

Area  
**KEMP QUARRIES / BCS - GRAVETTE [70111]**

Machine Id  
**WL153**

Component  
**Diesel Engine**

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

**RECOMMENDATION**

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. ( Customer Sample Comment: Pm1 )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0069783</b>	PCA0085746	---
Sample Date		Client Info		<b>13 Jun 2024</b>	07 Jun 2023	---
Machine Age	hrs	Client Info		<b>42991</b>	0	---
Oil Age	hrs	Client Info		<b>0</b>	42480	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	ATTENTION	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>55</b>	20	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>18</b>	3	---
Lead	ppm	ASTM D5185m	>40	<b>2</b>	0	---
Copper	ppm	ASTM D5185m	>330	<b>13</b>	25	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

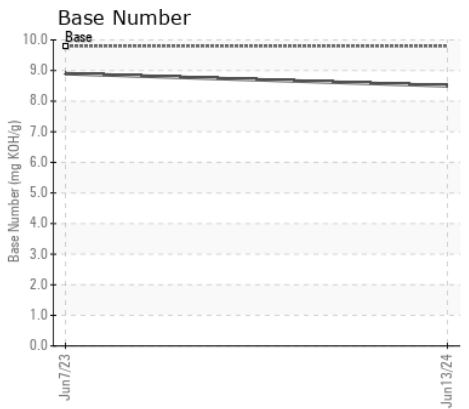
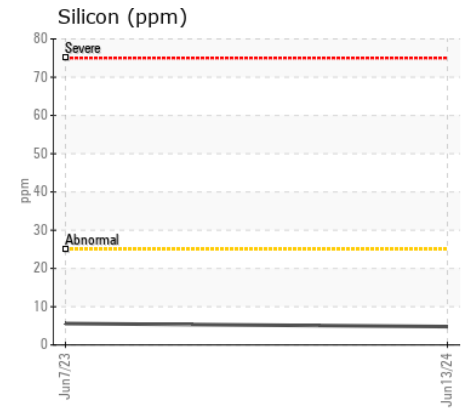
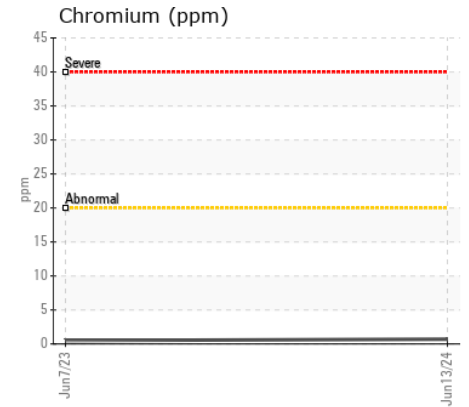
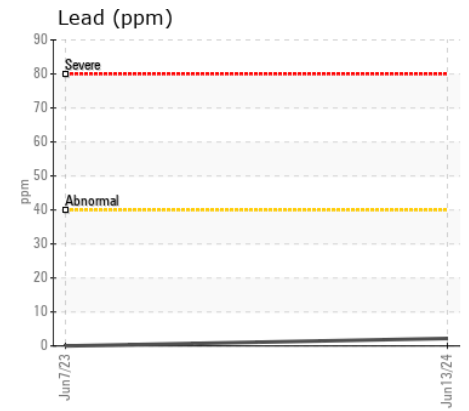
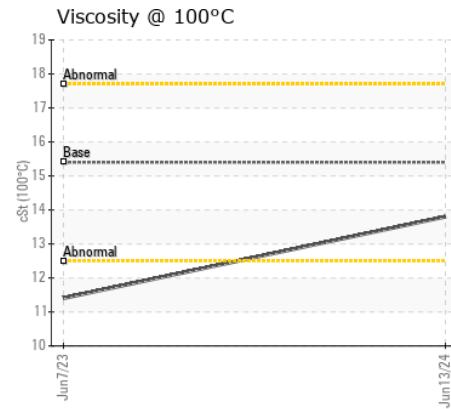
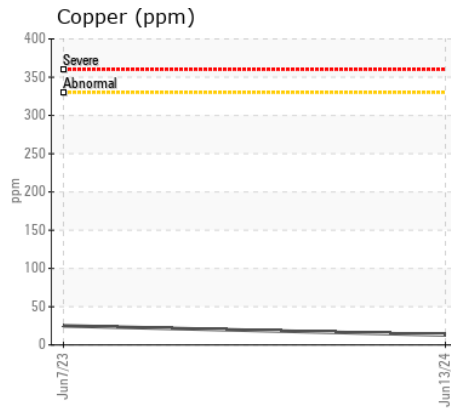
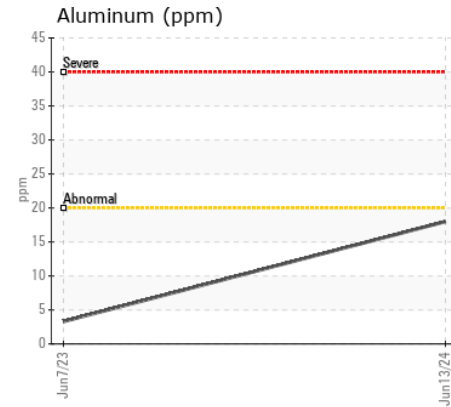
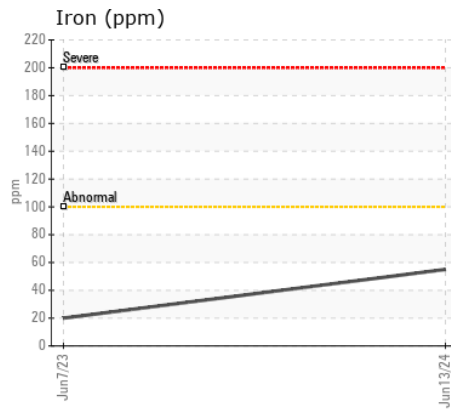
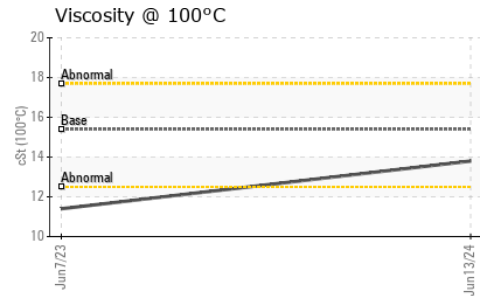
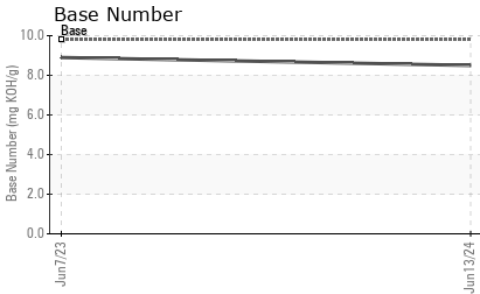
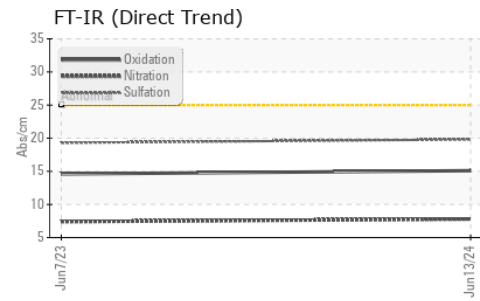
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	6	---
Potassium	ppm	ASTM D5185m	>20	<b>53</b>	11	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	0.3	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	7.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.8</b>	19.3	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185m		<b>6</b>	25	---
Boron	ppm	ASTM D5185m	0	<b>9</b>	88	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	60	<b>55</b>	13	---
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	1010	<b>900</b>	746	---
Calcium	ppm	ASTM D5185m	1070	<b>1084</b>	1517	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1032</b>	784	---
Zinc	ppm	ASTM D5185m	1270	<b>1263</b>	923	---
Sulfur	ppm	ASTM D5185m	2060	<b>3672</b>	3826	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.1</b>	14.6	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.5</b>	8.9	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.8</b>	11.4	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0069783 **Received** : 10 Jul 2024  
**Lab Number** : 06232823 **Tested** : 11 Jul 2024  
**Unique Number** : 11116316 **Diagnosed** : 12 Jul 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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

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)

gravette@bentoncountystone.com

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F: