



WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
INTERNATIONAL 441424

Component
Diesel Engine

Fluid
MOBIL DELVAC 1300 SUPER15W40 (44 QTS)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We advise that you check the fuel injection system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0030581	---	---
Sample Date		Client Info		09 Jan 2024	---	---
Machine Age	hrs	Client Info		24770	---	---
Oil Age	hrs	Client Info		24770	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	54	---	---
Chromium	ppm	ASTM D5185m	>20	1	---	---
Nickel	ppm	ASTM D5185m	>2	<1	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	<1	---	---
Aluminum	ppm	ASTM D5185m	>20	▲ 25	---	---
Lead	ppm	ASTM D5185m	>40	3	---	---
Copper	ppm	ASTM D5185m	>330	27	---	---
Tin	ppm	ASTM D5185m	>15	3	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

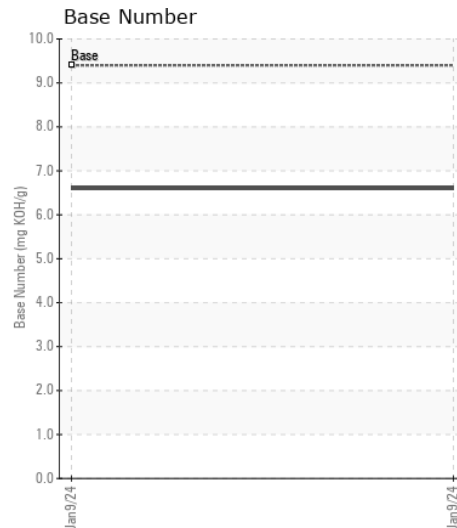
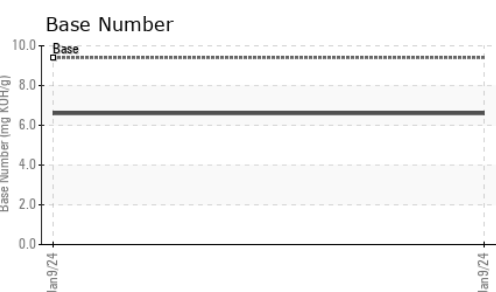
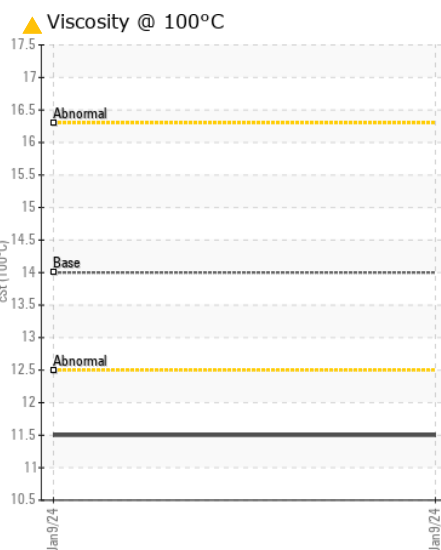
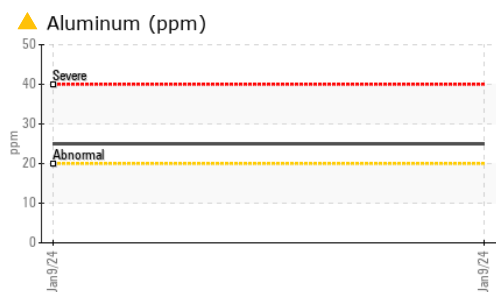
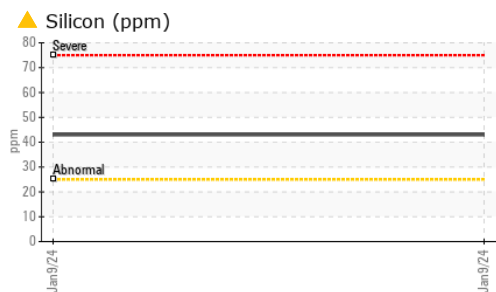
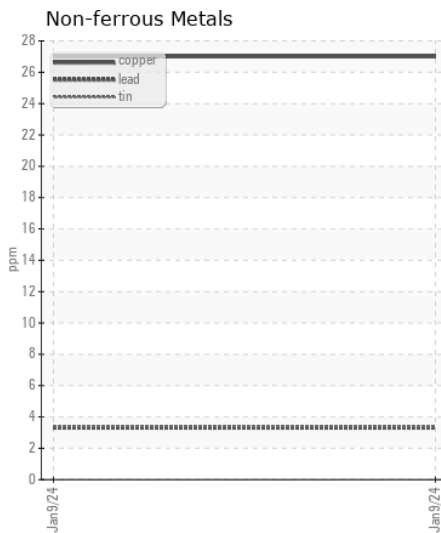
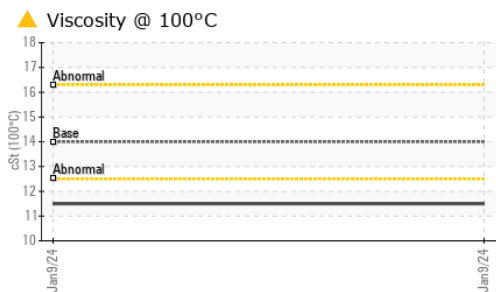
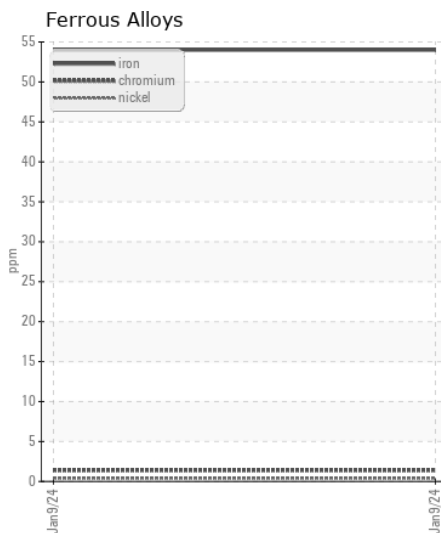
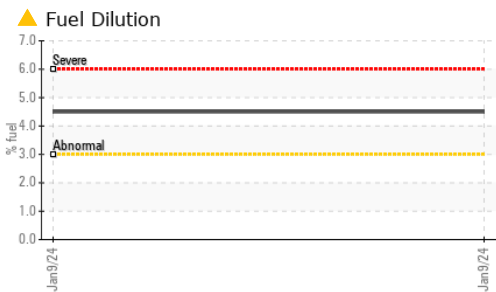
Elemental levels of silicon (Si) and aluminum (Al) indicate possible alumina-silicate (coarse dirt) ingress. There is a moderate amount of fuel present in the oil. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>25	▲ 43	---	---
Potassium	ppm	ASTM D5185m	>20	79	---	---
Fuel	%	ASTM D3524	>3.0	▲ 4.5	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>6	0.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	8.9	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		5	---	---
Boron	ppm	ASTM D5185m	0	52	---	---
Barium	ppm	ASTM D5185m	0	4	---	---
Molybdenum	ppm	ASTM D5185m	0	64	---	---
Manganese	ppm	ASTM D5185m		5	---	---
Magnesium	ppm	ASTM D5185m	0	493	---	---
Calcium	ppm	ASTM D5185m		1654	---	---
Phosphorus	ppm	ASTM D5185m		1036	---	---
Zinc	ppm	ASTM D5185m		1267	---	---
Sulfur	ppm	ASTM D5185m		3068	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	6.6	---	---
Visc @ 100°C	cSt	ASTM D445	14	▲ 11.5	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0030581 **Received** : 18 Jan 2024
Lab Number : 06064847 **Diagnosed** : 24 Jan 2024
Unique Number : 10836229 **Diagnostician** : Doug Bogart
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

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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)