

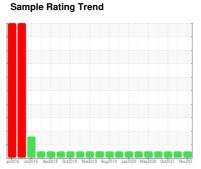
# **OIL ANALYSIS REPORT**



# KEMP QUARRIES / PRYOR STONE [67979] **CATERPILLAR 3406 WL102**

Component **Front Left Final Drive** 

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





### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: PM-4 changed fluid )

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the

### **Fluid Condition**

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

RO TO-4 SAE 50	( GAL)	pr2016 Jul201	6 Apr2018 Oct2018 Mar20	019 Aug2019 Jan2020 May2020 O	tŽ021 NovŽ02	
SAMPLE INFOR	RMATION	Method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0084371	PCA0033859	PCA0025164
Sample Date		Client Info		09 Nov 2023	05 Apr 2022	25 Oct 2021
Machine Age	hrs	Client Info		39985	39907	38950
Oil Age	hrs	Client Info		39985	39907	0
Oil Changed		Client Info		Changed	Not Changd	Oil Added
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINA	TION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR META	LS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>800	20	14	11
Chromium	ppm	ASTM D5185m	>10	0	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m	>15	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>75	0	<1	<1
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>75	0	<1	<1
Tin	ppm	ASTM D5185m	>8	0	0	<1
Antimony	ppm	ASTM D5185m	>50			0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	0	2	9
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	1	1
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	9	29	27	28
Calcium	ppm	ASTM D5185m	3114	2969	3202	3104
Phosphorus	ppm	ASTM D5185m	1099	1067	1082	1046
Zinc	ppm	ASTM D5185m	1245	1296	1349	1218
Sulfur	ppm	ASTM D5185m	7086	6132	5483	5458
CONTAMINAL	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>400	14	10	10
Sodium	ppm	ASTM D5185m		1	0	1
Potassium	ppm		>20	0	2	0
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Appearance						

NORML

>0.2

scalar \*Visual

scalar \*Visual

scalar

\*Visual

**NORML** 

NEG

**NEG** 

NORML

NEG

NEG

Odor

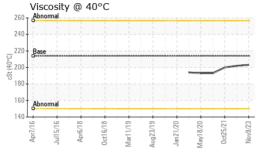
**Emulsified Water** 

NORML

NEG



# **OIL ANALYSIS REPORT**





GRAPHS								
Iron (ppm)								Lead (ppm)
Constant								Severe 25
1			-					20
Abnormal								E 15 Abnormal
00								10 + Automai
0	- 80	16	6	02	02	21-	23	000000000000000000000000000000000000000
Apr7/16 - Jul15/16 - Apr6/18 -	Oct16/18	Mar11/19	Aug23/19	Jan21/20	May18/20	Oct25/21	Nov9/23	Apri/16- Jull5/16- Apr6/18- Marl1/19- Jan21/20- Oct25/21-
Aluminum (	(ppm)		4					Chromium (ppm)
Severe								30 T 25 - Severe
								20
Abnormal	+							E 15 Abnormal
								10 - Anioma 5 -
9 9		- 6				-	3	
Apr7/16 Jul15/16	Oct16/18	Mar11/19	Aug23/19	Jan21/20	May18/20	Oct25/21	Nov9/23	Apr7/16 Jul15/16 Apr6/18 Mar11/19 Jan21/20 May18/20
Copper (pp			4	,	2			Silicon (ppm)
Severe			1					Severe Severe
								800 -
Abnormal	+							400 - Abnormal
	+							200
	-	_	-	4	-			
Apr7/16 - Jul15/16 - Apr6/18 -	Oct16/18	Mar11/19	Aug23/19	Jan21/20	May18/20	Oct25/21	Nov9/23	Apr7/16 Jul15/16 Apr6/18 Apr6/18 Aug23/19 Jan21/20 Oct25/21
Viscosity @			Aı	- F	M		_	Additives
Abnormal	-							5000 calcium
Base								4000 - phosphorus
) - Base								3000
								2000
Abnormal	+							
Apr7/16	Oct16/18	Mar11/19	Aug23/19	Jan21/20	May18/20	Oct25/21-	Nov9/23	Apr7/16 Jul15/16 Apr6/18 - Oct16/18 - Mar11/19 - Aug23/19 Aay18/20 - Oct25/21
Jul Ag	00	Mai	Aug	E	)ay	ő	2	An An Ang Ang Ang Ang Ang



Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10752705

: PCA0084371 : 06013561 Test Package : MOB 1

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 20 Nov 2023 Diagnosed Diagnostician : Sean Felton

: 22 Nov 2023

Kemp Quarries - BCS - Seligman 8261 Farm rd 2295

Seligman, MO US 65745

Contact: TECHNICIAN ACCOUNT catherine.anastasio@wearcheck.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)

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F: