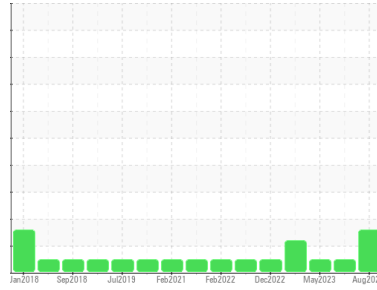




# OIL ANALYSIS REPORT

Sample Rating Trend



## FUEL



Machine Id  
**801039**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (22 LTR)**

### DIAGNOSIS

**Recommendation**  
The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. 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**  
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Light fuel dilution occurring. No other contaminants were detected in the oil.

**Fluid Condition**  
Additive levels indicate the addition of a different brand, or type of oil. 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>GFL0091039</b>	GFL0082003	GFL0081999
Sample Date	Client Info	<b>03 Aug 2023</b>	10 May 2023	01 May 2023
Machine Age	hrs	<b>108944</b>	12097	12042
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>Changed</b>	Changed	Not Changed
Sample Status		<b>ATTENTION</b>	NORMAL	NORMAL

### CONTAMINATION

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

### WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >80	<b>22</b>	10	9
Chromium	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m) >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >30	<b>13</b>	5	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	<1
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>▲ 157</b>	7	7
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 60	<b>78</b>	59	59
Manganese	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	<b>▲ 510</b>	923	930
Calcium	ppm	ASTM D5185(m) 1070	<b>1265</b>	1088	1070
Phosphorus	ppm	ASTM D5185(m) 1150	<b>1060</b>	1059	1057
Zinc	ppm	ASTM D5185(m) 1270	<b>1188</b>	1182	1155
Sulfur	ppm	ASTM D5185(m) 2060	<b>2624</b>	2673	2661
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>5</b>	2	3
Sodium	ppm	ASTM D5185(m)	<b>7</b>	4	4
Potassium	ppm	ASTM D5185(m) >20	<b>21</b>	5	5
Fuel	%	ASTM D7593* >5	<b>▲ 2.6</b>	<1.0	<1.0

### INFRA-RED

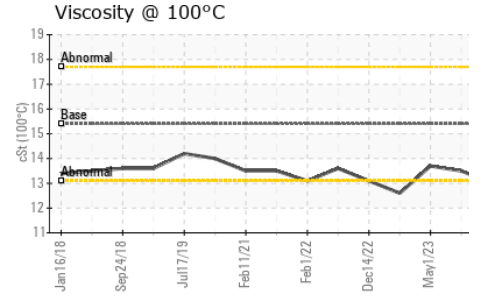
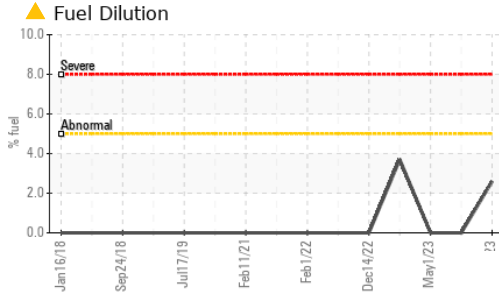
method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >3	<b>0.5</b>	0.1	0.1
Nitration	Abs/cm	ASTM D7624* >20	<b>9.4</b>	6.7	6.3
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>24.0</b>	18.6	18.3

### FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>17.8</b>	13.8	13.5



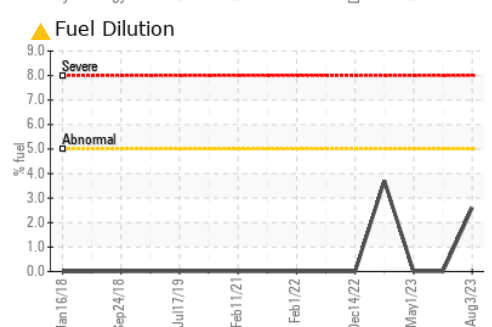
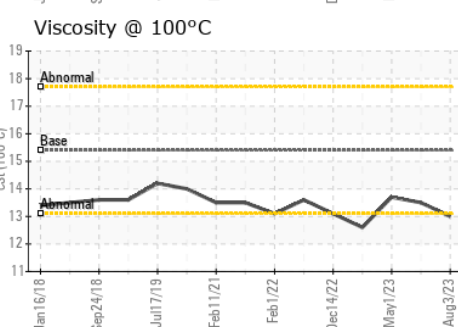
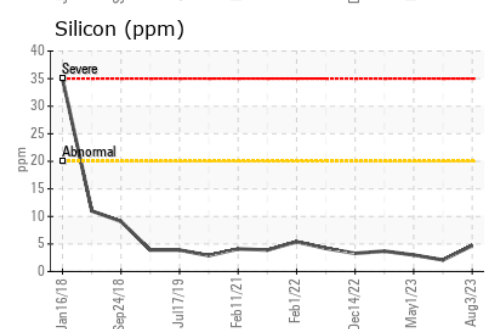
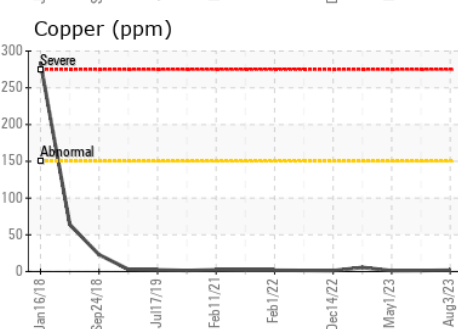
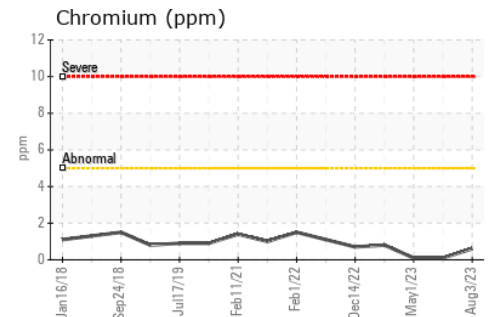
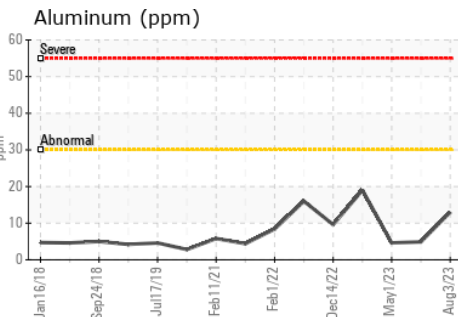
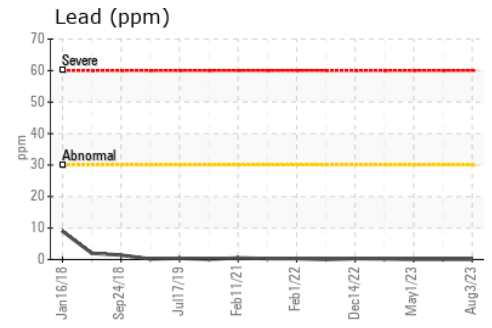
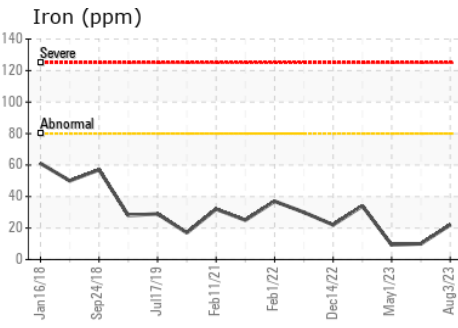
# OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.0	13.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0091039 **Received** : 16 Aug 2023  
**Lab Number** : 02576139 **Diagnosed** : 17 Aug 2023  
**Unique Number** : 5629199 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel )  
 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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