



OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

ATTENTION  
ABNORMAL  
NORMAL

Area  
**KEMP QUARRIES / BCS - STILLWELL [66210]**

Machine Id  
**TTH018**

Component  
**Right Final Drive**

Fluid  
**PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)**

**RECOMMENDATION**

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor. ( Customer Sample Comment: PM-2 sampled fluid )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0109331</b>	PCA0086300	PCA0025466
Sample Date		Client Info		<b>03 Apr 2024</b>	29 Jun 2023	28 Jan 2022
Machine Age	hrs	Client Info		<b>1180</b>	832	5288
Oil Age	hrs	Client Info		<b>1180</b>	832	5288
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>476</b>	160	289
Chromium	ppm	ASTM D5185m	>10	<b>4</b>	1	3
Nickel	ppm	ASTM D5185m	>10	<b>1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>2</b>	<1	15
Silver	ppm	ASTM D5185m		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>15</b>	5	<b>17</b>
Lead	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>11</b>	7	2
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

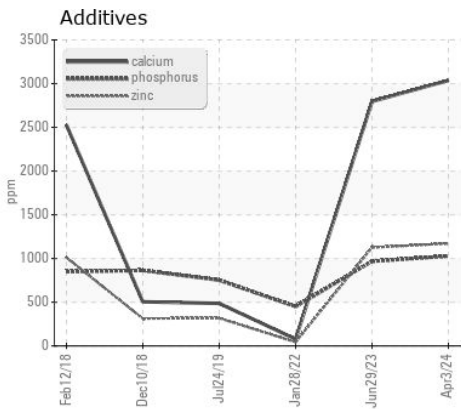
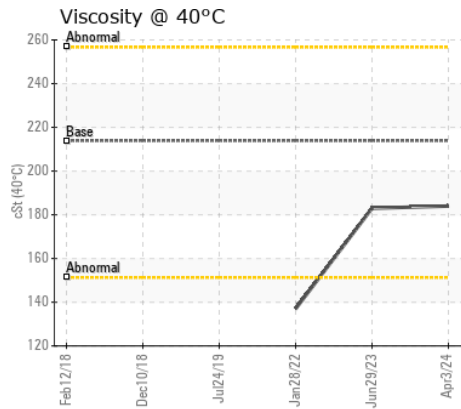
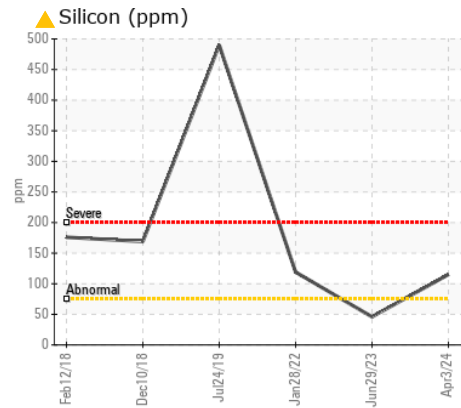
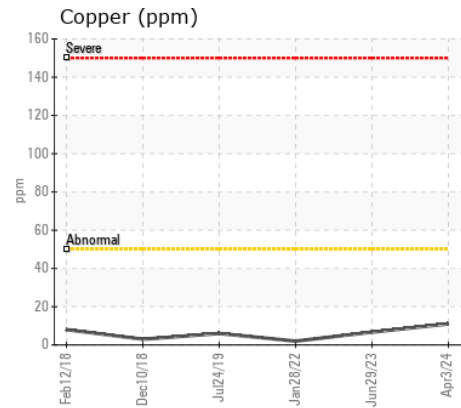
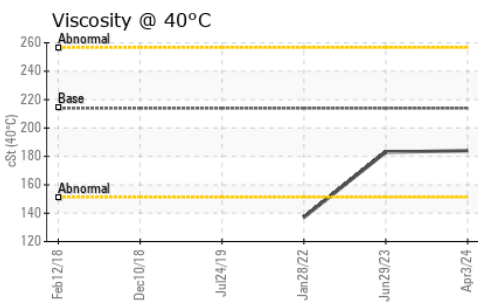
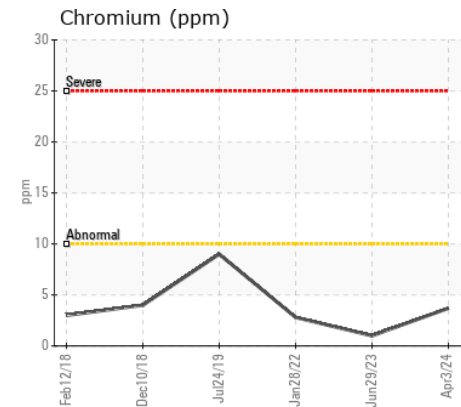
