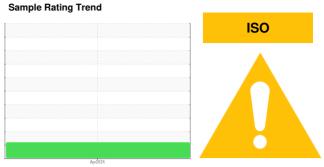


# **OIL ANALYSIS REPORT**

FIO Automotive - F03000 A2404099

Hydraulic System

**AW HYDRAULIC OIL ISO 32 (--- GAL)** 



### **DIAGNOSIS**

#### Recommendation

The sample submitted is 8 times dirtier than the ISO dirt count recommendation of 19/16/14.

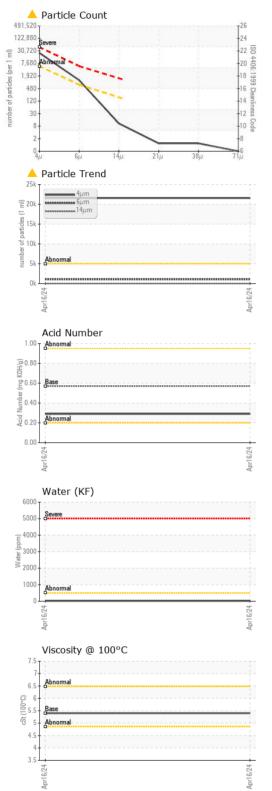
#### Contamination

Particles >4µm and oil cleanliness are abnormally high.

				Apr2024		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Batch #		Client Info		Mobile		
Machine ID		Client Info		G3 Hyd		
Department		Client Info		Production		
Sample From		Client Info		Machine		
Production Stage		Client Info		Initial		
Sent to WC		Client Info		04/17/2024		
Sample Number		Client Info		E30001890		
Sample Date		Client Info		16 Apr 2024		
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)	>20	5		
Chromium	ppm	ASTM D5185(m)	>20	0		
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	<1		
Lead	ppm	ASTM D5185(m)	>20	0		
Copper	ppm	ASTM D5185(m)	>20	1		
Tin	ppm	ASTM D5185(m)	>20	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)	5	0		
Barium	ppm	ASTM D5185(m)	5	0		
Molybdenum	ppm	ASTM D5185(m)	5	0		
Manganese	ppm	ASTM D5185(m)		0		
Magnesium	ppm	ASTM D5185(m)	25	2		
Calcium	ppm	ASTM D5185(m)	200	54		
Phosphorus	ppm	ASTM D5185(m)	300	296		
Zinc	ppm	ASTM D5185(m)	370	351		
Sulfur	ppm	ASTM D5185(m)	2500	927		
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)		<1		
Potassium	ppm	ASTM D5185(m)	>20	<1		
Water	%	ASTM D6304*	>0.05	0.002		
ppm Water	ppm	ASTM D6304*	>500	17		



## **OIL ANALYSIS REPORT**



FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
	IESS					HISTOLYZ
Particles >4µm			>5000	<u>21573</u>		
Particles >6µm		ASTM D7647		<u> </u>		
Particles >14µm		ASTM D7647	>160	9		
Particles >21µm		ASTM D7647	>40	1		
Particles >38µm		ASTM D7647	>10	1		
Particles >71µm			>3	0		
Oil Cleanliness		ISO 4406 (c)	>19/16/14	<u>22/17/10</u>		
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	0.29		
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*	>0.05	NEG		
Free Water	scalar	Visual*		NEG		
FLUID PROPERT	IFS	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32	31.2		
Visc @ 40 C	cSt	ASTM D7279(III) ASTM D7279(m)	5.4	5.4		
Viscosity Index (VI)	Scale	ASTM D7279(III) ASTM D2270*	102	107		
• ` ` `						
SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image

: 19 Apr 2024

: 23 Apr 2024

: 24 Apr 2024 - Tatiana Sorkina



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Lab Number : 02630219

: E30001890

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received

Validity of results and interpretation are based on the sample and information as supplied.

**Tested** Unique Number : 5763351 Diagnosed 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. 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