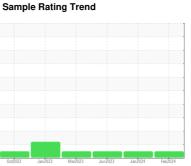


OIL ANALYSIS REPORT

Sample









(MC12735)
Machine Id
7996
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

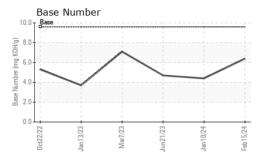
Fluid Condition

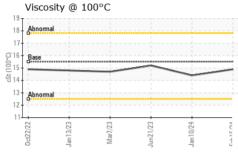
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0112982	GFL0108413	GFL0084534
Sample Date		Client Info		15 Feb 2024	10 Jan 2024	21 Jun 2023
Machine Age	hrs	Client Info		733	445	13226
Oil Age	hrs	Client Info		733	445	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 D5185m	>165	9	24	14
Chromium	ppm	ASTM D5185m	>5	<1	2	2
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m		1	1	6
Lead	ppm	ASTM D5185m	>150	0	<1	3
Copper	ppm	ASTM D5185m	>90	<1	1	2
Tin	ppm	ASTM D5185m	>5	<1	<1	2
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	nnm	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	1	19	2	16
Boron Barium	ppm	ASTM D5185m ASTM D5185m	1	19 3	2	16
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1 1 60	19 3 52	2 0 63	16 0 57
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 1 60 1	19 3 52 0	2 0 63 <1	16 0 57 2
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 1 60 1 1010	19 3 52 0 556	2 0 63 <1 973	16 0 57 2 575
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 1 60 1 1010 1070	19 3 52 0 556 1392	2 0 63 <1 973 1154	16 0 57 2 575 1789
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 1 60 1 1010 1070 1150	19 3 52 0 556 1392 794	2 0 63 <1 973 1154 1047	16 0 57 2 575 1789 725
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 1 60 1 1010 1070	19 3 52 0 556 1392	2 0 63 <1 973 1154	16 0 57 2 575 1789
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 1 60 1 1010 1070 1150 1270	19 3 52 0 556 1392 794 916	2 0 63 <1 973 1154 1047 1302	16 0 57 2 575 1789 725
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 1 60 1 1010 1070 1150 1270 2060	19 3 52 0 556 1392 794 916 2437	2 0 63 <1 973 1154 1047 1302 2802	16 0 57 2 575 1789 725 1042 2788
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m	1 1 60 1 1010 1070 1150 1270 2060	19 3 52 0 556 1392 794 916 2437 current	2 0 63 <1 973 1154 1047 1302 2802 history1	16 0 57 2 575 1789 725 1042 2788 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1 1 60 1 1010 1070 1150 1270 2060	19 3 52 0 556 1392 794 916 2437	2 0 63 <1 973 1154 1047 1302 2802 history1	16 0 57 2 575 1789 725 1042 2788 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1 1 60 1 1010 1070 1150 1270 2060 Iimit/base	19 3 52 0 556 1392 794 916 2437 current 3	2 0 63 <1 973 1154 1047 1302 2802 history1 5 6	16 0 57 2 575 1789 725 1042 2788 history2 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1 1 60 1 1010 1070 1150 1270 2060 limit/base >35	19 3 52 0 556 1392 794 916 2437 current 3 2 2	2 0 63 <1 973 1154 1047 1302 2802 history1 5 6 0	16 0 57 2 575 1789 725 1042 2788 history2 5 9 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 1 60 1 1010 1070 1150 1270 2060 limit/base >35 >20 limit/base	19 3 52 0 556 1392 794 916 2437 current 3 2 current 0	2 0 63 <1 973 1154 1047 1302 2802 history1 5 6 0 history1	16 0 57 2 575 1789 725 1042 2788 history2 5 9 3 history2 0.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 1 60 1 1010 1070 1150 1270 2060 limit/base >35 >20 limit/base	19 3 52 0 556 1392 794 916 2437 current 3 2 2	2 0 63 <1 973 1154 1047 1302 2802 history1 5 6 0 history1 0 9.2	16 0 57 2 575 1789 725 1042 2788 history2 5 9 3 history2 0.1 10.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m Method *ASTM D7844 *ASTM D7624 *ASTM D76145	1 1 60 1 1010 1070 1150 1270 2060 limit/base >35 >20 limit/base >7.5 >20 >30	19 3 52 0 556 1392 794 916 2437 current 3 2 2 0 9.0 19.3	2 0 63 <1 973 1154 1047 1302 2802 history1 5 6 0 history1 0 9.2 18.8	16 0 57 2 575 1789 725 1042 2788 history2 5 9 3 history2 0.1 10.3 21.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm	ASTM D5185m METHOD *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m METHOD *ASTM D7844 *ASTM D7624 *ASTM D7415 METHOD	1 1 60 1 1010 1070 1150 1270 2060 limit/base >35 >20 limit/base >7.5 >20 >30	19 3 52 0 556 1392 794 916 2437 current 3 2 2 current 0 9.0 19.3 current	2 0 63 <1 973 1154 1047 1302 2802 history1 5 6 0 history1 0 9.2 18.8	16 0 57 2 575 1789 725 1042 2788 history2 5 9 3 history2 0.1 10.3 21.3 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m Method *ASTM D7844 *ASTM D7624 *ASTM D76145	1 1 60 1 1010 1070 1150 1270 2060 limit/base >35 >20 limit/base >7.5 >20 >30	19 3 52 0 556 1392 794 916 2437 current 3 2 2 0 9.0 19.3	2 0 63 <1 973 1154 1047 1302 2802 history1 5 6 0 history1 0 9.2 18.8	16 0 57 2 575 1789 725 1042 2788 history2 5 9 3 history2 0.1 10.3 21.3



OIL ANALYSIS REPORT

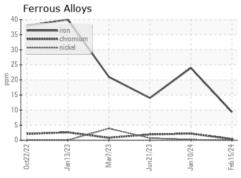


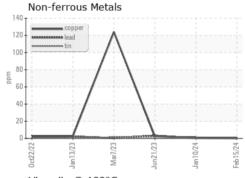


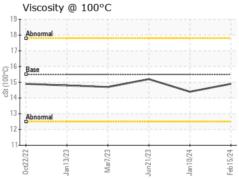
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

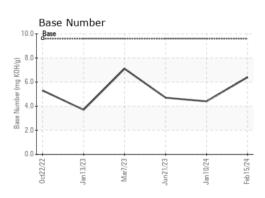
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	15.5	14.9	14.4	15.2

GRAPHS













Laboratory Sample No.

Test Package : FLEET

: GFL0112982 Lab Number : 06094032 **Unique Number** : 10886885

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 20 Feb 2024 **Tested** : 21 Feb 2024

Diagnosed : 21 Feb 2024 - Don Baldridge

GFL Environmental - 918 - Hartland HC

630 E Industrial Drive Hartland, WI US 53029

T: (262)369-3069

Contact: David McCall david.mccall@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: GFL918 [WUSCAR] 06094032 (Generated: 02/21/2024 22:03:46) Rev: 1