



OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

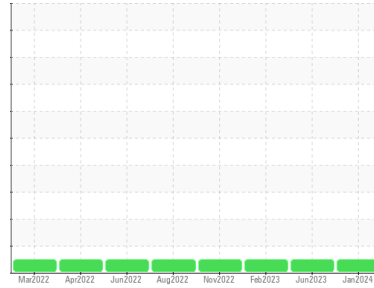


Area
(P830964)

Machine Id
832001

Component
Diesel Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (40 QTS)



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			GFL0101775	GFL0070773	GFL0047430
Sample Date	Client Info			12 Jan 2024	22 Jun 2023	09 Feb 2023
Machine Age	hrs	Client Info		5724	4378	3255
Oil Age	hrs	Client Info		600	600	600
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 D5185m	>90	12	16	7
Chromium	ppm	ASTM D5185m	>20	<1	2	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	7	1
Lead	ppm	ASTM D5185m	>40	1	8	2
Copper	ppm	ASTM D5185m	>330	4	3	2
Tin	ppm	ASTM D5185m	>15	<1	2	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	13	9	4
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	50	50	62	55
Manganese	ppm	ASTM D5185m	0	2	2	<1
Magnesium	ppm	ASTM D5185m	560	582	628	499
Calcium	ppm	ASTM D5185m	1510	1520	1935	1503
Phosphorus	ppm	ASTM D5185m	780	741	785	621
Zinc	ppm	ASTM D5185m	870	966	1064	897
Sulfur	ppm	ASTM D5185m	2040	2357	2922	2717

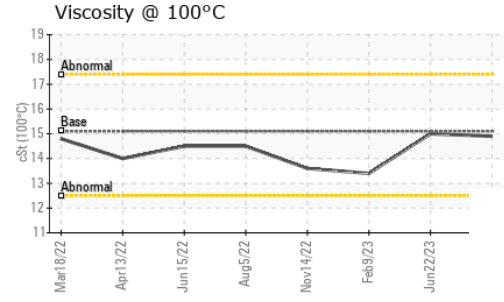
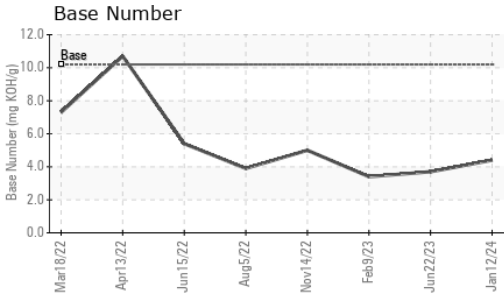
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	8	16	4
Sodium	ppm	ASTM D5185m		6	10	6
Potassium	ppm	ASTM D5185m	>20	1	<1	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	0	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	11.4	11.7	11.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.4	25.8	23.1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.0	22.4	17.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	4.4	3.7	3.4



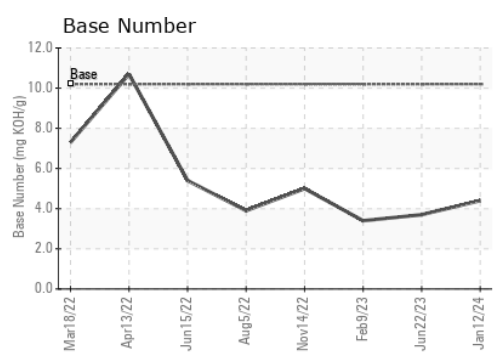
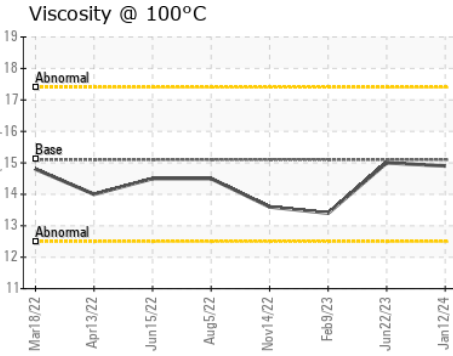
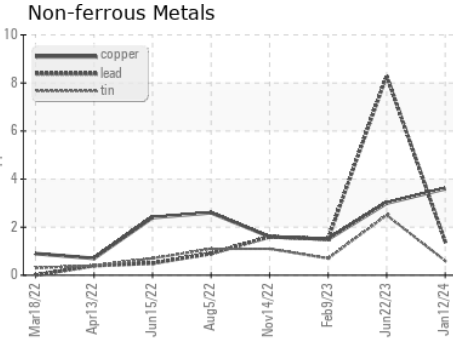
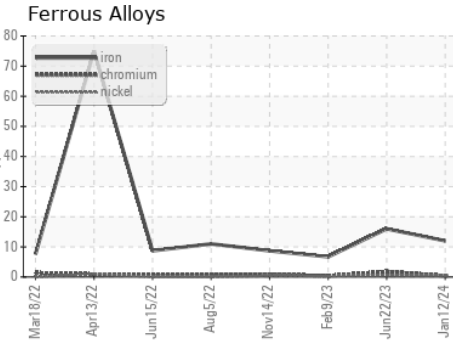
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VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
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
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	14.9	15.0	13.4

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0101775 **Received** : 18 Jan 2024
Lab Number : **06064161** **Diagnosed** : 19 Jan 2024
Unique Number : 10835543 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 030 - Conway Myrtle Beach
 3010 HWY 378
 Conway, SC
 US 29527
 Contact: ARCILIO RUEZ
 aruiz@gflenv.com

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)