



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ATTENTION</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**CATERPILLAR 938M CAT0938MKJ3R07460**  
Component  
**Hydraulic System**  
Fluid  
**CAT HYDO (--- GAL)**

### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0198817</b>	JR0155278	JR0050053
Sample Date		Client Info		<b>17 Jan 2024</b>	06 Feb 2023	13 May 2020
Machine Age	hrs	Client Info		<b>5802</b>	4331	1013
Oil Age	hrs	Client Info		<b>5802</b>	0	1013
Filter Age	hrs	Client Info		<b>0</b>	0	1013
Oil Changed		Client Info		<b>Not Chngd</b>	N/A	Not Chngd
Filter Changed		Client Info		<b>Not Chngd</b>	N/A	Not Chngd
Sample Status				<b>ATTENTION</b>	NORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	<b>0</b>	10	5
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	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>0</b>	0	<1
Lead	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>75	<b>3</b>	5	6
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

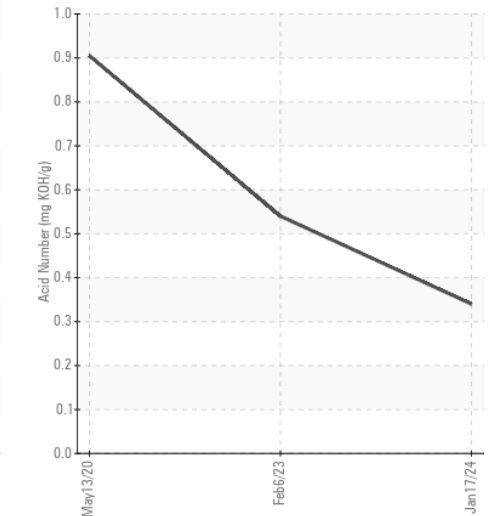
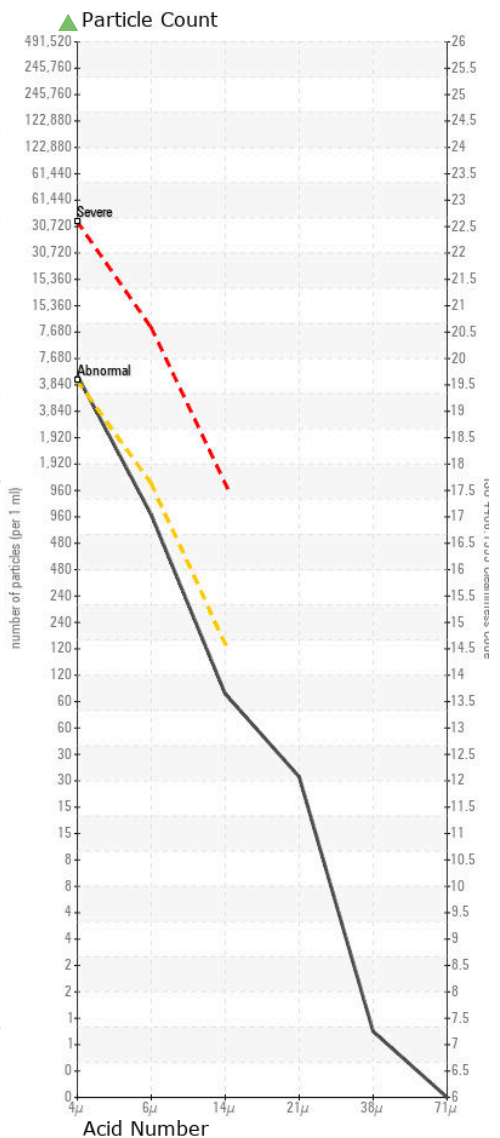
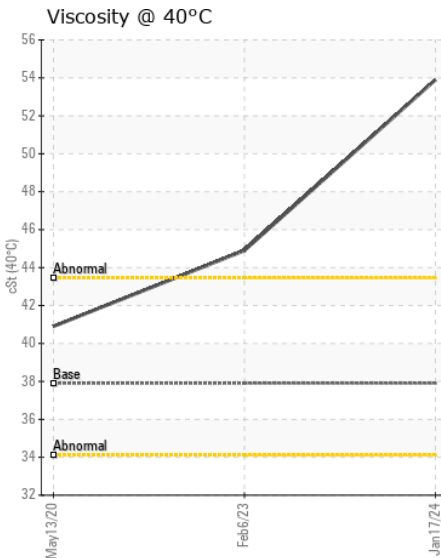
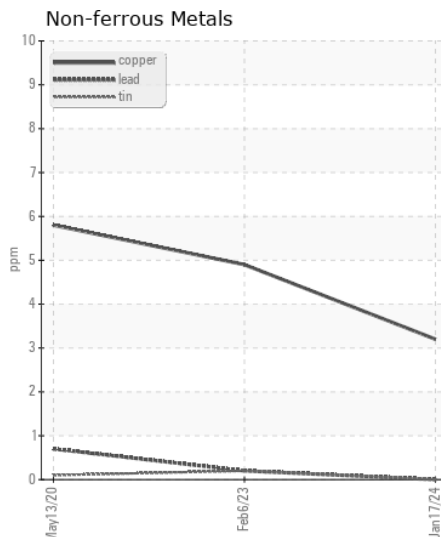
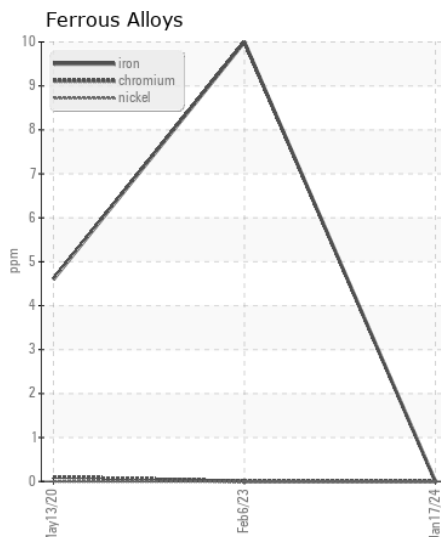
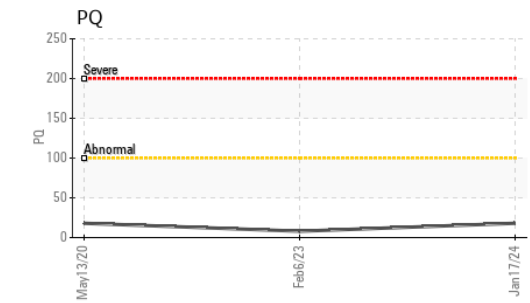
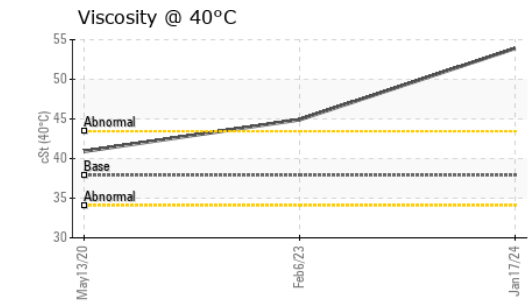
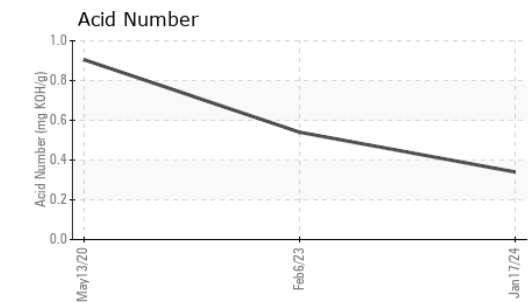
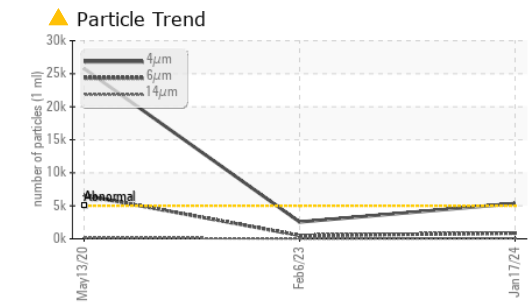
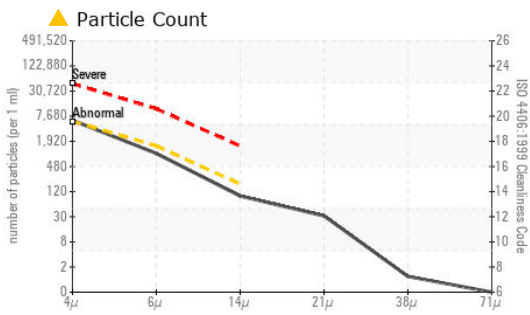
