



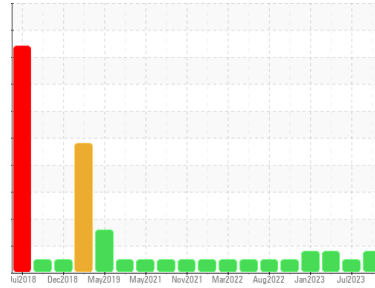
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id
801106
 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		GFL0099555	GFL0084287	GFL0077599
Sample Date	Client Info		17 Jan 2024	20 Jul 2023	02 May 2023
Machine Age	hrs	Client Info	11640	216145	10933
Oil Age	hrs	Client Info	465	0	535
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			MARGINAL	NORMAL	ABNORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>80	35	49	▲ 90
Chromium	ppm	ASTM D5185(m)	>5	2	<1	2
Nickel	ppm	ASTM D5185(m)	>2	<1	1	2
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	6	7	12
Lead	ppm	ASTM D5185(m)	>30	<1	0	0
Copper	ppm	ASTM D5185(m)	>150	2	2	3
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	<1
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0	3	3	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	55	61	61
Manganese	ppm	ASTM D5185(m)	0	<1	<1	1
Magnesium	ppm	ASTM D5185(m)	1010	893	1010	977
Calcium	ppm	ASTM D5185(m)	1070	1006	1105	1139
Phosphorus	ppm	ASTM D5185(m)	1150	974	1079	1087
Zinc	ppm	ASTM D5185(m)	1270	1130	1250	1206
Sulfur	ppm	ASTM D5185(m)	2060	2667	2449	2390
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

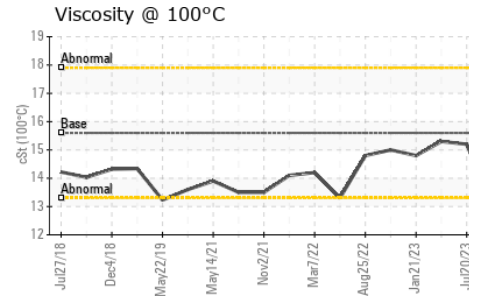
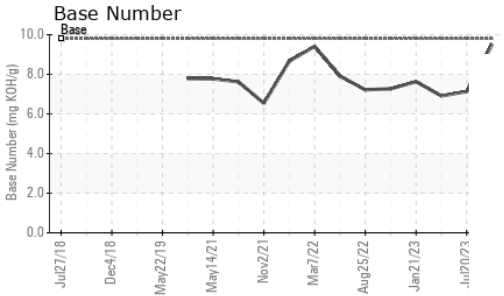
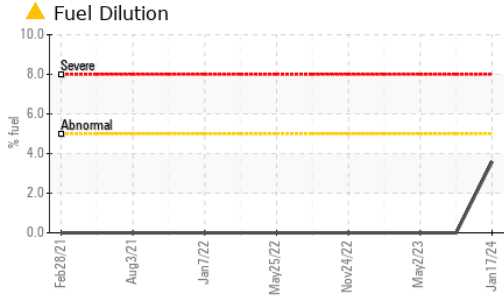
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	15	9	17
Sodium	ppm	ASTM D5185(m)		2	7	7
Potassium	ppm	ASTM D5185(m)	>20	2	<1	<1
Fuel	%	ASTM D7593*	>5	▲ 3.6	<1.0	<1.0

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.3	0.7	1
Nitration	Abs/cm	ASTM D7624*	>20	7.5	13.5	13.7
Sulfation	Abs.1mm	ASTM D7415*	>30	19.3	27.7	27.4



