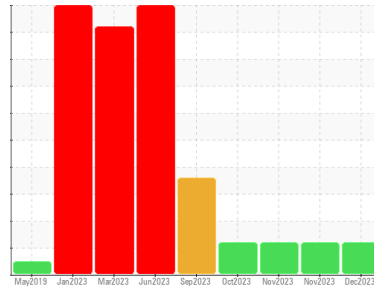




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
921047-260381

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

All component wear rates are normal.

Contamination

Sodium and/or potassium levels remain high. Test for glycol is negative.

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	GFL0102436	GFL0098590	GFL0098578	
Sample Date	Client Info	19 Dec 2023	28 Nov 2023	07 Nov 2023	
Machine Age	hrs	Client Info	6851	0	6600
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info	N/A	N/A	Not Changd	
Sample Status		ATTENTION	ATTENTION	ATTENTION	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<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 >100	14	13	13
Chromium	ppm ASTM D5185m >20	<1	<1	<1
Nickel	ppm ASTM D5185m >4	<1	0	0
Titanium	ppm ASTM D5185m	0	<1	<1
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >20	5	4	5
Lead	ppm ASTM D5185m >40	<1	0	0
Copper	ppm ASTM D5185m >330	2	2	2
Tin	ppm ASTM D5185m >15	<1	0	0
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	0	<1

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	6	5	6
Barium	ppm ASTM D5185m 0	0	6	<1
Molybdenum	ppm ASTM D5185m 60	65	67	77
Manganese	ppm ASTM D5185m 0	<1	0	0
Magnesium	ppm ASTM D5185m 1010	990	911	1115
Calcium	ppm ASTM D5185m 1070	1093	1100	1199
Phosphorus	ppm ASTM D5185m 1150	1131	1005	1172
Zinc	ppm ASTM D5185m 1270	1373	1194	1420
Sulfur	ppm ASTM D5185m 2060	3300	3023	4343

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	7	8	9
Sodium	ppm ASTM D5185m	▲ 149	▲ 152	▲ 168
Potassium	ppm ASTM D5185m >20	5	7	8
Glycol	% *ASTM D2982	NEG	NEG	NEG

INFRA-RED

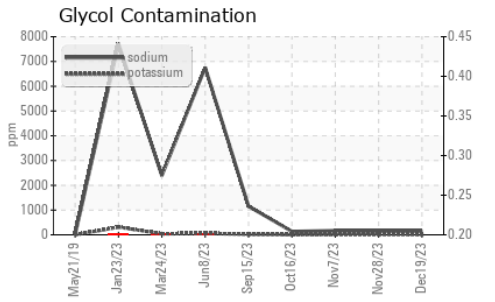
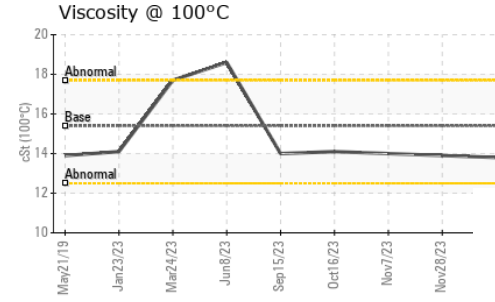
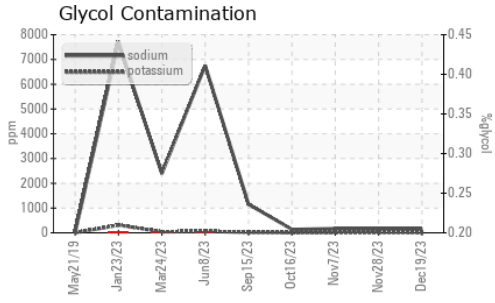
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.5	0.5	0.4
Nitration	Abs/cm *ASTM D7624 >20	6.9	7.0	6.3
Sulfation	Abs/.1mm *ASTM D7415 >30	20.1	19.4	19.1

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	15.1	14.5	14.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	8.1	8.7	8.8



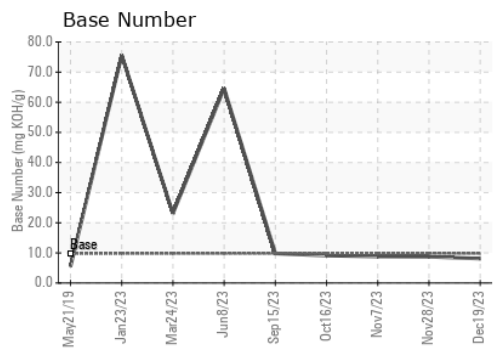
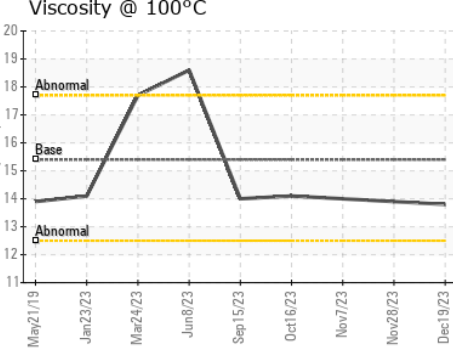
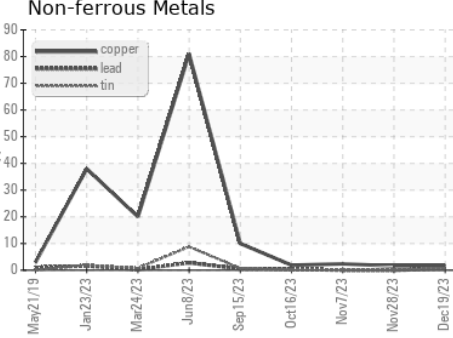
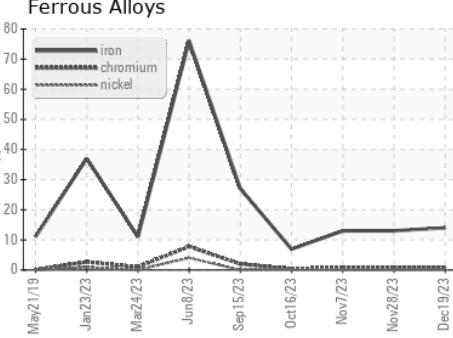
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	LIGHT	NONE	LIGHT
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	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	13.9	14.0

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0102436 **Received** : 08 Jan 2024
Lab Number : 06054639 **Diagnosed** : 10 Jan 2024
Unique Number : 10820588 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 837 - Harrison TS
 22820 S State Route 291
 Harrisonville, MO
 US 64701
 Contact: BRYAN SWANSON
 bryanswanson@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)

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F: