

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id 837203H

Component
Diesel Engine
Eluid

PETRO CANADA DURON SHP 10W30 (--- LTR)

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.

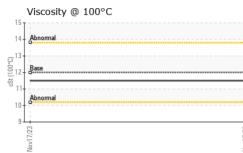
Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0886700		
Sample Date		Client Info		17 Nov 2023		
Machine Age	hrs	Client Info		1319		
Oil Age	hrs	Client Info		399		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	24		
Chromium	ppm	ASTM D5185(m)	>20	<1		
Nickel	ppm	ASTM D5185(m)	>4	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>3	0		
Aluminum	ppm	ASTM D5185(m)	>20	5		
Lead	ppm	ASTM D5185(m)	>40	0		
Copper	ppm	ASTM D5185(m)	>330	2		
Tin	ppm	ASTM D5185(m)	>15	0		
Antimony	ppm	ASTM D5185(m)	210	0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES	ppm	method	limit/base	current	history1	history2
					Thistory I	THStory2
Boron	ppm	ASTM D5185(m)	2	2		
Barium	ppm	ASTM D5185(m)	0	0		
Molybdenum	ppm	ASTM D5185(m)	50	65		
Manganese	ppm	ASTM D5185(m)	0	0		
Magnesium	ppm	ASTM D5185(m)	950	1082		
Calcium	ppm	ASTM D5185(m)	1050	1183		
Phosphorus	ppm	ASTM D5185(m)	995	1072		
Zinc	ppm	ASTM D5185(m)	1180	1270		
Sulfur	ppm	ASTM D5185(m)	2600	2691		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	6		
Sodium	ppm	ASTM D5185(m)		3		
Potassium	ppm	ASTM D5185(m)	>20	1		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0		
Nitration	Abs/cm	ASTM D7624*	>20	8.0		
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.2		



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°C	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	ASTM D7414*	>25	15.6		
	VISUAL		method	limit/base	current	history1	history2
	Emulsified Water Free Water	scalar scalar	Visual* Visual*	>0.2	NEG NEG		
				limit/booo		historut	
- ES/LIvoN	FLUID PROPER Visc @ 100°C	cSt	method ASTM D7279(m)	limit/base	current 11.5	history1	history2
Nov	GRAPHS	CSI	ASTM D7279(III)	12.00	11.5		
	Iron (ppm)				Lead (ppm)		
	250			100)T:		
	200 - Severe			80			
	150 Abnormal			60 Ed	Abnormal		
	100 - G			4(
	0			20			
	Nov17/23-			Nov17/23	Nov17/23		Nov17/23 -
	్ Aluminum (ppm)			Nov	్ Chromium (pj		Nov
	⁵⁰ []			50			
	40 Severe			40) - Severe		
	30 Abnormal			30 Ed			
	20 - Abnormal			20) - Abnormal		
	10-			10			
	0 Nov17/23			Nov17/23	Nov17/23		Nov17/23 -
	—			Nov1			Nov1
	Copper (ppm)			80	Silicon (ppm)		
	350 - Abnormal 300			70			
E	250 - 200 -			50 톱 40) 🗕 🕂		
8	150			30	Abnormal		
	50			20			
				- 123			/23
	Nov17/23			Nov17/23	Nov17/23		Nov17/23
	Viscosity @ 100°	С		6.0	Soot %		
	14 Abnormal			5.0	Sminn		
Į.	13			4.(8 ²			
	Base			کو 53.0 2.0			
	Abnormal			1.0			
	e						23
	Nov17/23			Nov17/23	Nov17/23		Nov17/23
Laboratory Sample No. Lab Number	: WearCheck - C8-1 : WC0886700 : 02604900	Recieved Diagnos	ed : 22	Dec 2023 Dec 2023	7L 5H9 MANITC	1335 SHA	WSON DRIVE ISSAUGA, ON
Accredited Unique Number Laboratory Test Package	: 5697985 : MOB 1	Diagnost	ucian : We	s Davis		Contact:	CA L4W 1C4 Travis Spence
To discuss this sample report, or Test denoted (*) outside scope Validity of results and interpreta	of accreditation, (m) r	method ma	odified, (e) te	sted at exter	nal lab.	ence@manitoulir	

Contact/Location: Travis Spence - MANMIS