



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area
(H904550)

Machine Id
2683

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (10 GAL)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0099749	GFL0073290	GFL0073357
Sample Date		Client Info		27 Feb 2024	08 Nov 2023	07 Aug 2023
Machine Age	hrs	Client Info		600	600	600
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	11	32	13
Chromium	ppm	ASTM D5185m	>4	<1	2	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	8	3	<1
Lead	ppm	ASTM D5185m	>45	<1	30	0
Copper	ppm	ASTM D5185m	>85	<1	4	4
Tin	ppm	ASTM D5185m	>4	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

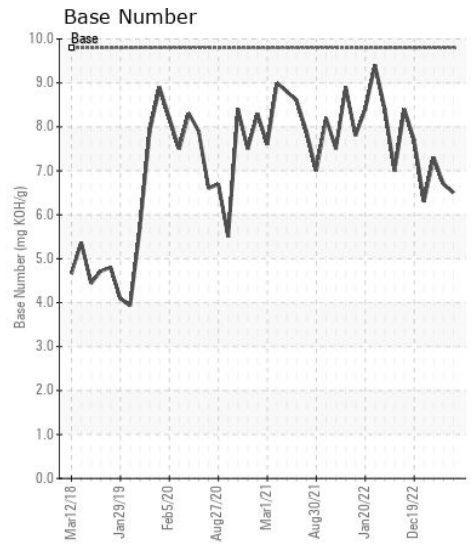
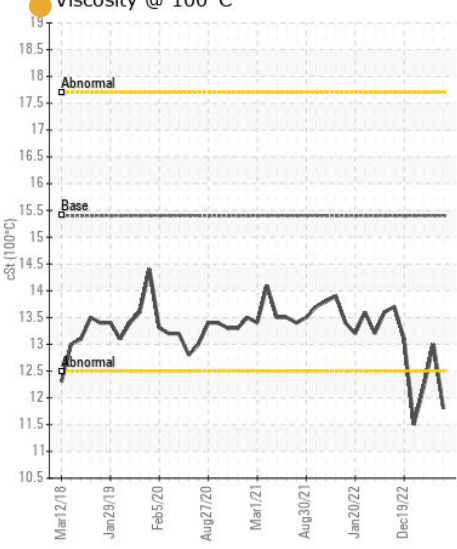
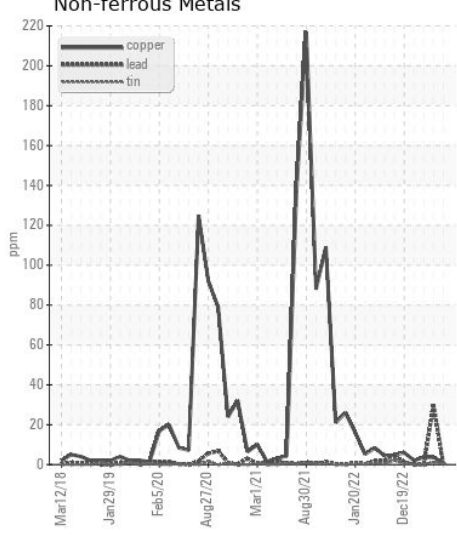
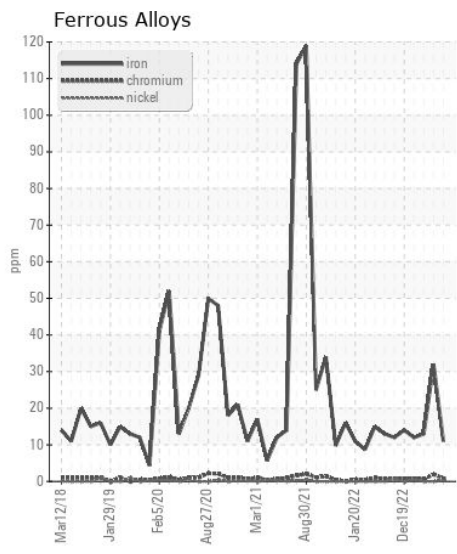
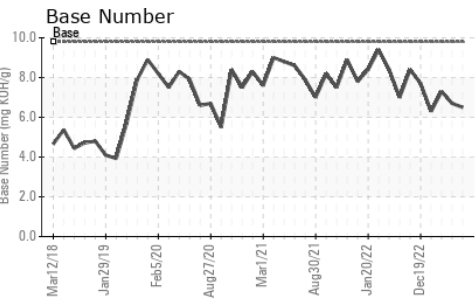
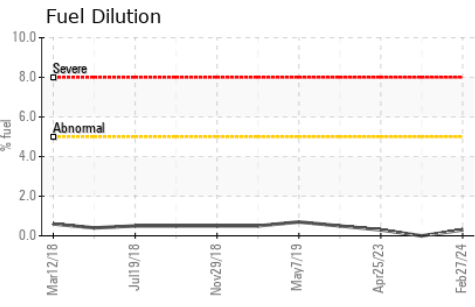
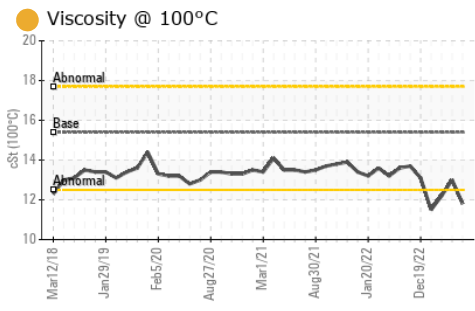
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	6	10	5
Potassium	ppm	ASTM D5185m	>20	1	50	2
Fuel	%	ASTM D3524	>5	0.3	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	NEG
Soot %	%	*ASTM D7844	>3	0.2	2.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	6.8	14.5	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.6	28.3	18.5
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

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.

Sodium	ppm	ASTM D5185m		3	224	3
Boron	ppm	ASTM D5185m	0	9	18	19
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	65	110	75
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	795	905	851
Calcium	ppm	ASTM D5185m	1070	948	1164	1057
Phosphorus	ppm	ASTM D5185m	1150	920	971	926
Zinc	ppm	ASTM D5185m	1270	1148	1233	1121
Sulfur	ppm	ASTM D5185m	2060	3002	2816	3435
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.1	23.8	13.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.5	6.7	7.3
Visc @ 100°C	cSt	ASTM D445	15.4	11.8	13.0	12.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0099749 **Received** : 29 Feb 2024
Lab Number : 06104025 **Tested** : 04 Mar 2024
Unique Number : 10902255 **Diagnosed** : 04 Mar 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 102 - Morristown TN
 415 Ryder Lane, PO Box 1894
 Morristown, TN
 US 37813
 Contact: Ricky Dunlap
 ricky.dunlap@gflenv.com
 T: (800)207-6618
 F:

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)