

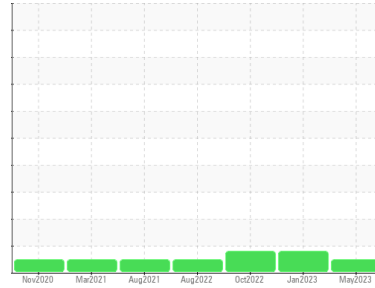
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**KEMP QUARRIES / BCS - GRAVETTE**  
Machine Id  
**OHT107**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: PM-2 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>PCA0085723</b>	PCA0086701	PCA0070196
Sample Date	Client Info		<b>12 May 2023</b>	26 Jan 2023	27 Oct 2022
Machine Age	hrs	Client Info	<b>25099</b>	24569	24114
Oil Age	hrs	Client Info	<b>25099</b>	24569	425
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	MARGINAL	MARGINAL

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>29</b>	32	38
Chromium	ppm	ASTM D5185m >20	<b>2</b>	3	2
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>0</b>	2	2
Lead	ppm	ASTM D5185m >40	<b>6</b>	2	2
Copper	ppm	ASTM D5185m >330	<b>127</b>	▲ 457	▲ 744
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
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>1</b>	2	2
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>61</b>	63	66
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>992</b>	959	989
Calcium	ppm	ASTM D5185m 1070	<b>1208</b>	1123	1176
Phosphorus	ppm	ASTM D5185m 1150	<b>1034</b>	1019	1125
Zinc	ppm	ASTM D5185m 1270	<b>1345</b>	1305	1334
Sulfur	ppm	ASTM D5185m 2060	<b>3399</b>	3412	3622

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>6</b>	6	7
Sodium	ppm	ASTM D5185m	<b>3</b>	2	2
Potassium	ppm	ASTM D5185m >20	<b>3</b>	1	3

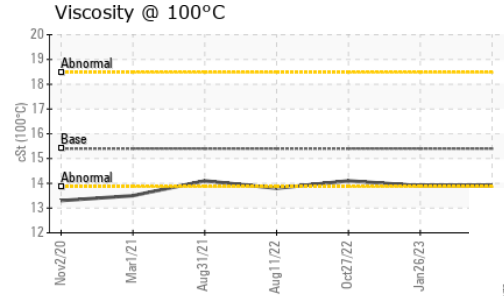
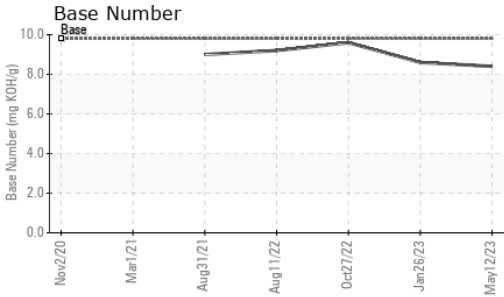
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>1</b>	0.9	0.9
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.7</b>	9.6	9.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>23.0</b>	22.0	23

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>18.1</b>	17.3	17.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.4</b>	8.6	9.6

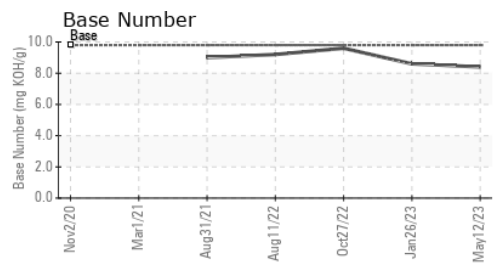
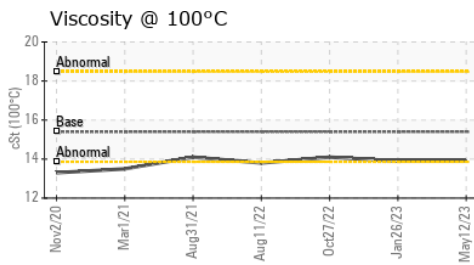
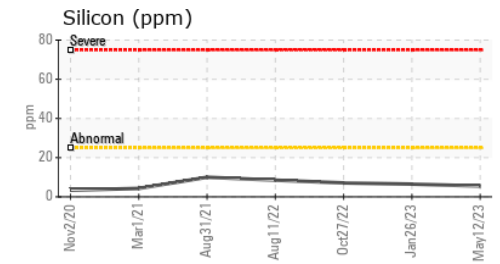
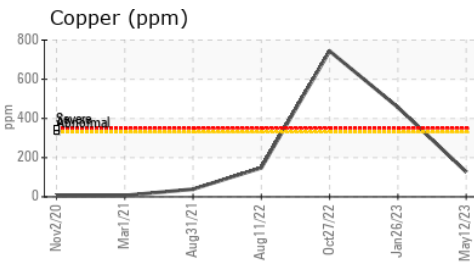
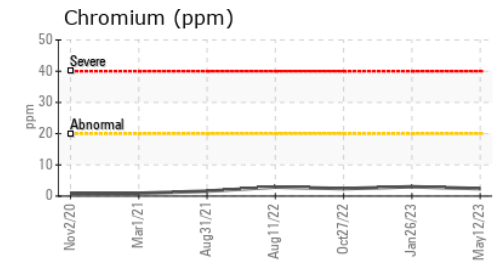
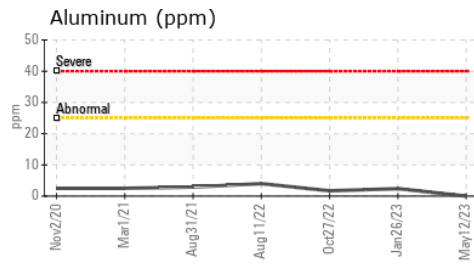
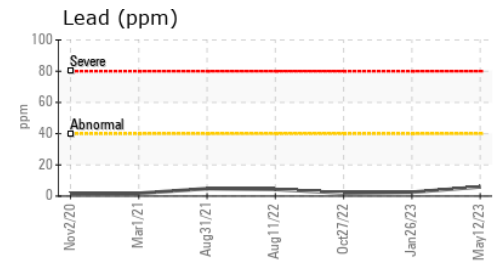
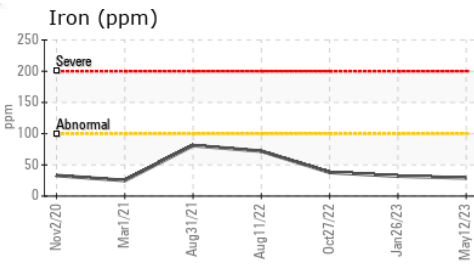
# OIL ANALYSIS REPORT



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>13.9</b>	13.9	14.1

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0085723 **Received** : 22 May 2023  
**Lab Number** : **05853711** **Diagnosed** : 23 May 2023  
**Unique Number** : 10483066 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Kemp Quarries - Benton County Stone - Gravette**  
 15100 N Hwy 59  
 Sulphur Springs, AR  
 US 72768  
 Contact:  
 gravette@bentoncountystone.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)