



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id  
**CATERPILLAR 980M 6141 (S/N KRS00885)**  
 Component  
**Transmission (Manual)**  
 Fluid  
**TULCO LUBSOIL TO-4 30 (16 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TO10003646</b>	TO10003325	TO10002966
Sample Date		Client Info		<b>15 Jun 2024</b>	08 Apr 2024	01 Feb 2024
Machine Age	hrs	Client Info		<b>13913</b>	13425	12901
Oil Age	hrs	Client Info		<b>1012</b>	524	1046
Filter Age	hrs	Client Info		<b>1012</b>	524	517
Oil Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

PQ		ASTM D8184	>95	<b>12</b>	20	12
Iron	ppm	ASTM D5185m	>200	<b>2</b>	3	8
Chromium	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>7	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	<1	2
Lead	ppm	ASTM D5185m	>45	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>225	<b>&lt;1</b>	1	2
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

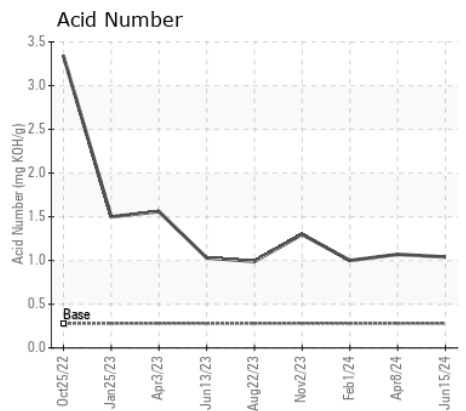
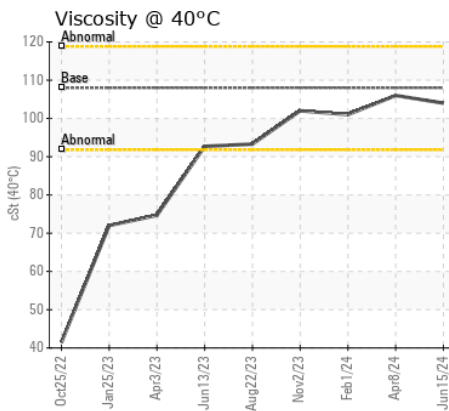
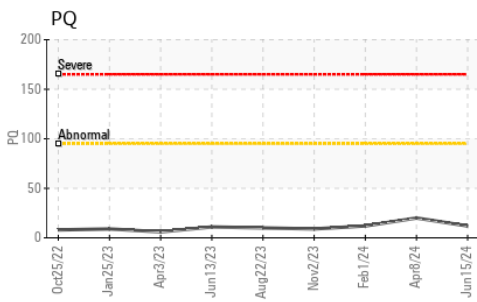
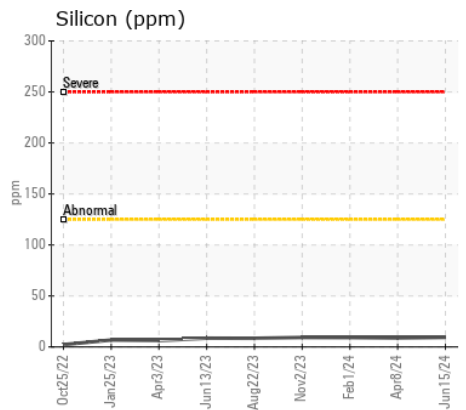
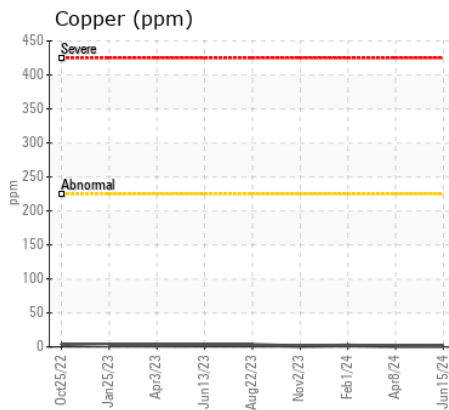
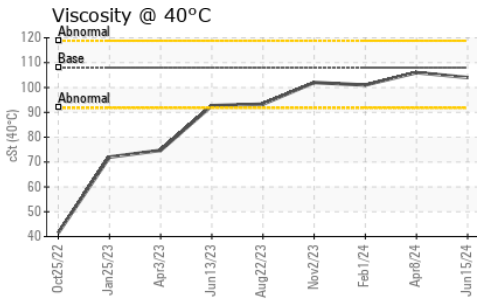
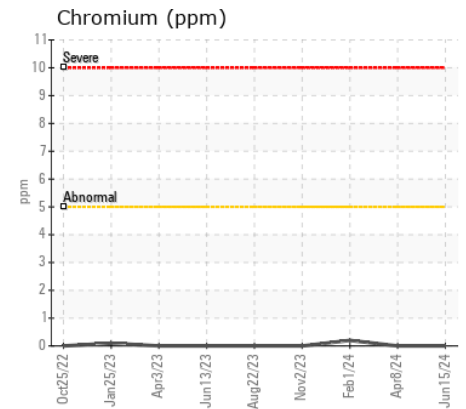
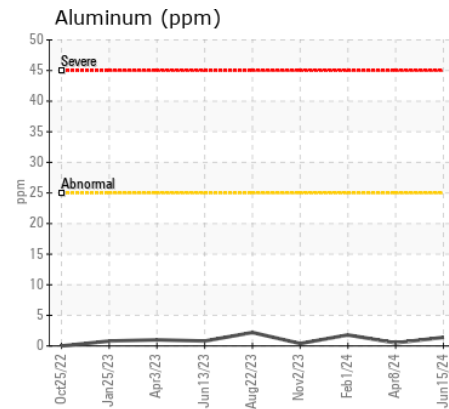
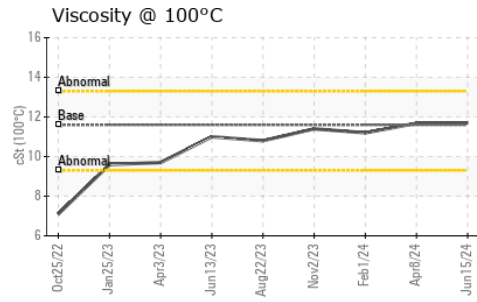
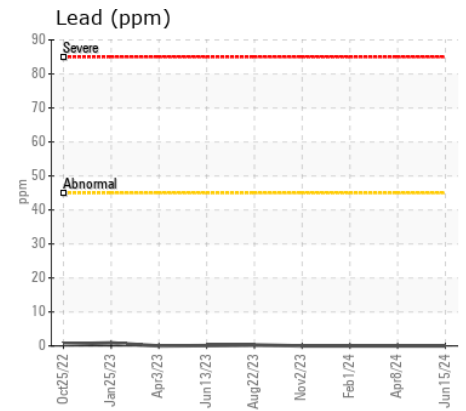
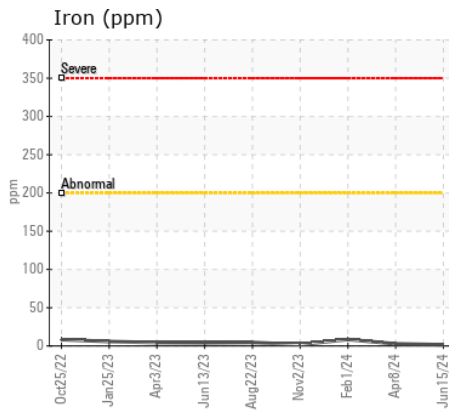
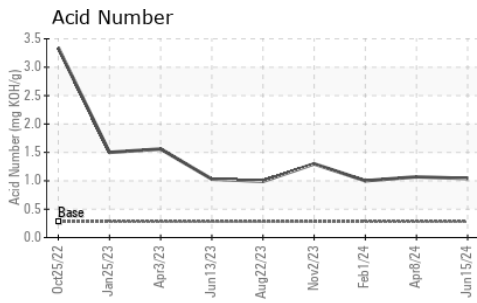
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185m	>125	<b>9</b>	9	9
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	0	2
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185m		<b>5</b>	5	0
Boron	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	5
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m	9	<b>22</b>	17	13
Calcium	ppm	ASTM D5185m	4500	<b>3313</b>	2910	3086
Phosphorus	ppm	ASTM D5185m	1150	<b>1019</b>	845	859
Zinc	ppm	ASTM D5185m	1250	<b>1182</b>	955	1121
Sulfur	ppm	ASTM D5185m	4500	<b>5067</b>	4559	4470
Acid Number (AN)	mg KOH/g	ASTM D8045	0.28	<b>1.04</b>	1.07	1.00
Visc @ 40°C	cSt	ASTM D445	108	<b>104</b>	106	101
Visc @ 100°C	cSt	ASTM D445	11.6	<b>11.7</b>	11.68	11.2
Viscosity Index (VI)	Scale	ASTM D2270	94	<b>100</b>	97	95



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO10003646 **Received** : 20 Jun 2024  
**Lab Number** : 06216325 **Tested** : 21 Jun 2024  
**Unique Number** : 11089189 **Diagnosed** : 21 Jun 2024 - Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV100, PQ, VI )

**ANCHOR STONE TULSA ROCK**  
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Certificate L2367  
 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)