



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
WESTERN STAR 811A
Component
Front Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (40 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0011140	PC0010721	PC0010728
Sample Date		Client Info		04 Jan 2024	23 Aug 2023	15 Jul 2023
Machine Age	hrs	Client Info		15846	15395	15347
Oil Age	hrs	Client Info		500	335	280
Filter Age	hrs	Client Info		500	335	280
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	9	7	7
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>50	0	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	8
Aluminum	ppm	ASTM D5185(m)	>50	4	3	2
Lead	ppm	ASTM D5185(m)	>40	<1	<1	0
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

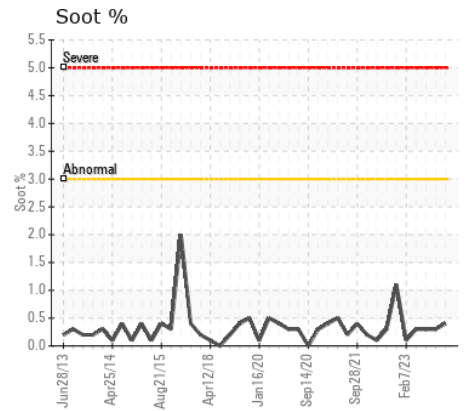
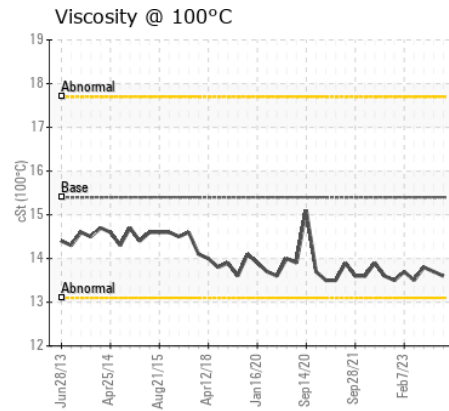
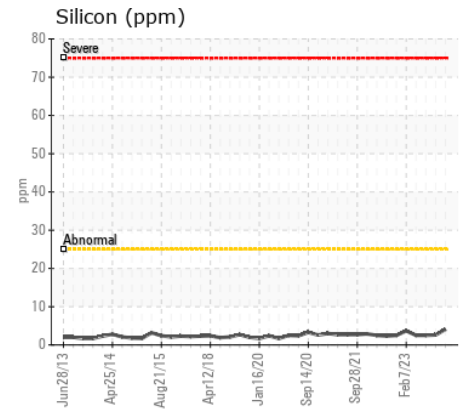
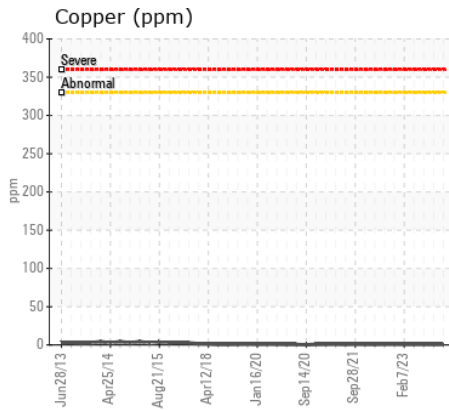
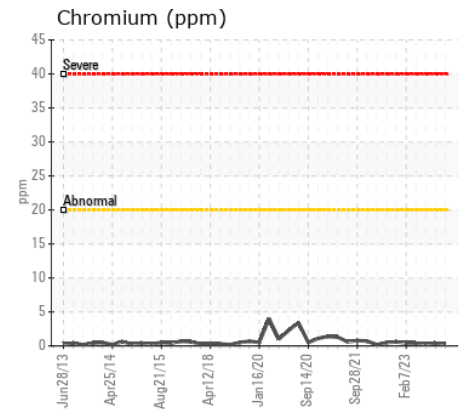
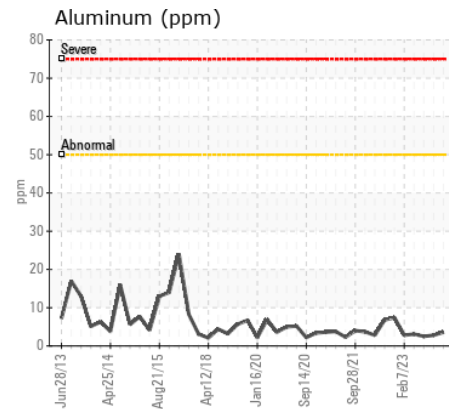
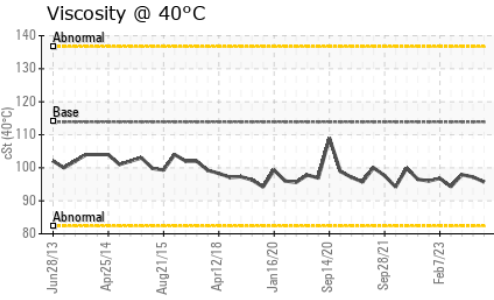
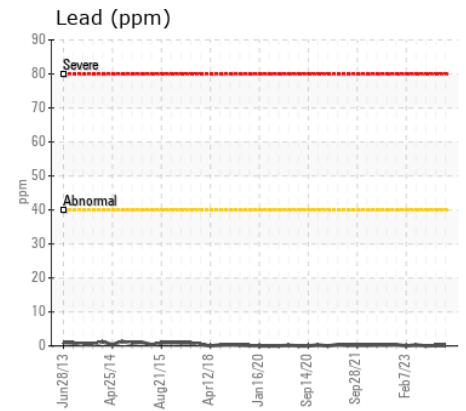
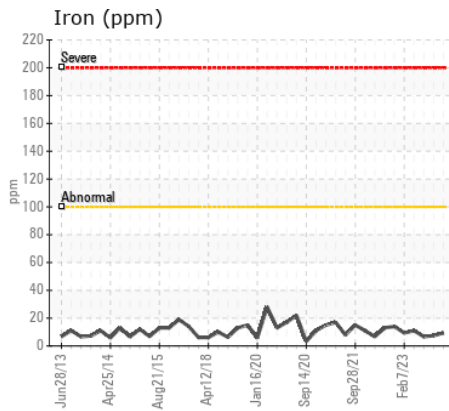
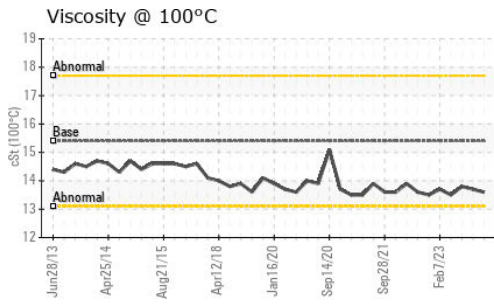
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	3	2
Potassium	ppm	ASTM D5185(m)	>20	2	1	1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.4	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	6.8	6.6	6.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.6	19.5	18.4
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		1	1	1
Boron	ppm	ASTM D5185(m)	0	1	2	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	57	56	56
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	926	939	937
Calcium	ppm	ASTM D5185(m)	1070	1008	979	997
Phosphorus	ppm	ASTM D5185(m)	1150	994	1005	1023
Zinc	ppm	ASTM D5185(m)	1270	1139	1127	1130
Sulfur	ppm	ASTM D5185(m)	2060	2661	2501	2525
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.0	13.7	13.5
Visc @ 40°C	cSt	ASTM D7279(m)	113.9	95.7	97.2	97.9
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.6	13.7	13.8
Viscosity Index (VI)	Scale	ASTM D2270*	142	143	142	142



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0011140 **Received** : 09 Jan 2024
Lab Number : 02607366 **Diagnosed** : 09 Jan 2024
Unique Number : 5708452 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI)

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.

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