



# OIL ANALYSIS REPORT

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



Area  
**AMR-St Louis**  
Machine Id  
**574220 CATERPILLAR 980H CAT0980HTJMS06047**  
Component  
**Front Differential**  
Fluid  
**SHELL 50W (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DJJ0020773</b>	DJJ0012382	DJJ0012615
Sample Date		Client Info		<b>15 Feb 2024</b>	19 Apr 2023	11 Oct 2022
Machine Age	hrs	Client Info		<b>16481</b>	15261	14646
Oil Age	hrs	Client Info		<b>1000</b>	2000	1500
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Changed	Not Chngd
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>15</b>	48	33
Chromium	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>30	<b>&lt;1</b>	2	2
Lead	ppm	ASTM D5185m	>13	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>103	<b>1</b>	6	4
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	MODER	NONE

## CONTAMINATION

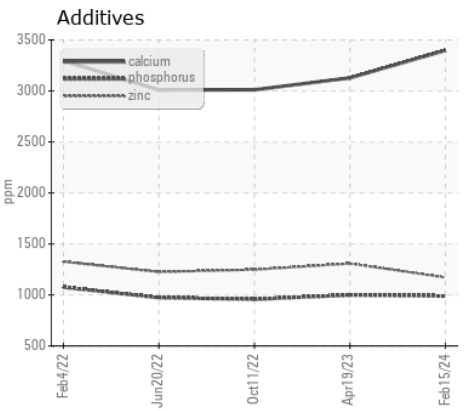
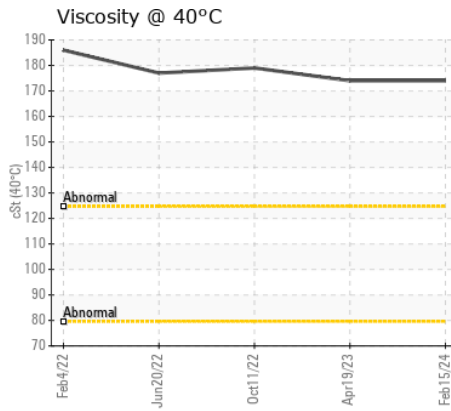
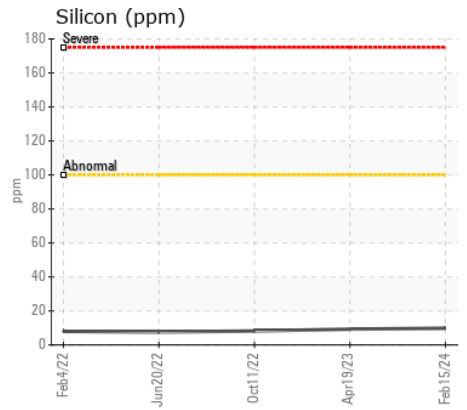
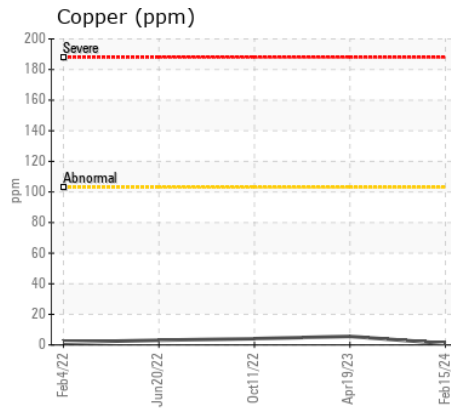
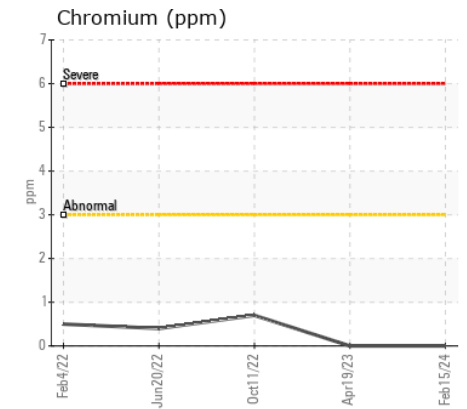
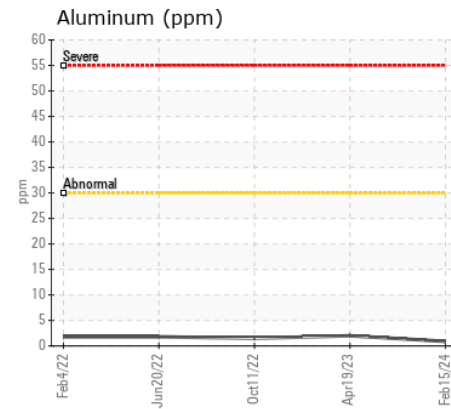
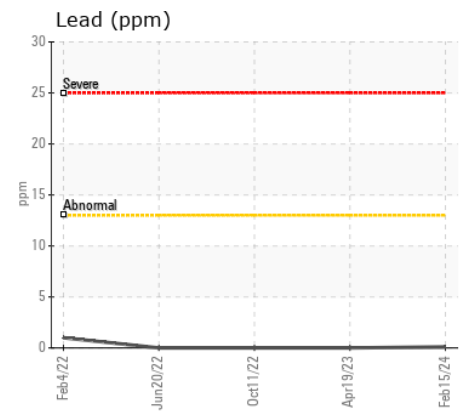
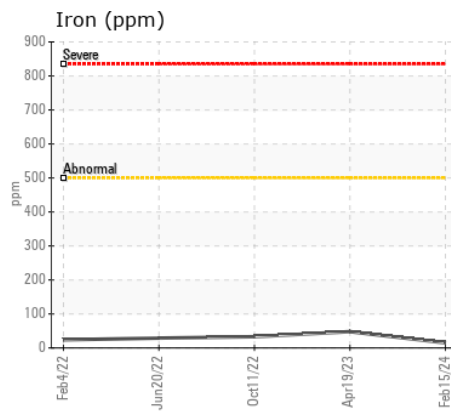
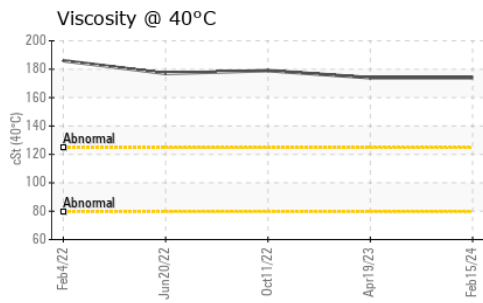
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>100	<b>10</b>	9	8
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Water		WC Method	>.2	<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	>.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Boron	ppm	ASTM D5185m		<b>8</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>15</b>	26	19
Calcium	ppm	ASTM D5185m		<b>3397</b>	3128	3011
Phosphorus	ppm	ASTM D5185m		<b>989</b>	999	957
Zinc	ppm	ASTM D5185m		<b>1171</b>	1308	1248
Sulfur	ppm	ASTM D5185m		<b>7117</b>	13020	12793
Visc @ 40°C	cSt	ASTM D445		<b>174</b>	174	179



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0020773  
**Lab Number** : 06105592  
**Unique Number** : 10903822  
**Test Package** : MOBCE

**Received** : 29 Feb 2024  
**Tested** : 01 Mar 2024  
**Diagnosed** : 01 Mar 2024 - Wes Davis

**ADVANTAGE METALS RECYCLING - ST LOUIS**  
 5 N MARKET  
 ST LOUIS, MO  
 US 63102  
 Contact: JIM BRAZILL  
 jim.brazill@advantagerecycling.com

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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F: