



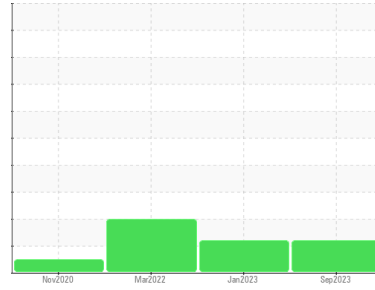
PROBLEM SUMMARY

Sample Rating Trend

ISO

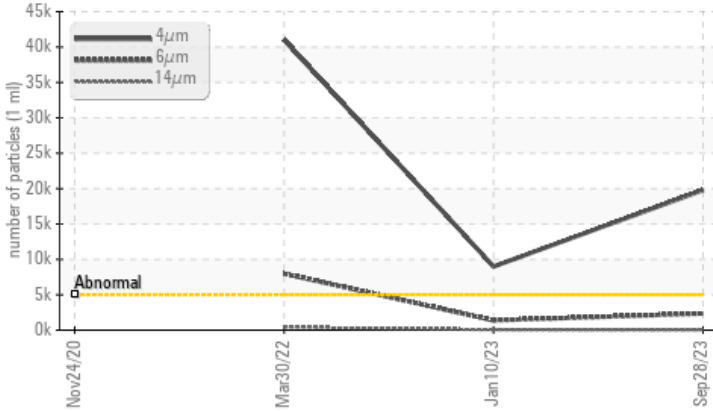


Machine Id
ECRC400 (S/N 25-15-002)
 Component
Hydraulic System
 Fluid
AW HYDRAULIC OIL ISO 32 (200 LTR)



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ATTENTION	SEVERE
Particles >4µm	ASTM D7647	>5000	▲ 19788	▲ 8982	● 41001
Particles >6µm	ASTM D7647	>1300	▲ 2341	▲ 1377	▲ 7986
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/18/12	▲ 20/18/13	● 23/20/16

Customer Id: ECRCOR
 Sample No.: WC0864148
 Lab Number: 02586113
 Test Package: MAR 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
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Kevin.Marson@wearcheck.com

To change component or sample information:
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gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample.

HISTORICAL DIAGNOSIS

10 Jan 2023 Diag: Kevin Marson

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



30 Mar 2022 Diag: Wes Davis

ISO



We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. Particles >4µm are severely high. Particles >6µm are abnormally high. Particles >14µm are abnormally high. Particles >21µm are abnormally high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



24 Nov 2020 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MAR 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid. this testkit includes AN to determine the suitability of the oil for continued use. All component wear rates are normal. There is no indication of any contamination in the component (unconfirmed). The condition of the oil is acceptable for the time in service (unconfirmed).

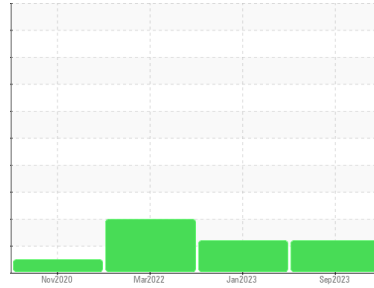
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OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
ECRC400 (S/N 25-15-002)

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 32 (200 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0864148	WC0631365	WC0631368
Sample Date	Client Info	28 Sep 2023	10 Jan 2023	30 Mar 2022
Machine Age	hrs	210	170	130
Oil Age	hrs	210	170	130
Oil Changed	Client Info	Not Changed	Not Changd	Not Changed
Sample Status		ABNORMAL	ATTENTION	SEVERE

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >20	<1	<1	<1
Chromium	ppm	ASTM D5185(m) >10	0	0	0
Nickel	ppm	ASTM D5185(m) >10	0	<1	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	<1	0	0
Aluminum	ppm	ASTM D5185(m) >10	<1	<1	<1
Lead	ppm	ASTM D5185(m) >20	<1	<1	<1
Copper	ppm	ASTM D5185(m) >20	1	1	<1
Tin	ppm	ASTM D5185(m) >10	0	0	<1
Antimony	ppm	ASTM D5185(m)	0	<1	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 5	1	2	2
Barium	ppm	ASTM D5185(m) 5	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 5	0	<1	<1
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m) 25	4	6	5
Calcium	ppm	ASTM D5185(m) 200	69	72	72
Phosphorus	ppm	ASTM D5185(m) 300	345	368	346
Zinc	ppm	ASTM D5185(m) 370	467	461	459
Sulfur	ppm	ASTM D5185(m) 2500	977	1001	931
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >15	4	3	8
Sodium	ppm	ASTM D5185(m)	<1	0	0
Potassium	ppm	ASTM D5185(m) >20	0	0	<1

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	▲ 19788	▲ 8982	● 41001
Particles >6µm	ASTM D7647 >1300	▲ 2341	▲ 1377	▲ 7986
Particles >14µm	ASTM D7647 >160	39	56	▲ 395
Particles >21µm	ASTM D7647 >40	9	15	▲ 99
Particles >38µm	ASTM D7647 >10	1	2	8
Particles >71µm	ASTM D7647 >3	0	1	1
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 21/18/12	▲ 20/18/13	● 23/20/16

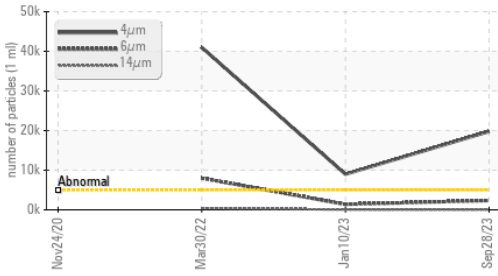
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974* 0.57	0.54	0.52	0.47

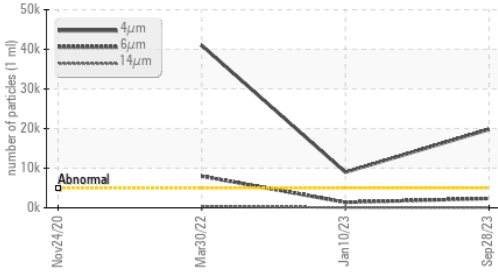


OIL ANALYSIS REPORT

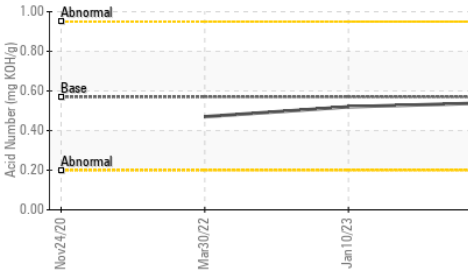
Particle Trend



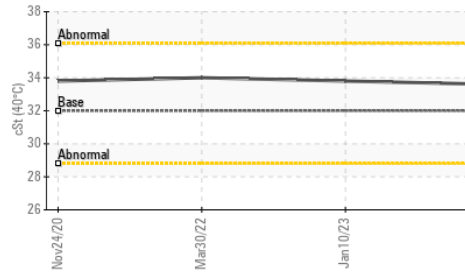
Particle Trend



Acid Number



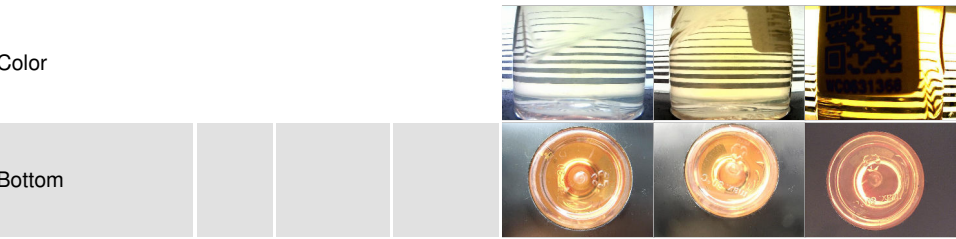
Viscosity @ 40°C



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

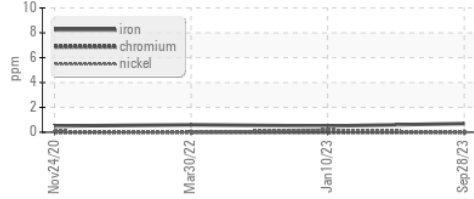
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32	33.6	33.8

SAMPLE IMAGES

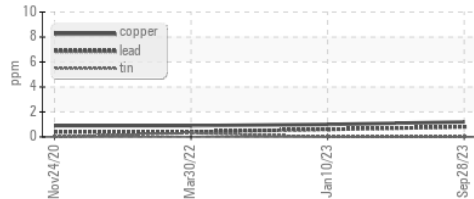


GRAPHS

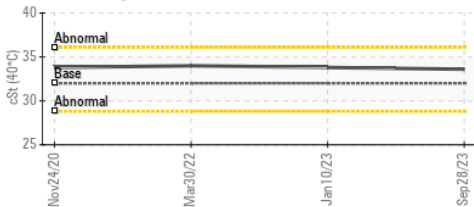
Ferrous Alloys



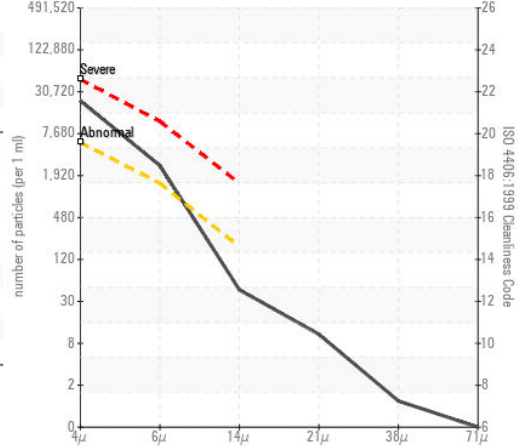
Non-ferrous Metals



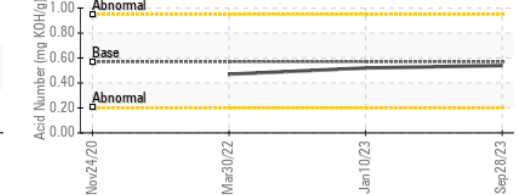
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
 Sample No. : WC0864148
 Lab Number : 02586113
 Unique Number : 5655179
 Test Package : MAR 2
 Received : 02 Oct 2023
 Diagnosed : 04 Oct 2023
 Diagnostician : Kevin Marson

ECRC - SIMEC

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.