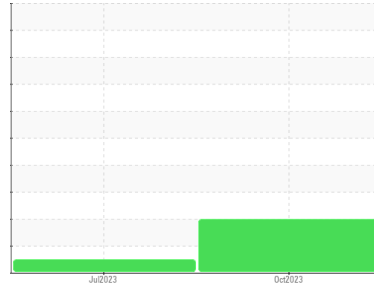




PROBLEM SUMMARY

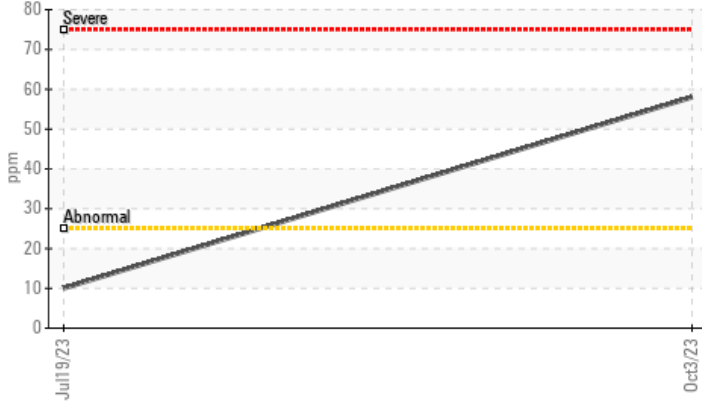
Sample Rating Trend



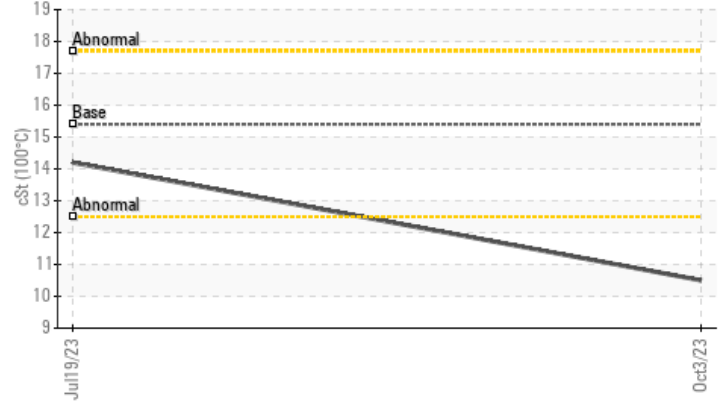
Area
{UNASSIGNED}
 Machine Id
914025
 Component
1 Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (9 GAL)

COMPONENT CONDITION SUMMARY

▲ Silicon (ppm)



▲ Viscosity @ 100°C



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status		ABNORMAL	NORMAL	---	
Silicon	ppm	ASTM D5185m >25	▲ 58	10	---
Visc @ 100°C	cSt	ASTM D445 15.4	▲ 10.5	14.2	---

Customer Id: GFL405
 Sample No.: GFL0087278
 Lab Number: 05979466
 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

19 Jul 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. Metal levels are typical for a components first oil change. 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

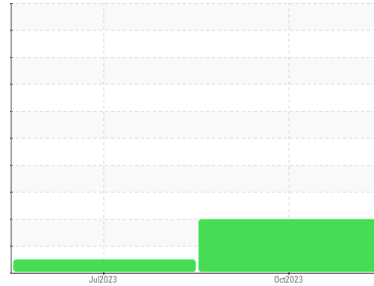




OIL ANALYSIS REPORT

Sample Rating Trend

DIRT



Area
{UNASSIGNED}
 Machine Id
914025
 Component
1 Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (9 GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material.

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	GFL0087278	GFL0087320	---
Sample Date	Client Info	03 Oct 2023	19 Jul 2023	---
Machine Age	hrs	Client Info	1222	616
Oil Age	hrs	Client Info	606	616
Oil Changed	Client Info	Changed	Changed	---
Sample Status		ABNORMAL	NORMAL	---

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	73	35
Chromium	ppm	ASTM D5185m >20	2	1
Nickel	ppm	ASTM D5185m >5	3	<1
Titanium	ppm	ASTM D5185m >2	<1	<1
Silver	ppm	ASTM D5185m >2	<1	0
Aluminum	ppm	ASTM D5185m >20	0	2
Lead	ppm	ASTM D5185m >40	<1	1
Copper	ppm	ASTM D5185m >330	161	1
Tin	ppm	ASTM D5185m >15	4	<1
Vanadium	ppm	ASTM D5185m	0	<1
Cadmium	ppm	ASTM D5185m	0	<1

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	82	5
Barium	ppm	ASTM D5185m 0	3	0
Molybdenum	ppm	ASTM D5185m 60	119	56
Manganese	ppm	ASTM D5185m 0	6	1
Magnesium	ppm	ASTM D5185m 1010	628	978
Calcium	ppm	ASTM D5185m 1070	1363	1196
Phosphorus	ppm	ASTM D5185m 1150	673	1036
Zinc	ppm	ASTM D5185m 1270	835	1301
Sulfur	ppm	ASTM D5185m 2060	2037	3734

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	▲ 58	10
Sodium	ppm	ASTM D5185m	1	6
Potassium	ppm	ASTM D5185m >20	10	6
Fuel	%	ASTM D3524 >3.0	0.8	<1.0

INFRA-RED

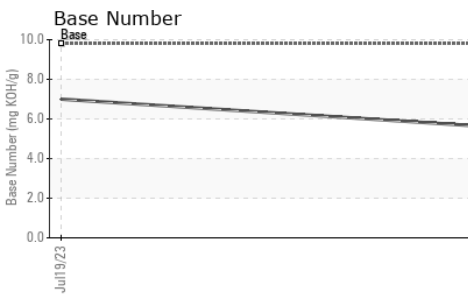
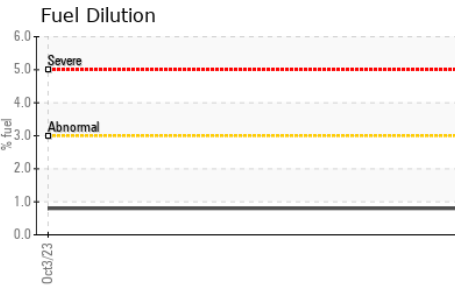
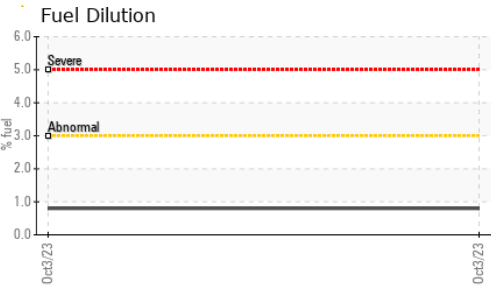
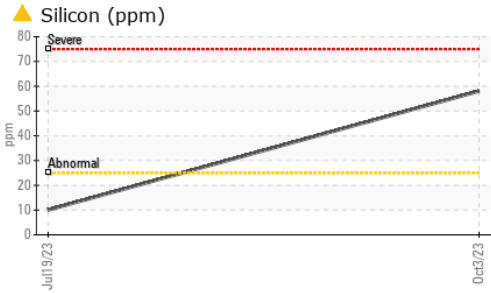
method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	1	0.6
Nitration	Abs/cm	*ASTM D7624 >20	11.6	7.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	24.0	18.3

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	24.5	14.5
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	5.6	7.0



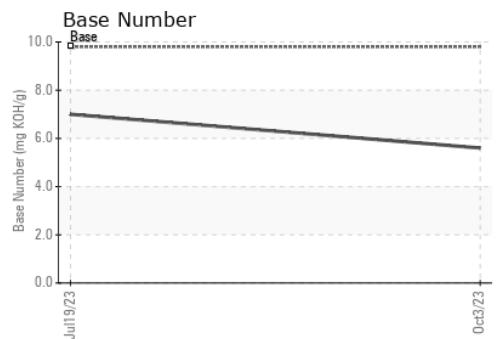
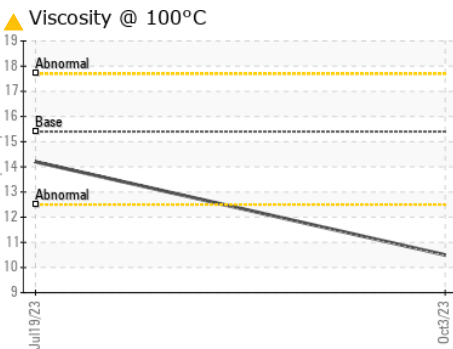
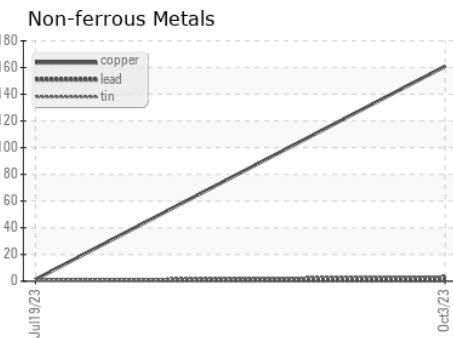
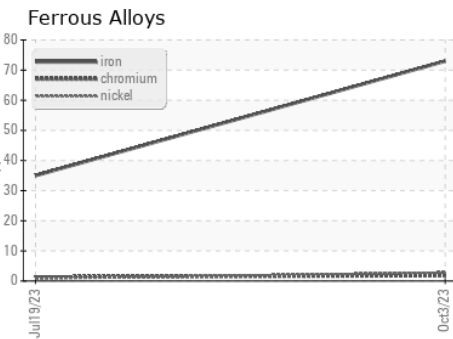
OIL ANALYSIS REPORT



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	▲ 10.5	14.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0087278 **Received** : 16 Oct 2023
Lab Number : 05979466 **Diagnosed** : 17 Oct 2023
Unique Number : 10696761 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 405 - Arbor Hills
 7400 Napier Rd
 NORTHVILLE, MI
 US 48168
 Contact: Anthony Hopkins
 ahopkins@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)

T:
F: