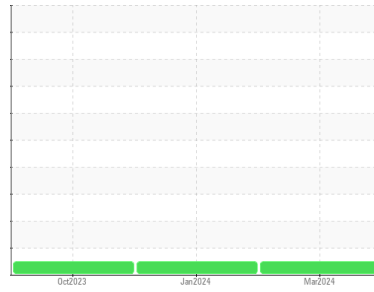


OIL ANALYSIS REPORT



Machine Id
CATERPILLAR 980M 6161 (S/N MK210767)
 Component
Transmission (Manual)
 Fluid
TULCO LUBSOIL TO-4 30 (--- 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 fluid.
- Fluid Condition**
 The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

SAMPLE INFORMATION method limit/base current history1 history2

Sample Number	Client Info	TO10003349	TO10003031	TO10002788
Sample Date	Client Info	31 Mar 2024	26 Jan 2024	18 Oct 2023
Machine Age	hrs Client Info	9552	8990	8534
Oil Age	hrs Client Info	1318	756	300
Oil Changed	Client Info	Not Changed	Changed	Not Changed
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION method limit/base current history1 history2

Water	WC Method	>0.1	NEG	NEG	NEG
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WEAR METALS method limit/base current history1 history2

PQ	ASTM D8184	>95	10	15	11
Iron	ppm ASTM D5185m	>200	2	9	14
Chromium	ppm ASTM D5185m	>5	0	<1	<1
Nickel	ppm ASTM D5185m	>5	0	0	0
Titanium	ppm ASTM D5185m		0	<1	0
Silver	ppm ASTM D5185m	>7	0	0	0
Aluminum	ppm ASTM D5185m	>25	<1	1	1
Lead	ppm ASTM D5185m	>45	0	15	0
Copper	ppm ASTM D5185m	>225	<1	97	5
Tin	ppm ASTM D5185m	>10	<1	<1	0
Vanadium	ppm ASTM D5185m		0	<1	0
Cadmium	ppm ASTM D5185m		0	<1	0

ADDITIVES method limit/base current history1 history2

Boron	ppm ASTM D5185m		5	<1	2
Barium	ppm ASTM D5185m		0	0	0
Molybdenum	ppm ASTM D5185m		<1	2	<1
Manganese	ppm ASTM D5185m		<1	<1	<1
Magnesium	ppm ASTM D5185m	9	22	27	25
Calcium	ppm ASTM D5185m	4500	3164	2862	2950
Phosphorus	ppm ASTM D5185m	1150	953	960	1025
Zinc	ppm ASTM D5185m	1250	1164	1087	1231
Sulfur	ppm ASTM D5185m	4500	4950	5275	5616

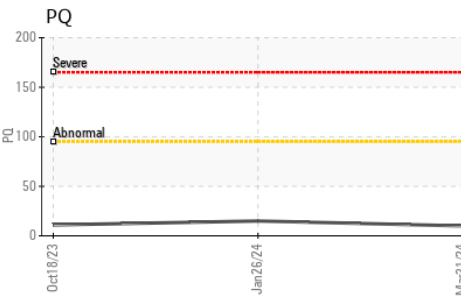
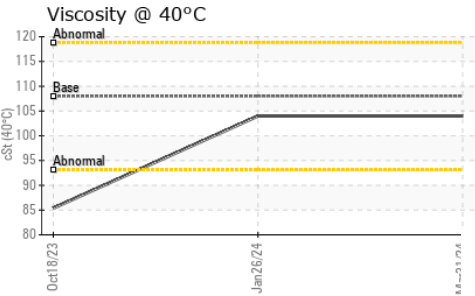
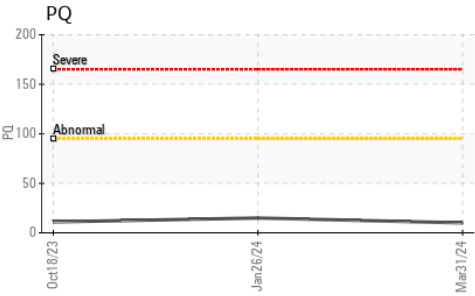
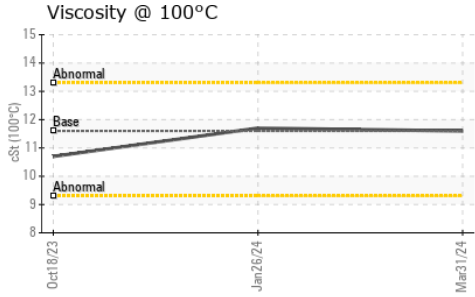
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm ASTM D5185m	>125	8	9	6
Sodium	ppm ASTM D5185m		4	3	1
Potassium	ppm ASTM D5185m	>20	0	0	<1

FLUID DEGRADATION method limit/base current history1 history2

Acid Number (AN)	mg KOH/g ASTM D8045	0.28	1.05	0.87	1.16
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OIL ANALYSIS REPORT

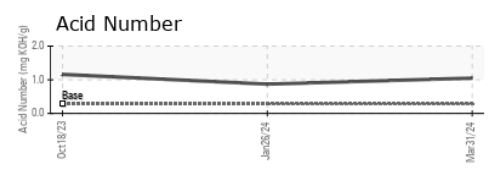
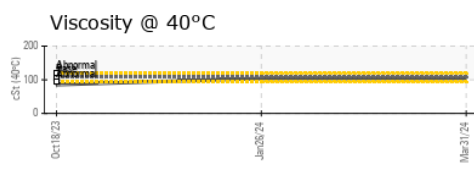
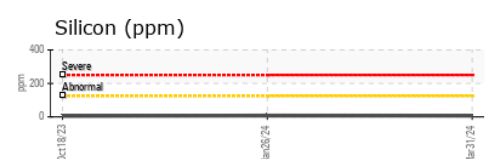
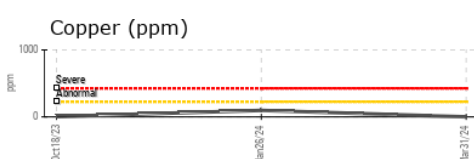
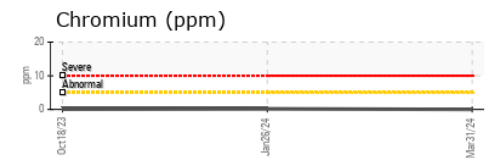
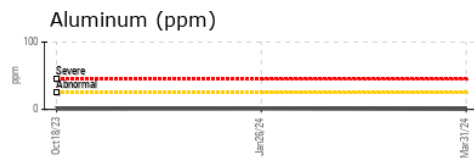
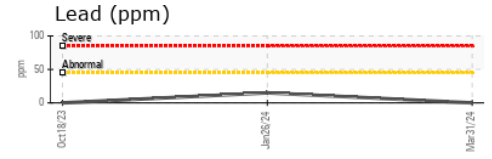
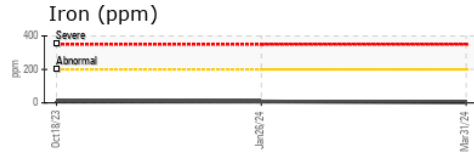


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	108	104	85.4
Visc @ 100°C	cSt	ASTM D445	11.6	11.7	10.7
Viscosity Index (VI)	Scale	ASTM D2270	94	100	109

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO10003349 **Received** : 08 Apr 2024
Lab Number : **06142426** **Tested** : 09 Apr 2024
Unique Number : 10967234 **Diagnosed** : 09 Apr 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: KV100, PQ, VI)

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 skip@anchorstoneco.com

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)