



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

Machine Id  
**INTERNATIONAL 8017214**  
Component  
**Diesel Engine**  
Fluid  
**VALVOLINE 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>IL0035073</b>	IL0034313	IL05832374
Sample Date		Client Info		<b>17 Jan 2024</b>	17 Oct 2023	18 Apr 2023
Machine Age	mls	Client Info		<b>402515</b>	374244	312882
Oil Age	mls	Client Info		<b>0</b>	0	0
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>	Changed	N/A
Sample Status				<b>NORMAL</b>	ATTENTION	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>11</b>	15	14
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>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	3	4
Lead	ppm	ASTM D5185m	>40	<b>1</b>	3	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	0
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

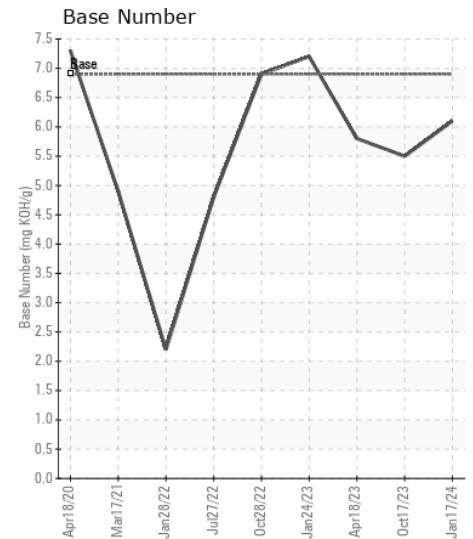
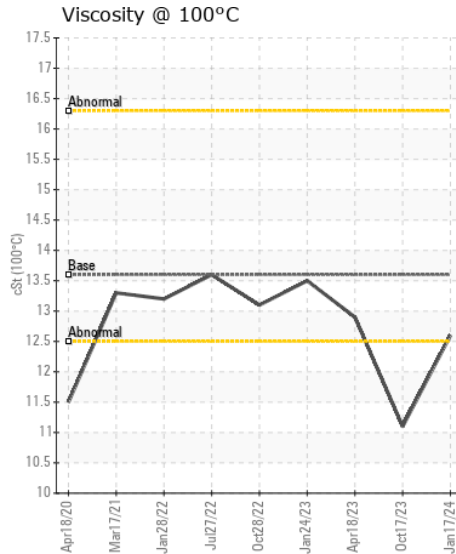
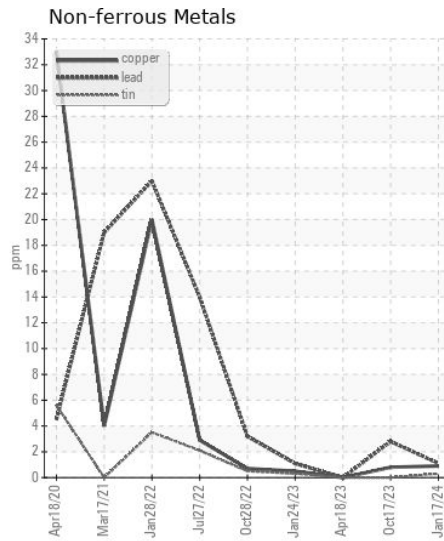
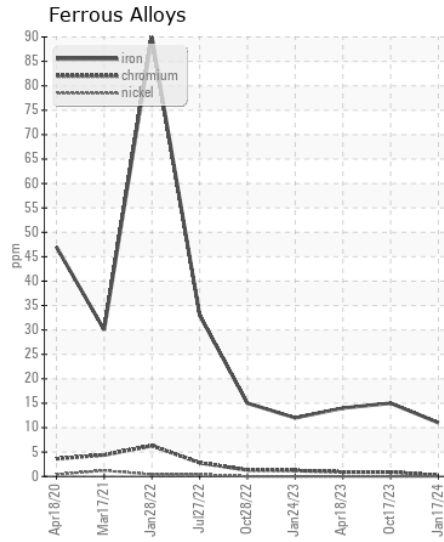
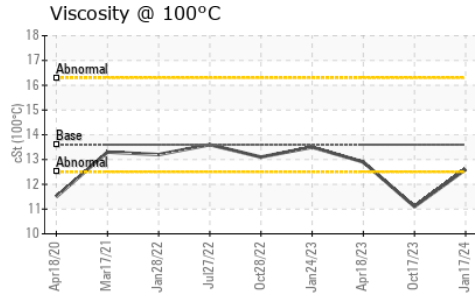
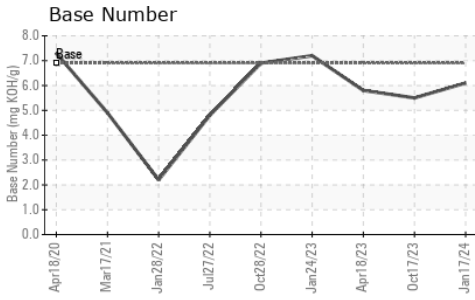
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	6	5
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	5	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	0.4	<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>0.3</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.8</b>	9.2	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.9</b>	21.0	22.5
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>	0	2
Boron	ppm	ASTM D5185m	39	<b>126</b>	39	75
Barium	ppm	ASTM D5185m	1	<b>25</b>	0	0
Molybdenum	ppm	ASTM D5185m	49	<b>87</b>	91	71
Manganese	ppm	ASTM D5185m	1	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	616	<b>519</b>	538	665
Calcium	ppm	ASTM D5185m	1554	<b>1268</b>	1262	1371
Phosphorus	ppm	ASTM D5185m	899	<b>938</b>	717	814
Zinc	ppm	ASTM D5185m	1069	<b>1085</b>	909	1086
Sulfur	ppm	ASTM D5185m	2624	<b>3008</b>	2781	2995
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.4</b>	16.5	19.2
Base Number (BN)	mg KOH/g	ASTM D2896	6.9	<b>6.1</b>	5.5	5.8
Visc @ 100°C	cSt	ASTM D445	13.6	<b>12.6</b>	▲ 11.1	12.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : IL0035073

Lab Number : 06084599

Unique Number : 10872044

Test Package : FLEET

Received : 09 Feb 2024

Tested : 12 Feb 2024

Diagnosed : 12 Feb 2024 - Wes Davis

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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)