

# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id **551** Component **Diesel Engine** Fluid **PETRO CANADA DURON HP 15W40 (--- GAL)** 

# 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.

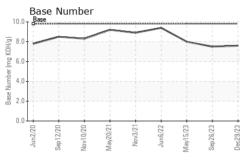
### Fluid Condition

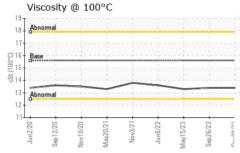
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

L)		Jun2020 Sep	2020 Nov2020 May2021	Nov2021 Jun2022 May2023 Sep20	23 Dec2023	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0082871	PCA0082889	PCA0069601
Sample Date		Client Info		29 Dec 2023	26 Sep 2023	15 May 2023
Machine Age	hrs	Client Info		0	0	9732
Dil Age	hrs	Client Info		0	0	504
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	ABNORMAL
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
ron	ppm	ASTM D5185m	>100	14	10	10
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	0	<1
_ead	ppm	ASTM D5185m	>40	<1	2	<1
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Гin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		4	2	4
Barium	ppm	ASTM D5185m		0	2	0
Molybdenum	ppm	ASTM D5185m		63	61	63
Vanganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		945	844	993
Calcium	ppm	ASTM D5185m		1118	1044	1230
Phosphorus	ppm	ASTM D5185m		1027	957	1063
Zinc	ppm	ASTM D5185m		1258	1128	1303
Sulfur	ppm	ASTM D5185m		3112	2731	3718
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	14	20	<b>4</b> 6
Sodium	ppm	ASTM D5185m		<1	0	2
Potassium	ppm	ASTM D5185m	>20	4	2	0
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4	0.3	0.3
Vitration	Abs/cm	*ASTM D7624	>20	8.7	8.3	8.0
	Abs/.1mm	*ASTM D7415	>30	20.3	19.7	18.9
Sulfation	AUS/.IIIIII					
Sulfation			limit/base	current	history1	history2
Sulfation FLUID DEGRAI Oxidation Base Number (BN)					history1 16.0	history2 15.1



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	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
5/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
May15/23 Sep26/23 Dec29/23	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
1 1 1	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROPER	RTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	15.6	13.4	13.4	13.3
	GRAPHS						
	Ferrous Alloys						
	30 iron	1					
May 15/23 Sep 26/23	25 - chromium	/					
Sep	20 -	/					
	<u>۾</u> 15-						
				/			
	10-1						
	5-						
	0						
	Jun2/20 Sep12/20 Nov10/20 May20/21	Nov3/21	May15/23 Sep26/23	Dec29/23			
	Ju Sep Nov May	N I	May	Dec			
	Non-ferrous Metals						
	10 copper						
	8 - Research lead						
	6-						
	шdd						
	4						
	2						
		and a street and a street of the street of t	and the second se	And			
	5 50 50 5 50 - 0	21	23	23			
	Jun 2/20 Sep 1 2/20 Nov 1 0/20	Nov3/21	Aay15/23 Sep26/23	lec29/23			
	Viscosity @ 100°C Base Number						
	18 - Abnormal	uaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa				$\sim$	
	17			( <sup>®</sup> ∦ <sup>8.0</sup>			
	⊖ <sup>16</sup> Base			g 6.0			
	016 Base			nber (r			
		$\sim$		0.0 Base Number (mg KOH/g)			
	13 Abnormal			<sup>20</sup> 2.0			
	12						
	11 0/20 1/20 1/20	3/21	5/23 -	0.0	2/20	0/21 - 3/21 -	5/23 +
	Jun2/20 Sep12/20 Nov10/20 May20/21	Nov3/21	May15/23 Sep26/23	Dec29/23	Jun2/20 Sep12/20 Nov10/20	May20/21 Nov3/21 Jun6/22	May15/23 Sep26/23 Dec29/23
Laboratory	: WearCheck USA - 501	Madico		NC 27512	A\/D	APPLE VALLE	
Sample No.	: PCA0082871	Receiv		Mar 2024	AVN -		GALAXY AVE
Lab Number	: 06121924	Teste		Mar 2024			E VALLEY, MN
Unique Number		Diagn	<b>osed</b> : 19	Mar 2024 - W	es Davis		US 55124
Test Package	Contact: senia zimmer						

 Unique Number
 : 10936075
 Diagnosed
 : 19 Mar 2024 - Wes Davis
 US 55124

 Certificate L2367
 Test Package
 : FLEET
 Contact: senia zimmer

 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 avrconcrete.senia@gmail.com

 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 T: (952)953-2992

 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)
 F: (952)953-2994