



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
4535
Component
Front Diesel Engine
Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (22 LTR)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0112428	GFL0099538	GFL0084281
Sample Date		Client Info		19 Feb 2024	26 Dec 2023	19 Jul 2023
Machine Age	kms	Client Info		10539	301017	282398
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	SEVERE	ABNORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>127	93	▲ 281	▲ 212
Chromium	ppm	ASTM D5185(m)	>3	2	▲ 3	▲ 4
Nickel	ppm	ASTM D5185(m)	>30	<1	1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>59	10	11	8
Lead	ppm	ASTM D5185(m)	>29	2	6	7
Copper	ppm	ASTM D5185(m)	>135	1	3	5
Tin	ppm	ASTM D5185(m)	>2	<1	<1	1
Vanadium	ppm	ASTM D5185(m)		0	0	<1

CONTAMINATION

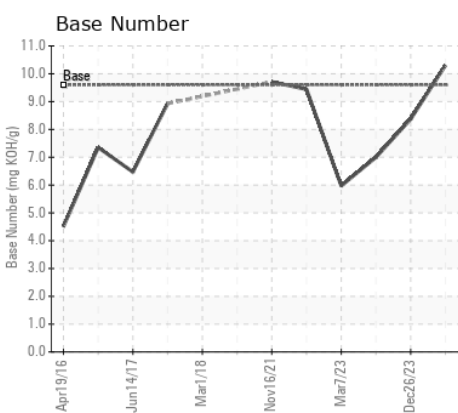
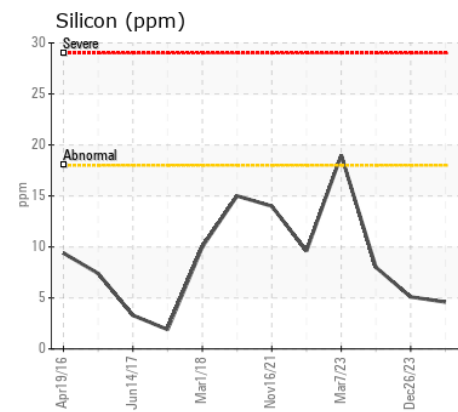
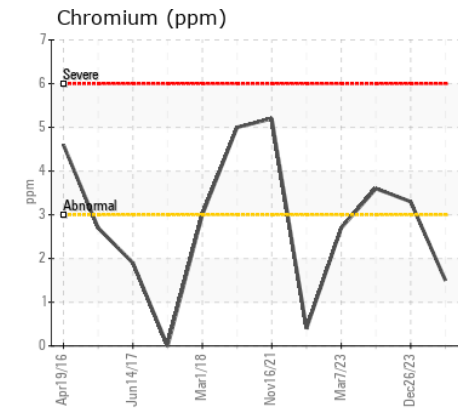
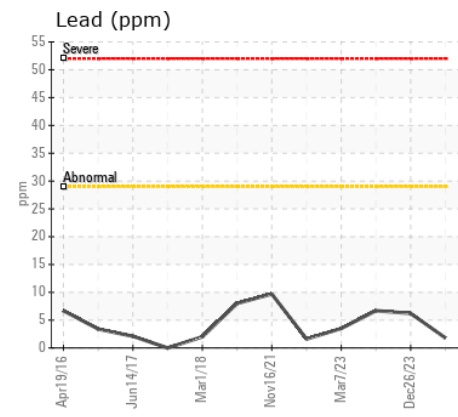
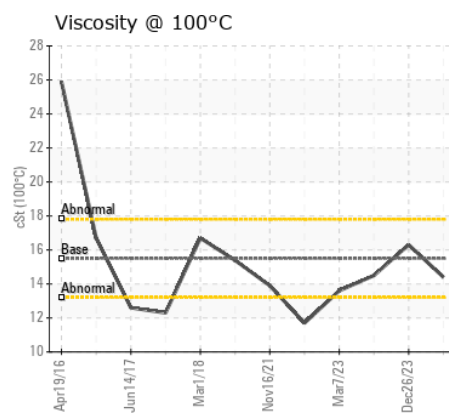
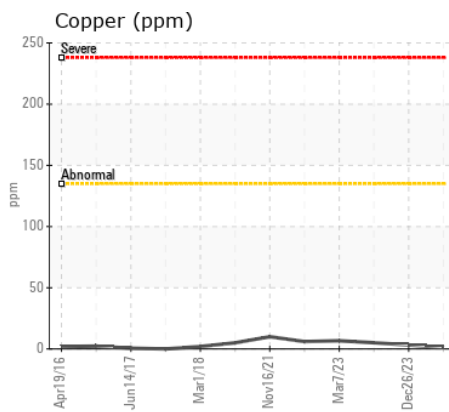
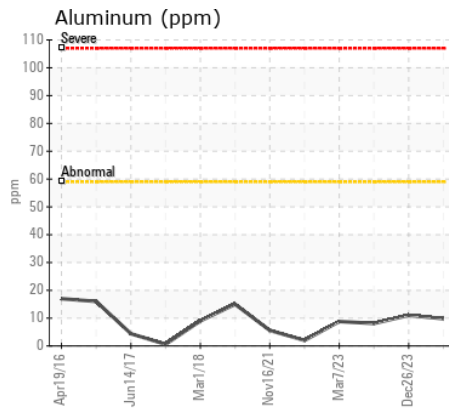
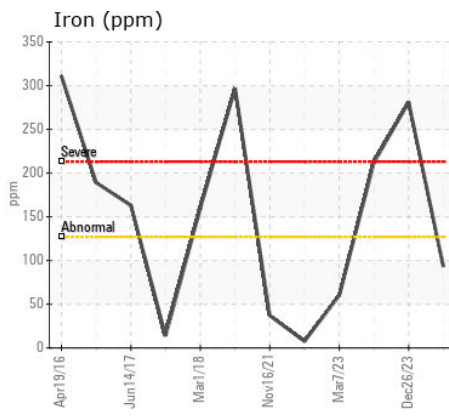
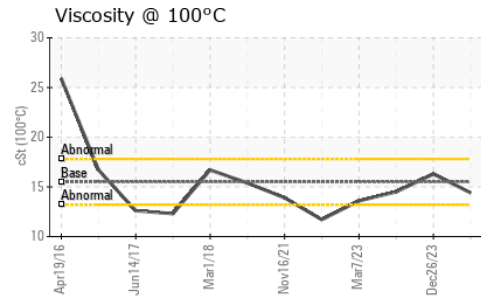
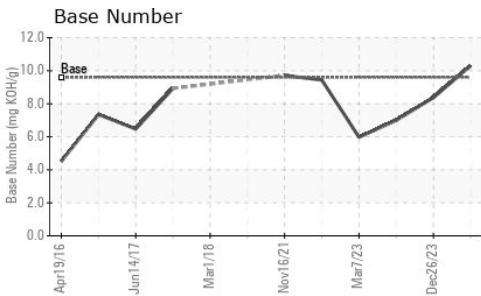
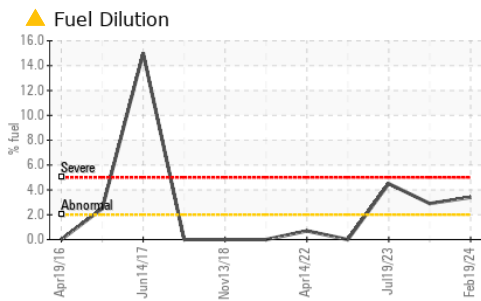
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>18	5	5	8
Potassium	ppm	ASTM D5185(m)	>20	<1	1	1
Fuel	%	ASTM D7593*	>2.0	▲ 3.4	▲ 2.9	▲ 4.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	2.1	▲ 4.5	▲ 3.8
Nitration	Abs/cm	ASTM D7624*	>20	10.3	15.8	14.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.5	32.4	31.0
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		1	1	2
Boron	ppm	ASTM D5185(m)	1	2	2	2
Barium	ppm	ASTM D5185(m)	1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	56	56	53
Manganese	ppm	ASTM D5185(m)	1	<1	2	2
Magnesium	ppm	ASTM D5185(m)	1010	889	865	851
Calcium	ppm	ASTM D5185(m)	1070	996	993	907
Phosphorus	ppm	ASTM D5185(m)	1150	924	891	924
Zinc	ppm	ASTM D5185(m)	1270	1095	1092	1047
Sulfur	ppm	ASTM D5185(m)	2060	2436	2237	2049
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.7	27.2	24.1
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	10.30	8.37	7.00
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	14.4	16.3	14.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0112428 **Received** : 28 Feb 2024
Lab Number : 02618573 **Tested** : 29 Feb 2024
Unique Number : 5735683 **Diagnosed** : 29 Feb 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: PercentFuel)

GFL Environmental - 550 - Rocky View County
 220 Carmek Blvd
 Rocky View County, AB
 CA T1X 1X1
 Contact: GFL Calgary
 calgarymaintenance@gflenv.com
 T:
 F: (403)369-6163

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.