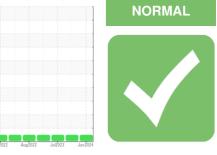


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

405450 Component Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (--- QTS)

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.

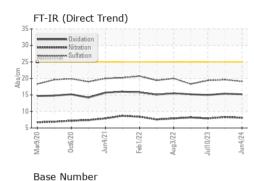
Fluid Condition

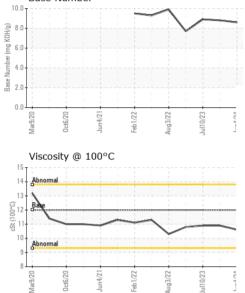
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0120995	PCA0105759	PCA0100872
Sample Date		Client Info		04 Jun 2024	01 Nov 2023	10 Jul 2023
Machine Age	mls	Client Info		97766	0	75035
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ON	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	20.2	NEG	NEG	NEG
-	~					
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	8	9	10
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	5	6
Lead	ppm	ASTM D5185m	>40	2	2	<1
Copper	ppm	ASTM D5185m	>330	36	59	26
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	0	4	9
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	60	54	59
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	950	960	818	894
Calcium	ppm	ASTM D5185m	1050	1103	1229	1130
Phosphorus	ppm	ASTM D5185m	995	1035	861	995
Zinc	ppm	ASTM D5185m	1180	1254	1145	1198
Sulfur	ppm	ASTM D5185m	2600	3520	3152	3380
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	3	2	2
Sodium	ppm	ASTM D5185m		2	3	2
Potassium	ppm	ASTM D5185m	>20	2	8	5
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.6	0.7	0.6
Nitration	Abs/cm	*ASTM D7624		8.1	8.3	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	19.6	19.4
FLUID DEGRAD)ATION	method	limit/base	current	history1	history2
		*ASTM D7414				
Oxidation Base Number (BN)	Abs/.1mm mg KOH/g	ASTM D7414 ASTM D2896	>25	15.2 8.6	15.4 8.8	15.0 8.9
Dase Mulliber (DIN)	mg NO⊓/y	NO THE DE030		0.0	0.0	0.3



OIL ANALYSIS REPORT

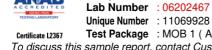




White	SUAL				thod	limit/ba	se	current		history	1	histo	ry2	
	e Metal		scalar	*Visi	ual	NONE		NONE		NONE		NONE		
Yellov	w Metal		scalar	*Visi		NONE		NONE		NONE		NONE		
Preci			scalar	*Vis		NONE		NONE		NONE		NONE		
Silt			scalar	*Visi	ual	NONE		NONE		NONE		NONE		
Debri	s		scalar	*Visi		NONE		NONE				NONE		
Sand	-		scalar	*Visi		NONE		NONE		NONE		NONE		
	arance		scalar	*Visi		NORML		NORML		NORML			NORML	
Odor	uluiloo		scalar	*Visi		NORML		NORML		NORML		NORML		
	sified Wate	⊃r	scalar	*Visi		>0.2		NEG		NEG		NEG		
	Water	51	scalar	*Visi		20.L		NEG		NEG		NEG		
FLU	UID PRO	DPE	RTIES	s me	thod	limit/ba	se	current		history	1	histo	ry2	
	@ 100°C		cSt		/I D445	12.00		10.6		10.9		10.9		
GR	RAPHS													
Iror	n (ppm)						Lе 100 т т т	ad (ppm)					
00 - Sever	re							were						
50 - 00 - Abno	ormal						60- 60- A	onormal						
50 -							40 - 6							
		-				-	0						_	
Mar9/20	0ct6/20	Jun4/21	Feb 1/22	Aug3/22	Jul10/23	Jun4/24	Mar9/20	0ct6/20	Jun4/21	Feb1/22	Aug3/22	Jul10/23	AC/Anil	
	minum (pj			4	7			nromium	(ppm)		-	7		
⁵⁰ T							⁵⁰ T							
40 - Sever	re						10	vere						
30 Abno							and 20 A							
20 - Abno	ormal						²⁰ - A	onormal	1					
10	/ _	rectation			\sim		10							
	20+	21	22	22	33	24		20 -	21.	22	22	23	4	
Mar9/20	0ct6/20	Jun4/21	Feb1/22	Aug3/22	Jul10/23	Jun4/24	Mar9/20	0ct6/20	Jun4/21	Feb1/22	Aug3/22	Jul10/23	100 Pure	
Сор	pper (ppm)			2		Si	licon (ppi	m)					
Sever	re omral						80	vere						
00 -							60 -							
00		1					a 40							
00		1	\mathbf{N}					normal						
		1			-	-						\sim		
20-1-0	/20	ł/21	122	122	/23	/24	20 10	/20 -	4/21	122	122	123	100	
Mar9/20	0ct6/20	Jun4/2	Feb1/22	Aug3/22	Jul10/23 -	Jun4/24	Mar9/20	0ct6/20	Jun4/21	Feb1/22	Aug3/22	Jul10/23	0.0 P and	
Visc	cosity @ 1	00°C					Ba	ase Numl	ber					
¹⁶ T						1	10.0 T			-				
14 - Abno 12 - Base	ormal						8.0-							
12 Base							6.0							
				-			4.0							
10 Abno	ormal						2.0							
8	- 02	21	22	22	23		0.0	- 02	21	12	22	33		
Mar9/20	0ct6/20	Jun4/21	Feb 1/22	Aug3/22	Jul10/23	Jun4/24 -	Mar9/20	0ct6/20	Jun4/21	Feb 1/22	Aug3/22	Jul10/23	hC/haul	

: 11 Jun 2024 - Wes Davis

Diagnosed



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: MILLOG [WUSCAR] 06202467 (Generated: 06/11/2024 13:33:11) Rev: 1

Laboratory

Sample No.

Contact/Location: ED DAVIS - MILLOG

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US 08085

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