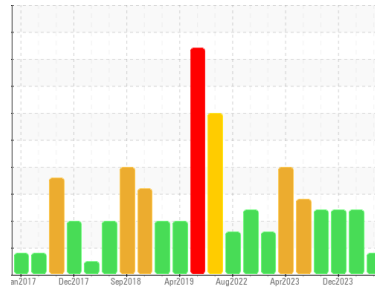




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**4555**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON XL SYN BLEND 15W40 (23 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>GFL0099597</b>	GFL0099534	GFL0099587
Sample Date	Client Info		<b>19 Dec 2023</b>	12 Dec 2023	12 Dec 2023
Machine Age	kms	Client Info	<b>674642</b>	1374137	674137
Oil Age	kms	Client Info	<b>0</b>	39444	39444
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>MARGINAL</b>	SEVERE	SEVERE

## 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)	>100	<b>11</b>	56	56
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	2	2
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	3	3
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	6	6
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	2	2
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	1
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	2
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>52</b>	42	42
Manganese	ppm	ASTM D5185(m)	1	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>863</b>	663	666
Calcium	ppm	ASTM D5185(m)	1070	<b>967</b>	735	734
Phosphorus	ppm	ASTM D5185(m)	1150	<b>921</b>	700	703
Zinc	ppm	ASTM D5185(m)	1270	<b>1049</b>	822	817
Sulfur	ppm	ASTM D5185(m)	2060	<b>2517</b>	1767	1767
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

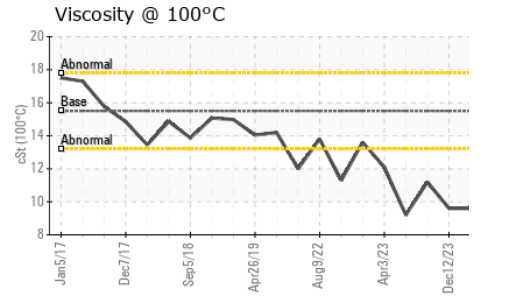
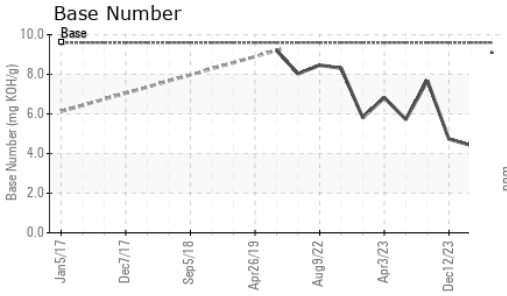
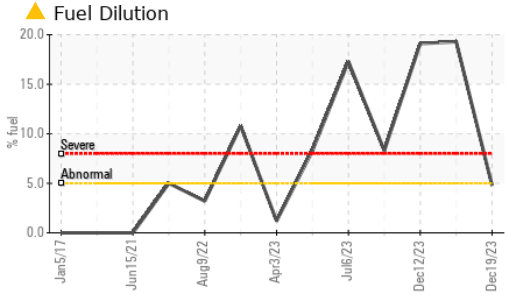
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	7	8
Sodium	ppm	ASTM D5185(m)		<b>2</b>	6	6
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	1	2
Fuel	%	ASTM D7593*	>5	<b>4.8</b>	19.3	19.1

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.3</b>	1.6	1.6
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.3</b>	13.5	13.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.2</b>	27.1	27.2



# OIL ANALYSIS REPORT

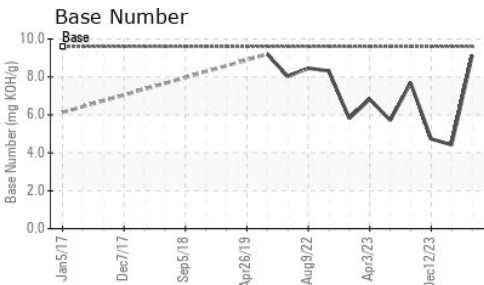
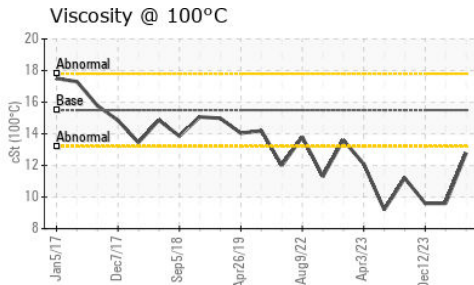
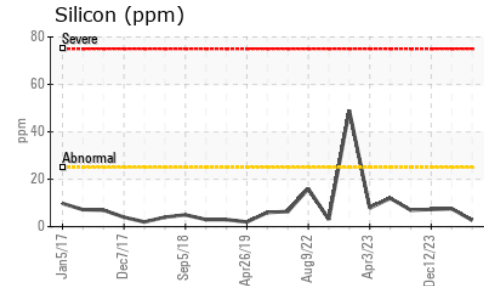
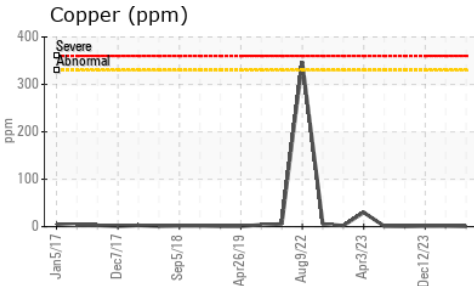
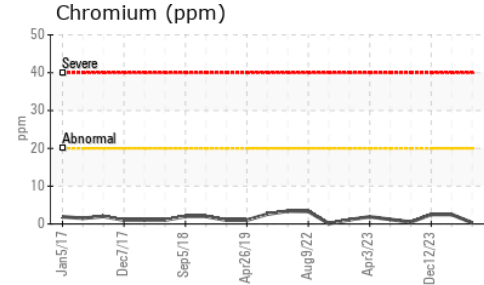
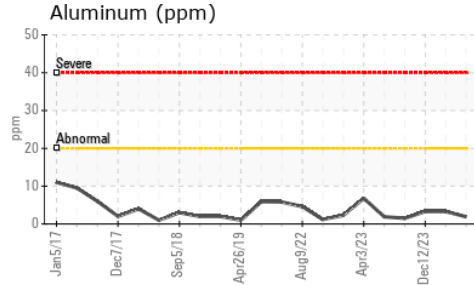
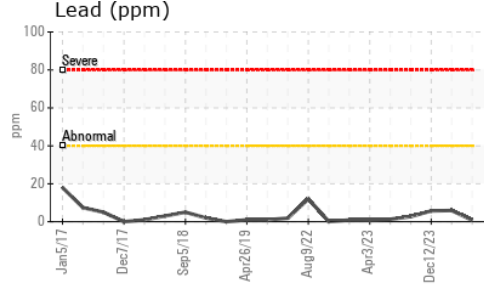
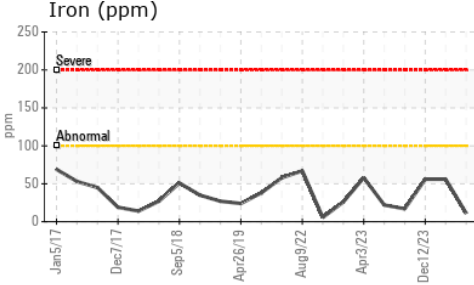


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>15.1</b>	29.2	29.2
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	<b>9.13</b>	4.42	4.73

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>12.8</b>	▲ 9.6	▲ 9.6

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County  
**Sample No.** : GFL0099597 **Received** : 02 Jan 2024 220 Carmek Blvd  
**Lab Number** : 02605729 **Diagnosed** : 04 Jan 2024 Rocky View County, AB  
**Unique Number** : 5698814 **Diagnostician** : Wes Davis CA T1X 1X1  
**Test Package** : MOB 2 ( Additional Tests: PercentFuel ) 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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