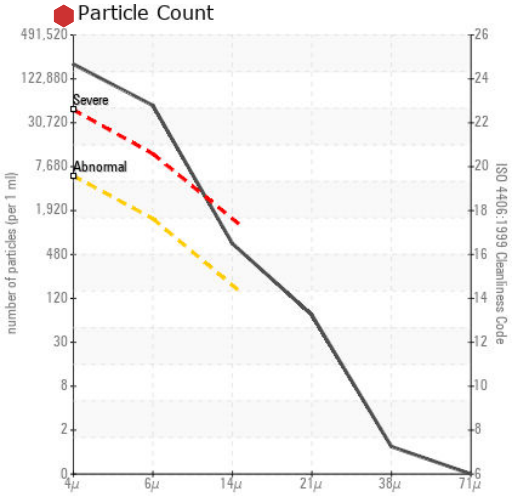


Non-ferrous Metals

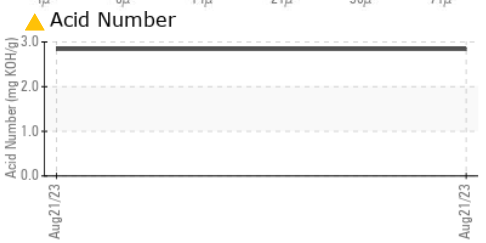
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC05932761 **Received** : 23 Aug 2023
Lab Number : 05932761 **Diagnosed** : 13 Sep 2023
Unique Number : 10618032 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: COC FLASH, KF)

Certificate L2367

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)

METALUBE INC
56 CYPRESS DR
YOUNGSVILLE, NC
US 27596
Contact: AUSTIN AMARAL
aamaral@metalubeinc.com
T:
F: (919)554-3023