



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
5059
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 30. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0210057	---	---
Sample Date		Client Info		10 May 2024	---	---
Machine Age	hrs	Client Info		600	---	---
Oil Age	hrs	Client Info		600	---	---
Filter Age	hrs	Client Info		600	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

Metal levels are typical for a components first oil change.

Iron	ppm	ASTM D5185m	>100	21	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>4	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	6	---	---
Lead	ppm	ASTM D5185m	>40	0	---	---
Copper	ppm	ASTM D5185m	>330	14	---	---
Tin	ppm	ASTM D5185m	>15	1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

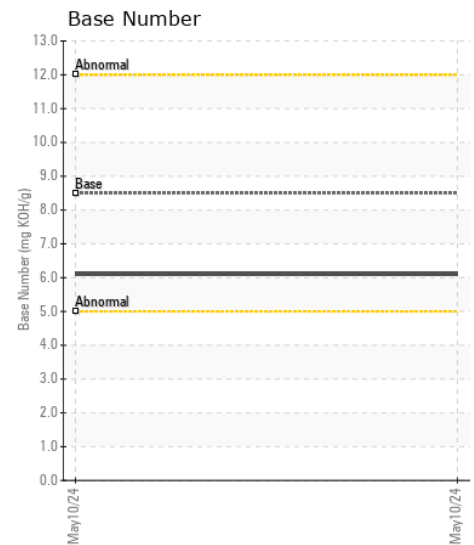
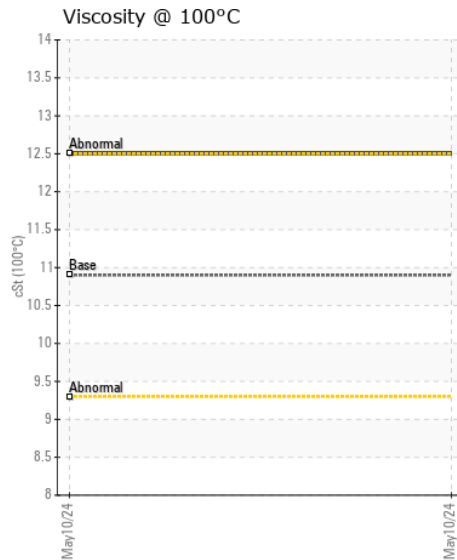
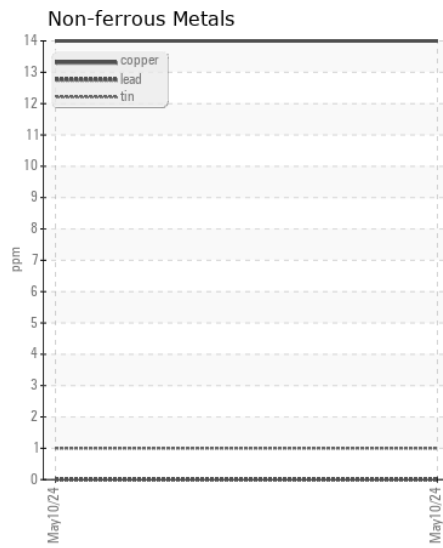
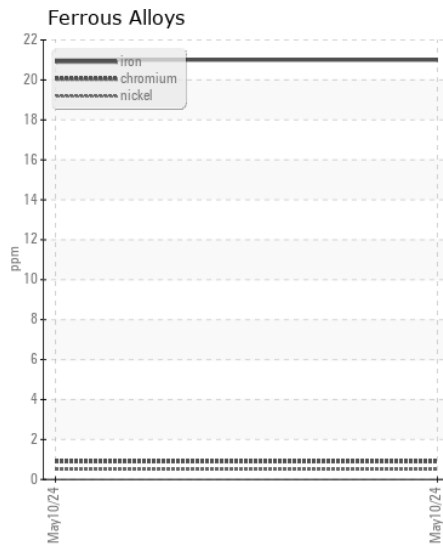
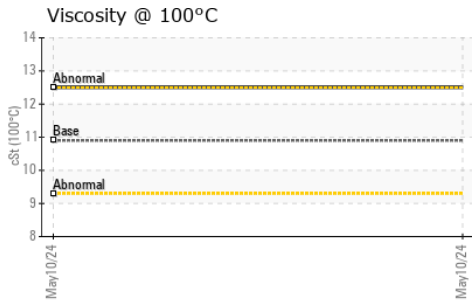
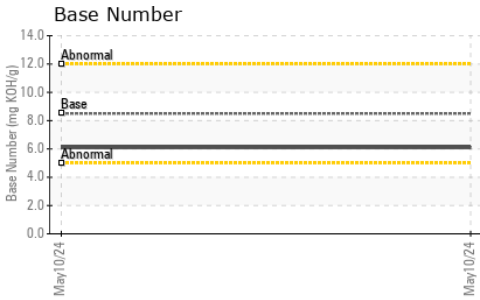
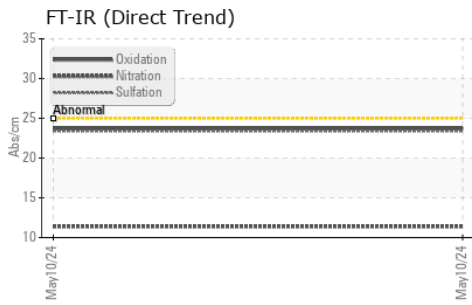
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	12	---	---
Potassium	ppm	ASTM D5185m	>20	18	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	11.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.4	---	---
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

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	>75	3	---	---
Boron	ppm	ASTM D5185m	250	18	---	---
Barium	ppm	ASTM D5185m	10	10	---	---
Molybdenum	ppm	ASTM D5185m	100	28	---	---
Manganese	ppm	ASTM D5185m		3	---	---
Magnesium	ppm	ASTM D5185m	450	315	---	---
Calcium	ppm	ASTM D5185m	3000	2118	---	---
Phosphorus	ppm	ASTM D5185m	1150	824	---	---
Zinc	ppm	ASTM D5185m	1350	1039	---	---
Sulfur	ppm	ASTM D5185m	4250	3024	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.1	---	---
Visc @ 100°C	cSt	ASTM D445	10.9	12.5	---	---



Certificate L2367

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

Sample No. : JR0210057

Lab Number : 06178479

Unique Number : 11029805

Test Package : CONST (Additional Tests: TBN)

Received : 14 May 2024

Tested : 15 May 2024

Diagnosed : 15 May 2024 - Wes Davis

PATRIOT DEVELOPMENT CORP

22721 LADBROOK DRIVE STE 120

STERLING, VA

US 20166

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T:

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)