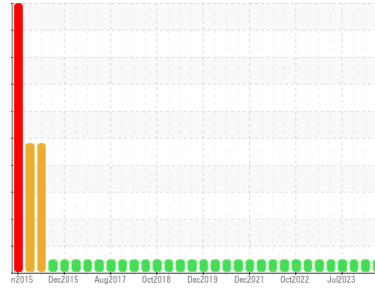


# OIL ANALYSIS REPORT



Area  
**KEMP QUARRIES / KEMP STONE - FAIRLAND [68775]**  
Machine Id  
**WL086**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

Sample Rating Trend



**NORMAL**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: PM-3 changed filters and fluid )

### 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>PCA0086584</b>	PCA0070647	PCA0084812
Sample Date	Client Info		<b>04 Mar 2024</b>	06 Dec 2023	18 Sep 2023
Machine Age	hrs	Client Info	<b>55772</b>	55193	54650
Oil Age	hrs	Client Info	<b>55772</b>	55193	54650
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>	12	33
Chromium	ppm	ASTM D5185m >20	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>0</b>	1	1
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	1	2
Copper	ppm	ASTM D5185m >330	<b>2</b>	3	7
Tin	ppm	ASTM D5185m >15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>&lt;1</b>	2	6
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	12
Molybdenum	ppm	ASTM D5185m 60	<b>55</b>	60	68
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m 1010	<b>928</b>	990	948
Calcium	ppm	ASTM D5185m 1070	<b>1020</b>	1040	1126
Phosphorus	ppm	ASTM D5185m 1150	<b>931</b>	1075	999
Zinc	ppm	ASTM D5185m 1270	<b>1140</b>	1305	1213
Sulfur	ppm	ASTM D5185m 2060	<b>3284</b>	3249	3260

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>2</b>	3	3
Sodium	ppm	ASTM D5185m	<b>2</b>	1	4
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	11

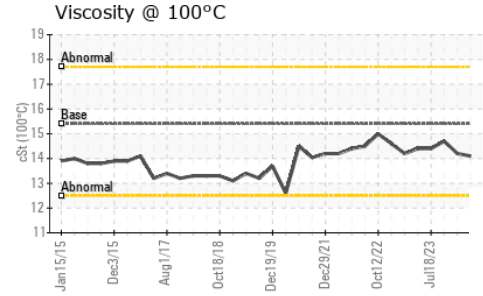
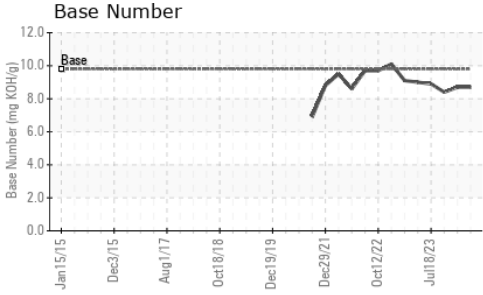
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.7</b>	1	2.6
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.2</b>	6.4	8.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.6</b>	19.3	22.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.7</b>	13.8	14.5
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.7</b>	8.7	8.4

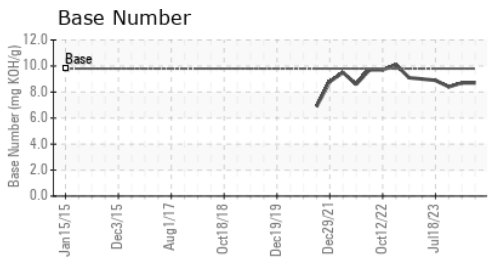
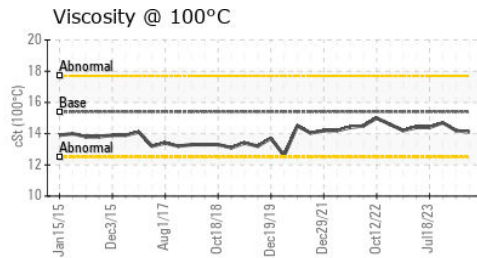
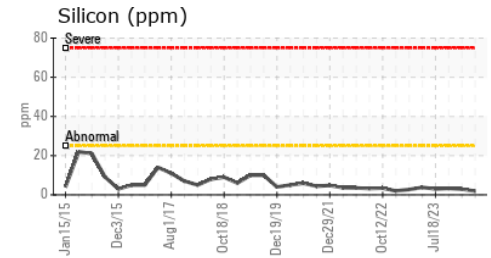
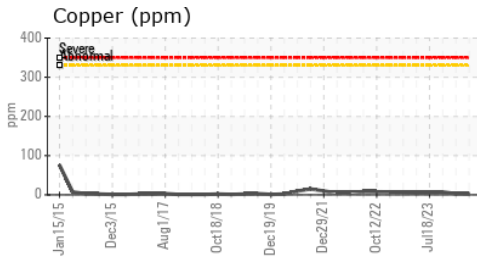
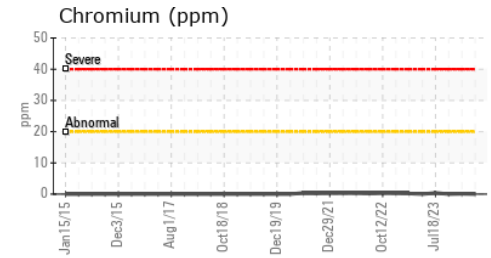
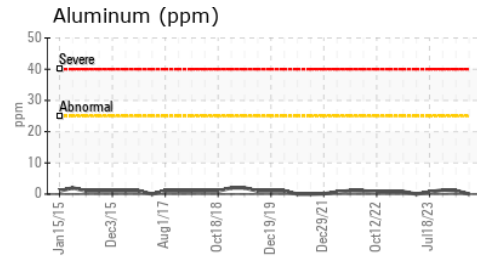
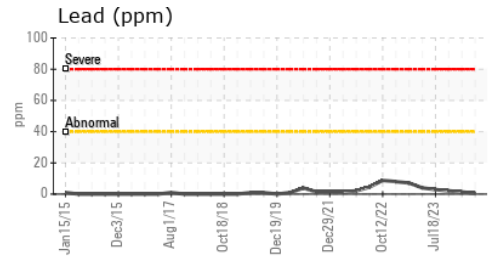
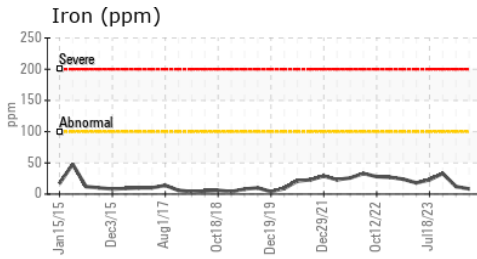
# OIL ANALYSIS REPORT



VISUAL	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>14.1</b>	14.2	14.7

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0086584  
**Lab Number** : 06114797  
**Unique Number** : 10923630  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Received** : 11 Mar 2024  
**Tested** : 12 Mar 2024  
**Diagnosed** : 13 Mar 2024 - Jonathan Hester

**Kemp Quarries - Kemp Stone - Fairland**  
 18350 S 590 Rd  
 Fairland, OK  
 US 74343

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)

Contact: fairland@kempstone.com

T:  
F: