

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend



NORMAL



# PETERBILT 155-24

Component

**Diesel Engine** 

PETRO CANADA DURON SHP 15W40 (--- 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

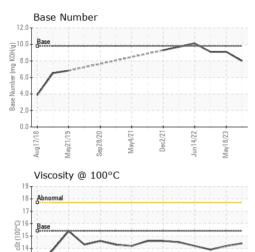
#### **Fluid Condition**

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

GAL)		Aug2018 M	ay2019 Sep2020 Ma	y2021 Dec2021 Jun2022	May2023	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0089608	PCA0082137	PCA0078545
Sample Date		Client Info		06 Feb 2024	18 May 2023	05 Jan 2023
Machine Age	mls	Client Info		180274	150500	140200
Oil Age	mls	Client Info		10000	10500	10000
Oil Changed		Client Info		Changed	Changed	Changed
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	>110	24	7	9
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	4	0	3
Lead	ppm	ASTM D5185m	>45	0	0	<1
Copper	ppm	ASTM D5185m	>85	2	<1	<1
Tin	ppm	ASTM D5185m	>4	<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		0	1	6	6
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m	60	66	59	56
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	1010	995	982	889
Calcium	ppm	ASTM D5185m	1070	1097	1062	1261
Phosphorus	ppm	ASTM D5185m	1150	1133	1039	1018
Zinc	ppm	ASTM D5185m	1270	1277	1268	1226
Sulfur	ppm	ASTM D5185m	2060	3100	3741	3574
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm		>30	9	6	6
Sodium	ppm	ASTM D5185m		<1	<1	1
Potassium	ppm	ASTM D5185m	>20	9	3	5
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.7	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.2	7.2	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	18.8	18.4
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	14.2	13.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.0	9.1	9.1



## **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 PROPE	RTIES	method	limit/base	current	history1	history2

Visc @ 100°C	cSt	ASTM D445	15.4	14.4	14.2	13.9
GRAPHS						
Iron (ppm) Severe Abnormal				Lead (ppm)  Severe  Abnormal		
Aluminum (ppm)  Separa	May4/21	Jun14/22	May 10/23	Chromium (	Sep28/20 (mdd	Dec2/21 Jun14/22 May18/23
40 Abnormal	<u> </u>			Abnomal		
Copper (ppm)	May4/21	Jun14/22	Widy10/23	Silicon (ppm)  Sol Severe	Sep28/20 May4/21	Dec2/21 Jun14/22 May18/23
Severe  Abnormal				Abnomal 20		
Aug17/18 Aug17/18 Sep28/20	_	Jun14/22 -	May 10/23	Base Numbe	- Sep28/20 - May4/21-	Dec2/21 Jun14/22
20 18 Abnormal (3) 16 Base 20 10 Abnormal		2		12.0 Base 0.0 HOM are Many 4.0 Base 0.0 Base	· · · · · · · · · · · · · · · · · · ·	
Aug17/18 May21/19 Sep28/20	May4/21	Jun14/22	May 1 0/2.	Aug17/18 May21/19	Sep28/20 May4/21	Dec2/21 Jun14/22 May18/23





Laboratory Sample No.

Lab Number : 06112546 Unique Number : 10916043

: PCA0089608

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

Diagnosed Test Package: MOB 1 (Additional Tests: TBN)

: 08 Mar 2024 : 08 Mar 2024

: 08 Mar 2024 - Wes Davis

1351 JOLIET RD VALPARAISO, IN US 46385

**GE MARSHALL EXCAVATION** 

Contact: MARK STEFFEL mark.steffel@gemarshall.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)

T:

F: