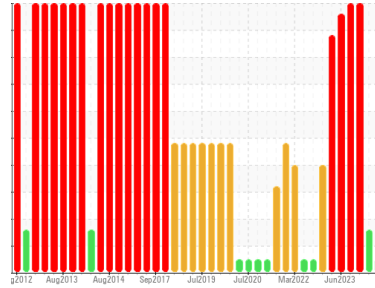


OIL ANALYSIS REPORT



Area
KEMP QUARRIES / MUSKOGEE SAND [68980]
Machine Id
WL056
Component
Rear Differential
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	PCA0086578	PCA0086553	PCA0084751
Sample Date	Client Info	01 Mar 2024	18 Dec 2023	03 Oct 2023
Machine Age	hrs	35093	34606	34177
Oil Age	hrs	35093	34606	34177
Oil Changed	Client Info	N/A	Changed	Changed
Sample Status		NORMAL	ABNORMAL	SEVERE

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >.2	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >500	45	66	▲ 821
Chromium	ppm ASTM D5185m >3	0	<1	▲ 3
Nickel	ppm ASTM D5185m >3	0	0	2
Titanium	ppm ASTM D5185m >2	0	<1	3
Silver	ppm ASTM D5185m >2	0	<1	<1
Aluminum	ppm ASTM D5185m >30	2	5	● 64
Lead	ppm ASTM D5185m >13	0	<1	10
Copper	ppm ASTM D5185m >103	5	12	81
Tin	ppm ASTM D5185m >5	<1	1	9
Vanadium	ppm ASTM D5185m	0	<1	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 2	0	1	10
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 0	<1	0	9
Manganese	ppm ASTM D5185m 0	0	1	10
Magnesium	ppm ASTM D5185m 9	0	29	115
Calcium	ppm ASTM D5185m 3114	2610	2964	3004
Phosphorus	ppm ASTM D5185m 1099	906	921	1038
Zinc	ppm ASTM D5185m 1245	996	1116	1237
Sulfur	ppm ASTM D5185m 7086	4736	4028	5519

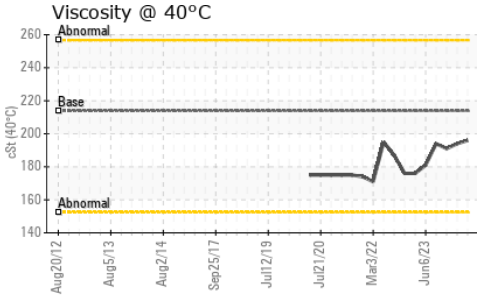
CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >100	28	47	▲ 402
Sodium	ppm ASTM D5185m	3	2	38
Potassium	ppm ASTM D5185m >20	0	2	30

VISUAL

method	limit/base	current	history1	history2
White Metal	scalar *Visual NONE	NONE	NONE	NONE
Yellow Metal	scalar *Visual NONE	NONE	NONE	NONE
Precipitate	scalar *Visual NONE	NONE	NONE	NONE
Silt	scalar *Visual NONE	NONE	NONE	MODER
Debris	scalar *Visual NONE	NONE	NONE	NONE
Sand/Dirt	scalar *Visual NONE	NONE	NONE	NONE
Appearance	scalar *Visual NORML	NORML	HAZY	NORML
Odor	scalar *Visual NORML	NORML	NORML	NORML
Emulsified Water	scalar *Visual >.2	NEG	0.2%	▲ 0.2%
Free Water	scalar *Visual	NEG	NEG	NEG

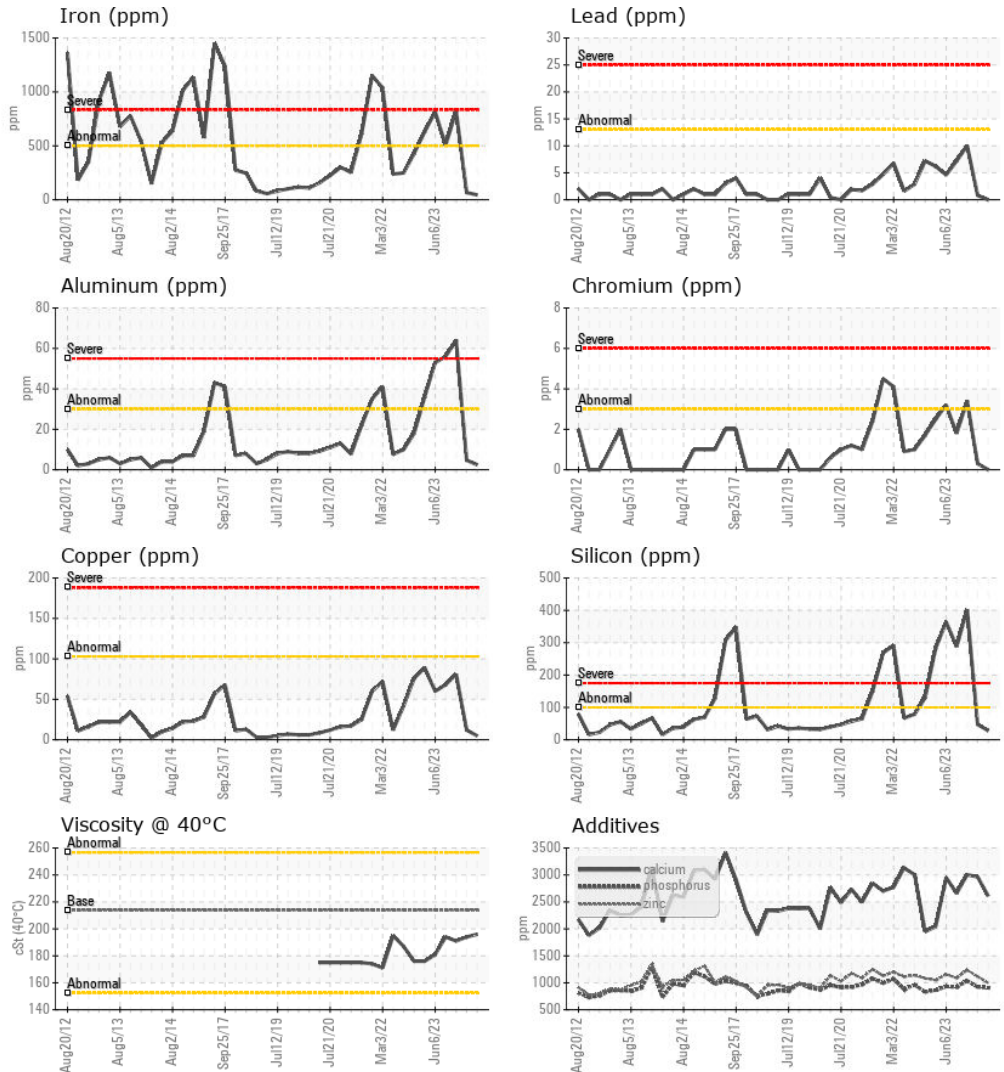
OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	213.9	196	194	191

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

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0086578
Lab Number : 06115476
Unique Number : 10924309
Test Package : MOB 1

Received : 11 Mar 2024
Tested : 12 Mar 2024
Diagnosed : 13 Mar 2024 - Don Baldrige

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: