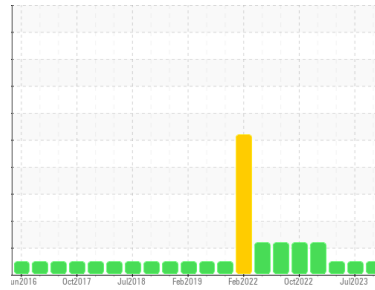




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**4487**

Component  
**Front Diesel Engine**

Fluid  
**PETRO CANADA DURON XL SYN BLEND 15W40 (37 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### 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 suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	<b>GFL0099620</b>	GFL0084272	GFL0070694	
Sample Date	Client Info	<b>29 Jan 2024</b>	10 Jul 2023	23 Mar 2023	
Machine Age	kms	Client Info	<b>1134500</b>	29591	29093
Oil Age	kms	Client Info	<b>0</b>	0	600
Oil Changed	Client Info	<b>Changed</b>	N/A	Changed	
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >4.0	<b>&lt;1.0</b>	1.9	<1.0
Water	WC Method >0.1	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	0.0

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >80	<b>6</b>	8	7
Chromium	ppm	ASTM D5185(m) >6	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	0	<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) >20	<b>1</b>	1	1
Lead	ppm	ASTM D5185(m) >95	<b>1</b>	<1	<1
Copper	ppm	ASTM D5185(m) >85	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m) >9	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
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>3</b>	2	2
Barium	ppm	ASTM D5185(m) 1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 60	<b>57</b>	57	61
Manganese	ppm	ASTM D5185(m) 1	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	<b>913</b>	944	937
Calcium	ppm	ASTM D5185(m) 1070	<b>1047</b>	1031	1104
Phosphorus	ppm	ASTM D5185(m) 1150	<b>967</b>	1013	1043
Zinc	ppm	ASTM D5185(m) 1270	<b>1112</b>	1121	1123
Sulfur	ppm	ASTM D5185(m) 2060	<b>2665</b>	2476	2654
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

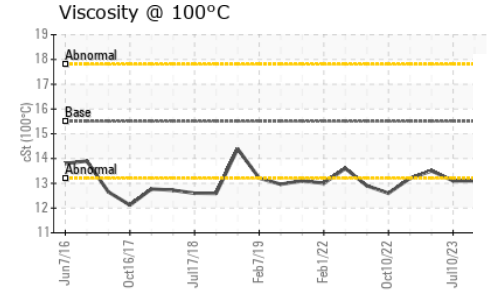
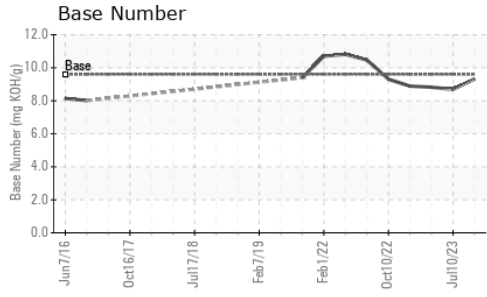
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >25	<b>3</b>	3	3
Sodium	ppm	ASTM D5185(m)	<b>55</b>	42	91
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1

## INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	<b>0.1</b>	0.2	0.1
Nitration	Abs/cm	ASTM D7624*	<b>&gt;20</b>	7.2	7.7
Sulfation	Abs./1mm	ASTM D7415*	<b>&gt;30</b>	19.9	22.7



# OIL ANALYSIS REPORT

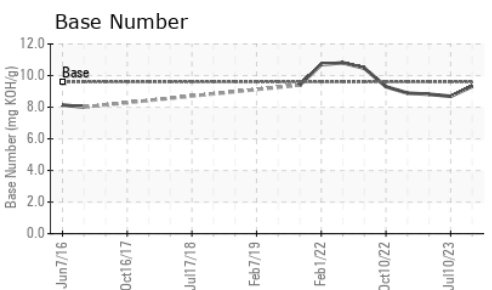
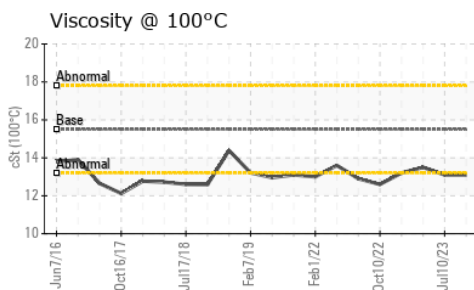
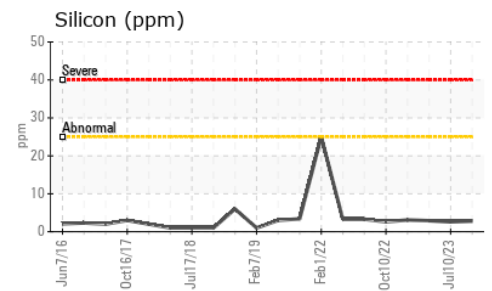
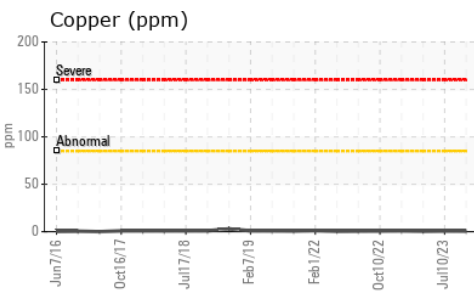
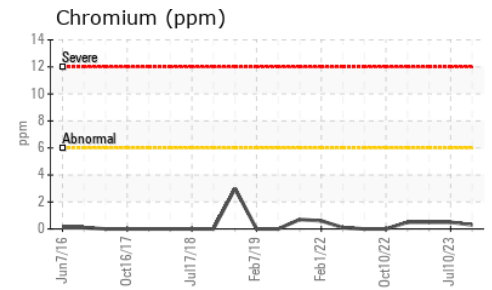
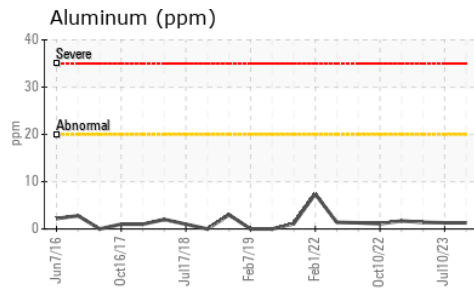
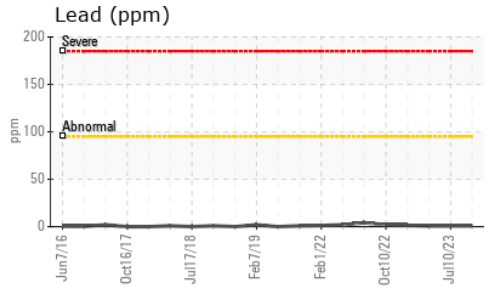
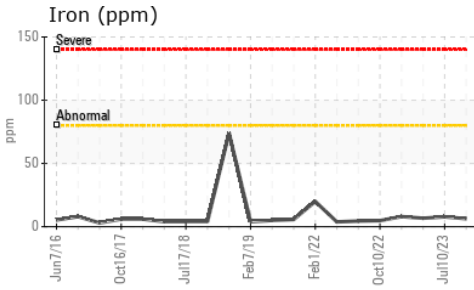


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>15.5</b>	16.2	16.0
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	<b>9.32</b>	8.69	8.82

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	<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>13.1</b>	13.1	13.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0099620  
**Lab Number** : 02614199  
**Unique Number** : 5723294  
**Test Package** : MOB 2  
**Received** : 08 Feb 2024  
**Tested** : 12 Feb 2024  
**Diagnosed** : 12 Feb 2024 - Wes Davis

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