



OIL ANALYSIS REPORT

Machine Id
CATERPILLAR 306CR CAT 306CR (S/N CAT00306J6G609452)
 Component
Diesel Engine
 Fluid
SHELL ROTELLA T 15W40 (--- GAL)

Sample Rating Trend



FUEL



DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

Light fuel dilution occurring.

▲ Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0874526	---	---
Sample Date	Client Info		02 Apr 2024	---	---
Machine Age	hrs	Client Info	711	---	---
Oil Age	hrs	Client Info	711	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			MARGINAL	---	---

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 D5185m >100	5	---	---
Chromium	ppm	ASTM D5185m >20	0	---	---
Nickel	ppm	ASTM D5185m >2	<1	---	---
Titanium	ppm	ASTM D5185m >2	0	---	---
Silver	ppm	ASTM D5185m >2	0	---	---
Aluminum	ppm	ASTM D5185m >25	3	---	---
Lead	ppm	ASTM D5185m >40	0	---	---
Copper	ppm	ASTM D5185m >330	0	---	---
Tin	ppm	ASTM D5185m >15	<1	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 316	54	---	---
Barium	ppm	ASTM D5185m 0.0	0	---	---
Molybdenum	ppm	ASTM D5185m 1.2	39	---	---
Manganese	ppm	ASTM D5185m	<1	---	---
Magnesium	ppm	ASTM D5185m 24	532	---	---
Calcium	ppm	ASTM D5185m 2292	1759	---	---
Phosphorus	ppm	ASTM D5185m 1064	990	---	---
Zinc	ppm	ASTM D5185m 1160	1174	---	---
Sulfur	ppm	ASTM D5185m 4996	3617	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	5	---	---
Sodium	ppm	ASTM D5185m	3	---	---
Potassium	ppm	ASTM D5185m >20	<1	---	---
Fuel	%	ASTM D3524 >5	▲ 3.4	---	---

INFRA-RED

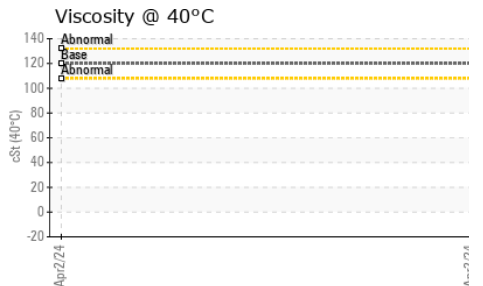
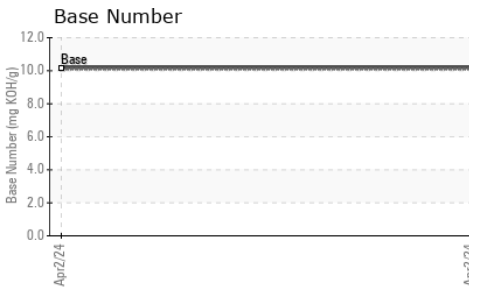
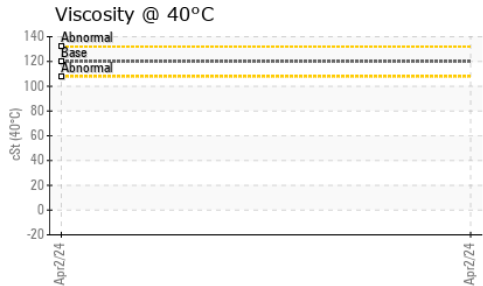
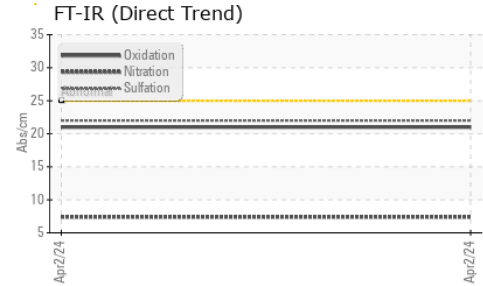
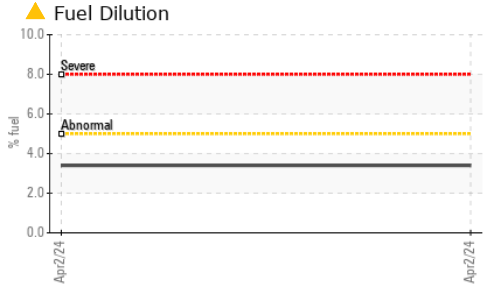
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.2	---	---
Nitration	Abs/cm	*ASTM D7624 >20	7.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.0	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	21.0	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 10.1	10.2	---	---



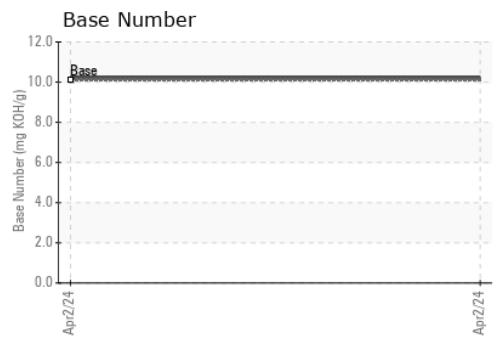
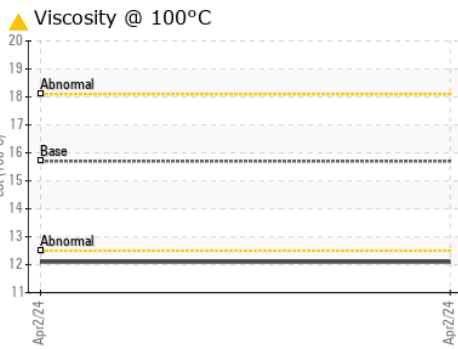
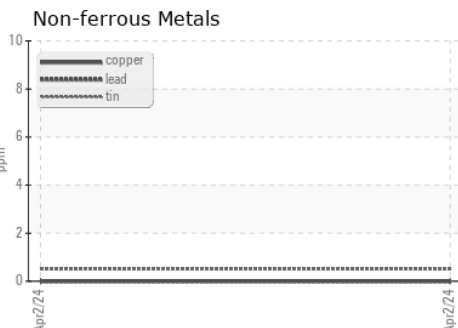
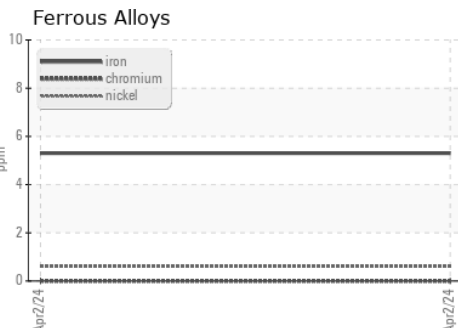
OIL ANALYSIS REPORT



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	>0.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.7	▲ 12.1	---	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0874526 **Received** : 11 Apr 2024
Lab Number : **06146356** **Tested** : 17 Apr 2024
Unique Number : 10976434 **Diagnosed** : 17 Apr 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, KV40, PercentFuel, TBN)

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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)