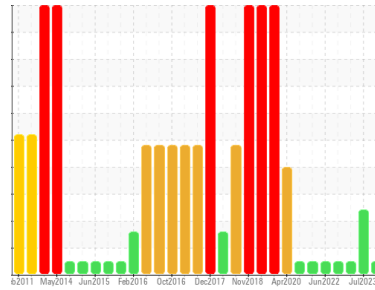


# OIL ANALYSIS REPORT



Area  
**KEMP QUARRIES / MUSKOGEE SAND [66574]**  
Machine Id  
**WL042**  
Component  
**Rear Right Final Drive**  
Fluid  
**PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)**

Sample Rating Trend



**NORMAL**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: PM-1 sampled fluid )

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PCA0087046</b>	PCA0084513	PCA0087108
Sample Date	Client Info		<b>24 Oct 2023</b>	11 Jul 2023	23 May 2023
Machine Age	hrs	Client Info	<b>33553</b>	32072	31670
Oil Age	hrs	Client Info	<b>33553</b>	32072	1720
Oil Changed	Client Info		<b>N/A</b>	Changed	Not Chngd
Sample Status			<b>NORMAL</b>	ATTENTION	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >800	<b>43</b>	86	163
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >75	<b>&lt;1</b>	5	9
Lead	ppm	ASTM D5185m >10	<b>0</b>	1	1
Copper	ppm	ASTM D5185m >75	<b>6</b>	8	7
Tin	ppm	ASTM D5185m >8	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	<b>2</b>	0	<1
Barium	ppm	ASTM D5185m 0	<b>19</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>5</b>	11	19
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m 9	<b>47</b>	▲ 145	266
Calcium	ppm	ASTM D5185m 3114	<b>1851</b>	▲ 1327	2106
Phosphorus	ppm	ASTM D5185m 1099	<b>717</b>	▲ 629	892
Zinc	ppm	ASTM D5185m 1245	<b>821</b>	▲ 776	1068
Sulfur	ppm	ASTM D5185m 7086	<b>3966</b>	▲ 3845	6021

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >400	<b>16</b>	48	92
Sodium	ppm	ASTM D5185m	<b>1</b>	0	<1
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	2

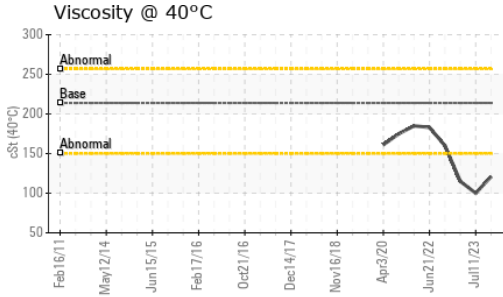
## VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual NONE	<b>NONE</b>	LIGHT	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
Free Water	scalar	*Visual	<b>NEG</b>	NEG	NEG

## FLUID PROPERTIES

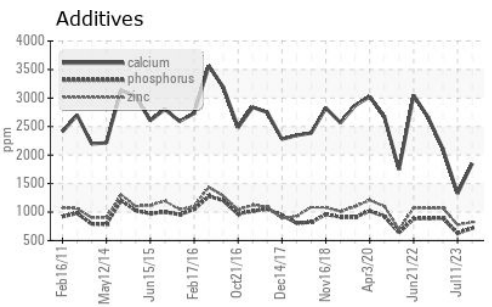
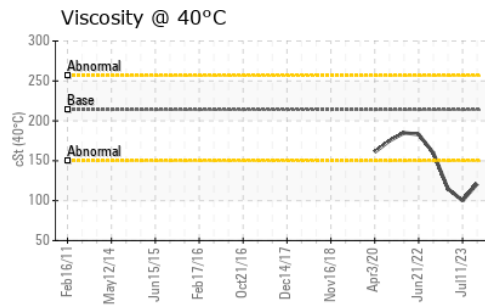
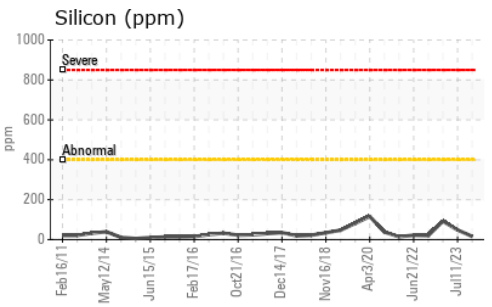
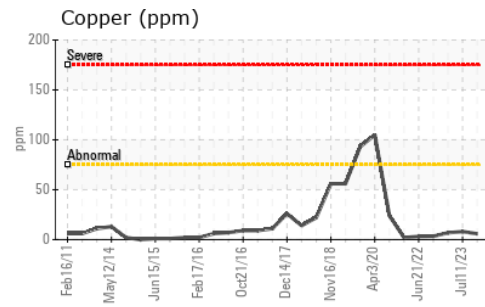
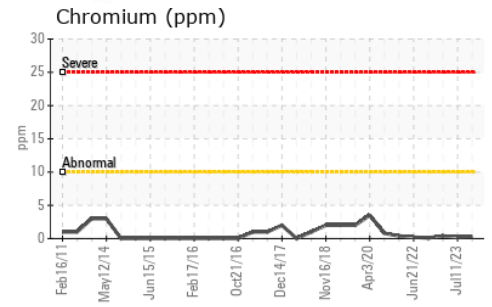
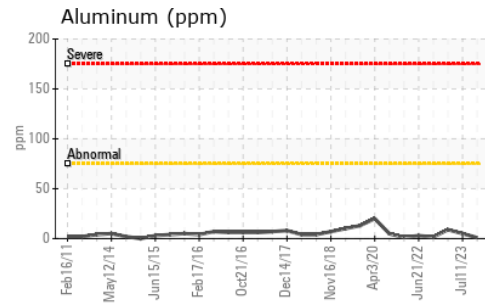
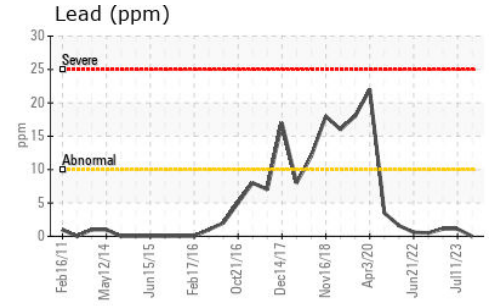
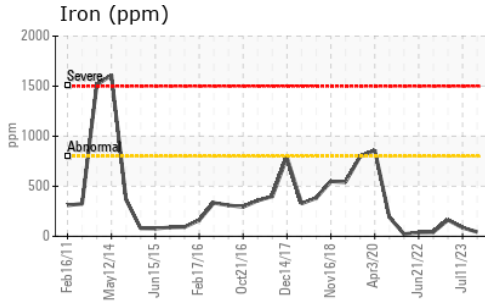
	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 213.9	<b>121</b>	▲ 100	115

# OIL ANALYSIS REPORT



SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			no image	no image	no image
Bottom			no image	no image	no image

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0087046 **Received** : 30 Oct 2023  
**Lab Number** : 05993858 **Diagnosed** : 01 Nov 2023  
**Unique Number** : 10722218 **Diagnostician** : Sean Felton  
**Test Package** : MOB 1

**Kemp Quarries - Muskogee Sand**  
 3395 W 50th St N  
 Porter, OK  
 US 74454

Contact: MUSCOGEE NOTIFICATIONS  
muskogee@muskogeessand.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)

T:  
F: