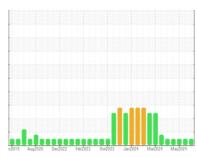


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id **727108-310052**

Component

Diesel Engine

PETRO CANADA DURON SHP 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

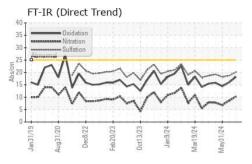
Fluid Condition

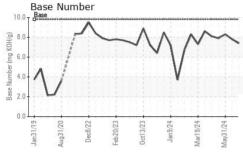
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

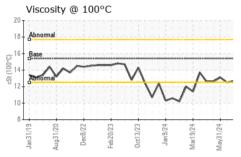
SAMPLE INFORMATION method limit/base current history1 history2	AAL)		nzoro Augz	020 DBC2022 PB02023	OCIZOZS Sanzoza marzoza	may2024	
Sample Date	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 150 150 150 150 150 150 150 150 150 150 Not Changd Not Changd <t< th=""><th>Sample Number</th><th></th><th>Client Info</th><th></th><th>GFL0121541</th><th>GFL0105248</th><th>GFL0105081</th></t<>	Sample Number		Client Info		GFL0121541	GFL0105248	GFL0105081
Oil Age hrs Client Info Not Changd	Sample Date		Client Info		20 Jun 2024	10 Jun 2024	31 May 2024
Oil Changed Sample Status Client Info Not Changd NORMAL Not Changd NORMAL Not Changd NORMAL Not Changd NORMAL	Machine Age	hrs	Client Info		3349	3215	
Sample Status	Oil Age	hrs	Client Info		150	150	150
NORMAL NORMAL NORMAL	-		Client Info		Not Changd	Not Changd	Not Changd
Fuel	-				NORMAL	NORMAL	NORMAL
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 D5185m >80 11 10 8 Chromium ppm ASTM D5185m >5 <1 <1 <1 Nickel ppm ASTM D5185m >2 <1 0 0 Sliver ppm ASTM D5185m >2 <1 0 0 Sliver ppm ASTM D5185m >30 3 2 1 Sliver ppm ASTM D5185m >30 3 2 1 Lead ppm ASTM D5185m >30 2 <1 <1 Copper ppm ASTM D5185m >5 <1 <1 <1 Vanadium ppm ASTM D5185m >5 <1 <1 <1 Vanadium ppm ASTM D5185m >0 <1 <th>CONTAMINAT</th> <th>ION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	CONTAMINAT	ION	method	limit/base	current	history1	history2
Second WC Method NEG NEG NEG	Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Iron	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >5 <1	WEAR METAL	_S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>80	11	10	8
Titanium ppm ASTM D5185m <1	Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Silver	Nickel	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	Titanium	ppm	ASTM D5185m		<1	0	0
Lead ppm ASTM D5185m >30 2 <1	Silver	ppm	ASTM D5185m	>3	<1	0	0
Copper ppm ASTM D5185m >150 2 1 1 Tin ppm ASTM D5185m >5 <1 <1 <1 Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 <1 0 0 Barium ppm ASTM D5185m 0 <1 0 0 Molybdenum ppm ASTM D5185m 0 <1 <1 <1 <1 Manganese ppm ASTM D5185m 0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Aluminum	ppm	ASTM D5185m	>30	3	2	1
Tin ppm ASTM D5185m >5 <1	Lead	ppm	ASTM D5185m	>30	2	<1	<1
Vanadium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>150	2	1	1
Cadmium ppm ASTM D5185m <1	Tin	ppm	ASTM D5185m	>5	<1	<1	<1
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1	0	0
Boron	Cadmium	ppm	ASTM D5185m		<1	0	0
Barium ppm ASTM D5185m 0 1 0 0 Molybdenum ppm ASTM D5185m 60 53 51 54 Manganese ppm ASTM D5185m 0 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 60 53 51 54 Manganese ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m	0	<1	0	0
Manganese ppm ASTM D5185m 0 <1	Barium	ppm	ASTM D5185m	0	1	0	0
Magnesium ppm ASTM D5185m 1010 826 815 831 Calcium ppm ASTM D5185m 1070 952 921 961 Phosphorus ppm ASTM D5185m 1150 989 900 968 Zinc ppm ASTM D5185m 1270 1134 1103 1122 Sulfur ppm ASTM D5185m 2060 2803 3059 3188 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 3 3 Sodium ppm ASTM D5185m 5 5 5 5 Potassium ppm ASTM D5185m >20 6 2 1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 10.3 8.6 6.8 Sulfation Abs/.1mm *ASTM D7414<	Molybdenum	ppm	ASTM D5185m	60	53	51	54
Calcium ppm ASTM D5185m 1070 952 921 961 Phosphorus ppm ASTM D5185m 1150 989 900 968 Zinc ppm ASTM D5185m 1270 1134 1103 1122 Sulfur ppm ASTM D5185m 2060 2803 3059 3188 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 3 3 Sodium ppm ASTM D5185m >20 6 2 1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/.1mm *ASTM D7624 >20 10.3 8.6 6.8 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 18.7 18.2 FLUID DEGRADATION <td< th=""><th>Manganese</th><th>ppm</th><th>ASTM D5185m</th><th>0</th><th><1</th><th><1</th><th><1</th></td<>	Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Phosphorus ppm ASTM D5185m 1150 989 900 968 Zinc ppm ASTM D5185m 1270 1134 1103 1122 Sulfur ppm ASTM D5185m 2060 2803 3059 3188 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 3 3 Sodium ppm ASTM D5185m >20 6 2 1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 10.3 8.6 6.8 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 18.7 18.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm	Magnesium	ppm	ASTM D5185m	1010	826	815	831
Zinc ppm ASTM D5185m 1270 1134 1103 1122 Sulfur ppm ASTM D5185m 2060 2803 3059 3188 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 3 3 Sodium ppm ASTM D5185m >20 6 2 1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 10.3 8.6 6.8 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 18.7 18.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.2 16.0 14.4	Calcium	ppm	ASTM D5185m	1070	952	921	961
Sulfur ppm ASTM D5185m 2060 2803 3059 3188 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 3 3 Sodium ppm ASTM D5185m 5 5 5 Potassium ppm ASTM D5185m >20 6 2 1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 10.3 8.6 6.8 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 18.7 18.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.2 16.0 14.4	Phosphorus	ppm		1150	989	900	968
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 3 3 Sodium ppm ASTM D5185m 5 5 5 Potassium ppm ASTM D5185m >20 6 2 1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 10.3 8.6 6.8 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 18.7 18.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.2 16.0 14.4	Zinc	ppm	ASTM D5185m	1270	1134	1103	1122
Silicon ppm ASTM D5185m >20 4 3 3 Sodium ppm ASTM D5185m 5 5 5 Potassium ppm ASTM D5185m >20 6 2 1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 10.3 8.6 6.8 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 18.7 18.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.2 16.0 14.4	Sulfur	ppm	ASTM D5185m	2060	2803	3059	3188
Sodium ppm ASTM D5185m 5 5 Potassium ppm ASTM D5185m >20 6 2 1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 10.3 8.6 6.8 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 18.7 18.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.2 16.0 14.4	CONTAMINANTS method limit/base current history1 history2						
Potassium ppm ASTM D5185m >20 6 2 1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 10.3 8.6 6.8 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 18.7 18.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.2 16.0 14.4	Silicon	ppm	ASTM D5185m	>20	4	3	3
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 10.3 8.6 6.8 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 18.7 18.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.2 16.0 14.4	Sodium	ppm	ASTM D5185m		5	5	5
Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 10.3 8.6 6.8 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 18.7 18.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.2 16.0 14.4	Potassium	ppm	ASTM D5185m	>20	6	2	1
Nitration Abs/cm *ASTM D7624 >20 10.3 8.6 6.8 Sulfation Abs/.1mm *ASTM D7415 >30 20.1 18.7 18.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.2 16.0 14.4	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 20.1 18.7 18.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.2 16.0 14.4	Soot %	%	*ASTM D7844	>3	0.4	0.3	0.2
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.2 16.0 14.4	Nitration	Abs/cm	*ASTM D7624	>20	10.3	8.6	6.8
Oxidation Abs/.1mm *ASTM D7414 >25 18.2 16.0 14.4	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	18.7	18.2
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 9.8 7.4 7.8 8.3	Oxidation	Abs/.1mm	*ASTM D7414	>25	18.2	16.0	14.4
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.4	7.8	8.3



OIL ANALYSIS REPORT



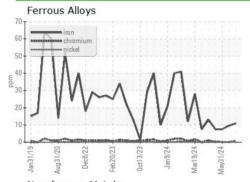




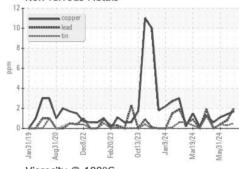
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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

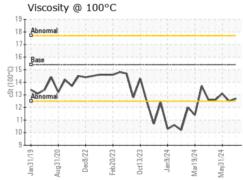
FLUID PROPI	ERTIES	method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.7	12.5	13.1

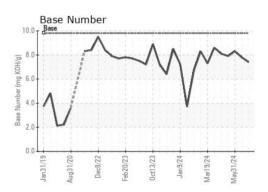
GRAPHS















Certificate 12367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0121541 Lab Number : 06219275

Unique Number : 11097472 Test Package : FLEET

Received : 25 Jun 2024 **Tested** : 25 Jun 2024

Diagnosed : 25 Jun 2024 - Wes Davis

GFL Environmental - 821 - Ozarks Hauling 33924 Olath Drive

Lebanon, MO US 65536

Contact: Landen Johnson landen.johnson@gflenv.com T: (417)664-0010

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)