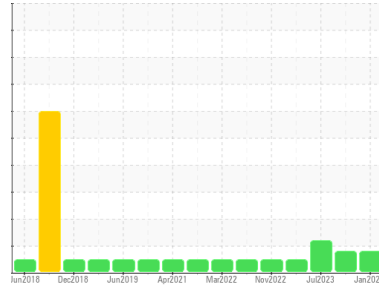




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
901075

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		GFL0099551	GFL0091579	GFL0084290
Sample Date	Client Info		10 Jan 2024	18 Oct 2023	26 Jul 2023
Machine Age	hrs	Client Info	27501	139494	133823
Oil Age	hrs	Client Info	550	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			MARGINAL	MARGINAL	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)	>100	12	14	11
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	3	2	2
Lead	ppm	ASTM D5185(m)	>40	0	<1	0
Copper	ppm	ASTM D5185(m)	>330	1	1	1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
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	2	2	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	58	59	56
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	922	960	923
Calcium	ppm	ASTM D5185(m)	1070	1101	1074	995
Phosphorus	ppm	ASTM D5185(m)	1150	1010	1028	1032
Zinc	ppm	ASTM D5185(m)	1270	1214	1224	1142
Sulfur	ppm	ASTM D5185(m)	2060	2671	2506	2431
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

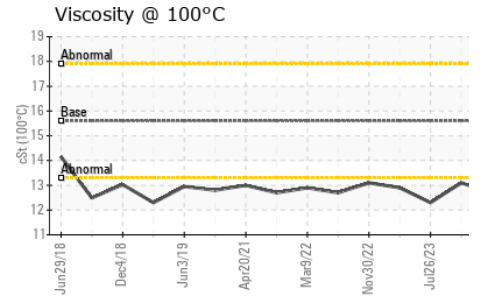
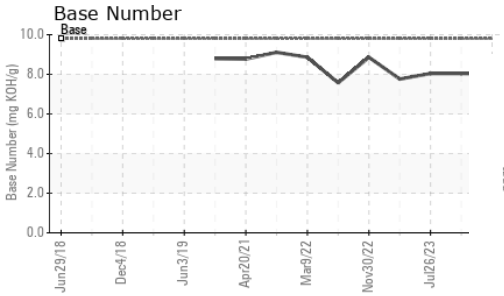
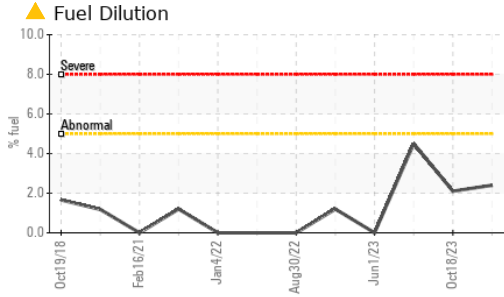
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Silicon	ppm	ASTM D5185(m)	>25	4	7	6
Sodium	ppm	ASTM D5185(m)		4	5	4
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Fuel	%	ASTM D7593*	>5	▲ 2.4	▲ 2.1	▲ 4.5

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.6	0.7	0.5
Nitration	Abs/cm	ASTM D7624*	>20	8.9	9.5	8.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.7	21.5	20.7



OIL ANALYSIS REPORT

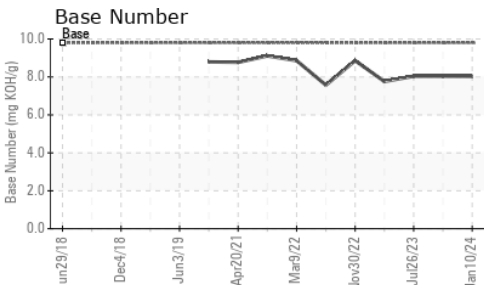
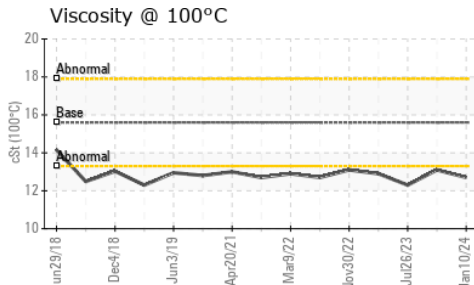
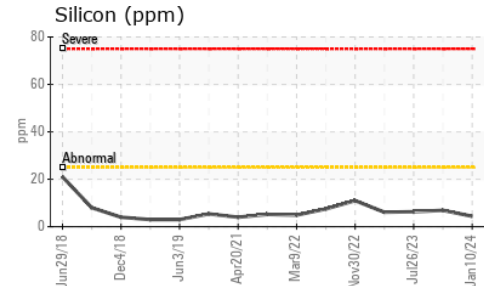
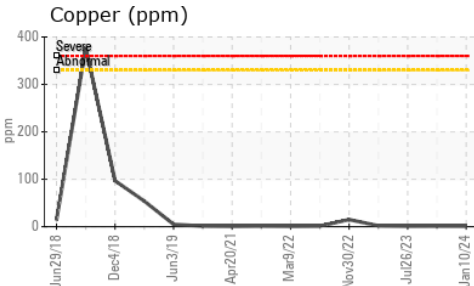
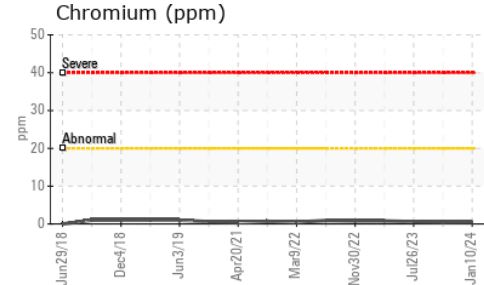
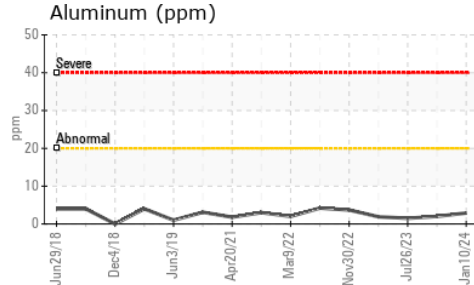
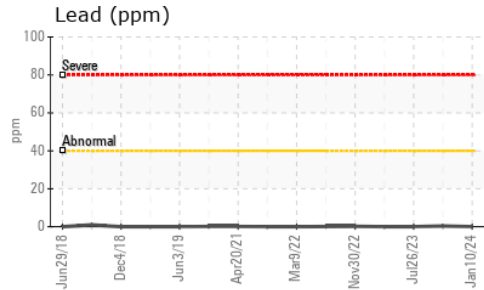
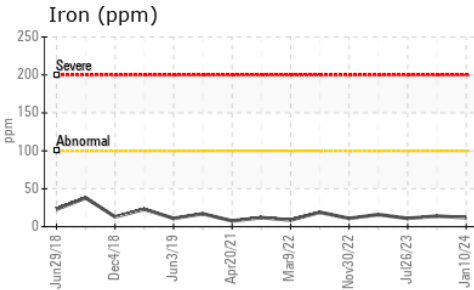


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	16.4	18.8	16.6
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	8.03	8.04	8.04

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	12.7	13.1	▲ 12.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County
Sample No. : GFL0099551 **Received** : 31 Jan 2024 220 Carmek Blvd
Lab Number : 02612321 **Diagnosed** : 01 Feb 2024 Rocky View County, AB
Unique Number : 5721416 **Diagnostician** : Wes Davis CA T1X 1X1
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel) Contact: GFL Calgary

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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