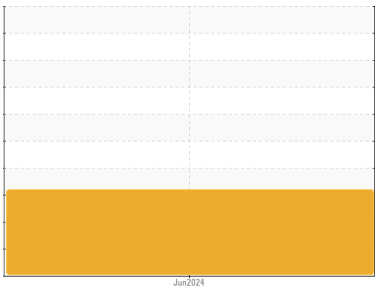
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
TOYOTA 24109A
Component
Gasoline Engine
Fluid
{not provided} (--- GAL)

DIAGNOSIS

▲ Recommendation

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. 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

Light fuel dilution occurring. There is a high concentration of water present in the oil. Test for glycol is negative. No other contaminants were detected in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0855947**	---	---
Sample Date		Client Info		**20 Jun 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)	>150	**4**	---	---
Chromium	ppm	ASTM D5185(m)	>20	**0**	---	---
Nickel	ppm	ASTM D5185(m)	>5	**<1**	---	---
Titanium	ppm	ASTM D5185(m)		**0**	---	---
Silver	ppm	ASTM D5185(m)	>2	**0**	---	---
Aluminum	ppm	ASTM D5185(m)	>40	**2**	---	---
Lead	ppm	ASTM D5185(m)	>50	**0**	---	---
Copper	ppm	ASTM D5185(m)	>155	**<1**	---	---
Tin	ppm	ASTM D5185(m)	>10	**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**	---	---

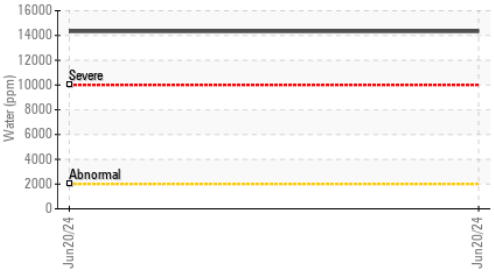
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**95**	---	---
Barium	ppm	ASTM D5185(m)		**<1**	---	---
Molybdenum	ppm	ASTM D5185(m)		**68**	---	---
Manganese	ppm	ASTM D5185(m)		**<1**	---	---
Magnesium	ppm	ASTM D5185(m)		**526**	---	---
Calcium	ppm	ASTM D5185(m)		**1198**	---	---
Phosphorus	ppm	ASTM D5185(m)		**639**	---	---
Zinc	ppm	ASTM D5185(m)		**732**	---	---
Sulfur	ppm	ASTM D5185(m)		**2460**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>30	**18**	---	---
Sodium	ppm	ASTM D5185(m)	>400	**7**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**1**	---	---
Fuel	%	ASTM D7593*	>4.0	**1**	---	---
Water	%	ASTM D6304*	>0.2	**▲ 1.432**	---	---
ppm Water	ppm	ASTM D6304*	>2000	**▲ 14329**	---	---
Glycol	%	ASTM D7922*		**0.0**	---	---

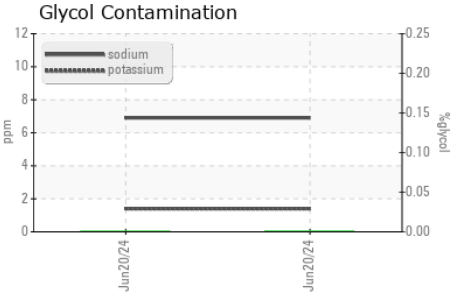
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	---	---
Nitration	Abs/cm	ASTM D7624*	>20	**12.7**	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**15.7**	---	---

OIL ANALYSIS REPORT

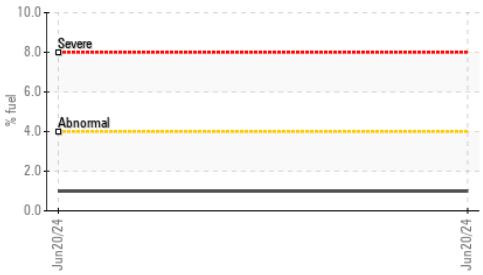
Water (KF)



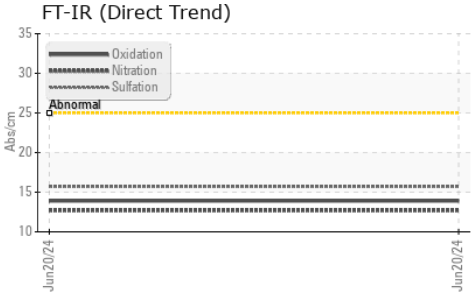
Glycol Contamination



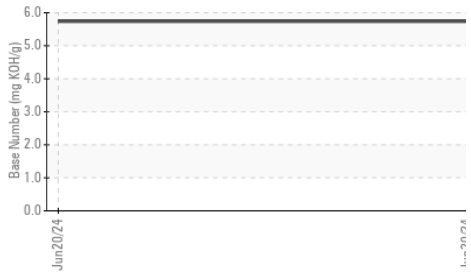
Fuel Dilution



FT-IR (Direct Trend)



