



OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
414104
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

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 a moderate concentration of dirt present in the oil. Tests indicate that there is no fuel present in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0112443	---	---
Sample Date	Client Info		14 Jun 2024	---	---
Machine Age	hrs	Client Info	14326	---	---
Oil Age	hrs	Client Info	570	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>120	35	---
Chromium	ppm	ASTM D5185(m)	>20	<1	---
Nickel	ppm	ASTM D5185(m)	>5	2	---
Titanium	ppm	ASTM D5185(m)	>2	<1	---
Silver	ppm	ASTM D5185(m)	>2	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	7	---
Lead	ppm	ASTM D5185(m)	>40	9	---
Copper	ppm	ASTM D5185(m)	>330	306	---
Tin	ppm	ASTM D5185(m)	>15	4	---
Antimony	ppm	ASTM D5185(m)		0	---
Vanadium	ppm	ASTM D5185(m)		0	---
Beryllium	ppm	ASTM D5185(m)		0	---
Cadmium	ppm	ASTM D5185(m)		0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	260	---
Barium	ppm	ASTM D5185(m)	10	<1	---
Molybdenum	ppm	ASTM D5185(m)	100	113	---
Manganese	ppm	ASTM D5185(m)		3	---
Magnesium	ppm	ASTM D5185(m)	450	621	---
Calcium	ppm	ASTM D5185(m)	3000	1427	---
Phosphorus	ppm	ASTM D5185(m)	1150	638	---
Zinc	ppm	ASTM D5185(m)	1350	747	---
Sulfur	ppm	ASTM D5185(m)	4250	1902	---
Lithium	ppm	ASTM D5185(m)		<1	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	▲ 70	---
Sodium	ppm	ASTM D5185(m)		6	---
Potassium	ppm	ASTM D5185(m)	>20	24	---
Fuel	%	ASTM D7593*	>3.0	0.0	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>4	0.1	---
Nitration	Abs/cm	ASTM D7624*	>20	9.0	---
Sulfation	Abs./1mm	ASTM D7415*	>30	24.8	---

