



# OIL ANALYSIS REPORT

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

Machine Id  
**DODGE M31717**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 40 (12 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0034078</b>	DC0026326	DC0024125
Sample Date		Client Info		<b>13 May 2024</b>	26 Apr 2023	30 Dec 2022
Machine Age	mls	Client Info		<b>213155</b>	0	159128
Oil Age	mls	Client Info		<b>4378</b>	0	3613
Filter Age	mls	Client Info		<b>4378</b>	0	3613
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>80</b>	45	56
Chromium	ppm	ASTM D5185m	>10	<b>2</b>	<1	1
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>9</b>	6	7
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>300	<b>3</b>	1	2
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

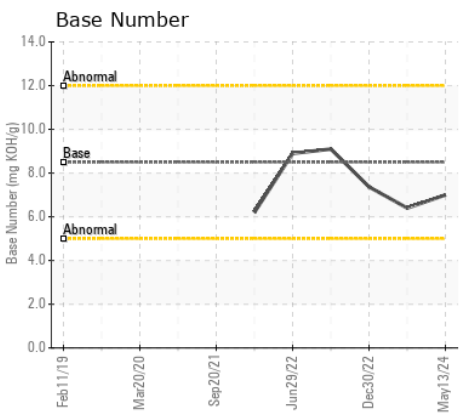
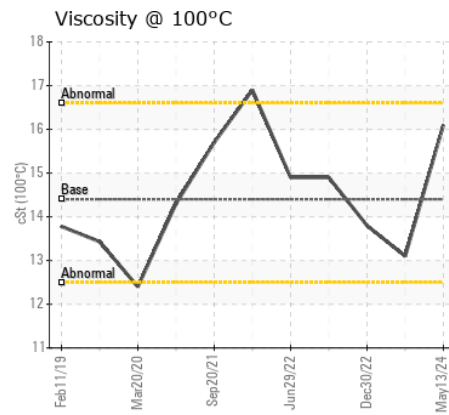
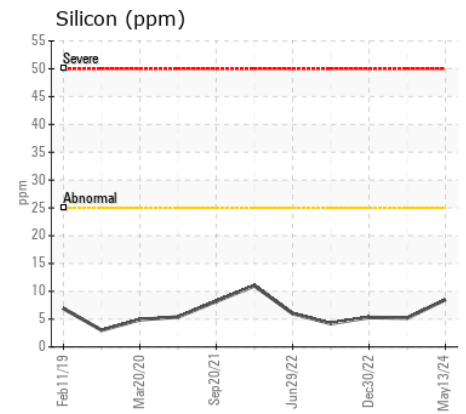
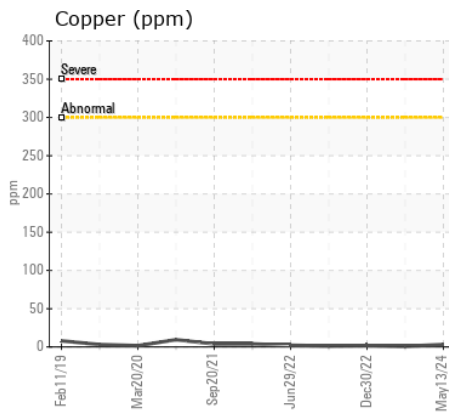
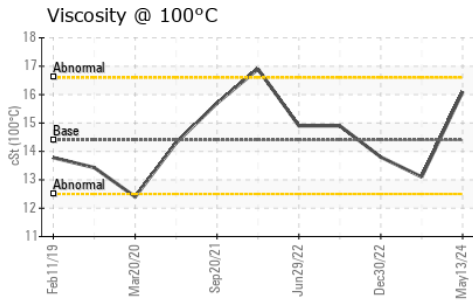
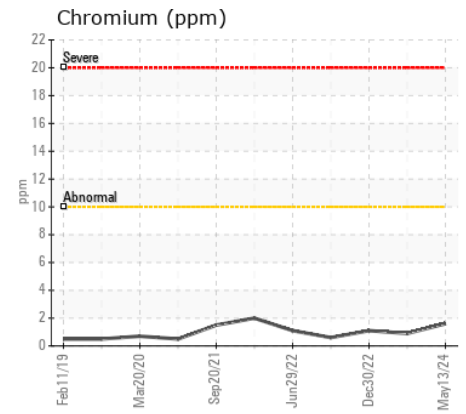
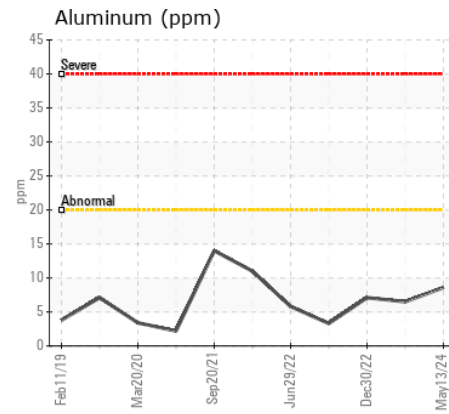
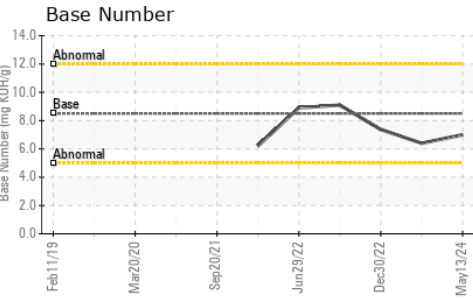
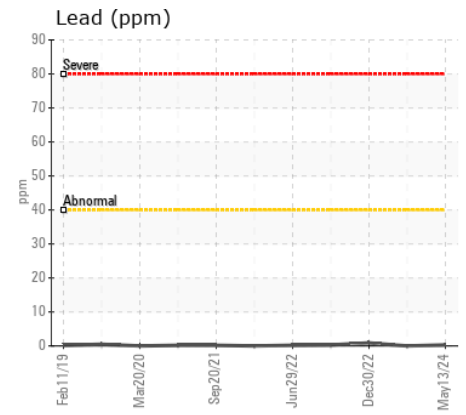
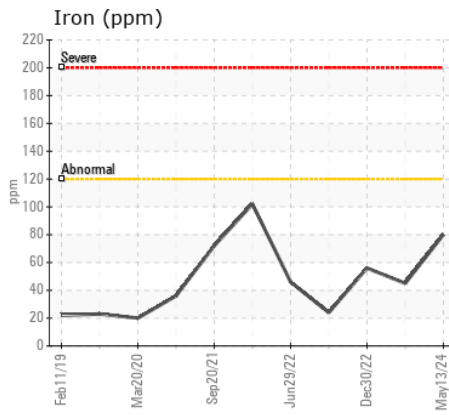
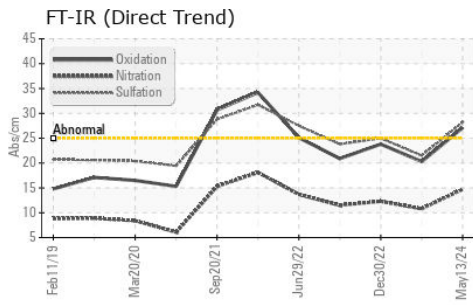
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	5	8
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>1.2</b>	1	1
