



# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**RIG 1**  
Machine Id  
**CATERPILLAR 3512 R1-G-04**  
Component  
**Diesel Engine**  
Fluid  
**CHEVRON 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

### 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		<b>KL0013123</b>	---	---
Sample Date	Client Info		<b>03 Nov 2023</b>	---	---
Machine Age	days	Client Info	<b>45233</b>	---	---
Oil Age	days	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	---	---
Sample Status			<b>NORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	---	---
Water	WC Method	>0.2	<b>NEG</b>	---	---
Glycol	WC Method		<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>0</b>	---	---
Chromium	ppm	ASTM D5185m >20	<b>0</b>	---	---
Nickel	ppm	ASTM D5185m >2	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m >2	<b>0</b>	---	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m >25	<b>3</b>	---	---
Lead	ppm	ASTM D5185m >40	<b>0</b>	---	---
Copper	ppm	ASTM D5185m >330	<b>0</b>	---	---
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>356</b>	---	---
Barium	ppm	ASTM D5185m	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	<b>118</b>	---	---
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m	<b>687</b>	---	---
Calcium	ppm	ASTM D5185m	<b>1541</b>	---	---
Phosphorus	ppm	ASTM D5185m	<b>757</b>	---	---
Zinc	ppm	ASTM D5185m	<b>894</b>	---	---
Sulfur	ppm	ASTM D5185m	<b>2629</b>	---	---

## CONTAMINANTS

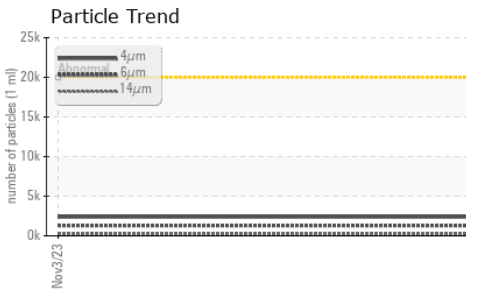
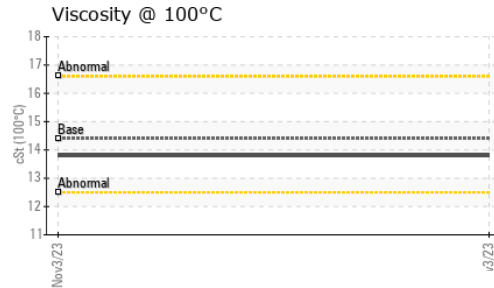
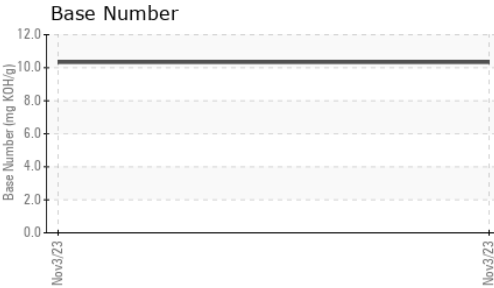
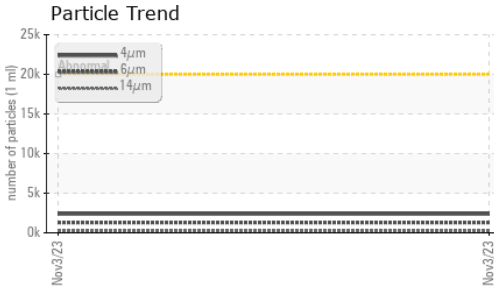
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>12</b>	---	---
Sodium	ppm	ASTM D5185m >50	<b>0</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>0</b>	---	---

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.1</b>	---	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>4.6</b>	---	---
Sulfation	Abs./1mm	*ASTM D7415 >30	<b>21.8</b>	---	---



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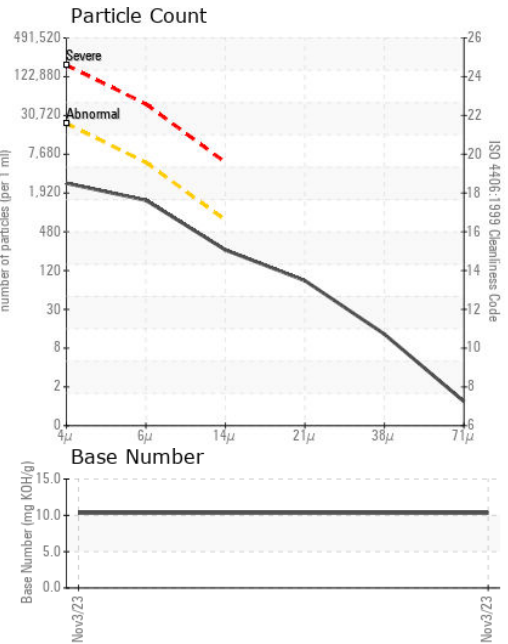
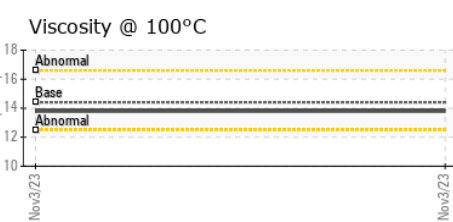
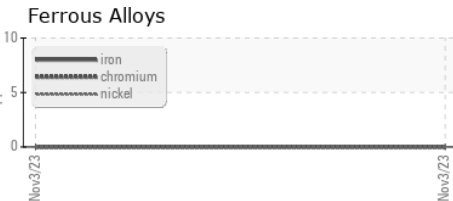
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	<b>2384</b>	---	---
Particles >6µm	ASTM D7647	>5000	<b>1298</b>	---	---
Particles >14µm	ASTM D7647	>640	<b>221</b>	---	---
Particles >21µm	ASTM D7647	>160	<b>74</b>	---	---
Particles >38µm	ASTM D7647	>40	<b>11</b>	---	---
Particles >71µm	ASTM D7647	>10	<b>1</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>18/17/15</b>	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm *ASTM D7414	>25	<b>15.4</b>	---	---
Base Number (BN)	mg KOH/g ASTM D2896		<b>10.33</b>	---	---

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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D445	14.4	<b>13.8</b>	---	---

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0013123 **Received** : 16 Nov 2023  
**Lab Number** : 06010272 **Diagnosed** : 22 Nov 2023  
**Unique Number** : 10749416 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

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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