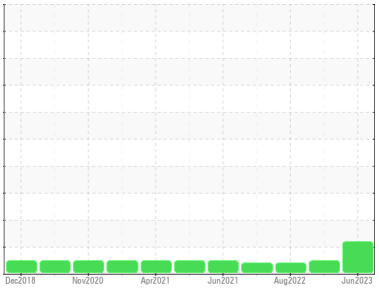
PROBLEM SUMMARY

Machine Id
2736
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (10 GAL)

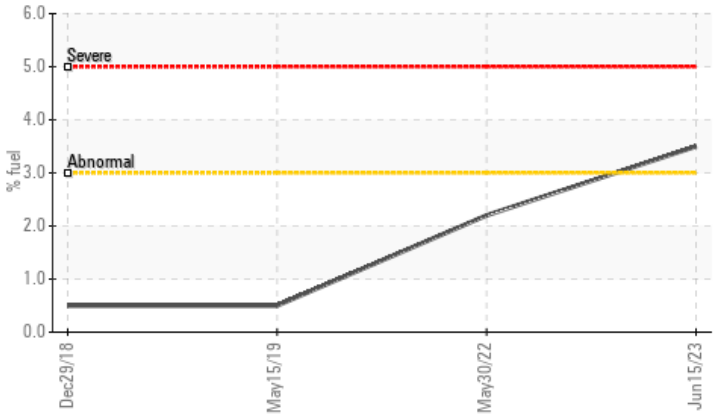
Sample Rating Trend



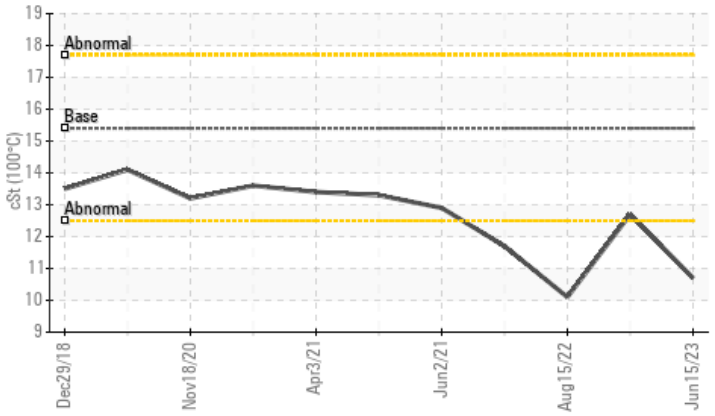
FUEL

COMPONENT CONDITION SUMMARY

▲ Fuel Dilution



▲ Viscosity @ 100°C



RECOMMENDATION

We advise that you check the fuel injection system. 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				**ABNORMAL**	NORMAL	ATTENTION
Fuel	%	ASTM D3524	>3.0	▲ **3.5**	<1.0	<1.0
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **10.7**	12.7	▲ 10.1

Customer Id: GFL005
Sample No.: GFL0072400
Lab Number: 05887745
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +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.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

26 Oct 2022 Diag: Wes Davis

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

15 Aug 2022 Diag: Don Baldridge

VISCOSITY

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

30 May 2022 Diag: Jonathan Hester

VISCOSITY

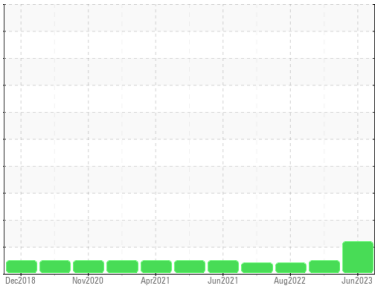
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

OIL ANALYSIS REPORT

Machine Id
2736
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (10 GAL)

Sample Rating Trend



FUEL

DIAGNOSIS

Recommendation
We advise that you check the fuel injection system. 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
There is a moderate amount of fuel present in the oil.

Fluid Condition
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number		Client Info		**GFL0072400**	GFL0048915	GFL0048876
Sample Date		Client Info		**15 Jun 2023**	26 Oct 2022	15 Aug 2022
Machine Age	hrs	Client Info		**29769**	28766	28483
Oil Age	hrs	Client Info		**1003**	315	616
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	NORMAL	ATTENTION

CONTAMINATION		method	limit/base	current	history 1	history 2
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>120	**14**	15	12
Chromium	ppm	ASTM D5185m	>20	**<1**	0	<1
Nickel	ppm	ASTM D5185m	>5	**4**	0	<1
Titanium	ppm	ASTM D5185m	>2	**<1**	<1	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>20	**14**	3	17
Lead	ppm	ASTM D5185m	>40	**<1**	1	2
Copper	ppm	ASTM D5185m	>330	**2**	11	2
Tin	ppm	ASTM D5185m	>15	**<1**	1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	**43**	10	9
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	60	**58**	61	48
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	1010	**529**	862	581
Calcium	ppm	ASTM D5185m	1070	**1417**	1151	1240
Phosphorus	ppm	ASTM D5185m	1150	**889**	1000	659
Zinc	ppm	ASTM D5185m	1270	**1077**	1197	858
Sulfur	ppm	ASTM D5185m	2060	**3155**	3646	2317

