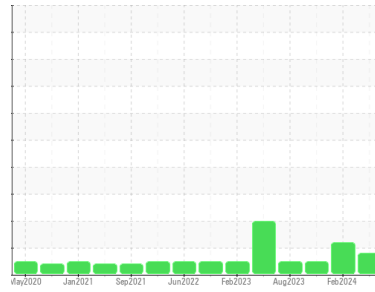


# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**DE Samples - CAT LAB**  
Machine Id  
**CATERPILLAR 775D 6441 (S/N 8AS00350)**  
Component  
**Steering**  
Fluid  
**TULCO LUBSOIL SUPER HYDRAULIC HZ 46 (21 GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. 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

There is a moderate amount of silt (particulates < 14 microns in size) present 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>TO10003095</b>	TO10001697	TO10002872
Sample Date	Client Info		<b>13 May 2024</b>	20 Feb 2024	13 Nov 2023
Machine Age	hrs	Client Info	<b>43808</b>	43280	42811
Oil Age	hrs	Client Info	<b>5055</b>	4527	4058
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>ATTENTION</b>	ATTENTION	NORMAL

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >60	<b>3</b>	1	3
Chromium	ppm	ASTM D5185m >12	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >6	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >4	<b>2</b>	0	<1
Lead	ppm	ASTM D5185m >12	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >30	<b>2</b>	1	2
Tin	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<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>&lt;1</b>	0	<1
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	<b>194</b>	140	79
Calcium	ppm	ASTM D5185m	<b>192</b>	151	102
Phosphorus	ppm	ASTM D5185m	<b>838</b>	644	730
Zinc	ppm	ASTM D5185m	<b>1022</b>	835	952
Sulfur	ppm	ASTM D5185m	<b>3380</b>	2494	2587

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >10	<b>2</b>	<1	2
Sodium	ppm	ASTM D5185m	<b>2</b>	6	4
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	0

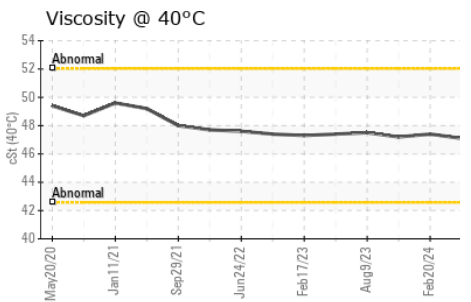
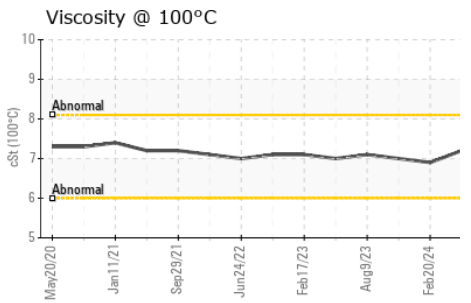
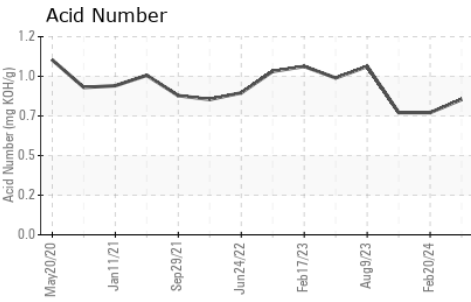
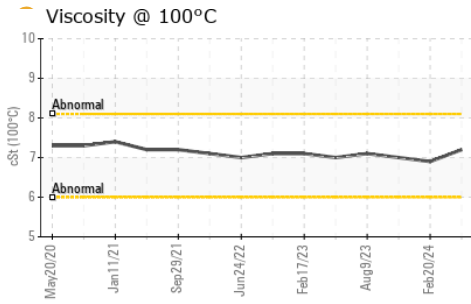
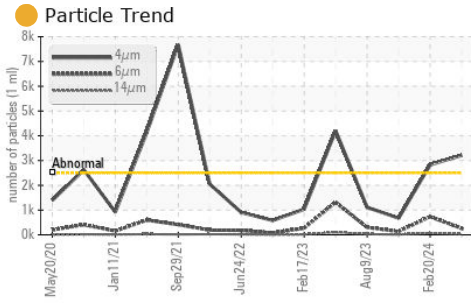
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	<b>3212</b>	2826	674
Particles >6µm	ASTM D7647	>640	<b>260</b>	734	133
Particles >14µm	ASTM D7647	>80	<b>23</b>	71	10
Particles >21µm	ASTM D7647	>20	<b>11</b>	15	2
Particles >38µm	ASTM D7647	>4	<b>0</b>	1	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	<b>19/15/12</b>	19/17/13	17/14/10

