

Area  
**KEMP QUARRIES / BCS - GRAVETTE [68277]**

Machine Id  
**WL117**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. ( Customer Sample Comment: Pm3 )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0069794</b>	PCA06033099	PCA0086538
Sample Date		Client Info		<b>06 Feb 2024</b>	14 Nov 2023	14 Sep 2023
Machine Age	hrs	Client Info		<b>20058</b>	5854	5691
Oil Age	hrs	Client Info		<b>5691</b>	0	5691
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>16</b>	18	15
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	3	1
Lead	ppm	ASTM D5185m	>40	<b>1</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

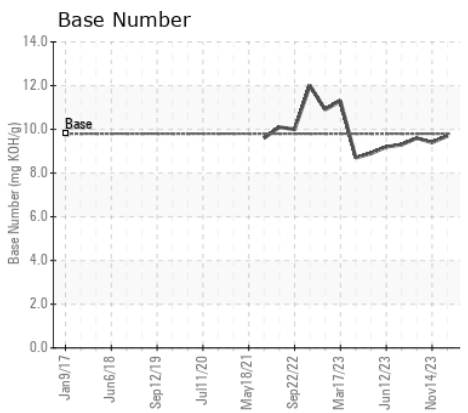
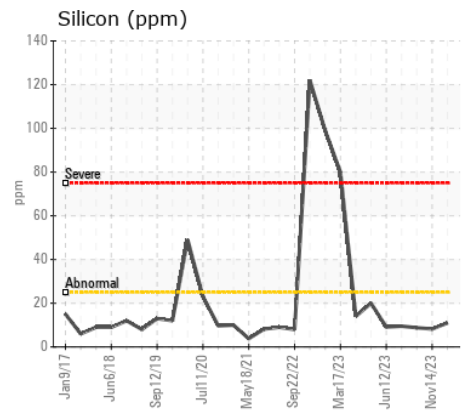
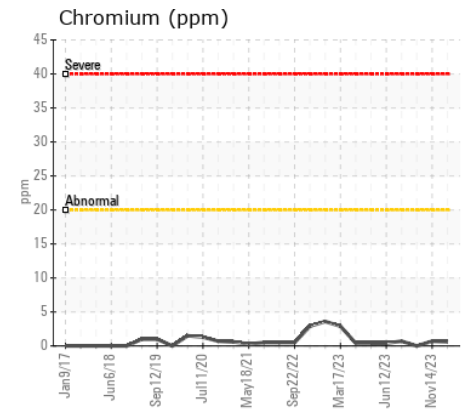
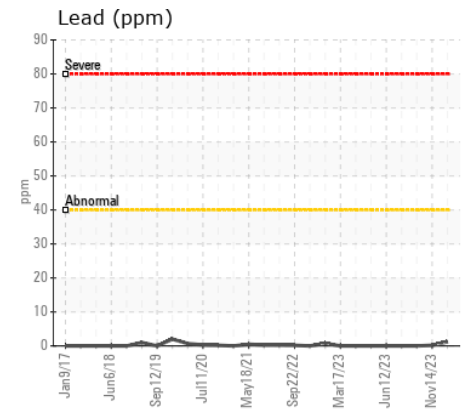
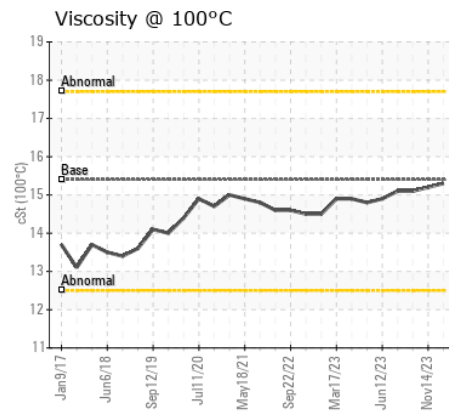
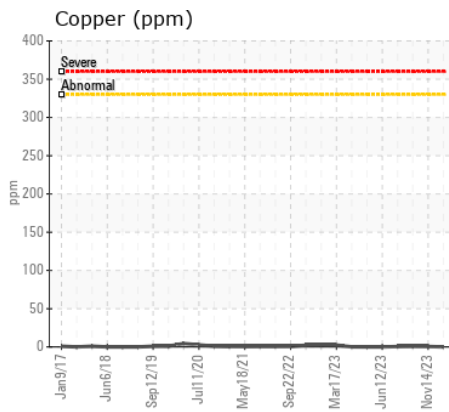
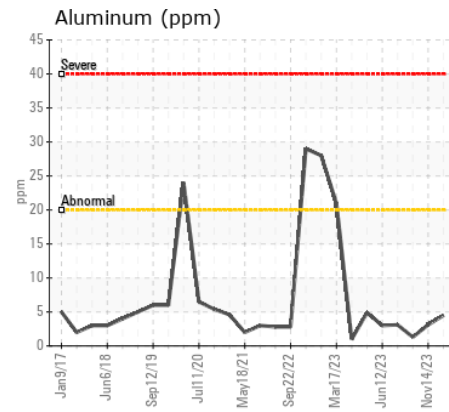
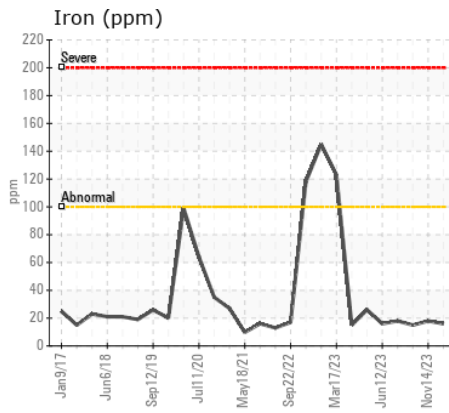
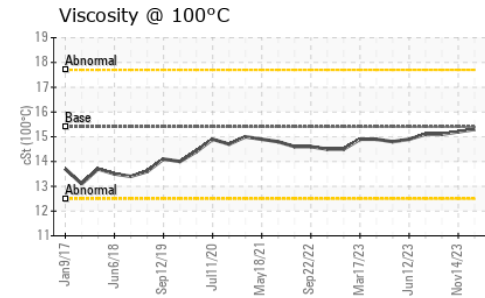
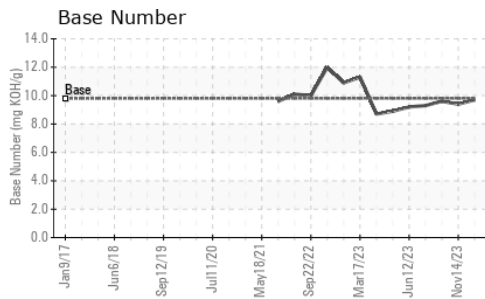
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>11</b>	8	9
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	11
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
Soot %	%	*ASTM D7844	>3	<b>0.9</b>	0.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.5</b>	7.2	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.0</b>	19.8	19.2
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**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.

Sodium	ppm	ASTM D5185m		<b>2</b>	<1	9
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	3	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	11	12
Molybdenum	ppm	ASTM D5185m	60	<b>68</b>	63	65
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>1137</b>	982	1049
Calcium	ppm	ASTM D5185m	1070	<b>1343</b>	1120	1201
Phosphorus	ppm	ASTM D5185m	1150	<b>1186</b>	974	1076
Zinc	ppm	ASTM D5185m	1270	<b>1416</b>	1217	1273
Sulfur	ppm	ASTM D5185m	2060	<b>3210</b>	3319	3523
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.2</b>	15.1	14.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.7</b>	9.4	9.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>15.3</b>	15.2	15.1



Certificate L2367

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

Sample No. : PCA0069794

Lab Number : 06100654

Unique Number : 10898884

Test Package : MOB 1 ( Additional Tests: TBN )

Received : 26 Feb 2024

Tested : 27 Feb 2024

Diagnosed : 28 Feb 2024 - Sean Felton

Kemp Quarries - Benton County Stone - Gravette

15100 N Hwy 59

Sulphur Springs, AR

US 72768

Contact:

gravette@bentoncountystone.com

T:

F:

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)