



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id  
**CATERPILLAR 730 6080 (S/N TFF00703)**  
Component  
**Hydraulic System**  
Fluid  
**TULCO LUBSOIL SUPER HYDRAULIC HZ 46 (40 GAL)**

**RECOMMENDATION**

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TO10003696</b>	TO10003328	TO10002717
Sample Date		Client Info		<b>29 Jun 2024</b>	15 Mar 2024	21 Sep 2023
Machine Age	hrs	Client Info		<b>10723</b>	10210	9710
Oil Age	hrs	Client Info		<b>1458</b>	945	3044
Filter Age	hrs	Client Info		<b>1458</b>	495	495
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ATTENTION	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>2</b>	0	<1
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Lead	ppm	ASTM D5185m	>10	<b>2</b>	<1	0
Copper	ppm	ASTM D5185m	>75	<b>2</b>	1	2
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
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**

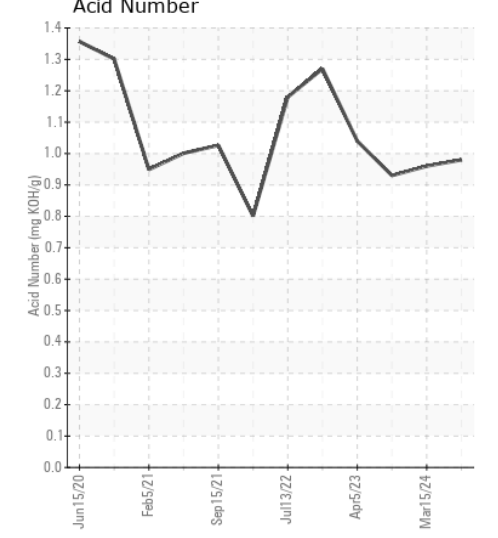
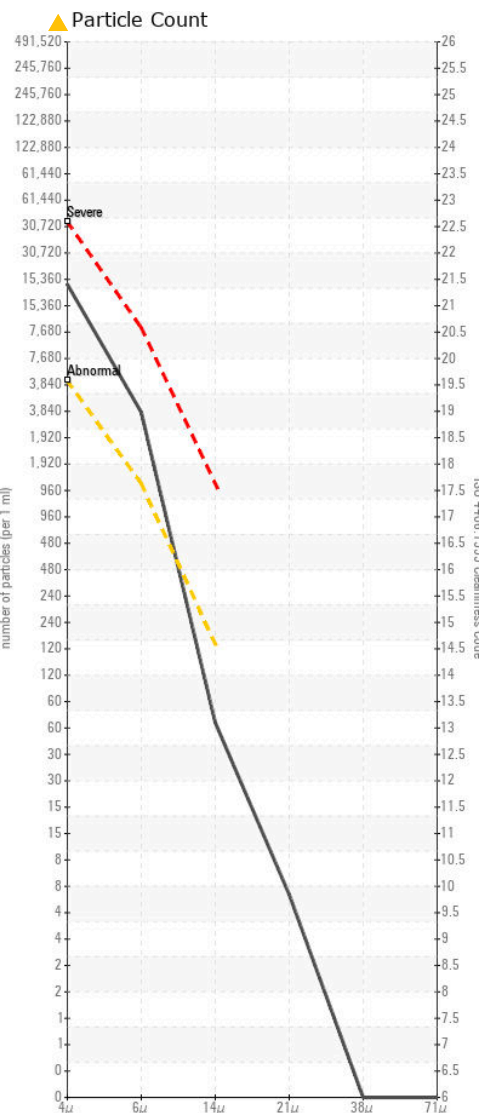
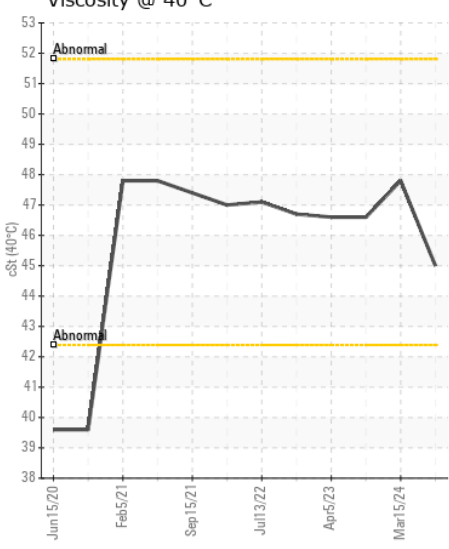
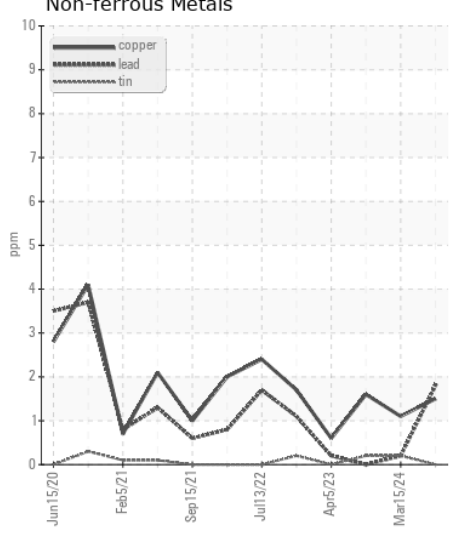
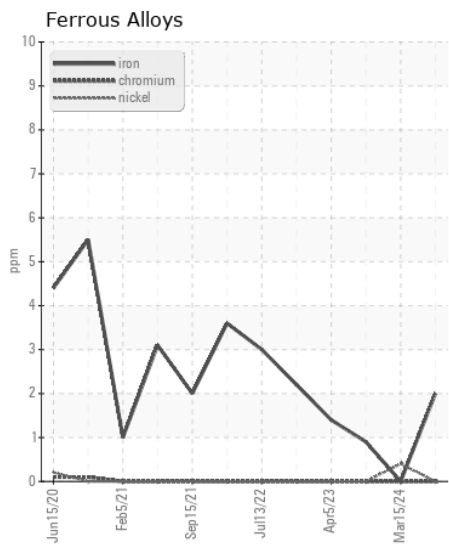
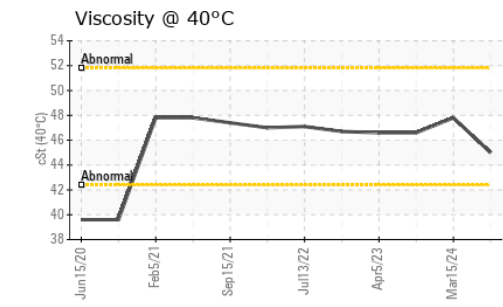
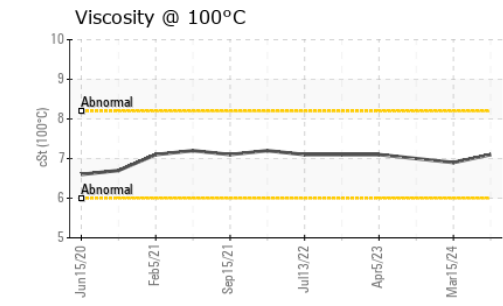
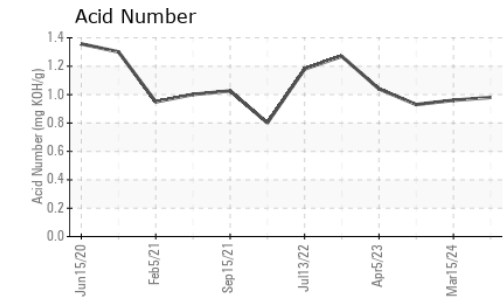
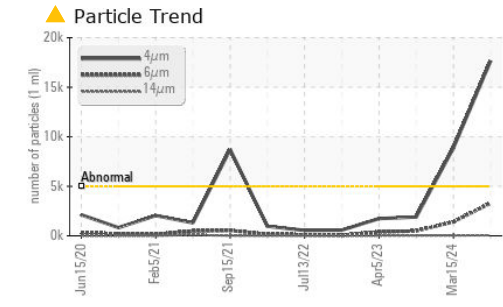
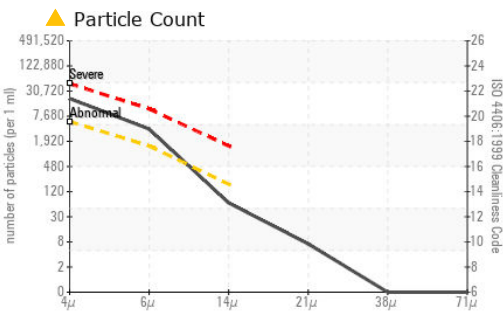
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	1
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	1
