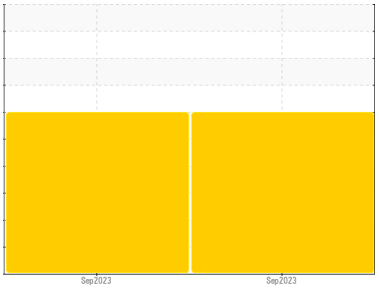
PROBLEM SUMMARY

Area
Inland Iron - 888041
Machine Id
AG194
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

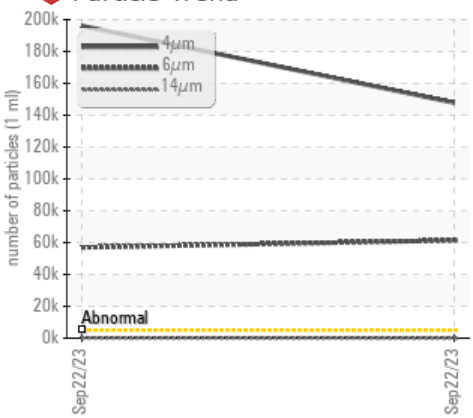
Sample Rating Trend



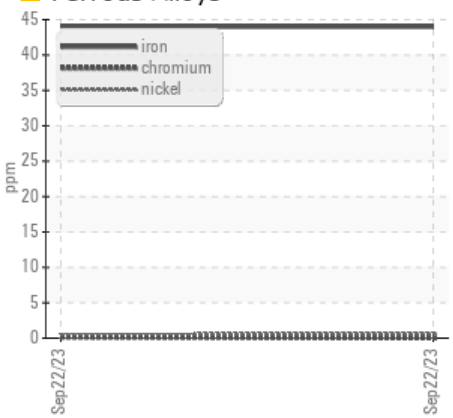
ISO

COMPONENT CONDITION SUMMARY

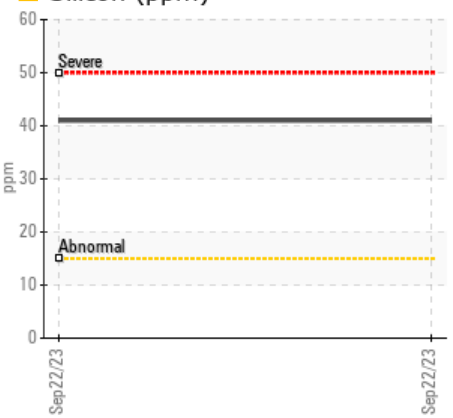
Particle Trend



Ferrous Alloys



Silicon (ppm)



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	---
Iron	ppm	ASTM D5185(m)	>20	▲ **44**	▲ 44	---
Silicon	ppm	ASTM D5185(m)	>15	▲ **41**	▲ 41	---
Particles >4µm		ASTM D7647	>5000	⬢ **196124**	⬢ 147829	---
Particles >6µm		ASTM D7647	>1300	⬢ **56951**	⬢ 61350	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	⬢ **25/23/10**	⬢ 24/23/11	---

Customer Id: CHECOB
Sample No.: E30000426
Lab Number: 02586127
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

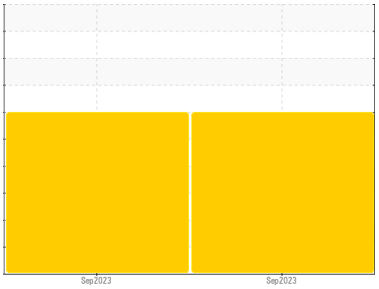
ISO

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

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
Inland Iron - 888041
Machine Id
AG194
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

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

Wear
Iron ppm levels are noted.

Contamination
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		**CHECOB**	Tote 24	---
Machine ID		Client Info		**Sales**	AG194	---
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		**E30000426**	E30000221	---
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	---

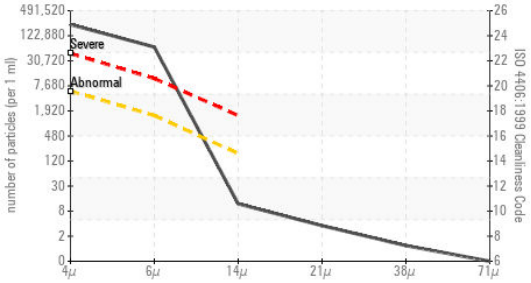
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	0	---
Iron	ppm	ASTM D5185(m)	>20	▲ **44**	▲ 44	---
Chromium	ppm	ASTM D5185(m)	>20	**<1**	0	---
Nickel	ppm	ASTM D5185(m)	>20	**<1**	<1	---
Titanium	ppm	ASTM D5185(m)		**2**	2	---
Silver	ppm	ASTM D5185(m)		**<1**	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	**8**	7	---
Lead	ppm	ASTM D5185(m)	>20	**19**	18	---
Copper	ppm	ASTM D5185(m)	>20	**17**	17	---
Tin	ppm	ASTM D5185(m)	>20	**0**	<1	---
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)		**<1**	<1	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	5	**<1**	<1	---
Barium	ppm	ASTM D5185(m)	5	**<1**	<1	---
Molybdenum	ppm	ASTM D5185(m)	5	**0**	0	---
Manganese	ppm	ASTM D5185(m)		**<1**	<1	---
Magnesium	ppm	ASTM D5185(m)	25	**5**	5	---
Calcium	ppm	ASTM D5185(m)	200	**40**	40	---
Phosphorus	ppm	ASTM D5185(m)	300	**330**	317	---
Zinc	ppm	ASTM D5185(m)	370	**281**	274	---
Sulfur	ppm	ASTM D5185(m)	2500	**1856**	1827	---
Lithium	ppm	ASTM D5185(m)		**<1**	<1	---

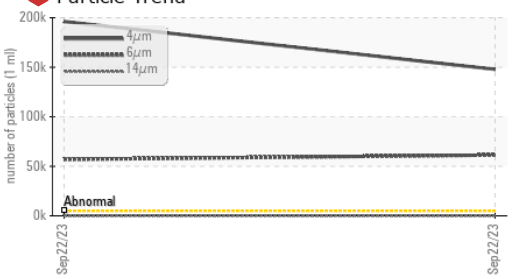
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	▲ **41**	▲ 41	---
Sodium	ppm	ASTM D5185(m)		**1**	1	---
Potassium	ppm	ASTM D5185(m)	>20	**1**	2	---
Water	%	ASTM D6304*	>0.05	**0.007**	0.001	---
ppm Water	ppm	ASTM D6304*	>500	**78.5**	11.1	---

OIL ANALYSIS REPORT

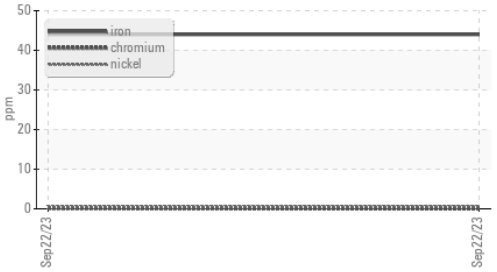
Particle Count



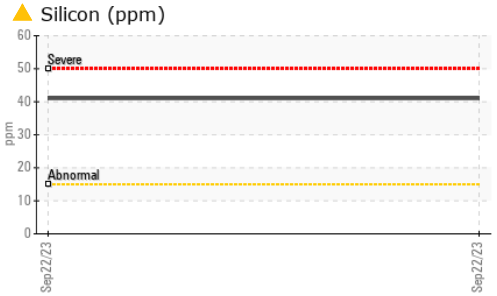
Particle Trend



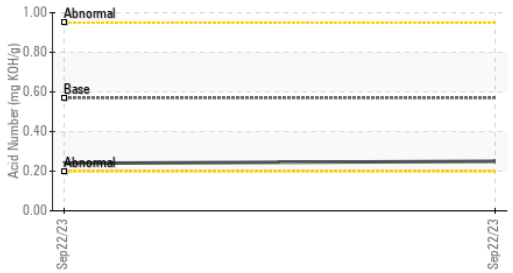
Ferrous Alloys



Silicon (ppm)



Acid Number

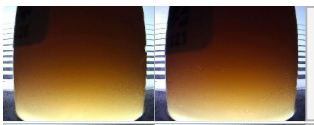


FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**196124**	147829	---
Particles >6µm		ASTM D7647	>1300	**56951**	61350	---
Particles >14µm		ASTM D7647	>160	**10**	19	---
Particles >21µm		ASTM D7647	>40	**3**	2	---
Particles >38µm		ASTM D7647	>10	**1**	1	---
Particles >71µm		ASTM D7647	>3	**0**	1	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**25/23/10**	24/23/11	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	**0.25**	0.24	---

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	**HAZY**	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)	46	**42.5**	42.6	---
Visc @ 100°C	cSt	ASTM D7279(m)	6.7	**6.8**	6.8	---
Viscosity Index (VI)	Scale	ASTM D2270*	97	**115**	115	---

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. : E30000426 **Received** : 02 Oct 2023
Lab Number : 02586127 **Diagnosed** : 05 Oct 2023
Unique Number : 5655193 **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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