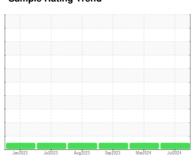


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



491
Component
Diesel Engine

Machine Id

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.

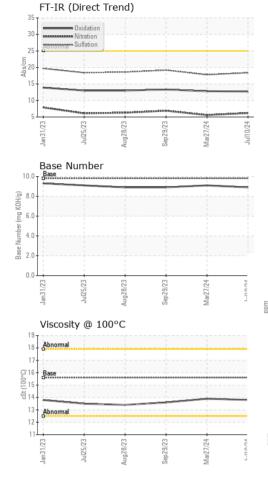
Fluid Condition

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

AL)		Jan 2023	Jul2023 Aug2023	3 Sep 2023 Mar 2024	Jul2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number Sample Date Machine Age Oil Age	mls mls	Client Info Client Info Client Info Client Info		WC0906253 10 Jul 2024 219081 0	WC0905933 27 Mar 2024 214821 5000	WC0792814 29 Sep 2023 204865 0
Oil Changed Sample Status		Client Info		Not Changd NORMAL	Not Changd NORMAL	Not Changd 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		history1	history2
Iron Chromium	ppm	ASTM D5185m	>100	10 <1	7 <1	16 <1
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	1	<1
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	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		2	2	8
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		53	56	56
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		827	859	879
Calcium	ppm	ASTM D5185m		1278	1161	1217
Phosphorus Zinc	ppm	ASTM D5185m ASTM D5185m		1095 1226	1014 1213	1043 1276
Sulfur	ppm	ASTM D5185m		3017	3649	3210
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	2	2	2
Sodium	ppm	ASTM D5185m	725	0	2	<1
Potassium	ppm	ASTM D5185m	>20	2	14	0
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.6	0.4	0.9
Nitration	Abs/cm	*ASTM D7624	>20	6.2	5.6	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.4	17.8	19.2
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.7	12.8	13.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.9	9.1	8.9



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		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6	13.8	13.9	13.6
GRAPHS				1 1 ()		
Iron (ppm)			10	Lead (ppm)		
200 - Severe			8	Severe		
150			mdd 4			
100 Abnormal			B. 4	Abnormal		
50			2	0+		
23 23 23	23	24			23	24
Jan31/23 Jul25/23	Sep 29/23	Mar27/24 -	Jul10/24	Jan31/23 Jul25/23	Aug28/23 Sep29/23	Mar27/24 Jul10/24
Aluminum (ppm)	0)	2		Chromium (p		2
50 Severe			5	Smere	· · · · · · · · · · · · · · · · · · ·	
10 7			4	1		
Abnormal			E 3	Abnormal		
10+			11			
0						
Jan31/23 Jul25/23	Sep 29/23	Mar27/24	Jul10/24	Jan31/23	Aug28/23 Sep29/23	Mar27/24 Jul10/24
Jani	Sep	Mari	Jul.	Jul	Aug	Mari
Copper (ppm)			8	Silicon (ppm)		
Abinomal						
300			6			
200			Edd 4	Abnormal		
100			2	0 +		
0 2 2 2		4	45		g g	45 45
Jan31/23 Jul25/23 Aug28/23	Sep29/23	Mar27/24	Jul10/24	Jan31/23 Jul25/23	Aug28/23 Sep29/23	Mar27/24 - Jul10/24 -
Viscosity @ 100°C		2	,	Base Number		2 ,
20 7			10.			
18 Abnormal		**************	8.8 Number (mg KOH/q)			<u>-</u>
16 Base Abnormal		!	<u></u>	i i		
			qual 4.	1.1		
12			93 2.1 80 0.1			
	9/23	7/24	Jul10/24		9/23	Mar27/24 -
Jan31/23 Jul25/23 Aug28/23	Sep29/23	Mar27/24	Jul	Jan31/23 Jul25/23	Aug28/23 Sep29/23	Mar27/24 Jul10/24





Certificate 12367

Sample No.

Lab Number : 06234704 Unique Number : 11123538

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0906253

Received : 12 Jul 2024 **Tested** : 15 Jul 2024 Diagnosed

: 15 Jul 2024 - Wes Davis

GOLDSBORO, NC US 27530 Contact: BRANDON BRIGGS

1603 SALEM CHURCH RD

brandonbriggs@wcps.org

WAYNE CO SCHOOL BUS GARAGE

Test Package : MOB 1 (Additional Tests: TBN) 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: WAYGOL [WUSCAR] 06234704 (Generated: 07/15/2024 09:08:25) Rev: 1

Contact/Location: BRANDON BRIGGS - WAYGOL

T:

F: