



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



Machine Id  
**CATERPILLAR FRANCES SWAYZE**  
Component  
**Port Main Engine**  
Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (89 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0056779</b>	---	---
Sample Date		Client Info		<b>19 Dec 2023</b>	---	---
Machine Age	hrs	Client Info		<b>33911</b>	---	---
Oil Age	hrs	Client Info		<b>261</b>	---	---
Filter Age	hrs	Client Info		<b>261</b>	---	---
Oil Changed		Client Info		<b>Not Chngd</b>	---	---
Filter Changed		Client Info		<b>Not Chngd</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>6</b>	---	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	---	---
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m		<b>4</b>	---	---
Silver	ppm	ASTM D5185m	>5	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>2</b>	---	---
Copper	ppm	ASTM D5185m	>300	<b>15</b>	---	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

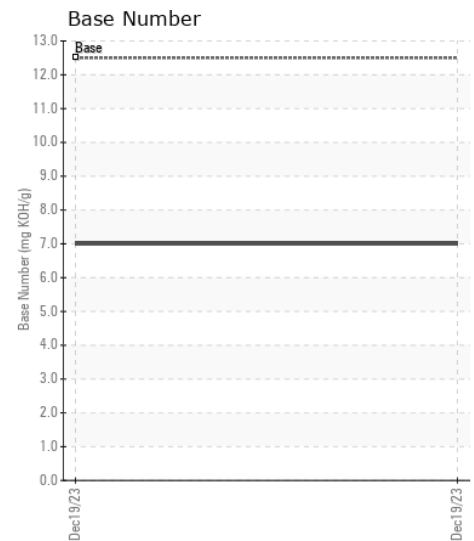
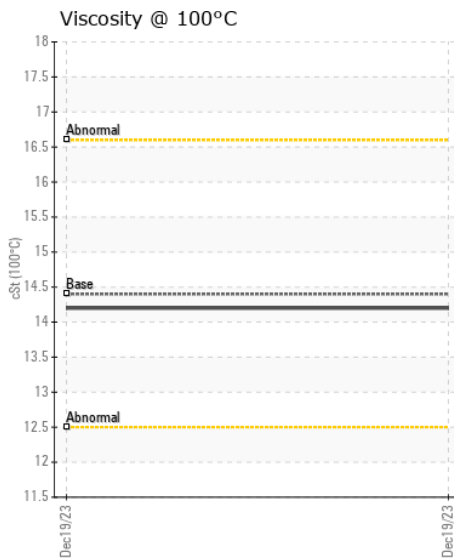
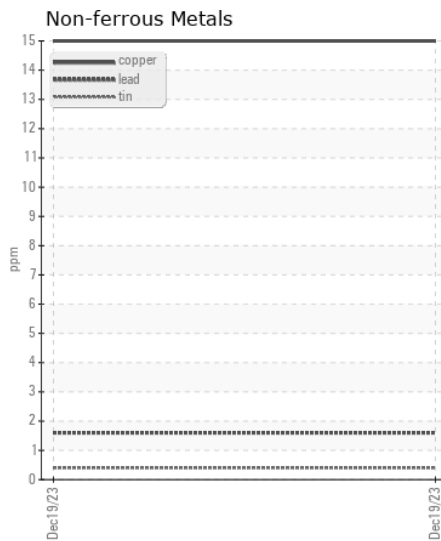
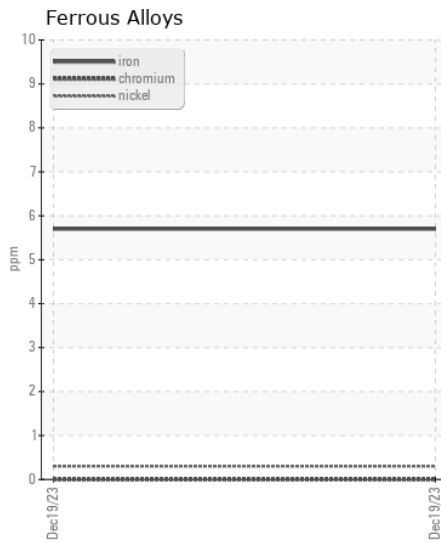
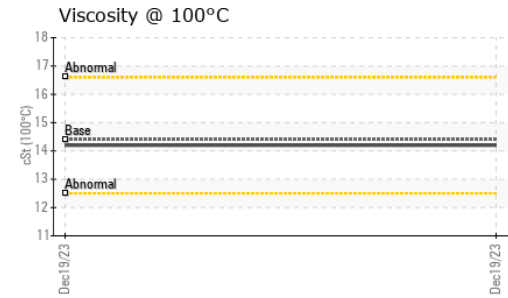
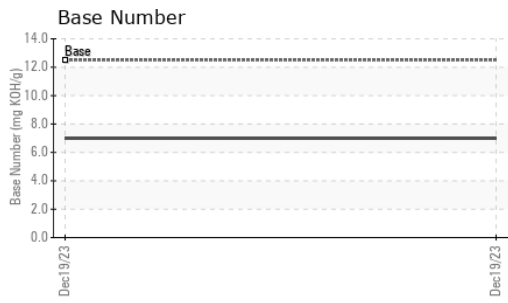
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>3</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	---	---
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.1	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844		<b>0.2</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.5</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	---	---

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	---	---
Boron	ppm	ASTM D5185m	151	<b>171</b>	---	---
Barium	ppm	ASTM D5185m	0.4	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	250	<b>41</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m	0	<b>361</b>	---	---
Calcium	ppm	ASTM D5185m	2046	<b>1691</b>	---	---
Phosphorus	ppm	ASTM D5185m	1043	<b>892</b>	---	---
Zinc	ppm	ASTM D5185m	943	<b>1053</b>	---	---
Sulfur	ppm	ASTM D5185m	5012	<b>3102</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.1</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	<b>7.0</b>	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.2</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0056779 **Received** : 17 Jan 2024  
**Lab Number** : 06063376 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10834758 **Diagnostician** : Wes Davis  
**Test Package** : MAR 2

**MAGNOLIA MARINE TRANSPORT**  
 697 HAINING ROAD  
 VICKSBURG, MS  
 US 39183

Contact: MMT MAINTENANCE PLANNERS  
 mmtmaintenanceplanners@ergon.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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