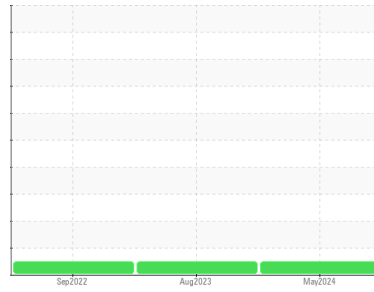


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Area  
**[70564]**  
 Machine Id  
**3632**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Changed fluid and filters )

### 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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PCA0109094</b>	PCA0086461	PCA0062444
Sample Date	Client Info			<b>22 May 2024</b>	07 Aug 2023	27 Sep 2022
Machine Age	hrs	Client Info		<b>1226</b>	935	637
Oil Age	hrs	Client Info		<b>1226</b>	935	637
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>8</b>	8	9
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	2	1
Lead	ppm	ASTM D5185m	>40	<b>18</b>	6	4
Copper	ppm	ASTM D5185m	>330	<b>198</b>	168	118
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>1</b>	1	2

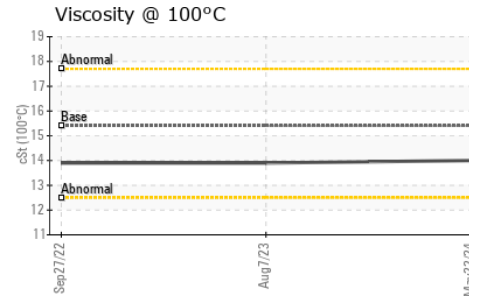
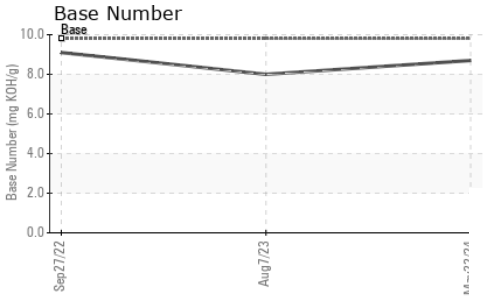
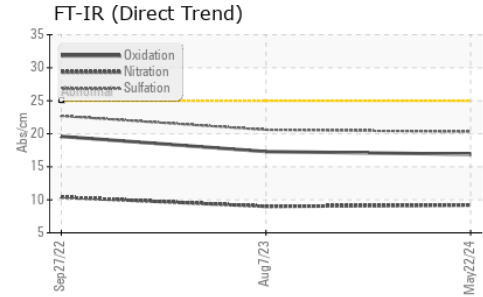
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>8</b>	5	6
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>63</b>	59	60
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1095</b>	916	954
Calcium	ppm	ASTM D5185m	1070	<b>1218</b>	1038	1158
Phosphorus	ppm	ASTM D5185m	1150	<b>1215</b>	1015	1072
Zinc	ppm	ASTM D5185m	1270	<b>1578</b>	1268	1327
Sulfur	ppm	ASTM D5185m	2060	<b>4126</b>	3233	3671

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	3
Sodium	ppm	ASTM D5185m		<b>72</b>	31	20
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	3	3

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.2</b>	9.0	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.3</b>	20.6	22.7

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.9</b>	17.3	19.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.7</b>	8.0	9.1

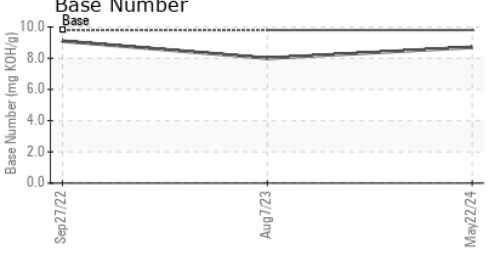
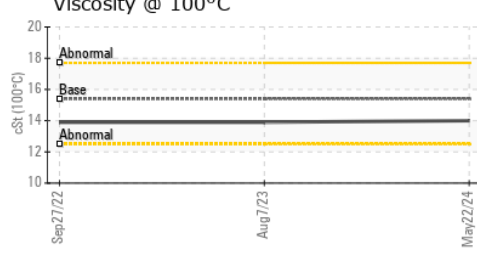
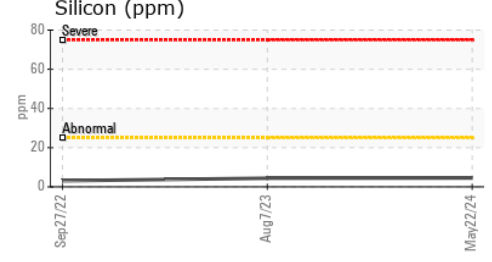
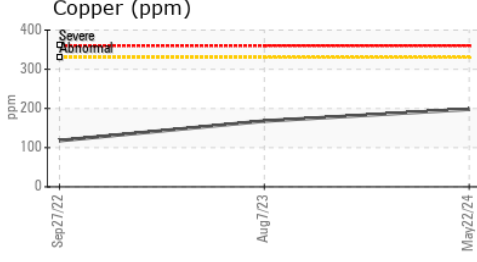
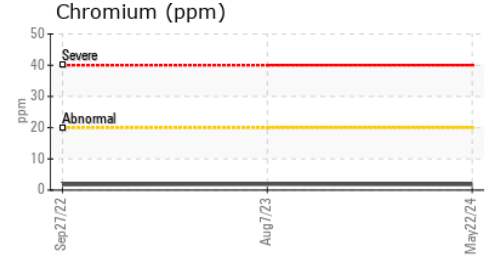
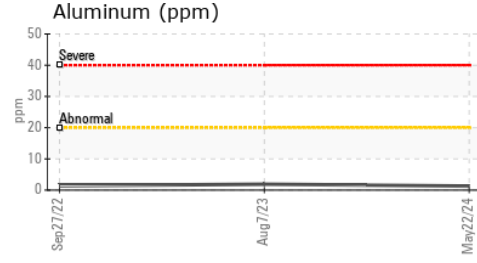
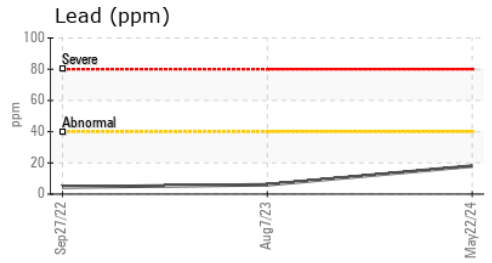
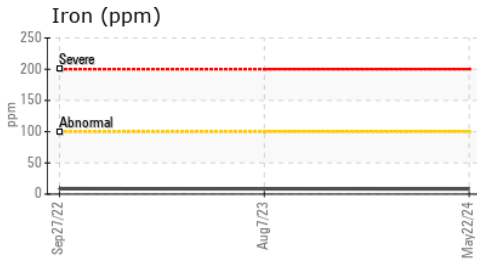
# OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.0</b>	13.9	13.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109094      **Received** : 28 May 2024  
**Lab Number** : **06193218**      **Tested** : 30 May 2024  
**Unique Number** : 11049970      **Diagnosed** : 30 May 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Kemp Quarries - Kemp Stone - Fairland**  
 18350 S 590 Rd  
 Fairland, OK  
 US 74343  
 Contact:  
 fairland@kempstone.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)