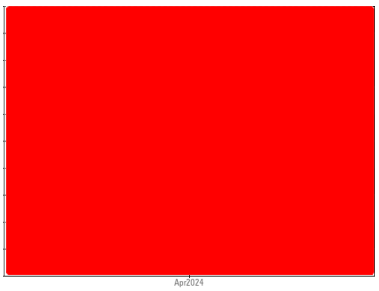
PROBLEM SUMMARY

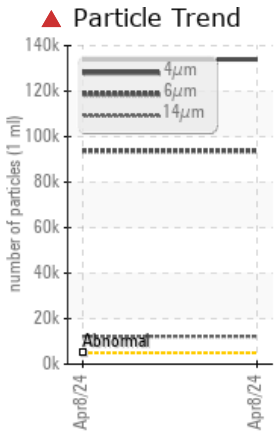
Sample Rating Trend

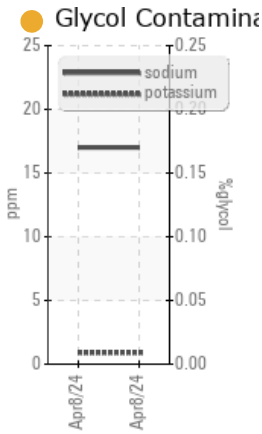


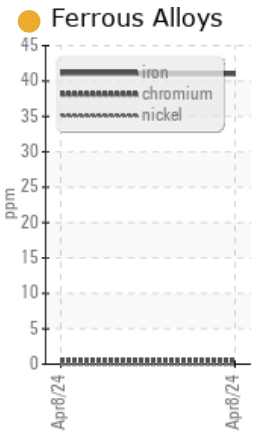
ISO

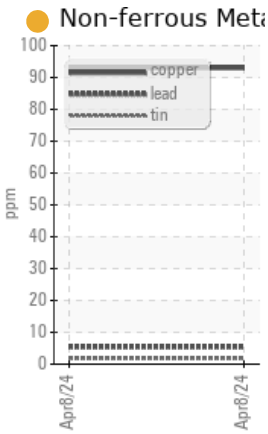
Area
Astro Shapes - A09300
Machine Id
M1 3389
Component
Hydraulic System
Fluid
{not provided} (--- GAL)

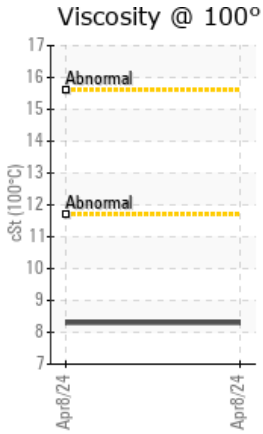
COMPONENT CONDITION SUMMARY











RECOMMENDATION

The sample submitted is 32 times dirtier than the ISO dirt count recommendation of 19/16/14.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	---	---
Particles >4µm		ASTM D7647	>5000	▲ 133970	---	---
Particles >6µm		ASTM D7647	>640	▲ 93782	---	---
Particles >14µm		ASTM D7647	>160	▲ 12203	---	---
Particles >21µm		ASTM D7647	>40	▲ 2064	---	---
Particles >38µm		ASTM D7647	>10	▲ 57	---	---
Oil Cleanliness		ISO 4406 (c)	>19/16/14	▲ 24/24/21	---	---

Customer Id: CHECOB
Sample No.: E30001821
Lab Number: 02628505
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

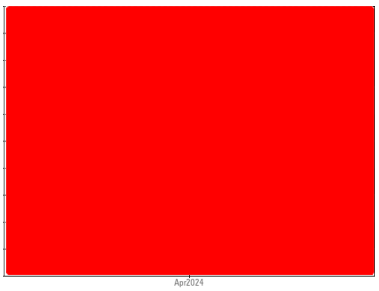
RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
Astro Shapes - A09300
Machine Id
M1 3389
Component
Hydraulic System
Fluid
{not provided} (--- GAL)

DIAGNOSIS

Recommendation
The sample submitted is 32 times dirtier than the ISO dirt count recommendation of 19/16/14.

Wear
Copper and iron ppm levels are noted.

Contamination
Particles >14µm are severely high. Particles >21µm are severely high. Particles >6µm are severely high. Oil Cleanliness are severely high. Particles >4µm are severely high. Particles >38µm are abnormally high.

Fluid Condition
Sodium ppm levels are notably high. Viscosity of sample indicates oil is within ISO 68 range, advise investigate.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Batch #		Client Info		**Mobile**	---	---
Department		Client Info		**Production**	---	---
Sample From		Client Info		**Machine**	---	---
Production Stage		Client Info		**Initial**	---	---
Sent to WC		Client Info		**04/10/2024**	---	---
Sample Number		Client Info		**E30001821**	---	---
Sample Date		Client Info		**08 Apr 2024**	---	---
Machine Age	kms	Client Info		**0**	---	---
Oil Age	kms	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**SEVERE**	---	---

