

## **OIL ANALYSIS REPORT**

Sample Rating Trend

ISO

**Hydraulic System** {not provided} (--- GAL)

### DIAGNOSIS

Machine Id 2037215

Component

#### A Recommendation

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

#### Fluid Condition

The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0832201		
Sample Date		Client Info		09 Jan 2024		
Machine Age	hrs	Client Info		458		
Oil Age	hrs	Client Info		458		
Oil Changed		Client Info		Not Changd		
Sample Status				ABNORMAL		
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	4		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>20	<1		
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	<1		
Copper	ppm	ASTM D5185(m)	>20	2		
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)		0		
Barium	ppm	ASTM D5185(m)		<1		
Molybdenum	ppm	ASTM D5185(m)		0		
Manganese	ppm	ASTM D5185(m)		0		
Magnesium	ppm	ASTM D5185(m)		1		
Calcium				-		
Calcium		ACTM DE185(m)		102		
Phoenhorus	ppm	ASTM D5185(m)		102 607		
	ppm	ASTM D5185(m)		607		
Phosphorus Zinc	ppm ppm	ASTM D5185(m) ASTM D5185(m)		607 785		
Zinc Sulfur	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		607 785 1539		
Zinc Sulfur Lithium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		607 785 1539 <1		
Zinc Sulfur	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	607 785 1539 <1		
Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	607 785 1539 <1		
Zinc Sulfur Lithium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method		607 785 1539 <1 current	   history1	   history2
Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)		607 785 1539 <1 <u>current</u>	   history1	   history2
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>15	607 785 1539 <1 current <1 0 1	  history1 	  history2 
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>15 >20	607 785 1539 <1 current <1 0 1	  history1 	  history2  
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>15 >20 limit/base	607 785 1539 <1 current <1 0 1 current	  history1   history1	  history2   history2
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>15 >20 limit/base >5000	607 785 1539 <1 current <1 0 1 1 current 12144	  history1   history1 	  history2   history2
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160	607 785 1539 <1 current <1 0 1 1 current 1 2144 902	  history1   history1	  history2   history2
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160	607 785 1539 <1 current <1 0 1 1 current 1 12144 902 25	  history1   history1	  history2  history2 history2
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40	607 785 1539 <1 current <1 0 1 1 current ▲ 12144 902 25 8	  history1   history1  history1	  history2   history2  history2
Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40 >10	607 785 1539 <1 current <1 0 1 1 current 1 12144 902 25 8 8 2	  history1   history1  history1	  history2   history2  history2

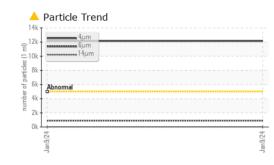


38

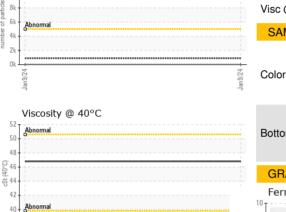
И

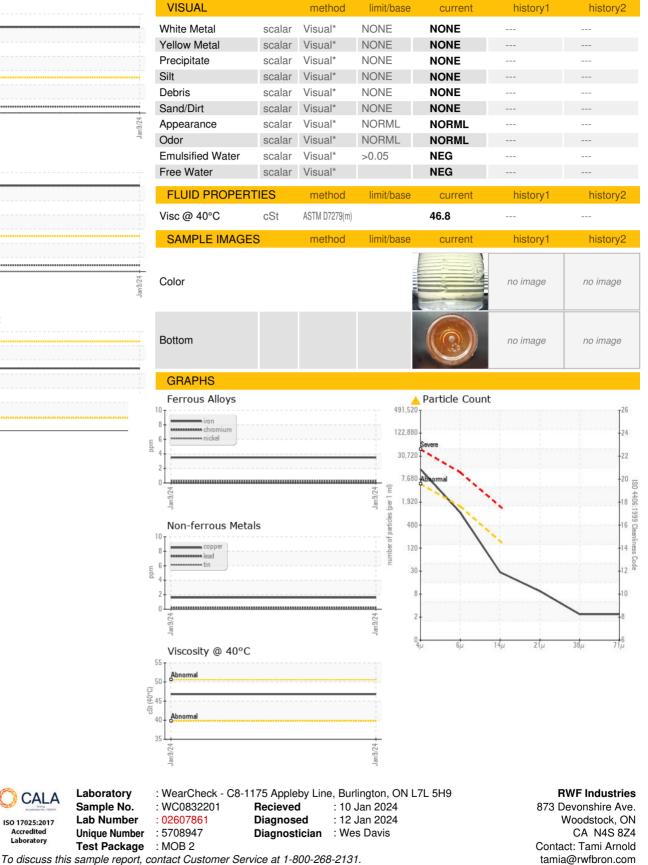
Jan9/24

# **OIL ANALYSIS REPORT**









(40°C)

ŝ

Laboratory

Sample No.

Lab Number

Unique Number

tamia@rwfbron.com T: F: (519)421-0028

CALA

ISO 17025:2017 Accredited Laboratory