

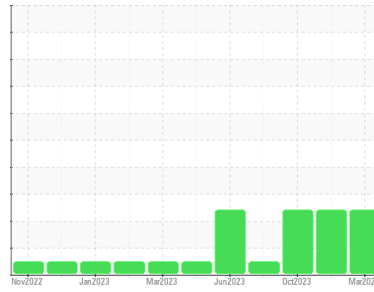


# OIL ANALYSIS REPORT



Machine Id  
**CATERPILLAR D6 10032 (S/N KEW01099)**  
 Component  
**Hydraulic System**  
 Fluid  
 {not provided} (--- GAL)

Sample Rating Trend



## DIAGNOSIS

### Recommendation

We advise that you check all areas where dirt can enter the system. The 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

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The amount and size of particulates present in the system are acceptable.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0913227</b>	WC0879275	WC0862884
Sample Date	Client Info		<b>27 Mar 2024</b>	19 Dec 2023	18 Oct 2023
Machine Age	hrs	Client Info	<b>5940</b>	5213	4605
Oil Age	hrs	Client Info	<b>5940</b>	5213	4605
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>20	<b>15</b>	12	7
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>10	<b>18</b>	14	11
Lead	ppm	ASTM D5185m	>10	<b>1</b>	<1	2
Copper	ppm	ASTM D5185m	>75	<b>5</b>	4	2
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>125</b>	118	115
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>4</b>	4	3
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>37</b>	35	38
Calcium	ppm	ASTM D5185m		<b>3266</b>	2950	3049
Phosphorus	ppm	ASTM D5185m		<b>1215</b>	1047	1117
Zinc	ppm	ASTM D5185m		<b>1420</b>	1299	1416
Sulfur	ppm	ASTM D5185m		<b>3579</b>	2998	3163

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>20	<b>40</b>	31	25
Sodium	ppm	ASTM D5185m		<b>2</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	0	3

## FLUID CLEANLINESS

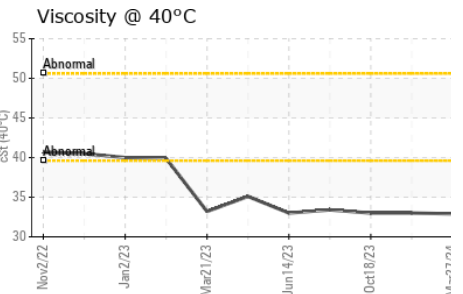
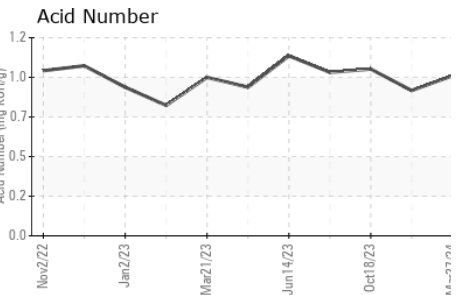
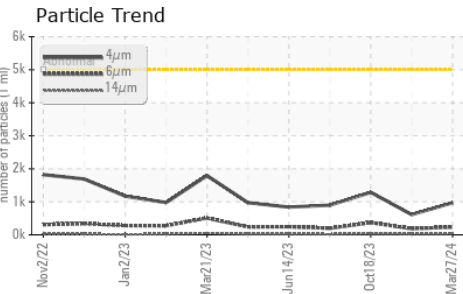
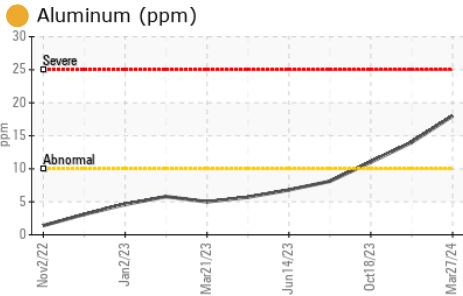
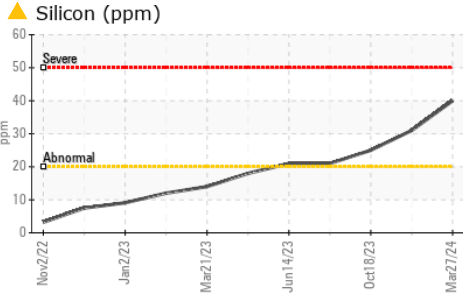
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>973</b>	612	1288
Particles >6µm	ASTM D7647	>1300	<b>235</b>	187	371
Particles >14µm	ASTM D7647	>160	<b>18</b>	21	35
Particles >21µm	ASTM D7647	>40	<b>6</b>	6	9
Particles >38µm	ASTM D7647	>10	<b>1</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>17/15/11</b>	16/15/12	17/16/12

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.97</b>	0.88	1.01



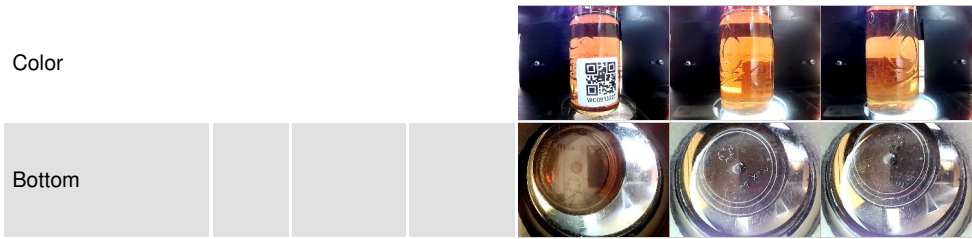
# OIL ANALYSIS REPORT



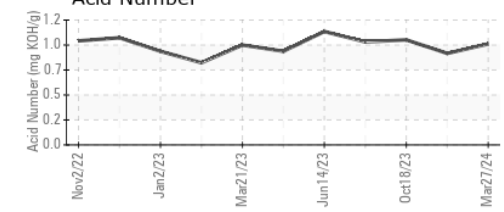
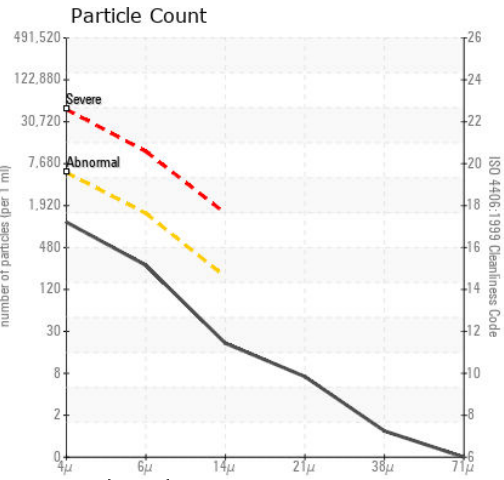
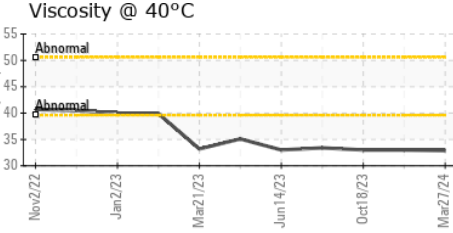
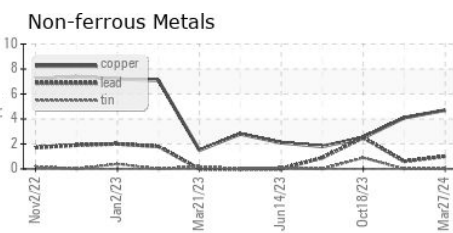
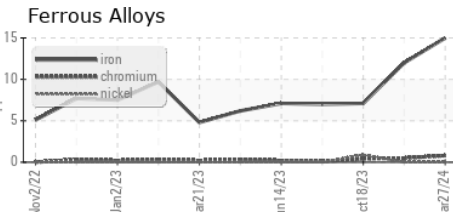
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	<b>32.9</b>	33.0	33.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0913227      **Received** : 03 Apr 2024  
**Lab Number** : **06137341**      **Tested** : 04 Apr 2024  
**Unique Number** : 10956806      **Diagnosed** : 05 Apr 2024 - Jonathan Hester  
**Test Package** : CONST

**TRADER CONSTRUCTION CO.**  
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 US 28563  
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 T: (252)633-1399  
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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)