OIL ANALYSIS REPORT

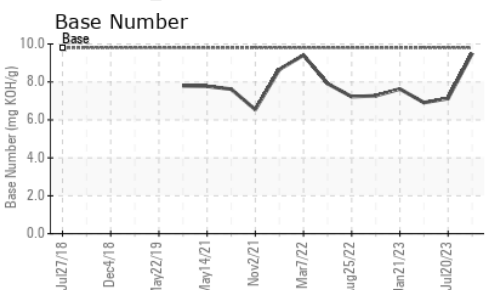
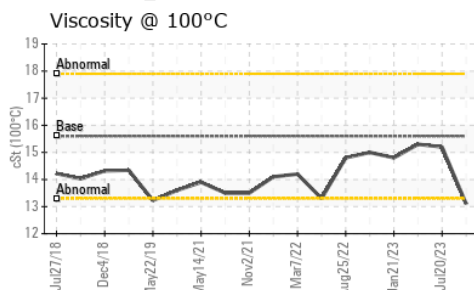
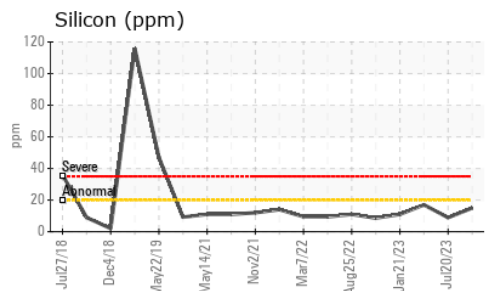
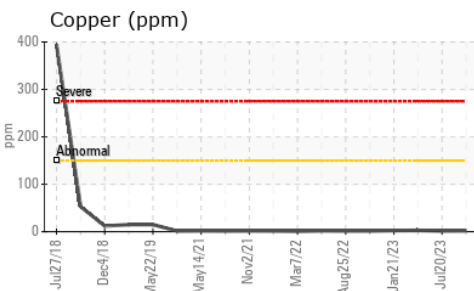
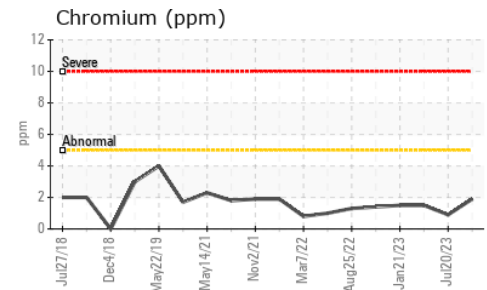
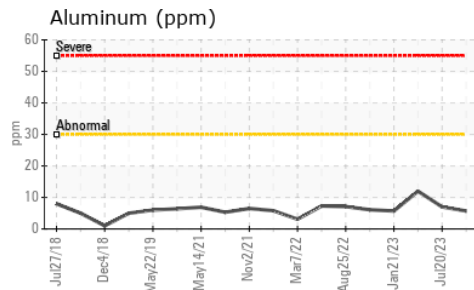
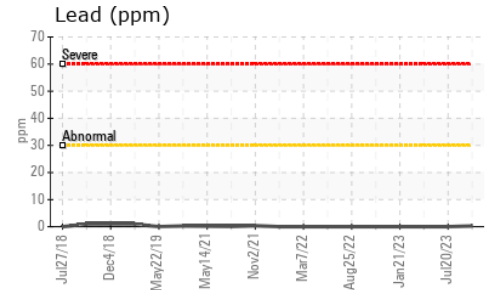
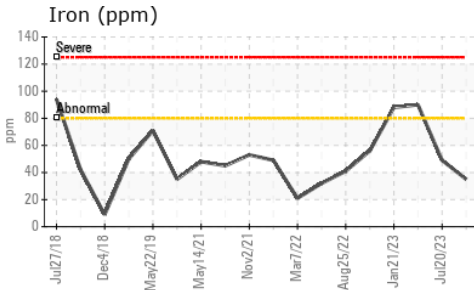


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	15.5	28.8	28.5
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	9.51	7.13	6.91

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.1	15.2	15.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County
Sample No. : GFL0099555 **Received** : 31 Jan 2024
Lab Number : **02612320** **Diagnosed** : 01 Feb 2024
Unique Number : 5721415 **Diagnostician** : Wes Davis
Test Package : MOB 2 (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.

220 Carmek Blvd
 Rocky View County, AB
 CA T1X 1X1
 Contact: GFL Calgary
 calgarymaintenance@gflenv.com
 T:
 F: (403)369-6163