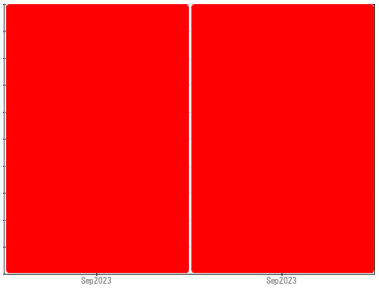
PROBLEM SUMMARY

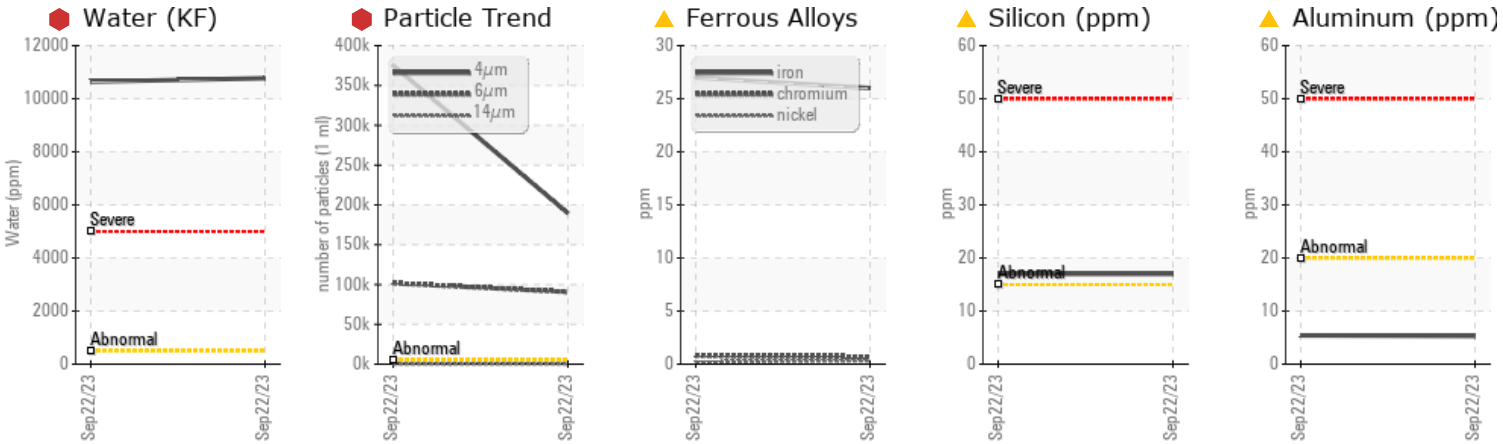
Sample Rating Trend



WATER

Area
Inland Iron - 888041
Machine Id
AG191
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

This is a baseline read-out on the submitted sample.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	---
Iron	ppm	ASTM D5185(m)	>20	▲ **27**	▲ 26	---
Aluminum	ppm	ASTM D5185(m)	>20	▲ **5**	5	---
Silicon	ppm	ASTM D5185(m)	>15	▲ **17**	▲ 17	---
Water	%	ASTM D6304*	>0.05	⬢ **1.077**	⬢ 1.064	---
ppm Water	ppm	ASTM D6304*	>500	⬢ **10773.2**	⬢ 10642.8	---
Particles >4µm		ASTM D7647	>5000	⬢ **375134**	⬢ 189550	---
Particles >6µm		ASTM D7647	>1300	⬢ **101663**	⬢ 90588	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	⬢ **26/24/14**	⬢ 25/24/14	---
Appearance	scalar	Visual*	NORML	▲ **MILKY**	NORML	---
Emulsified Water	scalar	Visual*	>0.05	⬢ **.2%**	▲ .5%	---

Customer Id: CHECOB
Sample No.: E30000422
Lab Number: 02586124
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Tatiana Sorkina +1 (800)263-3939
tsorkina@e360s.ca

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

22 Sep 2023 Diag: Tatiana Sorkina

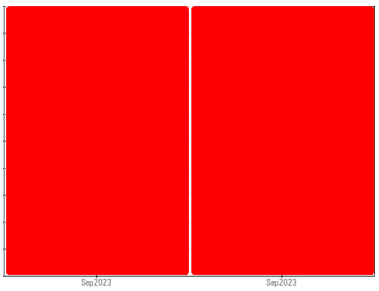
WATER

Iron ppm levels are abnormal. Water and ppm water contamination levels are severe. Particles >6µm are severely high. Particles >4µm and oil cleanliness and oil cleanliness are severely high. Silicon ppm levels are abnormally high.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
Inland Iron - 888041
Machine Id
AG191
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation
This is a baseline read-out on the submitted sample.

Wear
Aluminum and iron ppm levels are noted.

Contamination
Water Water and ppm water contamination levels are severe. Particles >6µm are severely high. Particles >4µm and oil cleanliness are severely high. Silicon ppm levels are notably high.

Fluid Condition
{not applicable}

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Batch #		Client Info		**AG191**	Tote 109	---
Machine ID		Client Info		**Sales**	AG191	---
Department		Client Info		**Tote**	Sales	---
Sample From		Client Info		**Initial**	---	---
Production Stage		Client Info		**09/28/2023**	Initial	---
Sent to WC		Client Info		**---**	09/25/2023	---
Sample Number		Client Info		**E30000422**	E30000218	---
Sample Date		Client Info		**22 Sep 2023**	22 Sep 2023	---
Machine Age	hrs	Client Info		**0**	0	---
Oil Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**N/A**	N/A	---
Sample Status				**SEVERE**	SEVERE	---

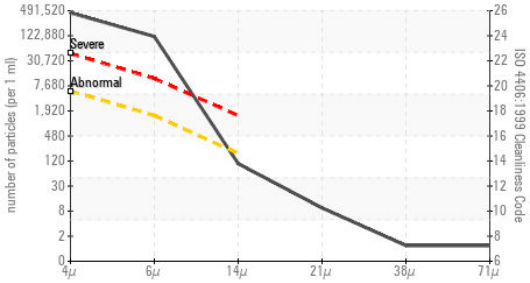
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	0	---
Iron	ppm	ASTM D5185(m)	>20	▲ **27**	▲ 26	---
Chromium	ppm	ASTM D5185(m)	>20	**<1**	<1	---
Nickel	ppm	ASTM D5185(m)	>20	**<1**	<1	---
Titanium	ppm	ASTM D5185(m)		**<1**	<1	---
Silver	ppm	ASTM D5185(m)		**<1**	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	▲ **5**	5	---
Lead	ppm	ASTM D5185(m)	>20	**6**	6	---
Copper	ppm	ASTM D5185(m)	>20	**10**	12	---
Tin	ppm	ASTM D5185(m)	>20	**0**	0	---
Antimony	ppm	ASTM D5185(m)		**0**	0	---
Vanadium	ppm	ASTM D5185(m)		**0**	0	---
Beryllium	ppm	ASTM D5185(m)		**0**	0	---
Cadmium	ppm	ASTM D5185(m)		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	5	**2**	1	---
Barium	ppm	ASTM D5185(m)	5	**<1**	<1	---
Molybdenum	ppm	ASTM D5185(m)	5	**0**	0	---
Manganese	ppm	ASTM D5185(m)		**0**	0	---
Magnesium	ppm	ASTM D5185(m)	25	**4**	4	---
Calcium	ppm	ASTM D5185(m)	200	**40**	40	---
Phosphorus	ppm	ASTM D5185(m)	300	**344**	326	---
Zinc	ppm	ASTM D5185(m)	370	**363**	345	---
Sulfur	ppm	ASTM D5185(m)	2500	**1417**	1380	---
Lithium	ppm	ASTM D5185(m)		**<1**	<1	---

