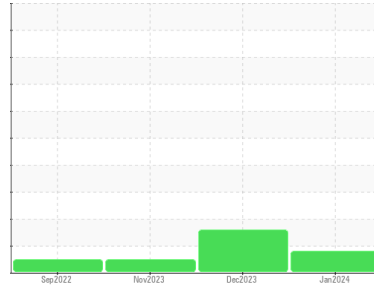




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
7808M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

Cylinder, crank, or cam shaft wear is indicated.

Contamination

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 acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0109966	GFL0104383	GFL0059231
Sample Date	Client Info	24 Jan 2024	01 Dec 2023	15 Nov 2023
Machine Age	hrs	12299	126551	125554
Oil Age	hrs	600	125554	18578
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ABNORMAL	ABNORMAL	NORMAL

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
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >90	▲ 95	27	7
Chromium	ppm ASTM D5185m >20	3	<1	<1
Nickel	ppm ASTM D5185m >2	1	1	0
Titanium	ppm ASTM D5185m >2	0	<1	0
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >20	9	2	4
Lead	ppm ASTM D5185m >40	9	<1	0
Copper	ppm ASTM D5185m >330	1	108	11
Tin	ppm ASTM D5185m >15	<1	3	<1
Vanadium	ppm ASTM D5185m	<1	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	3	108	2
Barium	ppm ASTM D5185m 0	<1	0	0
Molybdenum	ppm ASTM D5185m 60	60	65	56
Manganese	ppm ASTM D5185m 0	1	4	<1
Magnesium	ppm ASTM D5185m 1010	906	359	883
Calcium	ppm ASTM D5185m 1070	1039	1823	1004
Phosphorus	ppm ASTM D5185m 1150	1012	1147	981
Zinc	ppm ASTM D5185m 1270	1235	1316	1182
Sulfur	ppm ASTM D5185m 2060	2404	4368	3016

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	10	▲ 27	5
Sodium	ppm ASTM D5185m	8	0	3
Potassium	ppm ASTM D5185m >20	12	4	6

INFRA-RED

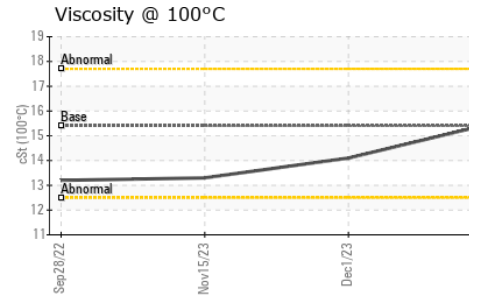
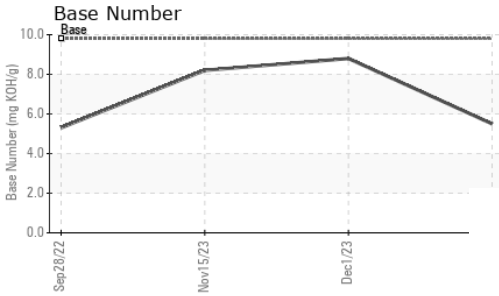
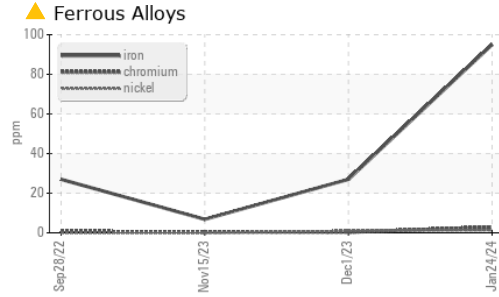
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	1.2	0.1	0.2
Nitration	Abs/cm *ASTM D7624 >20	16.3	5.8	5.3
Sulfation	Abs/.1mm *ASTM D7415 >30	30.3	17.9	18.7

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	35.4	13.7	14.2
Base Number (BN)	mg KOH/g ASTM D2896 9.8	5.5	8.8	8.2



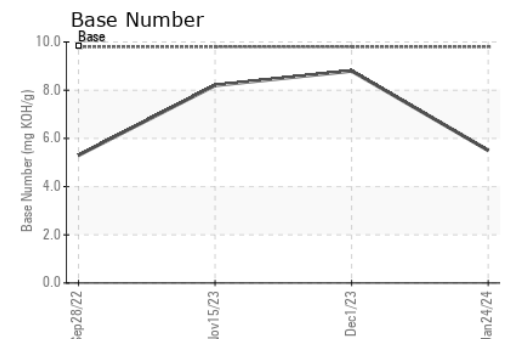
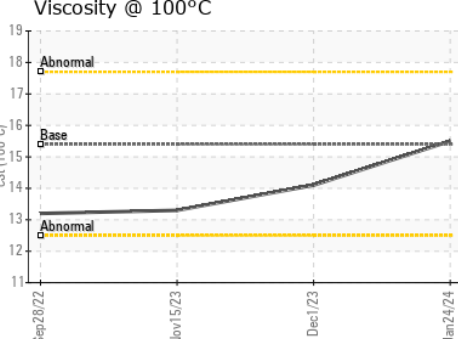
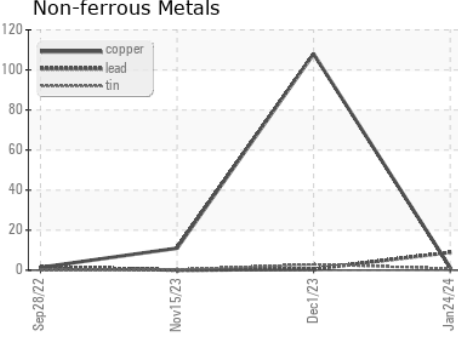
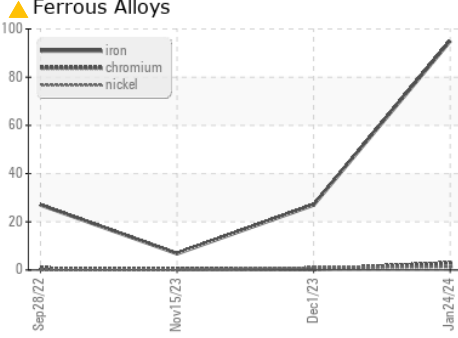
OIL ANALYSIS REPORT



PARAMETER	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

PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	15.5	14.1

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0109966 **Recieved** : 26 Jan 2024
Lab Number : 06071329 **Diagnosed** : 30 Jan 2024
Unique Number : 10848006 **Diagnostician** : Sean Felton
Test Package : FLEET

GFL Environmental - 410 - Michigan West
 39000 Van Born Rd
 Wayne, MI
 US 48184
 Contact: Belal Dgheish
 bdgheish@gflenv.com
 T: (734)714-2340
 F:

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)