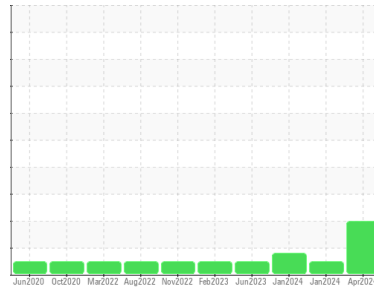




# OIL ANALYSIS REPORT

## Sample Rating Trend



GLYCOL



Machine Id  
**828007**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (22 GAL)**

## DIAGNOSIS

### Recommendation

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time.

### Wear

All component wear rates are normal.

### Contamination

Light fuel dilution occurring. Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. No other contaminants were detected in the oil.

### Fluid Condition

The condition of the oil is acceptable for the time in service (see recommendation).

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0117882</b>	GFL0107115	GFL0107146
Sample Date	Client Info	<b>24 Apr 2024</b>	25 Jan 2024	16 Jan 2024
Machine Age	hrs	<b>11604</b>	11067	11067
Oil Age	hrs	<b>600</b>	0	0
Oil Changed	Client Info	<b>Changed</b>	Not Changd	Changed
Sample Status		<b>ATTENTION</b>	NORMAL	MARGINAL

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >80	<b>18</b>	6	20
Chromium	ppm ASTM D5185(m) >5	<b>&lt;1</b>	0	<1
Nickel	ppm ASTM D5185(m) >2	<b>0</b>	<1	<1
Titanium	ppm ASTM D5185(m)	<b>&lt;1</b>	0	0
Silver	ppm ASTM D5185(m) >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185(m) >30	<b>4</b>	3	5
Lead	ppm ASTM D5185(m) >30	<b>0</b>	0	0
Copper	ppm ASTM D5185(m) >150	<b>2</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) 0	<b>9</b>	13	22
Barium	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m) 60	<b>59</b>	59	64
Manganese	ppm ASTM D5185(m) 0	<b>&lt;1</b>	0	0
Magnesium	ppm ASTM D5185(m) 1010	<b>902</b>	935	967
Calcium	ppm ASTM D5185(m) 1070	<b>966</b>	1006	1026
Phosphorus	ppm ASTM D5185(m) 1150	<b>936</b>	988	943
Zinc	ppm ASTM D5185(m) 1270	<b>1130</b>	1143	1145
Sulfur	ppm ASTM D5185(m) 2060	<b>2368</b>	2763	2657
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

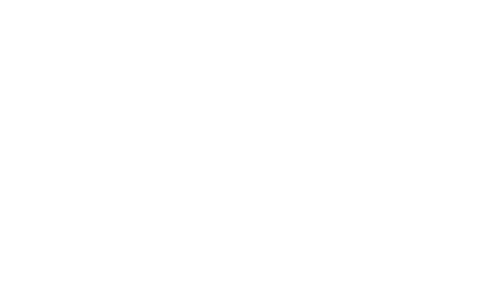
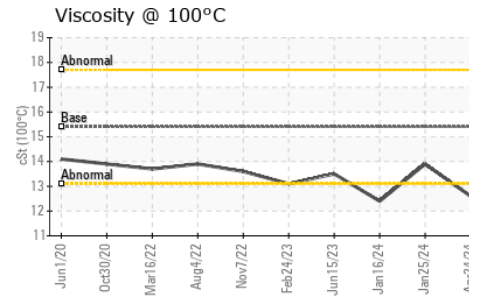
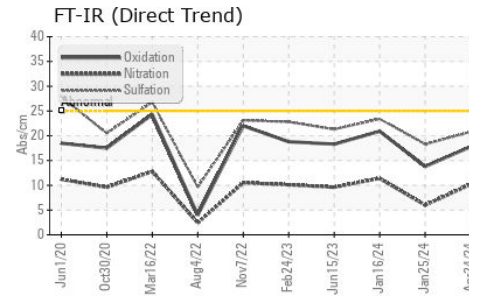
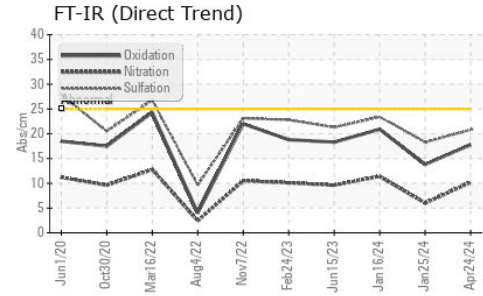
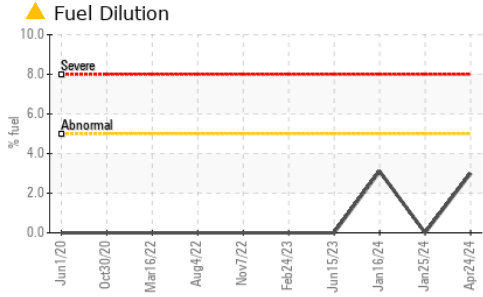
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	<b>3</b>	4	5
Sodium	ppm ASTM D5185(m)	<b>278</b>	86	111
Potassium	ppm ASTM D5185(m) >20	<b>42</b>	13	29
Fuel	% ASTM D7593* >5	<b>3</b>	<1.0	<b>3.1</b>
Glycol	% ASTM D7922*	<b>0.0</b>	0.0	0.0

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	<b>0.3</b>	0	0.5
Nitration	Abs/cm ASTM D7624* >20	<b>10.2</b>	6.0	11.4
Sulfation	Abs./1mm ASTM D7415* >30	<b>20.8</b>	18.3	23.4



# OIL ANALYSIS REPORT

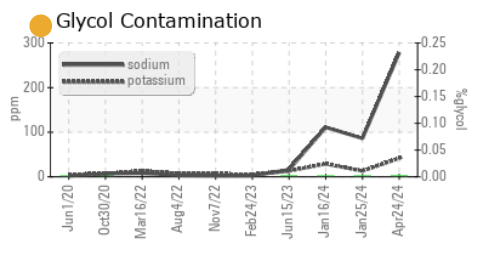
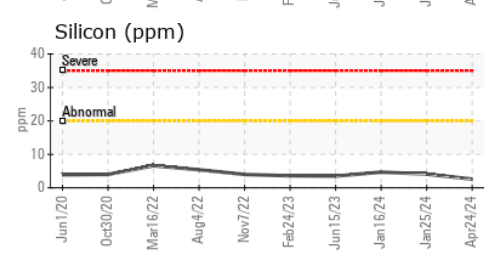
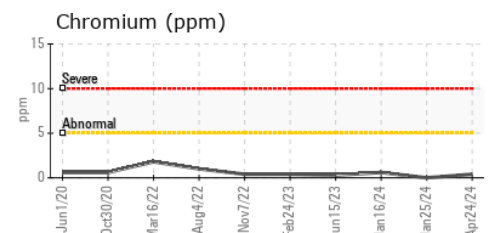
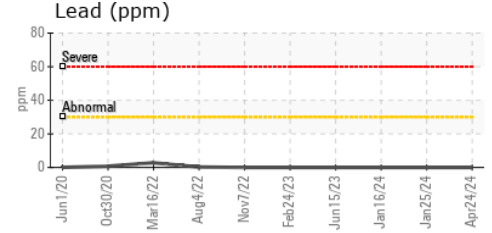
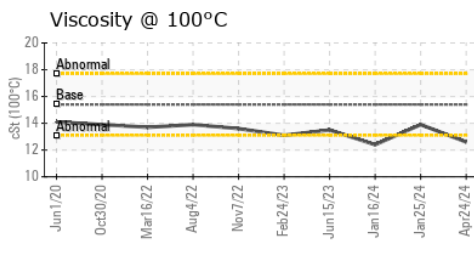
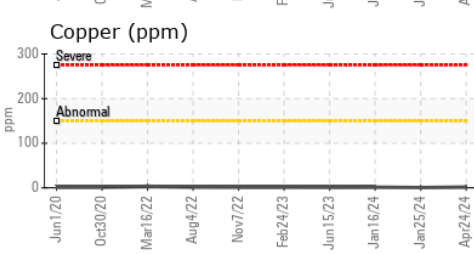
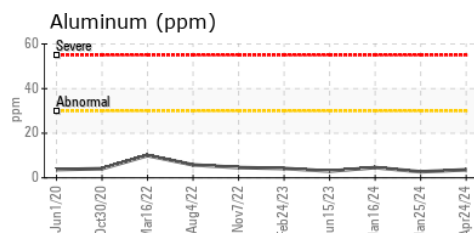
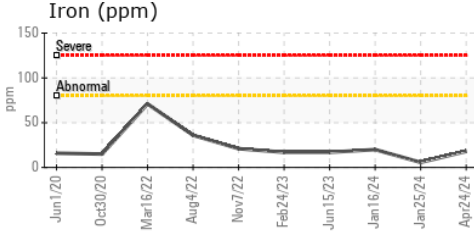


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>17.8</b>	13.8	20.9

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	VLITE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
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)	15.4	<b>12.6</b>	13.9	12.4

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0117882  
**Lab Number** : **02631317**  
**Unique Number** : 5772470  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, Glycol, PercentFuel, Visual )

**GFL Environmental - 217 - Aurora**  
 14131 BAYVIEW AVE, AURORA YARD  
 AURORA, ON  
 CA L4G 0K6  
 Contact: Mike Havens  
 MHavens@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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