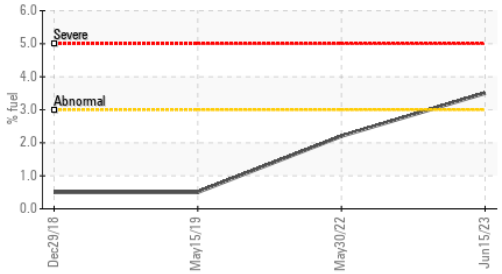
CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>25	**8**	7	6
Sodium	ppm	ASTM D5185m		**2**	<1	6
Potassium	ppm	ASTM D5185m	>20	**28**	2	16
Fuel	%	ASTM D3524	>3.0	▲ **3.5**	<1.0	<1.0

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	>4	**0.3**	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	**7.6**	6.7	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.8**	19.3	22.6

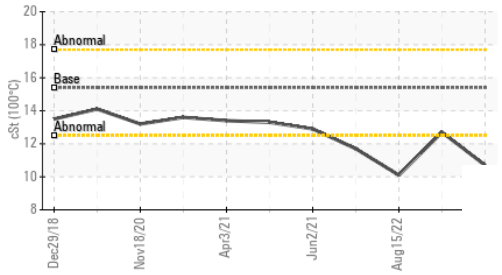
FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**17.4**	14.6	19.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**7.7**	9.9	6.2

OIL ANALYSIS REPORT

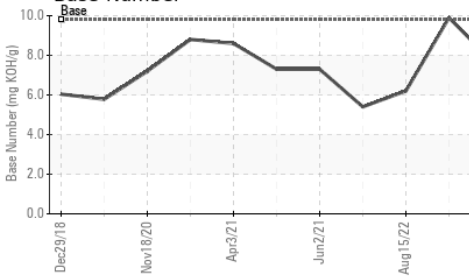
Fuel Dilution



Viscosity @ 100°C



Base Number

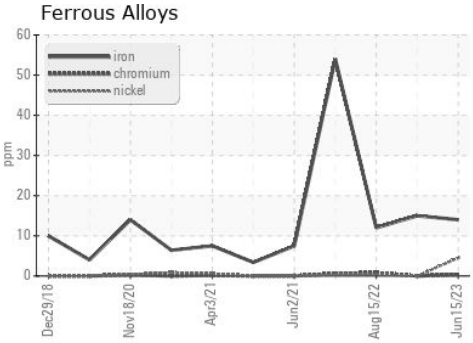


VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

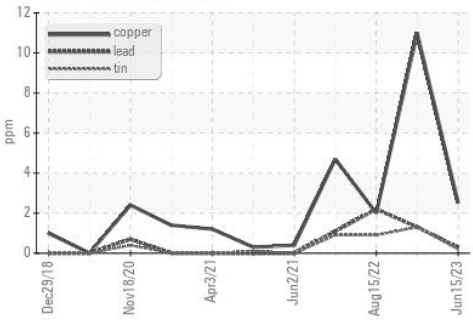
FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **10.7**	12.7	▲ 10.1

GRAPHS

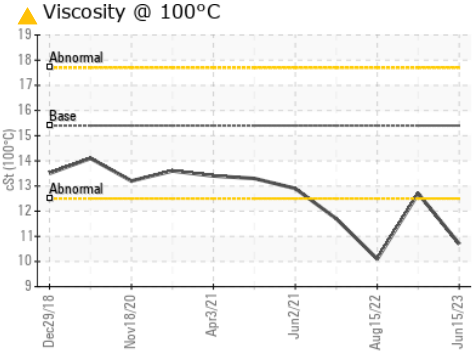
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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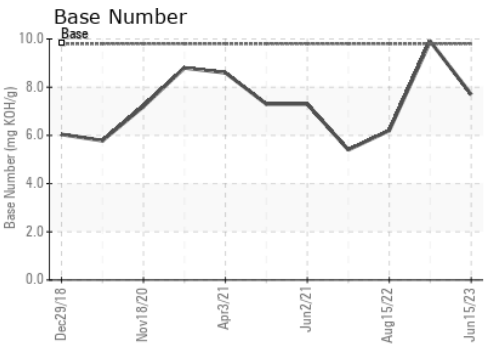

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0072400 **Received** : 30 Jun 2023
Lab Number : 05887745 **Diagnosed** : 04 Jul 2023
Unique Number : 10538228 **Diagnostician** : Don Baldridge
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

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)

GFL Environmental - 005 - Wilson/Tri-East(CNG)
2810 Contentnea Road S
Wilson, NC
US 27893-8501
Contact: SPENCER LIGGON
spencer.liggon@gflenv.com
T: (800)207-6618
F:

Report Id: GFL005 [WUSCAR] 05887745 (Generated: 07/04/2023 11:43:40) Rev: 1

Submitted By: WALTER SKOKOWSKI