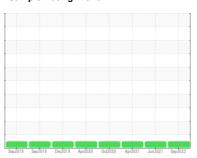


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



FREIGHTLINER 8492

Component

Diesel Engine

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

DIAGNOSIS

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

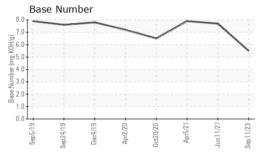
Fluid Condition

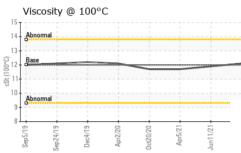
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sap2019 Sap2019 Dec2019 Apr2020 Occ2020 Apr2021 Jun2021 Sap2023							
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		PCA0088669	PCA0035413	PCA0035353	
Sample Date		Client Info		11 Sep 2023	11 Jun 2021	05 Apr 2021	
Machine Age	mls	Client Info		567477	409130	378115	
Oil Age	mls	Client Info		567477	30928	32833	
Oil Changed		Client Info		Changed	Changed	Changed	
Sample Status				NORMAL	NORMAL	NORMAL	
CONTAMINATI	ON	method	limit/base	current	history1	history2	
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	NEG	
WEAR METALS	3	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>200	60	29	55	
Chromium	ppm	ASTM D5185m	>6	2	4	5	
Nickel	ppm	ASTM D5185m	>3	<1	<1	<1	
Titanium	ppm	ASTM D5185m	>2	0	<1	<1	
Silver	ppm	ASTM D5185m	>2	0	<1	0	
Aluminum	ppm	ASTM D5185m	>50	12	13	26	
Lead	ppm	ASTM D5185m	>10	0	0	<1	
Copper	ppm	ASTM D5185m	>50	15	7	10	
Tin	ppm	ASTM D5185m	>6	1	<1	0	
Antimony	ppm	ASTM D5185m			0	<1	
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	<1	2	2	
Barium	ppm	ASTM D5185m	0	0	0	0	
Molybdenum	ppm	ASTM D5185m	50	60	58	64	
Manganese	ppm	ASTM D5185m	0	<1	<1	1	
Magnesium	ppm	ASTM D5185m	950	946	871	1167	
Calcium	ppm	ASTM D5185m	1050	1125	1050	1210	
Phosphorus	ppm	ASTM D5185m	995	1068	932	1098	
Zinc	ppm	ASTM D5185m	1180	1221	1107	1270	
Sulfur	ppm	ASTM D5185m	2600	2511	2148	2375	
CONTAMINANTS method limit/base current history1 history2						history2	
Silicon	ppm	ASTM D5185m	>50	5	6	10	
Sodium	ppm	ASTM D5185m		4	<1	2	
Potassium	ppm	ASTM D5185m	>20	5	3	9	
INFRA-RED		method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	1.3	0.7	0.7	
Nitration	Abs/cm	*ASTM D7624	>20	11.9	10.2	9.9	
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.2	22.5	23	
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.8	18.6	19	
Base Number (BN)	mg KOH/g	ASTM D2896		5.5	7.7	7.9	
	0 9						



OIL ANALYSIS REPORT



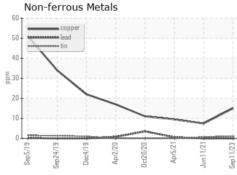


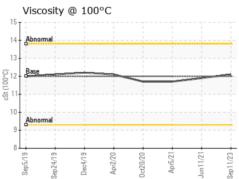
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

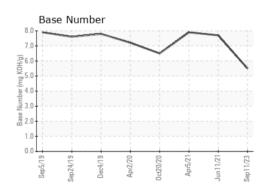
FLUID PROPE	RTIES	method				history2
Visc @ 100°C	cSt	ASTM D445	12.00	12.1	11.9	11.7

GRAPHS

Ferrous Alloys [30 20











Certificate L2367

Laboratory Sample No. Lab Number Test Package : FLEET

: PCA0088669 : 05994045 Unique Number : 10722405

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

: 31 Oct 2023 : 31 Oct 2023 Diagnosed Diagnostician : Wes Davis

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)

MIDWEST MOTOR EXPRESS

2169 MUSTANG DR MOUNDS VIEW, MN

US 55112 Contact: FRANK DIETZ

Contact/Location: FRANK DIETZ - MIDFAR

frank.dietz@mmeinc.com T: (763)225-6382

F: x: