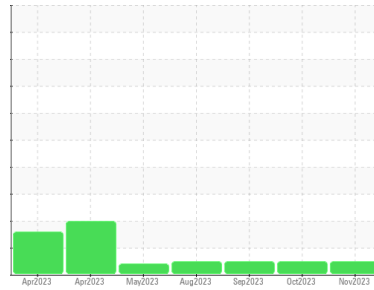




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
913180
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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		GFL0099041	GFL0094916	GFL0094941
Sample Date	Client Info		06 Nov 2023	11 Oct 2023	13 Sep 2023
Machine Age	mls Client Info		29351	12134	1114
Oil Age	mls Client Info		12134	1114	962
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m	>120	9	14	8
Chromium	ppm ASTM D5185m	>20	<1	2	<1
Nickel	ppm ASTM D5185m	>5	2	<1	0
Titanium	ppm ASTM D5185m	>2	<1	<1	<1
Silver	ppm ASTM D5185m	>2	0	0	0
Aluminum	ppm ASTM D5185m	>20	1	4	<1
Lead	ppm ASTM D5185m	>40	0	0	0
Copper	ppm ASTM D5185m	>330	<1	3	3
Tin	ppm ASTM D5185m	>15	0	<1	<1
Vanadium	ppm ASTM D5185m		0	0	<1
Cadmium	ppm ASTM D5185m		<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	0	0	2	<1
Barium	ppm ASTM D5185m	0	<1	0	0
Molybdenum	ppm ASTM D5185m	60	56	60	59
Manganese	ppm ASTM D5185m	0	0	0	<1
Magnesium	ppm ASTM D5185m	1010	876	925	1043
Calcium	ppm ASTM D5185m	1070	1003	1058	1201
Phosphorus	ppm ASTM D5185m	1150	930	995	1077
Zinc	ppm ASTM D5185m	1270	1149	1213	1331
Sulfur	ppm ASTM D5185m	2060	3123	3316	3977

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m	>25	5	5	5
Sodium	ppm ASTM D5185m		0	2	2
Potassium	ppm ASTM D5185m	>20	3	3	2

INFRA-RED

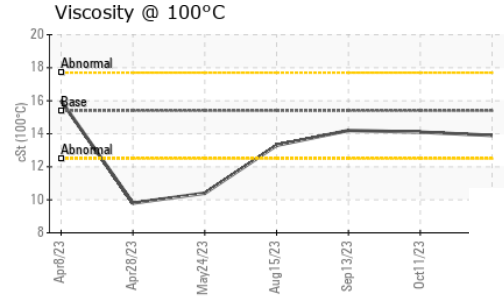
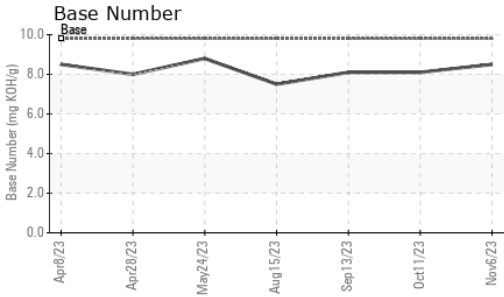
	method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	>4	0.4	0.4	0.2
Nitration	Abs/cm *ASTM D7624	>20	6.3	7.6	6.5
Sulfation	Abs/.1mm *ASTM D7415	>30	18.6	19.5	18.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414	>25	13.6	15.2	13.7
Base Number (BN)	mg KOH/g ASTM D2896	9.8	8.5	8.1	8.1



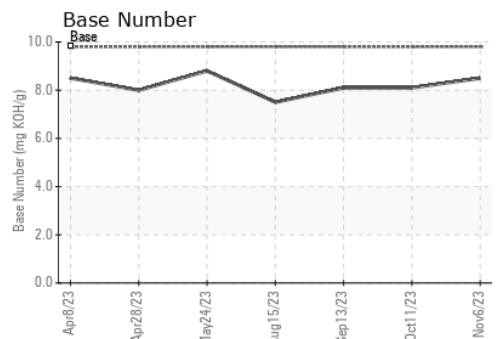
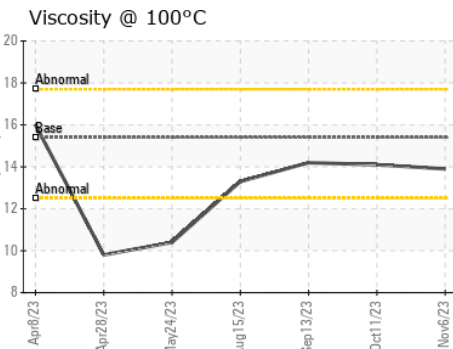
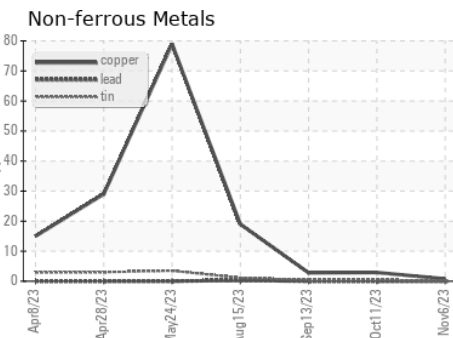
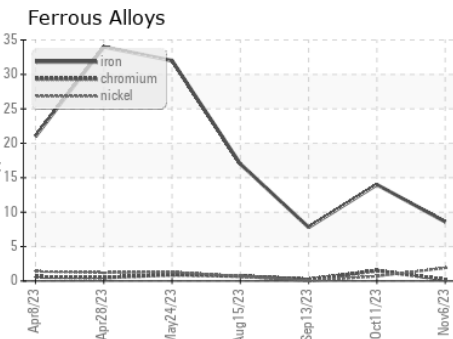
OIL ANALYSIS REPORT



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	15.4	13.9	14.1	14.2

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0099041
Lab Number : **06011225**
Unique Number : 10750369
Test Package : FLEET
Received : 17 Nov 2023
Diagnosed : 19 Nov 2023
Diagnostician : Wes Davis

GFL Environmental - 084 - Clarksville
 699 Jack Miller Boulevard
 Clarksville, TN
 US 37042
 Contact: Destin Love

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)

T:
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