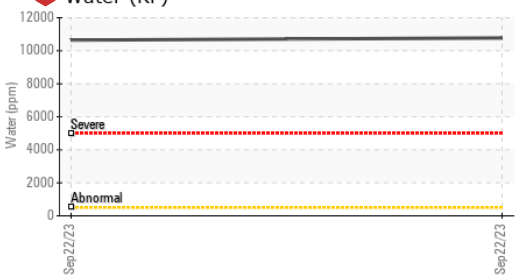
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	▲ **17**	▲ 17	---
Sodium	ppm	ASTM D5185(m)		**2**	2	---
Potassium	ppm	ASTM D5185(m)	>20	**2**	3	---
Water	%	ASTM D6304*	>0.05	⬢ **1.077**	⬢ 1.064	---
ppm Water	ppm	ASTM D6304*	>500	⬢ **10773.2**	⬢ 10642.8	---

OIL ANALYSIS REPORT

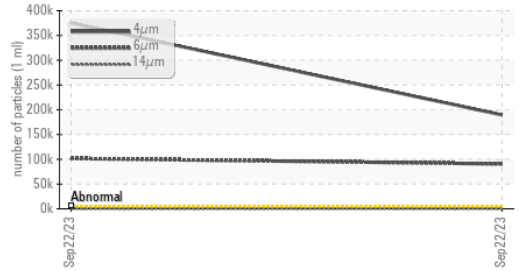
Particle Count



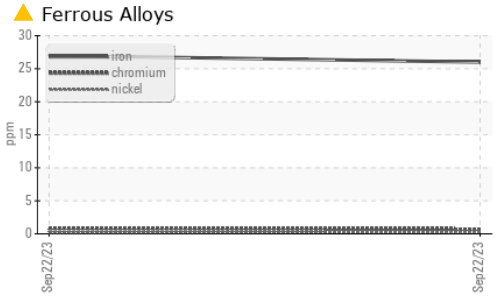
Water (KF)



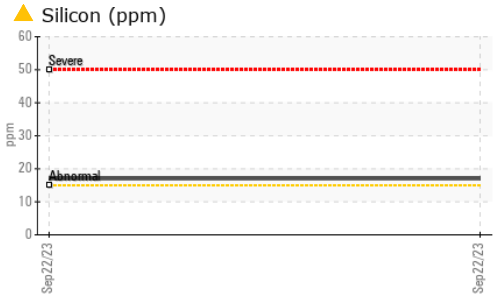
Particle Trend



Ferrous Alloys



Silicon (ppm)

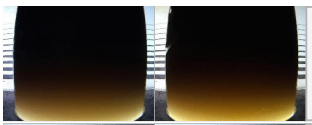


FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**375134**	189550	---
Particles >6µm		ASTM D7647	>1300	**101663**	90588	---
Particles >14µm		ASTM D7647	>160	**92**	133	---
Particles >21µm		ASTM D7647	>40	**8**	3	---
Particles >38µm		ASTM D7647	>10	**1**	0	---
Particles >71µm		ASTM D7647	>3	**1**	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**26/24/14**	25/24/14	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	**0.36**	0.34	---

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**	NONE	---
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	---
Appearance	scalar	Visual*	NORML	**MILKY**	NORML	---
Odor	scalar	Visual*	NORML	**NORML**	NORML	---
Emulsified Water	scalar	Visual*	>0.05	**.2%**	.5%	---
Free Water	scalar	Visual*		**NEG**	1%	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	**45.4**	45.3	---
Visc @ 100°C	cSt	ASTM D7279(m)	6.7	**---**	6.4	---
Viscosity Index (VI)	Scale	ASTM D2270*	97	**---**	86	---

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

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : E30000422 **Received** : 02 Oct 2023
Lab Number : 02586124 **Diagnosed** : 10 Oct 2023
Unique Number : 5655190 **Diagnostician** : Tatiana Sorkina
Test Package : IND 2 (Additional Tests: KF, KV100, PQ, VI)

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.

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