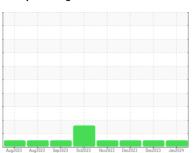


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



KDAC Machine Id 200206

Component
Diesel Engine

PETRO CANADA DURON SHP 10W30 (40 LTR)

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.

_TR)		Aug2023 A	iug2023 Sep2023 Oct20	23 Nov2023 Dec2023 Dec2023	3 Jan2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0888932	WC0864704	WC0864705
Sample Date		Client Info		08 Jan 2024	08 Dec 2023	08 Dec 2023
Machine Age	kms	Client Info		256560	243561	245552
Oil Age	kms	Client Info		13000	59655	1
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	V	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<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 D5185(m)	>90	5	17	2
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	3	8	1
Lead	ppm	ASTM D5185(m)	>40	<1	3	<1
Copper	ppm	ASTM D5185(m)	>330	<1	2	<1
Tin	ppm	ASTM D5185(m)	>15	0	<1	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	5	4	6
Barium	ppm	ASTM D5185(m)	0	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	50	57	60	56
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	950	932	975	927
Calcium	ppm	ASTM D5185(m)	1050	1050	1078	1026
Phosphorus	ppm	ASTM D5185(m)	995	1009	987	974
Zinc	ppm	ASTM D5185(m)		1133	1192	1128
Sulfur	ppm	ASTM D5185(m)	2600	2662	2407	2560
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS	;	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	3	6	4
Sodium	ppm	ASTM D5185(m)	00	1	2	2
Potassium	ppm	ASTM D5185(m)	>20	0	20	2
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0	0.2	0
Nitration	Abs/cm	ASTM D7624*	>20	5.7	8.3	4.5
Nitration(Diff)	Abs/cm	ASTM D7624*		0.5		
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.6	20.4	17.7
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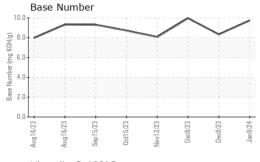
1.5

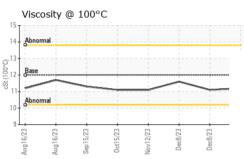
Sulfation(Diff)

Abs/cm ASTM D7415*



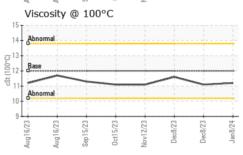
OIL ANALYSIS REPORT

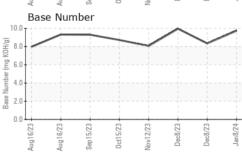




FLUID DEGRADATION		method				history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.4	17.0	13.0	
Oxidation(Diff)	Abs/cm	ASTM D7414*		4.1			
Base Number (BN)	Number (BN) mg KOH/g			9.74	8.34	9.96	
VISUAL		method	limit/base	current	history1	history2	
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG	
Free Water	iter scalar			NEG	NEG	NEG	
FLUID PROPERTIES		method	limit/base	current	history1	history2	
Visc @ 100°C	isc @ 100°C cSt		12.00	11.2	11.1	11.6	
GRAPHS							
Iron (ppm)				Lead (ppm)			

	APHS									1./						
Iror	ppn (ppn	n) 						100	Lea	d (ppi	m)					
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				Nov	De	De	Jai						Nov	De	De	
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6/23	6/23	5/23	Oct15/23	2/23	Dec8/23 -	Dec8/23	Jan8/24	0	6/23	6/23	5/23	5/23	2/23	Dec8/23 -	Dec8/23 -	
Aug16/23	Aug16/23	Sep15/23	Octil	Nov12/23	Dec	Deci	Jan		Aug16/23	Aug16/23.	Sep15/23	Oct15/23	Nov12/23	Dec	Dec	
	per (ppm)								on (p	pm)					
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CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5709753

: WC0888932 : 02608667

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Recieved Diagnosed

: 15 Jan 2024 Diagnostician : Kevin Marson

: 15 Jan 2024

Test Package : MOB 2 (Additional Tests: FT-IR(Diff))

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

WFR Technical Services

5389 Riverside Drive Burlington, ON CA L7L 3Y1

Contact: William Ridley wfr.technical.services@gmail.com

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