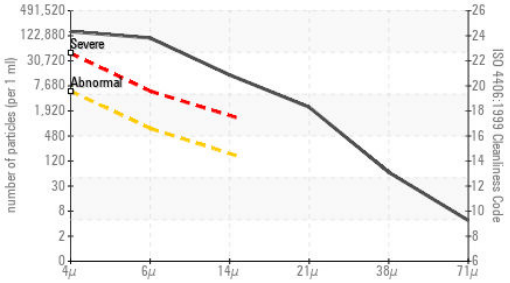
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	**41**	---	---
Chromium	ppm	ASTM D5185(m)	>20	**<1**	---	---
Nickel	ppm	ASTM D5185(m)	>20	**0**	---	---
Titanium	ppm	ASTM D5185(m)		**0**	---	---
Silver	ppm	ASTM D5185(m)		**0**	---	---
Aluminum	ppm	ASTM D5185(m)	>20	**12**	---	---
Lead	ppm	ASTM D5185(m)	>20	**5**	---	---
Copper	ppm	ASTM D5185(m)	>20	**93**	---	---
Tin	ppm	ASTM D5185(m)	>20	**2**	---	---
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)		**<1**	---	---
Magnesium	ppm	ASTM D5185(m)		**6**	---	---
Calcium	ppm	ASTM D5185(m)		**26**	---	---
Phosphorus	ppm	ASTM D5185(m)		**398**	---	---
Zinc	ppm	ASTM D5185(m)		**224**	---	---
Sulfur	ppm	ASTM D5185(m)		**2403**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

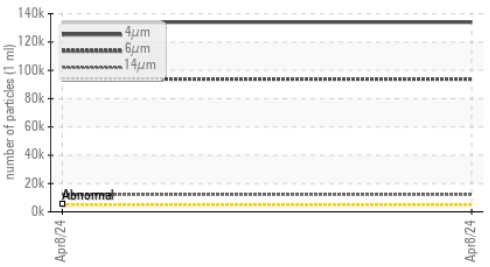
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**1**	---	---
Sodium	ppm	ASTM D5185(m)		**17**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**<1**	---	---
Water	%	ASTM D6304*	>0.05	**0.033**	---	---
ppm Water	ppm	ASTM D6304*	>500	**330**	---	---

OIL ANALYSIS REPORT

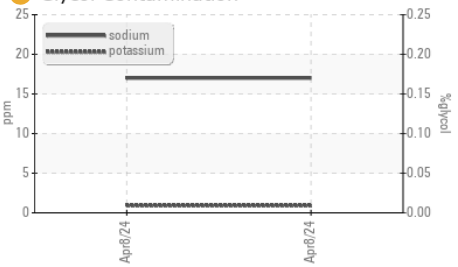
Particle Count



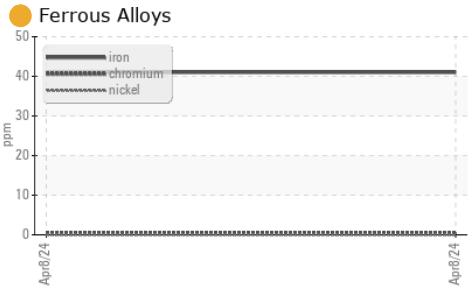
Particle Trend



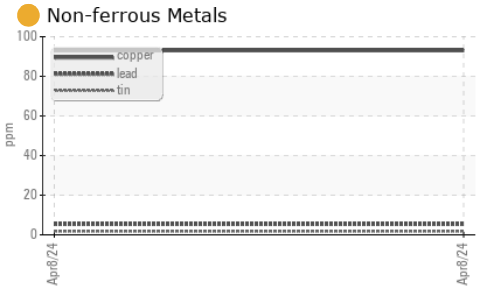
Glycol Contamination



Ferrous Alloys



Non-ferrous Metals

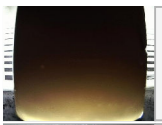


FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **133970**	---	---
Particles >6µm		ASTM D7647	>640	▲ **93782**	---	---
Particles >14µm		ASTM D7647	>160	▲ **12203**	---	---
Particles >21µm		ASTM D7647	>40	▲ **2064**	---	---
Particles >38µm		ASTM D7647	>10	▲ **57**	---	---
Particles >71µm		ASTM D7647	>3	**4**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/16/14	▲ **24/24/21**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**0.26**	---	---

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	**VLITE**	---	---
Sand/Dirt	scalar	Visual*	NONE	**VLITE**	---	---
Appearance	scalar	Visual*	NORML	**NORML**	---	---
Odor	scalar	Visual*	NORML	**NORML**	---	---
Emulsified Water	scalar	Visual*	>0.05	**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		**60.9**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		**8.3**	---	---
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. : E30001821 **Received** : 12 Apr 2024
Lab Number : 02628505 **Tested** : 15 Apr 2024
Unique Number : 5761637 **Diagnosed** : 15 Apr 2024 - Tatiana Sorkina
Test Package : IND 2 (Additional Tests: KF, KV100, VI)

To discuss this sample report, contact Customer Service at 1-905-372-2251.
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.

Environmental 360 Solutions Ltd.
640 Victoria Street
Cobourg, ON
CA K9A 5H5
Contact: Tatiana Sorkina
tsorkina@e360s.ca
T: (800)263-3939
F: (905)373-4950