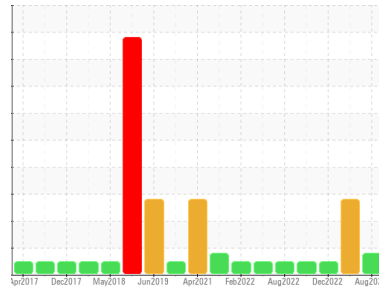




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id

**9971**

Component

**Diesel Engine**

Fluid

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

## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

### Wear

All component wear rates are normal.

### Contamination

Light fuel dilution occurring. 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 suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0084314</b>	GFL0063757	GFL0063734
Sample Date	Client Info	<b>07 Aug 2023</b>	04 Feb 2023	14 Dec 2022
Machine Age	hrs	<b>11647</b>	24674	24480
Oil Age	hrs	<b>600</b>	24674	0
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>MARGINAL</b>	SEVERE	NORMAL

## CONTAMINATION

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

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >110	<b>10</b>	29	24
Chromium	ppm	ASTM D5185(m) >4	<b>&lt;1</b>	2	1
Nickel	ppm	ASTM D5185(m) >2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m) >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >25	<b>2</b>	4	4
Lead	ppm	ASTM D5185(m) >45	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m) >85	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m) >4	<b>0</b>	<1	0
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	0
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	3
Barium	ppm	ASTM D5185(m) 1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 60	<b>57</b>	39	57
Manganese	ppm	ASTM D5185(m) 1	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	<b>951</b>	616	945
Calcium	ppm	ASTM D5185(m) 1070	<b>1029</b>	737	1089
Phosphorus	ppm	ASTM D5185(m) 1150	<b>1048</b>	718	1064
Zinc	ppm	ASTM D5185(m) 1270	<b>1147</b>	756	1148
Sulfur	ppm	ASTM D5185(m) 2060	<b>2549</b>	1724	2571
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

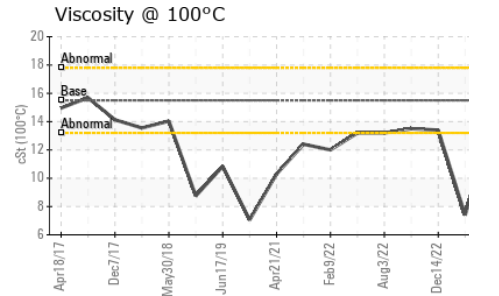
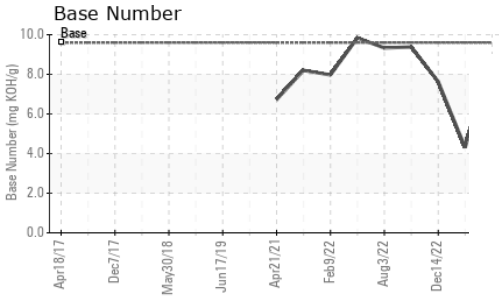
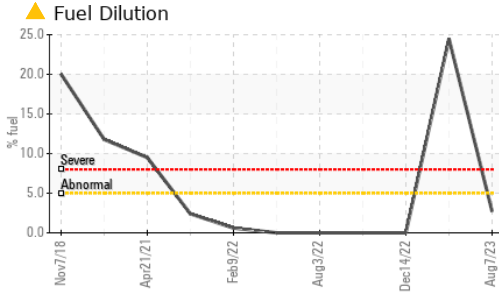
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >30	<b>6</b>	5	4
Sodium	ppm	ASTM D5185(m)	<b>2</b>	4	3
Potassium	ppm	ASTM D5185(m) >20	<b>2</b>	4	5
Fuel	%	ASTM D7593* >5	<b>▲ 2.7</b>	◆ 24.5	<1.0

## INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >3	<b>0.5</b>	1.3	0.6
Nitration	Abs/cm	ASTM D7624* >20	<b>6.2</b>	10.3	6.8
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>20.5</b>	23.1	21.5



# OIL ANALYSIS REPORT

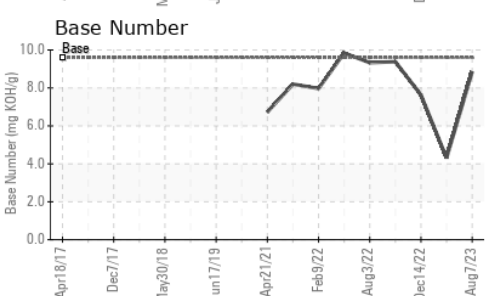
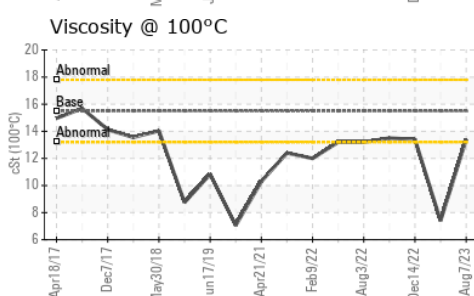
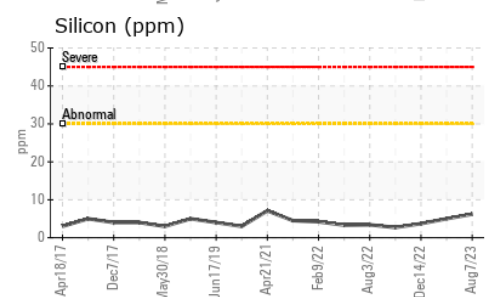
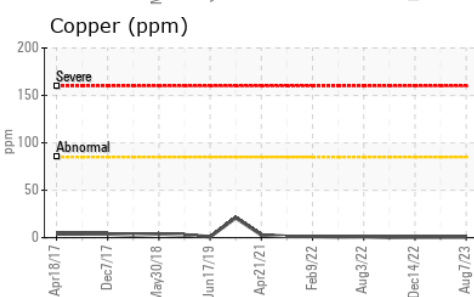
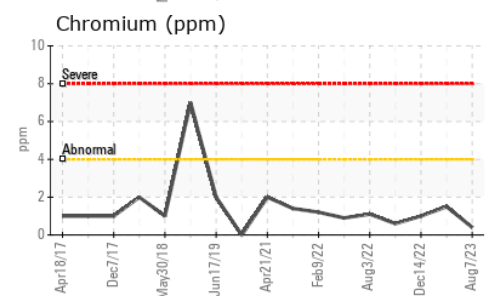
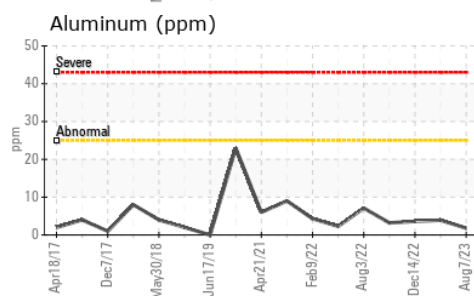
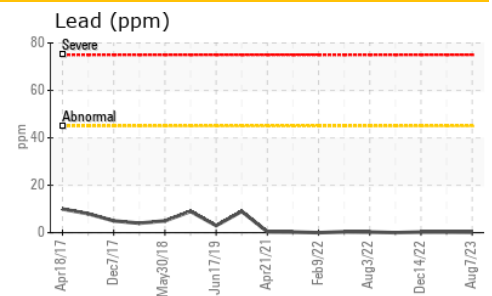
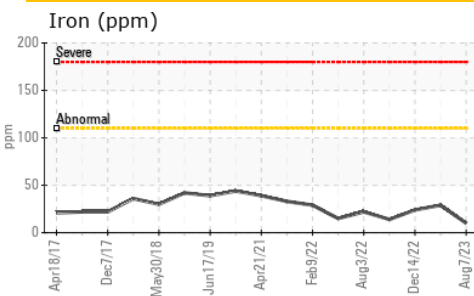


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>14.5</b>	17.3	14.1
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	<b>8.85</b>	4.31	7.63

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>13.4</b>	7.4	13.4

## GRAPHS



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County  
**Sample No.** : GFL0084314 **Received** : 15 Aug 2023  
**Lab Number** : 02575883 **Diagnosed** : 16 Aug 2023  
**Unique Number** : 5628943 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: PercentFuel )

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.  
 Contact: GFL Calgary calgarymaintenance@gflenv.com  
 T: (403)369-6163