

Area
KEMP QUARRIES / PRYOR STONE [69067]
Machine Id
WP047
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: PM performed. Engine oil sample taken. Engine oil, and all filters changed.)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0086270	PCA0084397	PCA0084314
Sample Date		Client Info		29 Jan 2024	08 Dec 2023	02 Nov 2023
Machine Age	hrs	Client Info		970	626	323
Oil Age	hrs	Client Info		344	303	321
Filter Age	hrs	Client Info		344	303	321
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	11	8	10
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	1	<1
Lead	ppm	ASTM D5185m	>40	2	3	3
Copper	ppm	ASTM D5185m	>330	<1	<1	2
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

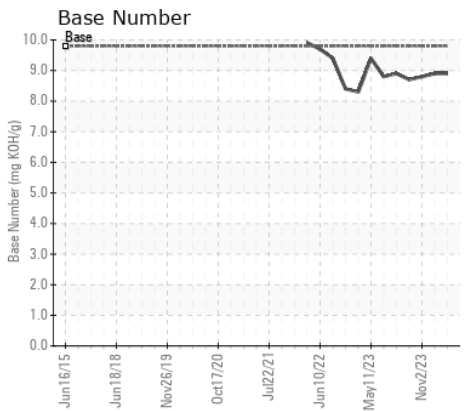
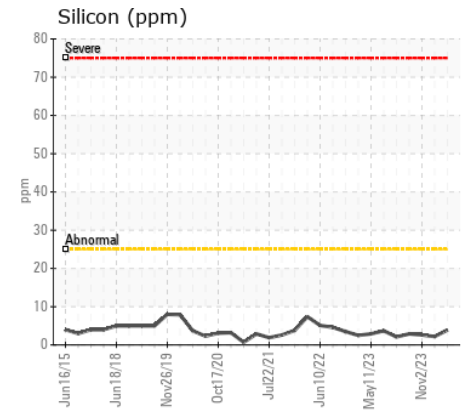
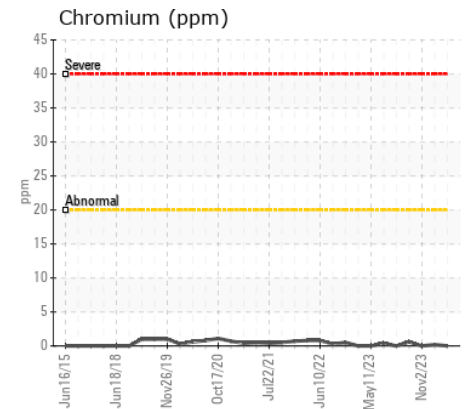
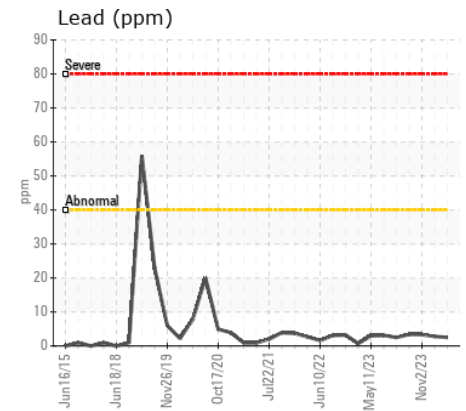
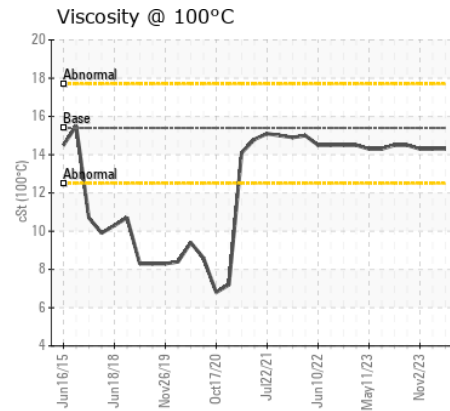
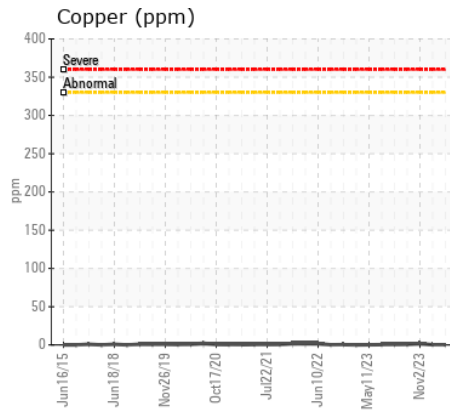
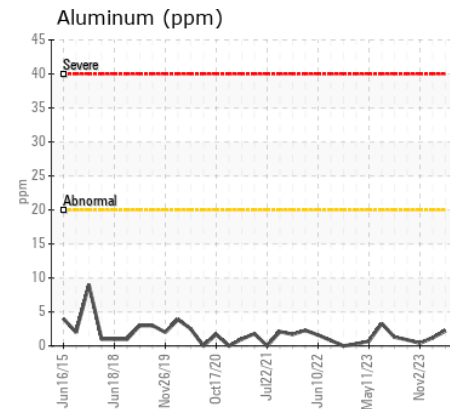
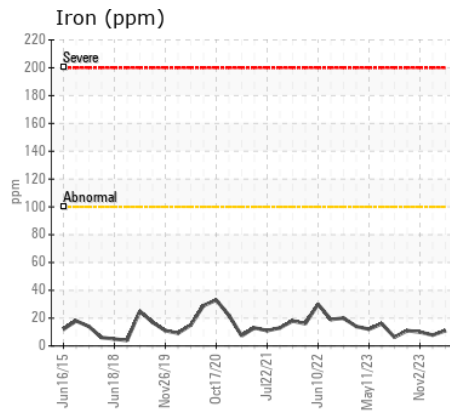
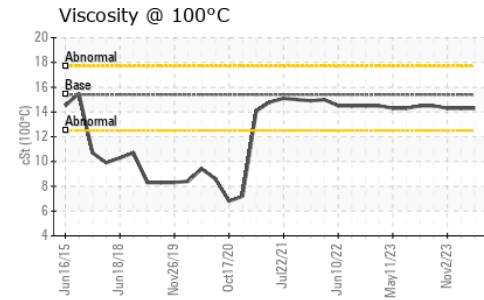
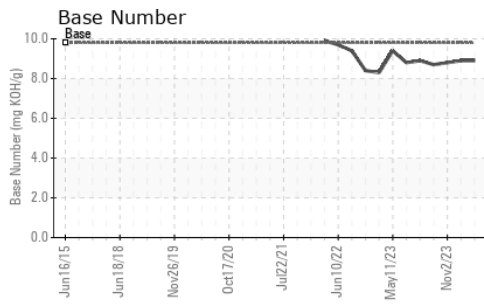
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	2	3
Potassium	ppm	ASTM D5185m	>20	2	1	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	6.0	5.7	6.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.0	18.0	18.0
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	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		1	1	4
Boron	ppm	ASTM D5185m	0	3	<1	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	61	60	61
Manganese	ppm	ASTM D5185m	0	<1	0	0
Magnesium	ppm	ASTM D5185m	1010	983	958	1004
Calcium	ppm	ASTM D5185m	1070	1051	1026	1118
Phosphorus	ppm	ASTM D5185m	1150	1082	1050	1090
Zinc	ppm	ASTM D5185m	1270	1313	1222	1308
Sulfur	ppm	ASTM D5185m	2060	3211	3259	3147
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	14.1	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.9	8.9	8.8
Visc @ 100°C	cSt	ASTM D445	15.4	14.3	14.3	14.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0086270 **Received** : 13 Feb 2024
Lab Number : 06088082 **Tested** : 14 Feb 2024
Unique Number : 10875527 **Diagnosed** : 15 Feb 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

Kemp Quarries - Pryor Stone - Pryor
 1050 E 520 Rd
 Pryor, OK
 US 74361
 Contact:
 pryor@pryorstone.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)

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F: