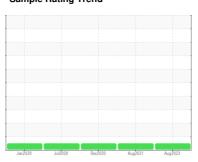


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id 1926720

Component **Diesel Engine**

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.

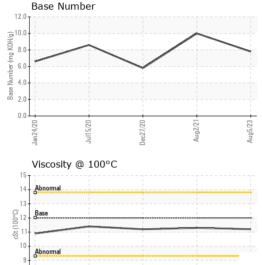
Fluid Condition

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

QTS)		Jan 2020	Jul2020	Dec2020 Aug2021	Aug2023	
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0088722	PCA0051647	PCA0032655
Sample Date		Client Info		05 Aug 2023	02 Aug 2021	27 Dec 2020
Machine Age	hrs	Client Info		3564	8844	3564
Oil Age	hrs	Client Info		0	0	3564
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	26	19	55
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		2	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	1	7
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	2	<1	3
Tin	ppm	ASTM D5185m	>15	0	0	<1
Antimony	ppm	ASTM D5185m			0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	2	5	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	57	63	59
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	950	875	894	956
Calcium	ppm	ASTM D5185m	1050	1083	1139	1104
Phosphorus	ppm	ASTM D5185m	995	1005	1047	1019
Zinc	ppm	ASTM D5185m	1180	1210	1194	1237
Sulfur	ppm	ASTM D5185m	2600	3162	2689	2480
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	2	5
Sodium	ppm	ASTM D5185m		0	1	3
Potassium	ppm	ASTM D5185m	>20	2	<1	<1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.2	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.6	6.5	11.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.8	19.4	24
FLUID DEGRAI	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.4	14	22.8
Base Number (BN)	mg KOH/g	ASTM D2896		7.8	10	5.8



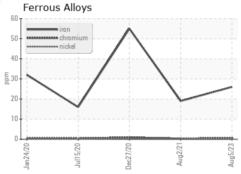
OIL ANALYSIS REPORT

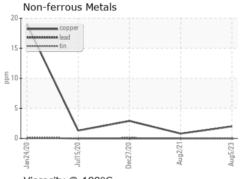


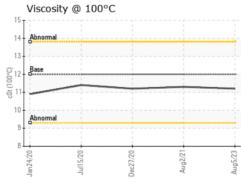
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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
Free Water	scalar	*Visual		NEG	NEG	NEG

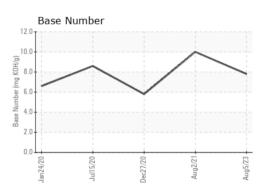
FLUID PROPE	EKITES	method	ilmit/base		nistory i	nistoryz
Visc @ 100°C	cSt	ASTM D445	12.00	11.2	11.3	11.2

GRAPHS













Laboratory Sample No. Lab Number

: PCA0088722 : 05932599 Unique Number : 10617870

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received Diagnosed

: 23 Aug 2023 : 24 Aug 2023 Diagnostician : Wes Davis

PERDUE FARMS - SALISBURY 7036 ZION CHURCH ROAD SALISBURY, MD

> US 21802 Contact: RICHARD O'NEAL

> richard.oneal@perdue.com T: (410)543-3628 F: (410)341-2164

Test Package : FLEET Certificate L2367 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: PERSALMD [WUSCAR] 05932599 (Generated: 08/25/2023 16:02:15) Rev: 1

Contact/Location: RICHARD O'NEAL - PERSALMD