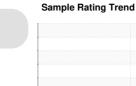


OIL ANALYSIS REPORT









NO UNIT GFL0112430

Diesel Engine

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

DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Wear

Metal levels are typical for a components first oil change.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

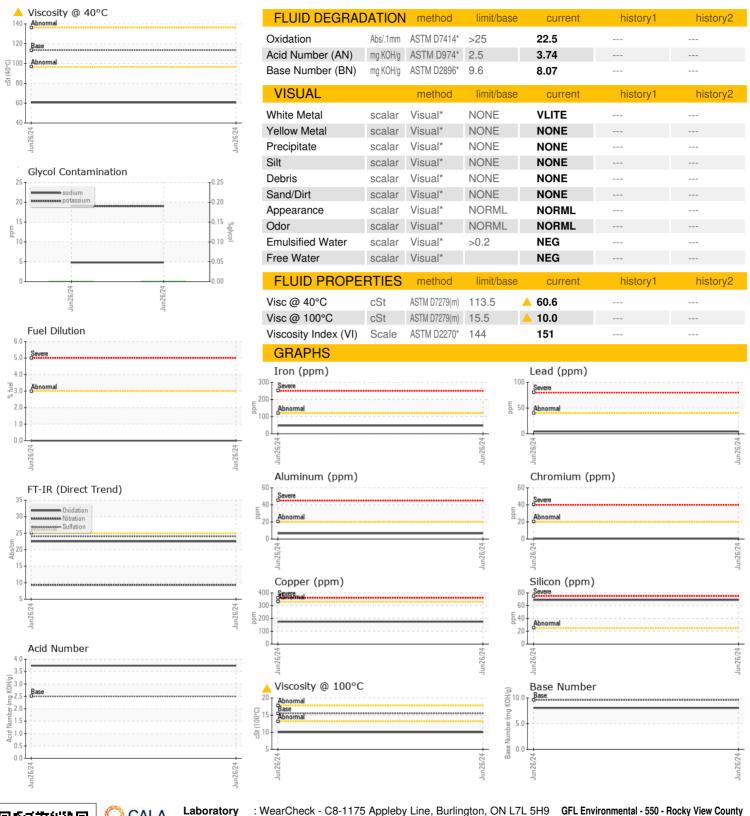
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Viscosity of sample indicates oil is within SAE 5W30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SYN BLEND 15W40 (GAL)	<u>-</u>	J	Jun 2024		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0112430		
Sample Date		Client Info		26 Jun 2024		
Machine Age	hrs	Client Info		723		
Oil Age	hrs	Client Info		723		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINATIO	NC	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METALS	;	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185(m)	>120	48		
Chromium	ppm	ASTM D5185(m)	>20	<1		
Nickel	ppm	ASTM D5185(m)	>5	7		
	ppm	ASTM D5185(m)	>2	<1		
	ppm	ASTM D5185(m)	>2	<1		
	ppm	ASTM D5185(m)	>20	7		
	ppm	ASTM D5185(m)	>40	5		
	ppm	ASTM D5185(m)	>330	175		
	ppm	ASTM D5185(m)	>15	3		
	ppm	ASTM D5185(m)		0		
	ppm	ASTM D5185(m)		0		
	ppm	ASTM D5185(m)		0		
	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	1	230		
	ppm	` '	1	<1		
	ppm	ASTM D5185(m)	60	114		
	ppm			114		
		ASTM D5185(m)	1			
		(/	1 1010	4		
-	ppm	ASTM D5185(m)	1010	4 671		
Calcium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	1010 1070	4 671 1332		
Calcium Phosphorus	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1010 1070 1150	4 671 1332 683		
Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1010 1070 1150 1270	4 671 1332 683 815		
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1010 1070 1150	4 671 1332 683		
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1010 1070 1150 1270	4 671 1332 683 815 1926		
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1010 1070 1150 1270 2060	4 671 1332 683 815 1926 <1	 	
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method	1010 1070 1150 1270 2060	4 671 1332 683 815 1926 <1 current	 history1	 history2
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium	ppm	ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1010 1070 1150 1270 2060 limit/base >25	4 671 1332 683 815 1926 <1 current 69 5	 history1	history2
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1010 1070 1150 1270 2060 limit/base >25 >20	4 671 1332 683 815 1926 <1 current 69 5	 history1	history2
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium Fuel	ppm	ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1010 1070 1150 1270 2060 limit/base >25	4 671 1332 683 815 1926 <1 current 69 5	 history1	history2
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium Fuel	ppm	ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7593*	1010 1070 1150 1270 2060 limit/base >25 >20	4 671 1332 683 815 1926 <1 current 69 5 19	 history1	history2
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium Fuel Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) METHOD METHOD ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7593* ASTM D7922* METHOD	1010 1070 1150 1270 2060 limit/base >25 >20 >3.0	4 671 1332 683 815 1926 <1 current 69 5 19 0.0 0.0 current	history1	 history2
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium Fuel Glycol INFRA-RED Soot %	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) METHOD METHOD ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7593* ASTM D7922*	1010 1070 1150 1270 2060 limit/base >25 >20 >3.0	4 671 1332 683 815 1926 <1 current 69 5 19 0.0	history1 history1	history2 history2



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: GFL0112430

Lab Number : 02645713 Unique Number : 5803252

Received : 05 Jul 2024

Tested : 08 Jul 2024 Diagnosed

: 08 Jul 2024 - Kevin Marson Test Package : MOB 2 (Additional Tests: FuelDilution, GLYCOL, KV40, PercentFuel, TAN Auto, TAN Man, VI, Vis@bintact: GFL Calgary

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

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.

T: F: (403)369-6163

calgarymaintenance@gflenv.com