



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[811171]
 Machine Id
SPARTAN A#111
 Component
Front Diesel Engine
 Fluid
PETRO CANADA 10W30 (40 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0812468	WC0812434	WC110589
Sample Date		Client Info		01 May 2024	22 Jul 2023	01 Aug 2019
Machine Age	kms	Client Info		51356	15000	126435
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	---	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>90	15	21	63
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	5	6	3
Lead	ppm	ASTM D5185(m)	>40	<1	1	24
Copper	ppm	ASTM D5185(m)	>330	44	73	10
Tin	ppm	ASTM D5185(m)	>15	2	3	2
Vanadium	ppm	ASTM D5185(m)		0	0	<1
White Metal	scalar	Visual*	NONE	VLITE	VLITE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

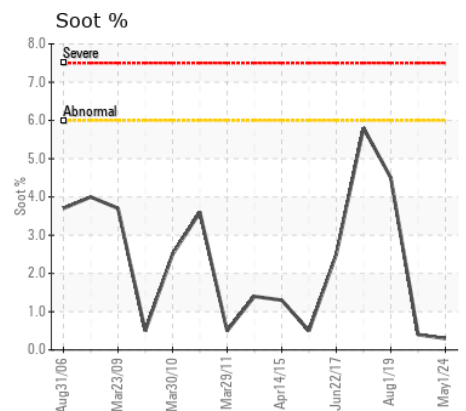
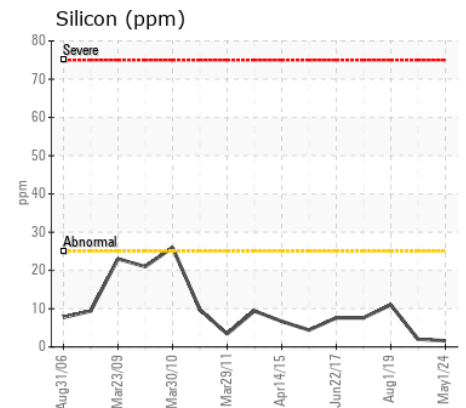
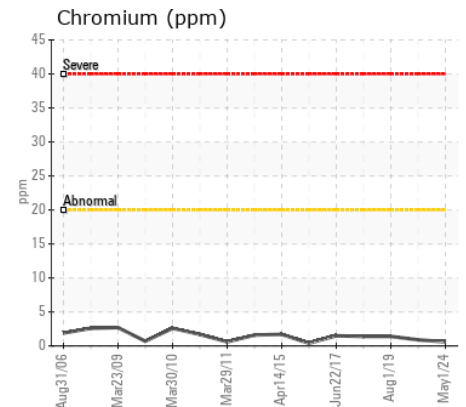
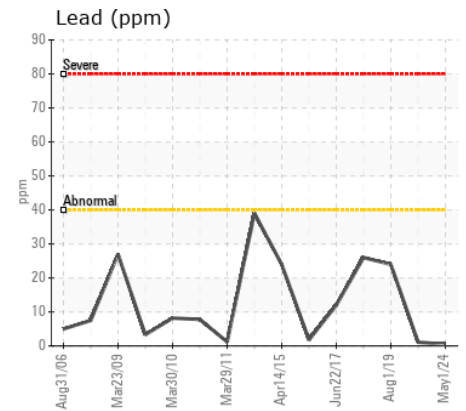
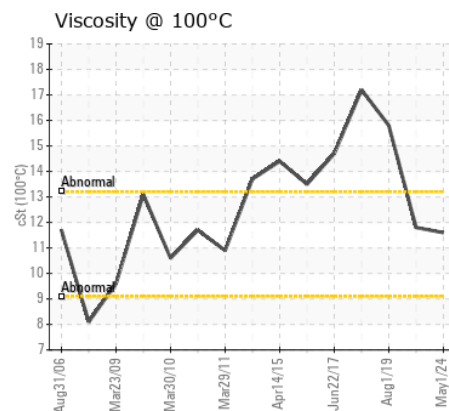
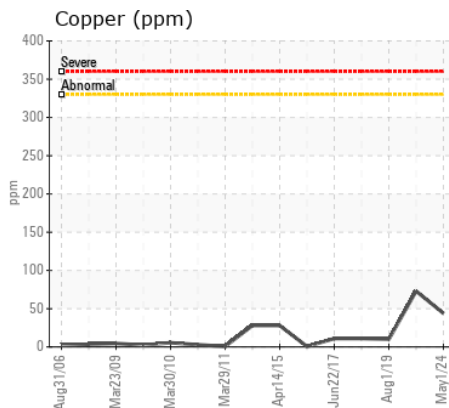
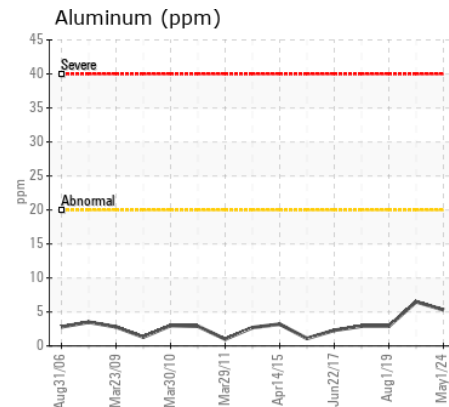
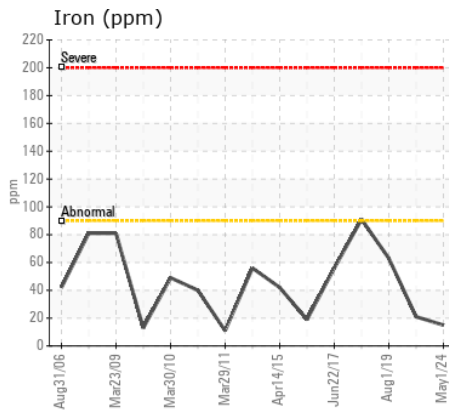
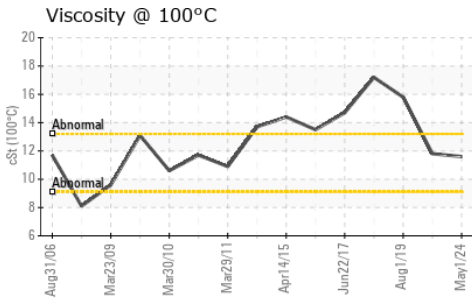
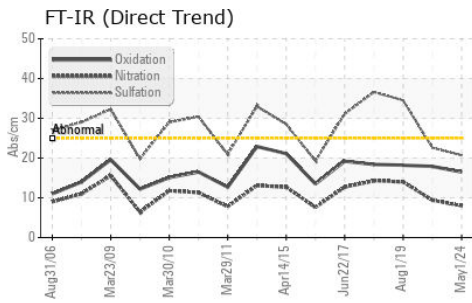
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	2	11
Potassium	ppm	ASTM D5185(m)	>20	6	10	12
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	0.0
Soot %	%	ASTM D7844*	>6	0.3	0.4	4.5
Nitration	Abs/cm	ASTM D7624*	>20	8.0	9.4	14.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.7	22.6	34.5
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	VLITE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.2	NEG	▲ .2%	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		2	2	9
Boron	ppm	ASTM D5185(m)		1	2	19
Barium	ppm	ASTM D5185(m)		0	0	<1
Molybdenum	ppm	ASTM D5185(m)		61	60	85
Manganese	ppm	ASTM D5185(m)		<1	<1	2
Magnesium	ppm	ASTM D5185(m)		956	883	133
Calcium	ppm	ASTM D5185(m)		1135	1277	2127
Phosphorus	ppm	ASTM D5185(m)		964	926	998
Zinc	ppm	ASTM D5185(m)		1179	1183	1220
Sulfur	ppm	ASTM D5185(m)		2250	2120	2978
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.5	17.9	18.2
Visc @ 100°C	cSt	ASTM D7279(m)		11.6	▲ 11.8	15.8



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0812468
Lab Number : 02640630
Unique Number : 5789792
Test Package : MOB 1 (Additional Tests: Visual)

Received : 10 Jun 2024
Tested : 10 Jun 2024
Diagnosed : 10 Jun 2024 - Kevin Marson

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 7535 NINTH LINE
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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.