

Area  
**KEMP QUARRIES / BCS - GRAVETTE [68277]**  
Machine Id  
**WL117**  
Component  
**Gear Drive**  
Fluid  
**PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)**

**RECOMMENDATION**

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. ( Customer Sample Comment: Pm3 )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0069792</b>	PCA0086536	PCA0086418
Sample Date		Client Info		<b>06 Feb 2024</b>	14 Sep 2023	01 Aug 2023
Machine Age	hrs	Client Info		<b>20058</b>	5691	5552
Oil Age	hrs	Client Info		<b>14367</b>	5691	5552
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>SEVERE</b>	SEVERE	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>311</b>	100	201
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>8	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>6</b>	2	1
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>93</b>	36	20
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>500	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m	>75	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

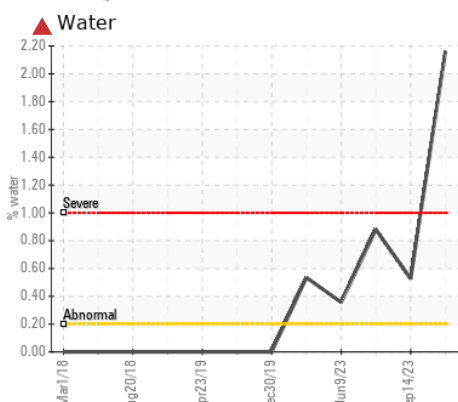
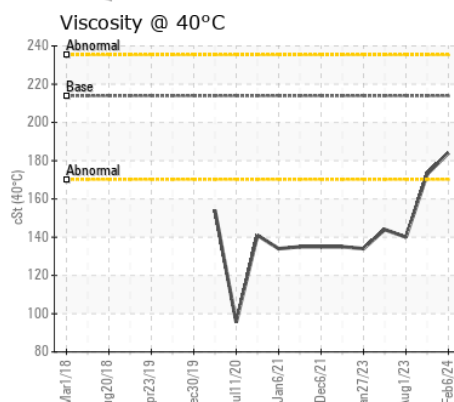
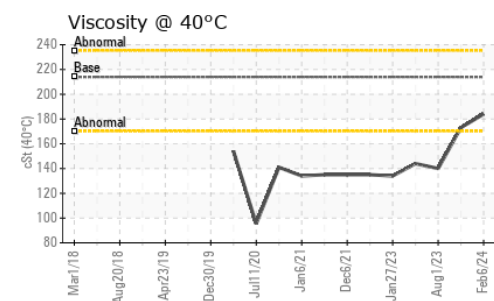
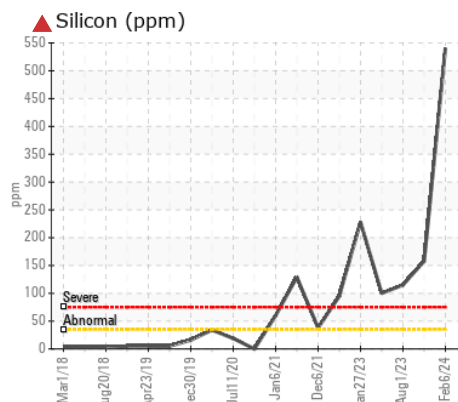
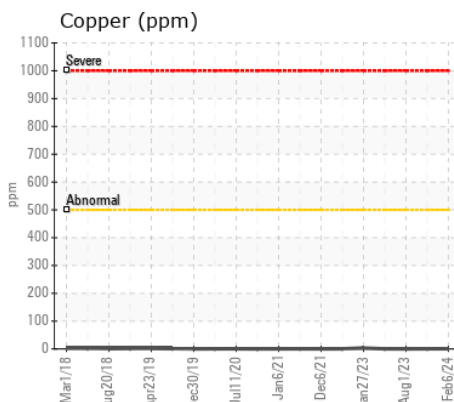
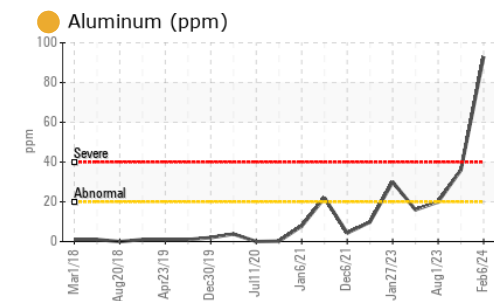
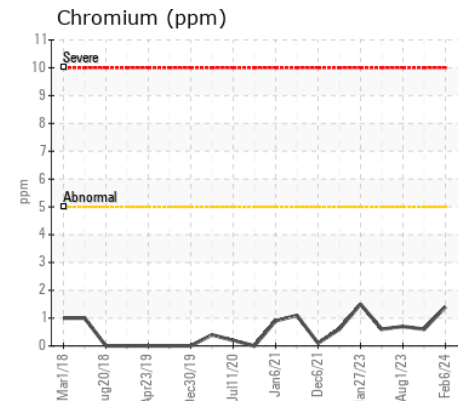
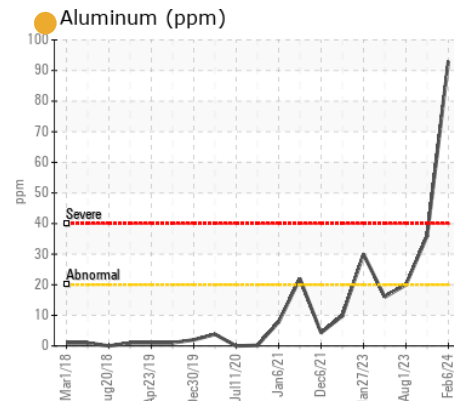
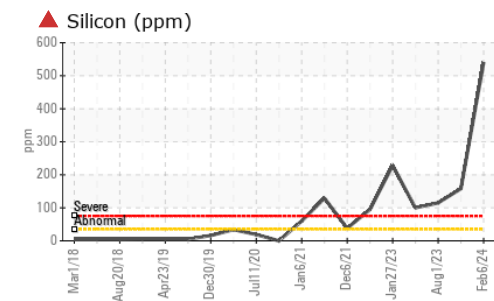
