

Machine Id **306** Component **Diesel Engine** Fluid **PETRO CANADA DURON SHP 10W30 (10 GAL)**

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		LW0009420	LW0009150	LW0007805
	Sample Date		Client Info		27 Jun 2024	05 Jun 2024	07 Sep 2023
	Machine Age	mls	Client Info		353958	336892	224900
	Oil Age	mls	Client Info		17066	50000	188135
	Filter Age	mls	Client Info		17066	25000	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>100	19	55	24
	Chromium	ppm	ASTM D5185m	>20	1	3	1
	Nickel	ppm	ASTM D5185m		0	<1	0
	Titanium	ppm	ASTM D5185m		0	<1	<1
	Silver	ppm	ASTM D5185m	>3	<1	2	0
	Aluminum	ppm	ASTM D5185m	>20	2	5	5
	Lead	ppm	ASTM D5185m	>40	0	<1	0
	Copper	ppm	ASTM D5185m	>330	7	16	32
	Tin	ppm	ASTM D5185m	>15	<1	<1	2
	Vanadium	ppm	ASTM D5185m		0	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	5	7	3
CONTAMINATION	Potassium	ppm	ASTM D5185m		1	5	8
There is no indication of any contamination in the oil.	Fuel	pp	WC Method		- <1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.6	0.6	1
	Nitration	Abs/cm	*ASTM D7624	>20	8.7	9.4	11.1
	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	21.4	21.7
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		1	4	1
	Boron	ppm	ASTM D5185m	2	5	2	<1
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m	50	60	63	56
	Manganese	ppm	ASTM D5185m	0	<1	<1	0
	Magnesium	ppm	ASTM D5185m	950	962	1001	1080
	Calcium	ppm	ASTM D5185m	1050	1145	1151	1229
	Phosphorus	ppm	ASTM D5185m	995	1058	1039	1004
	Zinc	ppm	ASTM D5185m	1180	1310	1286	1309
	Sulfur	ppm	ASTM D5185m	2600	3012	2893	2231
	Oxidation	Abs/.1mm	*ASTM D7414	>25	17.0	18.4	20.3
	Base Number (BN)	mg KOH/g	ASTM D2896		8.0	7.3	6.6
	V/ 0 10000	- 01		10.00		10.0	110

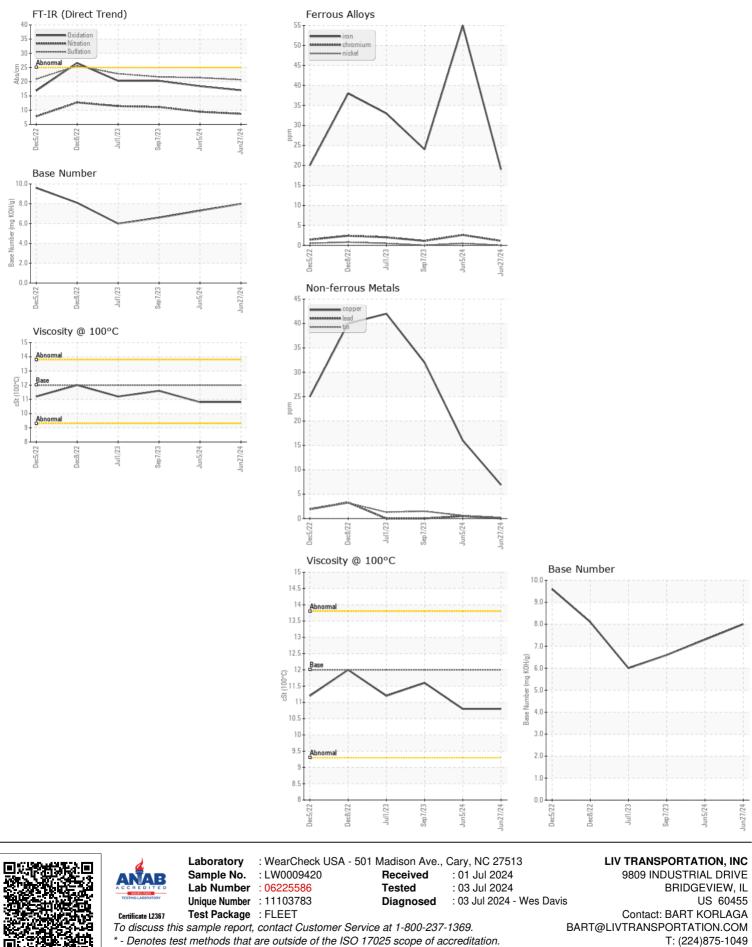
Visc @ 100°C cSt

ASTM D445 12.00

10.8

11.6

10.8



* - 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)

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