Water	%	ASTM D6304	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>▲ 17659</b>	● 8862	1897
Particles >6µm		ASTM D7647	>1300	<b>▲ 3303</b>	● 1408	487
Particles >14µm		ASTM D7647	>160	<b>57</b>	36	32
Particles >21µm		ASTM D7647	>40	<b>6</b>	8	8
Particles >38µm		ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 21/19/13</b>	● 20/18/12	18/16/12
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	LIGHT
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 oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>4</b>	5	6
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>192</b>	222	213
Calcium	ppm	ASTM D5185m		<b>139</b>	202	200
Phosphorus	ppm	ASTM D5185m		<b>707</b>	756	746
Zinc	ppm	ASTM D5185m		<b>878</b>	950	934
Sulfur	ppm	ASTM D5185m		<b>3275</b>	3369	3481
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.98</b>	0.96	0.93
Visc @ 40°C	cSt	ASTM D445		<b>45.0</b>	47.8	46.6
Visc @ 100°C	cSt	ASTM D445		<b>7.1</b>	6.9	7
Viscosity Index (VI)	Scale	ASTM D2270		<b>117</b>	98	107



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO10003696 **Received** : 05 Jul 2024  
**Lab Number** : 06229101 **Tested** : 09 Jul 2024  
**Unique Number** : 11112594 **Diagnosed** : 09 Jul 2024 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: KF, KV100, VI )  
 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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