

OIL ANALYSIS REPORT

Sample Rating Trend

....leles

NORMAL

AUTOCAR 10761

Component Diesel Engine

Fluid PETRO CANADA DURON SHP 15W40 (28 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.

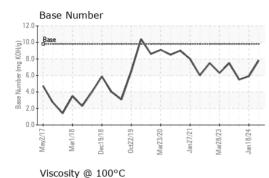
Fluid Condition

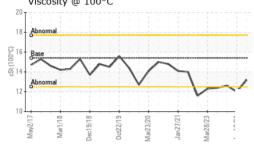
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

AL)		ay2017 Mar2	018 Dec2018 Oct2019	Mar2020 Jan2021 Mar2023	Jan2024	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0109117	GFL0109097	GFL0086188
Sample Date		Client Info		30 Jan 2024	18 Jan 2024	14 Dec 2023
Machine Age	hrs	Client Info		34106	34016	33762
Oil Age	hrs	Client Info		28216	34016	33762
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	MARGINAL	MARGINAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	2 .0	2 .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	>75	11	7	22
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	1	2	2
Lead	ppm	ASTM D5185m	>25	1	0	0
Copper	ppm	ASTM D5185m	>100	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	12	15	17
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	51	55	63
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	ppm	ASTM D5185m	1010	688	708	789
Calcium	ppm	ASTM D5185m	1070	1004	1056	1136
Phosphorus	ppm	ASTM D5185m	1150	868	895	915
Zinc	ppm	ASTM D5185m	1270	1033	1088	1188
Sulfur	ppm	ASTM D5185m	2060	2480	2755	2698
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	3	6
Sodium	ppm	ASTM D5185m		14	3	10
Potassium	ppm	ASTM D5185m	>20	5	3	<1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	0.8	0.4	0.6
Nitration	Abs/cm	*ASTM D7624	>20	6.8	8.2	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.3	17.9	21.0
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.5	14.2	17.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.8	5.9	5.5

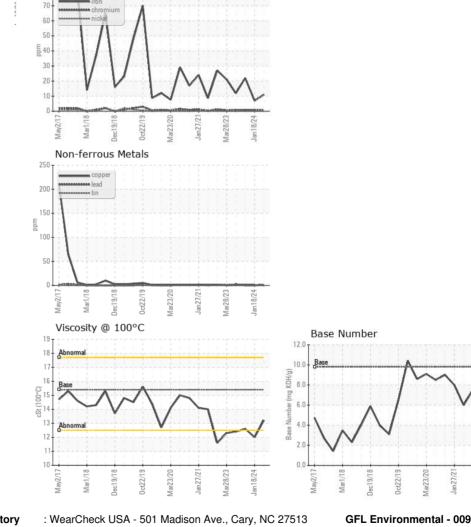


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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*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 PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.2	12.0	12.6
GRAPHS						
Ferrous Alloys						
	1000100					



GFL Environmental - 009 - Fairburn Laboratory : 01 Feb 2024 Sample No. : GFL0109117 Recieved 6905 Roosevelt Hwy Lab Number : 06076538 Diagnosed :01 Feb 2024 Fairburn, GA Unique Number : 10858629 Diagnostician : Wes Davis US 30213 Test Package : FLEET Contact: Eric Jones Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. erjones@gflenv.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (678)630-9927

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

Jan 18/24

Mar28/23