



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**INTERNATIONAL 5919050**  
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>IL0035431</b>	IL0028407	IL0033227
Sample Date		Client Info		<b>03 May 2024</b>	01 Feb 2024	31 Oct 2023
Machine Age	mls	Client Info		<b>373141</b>	361025	0
Oil Age	mls	Client Info		<b>0</b>	0	350694
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>45</b>	31	▲ 118
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	<1	3
Nickel	ppm	ASTM D5185m	>4	<b>1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>7</b>	5	13
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>3</b>	2	13
Tin	ppm	ASTM D5185m	>15	<b>1</b>	0	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
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.

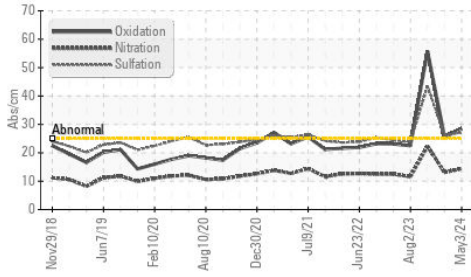
Silicon	ppm	ASTM D5185m	>25	<b>11</b>	7	15
Potassium	ppm	ASTM D5185m	>20	<b>13</b>	22	11
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.4	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>14.4</b>	13.1	22.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>27.1</b>	26.1	43.5
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

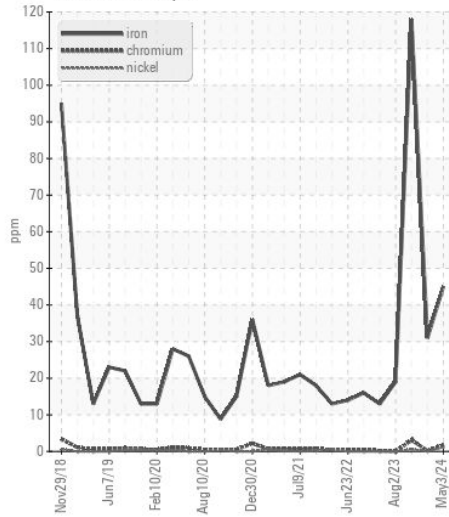
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>8</b>	6	7
Boron	ppm	ASTM D5185m	39	<b>62</b>	72	32
Barium	ppm	ASTM D5185m	1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	49	<b>113</b>	82	171
Manganese	ppm	ASTM D5185m	1	<b>1</b>	0	1
Magnesium	ppm	ASTM D5185m	616	<b>1324</b>	720	1263
Calcium	ppm	ASTM D5185m	1554	<b>2204</b>	1545	2435
Phosphorus	ppm	ASTM D5185m	899	<b>1310</b>	936	1467
Zinc	ppm	ASTM D5185m	1069	<b>1620</b>	1185	1859
Sulfur	ppm	ASTM D5185m	2624	<b>4268</b>	2747	3456
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>28.5</b>	25.6	55.7
Base Number (BN)	mg KOH/g	ASTM D2896	6.9	<b>6.2</b>	6.1	▲ 2.0
Visc @ 100°C	cSt	ASTM D445	13.6	<b>14.1</b>	13.3	▲ 16.6

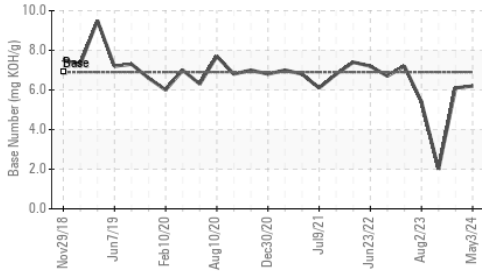
**FT-IR (Direct Trend)**



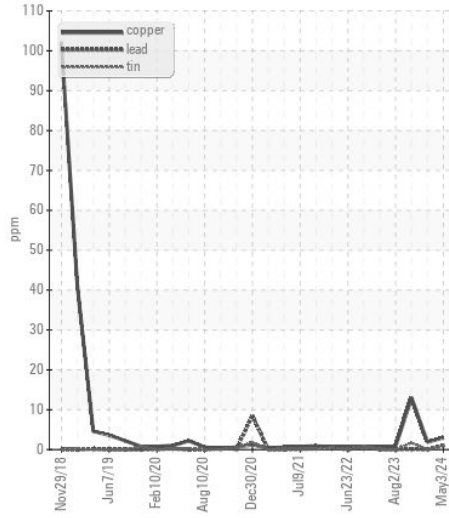
**Ferrous Alloys**



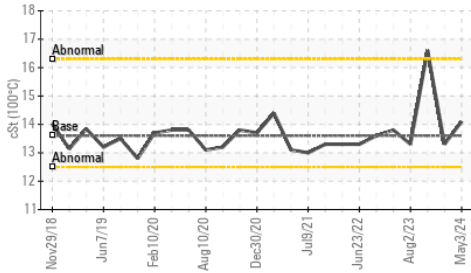
**Base Number**



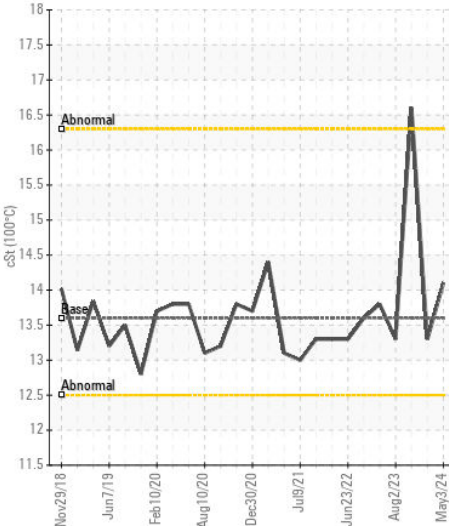
**Non-ferrous Metals**



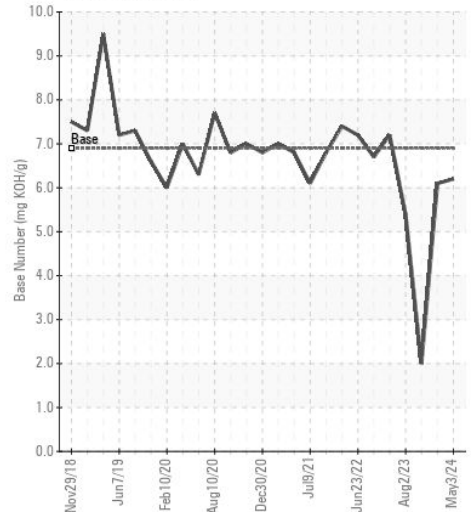
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL0035431  
**Lab Number** : 06193590  
**Unique Number** : 11050342  
**Test Package** : FLEET

**Received** : 29 May 2024  
**Tested** : 30 May 2024  
**Diagnosed** : 30 May 2024 - Sean Felton

**TAMPA IDEALEASE**  
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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)