



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
KENWORTH 426141-SW4617
 Component
Diesel Engine
 Fluid
MOBIL DELVAC ELITE 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0111274	GFL0111322	---
Sample Date		Client Info		12 Jul 2024	24 May 2024	---
Machine Age	hrs	Client Info		16725	16568	---
Oil Age	hrs	Client Info		157	16568	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	SEVERE	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	31	31	---
Chromium	ppm	ASTM D5185m	>20	2	1	---
Nickel	ppm	ASTM D5185m	>4	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	6	10	---
Lead	ppm	ASTM D5185m	>40	0	2	---
Copper	ppm	ASTM D5185m	>330	4	8	---
Tin	ppm	ASTM D5185m	>15	0	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

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

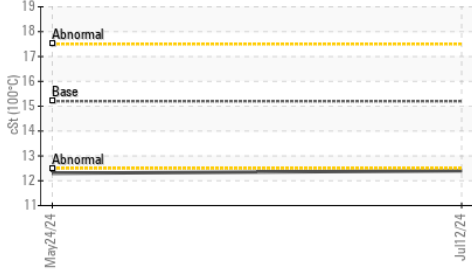
Silicon	ppm	ASTM D5185m	>25	12	7	---
Potassium	ppm	ASTM D5185m	>20	8	17	---
Fuel	%	ASTM D3524	>5	▲ 3.6	▲ 8.9	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.4	1	---
Nitration	Abs/cm	*ASTM D7624	>20	10.7	15.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.3	26.3	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

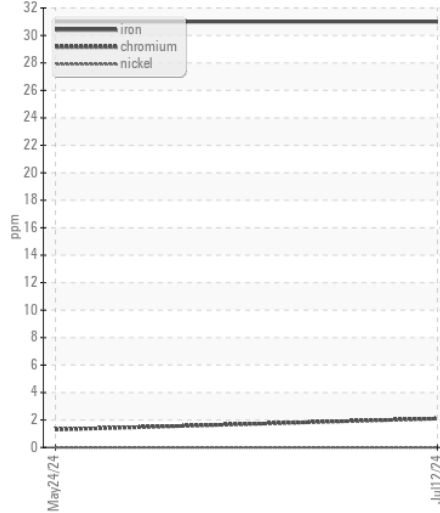
The BN result indicates that there is suitable alkalinity remaining in the oil. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		8	9	---
Boron	ppm	ASTM D5185m		82	29	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		116	118	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m		● 591	625	---
Calcium	ppm	ASTM D5185m		1118	1282	---
Phosphorus	ppm	ASTM D5185m		● 638	764	---
Zinc	ppm	ASTM D5185m		781	841	---
Sulfur	ppm	ASTM D5185m		2785	3708	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.1	23.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	6.4	5.0	---
Visc @ 100°C	cSt	ASTM D445	15.2	▲ 12.4	▲ 12.3	---

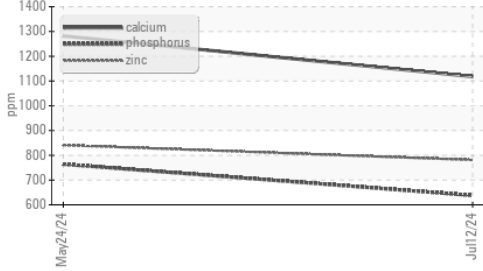
▲ Viscosity @ 100°C



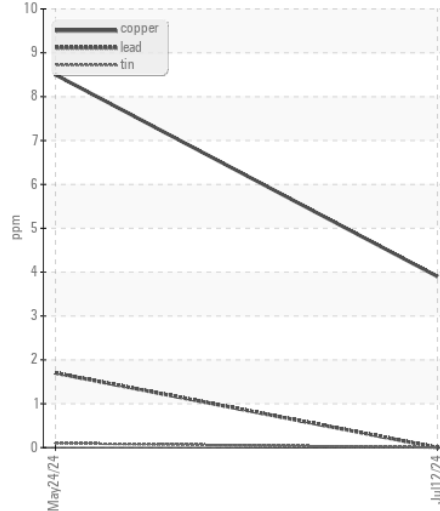
Ferrous Alloys



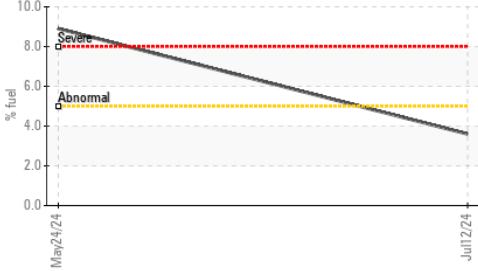
● Additives



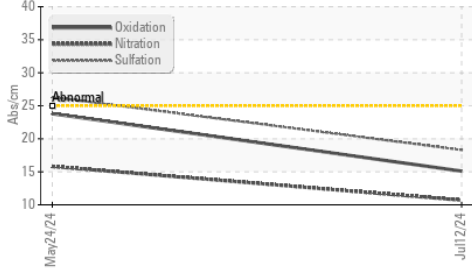
Non-ferrous Metals



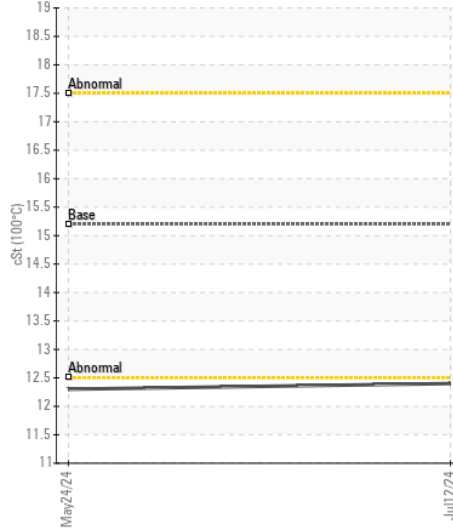
▲ Fuel Dilution



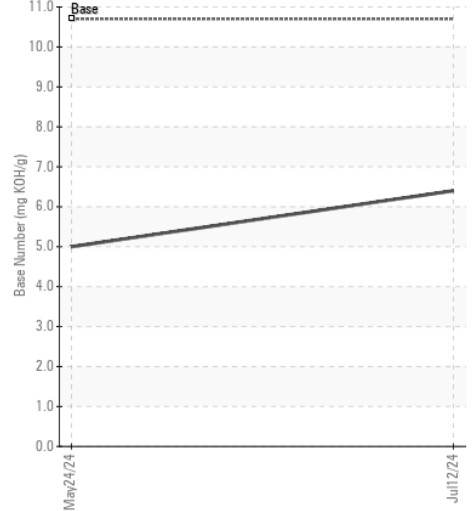
FT-IR (Direct Trend)



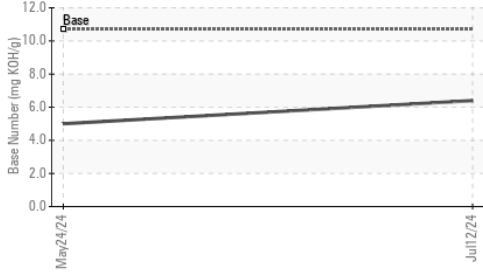
▲ Viscosity @ 100°C



Base Number



Base Number



Certificate L2367

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

Sample No. : GFL0111274

Lab Number : 06241385

Unique Number : 11130219

Test Package : FLEET (Additional Tests: PercentFuel)

Received : 19 Jul 2024

Tested : 22 Jul 2024

Diagnosed : 22 Jul 2024 - Wes Davis

GFL Environmental - 981 - Port Arthur Hauling

1000 S Business Park Dr

Port Arthur, TX

US 77640

Contact: MICHAEL KAY

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F:

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)