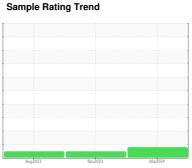


OIL ANALYSIS REPORT

San









Machine Id 413110 Component

Diesel Engine

PETRO CANADA DURON XL SYN BLEND 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 Date	SYN BLEND 15W40	(GAL)	Aug	2023	Nov2023 Mar20	24	
Sample Date Client Info 21 Mar 2024 20 Nov 2023 21 Aug 2023	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age kms	Sample Number		Client Info		GFL0112455	GFL0099572	GFL0084360
Oil Age	Sample Date		Client Info		21 Mar 2024	20 Nov 2023	21 Aug 2023
Client Info	Machine Age	kms	Client Info		0	35325	806
MARGINAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 history2 Mater WC Method VC MEG NEG NEG	Oil Age	kms	Client Info		51093	0	192
CONTAMINATION	Oil Changed		Client Info		Changed	Changed	Changed
Water Glycol WC Method WC Method >0.2 NEG NEG NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM 05185(m) >5 <1	Sample Status				MARGINAL	NORMAL	NORMAL
WEAR METALS	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Description Description	Glycol		WC Method		NEG	NEG	NEG
Chromium	WEAR METAL	S	method	limit/base	current	history1	history2
Chromium ppm ASTM D5185(m) >5 <1 <1 <1 Nickel ppm ASTM D5185(m) >2 0 0 0 Tittanium ppm ASTM D5185(m) >3 0 <1	Iron	ppm	ASTM D5185(m)	>80	19	14	9
Nickel	Chromium		. ,	>5	<1	<1	<1
Description	Nickel		, ,		0	0	0
Silver	Titanium		. ,				0
Aluminum ppm ASTM D5185(m) >30 2 2 2 2 2 Lead ppm ASTM D5185(m) >30 0 0 0 0 Copper ppm ASTM D5185(m) >150 <1 <1 <1 <1 Tin ppm ASTM D5185(m) >5 0 0 0 0 Antimony ppm ASTM D5185(m) 0 0 0 0 Vanadium ppm ASTM D5185(m) 0 0 0 0 Beryllium ppm ASTM D5185(m) 0 0 0 0 Cadmium ppm ASTM D5185(m) 0 0 0 0 Cadmium ppm ASTM D5185(m) 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 1 2 4 5 Barium ppm ASTM D5185(m) 1 0 <1 <1 <1 Manganese ppm ASTM D5185(m) 1 0 <1 <1 <1 Manganese ppm ASTM D5185(m) 1 0 0 <1 <1 Manganese ppm ASTM D5185(m) 1 0 0 <1 <1 Manganesium ppm ASTM D5185(m) 1010 884 907 906 Calcium ppm ASTM D5185(m) 1070 1003 1030 1058 Phosphorus ppm ASTM D5185(m) 1070 1003 1030 1058 Phosphorus ppm ASTM D5185(m) 1270 1050 1131 1118 Sulfur ppm ASTM D5185(m) 1270 1050 1131 1118 Sulfur ppm ASTM D5185(m) 2060 2080 2395 2472 Lithium ppm ASTM D5185(m) <1 <1 <1 <1 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185(m) >20 2 5 4 Sodium ppm ASTM D5185(m) >20 2 4 4 4 Fuel % ASTM D5185(m) >20 2 4 4 4 Fuel % ASTM D5185(m) >20 2 5 4 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0.7 0.4 0 Nitration Abs/cm ASTM D7624* >20 7.8 7.2 6.1	Silver		,	>3		<1	<1
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Fuel % ASTM D7593* >5 ▲ 2 <1.0 <1.0 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* >3 0.7 0.4 0 Nitration Abs/cm ASTM D7624* >20 7.8 7.2 6.1	Potassium	ppm	ASTM D5185(m)	>20	2	4	4
Soot % % ASTM D7844* >3 0.7 0.4 0 Nitration Abs/cm ASTM D7624* >20 7.8 7.2 6.1	Fuel	• • • • • • • • • • • • • • • • • • • •	ASTM D7593*	>5	<u>^</u> 2	<1.0	<1.0
Nitration Abs/cm ASTM D7624* >20 7.8 7.2 6.1	INFRA-RED		method	limit/base	current	history1	history2
Nitration Abs/cm ASTM D7624* >20 7.8 7.2 6.1	Soot %	%	ASTM D7844*	>3	0.7	0.4	0
	Nitration						
	Sulfation	Abs/.1mm	ASTM D7415*	>30	21.8	20.1	20.3



OIL ANALYSIS REPORT







Laboratory Sample No.

Lab Number : 02624596 Unique Number : 5749715

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County : GFL0112455 Received **Tested**

Diagnosed Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

: 26 Mar 2024 : 27 Mar 2024 : 27 Mar 2024 - Wes Davis

0.0

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

Contact: GFL Calgary calgarymaintenance@gflenv.com T:

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.

Contact/Location: GFL Calgary - GFL550

F: (403)369-6163