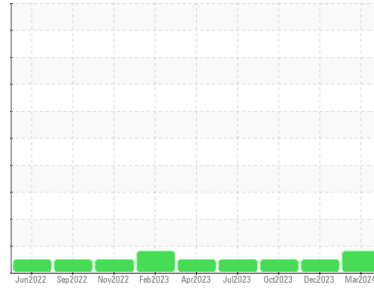




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**428097**

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>GFL0112399</b>	GFL0099523	GFL0091562
Sample Date	Client Info		<b>07 Mar 2024</b>	12 Dec 2023	05 Oct 2023
Machine Age	hrs	Client Info	<b>10096</b>	260360	9020
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>MARGINAL</b>	NORMAL	NORMAL

## 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)	>110	<b>19</b>	12	19
Chromium	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	<b>4</b>	2	4
Lead	ppm	ASTM D5185(m)	>45	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>85	<b>1</b>	<1	1
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	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>2</b>	2	2
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	<b>57</b>	56	58
Manganese	ppm	ASTM D5185(m)	1	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>916</b>	901	918
Calcium	ppm	ASTM D5185(m)	1070	<b>1034</b>	1007	1011
Phosphorus	ppm	ASTM D5185(m)	1150	<b>987</b>	949	932
Zinc	ppm	ASTM D5185(m)	1270	<b>1136</b>	1131	1160
Sulfur	ppm	ASTM D5185(m)	2060	<b>2477</b>	2499	2409
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

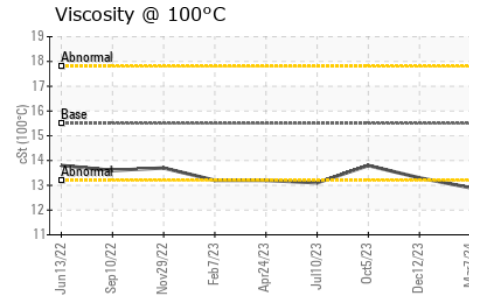
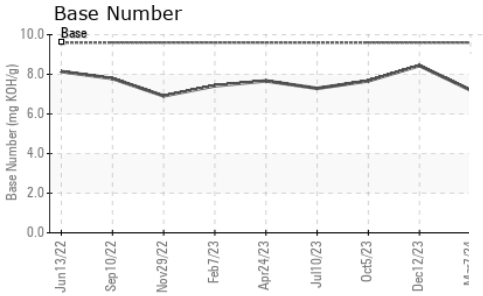
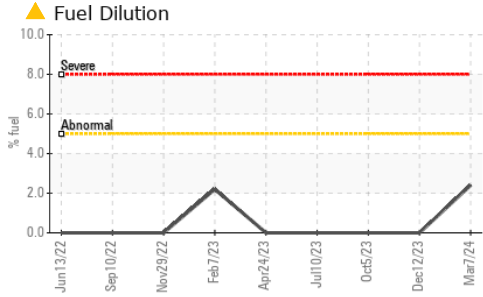
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>30	<b>8</b>	5	6
Sodium	ppm	ASTM D5185(m)		<b>5</b>	5	6
Potassium	ppm	ASTM D5185(m)	>20	<b>4</b>	2	6
Fuel	%	ASTM D7593*	>5	<b>▲ 2.4</b>	<1.0	<1.0

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.7</b>	0.5	0.6
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.2</b>	9.1	10.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.6</b>	21.0	22.2



# OIL ANALYSIS REPORT

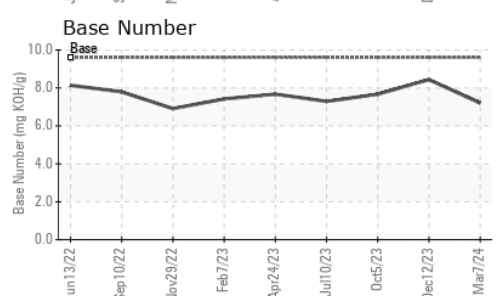
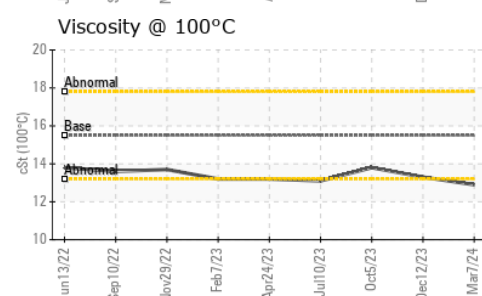
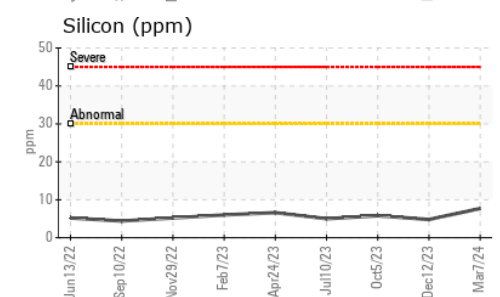
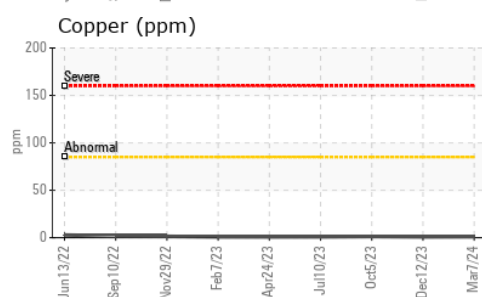
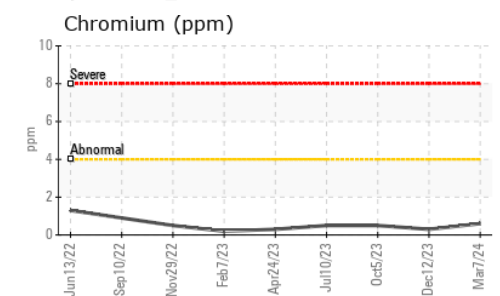
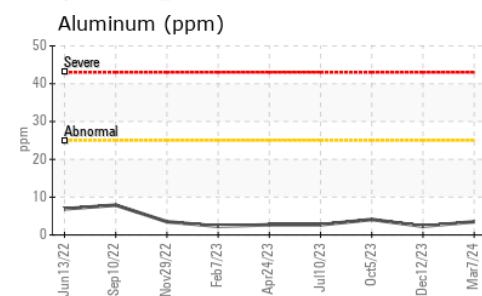
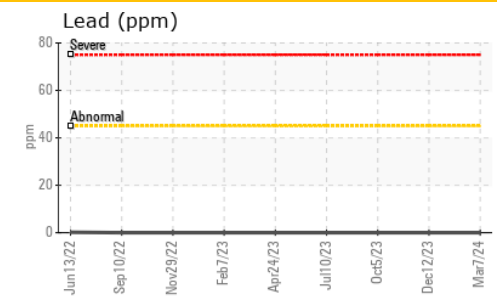
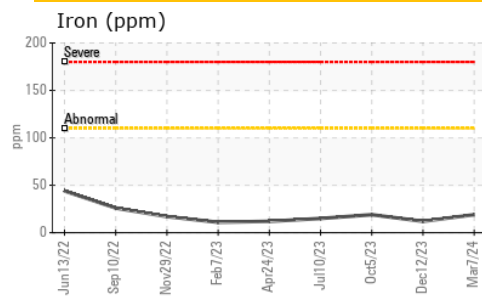


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>18.1</b>	16.9	20.2
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	<b>7.20</b>	8.44	7.67

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>12.9</b>	13.3	13.8

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0112399  
**Lab Number** : 02621351  
**Unique Number** : 5746470  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

**Received** : 12 Mar 2024  
**Tested** : 13 Mar 2024  
**Diagnosed** : 13 Mar 2024 - Wes Davis

**GFL Environmental - 550 - Rocky View County**  
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 Rocky View County, AB  
 CA T1X 1X1  
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 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.