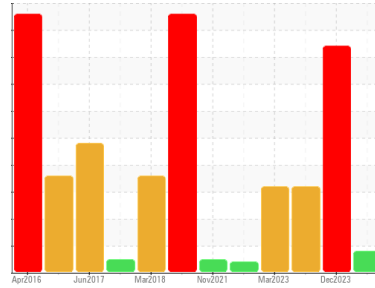




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**4535**

Component  
**Front Diesel Engine**

Fluid  
**PETRO CANADA DURON XL SYN BLEND 15W40 (22 LTR)**

## DIAGNOSIS

### Recommendation

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

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

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

### 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0112428</b>	GFL0099538	GFL0084281
Sample Date	Client Info		<b>19 Feb 2024</b>	26 Dec 2023	19 Jul 2023
Machine Age	kms	Client Info	<b>10539</b>	301017	282398
Oil Age	kms	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	SEVERE	ABNORMAL

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>127	<b>93</b>	▲ 281	▲ 212
Chromium	ppm	ASTM D5185(m)	>3	<b>2</b>	▲ 3	▲ 4
Nickel	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>59	<b>10</b>	11	8
Lead	ppm	ASTM D5185(m)	>29	<b>2</b>	6	7
Copper	ppm	ASTM D5185(m)	>135	<b>1</b>	3	5
Tin	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	1	<b>2</b>	2	2
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>56</b>	56	53
Manganese	ppm	ASTM D5185(m)	1	<b>&lt;1</b>	2	2
Magnesium	ppm	ASTM D5185(m)	1010	<b>889</b>	865	851
Calcium	ppm	ASTM D5185(m)	1070	<b>996</b>	993	907
Phosphorus	ppm	ASTM D5185(m)	1150	<b>924</b>	891	924
Zinc	ppm	ASTM D5185(m)	1270	<b>1095</b>	1092	1047
Sulfur	ppm	ASTM D5185(m)	2060	<b>2436</b>	2237	2049
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

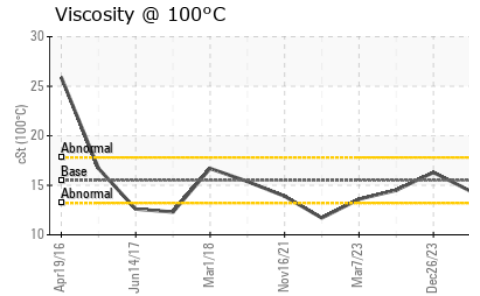
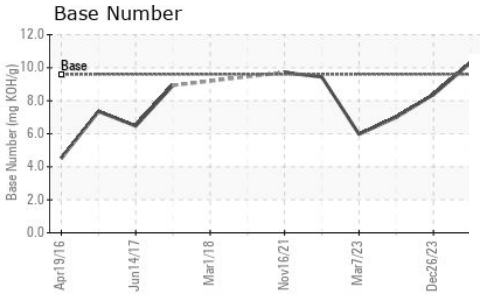
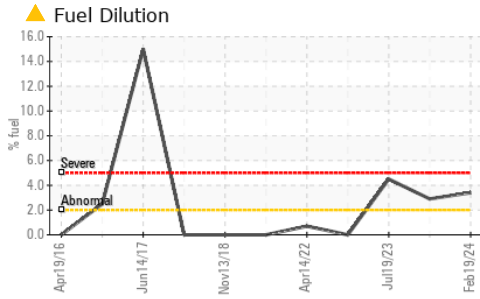
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>18	<b>5</b>	5	8
Sodium	ppm	ASTM D5185(m)		<b>1</b>	1	2
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1	1
Fuel	%	ASTM D7593*	>2.0	▲ <b>3.4</b>	▲ 2.9	▲ 4.5

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>2.1</b>	▲ 4.5	▲ 3.8
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.3</b>	15.8	14.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.5</b>	32.4	31.0



# OIL ANALYSIS REPORT

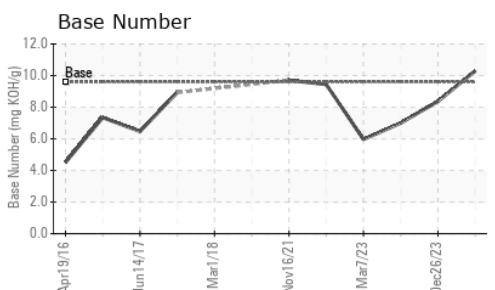
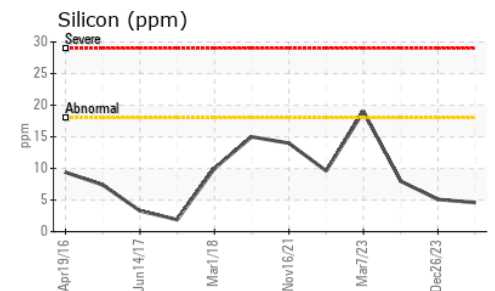
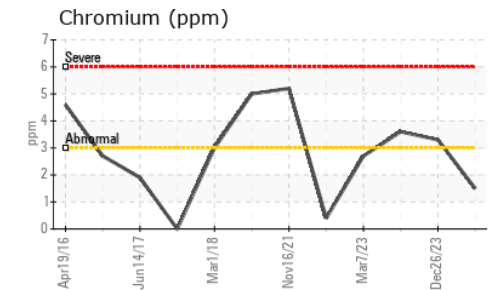
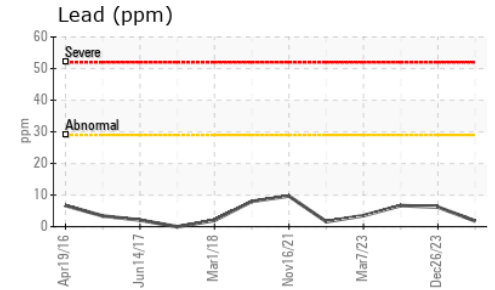
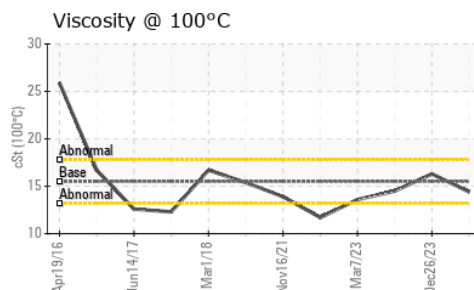
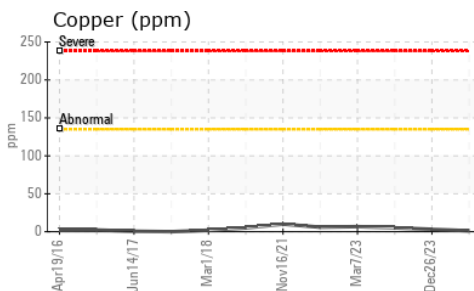
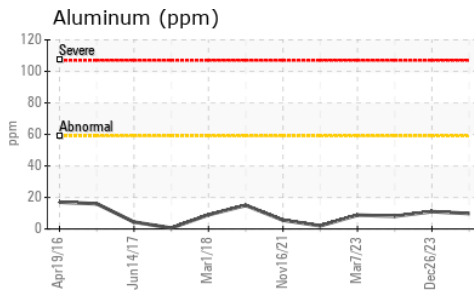
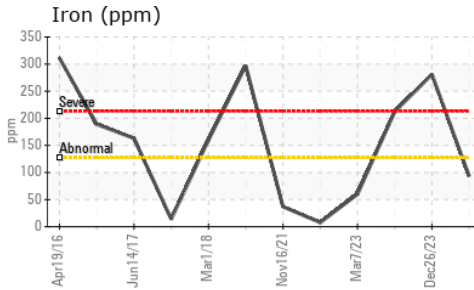


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>17.7</b>	27.2	24.1
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	<b>10.30</b>	8.37	7.00

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	<b>14.4</b>	16.3	14.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0112428  
**Lab Number** : 02618573  
**Unique Number** : 5735683  
**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

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.

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