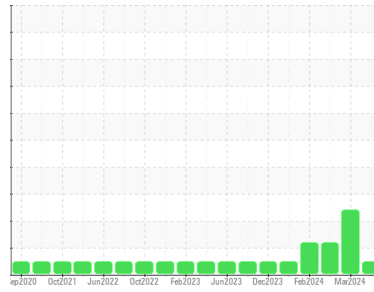




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
921056-205333

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (42 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Test for glycol is negative. There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0101852	GFL0093578	GFL0101895
Sample Date	Client Info	12 Apr 2024	07 Mar 2024	27 Feb 2024
Machine Age	hrs	1768	1454	1398
Oil Age	hrs	0	601	0
Oil Changed	Client Info	Not Changed	Changed	Not Changed
Sample Status		NORMAL	ABNORMAL	ATTENTION

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<1.0	<1.0	<1.0
Water	WC Method >0.2	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >90	9	12	13
Chromium	ppm ASTM D5185m >20	<1	<1	<1
Nickel	ppm ASTM D5185m >2	<1	<1	0
Titanium	ppm ASTM D5185m >2	<1	<1	<1
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >20	2	2	1
Lead	ppm ASTM D5185m >40	0	0	0
Copper	ppm ASTM D5185m >330	<1	0	0
Tin	ppm ASTM D5185m >15	<1	<1	0
Vanadium	ppm ASTM D5185m	0	<1	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	3	5	6
Barium	ppm ASTM D5185m 0	<1	0	0
Molybdenum	ppm ASTM D5185m 60	64	64	63
Manganese	ppm ASTM D5185m 0	0	<1	<1
Magnesium	ppm ASTM D5185m 1010	908	912	898
Calcium	ppm ASTM D5185m 1070	1075	1024	1017
Phosphorus	ppm ASTM D5185m 1150	1094	1010	996
Zinc	ppm ASTM D5185m 1270	1224	1252	1213
Sulfur	ppm ASTM D5185m 2060	3343	2991	2874

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	4	4	4
Sodium	ppm ASTM D5185m	115	▲ 120	● 107
Potassium	ppm ASTM D5185m >20	47	▲ 44	35
Glycol	% *ASTM D2982	0.0	NEG	NEG

INFRA-RED

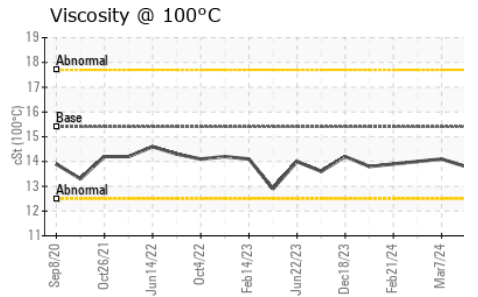
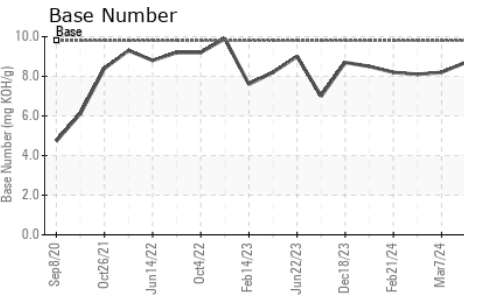
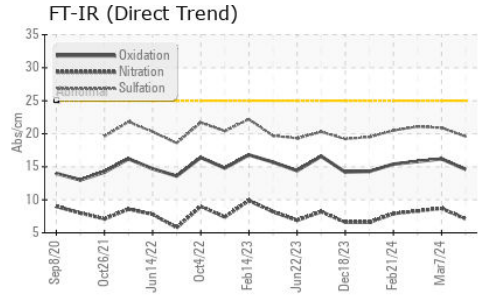
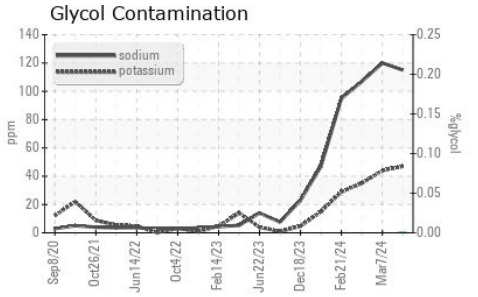
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	0.6	1.1	1
Nitration	Abs/cm *ASTM D7624 >20	7.1	8.7	8.3
Sulfation	Abs/.1mm *ASTM D7415 >30	19.6	20.9	21.1

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	14.6	16.2	15.8
Base Number (BN)	mg KOH/g ASTM D2896 9.8	8.7	8.2	8.1



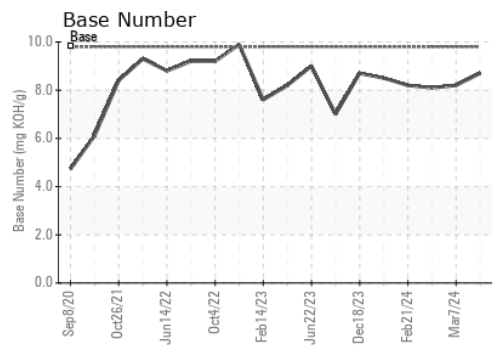
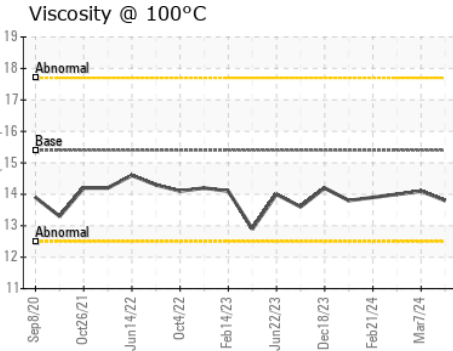
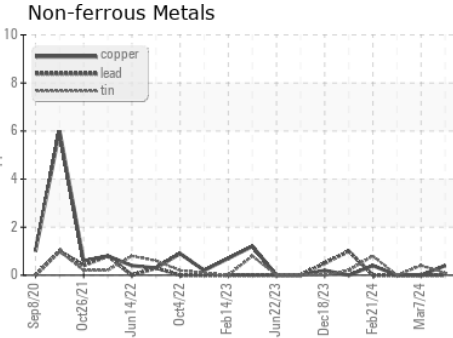
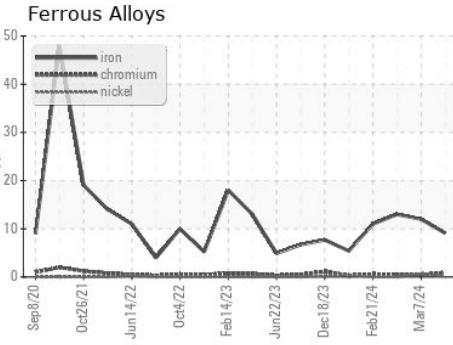
OIL ANALYSIS REPORT



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	13.8	14.1	14.0

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0101852 **Received** : 15 Apr 2024
Lab Number : **06148488** **Tested** : 17 Apr 2024
Unique Number : 10978566 **Diagnosed** : 17 Apr 2024 - Wes Davis
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 894 - Ada Hauling
 1904 North Broadway, Suite D
 Ada, OK
 US 74820
 Contact: Johnny Spurlock
 jspurlock@gflenv.com
 T: (405)664-4476
 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)