



OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Machine Id
CATERPILLAR AD30 TRK223
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

Copper ppm levels are abnormal. Bearing wear is indicated.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0915106	---	---
Sample Date	Client Info		23 Mar 2024	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	19	---
Chromium	ppm	ASTM D5185(m)	>20	0	---
Nickel	ppm	ASTM D5185(m)	>2	0	---
Titanium	ppm	ASTM D5185(m)	>2	0	---
Silver	ppm	ASTM D5185(m)	>2	0	---
Aluminum	ppm	ASTM D5185(m)	>25	<1	---
Lead	ppm	ASTM D5185(m)	>40	9	---
Copper	ppm	ASTM D5185(m)	>330	335	---
Tin	ppm	ASTM D5185(m)	>15	<1	---
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)	250	30	---
Barium	ppm	ASTM D5185(m)	10	0	---
Molybdenum	ppm	ASTM D5185(m)	100	38	---
Manganese	ppm	ASTM D5185(m)		0	---
Magnesium	ppm	ASTM D5185(m)	450	492	---
Calcium	ppm	ASTM D5185(m)	3000	1649	---
Phosphorus	ppm	ASTM D5185(m)	1150	688	---
Zinc	ppm	ASTM D5185(m)	1350	838	---
Sulfur	ppm	ASTM D5185(m)	4250	1853	---
Lithium	ppm	ASTM D5185(m)		<1	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	3	---
Sodium	ppm	ASTM D5185(m)	>158	2	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---
Fuel	%	ASTM D7593*	>5	5.3	---

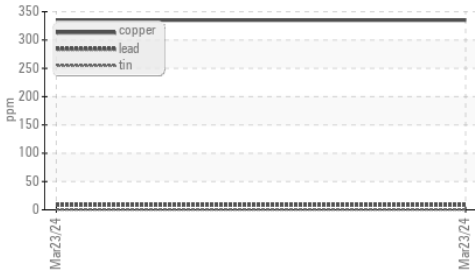
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.1	---
Nitration	Abs/cm	ASTM D7624*	>20	8.5	---
Sulfation	Abs./1mm	ASTM D7415*	>30	24.0	---

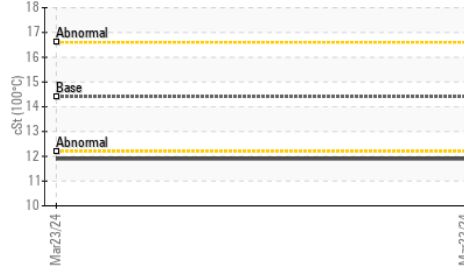


OIL ANALYSIS REPORT

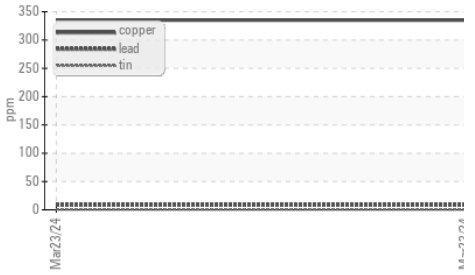
▲ Non-ferrous Metals



▲ Viscosity @ 100°C



▲ Non-ferrous Metals



FLUID DEGRADATION

Method	Limit/Base	Current	History1	History2
Oxidation (Abs./1mm, ASTM D7414*)	>25	22.9	---	---

