



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**KEMP QUARRIES / BCS - STILLWELL [70210]**  
Machine Id  
**CRSH042**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor. ( Customer Sample Comment: Changed fluid and filters )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0109277</b>	PCA0038182	PCA0038278
Sample Date		Client Info		<b>03 Apr 2024</b>	01 Jul 2021	26 Mar 2021
Machine Age	hrs	Client Info		<b>956</b>	10762	10363
Oil Age	hrs	Client Info		<b>956</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	SEVERE	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>51</b>	▲ 220	8
Chromium	ppm	ASTM D5185m	>20	<b>4</b>	▲ 20	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	● 20	<1
Lead	ppm	ASTM D5185m	>40	<b>4</b>	13	1
Copper	ppm	ASTM D5185m	>330	<b>28</b>	91	6
Tin	ppm	ASTM D5185m	>15	<b>3</b>	8	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

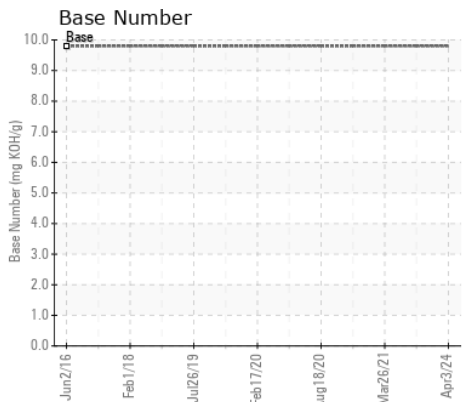
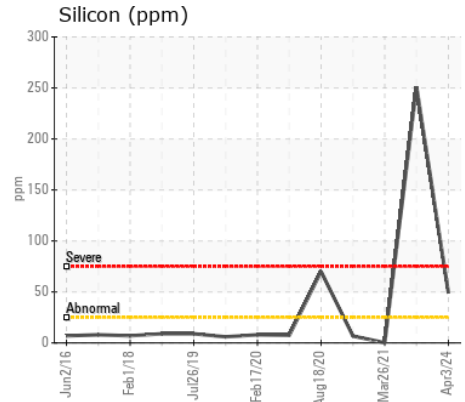
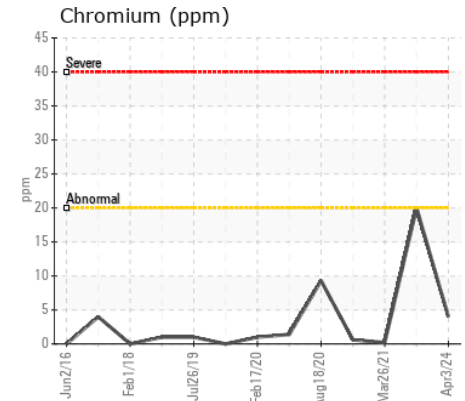
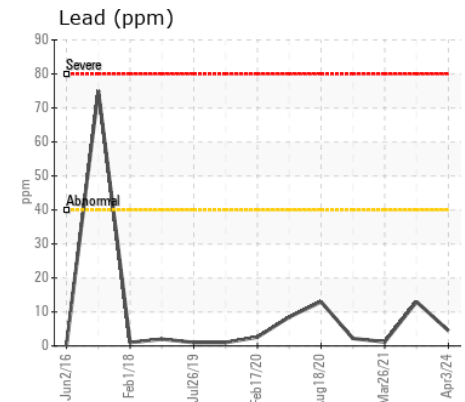
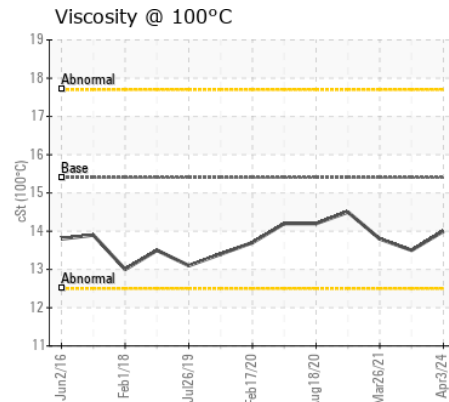
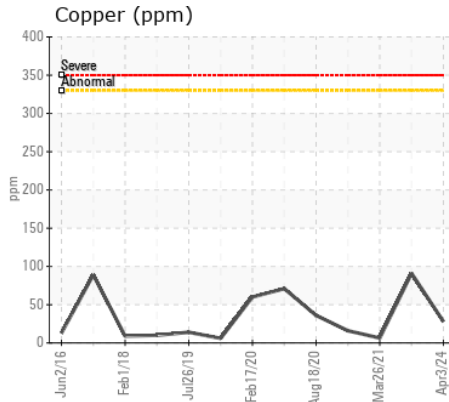
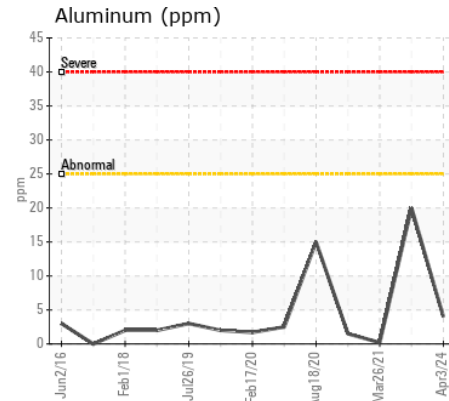
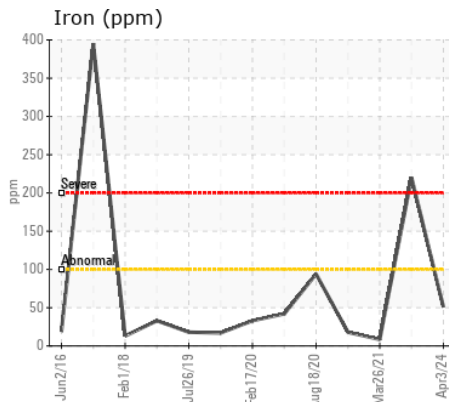
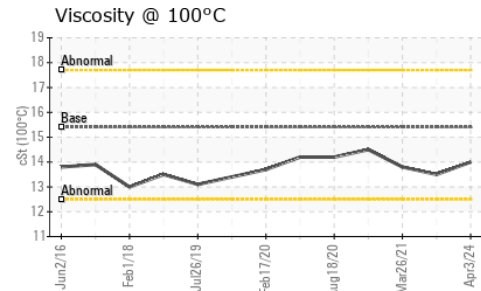
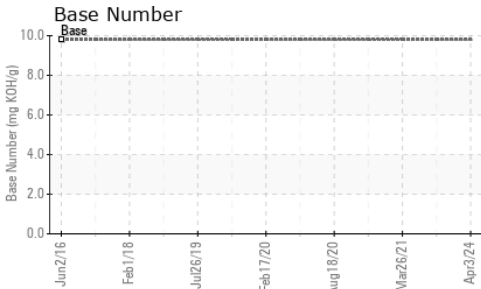
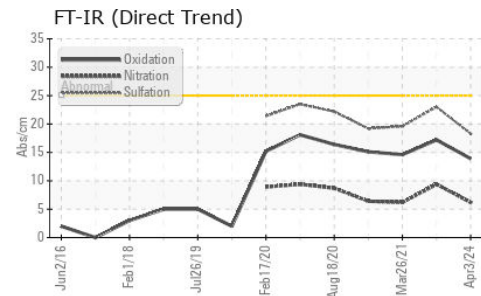
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>49</b>	▲ 251	<1
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	8	<1
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>0.3</b>	0.6	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.2</b>	9.4	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.3</b>	23	19.6
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>0</b>	3	0
Boron	ppm	ASTM D5185m	0	<b>0</b>	6	4
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>62</b>	58	52
Manganese	ppm	ASTM D5185m	0	<b>2</b>	6	<1
Magnesium	ppm	ASTM D5185m	1010	<b>940</b>	862	814
Calcium	ppm	ASTM D5185m	1070	<b>1292</b>	2468	1036
Phosphorus	ppm	ASTM D5185m	1150	<b>1049</b>	968	916
Zinc	ppm	ASTM D5185m	1270	<b>1193</b>	1124	1075
Sulfur	ppm	ASTM D5185m	2060	<b>3125</b>	2495	2457
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.9</b>	17.2	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.1</b>	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.0</b>	13.5	13.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109277  
**Lab Number** : 06148407  
**Unique Number** : 10978485  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Kemp Quarries - Benton County Stone - Stillwell**  
 463917 Highway 100  
 Bunch, OK  
 US 74931  
 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)

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