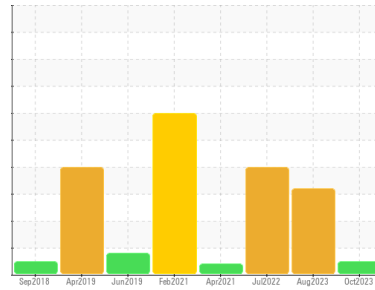




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**801187**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON HP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. 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

Light fuel dilution occurring. No other contaminants were detected in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0084280</b>	GFL0084362	GFL0052664
Sample Date	Client Info	<b>18 Oct 2023</b>	29 Aug 2023	12 Jul 2022
Machine Age	hrs	<b>18893</b>	272163	17709
Oil Age	hrs	<b>346</b>	0	462
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	ABNORMAL	SEVERE

## CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	<b>NEG</b>	0.0	0.0

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >100	<b>34</b>	▲ 135	▲ 133
Chromium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	3	2
Nickel	ppm	ASTM D5185(m) >4	<b>&lt;1</b>	<1	1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m) >3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m) >20	<b>2</b>	7	4
Lead	ppm	ASTM D5185(m) >40	<b>2</b>	13	9
Copper	ppm	ASTM D5185(m) >330	<b>2</b>	6	10
Tin	ppm	ASTM D5185(m) >15	<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) 0	<b>4</b>	2	2
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 60	<b>59</b>	61	79
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	1	1
Magnesium	ppm	ASTM D5185(m) 1010	<b>942</b>	889	934
Calcium	ppm	ASTM D5185(m) 1070	<b>1076</b>	961	1073
Phosphorus	ppm	ASTM D5185(m) 1150	<b>1011</b>	945	918
Zinc	ppm	ASTM D5185(m) 1270	<b>1182</b>	1114	1194
Sulfur	ppm	ASTM D5185(m) 2060	<b>2518</b>	2093	2417
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

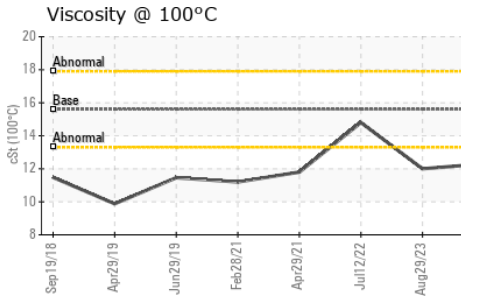
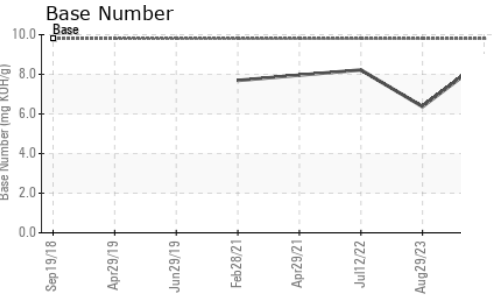
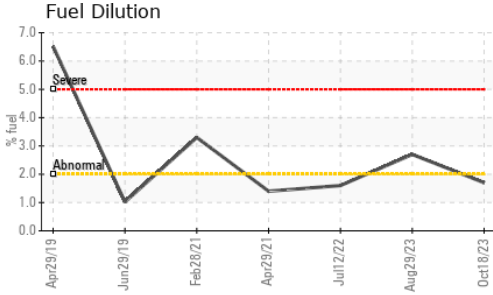
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >25	<b>3</b>	6	6
Sodium	ppm	ASTM D5185(m)	<b>29</b>	▲ 204	▲ 553
Potassium	ppm	ASTM D5185(m) >20	<b>1</b>	6	31
Fuel	%	ASTM D7593* >2.0	<b>1.7</b>	▲ 2.7	1.6

## INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >3	<b>0.8</b>	2.4	● 5.8
Nitration	Abs/cm	ASTM D7624* >20	<b>7.1</b>	12.3	14.4
Sulfation	Abs/1mm	ASTM D7415* >30	<b>20.3</b>	28.3	36.4



# OIL ANALYSIS REPORT

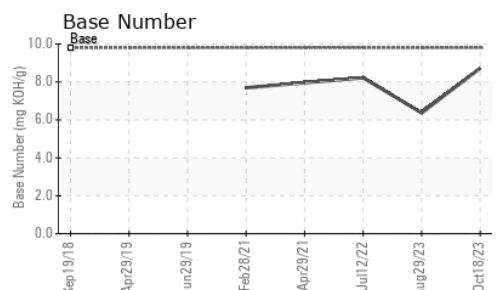
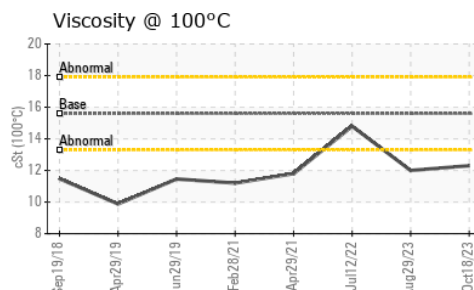
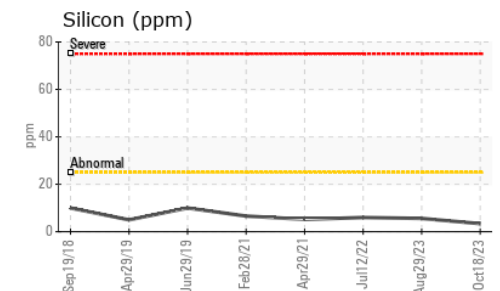
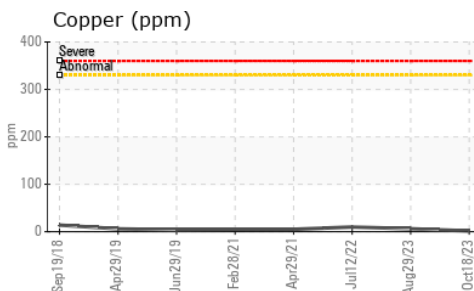
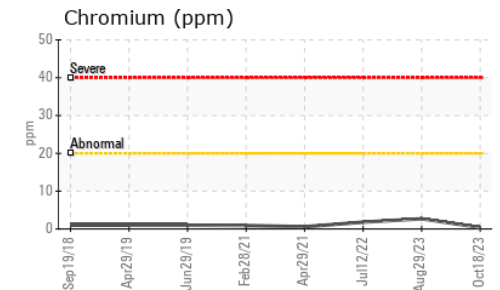
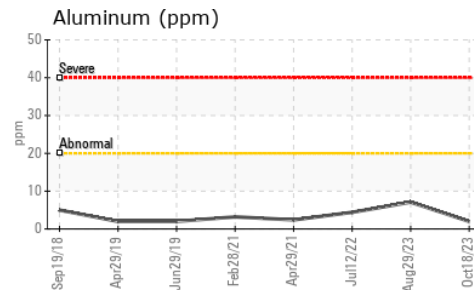
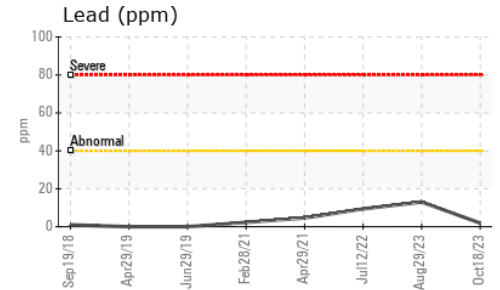
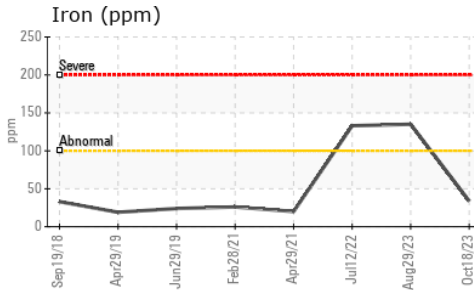


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>15.1</b>	20.9	19.3
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	<b>8.72</b>	6.37	8.22

VISUAL		method	limit/base	current	history1	history2
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)	15.6	<b>12.3</b>	▲ 12.0	14.8

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County  
**Sample No.** : GFL0084280 **Received** : 24 Oct 2023 220 Carmek Blvd  
**Lab Number** : 02591234 **Diagnosed** : 25 Oct 2023 Rocky View County, AB  
**Unique Number** : 5668313 **Diagnostician** : Wes Davis CA T1X 1X1  
**Test Package** : MOB 2 ( Additional Tests: PercentFuel ) Contact: GFL Calgary calgarymaintenance@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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