

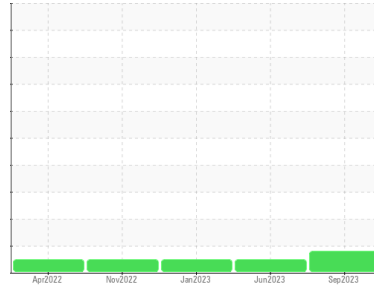
OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Area
KEMP QUARRIES / BCS - GRAVETTE [66134]
Machine Id
WL143
Component
Rear Differential
Fluid
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)



DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Pm4)

Wear

Gear wear is indicated.

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		PCA0084775	PCA0086320	PCA0062018
Sample Date	Client Info		07 Sep 2023	15 Jun 2023	17 Jan 2023
Machine Age	hrs	Client Info	39571	39015	38511
Oil Age	hrs	Client Info	38110	39015	38511
Oil Changed	Client Info		Changed	N/A	N/A
Sample Status			ABNORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	▲ 530	392	245
Chromium	ppm	ASTM D5185m >3	<1	<1	<1
Nickel	ppm	ASTM D5185m >3	<1	0	0
Titanium	ppm	ASTM D5185m >2	<1	<1	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >30	6	5	5
Lead	ppm	ASTM D5185m >13	0	<1	1
Copper	ppm	ASTM D5185m >103	19	18	18
Tin	ppm	ASTM D5185m >5	<1	<1	<1
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	<1	0	<1
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	1	<1
Manganese	ppm	ASTM D5185m 0	4	3	2
Magnesium	ppm	ASTM D5185m 9	27	25	21
Calcium	ppm	ASTM D5185m 3114	3668	3552	3301
Phosphorus	ppm	ASTM D5185m 1099	1079	1044	906
Zinc	ppm	ASTM D5185m 1245	1361	1348	1218
Sulfur	ppm	ASTM D5185m 7086	6492	6365	5681

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >100	33	30	27
Sodium	ppm	ASTM D5185m	<1	0	0
Potassium	ppm	ASTM D5185m >20	0	<1	0

VISUAL

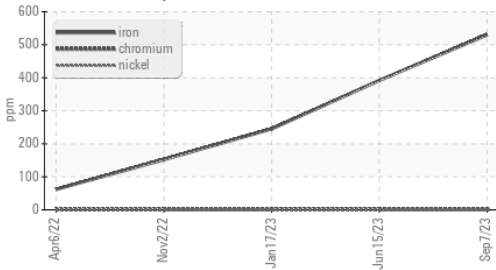
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual NONE	NONE	NONE	NONE
Silt	scalar	*Visual NONE	NONE	NONE	NONE
Debris	scalar	*Visual NONE	NONE	NONE	VLITE
Sand/Dirt	scalar	*Visual NONE	NONE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

FLUID PROPERTIES

	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 213.9	163	166	180

OIL ANALYSIS REPORT

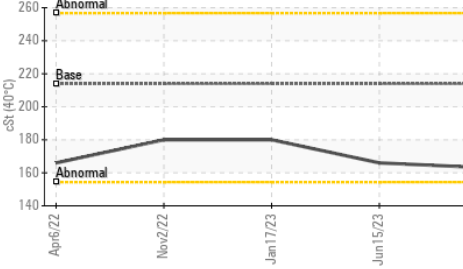
▲ Ferrous Alloys



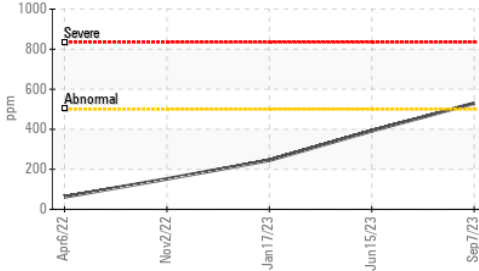
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			no image	no image	no image
Bottom			no image	no image	no image

GRAPHS

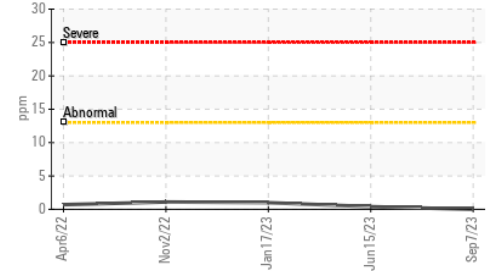
Viscosity @ 40°C



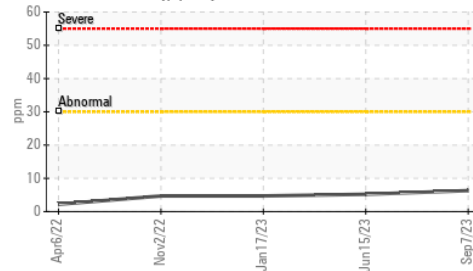
▲ Iron (ppm)



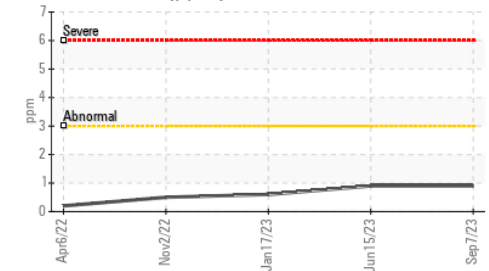
Lead (ppm)



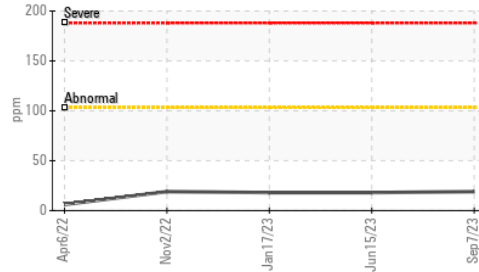
Aluminum (ppm)



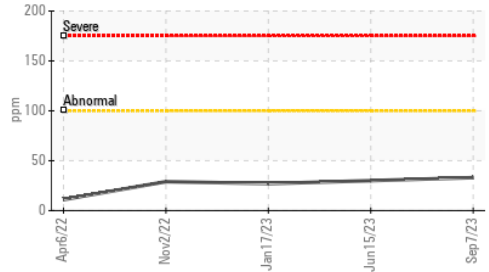
Chromium (ppm)



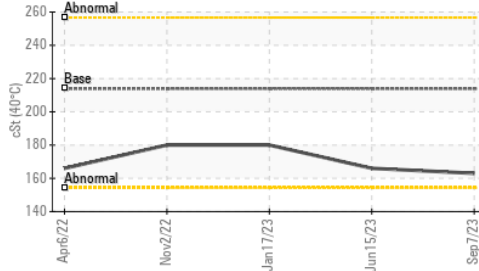
Copper (ppm)



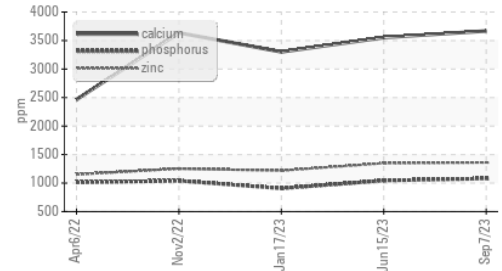
Silicon (ppm)



Viscosity @ 40°C



Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0084775 **Received** : 14 Sep 2023
Lab Number : 05952302 **Diagnosed** : 18 Sep 2023
Unique Number : 10648261 **Diagnostician** : Doug Bogart
Test Package : MOB 1

Kemp Quarries - Benton County Stone - Gravette
 15100 N Hwy 59
 Sulphur Springs, AR
 US 72768
Contact:

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)

gravette@bentoncountystone.com

T:

F: