



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
DE Samples - CAT LAB
Machine Id
CATERPILLAR 980K LOADER 6775 (S/N W7K01443)
Component
Rear Differential
Fluid
TULCO LUBSOIL TO-4 50 (17 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TO10003723	TO10003400	TO10003117
Sample Date		Client Info		15 Jul 2024	04 May 2024	22 Feb 2024
Machine Age	hrs	Client Info		28996	28486	48683
Oil Age	hrs	Client Info		1249	502	48683
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	None	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>500	76	73	68
Chromium	ppm	ASTM D5185m	>3	0	0	0
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	2	1	2
Lead	ppm	ASTM D5185m	>13	0	0	<1
Copper	ppm	ASTM D5185m	>103	11	8	7
Tin	ppm	ASTM D5185m	>5	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

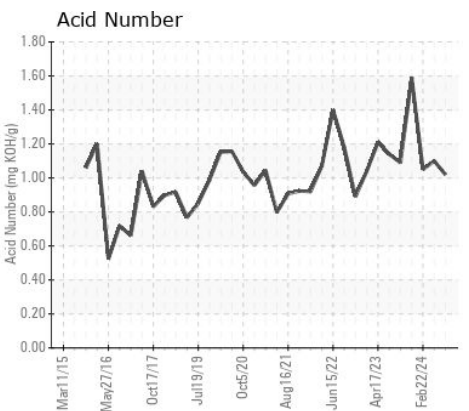
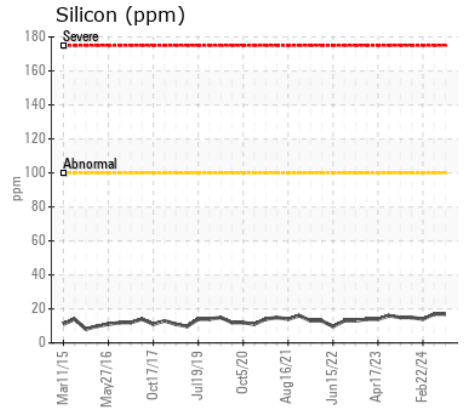
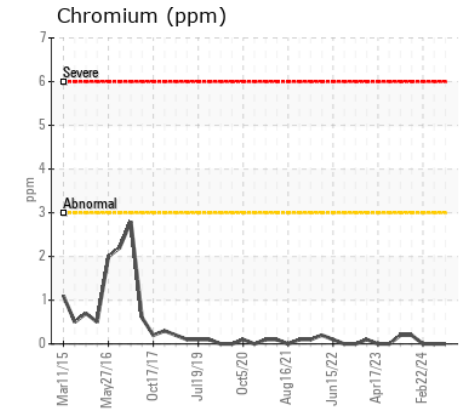
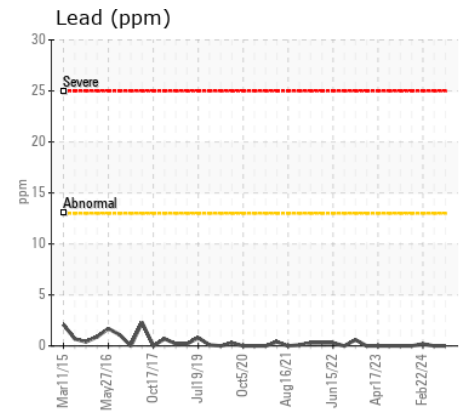
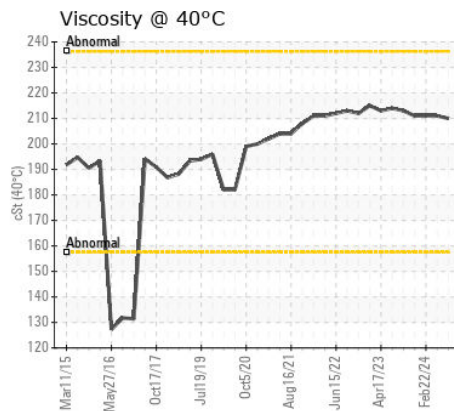
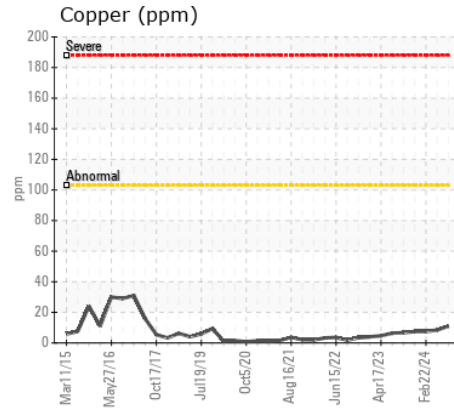
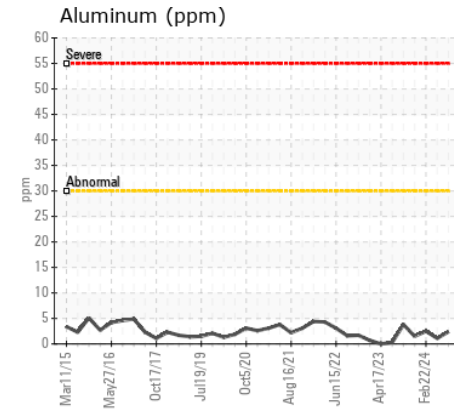
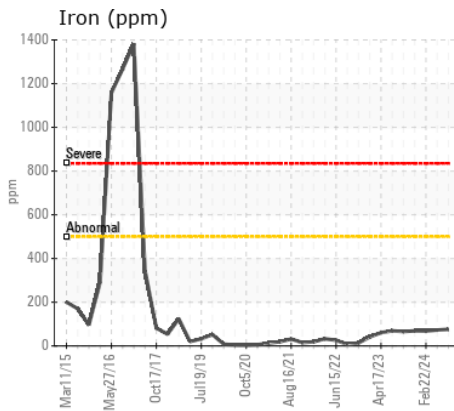
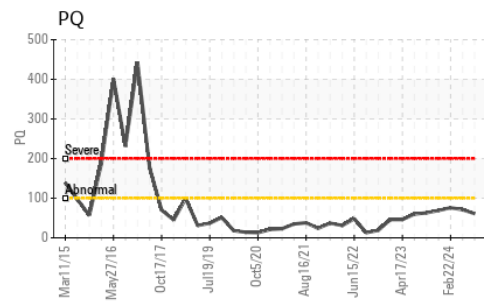
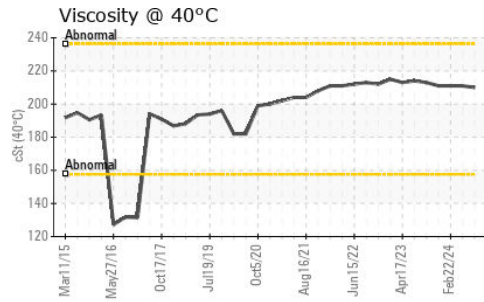
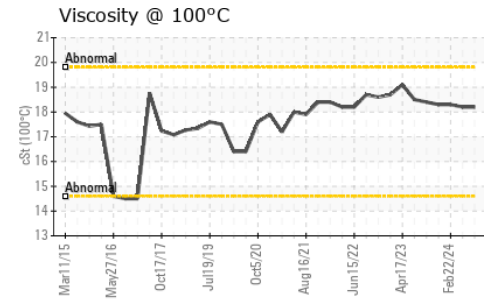
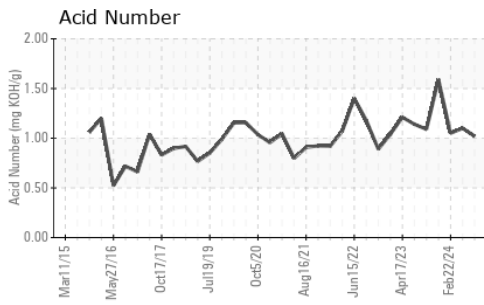
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>100	17	17	14
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		5	4	5
Boron	ppm	ASTM D5185m		0	4	0
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		3	13	14
Calcium	ppm	ASTM D5185m		3604	3377	3185
Phosphorus	ppm	ASTM D5185m		1032	1030	962
Zinc	ppm	ASTM D5185m		1233	1184	1179
Sulfur	ppm	ASTM D5185m		5949	5708	4749
Acid Number (AN)	mg KOH/g	ASTM D8045		1.02	1.10	1.05
Visc @ 40°C	cSt	ASTM D445		210	211	211
Visc @ 100°C	cSt	ASTM D445		18.2	18.2	18.3
Viscosity Index (VI)	Scale	ASTM D2270		95	94	95



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : TO10003723

Lab Number : 06240987

Unique Number : 11129821

Test Package : MOB 2 (Additional Tests: KV100, PQ, VI)

Received : 18 Jul 2024

Tested : 20 Jul 2024

Diagnosed : 20 Jul 2024 - Wes Davis

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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