

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

(AY425B) Supermarket - Tractor FREIGHTLINER 107A8809

Component Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

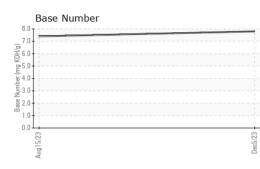
Fluid Condition

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

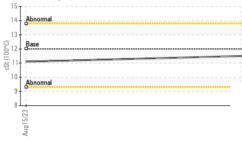
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GAL)			Aug2023	Dec2023		
SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0110991	PCA0104114	
Sample Date		Client Info		05 Dec 2023	15 Aug 2023	
Machine Age	mls	Client Info		55405	43250	
Oil Age	mls	Client Info		12155	15783	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINA	TION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAI	LS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	26	48	
Chromium	ppm	ASTM D5185m		2	3	
Nickel	ppm	ASTM D5185m	>2	0	<1	
Titanium	ppm	ASTM D5185m	~_	0	<1	
Silver	ppm	ASTM D5185m	>3	0	<1	
Aluminum		ASTM D5185m		24	40	
_ead	ppm	ASTM D5185m		24 <1	1	
	ppm	ASTM D5185m		63	95	
Copper	ppm					
Fin (and a diama	ppm	ASTM D5185m	>5	<1	2	
/anadium Cadmium	ppm	ASTM D5185m ASTM D5185m		0	<1 0	
	ppm		1	-		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	15	9	
Barium	ppm	ASTM D5185m	0	0	0	
Volybdenum	ppm	ASTM D5185m	50	62	63	
Vanganese	ppm	ASTM D5185m	0	<1	2	
Magnesium	ppm	ASTM D5185m	950	798	884	
Calcium	ppm	ASTM D5185m	1050	1192	1298	
Phosphorus	ppm	ASTM D5185m	995	941	903	
Zinc	ppm	ASTM D5185m	1180	1113	1152	
Sulfur	ppm	ASTM D5185m	2600	2412	2593	
CONTAMINA	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	4	7	
Sodium	ppm	ASTM D5185m		<1	4	
Potassium	ppm	ASTM D5185m	>20	52	97	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.8	1	
Nitration	Abs/cm	*ASTM D7624	>20	7.8	9.1	
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	21.5	
FLUID DEGRA		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7	18.0	
Base Number (BN)		ASTM D2896		7.8	7.4	
	3.10.29					



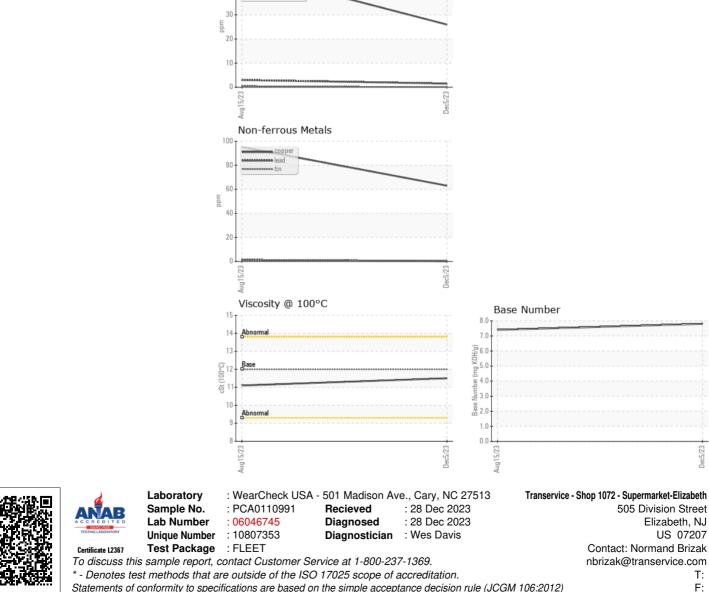
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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Free Water	scalar	*Visual		NEG	NEG	
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.5	11.1	
GRAPHS						
Ferrous Alloys						
50iron 1						
40 - nickel	_					
20						
30 -						



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