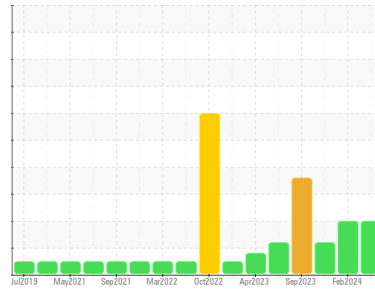




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id

401024

Component

Diesel Engine

Fluid

PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. No other contaminants were detected 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 (see recommendation).

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0117296	GFL0112414	GFL0099582
Sample Date	Client Info	02 May 2024	15 Feb 2024	21 Nov 2023
Machine Age	hrs	20662	20083	537126
Oil Age	hrs	582	619	0
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ATTENTION	ATTENTION	ATTENTION

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >110	26	30	26
Chromium	ppm	ASTM D5185(m) >4	1	1	1
Nickel	ppm	ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m) >2	0	0	<1
Aluminum	ppm	ASTM D5185(m) >25	5	5	4
Lead	ppm	ASTM D5185(m) >45	0	<1	<1
Copper	ppm	ASTM D5185(m) >85	<1	<1	<1
Tin	ppm	ASTM D5185(m) >4	0	0	0
Antimony	ppm	ASTM D5185(m)	0	0	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 1	2	<1	1
Barium	ppm	ASTM D5185(m) 1	0	0	<1
Molybdenum	ppm	ASTM D5185(m) 60	64	64	65
Manganese	ppm	ASTM D5185(m) 1	<1	0	0
Magnesium	ppm	ASTM D5185(m) 1010	922	883	915
Calcium	ppm	ASTM D5185(m) 1070	1025	1020	1022
Phosphorus	ppm	ASTM D5185(m) 1150	944	958	948
Zinc	ppm	ASTM D5185(m) 1270	1133	1112	1151
Sulfur	ppm	ASTM D5185(m) 2060	2298	2424	2389
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

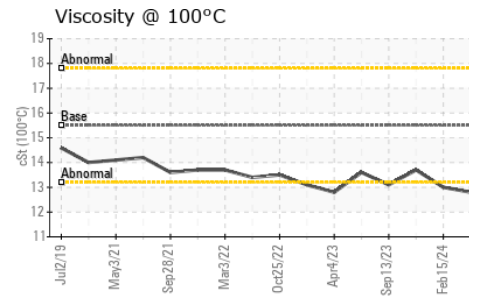
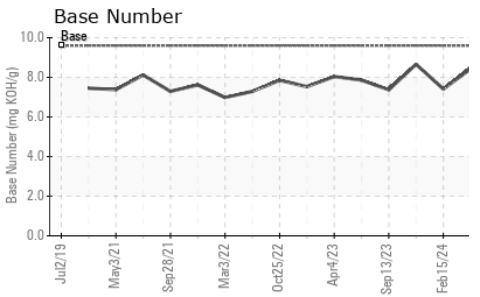
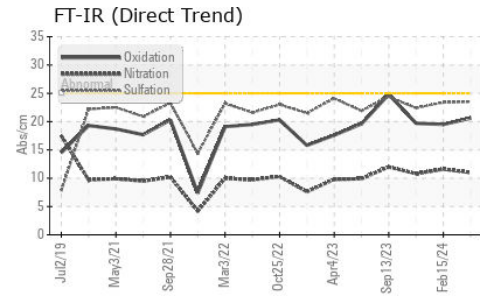
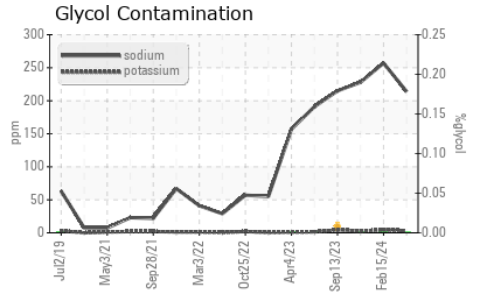
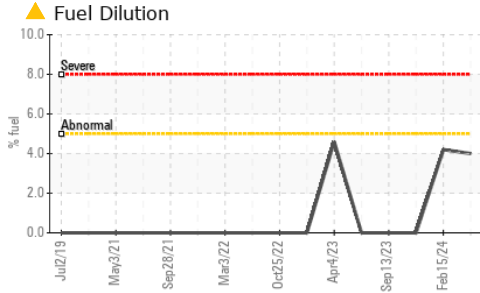
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >30	7	5	5
Sodium	ppm	ASTM D5185(m)	214	257	228
Potassium	ppm	ASTM D5185(m) >20	3	4	3
Fuel	%	ASTM D7593* >5	4	4.2	<1.0
Glycol	%	ASTM D7922*	0.0	0.0	0.0

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >3	0.8	0.9	0.7
Nitration	Abs/cm	ASTM D7624* >20	11.0	11.6	10.8
Sulfation	Abs/.1mm	ASTM D7415* >30	23.5	23.4	22.4



OIL ANALYSIS REPORT

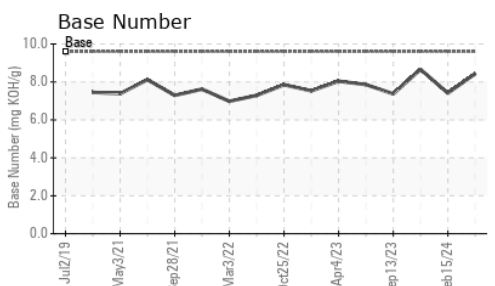
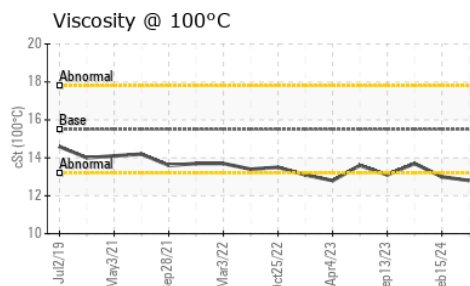
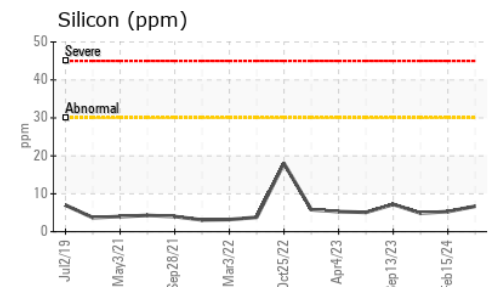
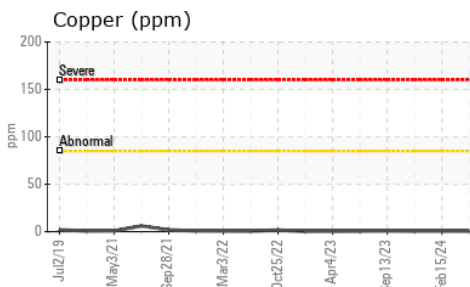
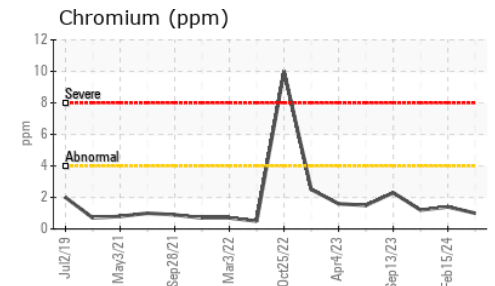
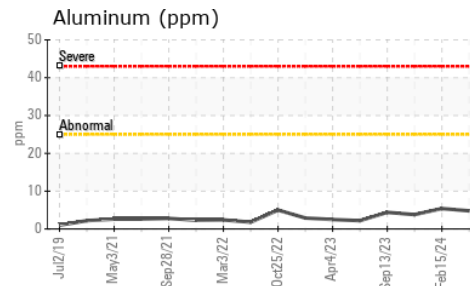
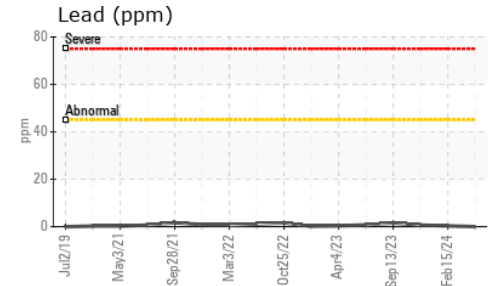
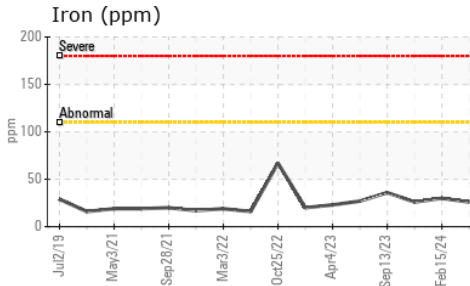


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	20.6	19.5	19.7
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	8.43	7.41	8.66

VISUAL		method	limit/base	current	history1	history2
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 D7279(m)	15.5	12.8	13.0	13.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117296
Lab Number : 02633821
Unique Number : 5774974
Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, PercentFuel)

GFL Environmental - 550 - Rocky View County
 220 Carmek Blvd
 Rocky View County, AB
 CA T1X 1X1
 Contact: GFL Calgary
 calgarymaintenance@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

T:
 F: (403)369-6163