

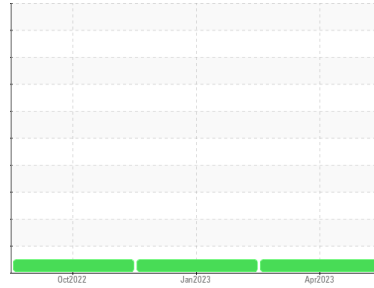
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
CATERPILLAR 980M 6141 (S/N KRS00885)
Component
Front Differential
Fluid
TULCO LUBSOIL TO-4 50 (3 GAL)



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 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		TO10002135	TO10001733	TO10001630
Sample Date	Client Info		03 Apr 2023	25 Jan 2023	25 Oct 2022
Machine Age	hrs	Client Info	10847	10348	9802
Oil Age	hrs	Client Info	1045	546	0
Oil Changed	Client Info		Not Chngd	Not Chngd	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		61	25	17
Iron	ppm	ASTM D5185m >500	56	26	28
Chromium	ppm	ASTM D5185m >3	<1	<1	0
Nickel	ppm	ASTM D5185m >3	<1	<1	0
Titanium	ppm	ASTM D5185m >2	0	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >30	<1	1	0
Lead	ppm	ASTM D5185m >13	0	<1	0
Copper	ppm	ASTM D5185m >103	3	3	6
Tin	ppm	ASTM D5185m >5	0	<1	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	1	<1	16
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	2	3	24
Manganese	ppm	ASTM D5185m	<1	<1	1
Magnesium	ppm	ASTM D5185m	15	21	98
Calcium	ppm	ASTM D5185m	2596	2967	1595
Phosphorus	ppm	ASTM D5185m	837	915	716
Zinc	ppm	ASTM D5185m	1037	1150	894
Sulfur	ppm	ASTM D5185m	3752	5288	3052

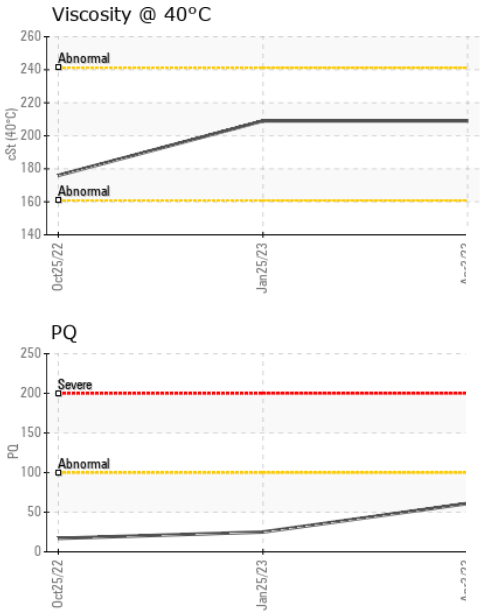
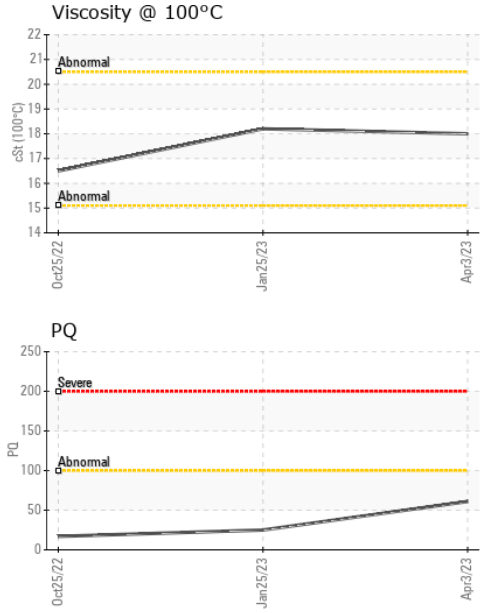
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >100	12	12	4
Sodium	ppm	ASTM D5185m	<1	1	0
Potassium	ppm	ASTM D5185m >20	1	0	0

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.29	0.518	1.75

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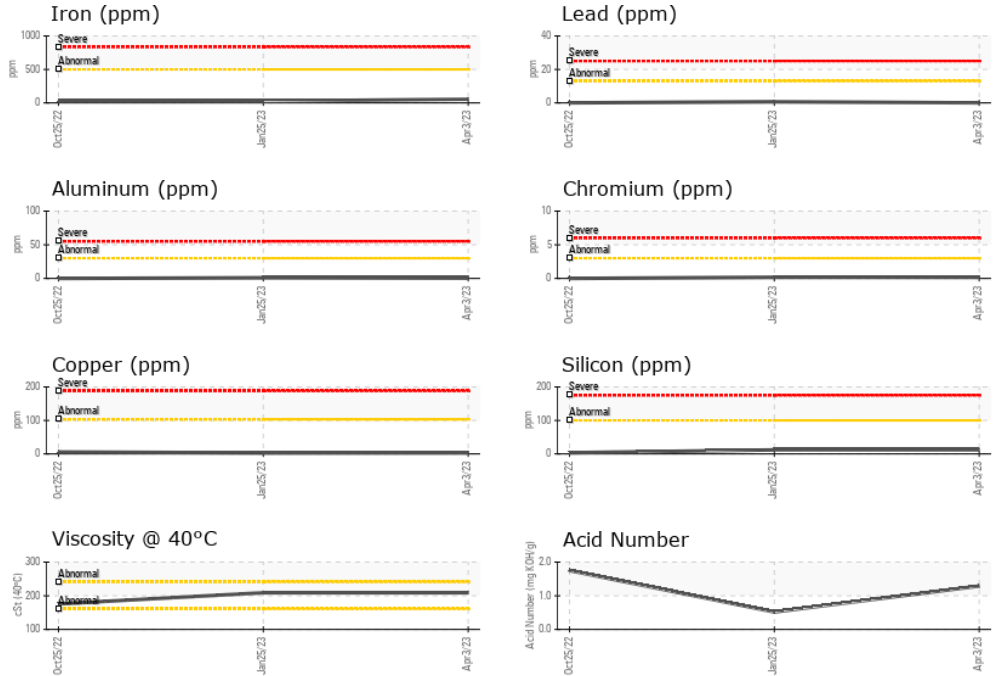


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	209	209	176
Visc @ 100°C	cSt	ASTM D445	18.0	18.2	16.5
Viscosity Index (VI)	Scale	ASTM D2270	93	95	97

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

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO10002135 **Received** : 06 Apr 2023
Lab Number : **05813497** **Tested** : 13 Apr 2023
Unique Number : 10416289 **Diagnosed** : 13 Apr 2023 - Don Baldrige
Test Package : MOB 2 (Additional Tests: KV100, PQ, 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

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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