Base Number



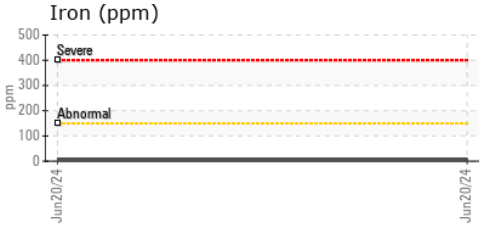
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**13.9**	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*		**5.74**	---	---

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	**NONE**	---	---
Appearance	scalar	Visual*	NORML	**NORML**	---	---
Odor	scalar	Visual*	NORML	**NORML**	---	---
Emulsified Water	scalar	Visual*	>0.2	▲ **.2%**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

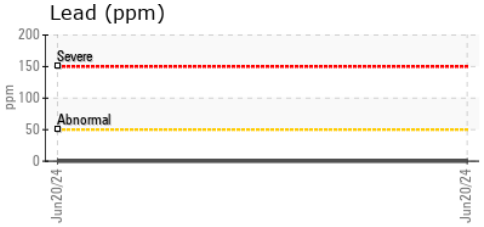
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)		**7.5**	---	---

GRAPHS

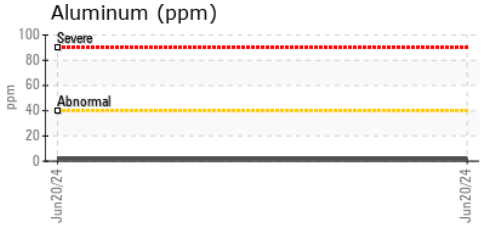
Iron (ppm)



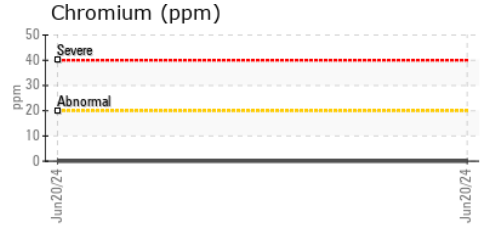
Lead (ppm)



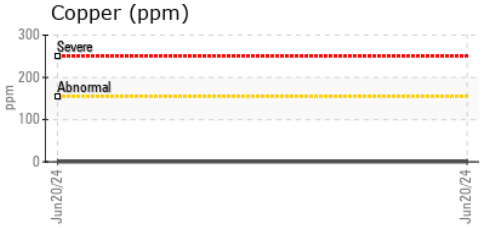
Aluminum (ppm)



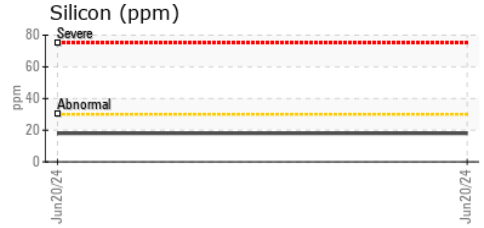
Chromium (ppm)



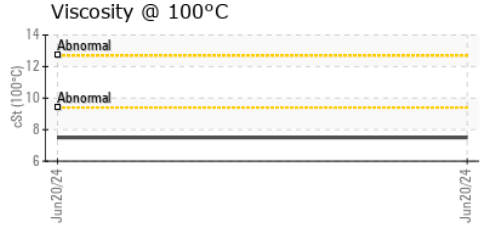
Copper (ppm)



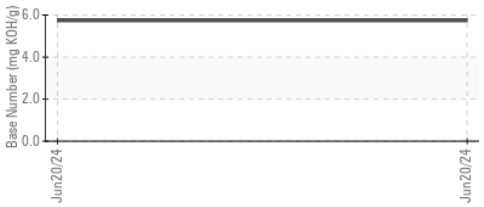
Silicon (ppm)



Viscosity @ 100°C



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0855947 **Received** : 26 Jun 2024
Lab Number : 02644153 **Tested** : 27 Jun 2024
Unique Number : 5801692 **Diagnosed** : 27 Jun 2024 - Kevin Marson
Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, KF, PercentFuel)

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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