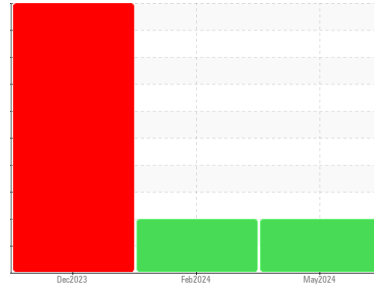




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
514050 PETERBILT 567

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high. There is a moderate amount of fuel present in the oil. Test for glycol is negative.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			GFL0115331	GFL0066585	GFL0066601
Sample Date	Client Info			28 May 2024	20 Feb 2024	16 Dec 2023
Machine Age	mls	Client Info		0	0	0
Oil Age	mls	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				ABNORMAL	SEVERE	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.2	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	18	9	▲ 1391
Chromium	ppm	ASTM D5185m	>4	0	0	▲ 8
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>25	12	5	● 10
Lead	ppm	ASTM D5185m	>45	0	1	0
Copper	ppm	ASTM D5185m	>85	7	3	9
Tin	ppm	ASTM D5185m	>4	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	9	73
Barium	ppm	ASTM D5185m	0	0	0	3
Molybdenum	ppm	ASTM D5185m	60	47	45	2
Manganese	ppm	ASTM D5185m	0	<1	<1	8
Magnesium	ppm	ASTM D5185m	1010	214	220	456
Calcium	ppm	ASTM D5185m	1070	2308	2604	819
Phosphorus	ppm	ASTM D5185m	1150	1052	1076	720
Zinc	ppm	ASTM D5185m	1270	1237	1479	534
Sulfur	ppm	ASTM D5185m	2060	3649	3832	9708

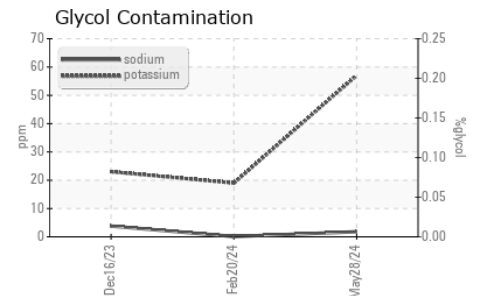
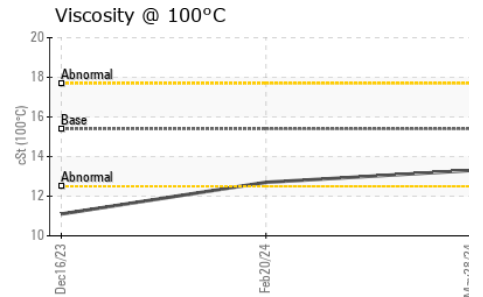
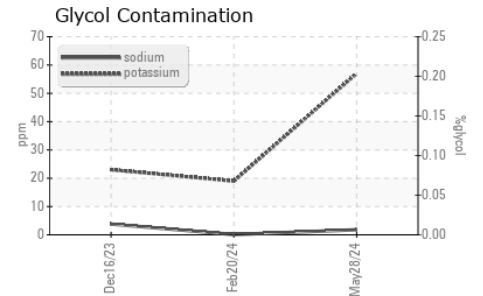
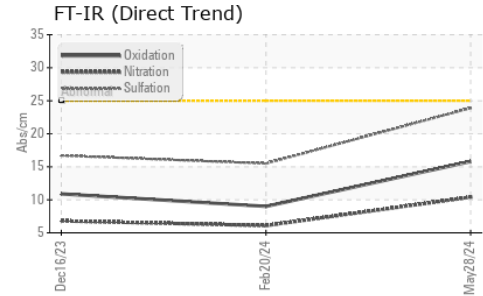
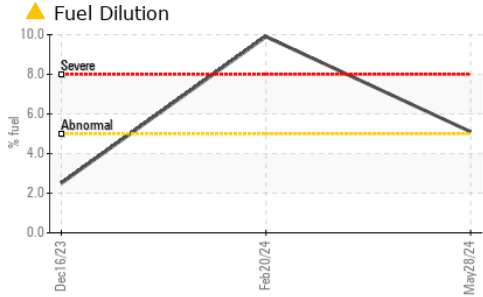
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	8	9	▲ 28
Sodium	ppm	ASTM D5185m		2	<1	4
Potassium	ppm	ASTM D5185m	>20	▲ 57	19	23
Fuel	%	ASTM D3524	>5	▲ 5.1	▲ 9.9	▲ 2.5
Glycol	%	*ASTM D2982		NEG	NEG	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.2	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	10.4	6.1	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9	15.5	16.7

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.8	9.0	10.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	5.2	7.7	6.2



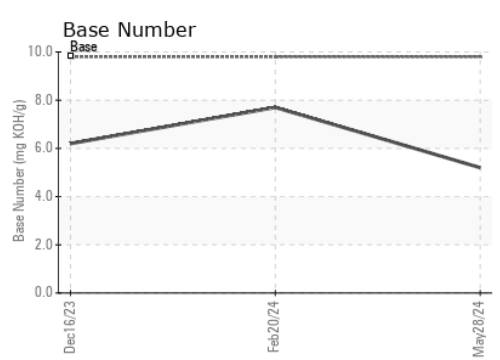
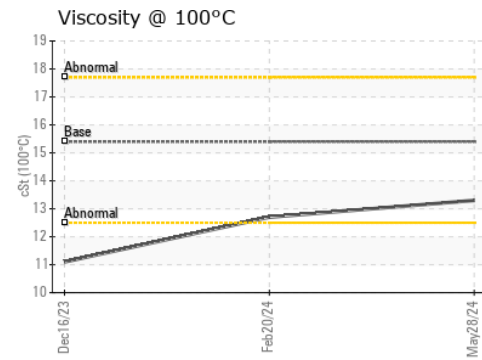
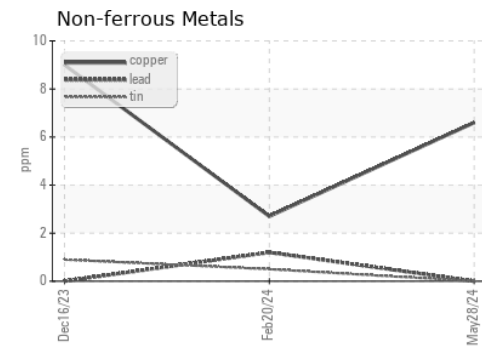
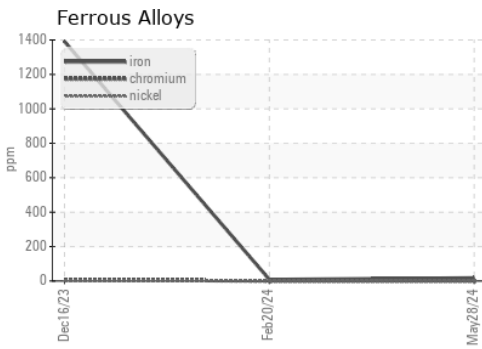
OIL ANALYSIS REPORT



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	13.3	12.7 ▲ 11.1

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115331 **Received** : 03 Jun 2024
Lab Number : 06197296 **Tested** : 05 Jun 2024
Unique Number : 11059419 **Diagnosed** : 05 Jun 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol, PercentFuel)

GFL Environmental - 980 - Northside Hauling
 1820 Candle Ridge Park Dr
 Houston, TX
 US 77073
 Contact: Edwin Collins
 ecollins@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)