



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

Machine Id  
**C03**  
Component  
**Diesel Engine**  
Fluid  
**VALVOLINE 15W40 (--- GAL)**

### RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>IL0028395</b>	IL0034222	IL05952598
Sample Date		Client Info		<b>01 Feb 2024</b>	05 Nov 2023	16 Aug 2023
Machine Age	mls	Client Info		<b>135995</b>	129979	117005
Oil Age	mls	Client Info		<b>0</b>	0	12000
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>30</b>	26	15
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>10</b>	7	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>3</b>	3	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
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

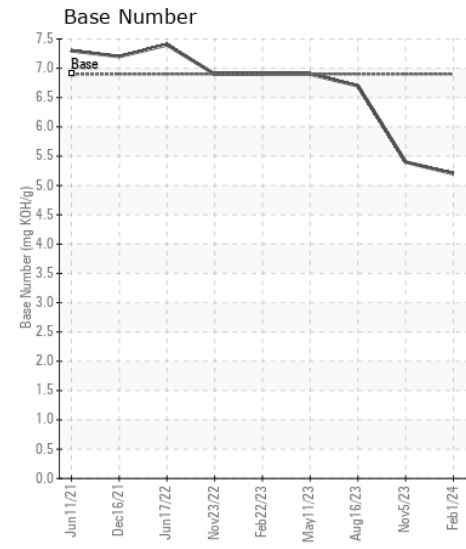
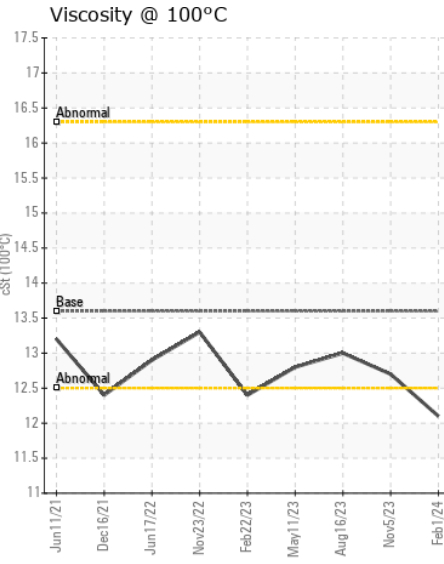
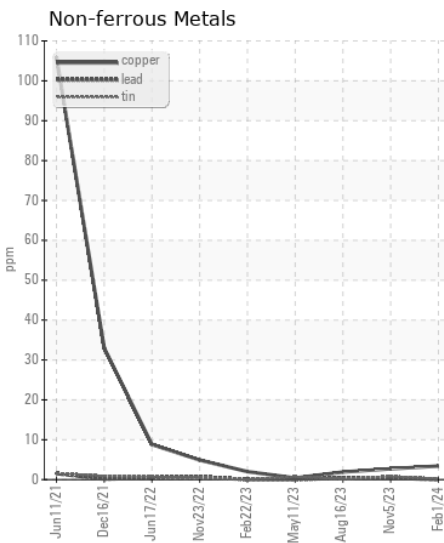
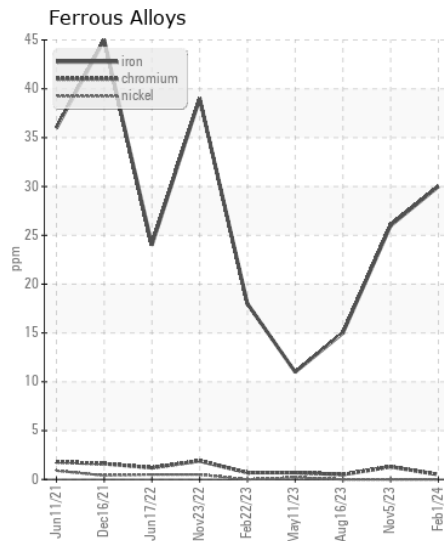
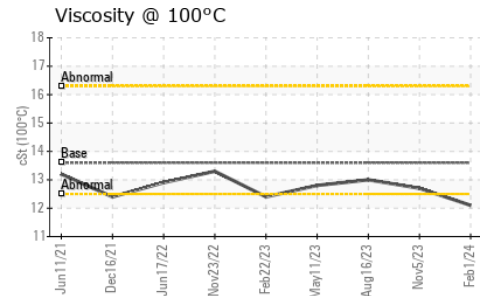
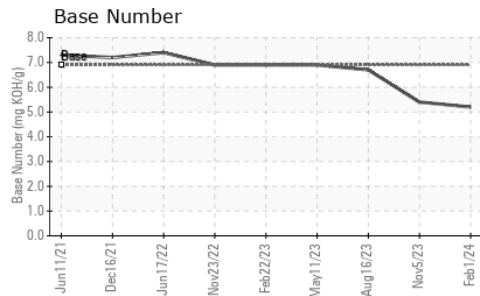
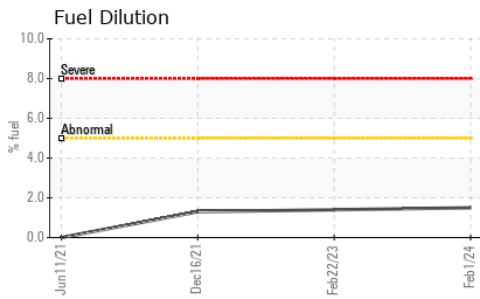
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	8	7
Potassium	ppm	ASTM D5185m	>20	<b>22</b>	11	11
Fuel	%	ASTM D3524	>5	<b>1.5</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>0.6</b>	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.0</b>	11.2	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.7</b>	24.4	22.7
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>0</b>	3	2
Boron	ppm	ASTM D5185m	39	<b>20</b>	37	137
Barium	ppm	ASTM D5185m	1	<b>25</b>	0	0
Molybdenum	ppm	ASTM D5185m	49	<b>83</b>	70	80
Manganese	ppm	ASTM D5185m	1	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	616	<b>645</b>	559	537
Calcium	ppm	ASTM D5185m	1554	<b>1202</b>	1250	1444
Phosphorus	ppm	ASTM D5185m	899	<b>772</b>	771	911
Zinc	ppm	ASTM D5185m	1069	<b>899</b>	1014	1172
Sulfur	ppm	ASTM D5185m	2624	<b>2561</b>	2604	3640
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>23.0</b>	23.4	19.3
Base Number (BN)	mg KOH/g	ASTM D2896	6.9	<b>5.2</b>	5.4	6.7
Visc @ 100°C	cSt	ASTM D445	13.6	<b>12.1</b>	12.7	13.0



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL0028395 **Received** : 09 Feb 2024  
**Lab Number** : 06084582 **Tested** : 13 Feb 2024  
**Unique Number** : 10872027 **Diagnosed** : 13 Feb 2024 - Wes Davis  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

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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)