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>1</b>	2	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>▲ 5354</b>	2551	▲ 25791
Particles >6µm		ASTM D7647	>1300	<b>865</b>	503	▲ 6579
Particles >14µm		ASTM D7647	>160	<b>83</b>	42	147
Particles >21µm		ASTM D7647	>40	<b>28</b>	9	30
Particles >38µm		ASTM D7647	>10	<b>1</b>	1	7
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 20/17/14</b>	19/16/13	▲ 22/20/14
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	VLITE
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>0</b>	<1	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>16</b>	11	2
Calcium	ppm	ASTM D5185m		<b>155</b>	243	171
Phosphorus	ppm	ASTM D5185m	1100	<b>470</b>	570	684
Zinc	ppm	ASTM D5185m	1210	<b>580</b>	770	912
Sulfur	ppm	ASTM D5185m		<b>1154</b>	1659	1525
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.34</b>	0.54	0.905
Visc @ 40°C	cSt	ASTM D445	37.9	<b>53.9</b>	44.9	40.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0198817 **Received** : 19 Jan 2024  
**Lab Number** : 06065508 **Diagnosed** : 23 Jan 2024  
**Unique Number** : 10836890 **Diagnostician** : Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

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)

**JRE - CHARLOTTE**  
 9550 STATESVILLE ROAD  
 CHARLOTTE, NC  
 US 28269  
 Contact: CHARLOTTE SHOP  
 myoung@jamesriverequipment.com  
 T: (704)597-0211  
 F: (704)596-6198