

## **OIL ANALYSIS REPORT**

## Sample Rating Trend

## NORMAL

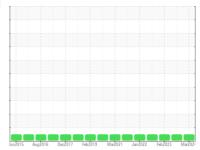


# G.LOPES CONSTRUCTION INC./Off-Road Machine Id E28

Component

Diesel Engine

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





## DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Moor

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil

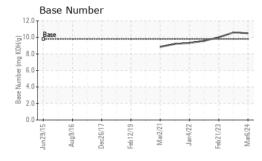
#### **Fluid Condition**

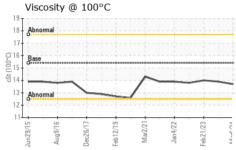
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

CAMPLE INFOR							
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		PCA0109539	PCA0104747	PCA0083148	
Sample Date	Client Info		06 Mar 2024	20 Sep 2023	21 Feb 2023		
Machine Age	Client Info		7176	6566	6566		
Oil Age	Client Info		6053	5686	5866		
Oil Age hrs 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	
Water		WC Method	>0.2	NEG	NEG	NEG	
Glycol		WC Method		NEG	NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	4	3	4	
Chromium	ppm	ASTM D5185m	>20	0	0	0	
Nickel	ppm	ASTM D5185m	>2	0	0	0	
Titanium	ppm	ASTM D5185m	>2	0	0	0	
Silver	ppm	ASTM D5185m	>2	0	0	0	
Aluminum	ppm	ASTM D5185m	>25	<1	1	1	
Lead	ppm	ASTM D5185m	>40	0	0	<1	
Copper	ppm	ASTM D5185m	>330	0	<1	<1	
Tin	ppm	ASTM D5185m	>15	<1	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	0	7	2	5	
Barium	ppm	ASTM D5185m	0	0	0	0	
Molybdenum	ppm	ASTM D5185m	60	56	57	57	
Manganese	ppm	ASTM D5185m	0	0	0	<1	
Magnesium	ppm	ASTM D5185m	1010	876	992	920	
Calcium	ppm	ASTM D5185m	1070	979	1136	1061	
Phosphorus	ppm	ASTM D5185m	1150	954	1028	984	
Zinc	ppm	ASTM D5185m	1270	1070	1284	1202	
Sulfur	ppm	ASTM D5185m	2060	3190	3795	3609	
CONTAMINAN	ITS	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	2	2	3	
Sodium	ppm	ASTM D5185m		1	2	2	
Dotoccium	ppm	ASTM D5185m	>20	0	3	0	
Potassium			limit/base	current	history1	history2	
INFRA-RED		method	IIIIII/Dase	Carrent	Thotory	riiotoryz	
INFRA-RED	%	*ASTM D7844	>3	0.1	0.1	0.1	
	% Abs/cm				•		
INFRA-RED Soot % Nitration		*ASTM D7844	>3	0.1	0.1	0.1	
INFRA-RED Soot % Nitration	Abs/cm Abs/.1mm	*ASTM D7844 *ASTM D7624 *ASTM D7415	>3 >20	0.1 5.9	0.1 5.5	0.1 5.5 17.4	
INFRA-RED Soot % Nitration Sulfation	Abs/cm Abs/.1mm	*ASTM D7844 *ASTM D7624 *ASTM D7415	>3 >20 >30	0.1 5.9 17.7	0.1 5.5 17.5	0.1 5.5	



# **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
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID FNOF	ENTIES	memou			HISTOLAL	HISTOLYZ
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.9	14.0

	GR	APH	IS														
250 -		(ppn	n)						100		d (ppi	n)					
200 -	Severe								80	Seve	re						
E 150									Edd 40	-							
	Abnor	mal							40	Abno	ormal						
50 -		_							20								
	Jun29/15	Aug9/16.	Dec26/17	Feb12/19	Mar2/21.	Jan4/22	Feb21/23	Mar6/24		Jun29/15	Aug9/16 -	Dec26/17	Feb12/19	Mar2/21-	Jan4/22	Feb21/23	Mar6/24
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50	Severe			ŕπ					50	Seve			ri ji				
40 -	1		1	1	1		1		40 _ 30	Ī			1			J	
된 30· 20·	Abnor	mai			<del> </del>				를 <sup>30</sup> 20	Abno	ormal						
10-									10	+							
0.1	Jun29/15	Aug9/16	Dec26/17	Feb12/19	Mar2/21	Jan4/22	Feb21/23	Mar6/24	0	Jun29/15	Aug9/16	Dec26/17	Feb12/19	Mar2/21-	Jan4/22 -	Feb21/23	Mar6/24
				윤	Σ	P	윤	M					윤	Σ	Р	윤	Ñ
400		per (	ppm)						80		con (p	pm)					
300 -	Sever	mal							60								
틆 200 -									և 40	-							
100-									20	Abno	ormal						
0.	2	9	7	6		2		4	0		9		6		2		<del>-</del>
	Jun29/15	Aug9/16	Dec26/17	Feb12/19	Mar2/21	Jan4/22	Feb21/23	Mar6/24		Jun29/15	Aug9/16	Dec26/17	Feb12/19	Mar2/21	Jan4/22	Feb21/23	Mar6/24
	Visc	osity	@ 100								e Nun						
20 - 18 -	Abnor	mal							12.0 ≨10.0	Base							_
	Base		1	11	11	1	1		0.8 KG								
St (100°C)		mal	\		/			-	6.0 4.0								
12-	Abnor								Base Number (mg KOH/g) 0.7 9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0								
10-	9/15	Aug9/16	6/17	2/19	Mar2/21	Jan4/22 +	1/23	Mar6/24	0.0		Aug9/16	6/17	2/19	Mar2/21-	Jan4/22 +	1/23	Mar6/24
	Jun29/15	Aug	Dec26/17	Feb12/19	Mar	Jan	Feb21/23	Mari		Jun29/15	Aug	Dec26/17	Feb12/19	Mar	Jan	Feb21/23	Mari





Certificate L2367

Sample No.

: PCA0109539 Lab Number : 06115455 Unique Number : 10924288 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 11 Mar 2024 Tested : 13 Mar 2024

Diagnosed : 13 Mar 2024 - Wes Davis **G LOPES CONSTRUCTION** 565 WINTHROP ST

TAUNTON, MA US 02780

Contact: BUTCH MCGRATH bmcgrath@glopes.com

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)

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