



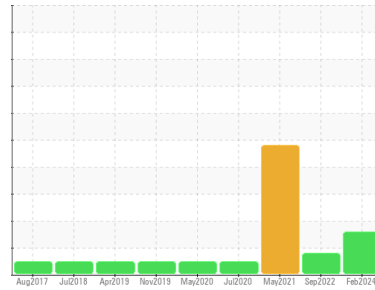
# OIL ANALYSIS REPORT

## Sample Rating Trend

**WATER**



Machine Id  
**7105**  
 Component  
**1 Natural Gas Engine**  
 Fluid  
**PETRO CANADA DURON GEO LD 15W40 (24 LTR)**



## DIAGNOSIS

### Recommendation

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate concentration of water present in the oil. Test for glycol is negative.

### Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0086788</b>	GFL0055416	GFL0022731
Sample Date	Client Info	<b>21 Feb 2024</b>	02 Sep 2022	18 May 2021
Machine Age	hrs	<b>14843</b>	12813	0
Oil Age	hrs	<b>14843</b>	0	0
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>ABNORMAL</b>	MARGINAL	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >50	<b>21</b>	22	12
Chromium	ppm	ASTM D5185(m) >4	<b>2</b>	▲ 4	1
Nickel	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m) >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >9	<b>3</b>	2	2
Lead	ppm	ASTM D5185(m) >30	<b>2</b>	<1	<1
Copper	ppm	ASTM D5185(m) >35	<b>2</b>	2	10
Tin	ppm	ASTM D5185(m) >4	<b>&lt;1</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) 50	<b>8</b>	8	16
Barium	ppm	ASTM D5185(m) 5	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m) 50	<b>57</b>	58	49
Manganese	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185(m) 560	<b>570</b>	478	557
Calcium	ppm	ASTM D5185(m) 1510	<b>1637</b>	1563	1413
Phosphorus	ppm	ASTM D5185(m) 780	<b>754</b>	715	734
Zinc	ppm	ASTM D5185(m) 870	<b>935</b>	874	932
Sulfur	ppm	ASTM D5185(m) 2040	<b>2218</b>	2039	2001
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >+100	<b>6</b>	10	9
Sodium	ppm	ASTM D5185(m)	<b>32</b>	66	▲ 448
Potassium	ppm	ASTM D5185(m) >20	<b>4</b>	2	▲ 21
Water	%	ASTM D6304* >0.1	▲ <b>0.376</b>	---	---
ppm Water	ppm	ASTM D6304* >1000	▲ <b>3767</b>	---	---
Glycol	%	ASTM D7922*	<b>0.0</b>	---	▲ 0.014

## INFRA-RED

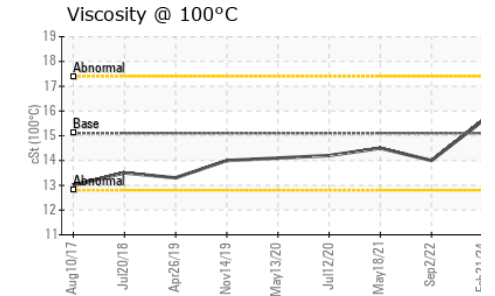
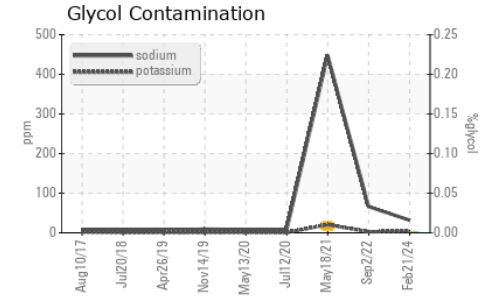
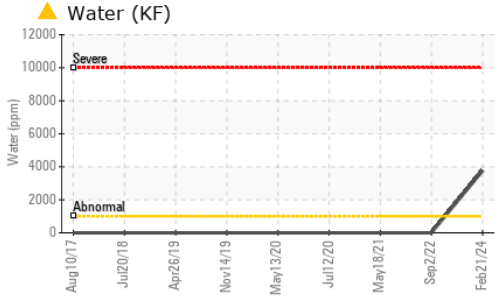
method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624* >20	<b>13.2</b>	11.7	11.0
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>24.8</b>	24.9	21.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>20.3</b>	19.5	16.7



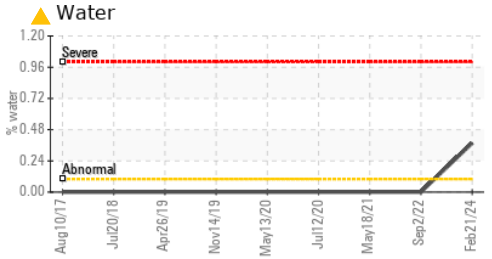
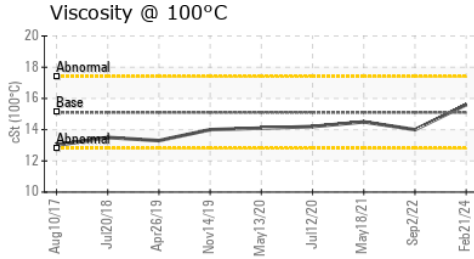
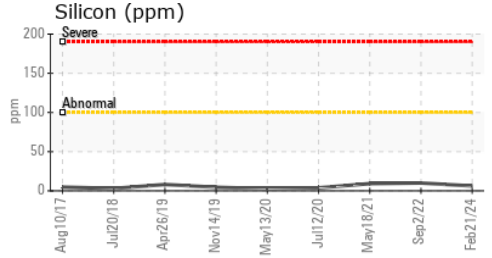
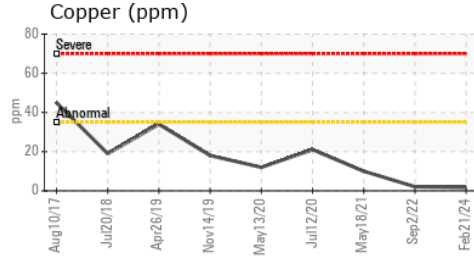
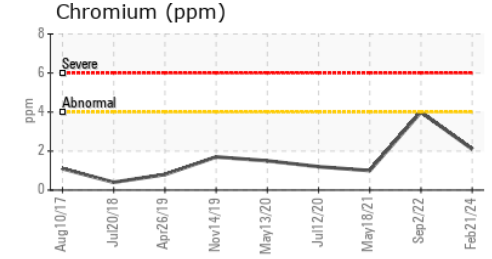
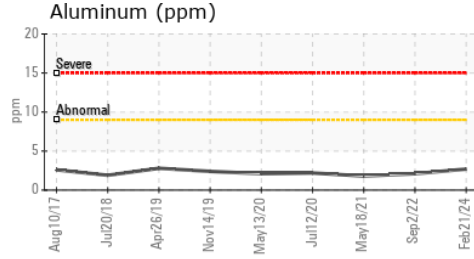
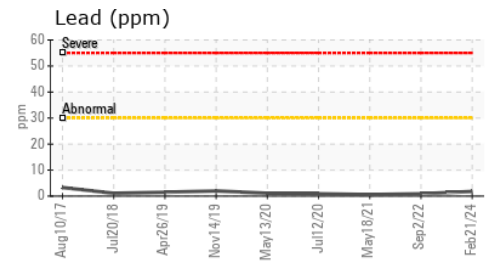
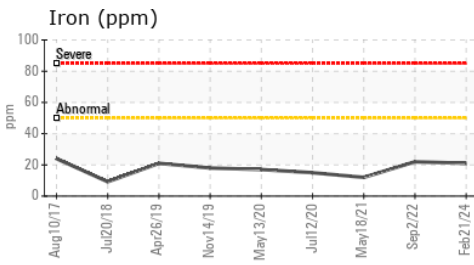
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.1	▲.2%	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	15.6	14.0

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0086788  
**Lab Number** : 02617341  
**Unique Number** : 5734451  
**Test Package** : MOB 1 ( Additional Tests: Glycol, KF, Visual )

**GFL Environmental - 222 - Sandhill**  
 SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE ROAD  
 ORANGEVILLE, ON  
 CA L9W 3X5  
 Contact: GLENN COOK  
 gcook@gflenv.com  
 T: (519)940-4167  
 F:

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.