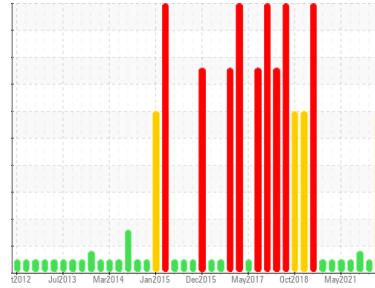


# OIL ANALYSIS REPORT



Area  
**KEMP QUARRIES / BCS - STILLWELL**  
Machine Id  
**WL068**  
Component  
**Rear Left Final Drive**  
Fluid  
**PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)**

Sample Rating Trend



**WEAR**



## DIAGNOSIS

### Recommendation

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. ( Customer Sample Comment: PM-3 sampled fluid )

### Wear

Gear wear is indicated.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		<b>PCA0086434</b>	PCA0086121	PCA0062172
Sample Date	Client Info		<b>05 Jul 2023</b>	04 Mar 2023	24 Jun 2022
Machine Age	hrs	Client Info	<b>23571</b>	0	22557
Oil Age	hrs	Client Info	<b>23571</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	Not Changd	Not Changd
Sample Status			<b>SEVERE</b>	NORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >800	<b>3141</b>	515	734
Chromium	ppm	ASTM D5185m >10	<b>7</b>	<1	1
Nickel	ppm	ASTM D5185m >5	<b>1</b>	0	0
Titanium	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >75	<b>13</b>	3	3
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >75	<b>39</b>	6	10
Tin	ppm	ASTM D5185m >8	<b>&lt;1</b>	0	0
Antimony	ppm	ASTM D5185m >50	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 2	<b>21</b>	4	16
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>4</b>	2	3
Manganese	ppm	ASTM D5185m 0	<b>21</b>	4	5
Magnesium	ppm	ASTM D5185m 9	<b>58</b>	34	44
Calcium	ppm	ASTM D5185m 3114	<b>2710</b>	2531	2615
Phosphorus	ppm	ASTM D5185m 1099	<b>942</b>	1045	1030
Zinc	ppm	ASTM D5185m 1245	<b>936</b>	1213	1193
Sulfur	ppm	ASTM D5185m 7086	<b>8686</b>	7474	7357

## CONTAMINANTS

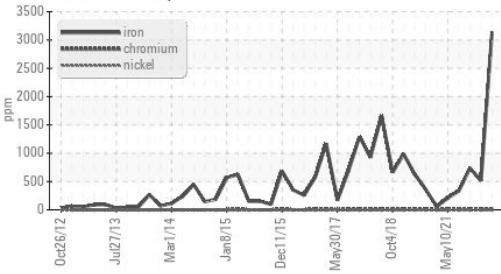
	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >400	<b>41</b>	14	14
Sodium	ppm	ASTM D5185m	<b>3</b>	<1	0
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	1

## VISUAL

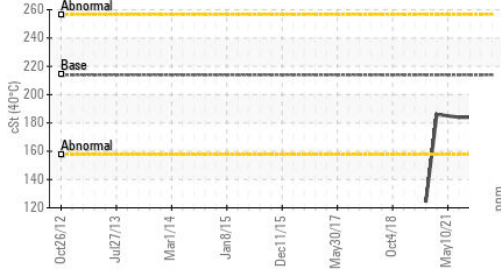
	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	MODER
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual NONE	<b>NONE</b>	NONE	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
Free Water	scalar	*Visual	<b>NEG</b>	NEG	NEG

# OIL ANALYSIS REPORT

**Ferrous Alloys**



**Viscosity @ 40°C**



**FLUID PROPERTIES**    method    limit/base    current    history 1    history 2

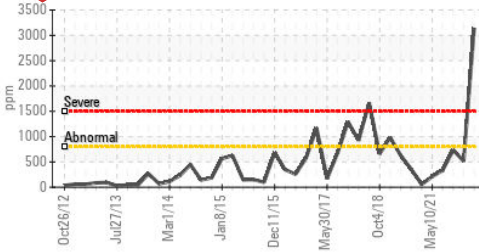
Visc @ 40°C    cSt    ASTM D445    213.9    **179**    189.1    184

**SAMPLE IMAGES**    method    limit/base    current    history 1    history 2

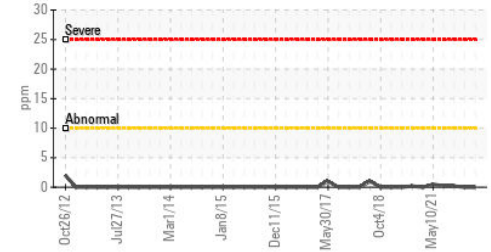
Color		no image	no image	no image
Bottom		no image	no image	no image

**GRAPHS**

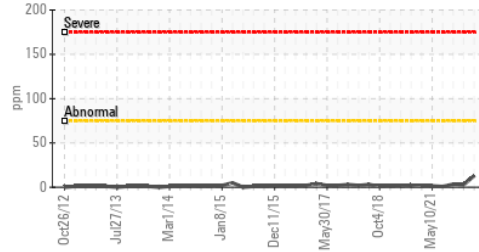
**Iron (ppm)**



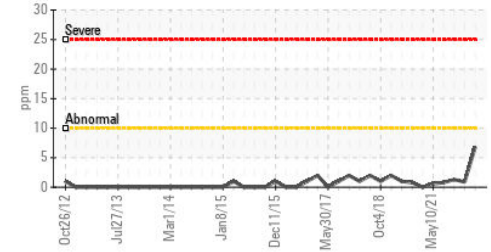
**Lead (ppm)**



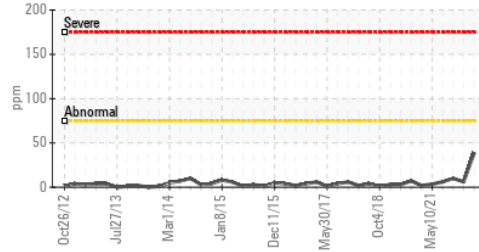
**Aluminum (ppm)**



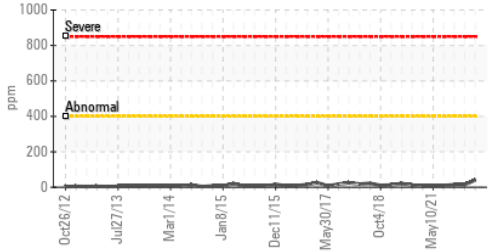
**Chromium (ppm)**



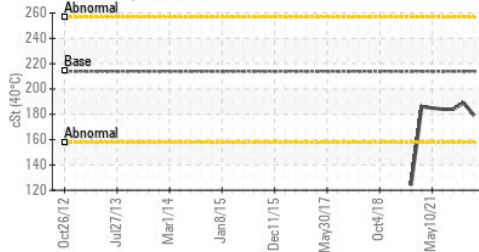
**Copper (ppm)**



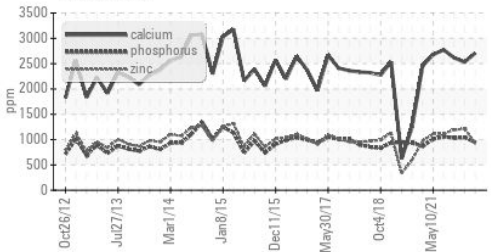
**Silicon (ppm)**



**Viscosity @ 40°C**



**Additives**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0086434    **Received** : 10 Jul 2023  
**Lab Number** : **05894683**    **Diagnosed** : 12 Jul 2023  
**Unique Number** : 10550493    **Diagnostician** : Sean Felton  
**Test Package** : MOB 1

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

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)

stilwell@bentoncountystone.com

T:  
F: