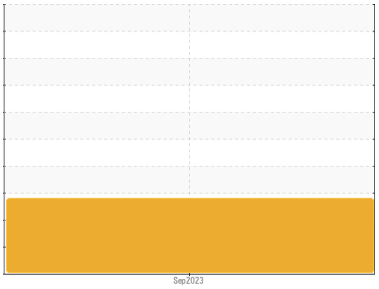
PROBLEM SUMMARY

Sample Rating Trend

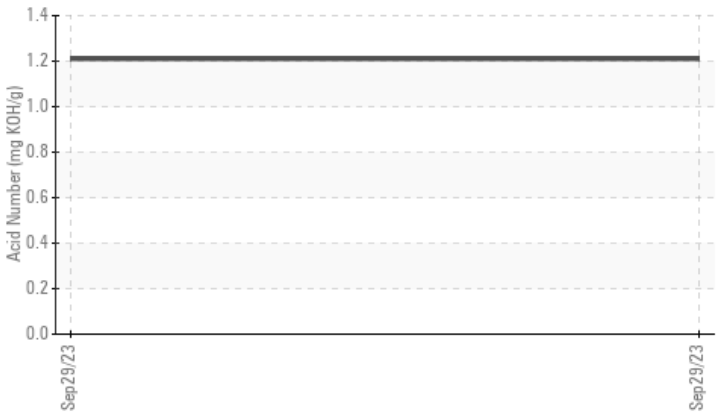


DEGRADATION

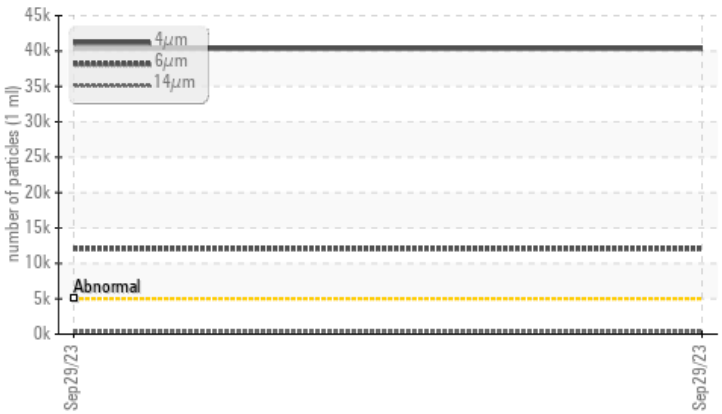
Area
H&S Heat Treating
Machine Id
AM911
Component
Quench Oil
Fluid
NOT GIVEN (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Acid Number



▲ Particle Trend



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	---	---
Particles >4µm		ASTM D7647	>5000	▲ **40361**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **12064**	---	---
Particles >14µm		ASTM D7647	>160	▲ **358**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **23/21/16**	---	---
Acid Number (AN)	mg KOH/g	ASTM D974*		▲ **1.21**	---	---

Customer Id: CHECOB
Sample No.: E30000491
Lab Number: 02588619
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

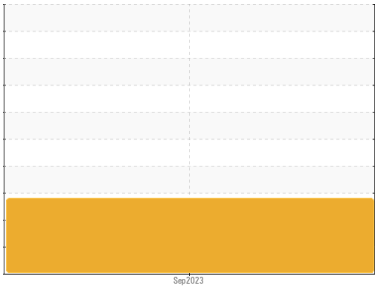
RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION

Area
H&S Heat Treating
Machine Id
AM911
Component
Quench Oil
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

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

Wear
{not applicable}

Contamination
Oil Cleanliness are abnormally high. Particles >4µm are abnormally high. Particles >6µm are abnormally high. Particles >14µm are abnormally high.

Fluid Condition
Acid Number (AN) is abnormally high.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Batch #		Client Info		**AM911**	---	---
Machine ID		Client Info		**Sales**	---	---
Department		Client Info		**Machine**	---	---
Sample From		Client Info		**Initial**	---	---
Production Stage		Client Info		**10/10/2023**	---	---
Sample Number		Client Info		**E30000491**	---	---
Sample Date		Client Info		**29 Sep 2023**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**ABNORMAL**	---	---

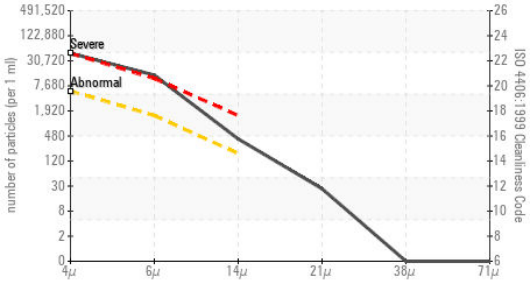
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)		**4**	---	---
Chromium	ppm	ASTM D5185(m)		**0**	---	---
Nickel	ppm	ASTM D5185(m)		**<1**	---	---
Titanium	ppm	ASTM D5185(m)		**0**	---	---
Silver	ppm	ASTM D5185(m)		**<1**	---	---
Aluminum	ppm	ASTM D5185(m)		**<1**	---	---
Lead	ppm	ASTM D5185(m)		**0**	---	---
Copper	ppm	ASTM D5185(m)		**<1**	---	---
Tin	ppm	ASTM D5185(m)		**0**	---	---
Antimony	ppm	ASTM D5185(m)		**0**	---	---
Vanadium	ppm	ASTM D5185(m)		**0**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**<1**	---	---
Barium	ppm	ASTM D5185(m)		**0**	---	---
Molybdenum	ppm	ASTM D5185(m)		**0**	---	---
Manganese	ppm	ASTM D5185(m)		**0**	---	---
Magnesium	ppm	ASTM D5185(m)		**0**	---	---
Calcium	ppm	ASTM D5185(m)		**<1**	---	---
Phosphorus	ppm	ASTM D5185(m)		**<1**	---	---
Zinc	ppm	ASTM D5185(m)		**15**	---	---
Sulfur	ppm	ASTM D5185(m)		**1333**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

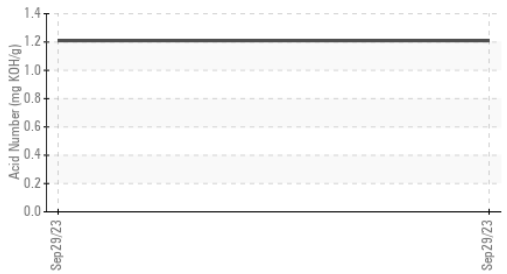
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)		**<1**	---	---
Sodium	ppm	ASTM D5185(m)		**0**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**0**	---	---
Water	%	ASTM D6304*		**0.006**	---	---
ppm Water	ppm	ASTM D6304*		**63.3**	---	---

OIL ANALYSIS REPORT

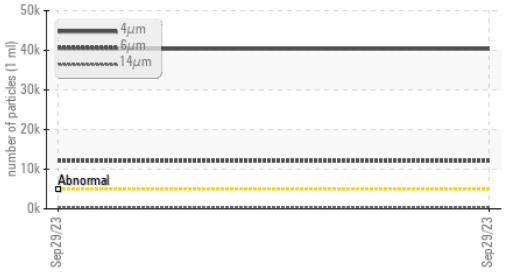
Particle Count



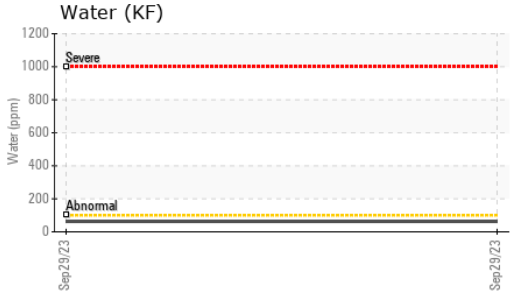
Acid Number



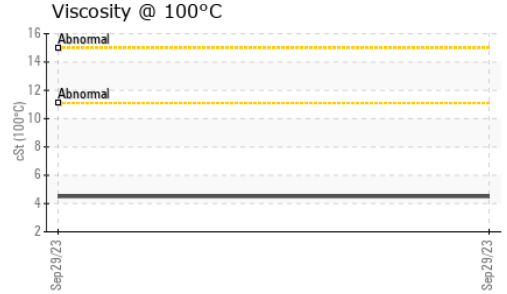
Particle Trend



Water (KF)



Viscosity @ 100°C

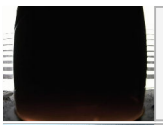


FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **40361**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **12064**	---	---
Particles >14µm		ASTM D7647	>160	▲ **358**	---	---
Particles >21µm		ASTM D7647	>40	**23**	---	---
Particles >38µm		ASTM D7647	>10	**0**	---	---
Particles >71µm		ASTM D7647	>3	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **23/21/16**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		▲ **1.21**	---	---

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*		**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		**23.2**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		**4.5**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*		**105**	---	---

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

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : E30000491 **Received** : 12 Oct 2023
Lab Number : 02588619 **Diagnosed** : 17 Oct 2023
Unique Number : 5657685 **Diagnostician** : Tatiana Sorkina
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, TAN Man, 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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