

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

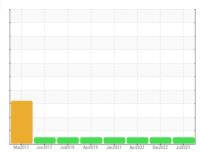


G.LOPES CONSTRUCTION INC./Off-Road
Machine Id
SL69

Component

Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- GAL)





DIAGNOS<u>IS</u>

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

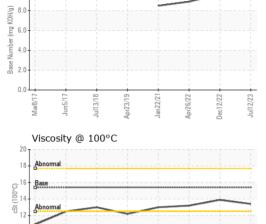
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

	—	muletty v	uncorr outcore spice	19 Jan2021 Apr2022 Dec2022		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0098318	PCA0083335	PCA0072233
Sample Date		Client Info		12 Jul 2023	12 Dec 2022	26 Apr 2022
Machine Age	hrs	Client Info		2720	2521	2414
Oil Age	hrs	Client Info		2245	2153	368
Oil Changed		Client Info		N/A	N/A	N/A
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	12	16	17
Chromium	ppm	ASTM D5185m	>20	<1	1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	3	3	2
Lead	ppm	ASTM D5185m	>40	0	<1	10
Copper	ppm	ASTM D5185m	>330	2	<1	2
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	4	6	13
Barium	ppm	ASTM D5185m	0	2	0	0
Molybdenum	ppm	ASTM D5185m	60	60	58	56
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	906	931	990
Calcium	ppm	ASTM D5185m	1070	1072	1050	1134
Phosphorus	ppm	ASTM D5185m	1150	969	995	1033
Zinc	ppm	ASTM D5185m	1270	1225	1231	1213
Sulfur	ppm	ASTM D5185m	2060	3310	3372	2685
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	8	6
Sodium	ppm	ASTM D5185m		2	2	4
Potassium	ppm	ASTM D5185m	>20	1	0	5
INFRA-RED	1-1-	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.2
Nitration	% Abs/cm	*ASTM D7624			6.5	8.4
Sulfation			>20	8.3 20.2		19.0
	Abs/.1mm	*ASTM D7415	>30		19.6	
FLUID DEGRAD	NOITAC	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.6	15.2	15.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.69	9.67	8.91



Base Number

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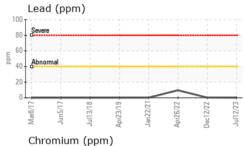


VISUAL		method				history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	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	limit/base	current	historv1	historv2

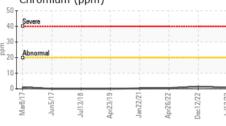
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Visc @ 100°C	cSt	ASTM D445	15.4	13.4	13.9	13.2

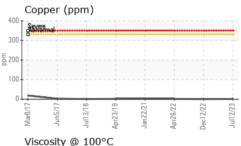
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150							
Abno	rmal						
50							
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Mar8/1	m5/1	Jul13/18	Apr23/19	Jan22/2	Apr26/22	Jec12/22	Jul12/23
	7			- IB	Ap	Det	7
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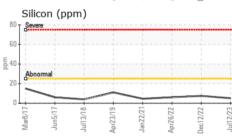
GRAPHS

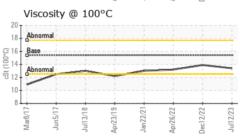


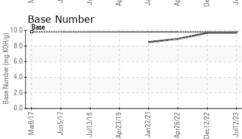
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40							
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Mar8/17	Jun5/17	Jul13/18	Apr23/19	Jan 22/21	Apr26/22	ec12/22	50/511-1
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Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** Test Package : MOB 2

: PCA0098318 : 05898767 : 10560123

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 14 Jul 2023 : 17 Jul 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)

G LOPES CONSTRUCTION

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Contact: BUTCH MCGRATH bmcgrath@glopes.com

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F: