



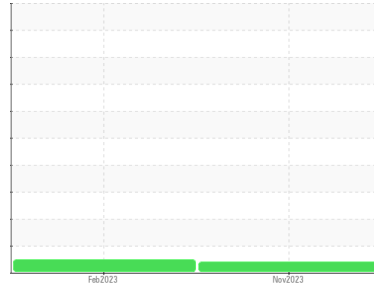
PROBLEM SUMMARY

Sample Rating Trend

VISCOSITY

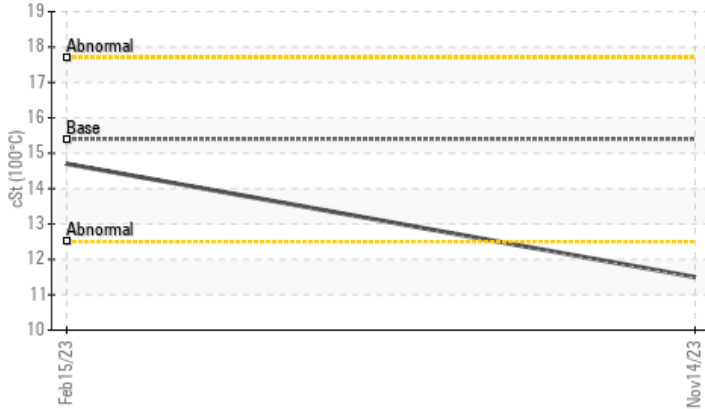


Machine Id
423080
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	NORMAL	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.5	14.7	---

Customer Id: GFL856
Sample No.: GFL0092018
Lab Number: 06010026
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

15 Feb 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report





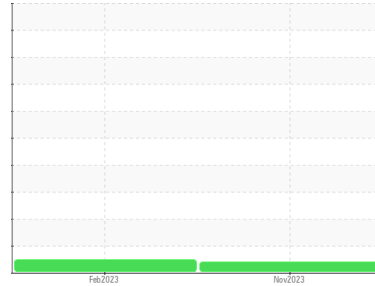
OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY



Machine Id
423080
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0092018	GFL0073652	---
Sample Date	Client Info	14 Nov 2023	15 Feb 2023	---
Machine Age	mls	Client Info	3434	188284
Oil Age	mls	Client Info	3434	0
Oil Changed	Client Info	Changed	Not Changd	---
Sample Status		ATTENTION	NORMAL	---

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>80	59	38
Chromium	ppm	ASTM D5185m	>5	3	3
Nickel	ppm	ASTM D5185m	>2	1	<1
Titanium	ppm	ASTM D5185m		<1	<1
Silver	ppm	ASTM D5185m	>3	0	0
Aluminum	ppm	ASTM D5185m	>30	4	3
Lead	ppm	ASTM D5185m	>30	11	3
Copper	ppm	ASTM D5185m	>150	21	76
Tin	ppm	ASTM D5185m	>5	<1	<1
Vanadium	ppm	ASTM D5185m		0	0
Cadmium	ppm	ASTM D5185m		0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	24	10
Barium	ppm	ASTM D5185m	0	9	0
Molybdenum	ppm	ASTM D5185m	60	52	62
Manganese	ppm	ASTM D5185m	0	4	2
Magnesium	ppm	ASTM D5185m	1010	514	559
Calcium	ppm	ASTM D5185m	1070	1628	1782
Phosphorus	ppm	ASTM D5185m	1150	1053	730
Zinc	ppm	ASTM D5185m	1270	1244	1017
Sulfur	ppm	ASTM D5185m	2060	3004	2647

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>20	17	6
Sodium	ppm	ASTM D5185m		1	19
Potassium	ppm	ASTM D5185m	>20	<1	7
Fuel	%	ASTM D3524	>5	0.1	<1.0

INFRA-RED

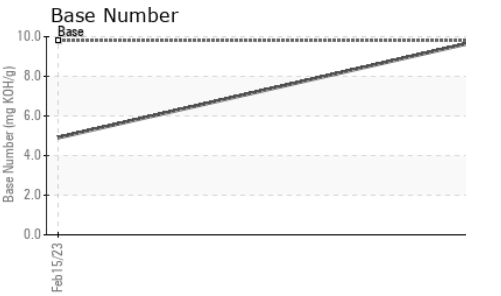
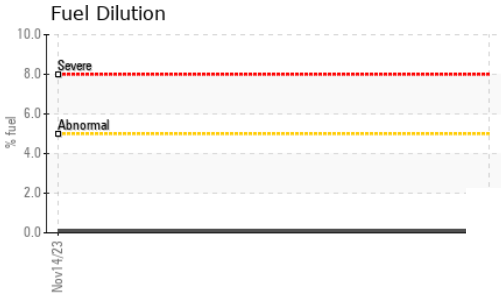
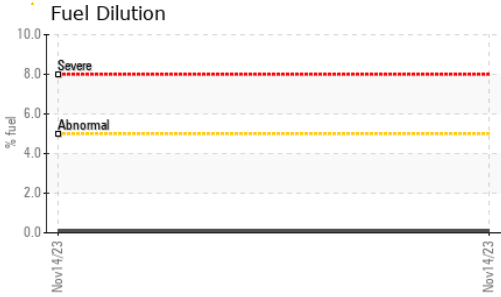
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.4	11.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.1	23.4

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.7	19.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.9	4.9



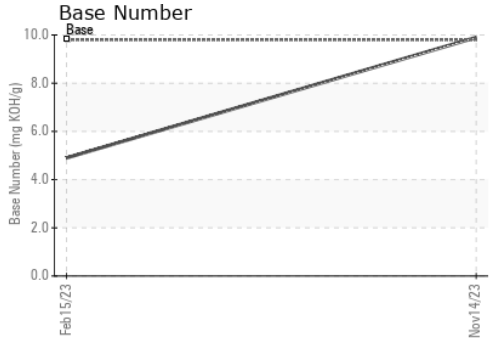
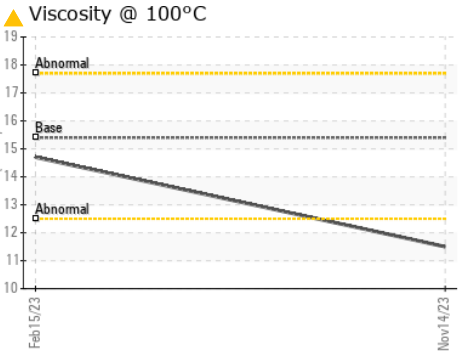
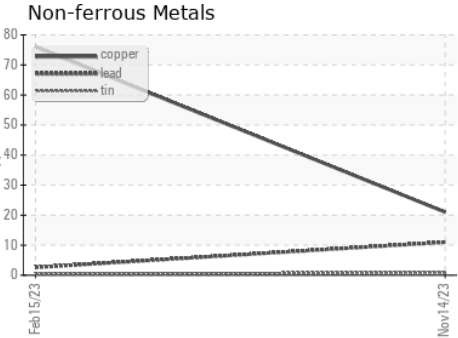
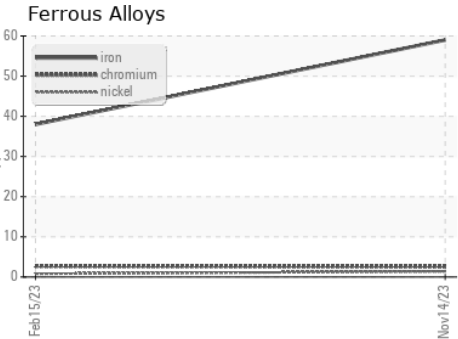
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.5	14.7

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0092018 **Received** : 16 Nov 2023
Lab Number : 06010026 **Diagnosed** : 20 Nov 2023
Unique Number : 10749170 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 856 - Houston South
 8515 Highway 6 South
 Houston, TX
 US 77083
 Contact: Apolinar Zacarias
 pzacariascano@gflenv.com

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)