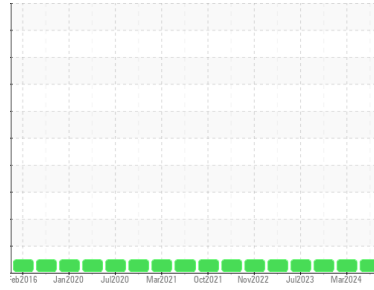


# OIL ANALYSIS REPORT



Area  
**DE Samples - CAT LAB**  
 Machine ID  
**CATERPILLAR 990 LOADER G 6427 (S/N BCR00127)**  
 Component  
**Front Left Final Drive**  
 Fluid  
**TULCO LUBSOIL TO-4 50 (10 GAL)**

Sample Rating Trend



**NORMAL**

**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.
- 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>TO10003595</b>	TO10003132	TO10002883
Sample Date	Client Info		<b>31 May 2024</b>	05 Mar 2024	13 Nov 2023
Machine Age	hrs	Client Info	<b>49260</b>	48658	48135
Oil Age	hrs	Client Info	<b>4209</b>	3607	3070
Oil Changed		Client Info	<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

**CONTAMINATION**    method    limit/base    current    history1    history2

Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
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**WEAR METALS**    method    limit/base    current    history1    history2

PQ		ASTM D8184	>500	<b>24</b>	22	20
Iron	ppm	ASTM D5185m	>800	<b>19</b>	15	15
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	2	2
Titanium	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>75	<b>4</b>	3	4
Lead	ppm	ASTM D5185m	>10	<b>3</b>	2	<1
Copper	ppm	ASTM D5185m	>75	<b>5</b>	1	2
Tin	ppm	ASTM D5185m	>8	<b>2</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	<1

**ADDITIVES**    method    limit/base    current    history1    history2

Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>3</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>27</b>	21	0
Calcium	ppm	ASTM D5185m		<b>4433</b>	3900	4143
Phosphorus	ppm	ASTM D5185m		<b>905</b>	805	705
Zinc	ppm	ASTM D5185m		<b>1039</b>	860	970
Sulfur	ppm	ASTM D5185m		<b>5783</b>	5130	4366

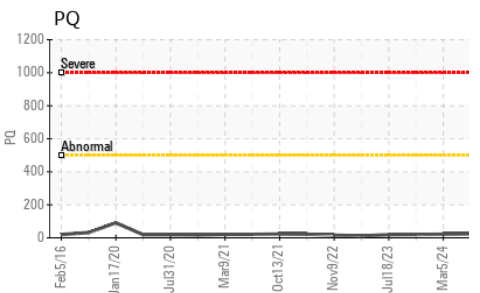
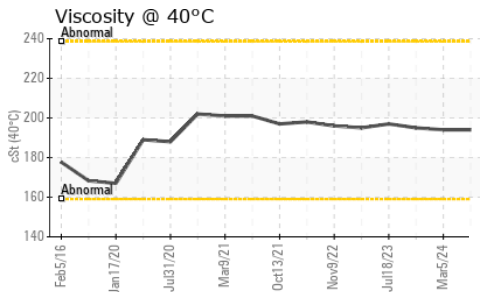
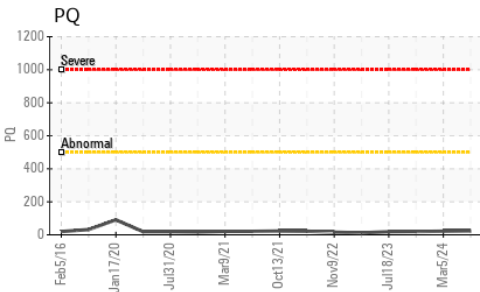
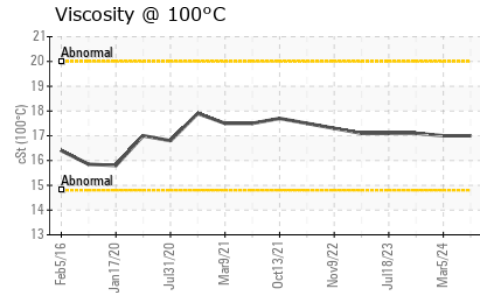
**CONTAMINANTS**    method    limit/base    current    history1    history2

Silicon	ppm	ASTM D5185m	>400	<b>21</b>	17	21
Sodium	ppm	ASTM D5185m		<b>5</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	2	0

**FLUID DEGRADATION**    method    limit/base    current    history1    history2

Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.86</b>	0.91	0.79
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# OIL ANALYSIS REPORT

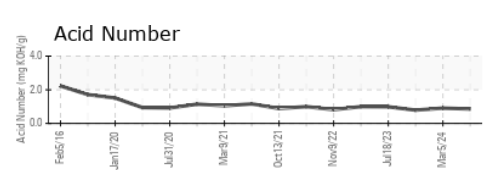
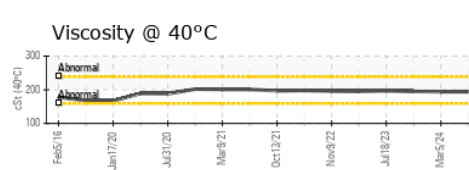
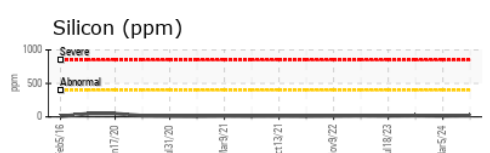
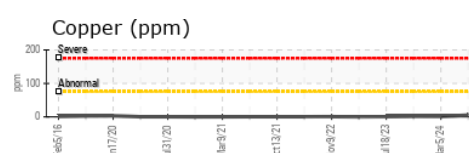
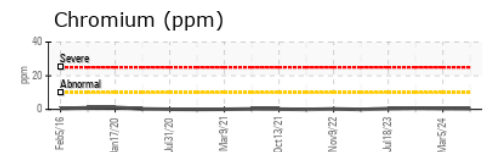
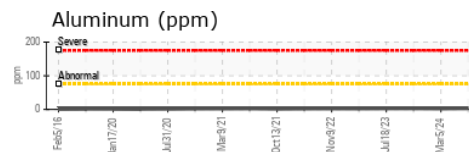
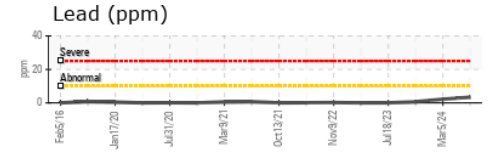
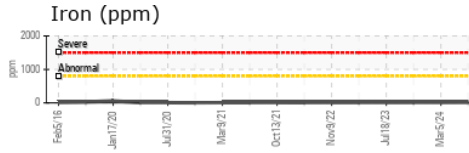


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 @ 40°C	cSt	ASTM D445	194	194	195
Visc @ 100°C	cSt	ASTM D445	17.0	17.0	17.1
Viscosity Index (VI)	Scale	ASTM D2270	92	92	93

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO10003595 **Received** : 10 Jun 2024  
**Lab Number** : 06205683 **Tested** : 12 Jun 2024  
**Unique Number** : 11073144 **Diagnosed** : 12 Jun 2024 - Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV100, PQ, VI )

**ANCHOR STONE TULSA ROCK**  
 TULSA ROCK QUARRY, 66TH ST N 145TH AVENUE  
 TULSA, OK  
 US 74137

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)

Contact: MIKE SNYDER  
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 T: (417)850-9635