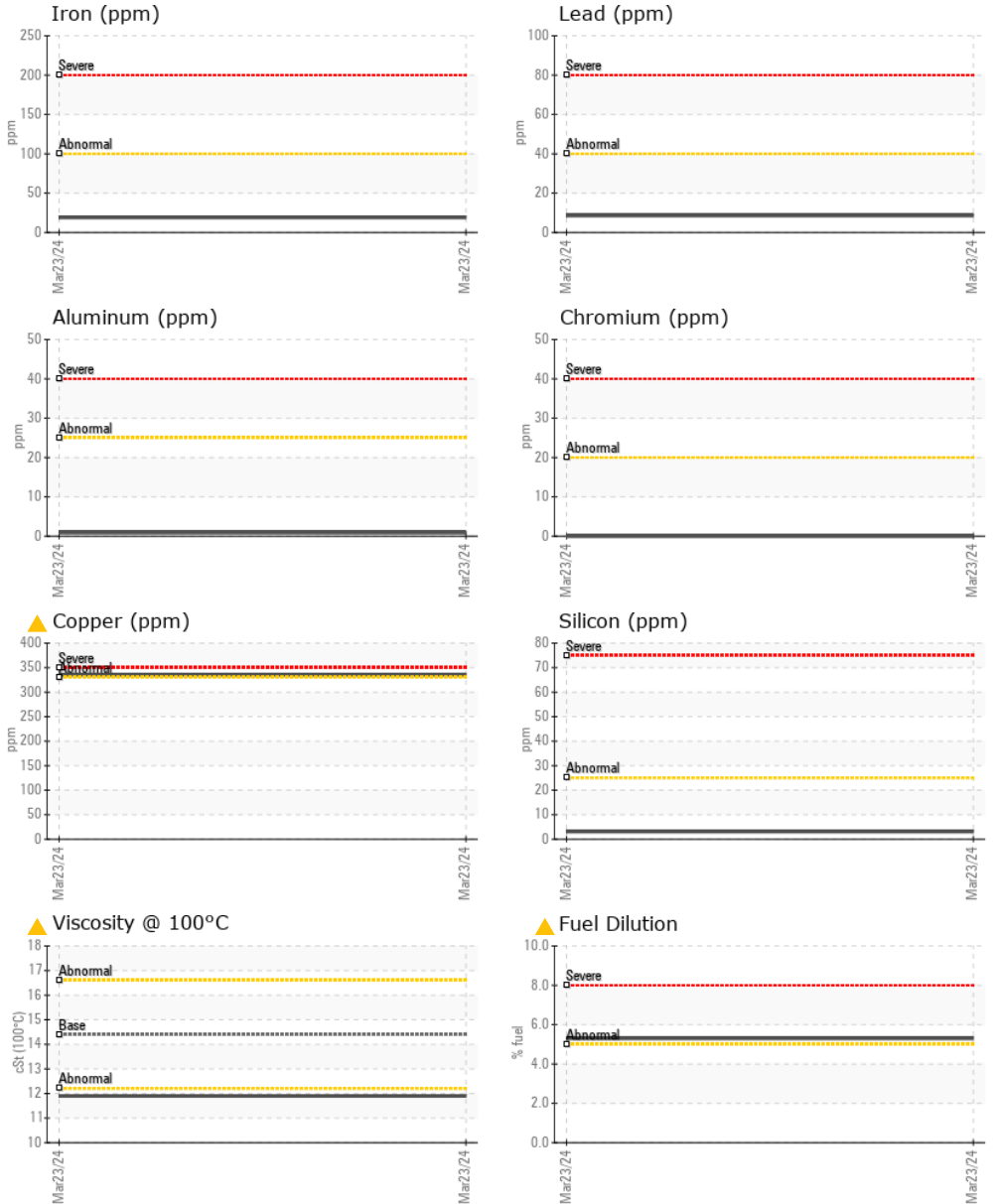
VISUAL

Method	Limit/Base	Current	History1	History2
Emulsified Water (scalar, Visual*)	>0.2	NEG	---	---
Free Water (scalar, Visual*)		NEG	---	---

FLUID PROPERTIES

Method	Limit/Base	Current	History1	History2
Visc @ 100°C (cSt, ASTM D7279(m))	14.4	▲ 11.9	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0915106 **Received** : 26 Mar 2024
Lab Number : 02624634 **Tested** : 27 Mar 2024
Unique Number : 5749753 **Diagnosed** : 27 Mar 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

Agnico Eagle Canada
 1350 Government Rd. W, MACASSA COMPLEX
 Kirkland Lake, ON
 CA P2N 3J1
 Contact: Mitch Lamontagne
 AEM_KL_macassaoilsampleresults@agnicoeagle.com
 T: (705)567-5208
 F: (705)567-5221

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.