Nitration	Abs/cm	*ASTM D7624	>20	<b>14.7</b>	10.8	12.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>28.2</b>	21.5	25.0
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	>0.1	<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	>216	<b>8</b>	3	4
Boron	ppm	ASTM D5185m	250	<b>0</b>	1	<1
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>67</b>	61	65
Manganese	ppm	ASTM D5185m		<b>3</b>	1	2
Magnesium	ppm	ASTM D5185m	450	<b>1043</b>	1027	1029
Calcium	ppm	ASTM D5185m	3000	<b>1190</b>	1105	1167
Phosphorus	ppm	ASTM D5185m	1150	<b>1094</b>	1015	1025
Zinc	ppm	ASTM D5185m	1350	<b>1403</b>	1268	1335
Sulfur	ppm	ASTM D5185m	4250	<b>2870</b>	3100	3264
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>27.1</b>	20.3	23.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.0</b>	6.4	7.37
Visc @ 100°C	cSt	ASTM D445	14.4	<b>16.1</b>	13.1	13.8



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0034078 **Received** : 10 Jul 2024  
**Lab Number** : 06232134 **Tested** : 11 Jul 2024  
**Unique Number** : 11115627 **Diagnosed** : 11 Jul 2024 - Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**M&M FLEET**  
 5046 BUCHANAN ST.  
 HYATTSVILLE, MD  
 US 20781  
 Contact: June McClosky  
 office@mmfleet.net  
 T: (301)779-4545  
 F: x:

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)