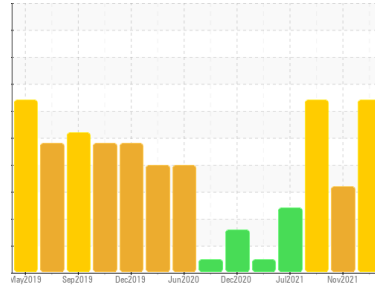


Area  
**KEMP QUARRIES / PRYOR STONE**  
Machine Id  
**WL130**  
Component  
**Gear Drive**  
Fluid  
**PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)**



## DIAGNOSIS

### Recommendation

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. ( Customer Sample Comment: PM-4 changed fluid, lid was not sealed. )

### Wear

All component wear rates are normal.

### Contamination

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

### Fluid Condition

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

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PCA0086365</b>	PCA0034293	PCA0025391
Sample Date	Client Info	<b>15 Jun 2023</b>	23 Nov 2021	22 Sep 2021
Machine Age	hrs	<b>4087</b>	25095	3235
Oil Age	hrs	<b>4087</b>	3395	0
Oil Changed	Client Info	<b>Changed</b>	Not Changd	Changed
Sample Status		<b>SEVERE</b>	ABNORMAL	SEVERE

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >500	<b>152</b>	125	298
Chromium	ppm	ASTM D5185m >5	<1	<1	1
Nickel	ppm	ASTM D5185m >8	<1	0	<1
Titanium	ppm	ASTM D5185m	<1	<1	1
Silver	ppm	ASTM D5185m	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >20	▲ <b>20</b>	11	▲ 23
Lead	ppm	ASTM D5185m >20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >500	<1	<1	<1
Tin	ppm	ASTM D5185m >75	<b>2</b>	0	0
Antimony	ppm	ASTM D5185m >5	---	0	7
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	<1	<1

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 2	<b>114</b>	214	174
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m 0	<1	<1	1
Manganese	ppm	ASTM D5185m 0	<b>2</b>	2	4
Magnesium	ppm	ASTM D5185m 9	<b>18</b>	14	18
Calcium	ppm	ASTM D5185m 3114	<b>349</b>	323	546
Phosphorus	ppm	ASTM D5185m 1099	<b>837</b>	1043	817
Zinc	ppm	ASTM D5185m 1245	<b>183</b>	68	58
Sulfur	ppm	ASTM D5185m 7086	<b>20478</b>	22880	12567

## CONTAMINANTS

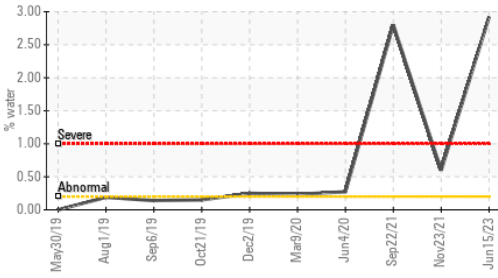
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >35	▲ <b>79</b>	▲ 49	▲ 101
Sodium	ppm	ASTM D5185m	<b>0</b>	0	2
Potassium	ppm	ASTM D5185m >20	<b>11</b>	2	17
Water	%	ASTM D6304 >0.2	● <b>2.92</b>	▲ 0.600	● 2.80
ppm Water	ppm	ASTM D6304 >2000	● <b>29200</b>	▲ 6000	● 28000

## VISUAL

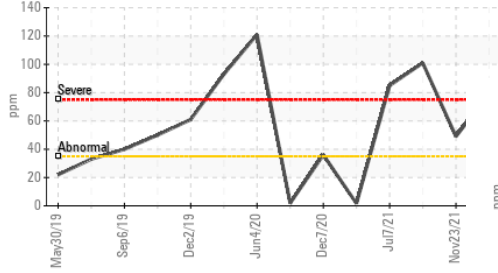
method	limit/base	current	history1	history2	
White Metal	scalar	*Visual NONE	<b>NONE</b>	LIGHT	LIGHT
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual NONE	<b>LIGHT</b>	NONE	VLITE
Debris	scalar	*Visual NONE	<b>NONE</b>	VLITE	NONE
Sand/Dirt	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual NORML	▲ <b>MILKY</b>	NORML	▲ HAZY
Odor	scalar	*Visual NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual >0.2	● <b>0.2%</b>	▲ 0.2%	● 0.2%
Free Water	scalar	*Visual	<b>NEG</b>	NEG	NEG

