



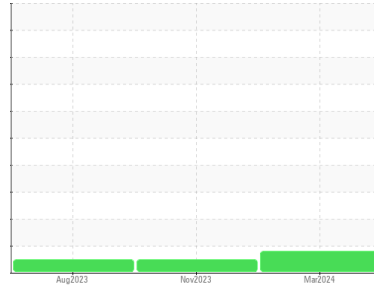
# OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id  
**413110**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)**



## 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>GFL0112455</b>	GFL0099572	GFL0084360
Sample Date	Client Info		<b>21 Mar 2024</b>	20 Nov 2023	21 Aug 2023
Machine Age	kms	Client Info	<b>0</b>	35325	806
Oil Age	kms	Client Info	<b>51093</b>	0	192
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)	>80	<b>19</b>	14	9
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>30	<b>2</b>	2	2
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>150	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>5	<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>	4	5
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	<1	<1
Molybdenum	ppm	ASTM D5185(m)	60	<b>53</b>	55	54
Manganese	ppm	ASTM D5185(m)	1	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>884</b>	907	906
Calcium	ppm	ASTM D5185(m)	1070	<b>1003</b>	1030	1058
Phosphorus	ppm	ASTM D5185(m)	1150	<b>890</b>	943	1004
Zinc	ppm	ASTM D5185(m)	1270	<b>1050</b>	1131	1118
Sulfur	ppm	ASTM D5185(m)	2060	<b>2080</b>	2395	2472
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

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

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.7</b>	0.4	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.8</b>	7.2	6.1
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>21.8</b>	20.1	20.3

