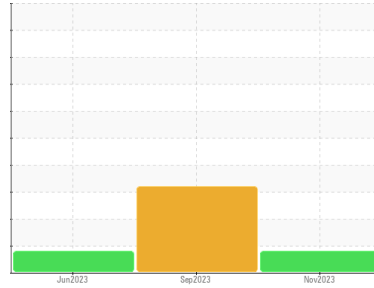




OIL ANALYSIS REPORT

Sample Rating Trend



SOOT



Machine Id
CATERPILLAR 350 123
 Component
Diesel Engine
 Fluid
PETRO CANADA 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

There is an abnormal amount of solids and carbon present in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0868141	WC0822168	WC0822384
Sample Date	Client Info		08 Nov 2023	22 Sep 2023	05 Jun 2023
Machine Age	hrs	Client Info	25185	24942	24578
Oil Age	hrs	Client Info	243	364	270
Oil Changed	Client Info		N/A	Changed	Changed
Sample Status			ABNORMAL	SEVERE	ABNORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	43	76	47
Chromium	ppm	ASTM D5185m	>20	<1	2	1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	2	2
Lead	ppm	ASTM D5185m	>40	<1	3	4
Copper	ppm	ASTM D5185m	>330	5	10	3
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		5	5	13
Barium	ppm	ASTM D5185m		0	3	0
Molybdenum	ppm	ASTM D5185m		59	58	54
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		860	828	882
Calcium	ppm	ASTM D5185m		1016	1017	1285
Phosphorus	ppm	ASTM D5185m		943	930	1044
Zinc	ppm	ASTM D5185m		1132	1098	1309
Sulfur	ppm	ASTM D5185m		2985	2551	3588

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	3	4	4
Sodium	ppm	ASTM D5185m		11	17	16
Potassium	ppm	ASTM D5185m	>20	7	6	8
Fuel	%	ASTM D3524	>5	<1.0	<1.0	<1.0

INFRA-RED

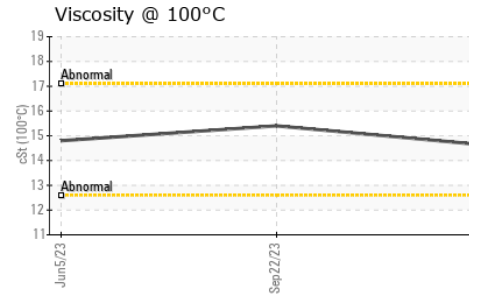
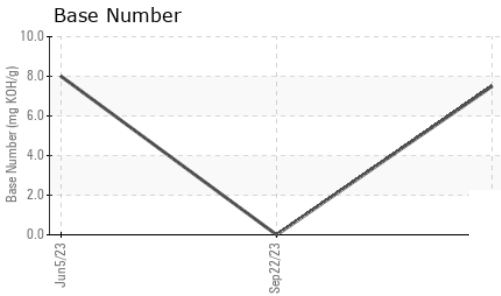
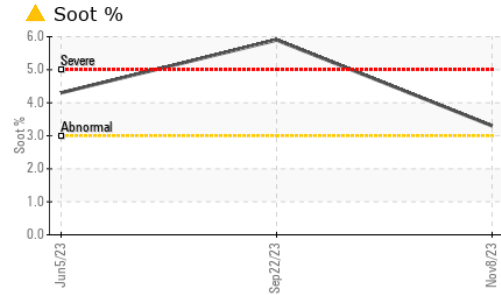
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	▲ 3.3	5.9	▲ 4.3
Nitration	Abs/cm	*ASTM D7624	>20	9.8	16.6	11.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.5	33.7	29.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6	23.2	19.2
Base Number (BN)	mg KOH/g	ASTM D2896		7.5	▲ 0.0	8.0



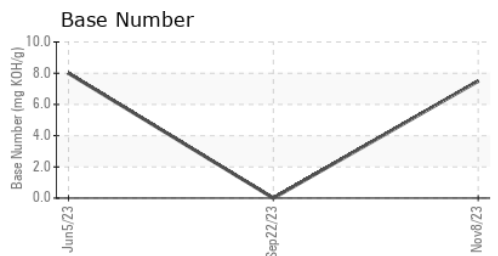
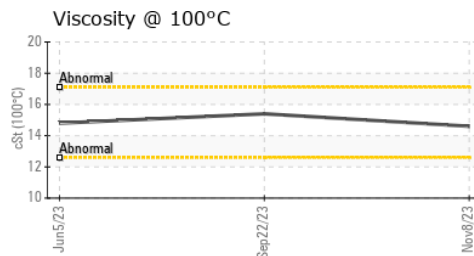
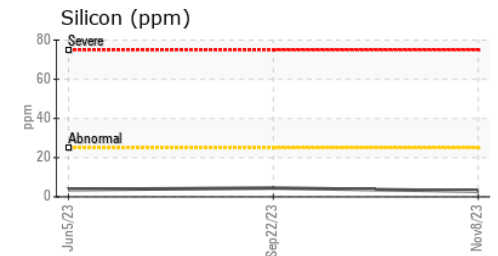
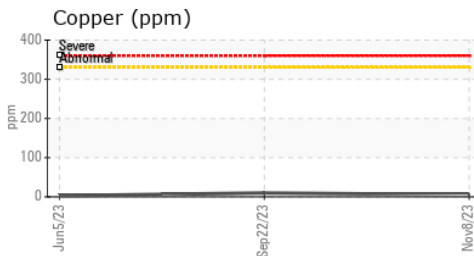
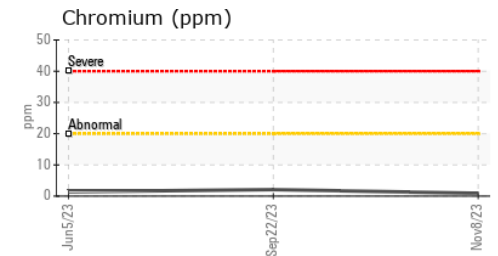
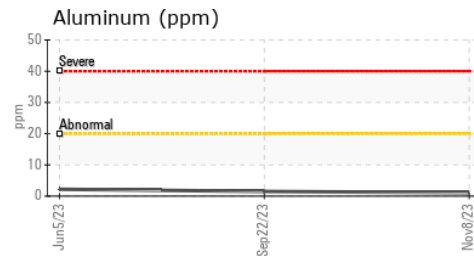
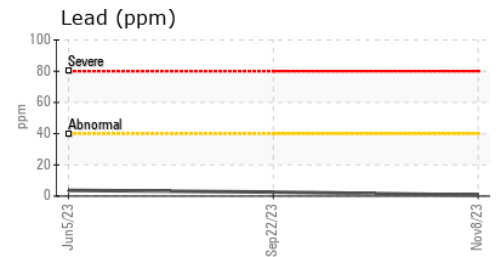
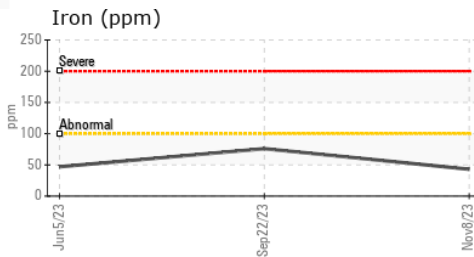
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.6	15.4	14.8

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0868141 **Received** : 20 Nov 2023
Lab Number : 06011879 **Diagnosed** : 21 Nov 2023
Unique Number : 10751023 **Diagnostician** : Jonathan Hester
Test Package : MOB 1 (Additional Tests: FuelDilution, TBN)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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