



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
KEMP QUARRIES / RIVER VALLEY BACKBONE
Machine Id
WL135
Component
Front Differential
Fluid
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0069889	PCA0084853	PCA0084840
Sample Date		Client Info		28 Dec 2023	25 Oct 2023	12 Aug 2023
Machine Age	hrs	Client Info		53264	52934	52602
Oil Age	hrs	Client Info		900	900	900
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	228	203	225
Chromium	ppm	ASTM D5185m	>3	2	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	6	7
Lead	ppm	ASTM D5185m	>13	1	0	<1
Copper	ppm	ASTM D5185m	>103	16	12	14
Tin	ppm	ASTM D5185m	>5	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

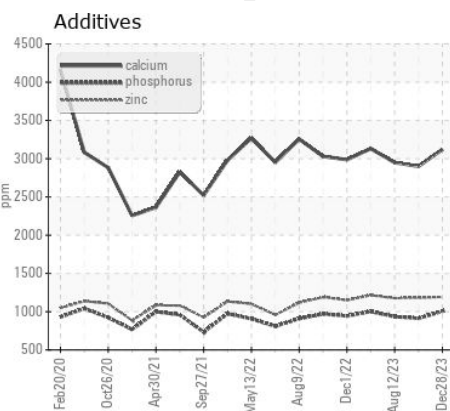
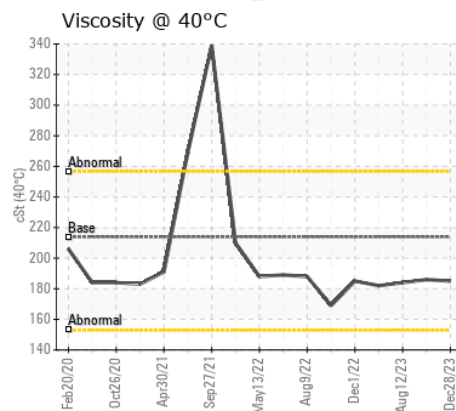
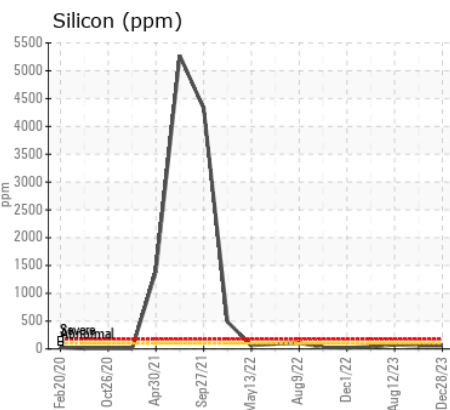
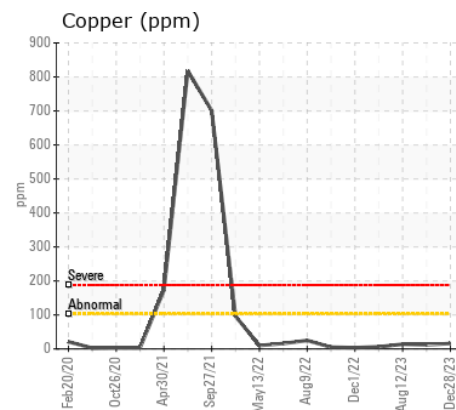
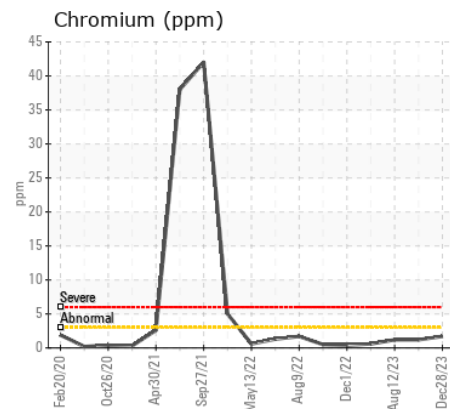
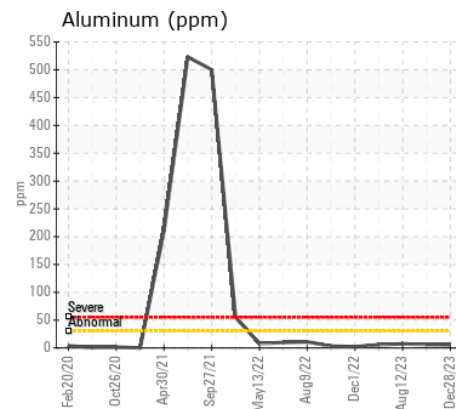
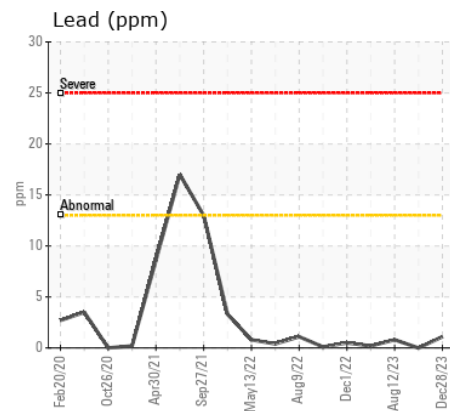
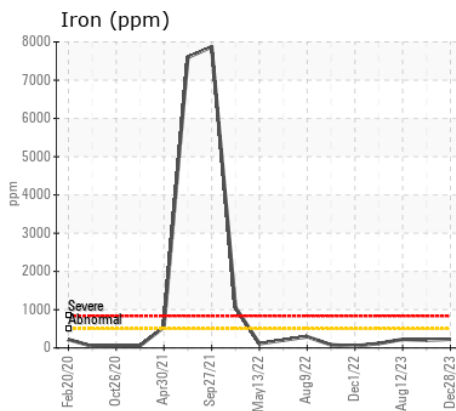
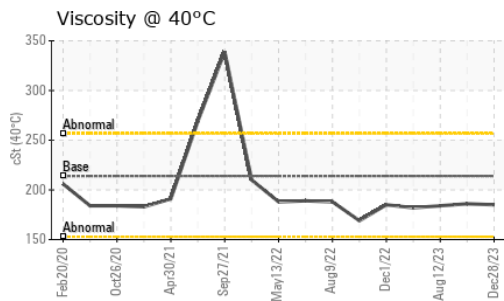
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>100	57	57	73
Potassium	ppm	ASTM D5185m	>20	3	<1	1
Water		WC Method	>.2	NEG	NEG	NEG
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
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		0	2	1
Boron	ppm	ASTM D5185m	2	<1	2	<1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	2	1	1
Manganese	ppm	ASTM D5185m	0	3	2	2
Magnesium	ppm	ASTM D5185m	9	26	26	32
Calcium	ppm	ASTM D5185m	3114	3121	2900	2949
Phosphorus	ppm	ASTM D5185m	1099	1006	912	936
Zinc	ppm	ASTM D5185m	1245	1194	1181	1176
Sulfur	ppm	ASTM D5185m	7086	8652	6397	7936
Visc @ 40°C	cSt	ASTM D445	213.9	185	186	184



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0069889 **Received** : 08 Jan 2024
Lab Number : 06054440 **Diagnosed** : 09 Jan 2024
Unique Number : 10820389 **Diagnostician** : Wes Davis
Test Package : MOB 1

Kemp Quarries - River Valley - Backbone
 5600 S Hwy 253
 Huntington, AR
 US 72940
 Contact:
 backbone@rivervalleyquarries.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: