



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area

DE Samples - CAT LAB

Machine Id

CATERPILLAR 775D HAUL TRUCK 6355 (S/N 6KR00297)

Component

Rear Differential

Fluid

TULCO LUBSOIL TO-4 50 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TO10003107	TO10003116	TO10002756
Sample Date		Client Info		24 May 2024	24 Feb 2024	09 Oct 2023
Machine Age	hrs	Client Info		49573	49032	48474
Oil Age	hrs	Client Info		2602	2061	1503
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	Not Changd	None
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		81	68	45
Iron	ppm	ASTM D5185m	>500	66	51	27
Chromium	ppm	ASTM D5185m	>3	<1	<1	<1
Nickel	ppm	ASTM D5185m	>3	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>30	<1	2	2
Lead	ppm	ASTM D5185m	>13	<1	<1	<1
Copper	ppm	ASTM D5185m	>103	3	1	<1
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

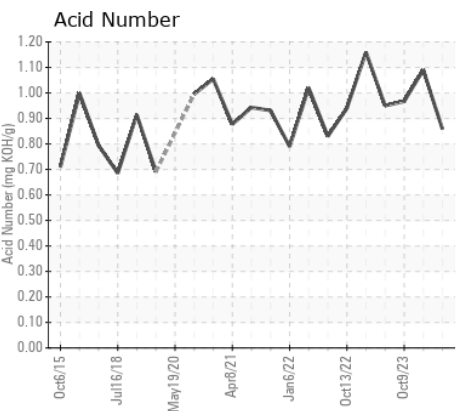
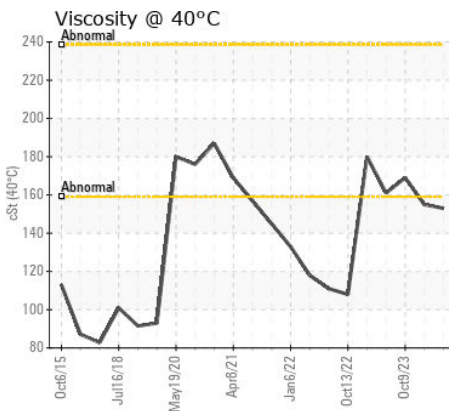
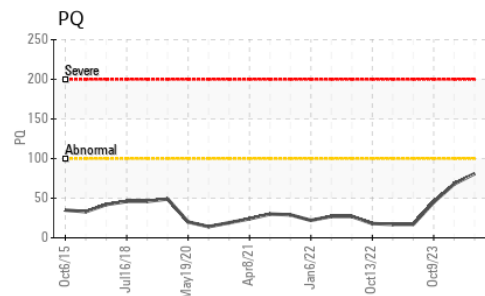
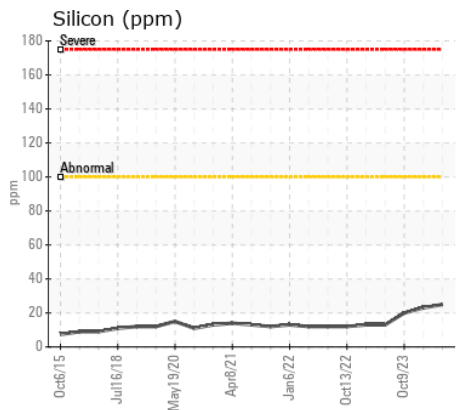
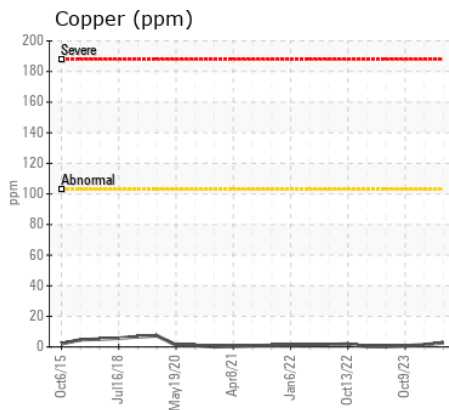
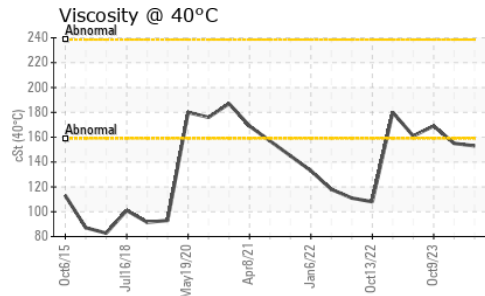
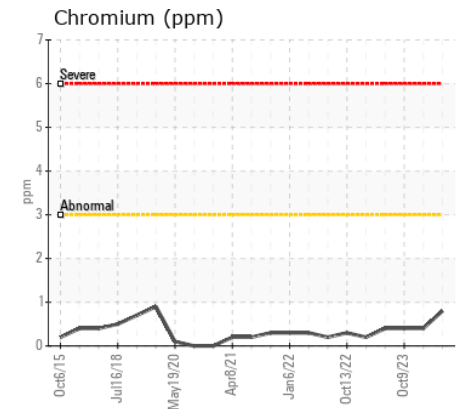
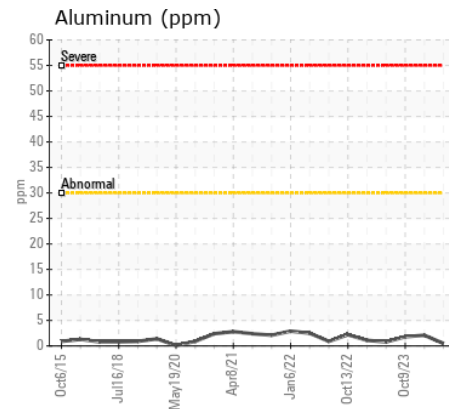
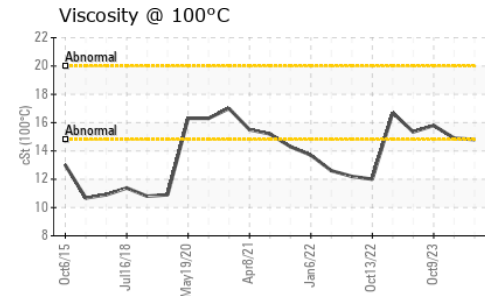
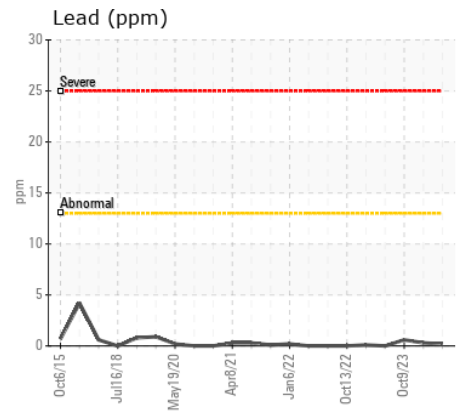
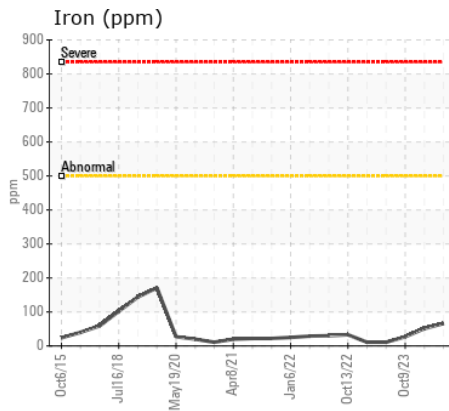
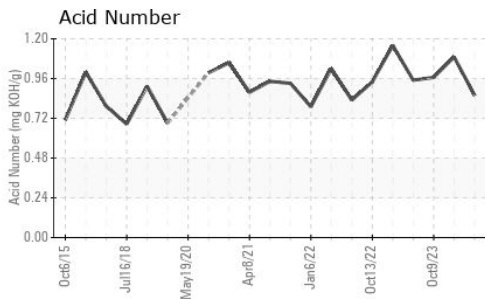
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>100	25	23	20
Potassium	ppm	ASTM D5185m	>20	3	1	<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		0	5	4
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		1	1	<1
Magnesium	ppm	ASTM D5185m		40	43	24
Calcium	ppm	ASTM D5185m		2655	2666	3066
Phosphorus	ppm	ASTM D5185m		849	923	1047
Zinc	ppm	ASTM D5185m		1065	1134	1359
Sulfur	ppm	ASTM D5185m		4248	4368	5250
Acid Number (AN)	mg KOH/g	ASTM D8045		0.859	1.09	0.967
Visc @ 40°C	cSt	ASTM D445		153	155	169
Visc @ 100°C	cSt	ASTM D445		14.8	14.9	15.8
Viscosity Index (VI)	Scale	ASTM D2270		95	95	95



Certificate L2367

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

Sample No. : TO10003107

Lab Number : 06192975

Unique Number : 11049727

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

Received : 28 May 2024

Tested : 30 May 2024

Diagnosed : 30 May 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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