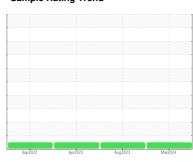


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id 149 Component

Diesel Engine

PETRO CANADA DURON HP 15W40 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.
Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

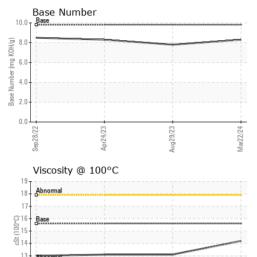
Fluid Condition

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

AL)		Sep202	2 Apr2023	Aug2023 N	1ar2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0906259	WC0792691	WC0792790
Sample Date		Client Info		22 Mar 2024	29 Aug 2023	24 Apr 2023
Machine Age	mls	Client Info		95944	84215	80321
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	14	25	15
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		2	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	5	2
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	<1	1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		6	9	10
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		55	62	58
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		934	916	857
Calcium	ppm	ASTM D5185m		1051	1139	1064
Phosphorus	ppm	ASTM D5185m		918	1019	941
Zinc	ppm	ASTM D5185m		1188	1270	1178
Sulfur	ppm	ASTM D5185m		3378	3649	3242
CONTAMINANTS	;	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	8	6
Sodium	ppm	ASTM D5185m		<1	1	1
Potassium	ppm	ASTM D5185m	>20	<1	3	3
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.6	8.5	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	19.0	18.2
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.7	15.5	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.3	7.8	8.3
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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 PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6	14.2	13.1	13.1
CDADUS						

V13C @ 100 O	COL ACTIVIDATO	10.0	. 7.2	10.1	10.1	
GRAPHS						
Iron (ppm)			Lead (ppm	1)		
Severe	<u> </u>		Severe			
0+			Abnormal			
0 Abnormal			10 3			
0			20			
Sep28/22 -	Aug29/23 -	Mar22/24 ·	Sep28/22 -	Apr24/23 -	Aug29/23 -	
**	Aug	Mai			Aug	
Aluminum (ppm)			Chromium	(ppm)		
Severe			40 - Severe		 	
0 - Abnormal			Abnormal			
0+			10+			
23 25	- 523	24	22		53	
Sep 28/22	Aug29/23	Mar22/24	Sep28/22	Apr24/23	Aug29/23	
Copper (ppm)			Silicon (pp	m)		
Severe Abnormal			80 - Severe			
0			60+			
			Abnormal			
0			0			
Sep28/22-	Aug29/23 -	Mar22/24	Sep28/22-	Apr24/23 •	Aug29/23 -	
	Aug	Mar			Aug	
Viscosity @ 100°C			Base Num	ber		
8 Abnormal			NOH 8.0			
Base Abnormal			8.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00			
Abnormal			2.0			
0		- 45	0.0	- 33		
Sep28/22	Aug29/23	Mar22/24	Sep28/22	Apr24/23	Aug29/23 -	
S	⋖	2	69	4	Ø.	





Laboratory

Sample No.

Lab Number : 06132651 Unique Number : 10952116 Test Package : MOB 1 (Additional Tests: TBN)

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0906259 Received

: 28 Mar 2024 **Tested** : 01 Apr 2024 Diagnosed

: 01 Apr 2024 - Wes Davis

WAYNE CO SCHOOL BUS GARAGE 1603 SALEM CHURCH RD

GOLDSBORO, NC US 27530

Contact: BRANDON BRIGGS brandonbriggs@wcps.org

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)

T:

F: