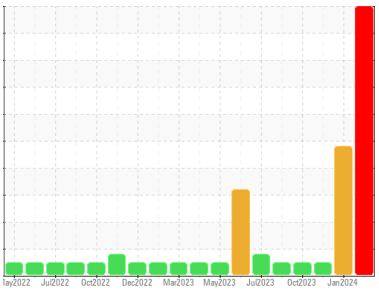
PROBLEM SUMMARY

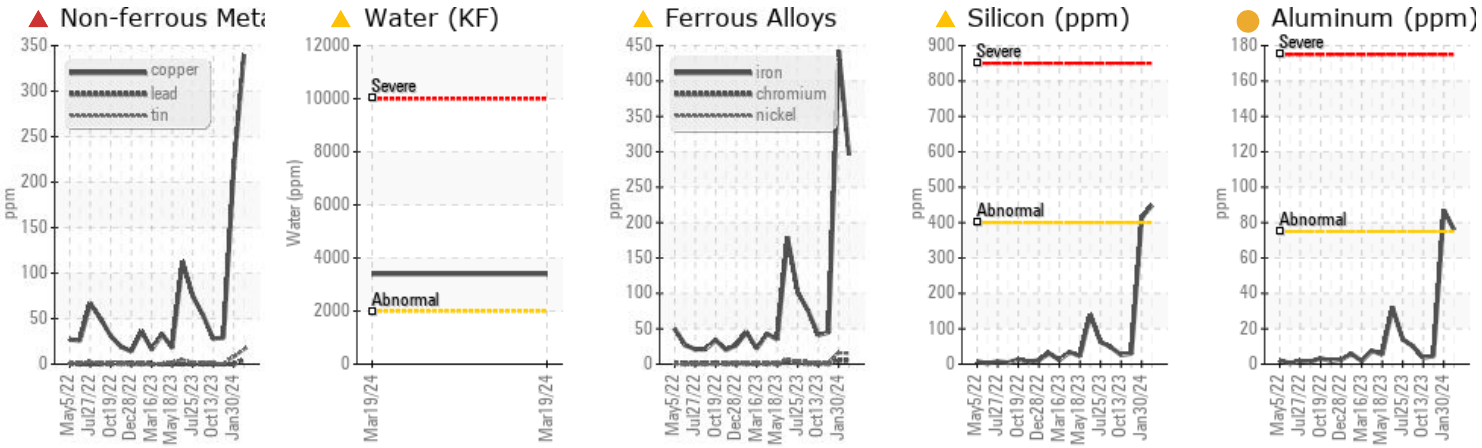
Sample Rating Trend



WEAR

Machine Id
CATERPILLAR 374 8367 (S/N TMX00235)
Component
Right Final Drive
Fluid
{not provided} (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	NORMAL
Nickel	ppm	ASTM D5185m	>5	▲ **15**	▲ 16	2
Copper	ppm	ASTM D5185m	>75	▲ **340**	▲ 216	29
Tin	ppm	ASTM D5185m	>8	▲ **16**	8	<1
Silicon	ppm	ASTM D5185m	>400	▲ **449**	▲ 414	30
Water	%	ASTM D6304	>0.2	▲ **0.340**	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ **3400**	---	---

Customer Id: TRANEW
Sample No.: WC0888113
Lab Number: 06131177
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

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.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.

HISTORICAL DIAGNOSIS

30 Jan 2024 Diag: Don Baldridge

DIRT

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.An increase in the iron level is noted. Gear wear is indicated. Bearing and/or bushing wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The condition of the oil is acceptable for the time in service.

view report

29 Nov 2023 Diag: Don Baldridge

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

13 Oct 2023 Diag: Sean Felton

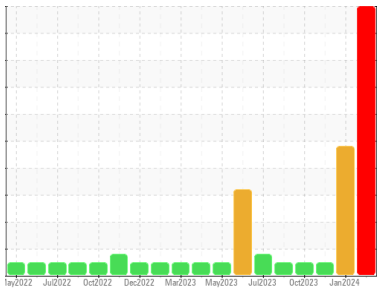
NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
CATERPILLAR 374 8367 (S/N TMX00235)
Component
Right Final Drive
Fluid
{not provided} (--- GAL)

DIAGNOSIS

▲ Recommendation
We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

▲ Wear
Bearing and/or bushing wear is indicated.

▲ Contamination
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a light concentration of water present in the oil.

Fluid Condition
The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0888113**	WC0888228	WC0879380
Sample Date		Client Info		**19 Mar 2024**	30 Jan 2024	29 Nov 2023
Machine Age	hrs	Client Info		**10523**	9765	8996
Oil Age	hrs	Client Info		**752**	769	487
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>800	**296**	442	45
Chromium	ppm	ASTM D5185m	>10	**5**	5	<1
Nickel	ppm	ASTM D5185m	>5	▲ **15**	▲ 16	2
Titanium	ppm	ASTM D5185m	>15	**6**	8	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>75	● **76**	● 87	5
Lead	ppm	ASTM D5185m	>10	**4**	0	0
Copper	ppm	ASTM D5185m	>75	▲ **340**	▲ 216	29
Tin	ppm	ASTM D5185m	>8	▲ **16**	8	<1
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

