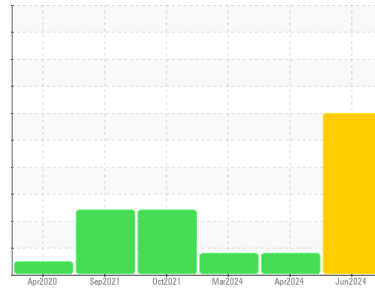


OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
L-56
 Component
Front Right Final Drive
 Fluid
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

▲ Wear

Gear wear is indicated.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0128795	PCA0118473	PCA0118513
Sample Date	Client Info		27 Jun 2024	30 Apr 2024	11 Mar 2024
Machine Age	hrs	Client Info	17836	16917	16346
Oil Age	hrs	Client Info	500	500	2183
Oil Changed	Client Info		Not Chngd	Not Chngd	Changed
Sample Status			SEVERE	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >800	▲ 1623	▲ 1364	▲ 1265
Chromium	ppm	ASTM D5185m >10	4	3	4
Nickel	ppm	ASTM D5185m >5	2	0	2
Titanium	ppm	ASTM D5185m >15	1	<1	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >75	32	23	30
Lead	ppm	ASTM D5185m >10	0	0	2
Copper	ppm	ASTM D5185m >75	14	12	42
Tin	ppm	ASTM D5185m >8	<1	0	<1
Antimony	ppm	ASTM D5185m >50	---	---	---
Vanadium	ppm	ASTM D5185m	<1	0	<1
Cadmium	ppm	ASTM D5185m	<1	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	210	239	16
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	<1
Manganese	ppm	ASTM D5185m 0	24	20	19
Magnesium	ppm	ASTM D5185m 9	44	35	48
Calcium	ppm	ASTM D5185m 3114	244	404	3302
Phosphorus	ppm	ASTM D5185m 1099	1044	976	903
Zinc	ppm	ASTM D5185m 1245	37	111	968
Sulfur	ppm	ASTM D5185m 7086	22594	20036	6285

CONTAMINANTS

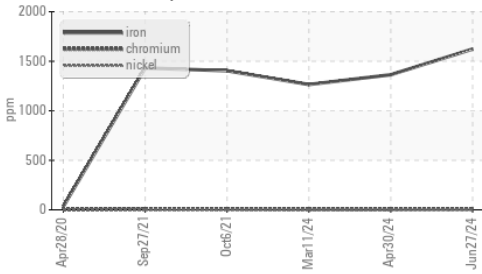
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >400	43	30	32
Sodium	ppm	ASTM D5185m	2	<1	<1
Potassium	ppm	ASTM D5185m >20	<1	0	0

FLUID DEGRADATION

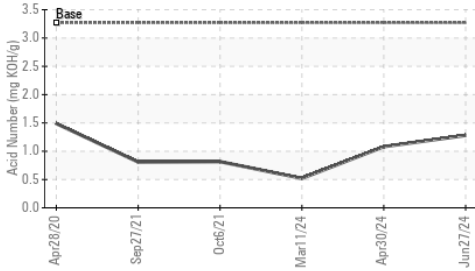
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 3.27	1.28	1.08	0.520

OIL ANALYSIS REPORT

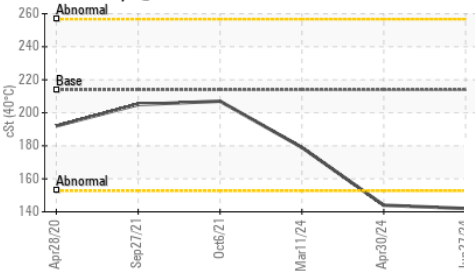
▲ Ferrous Alloys



Acid Number



Viscosity @ 40°C



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

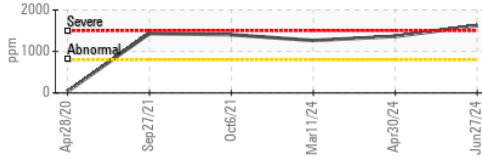
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	213.9	142	144

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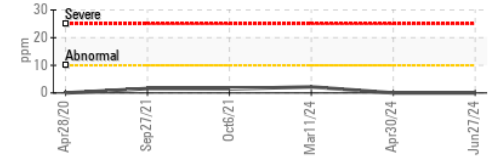
Color	no image	no image	no image
Bottom	no image	no image	no image

GRAPHS

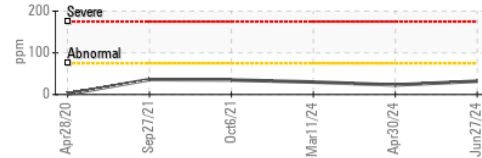
▲ Iron (ppm)



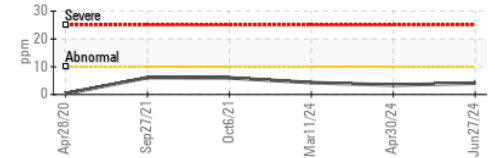
Lead (ppm)



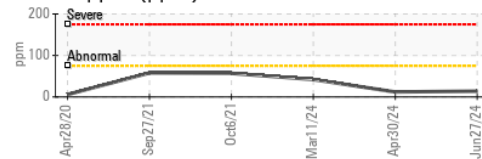
Aluminum (ppm)



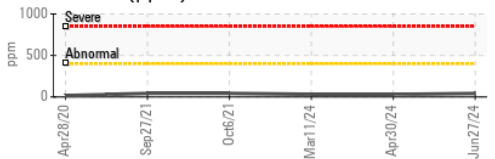
Chromium (ppm)



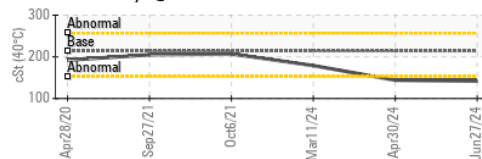
Copper (ppm)



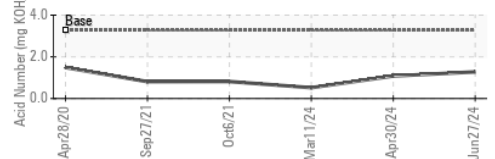
Silicon (ppm)



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0128795
Lab Number : 06226420
Unique Number : 11109913
Test Package : MOB 2

Received : 02 Jul 2024
Tested : 03 Jul 2024
Diagnosed : 05 Jul 2024 - Don Baldrige

SCRAP METAL SERVICES (SMS Mill Services LLC)
 1500 COMMERCIAL AVE
 MINGO JUNCTION, OH
 US 43938

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)

Contact: FRANK NALLY
 fnally@scrapmetalservices.com

T:
 F: