



# OIL ANALYSIS REPORT

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

Machine Id  
**957**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 10W30 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0036006</b>	DC0022173	DC0022103
Sample Date		Client Info		<b>15 May 2024</b>	13 Sep 2022	24 Jun 2022
Machine Age	mls	Client Info		<b>132495</b>	89851	80739
Oil Age	mls	Client Info		<b>15000</b>	0	0
Filter Age	mls	Client Info		<b>15000</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>26</b>	17	12
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	15	6
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>3</b>	1	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</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

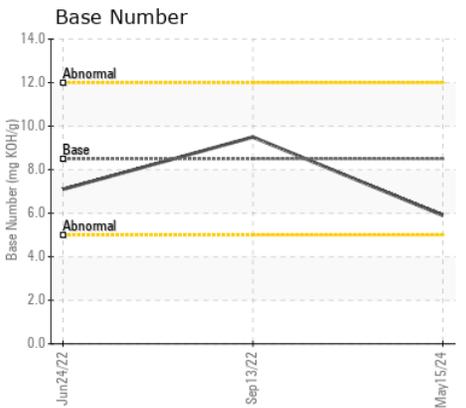
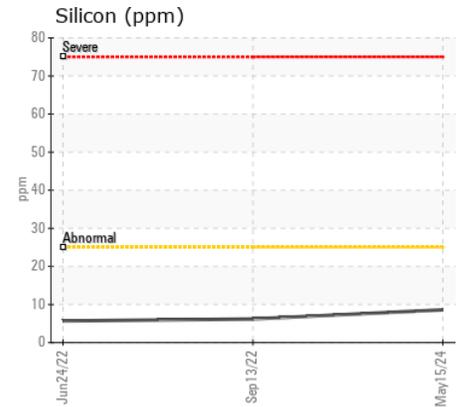
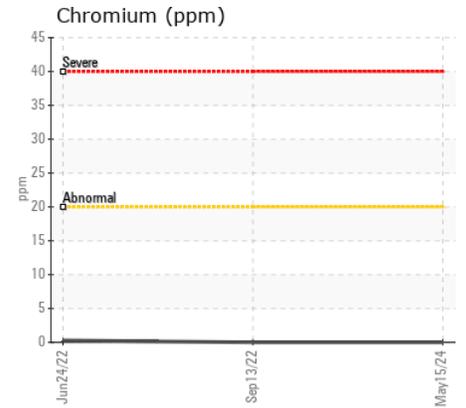
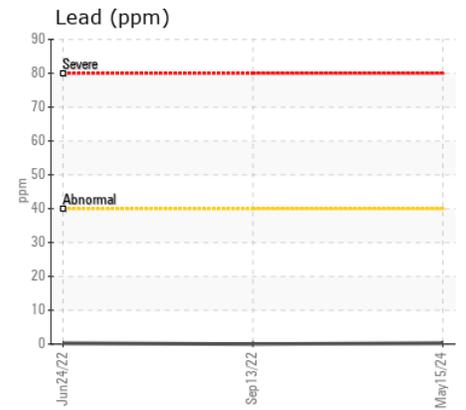
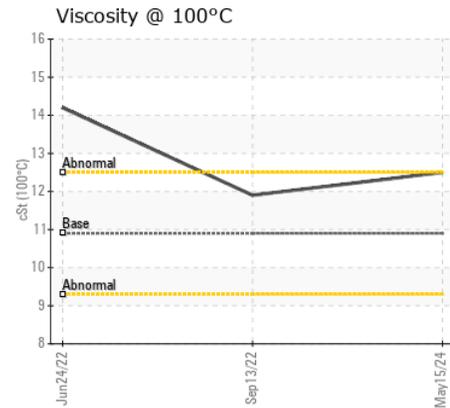
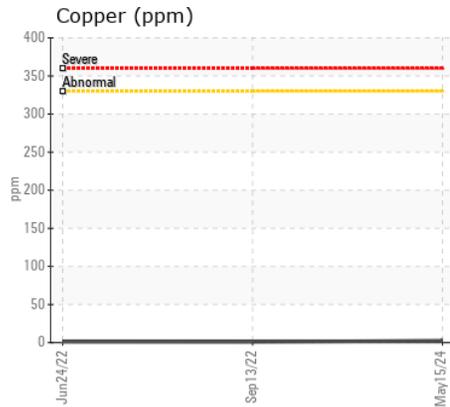
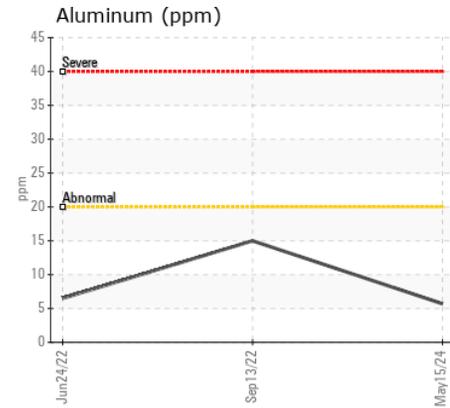
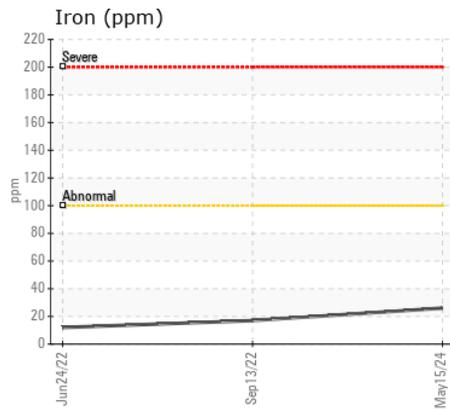
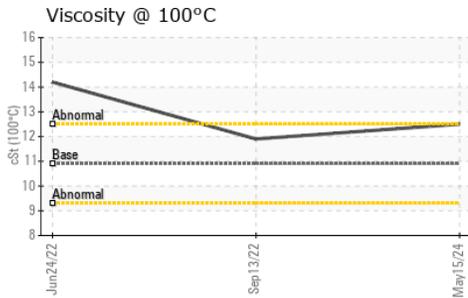
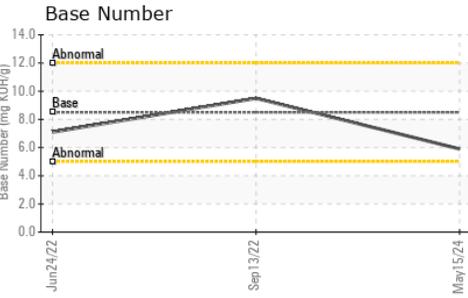
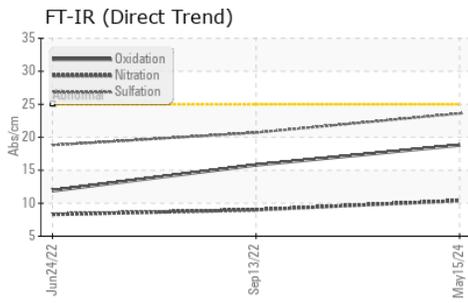
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>9</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>13</b>	33	14
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.4</b>	9.0	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.6</b>	20.7	18.8
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	>0.2	<b>NEG</b>	NEG	NEG

## 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>2</b>	2	<1
Boron	ppm	ASTM D5185m	250	<b>4</b>	6	5
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>49</b>	45	9
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>801</b>	706	121
Calcium	ppm	ASTM D5185m	3000	<b>1347</b>	1313	2181
Phosphorus	ppm	ASTM D5185m	1150	<b>1048</b>	904	869
Zinc	ppm	ASTM D5185m	1350	<b>1238</b>	1080	1047
Sulfur	ppm	ASTM D5185m	4250	<b>3531</b>	3536	3873
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.8</b>	15.8	11.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>5.9</b>	9.5	7.1
Visc @ 100°C	cSt	ASTM D445	10.9	<b>12.5</b>	11.9	14.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0036006 **Received** : 28 May 2024  
**Lab Number** : 06193421 **Tested** : 30 May 2024  
**Unique Number** : 11050173 **Diagnosed** : 30 May 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**FRANCIS O DAY**  
 14900 SOUTHLAWN LN  
 ROCKVILLE, MD  
 US 20850  
 Contact: JAMIE FORESTER

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: