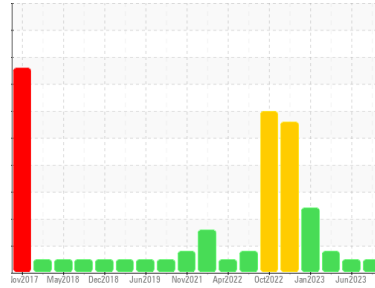




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
801074
Component
Diesel Engine
Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination 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	GFL0091556	GFL0077591	GFL0077580
Sample Date	Client Info	03 Oct 2023	30 Jun 2023	13 Apr 2023
Machine Age	hrs	13517	244955	12463
Oil Age	hrs	600	0	566
Oil Changed	Client Info	Changed	N/A	Changed
Sample Status		NORMAL	NORMAL	MARGINAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	▲ 3.4

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >80	41	31	30
Chromium	ppm ASTM D5185(m) >5	1	<1	<1
Nickel	ppm ASTM D5185(m) >2	<1	0	<1
Titanium	ppm ASTM D5185(m)	0	0	<1
Silver	ppm ASTM D5185(m) >3	<1	<1	0
Aluminum	ppm ASTM D5185(m) >30	4	3	4
Lead	ppm ASTM D5185(m) >30	<1	0	<1
Copper	ppm ASTM D5185(m) >150	2	2	6
Tin	ppm ASTM D5185(m) >5	0	0	0
Antimony	ppm ASTM D5185(m)	0	0	<1
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) 1	2	3	2
Barium	ppm ASTM D5185(m) 1	<1	0	0
Molybdenum	ppm ASTM D5185(m) 60	63	60	58
Manganese	ppm ASTM D5185(m) 1	0	<1	<1
Magnesium	ppm ASTM D5185(m) 1010	932	938	869
Calcium	ppm ASTM D5185(m) 1070	1024	1043	1050
Phosphorus	ppm ASTM D5185(m) 1150	909	991	956
Zinc	ppm ASTM D5185(m) 1270	1172	1159	1092
Sulfur	ppm ASTM D5185(m) 2060	2302	2336	2293
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

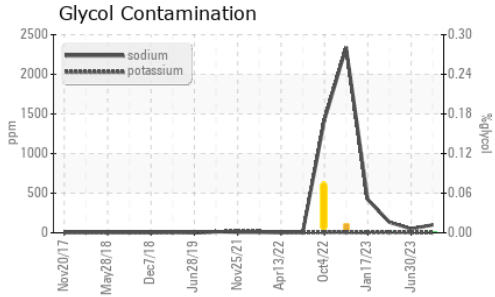
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	11	9	7
Sodium	ppm ASTM D5185(m)	101	50	133
Potassium	ppm ASTM D5185(m) >20	1	3	5
Glycol	% ASTM D7922*	0.0	NEG	0.0

INFRA-RED

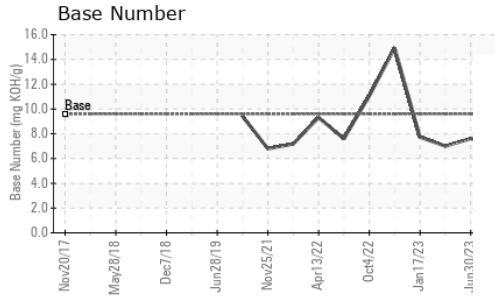
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.7	0.6	0.5
Nitration	Abs/cm ASTM D7624* >20	11.1	9.9	10.7
Sulfation	Abs/.1mm ASTM D7415* >30	23.9	22.1	22.7



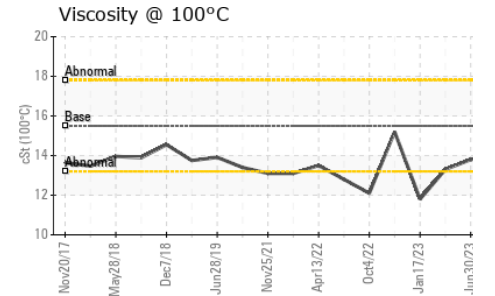
OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	21.8	19.2	19.7
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	7.08	7.62	7.00

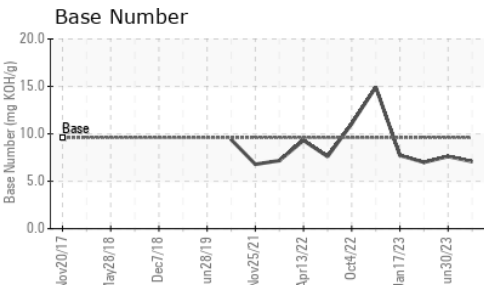
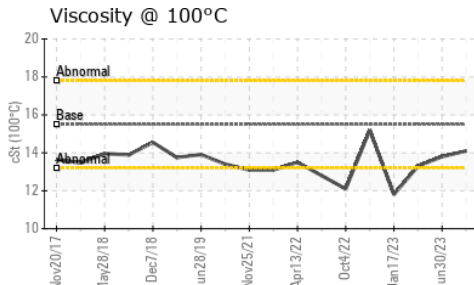
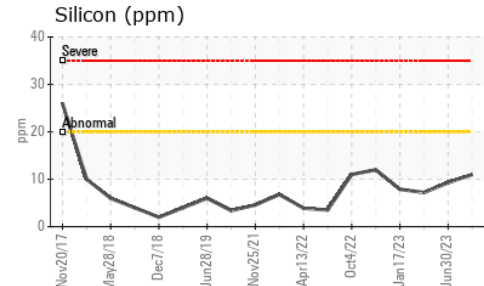
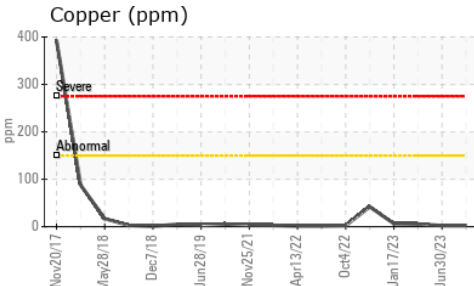
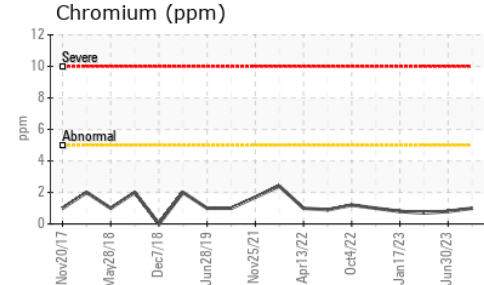
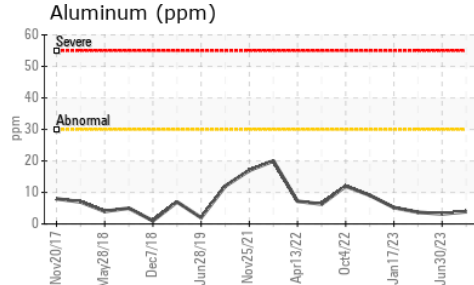
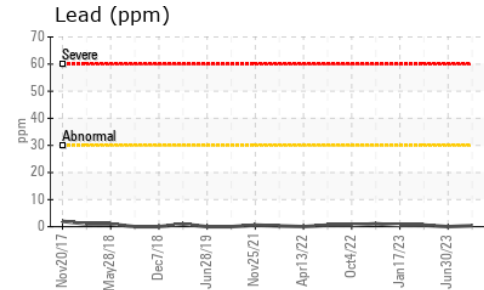
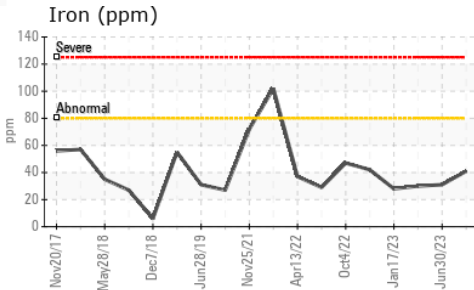


VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	14.1	13.8	13.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County
Sample No. : GFL0091556 **Received** : 11 Oct 2023 220 Carmek Blvd
Lab Number : 02588198 **Diagnosed** : 16 Oct 2023 Rocky View County, AB
Unique Number : 5657264 **Diagnostician** : Wes Davis CA T1X 1X1
Test Package : MOB 2 (Additional Tests: Glycol) 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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