



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	SEVERE

Machine Id  
**1047**  
 Component  
**Rear Diesel Engine**  
 Fluid  
**PETRO CANADA DURON HP 15W40 (--- GAL)**

## RECOMMENDATION

We advise that you check the fuel injection system. We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0913046	WC0887392	WC0858491
Sample Date		Client Info		25 Mar 2024	19 Dec 2023	02 Oct 2023
Machine Age	hrs	Client Info		48910	48351	48257
Oil Age	hrs	Client Info		550	94	416
Filter Age	hrs	Client Info		550	94	416
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				SEVERE	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	49	8	34
Chromium	ppm	ASTM D5185(m)	>20	3	<1	1
Nickel	ppm	ASTM D5185(m)	>4	1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	5	2	3
Lead	ppm	ASTM D5185(m)	>40	0	0	<1
Copper	ppm	ASTM D5185(m)	>330	2	<1	2
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

## CONTAMINATION

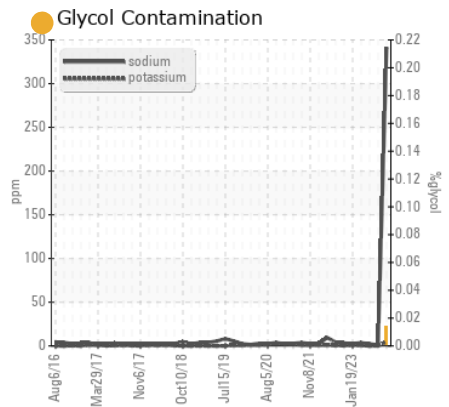
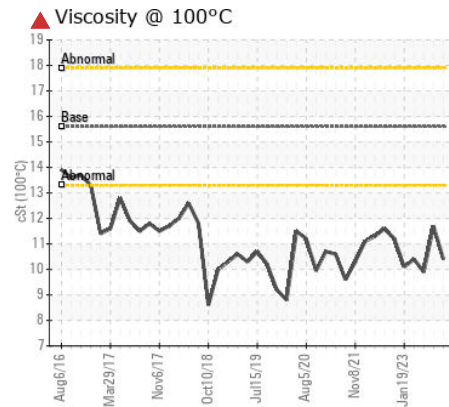
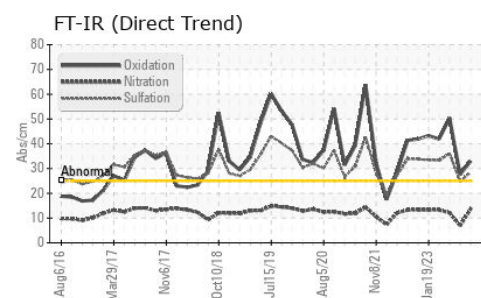
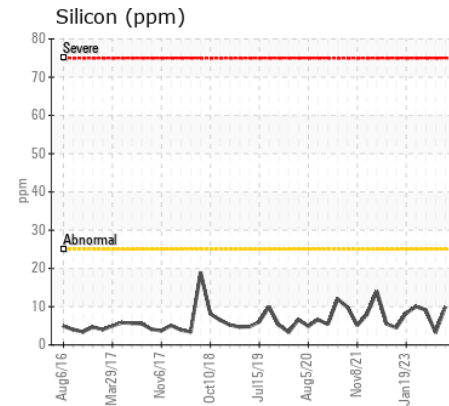
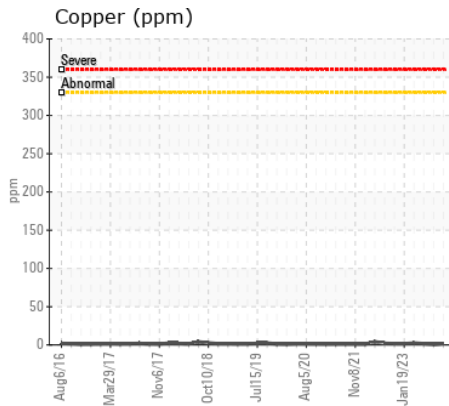
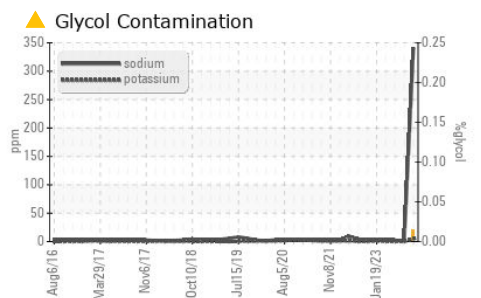
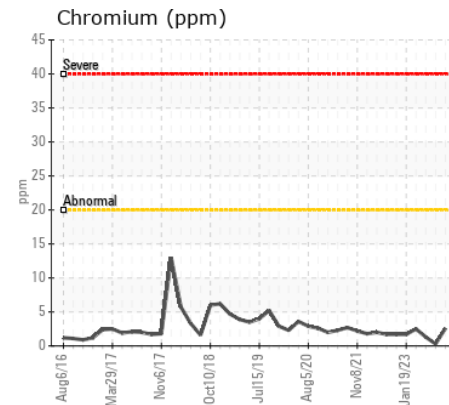
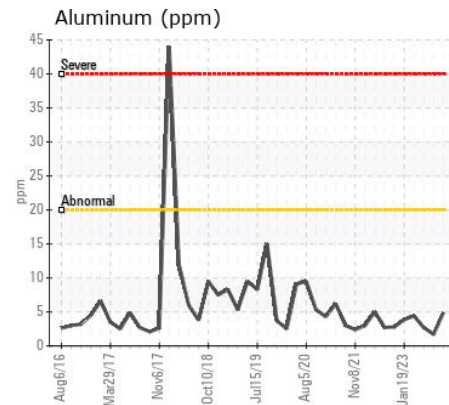
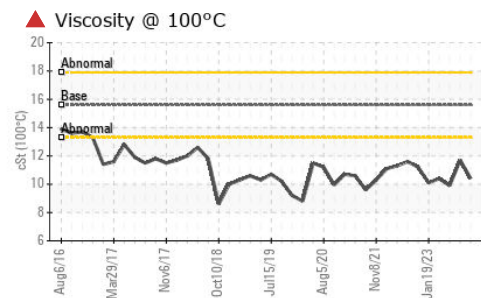
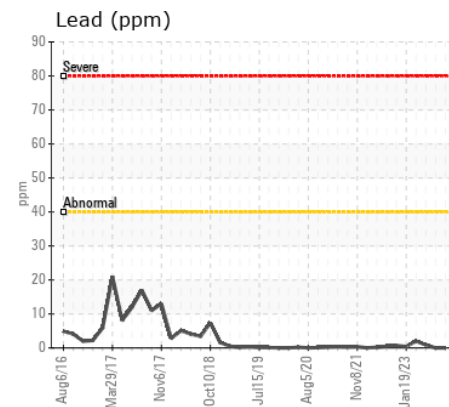
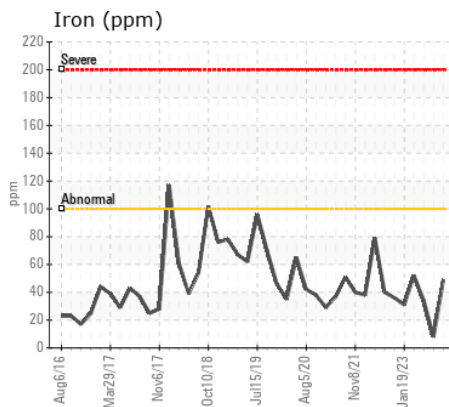
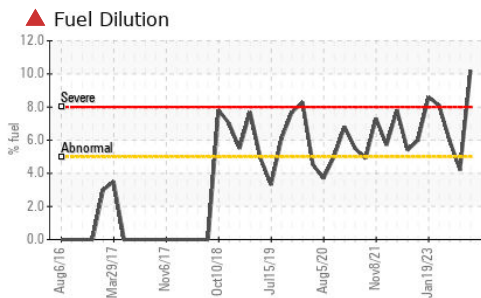