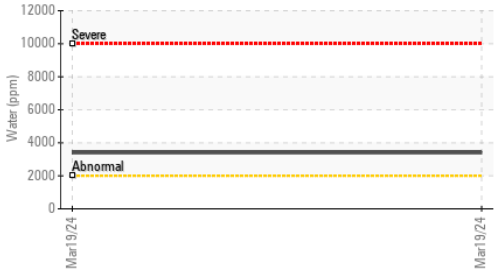
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**106**	149	175
Barium	ppm	ASTM D5185m		**0**	<1	0
Molybdenum	ppm	ASTM D5185m		**13**	<1	0
Manganese	ppm	ASTM D5185m		**4**	5	<1
Magnesium	ppm	ASTM D5185m		**86**	7	0
Calcium	ppm	ASTM D5185m		**1576**	49	43
Phosphorus	ppm	ASTM D5185m		**713**	309	320
Zinc	ppm	ASTM D5185m		**569**	0	5
Sulfur	ppm	ASTM D5185m		**3798**	1837	1632

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>400	▲ **449**	▲ 414	30
Sodium	ppm	ASTM D5185m		**6**	2	2
Potassium	ppm	ASTM D5185m	>20	**24**	20	<1
Water	%	ASTM D6304	>0.2	▲ **0.340**	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ **3400**	---	---

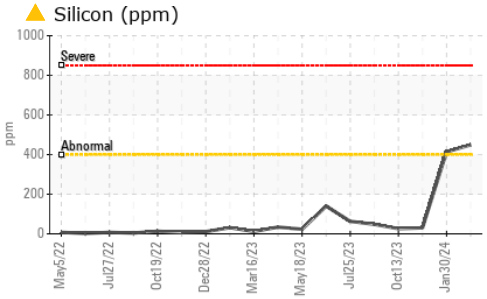
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**0.2%**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

OIL ANALYSIS REPORT

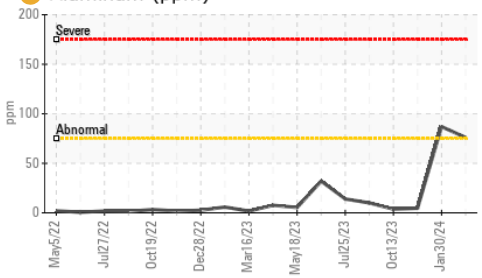
Water (KF)



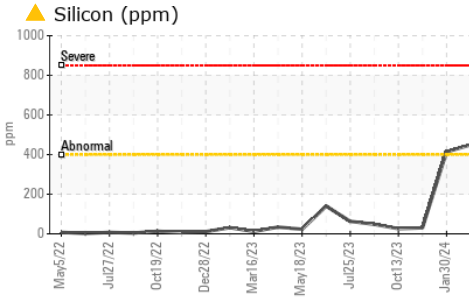
Silicon (ppm)



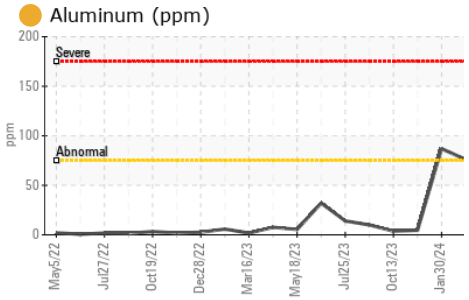
Aluminum (ppm)



Silicon (ppm)



Aluminum (ppm)

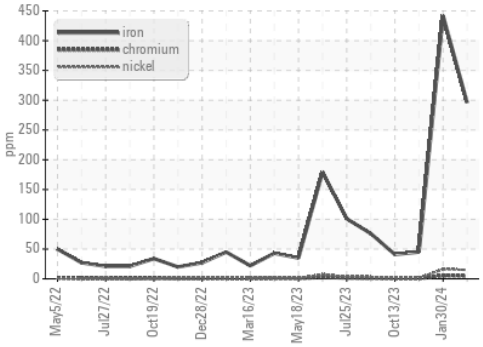


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**93.1**	104	102

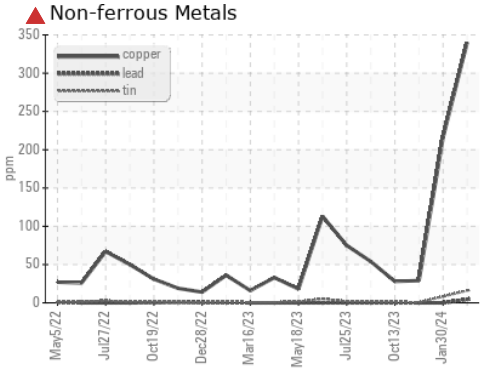
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

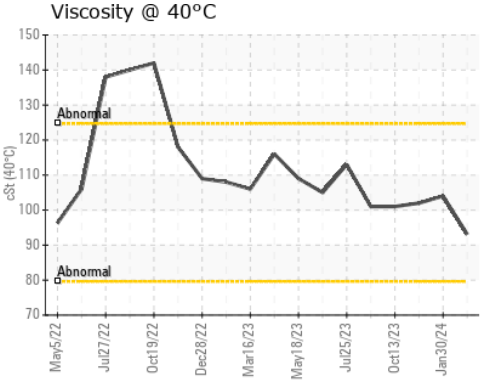
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0888113
Lab Number : 06131177
Unique Number : 10950642
Test Package : CONST (Additional Tests: KF)

Received : 27 Mar 2024
Tested : 28 Mar 2024
Diagnosed : 01 Apr 2024 - Don Baldridge

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)

TRADER CONSTRUCTION CO.
PO DRAWER 1578
NEW BERN, NC
US 28563
Contact: MIKE WYATT
mwyatt@traderconstruction.com
T: (252)633-1399
F: (252)638-4871