

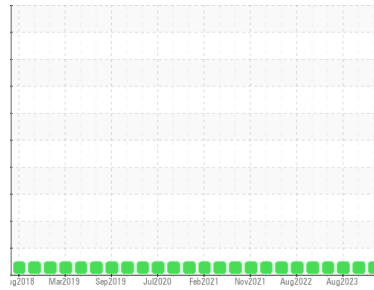


# OIL ANALYSIS REPORT



Machine Id  
**401001**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (38 LTR)**

### Sample Rating Trend



**NORMAL**



## 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 condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0113266</b>	GFL0097563	GFL0088939
Sample Date	Client Info		<b>07 May 2024</b>	03 Nov 2023	16 Aug 2023
Machine Age	hrs	Client Info	<b>384605</b>	18767	18155
Oil Age	hrs	Client Info	<b>384605</b>	612	582
Oil Changed		Client Info	<b>N/A</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
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)	>120	<b>7</b>	6	7
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>1</b>	1	1
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	<1	1
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	2	2
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	<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)	0	<b>3</b>	5	5
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>58</b>	61	60
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>965</b>	959	974
Calcium	ppm	ASTM D5185(m)	1070	<b>1036</b>	1058	1035
Phosphorus	ppm	ASTM D5185(m)	1150	<b>985</b>	998	1036
Zinc	ppm	ASTM D5185(m)	1270	<b>1167</b>	1200	1175
Sulfur	ppm	ASTM D5185(m)	2060	<b>2463</b>	2503	2486
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

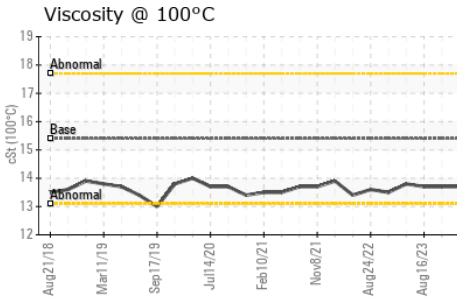
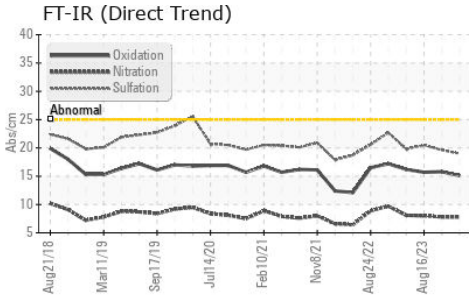
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	3	2
Sodium	ppm	ASTM D5185(m)		<b>3</b>	3	3
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	1

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	<b>0.1</b>	0.1	0.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.8</b>	7.8	8.0
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>19.0</b>	19.6	20.5



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## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*	>25	15.8	15.7

## VISUAL

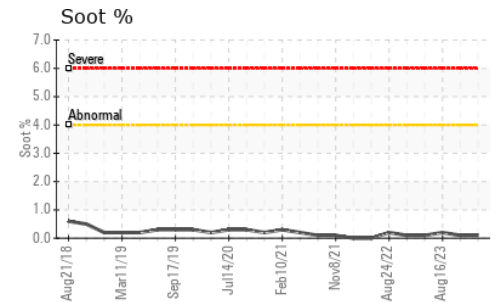
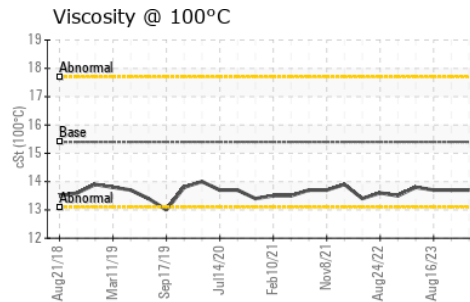
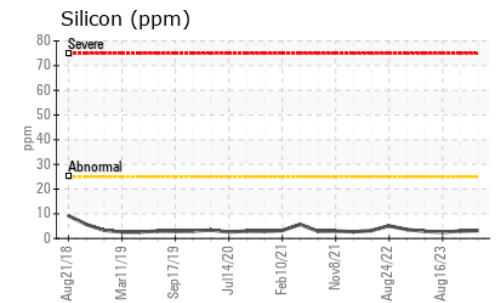
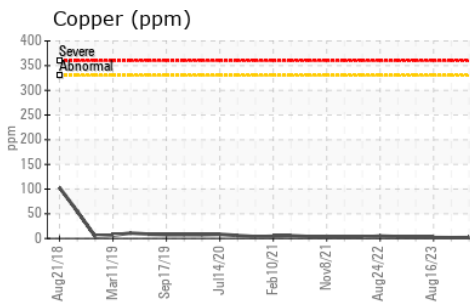
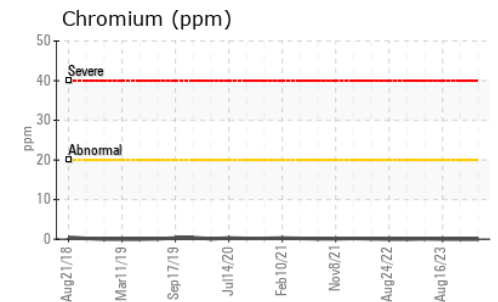
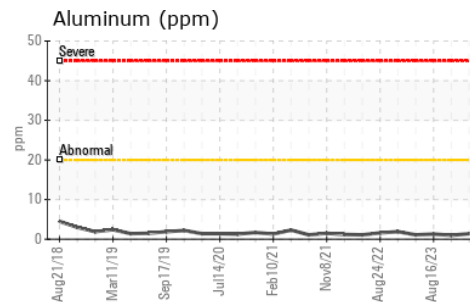
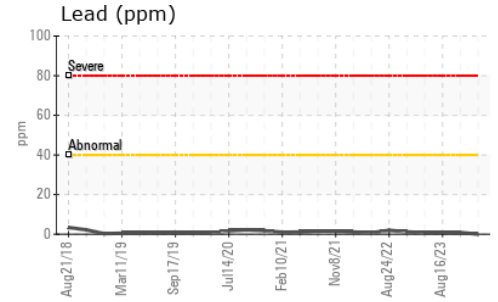
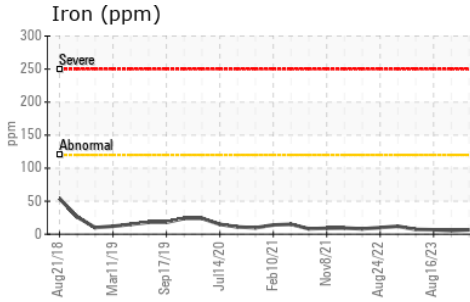
method	limit/base	current	history1	history2
Emulsified Water	scalar Visual*	>0.2	NEG	NEG

Free Water	scalar Visual*	NEG	NEG	NEG
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## FLUID PROPERTIES

method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D7279(m)	15.4	13.7	13.7

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0113266  
**Lab Number** : 02635546  
**Unique Number** : 5776699  
**Test Package** : MOB 1

**Received** : 15 May 2024  
**Tested** : 15 May 2024  
**Diagnosed** : 15 May 2024 - Wes Davis

**GFL Environmental - 216**  
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 Toronto, ON  
 CA M4B 1Y9  
 Contact: Tom Hatzioannidis  
 thatzioannidis@gflenv.com  
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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.