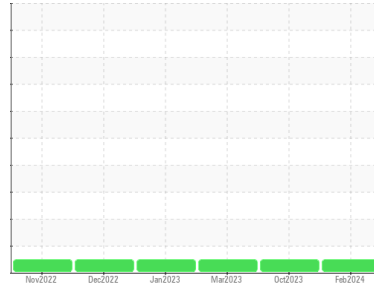




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
831046
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0112419	GFL0091588	GFL0070729
Sample Date	Client Info		22 Feb 2024	30 Oct 2023	01 Mar 2023
Machine Age	hrs	Client Info	3312	2700	1658
Oil Age	hrs	Client Info	0	0	585
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>120	14	18	19
Chromium	ppm	ASTM D5185(m)	>20	1	2	1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	2	3	3
Lead	ppm	ASTM D5185(m)	>40	2	3	1
Copper	ppm	ASTM D5185(m)	>330	2	2	4
Tin	ppm	ASTM D5185(m)	>15	<1	<1	1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	50	6	7	9
Barium	ppm	ASTM D5185(m)	5	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	50	55	59	54
Manganese	ppm	ASTM D5185(m)	0	0	<1	2
Magnesium	ppm	ASTM D5185(m)	560	573	615	562
Calcium	ppm	ASTM D5185(m)	1510	1689	1746	1667
Phosphorus	ppm	ASTM D5185(m)	780	694	746	719
Zinc	ppm	ASTM D5185(m)	870	925	993	912
Sulfur	ppm	ASTM D5185(m)	2040	2045	2015	2034
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	5	7	7
Sodium	ppm	ASTM D5185(m)		9	9	8
Potassium	ppm	ASTM D5185(m)	>20	2	3	1

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	11.7	12.4	7.7
Sulfation	Abs.1mm	ASTM D7415*	>30	25.4	27.0	19.6