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.82</b>	0.74	0.74

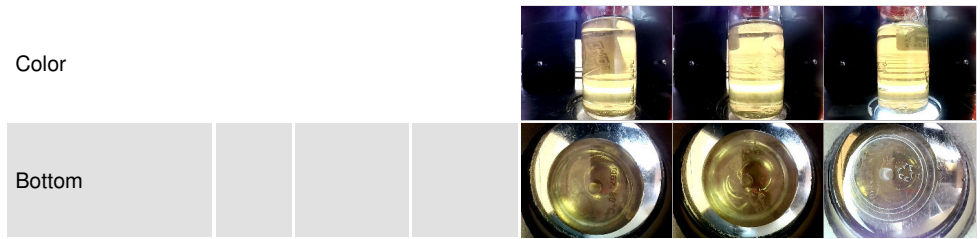
# OIL ANALYSIS REPORT



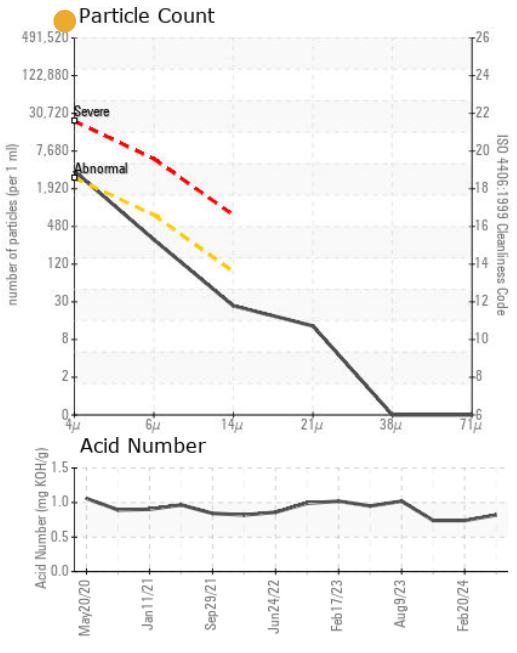
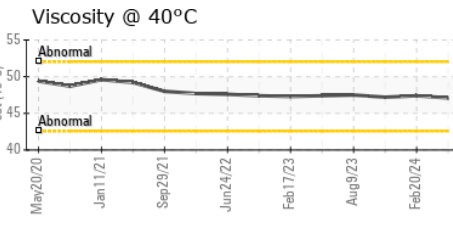
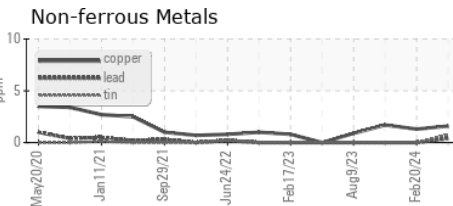
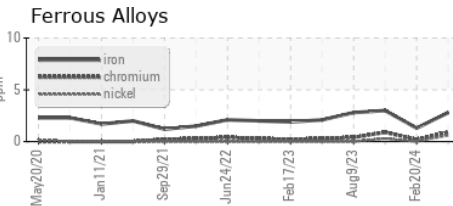
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	47.1	47.4	47.2
Visc @ 100°C	cSt	ASTM D445	7.2	6.9	7
Viscosity Index (VI)	Scale	ASTM D2270	112	100	104

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO10003095 **Received** : 17 May 2024  
**Lab Number** : 06183328 **Tested** : 20 May 2024  
**Unique Number** : 11034654 **Diagnosed** : 21 May 2024 - Don Baldrige  
**Test Package** : MOB 2 ( Additional Tests: KV100, PrtCount, VI )

**ANCHOR STONE TULSA ROCK**  
 TULSA ROCK QUARRY, 66TH ST N 145TH AVENUE  
 TULSA, OK  
 US 74137  
 Contact: MIKE SNYDER  
 msnyder@anchorstoneco.com  
 T: (417)850-9635  
 F:

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)