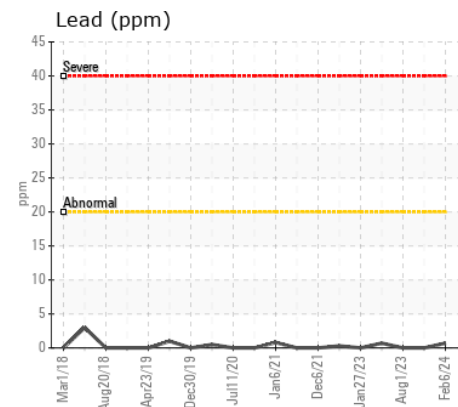
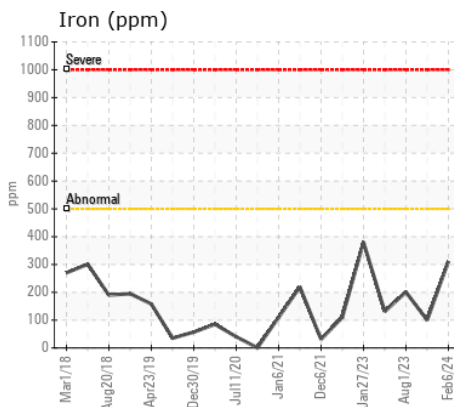
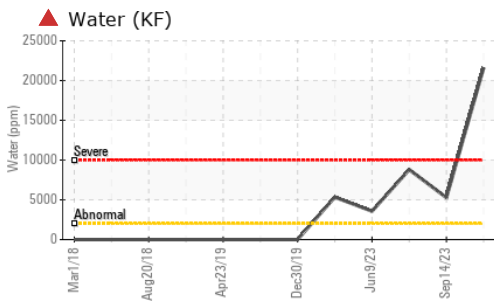
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a high concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>35	<b>▲ 540</b>	▲ 158	▲ 115
Potassium	ppm	ASTM D5185m	>20	<b>42</b>	18	9
Water	%	ASTM D6304	>0.2	<b>▲ 2.16</b>	▲ 0.527	▲ 0.880
ppm Water	ppm	ASTM D6304	>2000	<b>▲ 21600</b>	▲ 5270	▲ 8800
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	▲ MILKY
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>▲ 0.2%</b>	0.2%	▲ 0.2%

**FLUID CONDITION**

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		<b>0</b>	<1	1
Boron	ppm	ASTM D5185m	2	<b>6</b>	32	194
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	0
Manganese	ppm	ASTM D5185m	0	<b>8</b>	2	3
Magnesium	ppm	ASTM D5185m	9	<b>72</b>	24	16
Calcium	ppm	ASTM D5185m	3114	<b>4043</b>	2836	386
Phosphorus	ppm	ASTM D5185m	1099	<b>779</b>	895	960
Zinc	ppm	ASTM D5185m	1245	<b>1022</b>	999	53
Sulfur	ppm	ASTM D5185m	7086	<b>4083</b>	6341	21478
Visc @ 40°C	cSt	ASTM D445	213.9	<b>184</b>	173	140



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0069792 **Received** : 26 Feb 2024  
**Lab Number** : 06101205 **Tested** : 28 Feb 2024  
**Unique Number** : 10899435 **Diagnosed** : 28 Feb 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: KF )

**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)