Test for glycol is positive. There is a high amount of fuel present in the oil. There is a light concentration of glycol present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	10	3	9
Potassium	ppm	ASTM D5185(m)	>20	5	<1	0
Fuel	%	ASTM D7593*	>5	▲ 10.2	▲ 4.2	▲ 6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		▲ 0.014	NEG	NEG
Soot %	%	ASTM D7844*	>3	1	0.2	0.6
Nitration	Abs/cm	ASTM D7624*	>20	13.7	6.9	12.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	28.5	24.8	36.1
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

## FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		● 341	1	2
Boron	ppm	ASTM D5185(m)	0	11	1	2
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	62	55	53
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	849	904	817
Calcium	ppm	ASTM D5185(m)	1070	975	996	901
Phosphorus	ppm	ASTM D5185(m)	1150	832	957	836
Zinc	ppm	ASTM D5185(m)	1270	1022	1095	987
Sulfur	ppm	ASTM D5185(m)	2060	2300	2597	2203
Oxidation	Abs/.1mm	ASTM D7414*	>25	33.0	27.6	50.4
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	▲ 10.4	▲ 11.7	▲ 9.9



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0913046 **Received** : 03 Apr 2024  
**Lab Number** : 02626315 **Tested** : 04 Apr 2024  
**Unique Number** : 5759447 **Diagnosed** : 04 Apr 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, Glycol, PercentFuel )

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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.