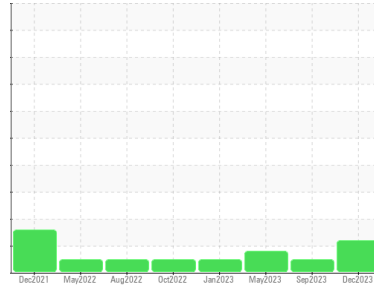




PROBLEM SUMMARY

Sample Rating Trend



WEAR



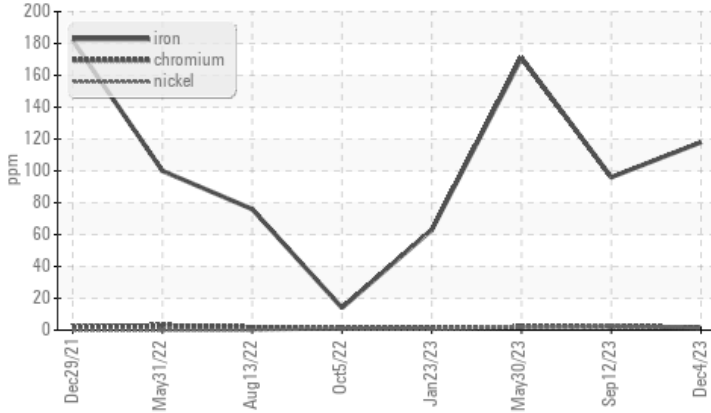
Machine Id
724010-515

Component
Diesel Engine

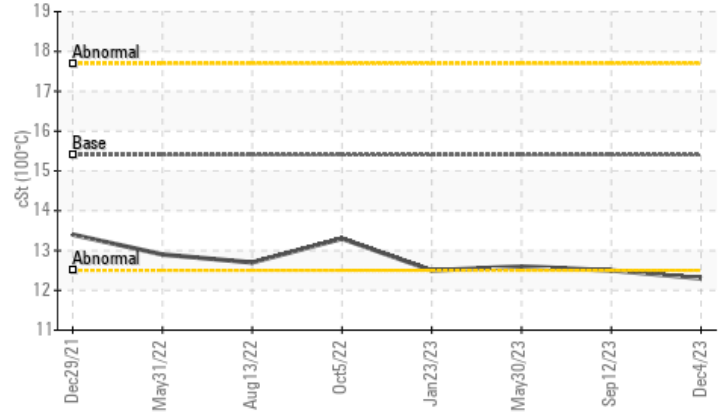
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



▲ Viscosity @ 100°C



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	NORMAL	ABNORMAL	
Iron	ppm	ASTM D5185m	>100	▲ 118	96	▲ 171
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.3	12.5	12.6

Customer Id: GFL626
Sample No.: GFL0100048
Lab Number: 06029093
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

12 Sep 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



30 May 2023 Diag: Sean Felton

WEAR



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. Cylinder, crank, or cam shaft wear is indicated. 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



23 Jan 2023 Diag: Sean Felton

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.

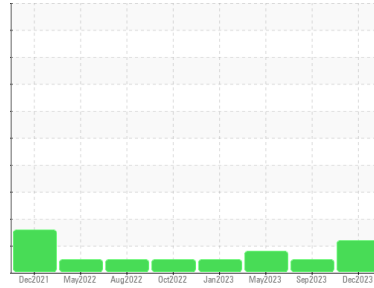
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
724010-515

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

Cylinder, crank, or cam shaft wear is indicated.

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	GFL0100048	GFL0062247	GFL0062223	
Sample Date	Client Info	04 Dec 2023	12 Sep 2023	30 May 2023	
Machine Age	hrs	Client Info	36945	36888	36484
Oil Age	hrs	Client Info	1	404	409
Oil Changed	Client Info	Not Chngd	Not Chngd	Changed	
Sample Status		ABNORMAL	NORMAL	ABNORMAL	

CONTAMINATION

method	limit/base	current	history1	history2
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 >100	▲ 118	96	▲ 171
Chromium	ppm	ASTM D5185m >20	2	2	2
Nickel	ppm	ASTM D5185m >4	1	3	2
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	3	5	2
Lead	ppm	ASTM D5185m >40	0	<1	2
Copper	ppm	ASTM D5185m >330	2	2	2
Tin	ppm	ASTM D5185m >15	0	<1	0
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 0	11	12	8
Barium	ppm	ASTM D5185m 0	3	0	0
Molybdenum	ppm	ASTM D5185m 60	71	71	68
Manganese	ppm	ASTM D5185m 0	0	<1	1
Magnesium	ppm	ASTM D5185m 1010	823	916	972
Calcium	ppm	ASTM D5185m 1070	1070	1195	1150
Phosphorus	ppm	ASTM D5185m 1150	941	1041	1037
Zinc	ppm	ASTM D5185m 1270	1117	1264	1316
Sulfur	ppm	ASTM D5185m 2060	3027	3103	3477

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	6	5	7
Sodium	ppm	ASTM D5185m	0	<1	2
Potassium	ppm	ASTM D5185m >20	2	<1	0
Fuel	%	ASTM D3524 >2.0	0.2	<1.0	<1.0

INFRA-RED

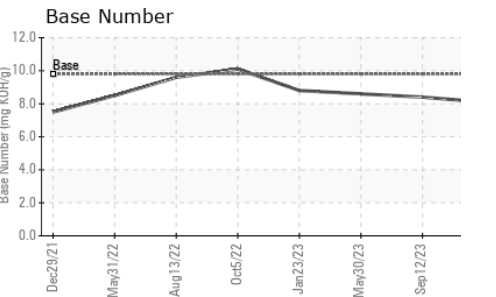
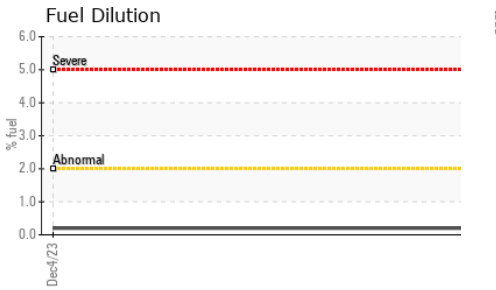
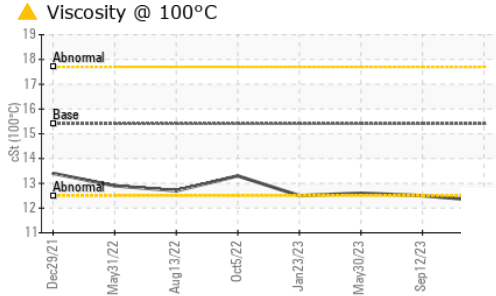
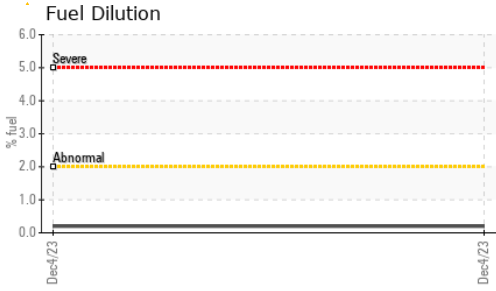
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	0.9	0.8	1
Nitration	Abs/cm	*ASTM D7624 >20	7.2	7.0	8.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.2	19.1	20.5

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.5	14.2	15.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.1	8.4	8.6



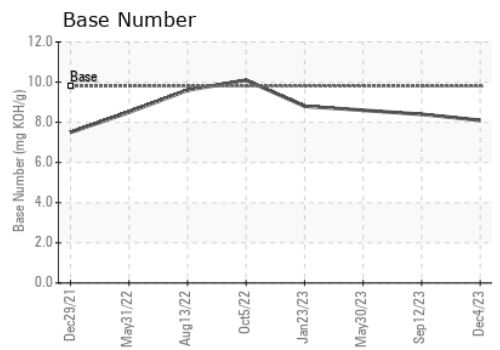
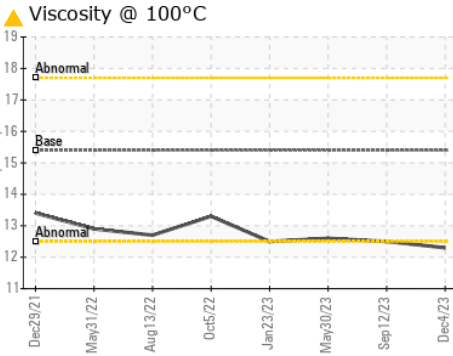
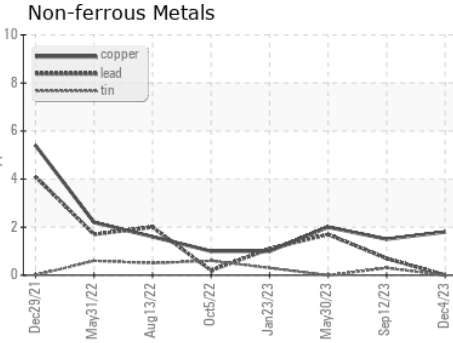
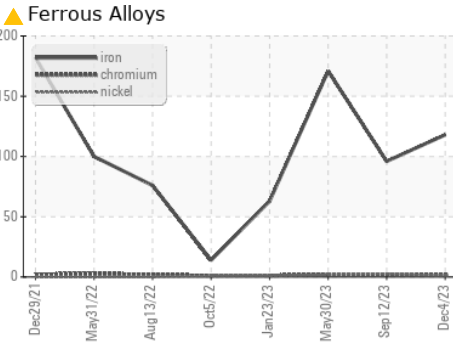
OIL ANALYSIS REPORT



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 ▲ 12.3	12.5	12.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0100048 **Received** : 08 Dec 2023
Lab Number : 06029093 **Diagnosed** : 18 Dec 2023
Unique Number : 10778884 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: FUELDILUTION, PercentFuel)

GFL Environmental - 626 - Cadillac Hauling
 1501 Ron Wilson St
 Cadillac, MI
 US 49601
 Contact: GARY BREWER
 gbrewerjr@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)