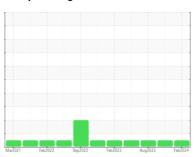


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id 0548 Component

Diesel Engine

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

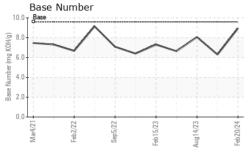
Fluid Condition

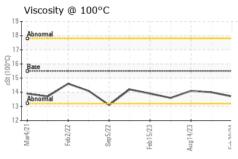
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

		Mar2021	Feb2022 Sep2022	Feb2023 Aug2023	Feb 2024	
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0112424	GFL0099579	GFL0084333
Sample Date		Client Info		20 Feb 2024	28 Nov 2023	14 Aug 2023
Machine Age	hrs	Client Info		17025	463306	447984
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	30	25	31
Chromium	ppm	ASTM D5185(m)	>20	2	2	9
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	3	2	2
Lead	ppm	ASTM D5185(m)	>40	0	0	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	<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	2	2
Barium	ppm	ASTM D5185(m)	1	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	56	56	59
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	891	858	951
Calcium	ppm	ASTM D5185(m)	1070	1020	1005	1022
Phosphorus	ppm	ASTM D5185(m)	1150	934	867	1026
Zinc	ppm	ASTM D5185(m)	1270	1137	1123	1159
Sulfur	ppm	ASTM D5185(m)	2060	2491	2332	2398
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	4	4	5
Sodium	ppm	ASTM D5185(m)		9	16	36
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.3	0.4	0.5
Nitration	Abs/cm	ASTM D7624*	>20	10.8	11.0	10.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.9	21.8	22.0



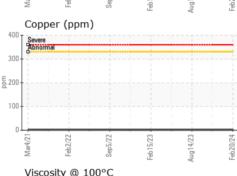
OIL ANALYSIS REPORT

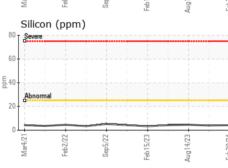


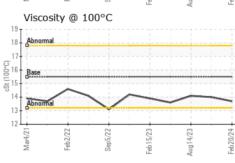


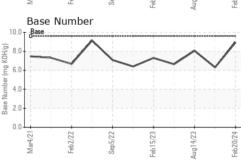
FLUID DEGRA	OATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.2	18.8	18.9
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	8.94	6.30	8.06
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	13.7	14.0	14.1
GRAPHS						

Iron (ppm)		Lead	(ppm)				
Severe		80 Severe					
0		60 - Abnor					
0 Abnormal		40 Abnor	IIdi				
		- 0					
Mar4/21 Feb2/22 Sep5/22	Feb15/23 Aug14/23 Feb20/24	Mar4/2	Feb2/22	Sep5/22	Feb 15/23	Aug14/23	Feb20/24
Aluminum (ppm)		Chro	mium (į	opm)			
Severe		40 Severe					
Abnormal		30 Abnor	and				











CALA ISO 17025:2017 Accredited

Laboratory Sample No.

: GFL0112424 Lab Number : 02618613 Unique Number : 5735723 Test Package : MOB 2

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County Received **Tested**

: 28 Feb 2024 : 29 Feb 2024 Diagnosed : 29 Feb 2024 - Wes Davis

220 Carmek Blvd Rocky View County, AB **CA T1X 1X1**

Contact: GFL Calgary calgarymaintenance@gflenv.com

T: F: (403)369-6163

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.