# OIL ANALYSIS REPORT

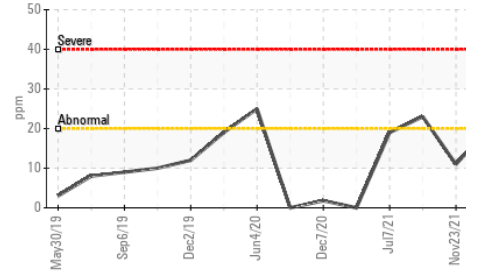
## Water



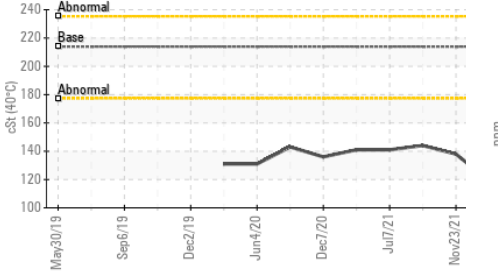
## Silicon (ppm)



## Aluminum (ppm)



## Viscosity @ 40°C



## FLUID PROPERTIES

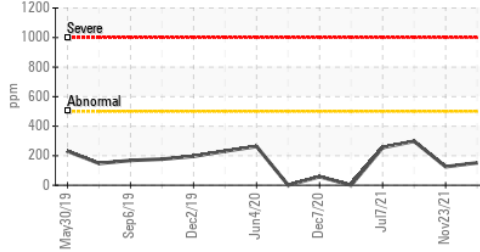
method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	213.9	119	138

## SAMPLE IMAGES

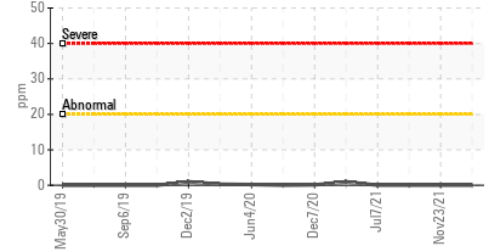
method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

## GRAPHS

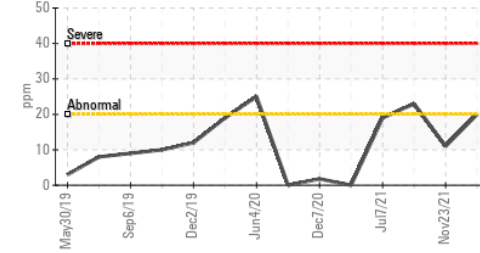
### Iron (ppm)



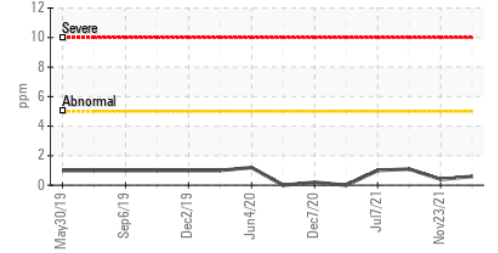
### Lead (ppm)



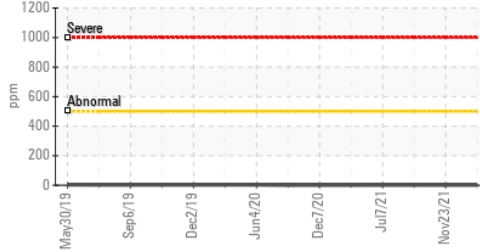
### Aluminum (ppm)



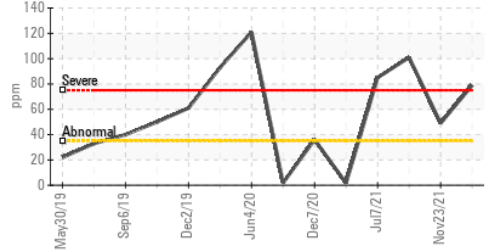
### Chromium (ppm)



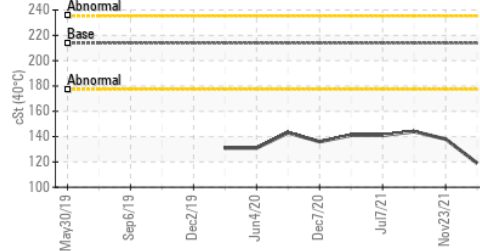
### Copper (ppm)



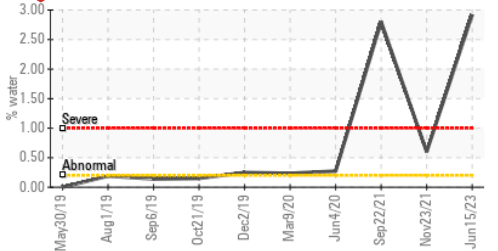
### Silicon (ppm)



### Viscosity @ 40°C



### Water



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0086365 **Received** : 23 Jun 2023  
**Lab Number** : 05882823 **Diagnosed** : 28 Jun 2023  
**Unique Number** : 10533306 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: KF )

**Kemp Quarries - Pryor Stone - Pryor**  
 1050 E 520 Rd  
 Pryor, OK  
 US 74361  
 Contact:  
 pryor@pryorstone.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: