



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**12918**  
Component  
**Diesel Engine**  
Fluid  
**DURAMAX 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0035959</b>	DC0034854	DC0025099
Sample Date		Client Info		<b>20 May 2024</b>	07 Feb 2024	24 Oct 2022
Machine Age	hrs	Client Info		<b>6602</b>	6470	6233
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changd</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>22</b>	▲ 104	22
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	3
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	● 15	3
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>1</b>	2	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

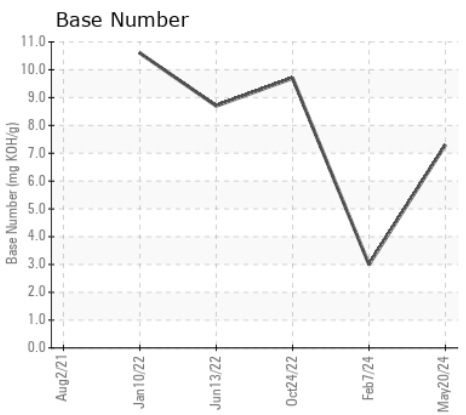
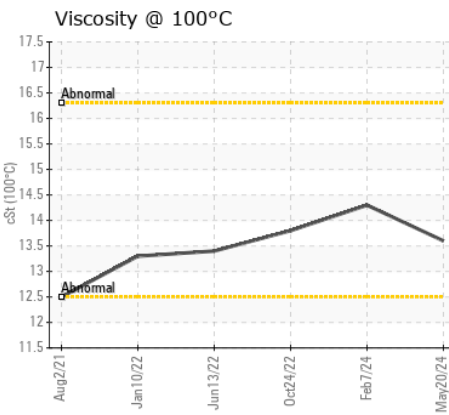
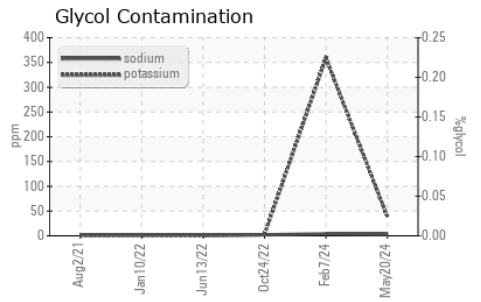
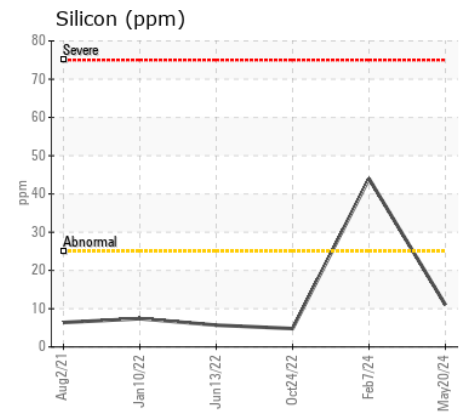
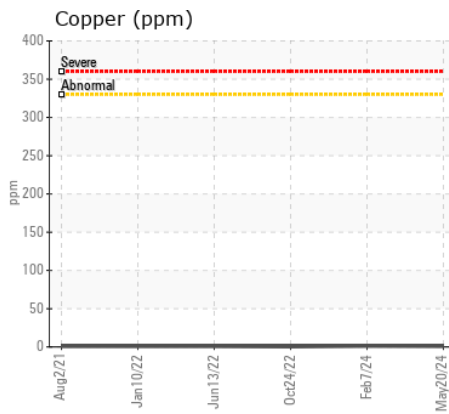
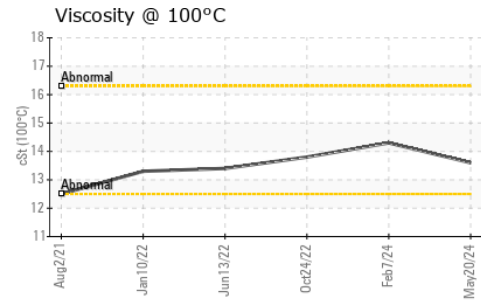
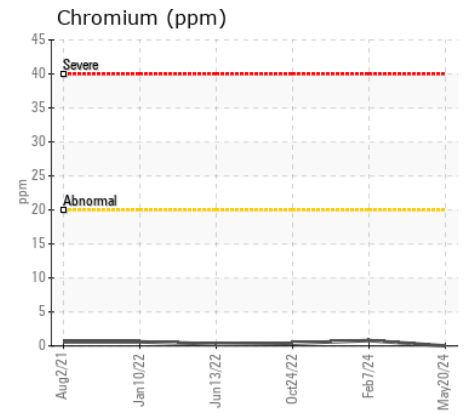
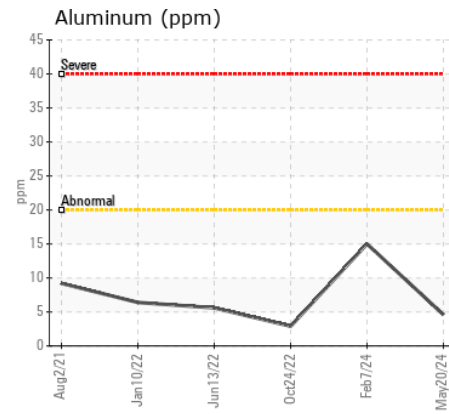
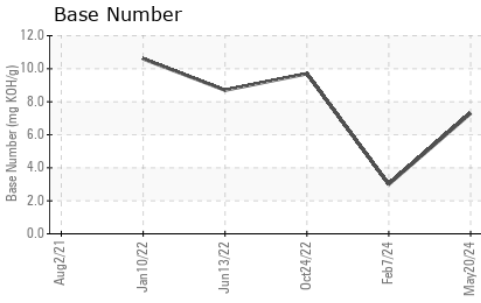
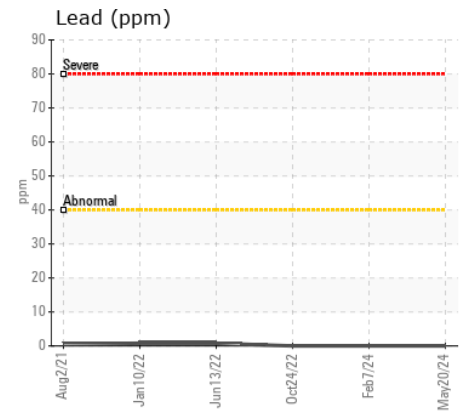
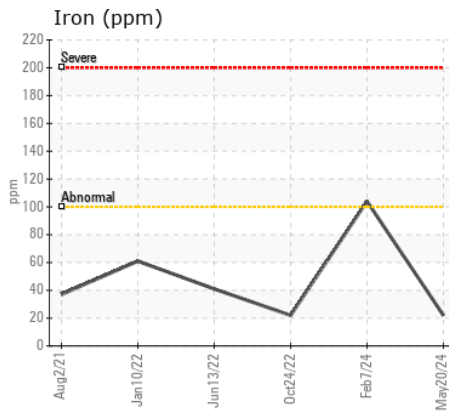
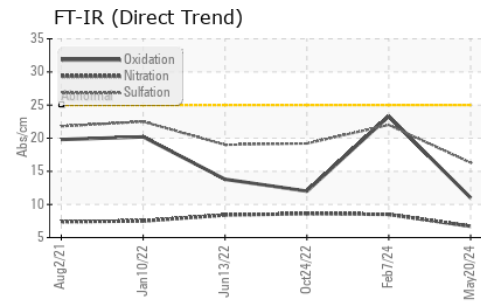
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>11</b>	▲ 44	5
Potassium	ppm	ASTM D5185m	>20	<b>39</b>	▲ 359	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.5	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.7</b>	8.5	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>16.3</b>	22.0	19.2
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>	4	2
Boron	ppm	ASTM D5185m		<b>41</b>	● 427	8
Barium	ppm	ASTM D5185m		<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m		<b>103</b>	● 950	5
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>53</b>	99	76
Calcium	ppm	ASTM D5185m		<b>2131</b>	● 732	2363
Phosphorus	ppm	ASTM D5185m		<b>833</b>	● 125	893
Zinc	ppm	ASTM D5185m		<b>961</b>	● 162	1089
Sulfur	ppm	ASTM D5185m		<b>4059</b>	● 2097	4199
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>11.0</b>	23.3	12
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.3</b>	▲ 3.0	9.7
Visc @ 100°C	cSt	ASTM D445		<b>13.6</b>	14.3	13.8



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0035959 **Received** : 17 Jun 2024  
**Lab Number** : 06211350 **Tested** : 19 Jun 2024  
**Unique Number** : 11084214 **Diagnosed** : 19 Jun 2024 - Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: Glycol, TBN )

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

Certificate L2367  
 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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