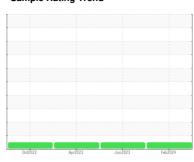


# **OIL ANALYSIS REPORT**

**Sample Rating Trend** 







Machine Id **64** 

Component **Diesel Engine** 

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

## DIAGNOSIS

## Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

## Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

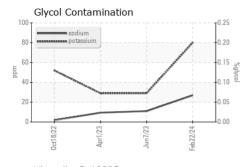
### Fluid Condition

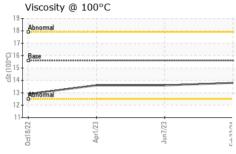
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

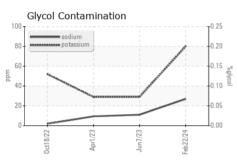
AL)		Oct202	2 Apr2023	Jun2023 F	eb2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0867952	WC0740600	WC0740610
Sample Date		Client Info		22 Feb 2024	07 Jun 2023	01 Apr 2023
Machine Age	mls	Client Info		0	39976	34864
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	44	13	13
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	13	3	4
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		23	40	36
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		78	82	81
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		560	425	440
Calcium	ppm	ASTM D5185m		1703	1901	1886
Phosphorus	ppm	ASTM D5185m		1030	1067	1119
Zinc	ppm	ASTM D5185m		1246	1301	1357
Sulfur	ppm	ASTM D5185m		3441	4275	4588
CONTAMINANTS	;	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	3	2
Sodium	ppm	ASTM D5185m		27	11	9
Potassium	ppm	ASTM D5185m	>20	80	29	29
Glycol	%	*ASTM D2982		NEG	NEG	NEG
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.6	7.9	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.5	18.9	18.7
	Abs/.1mm	*ASTM D7415 method	>30 limit/base	18.5 current	18.9 history1	18.7 history2
Sulfation FLUID DEGRADA	Abs/.1mm	method	limit/base	current	history1	history2
Sulfation	Abs/.1mm					



## **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 PROPERTIES		method	limit/base	current	history1	history2

Visc @ 100°C	cSt	ASTM D445	15.6	13.8	13.6	13.6
GRAPHS						
Iron (ppm)				Lead (	opm)	
Severe				Severe		
E 150				60 - Abnormal		
150 Abnormal		;		40 Abnormal		
0				0		
Oct18/22 -		Jun7/23	Feb22/24 -	Oct18/22	Apr1/23 ·	Jun7/23 -
Aluminum (ppm)		,	ď.		ium (ppm)	
50 Severe				50 T		
+0 7 4				30		
Abnormal		· · · · · · · · · · · · · · · · · · ·		20 - Abnormal		
10				10		
Oct18/22		Jun7/23	Feb22/24	0ct18/22	Apr1/23 •	Jun7/23 -
e de la comper (ppm)		크	Feb	ਤੌ Silicon		July Reb
Severe Submitted				80 Severe	(ppiii)	
300				60		
돌 200 -				Abnormal		
100				20-		
Oct 18/22		Jun7/23	7/24	3/22	Apr1/23	Jun7/23
Oct18/22		- In	Feb22/24	Oct18/22	Apri	Jun7/23
Viscosity @ 100°	С			Base N	umber	
18 - Abnormal				0.8 KOH/g)		
0 16 - Base 8 14				8.0 (mg KOH/g) 6.0 - 0.8 (mg 2.0 - 0.8 - 0		
Abnormal				4.0		
10				0.0		





Laboratory Sample No. Unique Number : 10897193

Lab Number : 06098963

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0867952

Received **Tested** Diagnosed

: 23 Feb 2024 : 27 Feb 2024 : 27 Feb 2024 - Sean Felton

ANSON CO SCHOOL BUS GARAGE 89 BOGGAN CUT RD

WADESBORO, NC US 28135

Contact: MATT POWELL powell.berkeley@anson.k12.nc.us

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.

Test Package: MOB 1 (Additional Tests: Glycol, TBN)

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:

F: