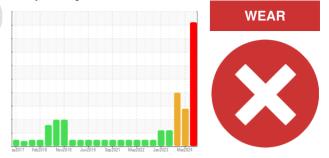


OIL ANALYSIS REPORT

Sample Rating Trend



Diesel Engine

PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

DIAGNOSIS Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time.

Machine Id 8408

🔺 Wear

Iron ppm levels are severe. Chromium ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated. Ring wear is indicated.

Contamination

Light fuel dilution occurring. There is a moderate concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component. No other contaminants were detected in the oil.

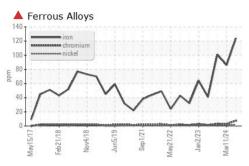
Fluid Condition

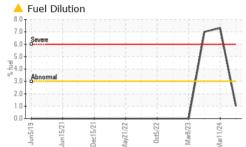
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

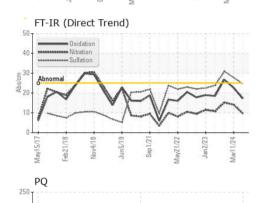
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0112436	GFL0112467	GFL0099586
Sample Date		Client Info		30 Jun 2024	11 Mar 2024	11 Dec 2023
Machine Age	hrs	Client Info		17603	17015	16561
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	SEVERE	SEVERE
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	0.0
WEAR METAL	S	method	limit/base	current	history1	history2
PQ		ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m)	>75	1 24	A 86	1 01
Chromium	ppm	ASTM D5185(m)	>5	<u> </u>	3	3
Nickel	ppm	ASTM D5185(m)	>4	2	1	<1
Titanium	ppm	ASTM D5185(m)	>2	<1	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>15	6	8	5
Lead	ppm	ASTM D5185(m)	>25	<1	<1	0
Copper	ppm	ASTM D5185(m)	>100	17	2	2
Tin	ppm	ASTM D5185(m)	>4	<1	0	<1
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)	1	5	2	2
Barium	ppm	ASTM D5185(m)	1	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	60	58	61	58
Manganese	ppm	ASTM D5185(m)	1	2	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	892	847	833
Calcium	ppm	ASTM D5185(m)	1070	1025	967	931
Phosphorus	ppm	ASTM D5185(m)	1150	909	900	866
Zinc	ppm	ASTM D5185(m)	1270	1114	1051	1035
Sulfur	ppm	ASTM D5185(m)	2060	2282	2288	2197
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<mark>/</mark> 33	10	11
Sodium	ppm	ASTM D5185(m)		11	156	179
Potassium	ppm	ASTM D5185(m)	>20	1	2	2
Fuel	%	ASTM D7593*	>3.0	<mark>▲</mark> 1	▲ 7.3	▲ 7
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	2.7	3.1	3.7
Nitration	Abs/cm	ASTM D7624*	>20	9.6	14.1	15.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.5	27.8	30.9



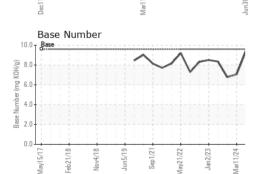
OIL ANALYSIS REPORT

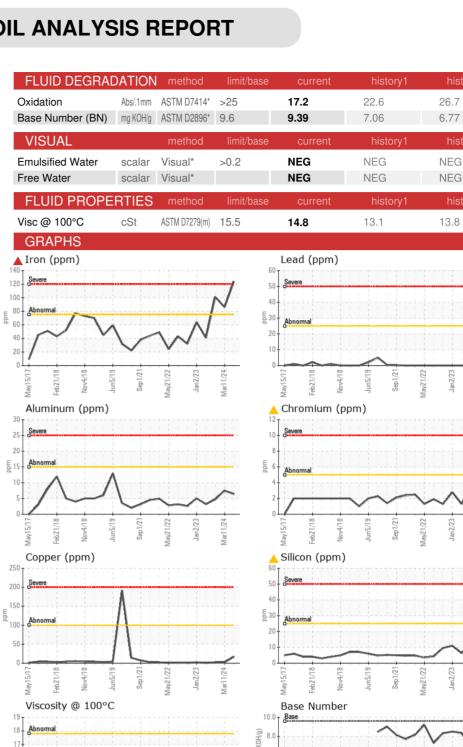


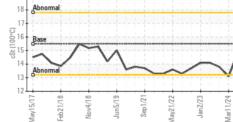


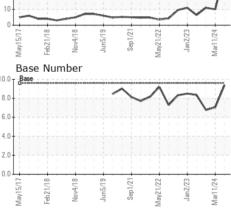












CALA Sample No. ISO 17025:2017 Accredited Laboratory

Lab Number Unique Number : 5803257

Laboratory

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County Received : 05 Jul 2024 Tested : 08 Jul 2024 Diagnosed : 08 Jul 2024 - Kevin Marson

Du

Test Package : MOB 2 (Additional Tests: PercentFuel, PQ) 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.

: GFL0112436

: 02645718

Report Id: GFL550 [WCAMIS] 02645718 (Generated: 07/08/2024 08:48:42) Rev: 1

F: (403)369-6163 Submitted By: GFL Calgary

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CA T1X 1X1

Rocky View County, AB

Contact: GFL Calgary

calgarymaintenance@gflenv.com

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