

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 228294

Component Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (----

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

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.

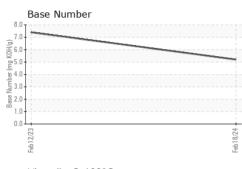
Fluid Condition

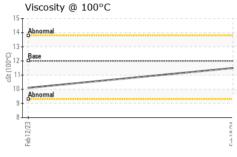
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

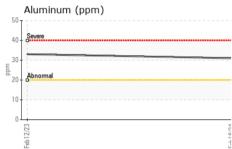
TS)			Feb2023	Feb2024		
SAMPLE INFORM	/ ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0110664	PCA0083843	
Sample Date		Client Info		18 Feb 2024	12 Feb 2023	
Machine Age	mls	Client Info		78020	34690	
Dil Age	mls	Client Info		43330	34690	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Nater		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS	S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>100	51	46	
Chromium	ppm	ASTM D5185m	>20	4	3	
Nickel	ppm	ASTM D5185m	>4	1	1	
Titanium	ppm	ASTM D5185m		15	5	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	31	33	
_ead	ppm	ASTM D5185m	>40	<1	3	
Copper	ppm	ASTM D5185m	>330	113	316	
Гin	ppm	ASTM D5185m	>15	4	5	
/anadium	ppm	ASTM D5185m		0	<1	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	5	24	
Barium	ppm	ASTM D5185m	0	0	0	
Volybdenum	ppm	ASTM D5185m	50	52	40	
Vanganese	ppm	ASTM D5185m	0	2	4	
Magnesium	ppm	ASTM D5185m	950	913	503	
Calcium	ppm	ASTM D5185m	1050	1485	1681	
Phosphorus	ppm	ASTM D5185m	995	1028	701	
Zinc	ppm	ASTM D5185m	1180	1327	942	
Sulfur	ppm	ASTM D5185m	2600	2479	1938	
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	8	
Sodium	ppm	ASTM D5185m		3	6	
Potassium	ppm	ASTM D5185m	>20	62	72	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.7	0.5	
Nitration	Abs/cm	*ASTM D7624	>20	12.1	11.0	
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.7	23.1	
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.0	25.0	



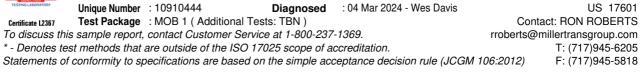
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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	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 PROPER	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.5	10.1	
GRAPHS						
Iron (ppm)				Lead (ppm)		
250 Severe			100	Severe		
200			08			
a 150 - Abnormal			60 Ed 40	Abnormal		
50 -			20	Ţ		
0			0			
Feb12/23			Feb18/24	Feb12/23		Feb18/24
Feb			Feb	Feb		Feb
Aluminum (ppm)			50	Chromium (p	pm)	
50 40 - Severe			50	Severe		
				Ī		
and a second sec				Abnormal		
10			10			
0			0	1		
Feb 12/23			Feb 18/24	Feb12/23		Feb18/24
—			Feb	—		율
Copper (ppm)			80	Silicon (ppm)		
Abnonnal			80	Severe		
300			60			
틆 200-			튭 40	Abnormal		
100-			20			
Feb 12/23			Feb 18/24	Feb 12/23		Feb18/24
			<u>a</u>			Fei
Viscosity @ 100°C			8.0	Base Number		
14 - Abnormal			(D/HOX) Buy Jack 4.0 Nump 22.0			
D Base			B K			
Base 12 - Base			ња 4.0 	1		
10 Abnormal			² 2.0			
8			→ 0.0	L.		
Feb 12/23			Feb 18/24	Feb 12/23		Feb18/24
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: WearCheck USA - 501 : PCA0110664 : 06106947 : 10910444	Madiso Recei Teste Diagn	ved : 04 d : 04	, NC 27513 Mar 2024 Mar 2024 Mar 2024 - W			LEASING #123 LLER AVENUE NCASTER, PA US 17601



Laboratory Sample No. Lab Number

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