



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 980H LOADER 6583 (S/N JMS05055)
Component
Rear Right Final Drive
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		TO10002733	TO10002312	TO10002226
Sample Date		Client Info		02 Oct 2023	14 Jul 2023	03 May 2023
Machine Age	hrs	Client Info		34179	33615	33129
Oil Age	hrs	Client Info		2576	2012	1526
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		None	None	None
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>500	38	52	46
Iron	ppm	ASTM D5185m	>800	59	72	64
Chromium	ppm	ASTM D5185m	>10	0	<1	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m	>15	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>75	1	3	6
Lead	ppm	ASTM D5185m	>10	<1	0	0
Copper	ppm	ASTM D5185m	>75	1	<1	0
Tin	ppm	ASTM D5185m	>8	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

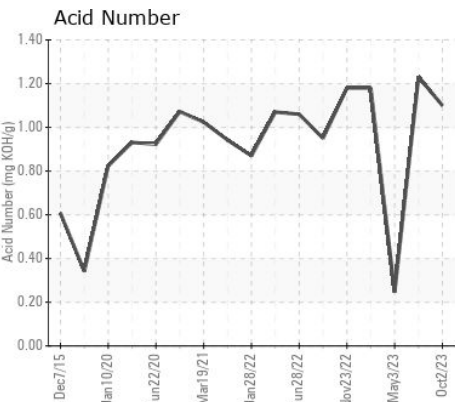
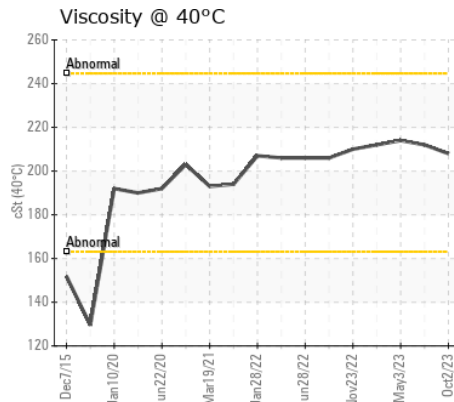
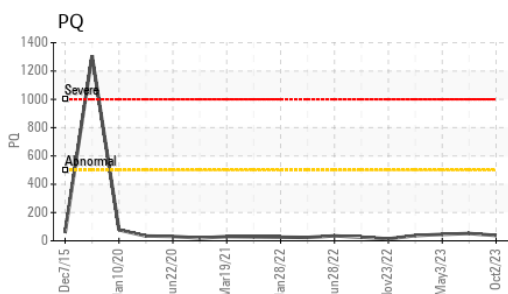
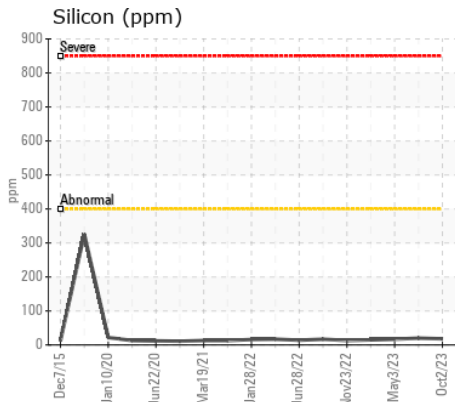
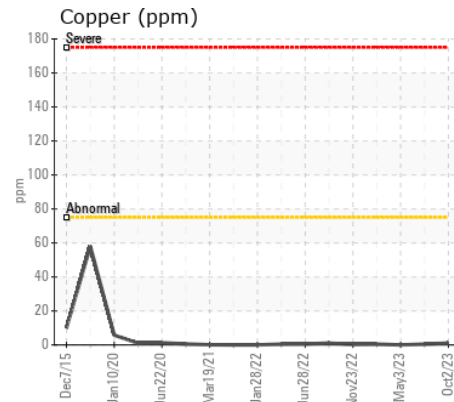
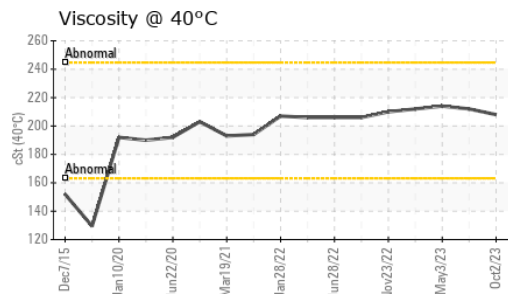
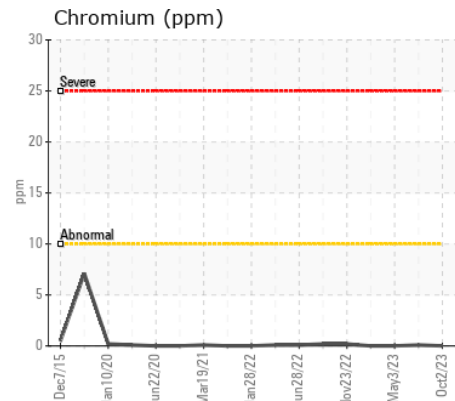
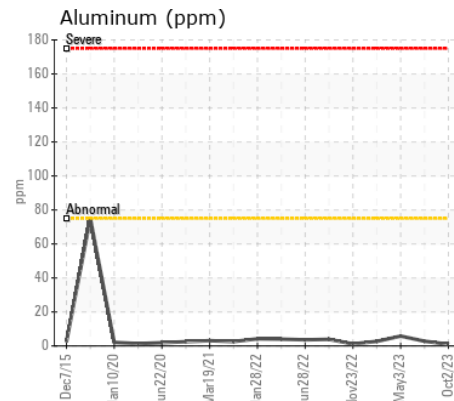
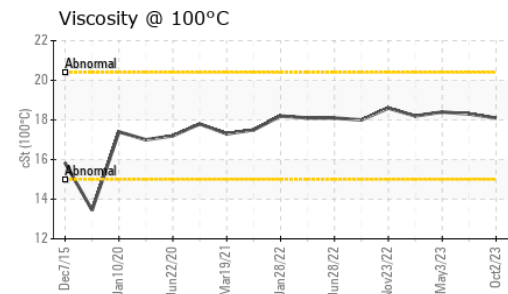
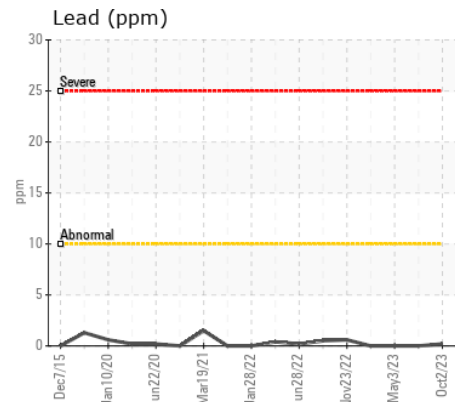
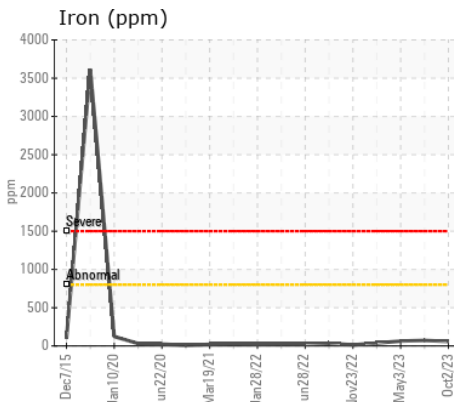
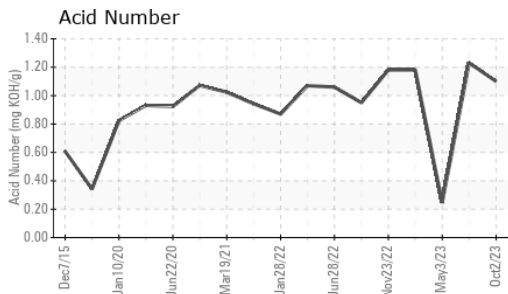
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>400	18	20	17
Potassium	ppm	ASTM D5185m	>20	1	0	<1
Water		WC Method	>0.2	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	>0.2	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	3
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		4	5	4
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		13	13	17
Calcium	ppm	ASTM D5185m		3100	3655	3426
Phosphorus	ppm	ASTM D5185m		959	1006	953
Zinc	ppm	ASTM D5185m		1183	1293	1201
Sulfur	ppm	ASTM D5185m		4858	6382	5600
Acid Number (AN)	mg KOH/g	ASTM D8045		1.10	1.23	0.246
Visc @ 40°C	cSt	ASTM D445		208	212	214
Visc @ 100°C	cSt	ASTM D445		18.1	18.3	18.4
Viscosity Index (VI)	Scale	ASTM D2270		95	95	94



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO10002733 **Received** : 06 Oct 2023
Lab Number : 05972265 **Diagnosed** : 09 Oct 2023
Unique Number : 10684215 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: KV100, PQ, VI)

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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)