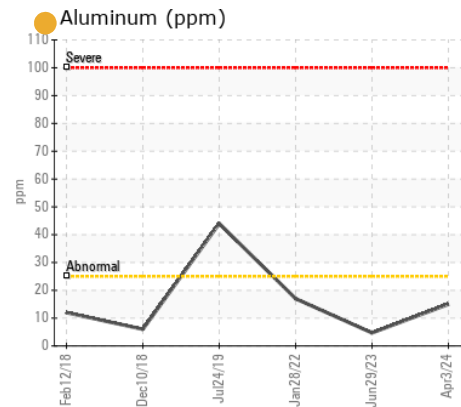
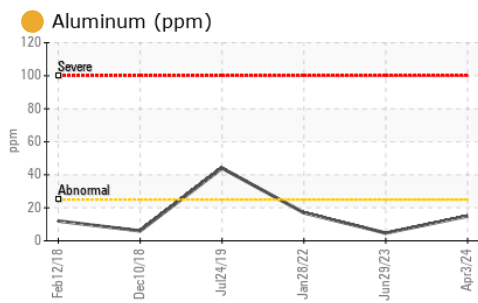
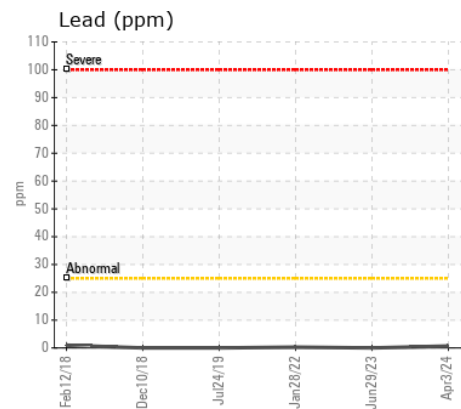
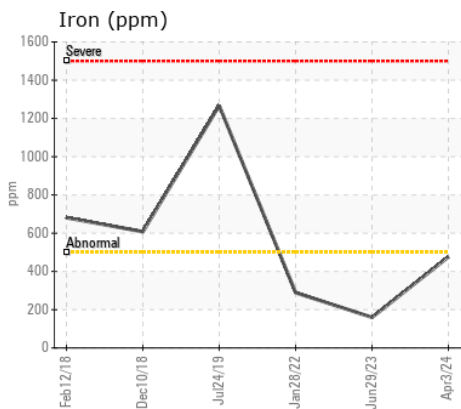
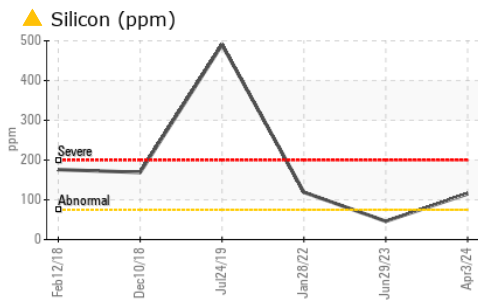
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>75	<b>▲ 115</b>	46	<b>▲ 119</b>
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	2	5
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
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 condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>2</b>	1	0
Boron	ppm	ASTM D5185m	2	<b>16</b>	14	28
Barium	ppm	ASTM D5185m	0	<b>1</b>	0	9
Molybdenum	ppm	ASTM D5185m	0	<b>2</b>	<1	1
Manganese	ppm	ASTM D5185m	0	<b>4</b>	1	3
Magnesium	ppm	ASTM D5185m	9	<b>17</b>	14	8
Calcium	ppm	ASTM D5185m	3114	<b>3037</b>	2796	78
Phosphorus	ppm	ASTM D5185m	1099	<b>1028</b>	968	451
Zinc	ppm	ASTM D5185m	1245	<b>1172</b>	1125	43
Sulfur	ppm	ASTM D5185m	7086	<b>8923</b>	8213	16353
Visc @ 40°C	cSt	ASTM D445	213.9	<b>184</b>	183	137



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109331 **Received** : 15 Apr 2024  
**Lab Number** : 06149084 **Tested** : 16 Apr 2024  
**Unique Number** : 10979162 **Diagnosed** : 17 Apr 2024 - Sean Felton  
**Test Package** : MOB 1

**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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